

**An Investigation into the Factors That Lead to
Career Success in Accounting: Are Great
Accountants Born or Made?**

The Honors Program
Senior Capstone Project
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ABSTRACT

Are great accountants born or made? This paper examines various factors and personality traits which lead to career success in accounting, as perceived by accountants with various levels of earnings and job satisfaction. The current literature indicates that a gap exists between employer expectations of potential employees and the skills and traits that accounting graduates prioritize as most important when they are about to enter the workforce (Muda 2009). This study extends the literature by attempting to identify the traits and characteristics of successful accountants by surveying accounting professionals, who are defined as those who have careers in accounting functions or supervisory roles over accounting functions. The study is unique in that it compares the views and traits of high earning or high satisfaction level accountants versus their counterparts with either lower earnings or lower satisfaction. The survey sample was primarily (>96%) composed of graduates of Bryant University with degree concentrations in Accounting. Survey data and analysis were used to test hypotheses that considered a variety of success factors and personality traits which could be related to success as an accountant. The effects of age and gender were also evaluated. Results of the study indicate that while there is general agreement in the importance of various factors linked to success in accounting, there are some topics where those who are more “successful” disagree with those who are less successful (based on earnings or job satisfaction) in determining how to achieve success. There are also differences in personality factors between those who are more successful and those who are less successful. Considering the implications of this study could help hiring managers find candidates that will have the ability to enhance profitability for firms.

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INTRODUCTION

There is an increasing need for top notch accounting professionals in the global economy, both in the private and public sectors. Auditing requirements made necessary by the Sarbanes-Oxley Act (2002) and also the more widespread, global implementation of International Financial Reporting Standards (IFRS) have caused an increasing demand for qualified accountants. In addition, the large number of “baby boomer” generation accountants who are starting to retire is creating a growing employment gap in the profession. Demand is currently outpacing the supply of well-trained high performing accountants. The U.S. Department of Labor’s Bureau of Labor Statistics Occupational Outlook Handbook predicts that the number of accounting jobs in the US will grow by 18 percent by 2016 from its level currently, further pressuring the available supply of talent.

The basic question that this study attempts to address is what elements related to personality, skills development, and other factors yield the most successful accountants with emphasis on the opinions and traits of those who are most successful in the field. It is hoped that the better understanding of this topic will help the industry to recruit the best candidates and also help to shape early career training and development of these candidates. The best candidates will be those who personify the characteristics considered to lead to career success in accounting, and these candidates will be best equipped to enhance profitability for accounting firms. The study also tries to understand the impact of the CPA certificate and related CPA requirements on the size of the talent pool and the long term success of candidates.

For many years, there has been significant academic and industry discussion and debate as to what behavioral tendencies, levels of education, and early career experience factors are most critical to the future success of accounting professionals. Do the academic institutions and employers really understand what factors have the greatest influence on whether or not an accountant will be successful in the future? Do the prospective accounting candidates understand what it takes to achieve success? Recently, more attention has been given to "softer" contributors such as personality traits, and even creativity leading to accounting

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career success, while challenging some of the stereotypical characterization of accounting professionals (e.g. Tett, Jackson et. al. 1994; Foxall & Hackett 1994; Safari & Afidah 1999). Is it good to be a creative accountant (not to be confused with creative accounting), or are other traits more important in order to become successful in the field?

Two of the more contentious topics related to this discussion of how to “build” the best accountants are the 150 credit hour requirement and the CPA exam itself (e.g. Cook 1960; Raghunandan, Read & Brown 2003; Metinko 2010). With rising costs for university education along with an apparent related reduction in accounting applicants, some have questioned the rationale of requiring often time-consuming and expensive additional credit hours. It is also unclear in many cases which additional course work is most important (i.e. MS Acct, MBA, etc). In the related case of the CPA exam, do the intense 150 credit hour requirements really lead to higher success in accounting careers, or are the credits and the CPA certificate itself unnecessary institutionalized hurdles?

PURPOSE OF THE STUDY

Muda, Che, Hassan, and Samad (2009) examine the beliefs of hiring managers and graduates of accounting programs to determine what factors they felt were influential for career success. Students and employers agree on the significance of quality of work, attitude in the office, and the need for punctuality. Skills such as computer knowledge and adapting to new technologies reveal significant disagreement among the two groups. In relation to hiring managers, accounting graduates place more value in skills including creative thinking, delegation, communications skills, attendance, quantity of work, ability to research, and ability to manage project teams. In contrast, hiring managers emphasized dependability, innovating to improve job performance, and openness to constructive criticism. It is also possible that this disparity represents an extension of the student’s understanding of what is important for job success. For example, employers may expect the base of skills including creative thinking, delegation, attendance, and quality of work. Then, employers may expect

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additional traits, such as dependability, innovation, and openness to constructive criticism. This lack of agreement indicates the need for further research on this topic. As evidenced by the authors' work, there is some general misunderstanding and disagreement of what makes the best accountants. Are all of these traits necessary for career success, or are certain traits more influential than others?

The purpose of this study is to gain a better understanding of the relative importance of various individual level factors that may be attributed to yielding more successful accountants. This investigation examined academic attainment and course selection, the CPA exam itself, early career experiences and skills development, as well as individual level personality and behavioral tendencies. The goal of this work is to provide new insights to both the academic community as well as the employer pool related to the ideal candidate profile and potential career development path which may increase the frequency of successful accountants in the field. This study provides insight as to the effectiveness of the current educational structure for accountants and attempts to bridge the gap in agreement found by Mude, Che, Hassan, and Samad (2009).

REVIEW OF THE LITERATURE AND HYPOTHESES DEVELOPMENT

Personality Traits of Accountants

When forming conclusions and interpretations of the data collected in this study, one factor that was considered was the age of the respondent. Survey results came from alumni of all ages. In accounting, there has been evidence that age is a significant factor in determining career success as gauged by colleagues' perceptions. Waldman and Avolio (1986) suggest that older accountants (with more years of practical experience) generally were perceived to be higher performing by peers and managers, indicating that the learning curve for accounting may be longer than for other professions. Therefore, when analyzing results, it was important to consider the correlation of skills and personality development of each respondent in relation to experience. In addition, although less studied in this context, the effect of gender

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was also considered as it relates to the variables of interest, especially in the area of personality trait evaluations. McNamee and Miller (2004) discuss the general imbalance of males and females historically found in the accounting profession. They conducted a survey and determined that although women are more likely to have Type A personalities, they are less likely to be in upper level positions within the firm. Their results are somewhat inconclusive in saying that the roadblock for the success of women in accounting seemed to be variables not investigated within this study.

For more than 50 years, there has been both academic and industrial interest in what makes for a great accountant. Scovill (1946), in making an assessment of the accounting educational system, states:

There is little opportunity ordinarily for comparing an accountant to an apple dumpling or to a can of tomatoes, but it can be said without hesitation that in either case the quality of the raw material can have a great effect on the finished product. In the case of the accountant, however, there are some qualities which are very difficult to detect or evaluate by casual observation, and which are nearly impossible to create if they are not present in the undeveloped material.

Scovill (1946) points out that more than vocational training is required to yield a successful accounting professional. He stresses the need for interpersonal skills and ability to communicate. Interestingly, there is a pervasive image in society as what an accountant should be like—introverted, cautious, uncreative, “bean counter”—but is this true and do these legendary images yield success in accounting?

An article by Bougen published in *Accounting, Organizations and Society* (1994) examines the characterization of the accounting stereotype which is generally accepted by society. The author discusses the stereotype’s construction in a humorous manner and would say that the stereotype seems to be an obvious way to characterize accountants. In reality, combining images of bookkeepers and accountants complicates the stereotype and often leads to

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misunderstanding of these professionals. The author points out that the image has shifted to fit history, indicating inconsistencies that weaken the stereotypical views of accountants. Finally, the study addresses more recent developments regarding the accounting stereotype, which often limit the growth of the profession. The main point of the article is that the stereotype image works against the profession, and measures should be taken to better identify positive attributes related to successful accountants, thus drawing in new recruits.

Not only does society in general have a perception of what type of person works as a successful accountant, but also, this image influences students who choose accounting themselves: both for those who choose the profession and for those who opt out of the profession. Students may opt out of the profession based on not fitting the stereotypical idea of accountants or based on misguided interpretations about the day to day role accountants play in organizations. Safari & Afidah (1999) suggest that a working collaboration between the accounting professional bodies, universities and corporations is needed to uplift the image of the profession. The authors indicate that the typical shy, introverted, pessimistic stereotypical accountants in public practice should be changed to a more "dominant, enthusiastic, extrovert and independent" characterization. While these negative traits may not be damaging for accountants entering the field, the image may be preventing students from choosing this career path. Opening the profession to all personality types will help mitigate the issue of low supply of accounting professionals. With the right incentives and promotion, the authors believe that the number of public accountants would be tremendously increased in the near future.

Park (1994) attempts to address the idea that accounting professionals are developing inadequate written and verbal communication skills in their college education and career development. Park surveyed students in the undergraduate accounting program at California State University in Los Angeles and learned that students, overall, are not interested in additional courses to improve their deficiencies in written and verbal communication, but they realize the importance of developing these skills prior to entering the hiring process for the

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first time. Are accounting students limiting their career success by putting less emphasis on these skills during their collegiate education? Do the more successful accountants exhibit these traits more often than lower achieving accountings?

To further examine the archetype of the typical accountant as possibly having a shortage of innovativeness and creativity, Foxall & Hackett (1994) report on the investigation of students in MBA programs in the United Kingdom, Australia, and the United States. They reveal a pattern that students formerly employed in managerial roles that are considered to be externally focused (i.e. marketing, strategic planning) receive scores that indicate they are more innovative than students who formerly were employed as managers with an internal focus (i.e. production management, accounting, quality control). Externally focused is synonymous with extroverted, and internally focused is similar to introverted. Further, the study looks deeper into the managerial roles and explains that in both internally and externally oriented functions, managers with more externally oriented personalities are significantly more innovative than those with internal orientations. This statement holds true even in accounting functions. In accounting, there are externally and internally oriented subjects, and internally oriented accountants are not as creative, as the study suggests. Within each of the functional areas, this shows that creativity does exist in the accounting field and that those in the profession who are externally oriented are probably more creative and innovative.

Seibert (2001) looks at the most basic of underlying personality characteristics by correlating pro-active behavior of individuals to career success and states that, at the individual level, there is a great deal of evidence that the five factor model of personality encompasses the factors that contribute to the domain of personality (Mount & Barrick 1995). The “big five” factors are conscientiousness, agreeableness, extroversion, neuroticism and openness. While the “big five” factors provide a very fundamental view of the personality domain, there seems to be a next level relative to how individuals integrate these basic building blocks into higher order characteristics, skills, and work related actions (such as response to time pressure, desire to achieve perfection, response to job tension, political and social activities,

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etc). The survey instrument (see Appendix) addresses personality traits as defined in *Figure 1*, which was released by psychologist Dr. John A. Johnson from Pennsylvania State University.

Personality Trait	Facets
Extroversion	Friendliness, Gregariousness, Assertiveness, Activity Level, Excitement-Seeking, Cheerfulness
Agreeableness	Trust, Morality, Altruism, Cooperation, Modesty, Sympathy
Conscientiousness	Self-Efficacy, Orderliness, Dutifulness 1. Achievement-Striving, Self-Discipline, Cautiousness
Neuroticism	Anxiety, Anger, Depression, Self-Consciousness, Immoderation, Vulnerability
Openness to experience	Imagination, Artistic Interests, Emotionality, Adventurousness, Intellect, Liberalism

Figure 1: Five Factor Model

Various studies, including Feist (1998), further show that big five personality factors such as openness link to innovativeness and creativity. Tett, et al. (1994) concludes that the big five personality dimensions are considerably similar to job performance measures. To this end, it is important to consider the age old stereotype for the personality of accountants and determine if this in fact supports job performance and success. It is possible that the stereotype of excluding creativity may, in fact, be hurting the candidate pool, since in many other careers, it is a crucial factor related to job performance which is commonly overlooked

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in the profession of accounting. The question lies in whether the generally accepted successful career traits also apply to the field of accounting.

An important connection leading to the hypotheses of our study is discussed by John Tschohl (1999). He explains the differences between more and less successful professionals, which he argues, crosses all occupations. Some traits that he found to be evident in more successful individuals are that they are self-motivated, enjoy their work, and strive to learn more about improving their positions. They plan for the future and for continued development. Burk and Attridge (2011) performed a study to determine the demographics and characteristics of successful business professionals. They were interested in the population earning above \$100,000 and found some common demographic characteristics including graduate level education, senior-level positions, owning their own businesses, and high satisfaction with their lives. Some personality traits that stood out as more prominent in the successful respondents included conscientiousness, transformational style of leadership, resilience/flexibility, political use of interpersonal communication skills, and being mentored earlier in their career. These traits are not as salient in less successful business professionals.

These sources lead to the first set of hypotheses that this study will address. Each author suggests that a stereotype exists, often concluding that accountants are more introverted and less creative, but is this accurate when considering those who are more successful? Additionally, how does the profession rank factors leading to career success and failure, and are there differences of opinion among more and less successful accountants?

Given Foxall & Hackett's (1994) view about differences in focus of various occupations, accounting tends to have an "internal focus", concerned with measurements and reporting when compared to a more externally focused function like marketing. Furthermore, given the stereotypical view of accountants (Bougen 1994), it is likely that the profession has largely attracted people comfortable with this stereotypical view. This notion is reflected in our first hypothesis:

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H1: The personality traits of accountants will be similar to stereotypical views of accounting professionals, including a lack of creativity and low extroversion.

Since the characteristics associated with career success cross occupations (Tschohl 1999) and tend to vary significantly between successful and their less successful occupational peers (e.g. Feist 1998; Tett et al. 1994), we expect significant differences in personality characteristics and views about what makes for a successful career between successful and less successful accountants.

H2: More successful accountants will display differences in personality traits in comparison with less successful accountants when using compensation and job satisfaction as measures for success. (For example, accountants who are more creative or extroverted will be more successful).

H3: More successful accountants (using compensation and job satisfaction as measures for success) will rank factors leading to career success differently than less successful accountants.

H4: More successful accountants (using compensation and job satisfaction as measures for success) will rank factors leading to career failure differently than less successful accountants.

CPA Certification Credit Requirement

Cook (1960), who interviewed 50 accountants, found that there was a strong consensus amongst those interviewed as to the benefit of the public accounting skills requirement, even for accountants in private industry. Does this mean that in order to be successful, accountants must pass CPA exams? In addition, and related to this topic, do students need to take additional course work at academic institutions to be successful? Since 2000, 40 states have established 150 credit hours as the minimum education requirement to qualify to receive the CPA certification (AICPA). Requiring this extra education often imposes on students, accounting firms, and educators alike as they strive to adhere to the requirements and pay for

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the additional resources and credit hours necessary. The additional costs essentially are passed onto the clients of accounting firms that often attempt to defray the costs of the required education for their employees. Are these costs justified by a correlated increase in the quality of both public and private accountants?

With the goal of improving the accounting profession's quality of work, the effectiveness of the CPA requirements should be looked into in order to determine whether a correlation exists between the requirements and the quality of output by certified public accountants.

Raghunandan, Read, and Brown (2003) explain that the completion of the additional credit hours seems to correlate with higher success rates for first-time CPA candidates taking the CPA exam. The authors control the study with SAT scores, credit hours in accounting coursework, and the use of CPA preparation courses. Raghunandan et al. (2003) indicates that the credit hour requirement may positively impact success on the CPA exam, which also benefits accounting firms and clients, since excess costs of multiple CPA exam attempts may be minimized.

Some have attributed a decline in the number of students attempting the CPA exam to the higher educational standard, but some new data suggests otherwise. Metinko (2010) reports the results of a study that examines the association of the 120/150-hour education requirement with the number of CPA exam candidates during 1998 and 2008. Data gathered from the NASBA Candidate Performance Reports 1999 and 2009 found no relationship between the number of CPA exam candidates and the education requirements in each of the US jurisdictions. Approximately 48% of the total decline in candidates in 2008 as compared to 1998 occurred in jurisdictions that only required 120 hours of education to sit for the exam in 2008. Other factors have likely contributed to the decline over the years since the credit hours first became required. Approximately 20% of the total decline occurred in jurisdictions that required 150 hours of education in 2008. The study concludes that the 150-hour requirement is not the cause for the decrease in the number of people taking the CPA exam.

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Discussion of the CPA certification, including additional credit hour requirements, contributes to the development of the fifth, sixth and seventh hypotheses that this study will examine. Are the 150 credit hour requirements, often in the form of graduate level education in many states, helping students as they enter the work force and propelling them towards success, or is it merely a costly investment acting as a hurdle? Additionally, is the CPA certification crucial to success, or do those with CPA certifications consider it as yet another hurdle that they were forced to overcome to get into the profession with no added benefit to their work quality?

Given the internal focus of accounting relative to other functional areas like marketing and even finance and the notion that externally-focused fields are more associated with creativity and innovation (Foxall & Hackett), more successful accountants are more likely to have ventured outside the confines of the accounting function. These professionals may view the CPA as less important for career success. This leads to the next hypothesis:

H5: More successful accountants, as measured by compensation and job satisfaction, place less emphasis on the CPA credit hours requirements and the CPA certificate itself in determining the probability of success than do their less successful counterparts.

Since graduate degrees are documented to be associated with greater career success (Burk and Attridge 2011), we expect more successful accountants to view graduate degrees as more important for success than their less successful counterparts. The next hypothesis is based on this notion.

H6: More successful accountants, as measured by compensation and job satisfaction, place greater emphasis on graduate level business coursework (MBA, MS Acct) as a means to complete the additional 30 credit hour requirement and as a contributor to success than do their less successful counterparts.

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Since the 150 hour requirement was only instituted in 2000, it is possible that enough time has not elapsed for respondents to effectively assess its full effect. This leads to the last hypothesis:

H7: Accountants surveyed will generally rank obtaining the 30 additional credit hours as a less important success factor as compared to other factors considered.

METHODOLOGY

Summary of the Methodology

An online survey method was used to test the hypotheses in this study. The determination of statistical significance will be done using linear regression and analysis of variance techniques. The population surveyed was professional accountants (and senior management) obtained from a sample of Bryant University alumni with accounting concentrations. They were evaluated as to success level and then will gauge various success factors that they attribute their success to (education, personality and behavioral traits, etc).

Methodology Details

Sample and Setting

The study was conducted by surveying professional accountants employed in accounting positions who have graduated from Bryant University. The population of interest was arrived at after consulting with an Alumni Relations representative at Bryant University. The Alumni Relations department was asked to identify graduates who have completed concentrations in accounting, who are likely involved in professional accounting (and related) work (“accounting professionals”).

Once the population was isolated, Alumni Relations agreed to allow research activity at the individual level, as long as participation by the graduates involved was kept confidential and

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voluntary. Confidentiality requires that no responses from a specific graduate will be directly distributed to anyone other than the researchers in order to protect the participants' anonymity and ensure a high level of confidentiality. Since survey participation is voluntary, sample selection bias concerns came into play. Did the sample respondents adequately represent the overall population characteristics of the target population of interest (typical professional accountants)? Various demographic data, such as age and gender, was used to compare those who responded to those who did not to evaluate the potential for non-response bias (comparison data reported later in this report in the survey participants section below).

Survey Participants

The population surveyed was comprised primarily of Bryant University graduates (96 percent). The other 4 percent of respondents were reached by the primary group or through contacts in the accounting profession. The majority of survey respondents were from the Bryant University Accounting Alumni Database of 9,510 contacts. After eliminating duplicates and inoperative email addresses, the survey was successfully sent to 4,353 Bryant University accounting alumni. In the total database with email addresses, 60.6 percent of the students were male, while 60.9 percent of those who responded were male. Further, the average age of the database population with email addresses was 45 years old, and respondents were also an average of 45 years old. This data suggests that the survey respondents were representative of the population contacted through the alumni database. The table, *Figure 2*, summarizes key information regarding the survey respondents. These are average values based on the number of respondents who completed each question. Note in the table that for the percentage values, the variables were either "1" or "0," so the range is always equal to "1." For the median, the middle value is "1" if the average is greater than 50% and "0" if less than 50%.

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Average Values	N	Mean	Range	Median	Standard Dev
	Total	Average or Percentage			
Gender (% Male)	202	60.90%	1	1	48.92%
Age (yrs)	202	45	66	46	15
Possess Graduate Degree	202	41.10%	1	0	49.22%
Member of Professional Society (past or present)	202	62.40%	1	1	48.56%
Earned BS in Accounting	202	96.00%	1	1	19.55%
Earned BS at Bryant	166	95.80%	1	1	28.09%
Year of Graduation	202	1989	71	1988	14.8
Retired	166	4.80%	1	0	19.55%
Have worked at a Big Acct Firm	202	31.70%	1	0	46.64%
Number of Staff	202	29	400	3	80
CPA (%)	202	38.70%	1	0	48.81%
Took the required 30 Credits	202	21.30%	1	0	41.03%
Total Compensation (\$)	131	\$165,109	\$3,990,000	\$107,000	\$ 354,783
Earn more than \$200,000 per Yr	147	20.40%	1	0	40.44%

Figure 2: Survey Respondent Demographics

Instrument Measures and Control Variables

In addition to the collection of control/categorical data indicated in *Figure 2*, several publicly available validated instruments were used in this study. The list of survey questions including categorical questions and also including publicly validated and reported instruments are found in Appendix 1. For each instrument used in the survey, the questions, reference document, and also the reliability results are reported for either the single item measure or the range of alpha values for multi-measure scales (such as job satisfaction, etc). Appendix 1 shows all of the questions that were contained in the survey with references to sources for validated questions beneath the survey. Linear scales were evaluated for internal reliability. Cronbach's alpha scores are reported based on reported literature and also based on reliability analysis of the data collected in this study.

Dummy Variables Used for Grouping

Two dummy variables were established in this study, which could each be associated with success as an accounting professional. The first is "compensation" which is an external

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surrogate measure of success, and the second dependent variable is “job satisfaction” which is more an intrinsic measure. For the ease of analysis and comparison, the variables were converted into nominal format (0 or 1). In the case of “compensation,” the sample population was split into two groups. Group 1 was comprised of those who reported earning more than \$200,000 in total compensation, while group 2 was those who reported earning less. Those in group 1 were assigned a value of 1, while those in group two were assigned 0 (nominal variable). The value of compensation at or greater than \$200,000 represented the top 20% of the sample population. Similarly, for job satisfaction, respondents were first evaluated using their responses to the job satisfaction scale included in the survey, and then those in the top 20% were assigned a 1, and those below the top 20% were in group 2 and assigned 0. The two success grouping variables were used to run comparisons using Analysis of Variance (ANOVA) or linear regression.

Data Collection and Procedure

The data used in this study was collected using online survey techniques. The questions were programmed into an online survey tool (www.surveymonkey.com). The primary researcher sent and received email to/from the subjects and received the response data directly to ensure confidentiality. Tabular results with subjects’ names coded were created to further ensure confidentiality. The survey consisted of approximately 20 categorical questions and also a series of roughly 100 questions based on validated instruments measuring the latent variables of interest (survey in Appendix). Prior to implementation, the survey was tested by a team of five volunteers for issues such as transcription errors, ambiguity, content, and survey average elapsed time to complete. The first part of the survey (once the participant agreed to participate) focused on categorical information and took 5 to 10 minutes on average to complete, and the second part of the survey consisted of primarily validated instruments and took in the range of 10 to 20 minutes to complete. Survey questions were randomized, so that scale items were not stratified or easily identified by the subjects. All members of the target population were sent an introductory (email) letter inviting them to participate in the survey

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and requesting “informed consent,” according to the Bryant University standard. The researcher also offered the participants a chance, if they participated fully, to win an Apple iPod to encourage higher response rate. The target respondents were able to immediately decline to participate, or if willing to participate, they could link directly to the survey. Each survey participant was given 2-3 weeks to complete the survey and was sent up to three reminder emails during the survey period. The email letters used in this study included all elements of the Bryant informed consent document. It was hoped that more than 50 percent of the target group would participate, but in the end, 216 responses with various degrees of survey completion were received. Participants may be provided with the end report upon request, which contains only information that is not confidential.

Data Analysis Techniques Used and Issues Encountered

Analysis of variance techniques were employed to analyze the data collected in this study. In addition, linear regression was also used to evaluate various respondent personality factors using age and gender as control variables.

Ordinary least squares (OLS) multivariate linear regression was employed to investigate the relationships between the dependent variables, career success, and the independent variables related to career success (personality traits). Equations (1) and (2) represent the estimated models, where the personality traits and controls for age and gender determine the demographic information of earning over \$200,000 or having the highest levels of job satisfaction.

$$JS = f(\text{Personality Traits, Controls}) \quad (1)$$

$$>\$200K = f(\text{Personality Traits, Controls}) \quad (2)$$

Where JS=Job satisfaction and >\$200K = earns more than \$200,000.

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Statistical inference testing was done using standard errors that assume no variation in the distribution of error terms given certain variable settings. Linear regression analysis was used in the case of personality factors where each trait was used as the dependent variable. The success grouping variables were used as independent variables of interest. Age and gender were both used as control variables in the regression. The software used for data analysis was SPSS version 20.

ANOVA was used to compare mean response value to opinion questions for each of the success grouping variables (compensation and job satisfaction).

Many responses to this survey were either scalar such as age and income level or were values derived from a 7-point likert scale (ordinal) measures. In the case of the likert scale measures, the assumption of continuity was made so that analysis of variance (ANOVA) or simple linear regression analysis could be used. This assumption says that the 1 to 7 scale values are equidistant and continuous. One-way analysis of variance (one-way ANOVA) is a statistical method used in order to compare averages of at least two samples (employing the F distribution). This type of ANOVA is normally used for numerical/scalar data, such as age or height. If the data collected is ordinal or ranked in a scale, a different test should be used such as Kruskal-Wallis one-way analysis of variance. In this case, we made the assumption of continuity of the data and used standard ANOVA and OLS regression techniques.

Both ANOVA and linear regression analysis test the null hypothesis related to the equality of means, which assumes that the groups are taken from one population of respondents (Howell 2002). To address the question, two estimations are determined for population variance, which are based on defined assumptions. Then, an F-statistic is developed. Lower F-statistics validate the hypothesis that the sample was collected from one population, whereas higher F-statistics suggest that they were actually from separate populations (Howell 2002).

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One-way ANOVA and regression hypotheses testing is more accurate and reliable when certain criteria are met. The following criteria help to ensure reliability of the data (Kirk 1995):

- Response variable must be normally distributed (or approximately normally distributed).
- Samples are independent.
- Variances of populations are equal. In this study, Levene's test was used to check for equal variances, and for the most part, the assumption holds true.
- Responses for a given group are independent and identically distributed normal random variables (not a simple random sample (SRS)).

Various data issues were encountered in the course of collection, administration and analysis of responses that might be considered threats to internal validity. From Stock and Watson (2003), these issues were relevant:

1. Censoring of the dependent variables at the high end: Since subject responses are range restricted based on the 1-7 Likert scales used or a salary range max, a measurable level of censoring may occur at the right (positive) end of each distribution (more so with Job Satisfaction than likely with Income). Some survey participants might express maximum job satisfaction and a few individuals may indicate maximum income; however, the subjective nature of the scales does not allow for differentiation between extreme scores and those who fit the quality at a score of 7 but are not as extreme..
2. The data was checked for outliers. Outlier data points were removed to improve the stability of the regression coefficients.
3. The dataset consists of less than 200 respondents, which could be considered small in terms of number of data points (N).

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4. Coding and data manipulation errors were minimized by strict data file controls. Minimal data entry was necessary, as the data went directly from the survey source into an excel spreadsheet, and minimal data entry/manipulation was necessary.
5. The requirement that participation was voluntary could be a source of sample selection bias. The comparison of the sample pool with the larger population was used to address this concern.

Reliability of Survey Instruments: Cronbach's Alpha Test

The scale data collected in this survey appears to be reliable based on the Cronbach's Alpha Test. Cronbach's Alpha Test determines whether there is internal consistency in the questions related to each construct or factor evaluated (Cronbach 1951). For example, if an individual was responding to questions to determine whether or not their personality was assertive, this test would help to validate that the survey scale was reliable. *Figure 3* displays the meaning of results obtained through Cronbach's Alpha Testing (Cronbach 1951).

Cronbach's alpha	Internal consistency
$\alpha \geq .9$	Excellent
$.9 > \alpha \geq .8$	Good
$.8 > \alpha \geq .7$	Acceptable
$.7 > \alpha \geq .6$	Questionable
$.6 > \alpha \geq .5$	Poor
$.5 > \alpha$	Unacceptable

Figure 3: Cronbach's Alpha Table of Internal Consistency Values

Performing a reliability analysis on the data collected from this survey using SPSS yielded acceptable to excellent internal consistency scores in each factor, which means that our factor

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data can be considered reliable. *Figure 4* exhibits the values obtained in the analysis of this study's survey as compared to the published Cronbach's Alpha values for the same scales. The values are acceptably high and very similar, indicating a high degree of reliability for each factor.¹

Factor	Cronbach's Alpha Published*	Cronbach's Alpha This Study	N of Items (Questions)
Agreeable	.82	.807	10
Assertive	.85	.861	10
Conscientious	.79	.774	10
Creative	.81	.793	9
Emotional Stability	.86	.879	10
Extrovert	.87	.868	10
Intellect	.84	.860	11
Organized	.78	.829	12
Perfectionism	.88	.806	8
Sociability	.82	.818	7
Job Satisfaction	.77 to .94	.935	12

Figure 4: Cronbach's Alpha Test Analysis

DATA AND RESULTS

Ranking of Factors Leading to Success

In response to the question regarding which factors are most important in leading to career success in accounting, 187 of those surveyed answered these questions. Based on the responses of those surveyed, the most important factors leading to success in accounting

¹ Calculations made using SPSS were developed on the basis of the formula for Cronbach's alpha, $\alpha = \frac{N \cdot \bar{c}}{\bar{v} + (N-1) \cdot \bar{c}}$, where N is equal to the number of items, c-bar is the average inter-item covariance among the items, and v-bar equals the average variance (SPSS FAQ).

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careers are successfully handling the workload and working hard. On a scale of 1 to 7, with 7 being the most important factors and with a 1 having no effect, these two factors scored an average of 6.48 and 6.46, respectively, and were statistically higher than all other factors (95% significance, $p > .05$) rated. The factors that were considered least important by the group as a whole were obtaining the CPA certification (4.38), having quality internships (4.06), and finally earning the additional 30 credits often required for CPA certification (2.59). Interestingly, the three lowest scoring factors also had the largest standard deviations in the group of 2.44, 2.15, and 1.96, indicating that these factors are not largely agreed upon by accounting professionals who responded. It is possible that the disagreement is due to their status as relatively recent contributing factors resulting from the new credit hour requirements and the rise in popularity of internships. The second statistically equivalent cluster of important factors included handling stress, having people skills, obtaining a Bachelor's of Science in Accounting, and being conscientious. Conscientiousness overlapped into the third tier of factors as well. Overlaps indicate that these factors are bridging the difference between lower and higher importance factors. *Figure 5* displays the overall ranking by the entire survey population. Each color represents a different cluster of importance that is statistically equivalent at the 95% level ($p < .05$).

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	N	Mean	Std. Deviation	Std. Error Mean	Rankings and Clusters (Rankings are numbers, and colored columns are clusters)			
Handling work load well	187	6.48	0.70	0.05	1			
Working very hard	187	6.46	0.85	0.06	1			
Ability to handle stress	187	6.30	0.79	0.06		2		
Excellent people skills	187	6.28	0.92	0.07		2		
Earning an undergraduate degree in accounting	187	6.27	1.16	0.08		2		
Being conscientious	187	6.21	0.97	0.07		2	3	
Being organized	187	6.16	0.85	0.06			3	
Excellent verbal and written communication skills	187	6.07	0.99	0.07			3	4
Excellent computer and software skills	187	5.95	1.02	0.07	5			4
Being open to new ideas and new experiences	187	5.93	1.04	0.08	5			4
Deep knowledge in the field of accounting	187	5.90	1.00	0.07	5			
Good relationship with supervisor	187	5.83	0.95	0.07	5			
Seeking perfection and highest quality work	187	5.78	1.07	0.08	5			
Good interviewing skills during job search	187	5.73	1.17	0.09	5			
Choice of employer	187	5.51	1.18	0.09		6		
Good early career assignments	187	5.28	1.48	0.11			7	
Academic institutions attended	187	5.19	1.27	0.09			7	
Being creative	187	5.16	1.32	0.10			7	
Being mentored by a more experienced person	187	4.99	1.81	0.13				8
Being agreeable	187	4.86	1.46	0.11				8
Strong job market and ease of finding work	187	4.79	1.64	0.12				8
Being extroverted	187	4.63	1.31	0.10	9			
Obtaining the CPA certification	187	4.38	2.44	0.18	10			
Internships while in college	187	4.06	2.15	0.16		11		
30 additional credits as often required for CPA exam	187	2.59	1.96	0.14			12	

Figure 5: Ranking of Factors Leading to Career Success by Cluster

Ranking of Factors Leading to Failure

Survey respondents were also asked to consider factors that would negatively impact career success in accounting. In this case, the rankings were on a scale of 1 to 7, with 7 meaning it would have the highest negative impact (1 no impact). Similar to the previous section describing career success factors, clusters were grouped based on statistically equivalent

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ANOVA results. The highest ranked factor that would lead to failure in accounting careers was determined to be lack of knowledge in the field of accounting with an average score of 5.78 by survey respondents. Within the first cluster of factors, respondents indicated that poor written and verbal communication skills, poor people skills, inability to handle stress, and not earning an undergraduate degree in accounting would all highly impact failure in the accounting field. The factors that the group considered to be of least importance in negatively impacting career success in accounting included being too open to new ideas and new experiences and being too organized. Factors in the middle cluster included weak job market and difficulty finding work, choice of employer, poor early career assignments, and not obtaining the CPA certification. The additional 30 credits were again not considered to significantly impact the outcome of careers in accounting. For factors leading to failure in accounting, the standard deviations were higher, indicating higher possible disagreement among accounting professionals. The average standard deviation for factors leading to success was 1.26, while the average standard deviation for factors leading to failure was 1.68. For further rankings, please see *Figure 6*.

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	N	Mean	Std. Deviation	Std. Error Mean	Rankings and Clusters (Rankings are numbers, and colored columns are clusters)			
Lack of knowledge in the field of accounting	169	5.78	1.63	0.13	1			
Poor verbal and written communication skills	169	5.75	1.40	0.11	1			
Poor people skills	169	5.75	1.47	0.11	1	2		
Not able to handle stress, neurotic	169	5.63	1.67	0.13	1	2		
Not earning an undergraduate degree in accounting	169	5.57	1.79	0.14	1	2		
Poor computer and software skills	169	5.54	1.49	0.11		2		
Poor interviewing skills during job search	169	5.25	1.66	0.13			3	
Working too hard, not handling work load well	169	5.07	1.59	0.12				4
Poor relationship with supervisor	169	4.92	1.60	0.12				4
Weak job market and difficulty finding work	169	4.31	1.75	0.13	5			
Choice of employer	169	4.31	1.51	0.12	5			
Poor early career assignments	169	4.24	1.74	0.13	5			
Not obtaining the CPA certification	169	4.17	2.17	0.17	5			
Not being mentored by a more experienced person	169	3.95	1.92	0.15		6		
Overly seeking perfection	169	3.91	1.77	0.14		6		
The academic institutions attended	169	3.86	1.64	0.13		6		
Not doing internships while in college	169	3.54	1.87	0.14			7	
Being too agreeable	169	3.51	1.60	0.12			7	
Being too extroverted	169	3.44	1.65	0.13			7	
Being overly conscientious	169	3.39	1.69	0.13				8
Being too creative	169	3.29	1.59	0.12				8
Not earning 30 additional credits after undergraduate degree	169	2.82	1.92	0.15	9			
Being too open to new ideas and new experiences	169	2.53	1.56	0.12		10		
Being too organized	169	2.30	1.64	0.13		10		

Figure 6: Ranking of Factors Leading to Career Failure by Cluster

Personality Characteristics for the Sample Population of Accountants

Survey respondents were asked to answer a series of questions that would determine to what extent each personality trait represented the survey taker (using publicly available scales). Sample sizes for each of these groupings were either 148 or 158, since some questions were omitted by some respondents. The questions used were from the validated scales and were focused on how respondents reacted to various situations or their likes and dislikes. Questions did not directly ask respondents if they were organized, conscientious, agreeable, etc., and the questions were randomized so the scale items for a given personality trait or

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factor were not grouped together in how they were presented to respondents. Using SPSS Statistics (version 20), these questions were grouped according to personality trait, and scores were determined for the survey taker's personality. Personality traits were scored on a scale of 1 to 7. A score of 7 indicated that the trait agreed with their personality. The strongest characteristic of the group was that they are, on average, highly organized with a score of 5.94 (statistically the highest value). The standard deviation of 0.58 was also very low, indicating that this trait was widely characteristic of respondents. In fact, the ranking of traits of all respondents was very similar, considering all responses comprised an average standard deviation of 0.86. The highest standard deviation in this ranking was 1.01 with the perfectionist trait. These relatively tight data variances may suggest that there is a common overall personality type of professional accountants.

The second ranked cluster of traits included being conscientious and agreeable, with average rankings of 5.59 and 5.50, respectively. Traits that were the "weakest" characteristics of the survey respondents were perfectionist and extrovert. Even though these characteristics were weaker than others, they still ranked above the mid-point of the scale (greater than a score of "4"), which indicates evidence of the trait. So for example, the sample could be said to be weakly extroverted. For further details on the personality rankings of the survey population, please see *Figure 7*.

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	N	Mean	Std. Deviation	Std. Error Mean	Rankings and Clusters (Rankings are numbers, and colored columns are clusters)		
ORGANIZED	148	5.94	0.58	0.05	1		
CONSCIENTIOUS	158	5.59	0.73	0.06		2	
AGREEABLE	158	5.50	0.77	0.06		2	
SOCIABILITY	158	5.15	0.98	0.08			3
ASSERTIVE	148	5.11	0.85	0.07	4		
EMOTIONAL STABILITY	148	5.04	1.00	0.08	4		
CREATIVE	148	5.00	0.83	0.07	4		
INTELLECTUAL	148	4.86	0.86	0.07		5	
PERFECTION	158	4.50	1.01	0.08			6
EXTROVERT	158	4.43	0.96	0.08			6

Figure 7: Personality Traits of Sample Population

Characteristics and Opinions of High Income Accountants Versus Lower Income Accountants

Demographics

The population surveyed was previously described in the methodology section, but some key factors are significantly different (95% confidence, $p < .05$ shown in blue in table below) between high income and low income accountants surveyed. First, higher income accountants generally have a higher number of staff that they manage. Those accountants making over \$200,000 reported managing an average of 101 people, whereas accountants making under \$200,000 managed an average of 16 people. Another striking difference was that 86.7% of the high earning survey respondents were male. In contrast, 52.1% of the low income population was male. Finally, high income respondents were on average 7 years older (50 years old) than those making below \$200,000 (43 years old) suggesting the experience contributes to higher earning potential. See *Figure 8 Comparisons* to compare demographic information of high income versus lower income accountants. Significant differences are shown in bold and blue in *Figure 8* and in all future tables within this paper.

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Survey Demographics	N	Total Sample	Std. Deviation	N	More Than \$200,000	Std. Deviation	N	Less Than \$200,000	Std. Deviation
Obtained a Graduate Degree (%)	147	44.9%	0.50	30	53.3%	0.51	117	42.7%	0.50
Have Been In Professional Society (%)	147	68.0%	0.47	30	70.0%	0.47	117	67.5%	0.47
Worked at a Big Acct Firm (%)	147	34.7%	0.48	30	43.3%	0.50	117	32.5%	0.47
Number of Staff	147	33	87	30	101	156	117	16	43
Have CPA (%)	147	42.2%	0.50	30	53.3%	0.51	117	39.3%	0.49
Gender (% male)	147	59.2%	0.49	30	86.7%	0.35	117	52.1%	0.50
Age (yrs)	147	44	14.06	30	50	7.46	117	43	14.95

Figure 8: Survey Demographics Comparisons

Personality Traits

Using one way ANOVA, overall, the ranking of high income accountants personality traits are similar to the group as a whole; however, certain traits stand out as significantly stronger in higher income accountants, which are defined as earning more than \$200,000. High earning accountants are significantly more assertive, emotionally stable, and creative (95% confidence, $p < .05$) than those who earn below \$200,000. Please see *Figure 9*.

Personality Factors	N	Total Sample	Std. Deviation	N	More Than \$200,000	Std. Deviation	N	Less Than \$200,000	Std. Deviation
ORGANIZED	147	5.94	0.59	30	6.08	0.55	117	5.90	0.59
AGREEABLE	147	5.50	0.76	30	5.69	0.53	117	5.45	0.80
CONSCIENTIOUS	147	5.59	0.73	30	5.66	0.80	117	5.57	0.71
ASSERTIVE	147	5.11	0.86	30	5.47	0.87	117	5.02	0.83
EMOTIONAL STABILITY	147	5.03	1.00	30	5.45	0.84	117	4.92	1.01
SOCIABILITY	147	5.17	1.00	30	5.39	1.09	117	5.11	0.98
CREATIVE	147	4.99	0.83	30	5.30	0.90	117	4.91	0.79
INTELLECT	147	4.85	0.86	30	4.95	0.88	117	4.82	0.86
EXTRAVERT	147	4.44	0.97	30	4.67	1.05	117	4.38	0.94
PERFECTION SEEKING	147	4.47	1.01	30	4.47	0.95	117	4.47	1.04

Figure 9: Personality Factors Income Comparison

Beliefs of Survey Respondents

Higher earning accountants, as expected, hold the beliefs that they make more money than others and also believe that they are more successful than others and have higher job

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satisfaction than others. In addition, statistically (95% confidence, $p < .05$), the high wage earners have higher job satisfaction than the lower earning group, but they do not believe that they are more job satisfied than others (no significant difference as compared to counterparts). Generally, the data in *Figure 10* helps to support the validity of the study to some extent since it shows that high wage earners believe they earn more and also believe they are more successful, which is the linkage that the study requires (i.e., What is success?).

Beliefs of Survey Respondents	N	Total Sample	Std. Deviation	N	More Than \$200,000	Std. Deviation	N	Less Than \$200,000	Std. Deviation
Believe They Make More Money than Others	147	4.25	1.60	30	5.43	1.14	117	3.95	1.56
Believe They Have More Job Sat than Others	147	4.95	1.34	30	5.13	1.36	117	4.90	1.34
Believe They Are More Successful than Others	147	4.61	1.38	30	5.37	1.10	117	4.41	1.38
JOB SATISFACTION	147	5.62	1.02	30	5.96	0.75	117	5.54	1.06

Figure 10: Beliefs of Survey Respondents

Opinions of Accountants Earning \$200,000 or More

There were various areas where the survey respondents were asked to give their opinion. Some topics they discussed included the importance of the 30 credit hour requirement, what type of degree the 30 credits should be put towards, factors that lead to career success in accounting, and factors that lead to career failure in accounting. In each category, both income levels were largely in agreement in response to each question, but there were areas that resulted in statistical differences.

First, respondents were asked to respond to questions regarding whether or not the 30 credit hours should be required and if they are effective in improving the quality of accountants. A mere 36.7 percent of high earners feel that these credit hours should be required while 53.9 percent of lower income respondents believe that the credits should be required. Following this line of thought, less (16.7%) of the high income group agree that the 30 additional credits improve the quality of accountants. In the lower income group, 36.8 percent feel that the credit hours improve the quality of accountants.

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When asked how to spend the additional 30 credit hours, both income levels ranked the MBA or an MS Accounting as the best possible uses of the 30 credits. They also agreed that the MS in an area outside of business or more undergraduate liberal arts credits were the least effective uses of the 30 additional credits. One option displayed a statistical disagreement between higher income and lower income accountants. Fewer high income accountants would agree that more undergraduate accounting credits would be useful, whereas lower income accountants ranked it higher.

In regards to factors leading to career success in accounting, four factors stood out with statistical differences between the two categories of income. Accountants earning more than \$200,000 scored being mentored higher than those who do not earn as much. On the other hand, accountants earning under \$200,000 scored having good interviewing skills, being agreeable, and earning the additional 30 credits as being of higher importance in the rankings ($p < .05$). It is possible that the 30 credits and good interviewing skills were more important to the lower income earners as a result of being younger and possibly experiencing these factors more recently.

Finally, respondents were asked to determine which factors would most likely lead to failure in accounting careers. Five areas showed significant differences among higher income respondents and lower income respondents. Poor communication skills were considered one of the most likely factors to have a negative impact on career success in accounting. This factor was deemed to have a higher negative impact on career success in accounting by respondents earning over \$200,000, who ranked it on average at 6.33 in comparison to lower income respondents who ranked it at 5.62. This disparity indicates that higher wage earners strongly believe in the importance of communication skills in order to succeed in this profession. They also felt that inability to handle stress, poor relations with bosses, and poor early assignments should be ranked statistically higher as compared to their lower income peers. Again, there is a statistical difference in opinion regarding the 30 credit hour requirement, where higher income accountants would statistically rank it lower than those

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making below \$200,000. For a complete summary on differences of opinions based on income levels, see *Figure 11*.

Opinion Questions	N	Total Sample	Std. Deviation	N	More Than \$200,000	Std. Deviation	N	Less Than \$200,000	Std. Deviation
Should 30 Credit Hours Be Req? (% yes)	147	50.3%	0.50	30	36.7%	0.49	117	53.9%	0.50
Do added Credits reduce Pool? (% yes)	147	46.3%	0.50	30	53.3%	0.51	117	44.4%	0.50
Do Credit Hrs SIGNIFICANTLY Improve Quality? (% yes)	147	32.7%	0.47	30	16.7%	0.38	117	36.8%	0.48
How to Spend 30 Credits	N	Total	Std. Deviation	N	More Than \$200,000	Std. Deviation	N	Less Than \$200,000	Std. Deviation
Get MBA?	147	5.12	1.72	30	4.90	1.90	117	5.18	1.67
Get MS Accounting?	147	5.21	1.64	30	4.80	1.94	117	5.32	1.55
Get MS Business?	147	4.80	1.60	30	4.80	1.77	117	4.79	1.57
More Under Grad Business Credits?	147	4.14	1.69	30	3.83	1.86	117	4.22	1.65
More Under Grad Acct Credits?	147	4.29	1.69	30	3.50	1.55	117	4.49	1.67
Get MS Not Business?	147	3.48	1.56	30	3.50	1.43	117	3.47	1.60
More Under Grad Lib Arts Credits?	147	3.01	1.60	30	2.83	1.68	117	3.05	1.59
Success Factors	N	Total Sample	Std. Deviation	N	More Than \$200,000	Std. Deviation	N	Less Than \$200,000	Std. Deviation
Handle Work Load	147	6.46	0.70	30	6.50	0.63	117	6.44	0.72
Obtain BS Accounting	147	6.23	1.22	30	6.43	1.22	117	6.18	1.21
Hard Worker	147	6.46	0.85	30	6.40	0.93	117	6.47	0.83
Conscientiousness	147	6.18	1.04	30	6.37	0.67	117	6.13	1.11
People Skills	147	6.29	0.91	30	6.27	0.91	117	6.30	0.91
Handling Stress Well	147	6.27	0.81	30	6.27	0.98	117	6.27	0.77
Verbal Communication Skill	147	6.10	0.98	30	6.23	0.86	117	6.06	1.01
Accounting Know How	147	5.88	0.96	30	6.03	0.76	117	5.84	1.01
Organized	147	6.18	0.87	30	6.03	1.03	117	6.22	0.82
Openness	147	5.90	1.01	30	5.90	0.84	117	5.90	1.05
Computer Skills	147	5.99	0.99	30	5.83	1.15	117	6.03	0.94
Good Relationship With Boss	147	5.76	1.00	30	5.83	0.83	117	5.74	1.04
Seeking Perfection	147	5.76	1.06	30	5.80	1.00	117	5.74	1.08
Work for Strong Company	147	5.50	1.22	30	5.73	1.14	117	5.44	1.23
Being Mentored	147	5.03	1.80	30	5.60	1.22	117	4.89	1.89
Good Early Assignments	147	5.31	1.43	30	5.57	1.38	117	5.25	1.44
Creativity	147	5.16	1.31	30	5.37	1.00	117	5.11	1.38
Good Interviewing Skills	147	5.71	1.21	30	5.17	1.51	117	5.85	1.08
Prestige of School	147	5.17	1.21	30	5.10	0.99	117	5.19	1.26
Extrovert	147	4.63	1.29	30	4.63	1.35	117	4.63	1.28

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Agreeable	147	4.86	1.52	30	4.37	1.54	117	4.98	1.50
Good Job Market	147	4.66	1.71	30	4.37	1.77	117	4.74	1.69
Obtain CPA	147	4.38	2.44	30	4.27	2.48	117	4.41	2.44
Internships	147	4.07	2.12	30	3.60	2.03	117	4.20	2.13
Additional 30 Credits	147	2.61	1.95	30	1.60	1.25	117	2.86	2.02

Sources of Failure	N	Total Sample	Std. Deviation	N	More Than \$200,000	Std. Deviation	N	Less Than \$200,000	Std. Deviation
Poor Verbal Communications	147	5.77	1.39	30	6.33	0.92	117	5.62	1.45
Poor People Skills	147	5.74	1.48	30	6.10	1.21	117	5.65	1.53
Not able to Handle Stress	147	5.65	1.71	30	6.10	1.42	117	5.53	1.76
No BS Accounting Degree	147	5.60	1.73	30	6.03	1.25	117	5.49	1.82
Lack of Acct Knowledge	147	5.80	1.60	30	5.97	1.22	117	5.76	1.68
Poor Computer Skills	147	5.55	1.50	30	5.70	1.26	117	5.51	1.56
Poor Relations with Boss	147	4.93	1.58	30	5.53	1.20	117	4.77	1.63
Poor Interviewing Skills	147	5.23	1.70	30	5.43	1.55	117	5.18	1.74
Hardworking	147	5.11	1.58	30	5.43	1.14	117	5.03	1.67
Poor Early Assignments	147	4.18	1.72	30	4.70	1.47	117	4.05	1.77
Poor Job Market	147	4.31	1.78	30	4.63	1.71	117	4.23	1.79
Working for Weak Company	147	4.34	1.51	30	4.63	1.52	117	4.27	1.51
No Mentor	147	3.97	1.95	30	4.40	1.67	117	3.85	2.00
Perfectionism	147	3.90	1.74	30	4.30	1.80	117	3.79	1.71
Weak College Reputation	147	3.83	1.65	30	4.13	1.25	117	3.75	1.73
Not Getting CPA	147	4.18	2.16	30	4.10	2.29	117	4.20	2.13
Agreeable	147	3.52	1.64	30	3.93	1.57	117	3.41	1.65
Extroverted	147	3.46	1.64	30	3.63	1.65	117	3.41	1.65
Conscientious	147	3.36	1.65	30	3.37	1.54	117	3.36	1.69
Creative	147	3.27	1.56	30	3.33	1.37	117	3.26	1.60
No Internships	147	3.56	1.87	30	3.30	1.62	117	3.63	1.93
Openness	147	2.53	1.56	30	2.67	1.65	117	2.50	1.55
Organized	147	2.31	1.66	30	2.23	1.52	117	2.33	1.70
Not Earning Added 30 Credits	147	2.80	1.90	30	2.17	1.76	117	2.97	1.91

Figure 11: Differences of Opinion: Income Comparison

Characteristics and Opinions of Accountants with High Versus Low Job Satisfaction

Demographics

There were four major differences in demographic information of respondents who have higher job satisfaction versus those with less satisfaction. The four demographic characteristics that were different (95% confidence, $p < .05$) based on job satisfaction levels

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were age and year of graduation, number of staff managed, and whether they had been required to take the 30 additional credits. On average, those accountants with higher job satisfaction were older (average 54 years old versus 43), received their undergraduate degree in 1981 versus 1991 (again older), and manage a larger staff of 73 people on average. They were also much less likely to have taken the 30 additional credits. 6.3 percent of the respondents with high job satisfaction took the 30 credits, and 23.8 percent with low job satisfaction have taken the additional 30 credits. Most of these statistical differences indicate more experience in accounting leads to higher job satisfaction. The statistical differences can be viewed in *Figure 12*.

		N	Total Sample	Std. Deviation	N	High Job Sat	Std. Deviation	N	Lower Job Sat	Std. Deviation
Gender	Total	158	59.5%	49.2%	32	65.6%	48.3%	126	57.9%	49.6%
Age	Total	158	45	14	32	54	13	126	43	14
Obtained a graduate degree	Total	158	45.6%	50.0%	32	46.9%	50.7%	126	45.2%	50.0%
Member of a Professional Society	Total	158	66.5%	47.4%	32	62.5%	49.2%	126	67.5%	47.0%
Received a B.S. in Accounting	Total	158	95.6%	20.6%	32	93.8%	24.6%	126	96.0%	19.6%
Attended Bryant University	Total	129	94.6%	22.7%	29	96.6%	18.6%	100	94.0%	23.9%
Year of Graduation	Total	158	1989	14	32	1981	13	126	1991	14
Retired	Total	129	3.9%	19.4%	29	6.9%	25.8%	100	3.0%	17.1%
Worked for a Big 4/6/8 Accounting Firm	Total	158	32.9%	47.1%	32	37.5%	49.2%	126	31.7%	46.7%
Number of Staff Managed	Total	158	32	84	32	73	145	126	22	56
CPA Certified	Total	158	41.8%	49.5%	32	34.4%	48.3%	126	43.7%	49.8%
Were required to take the additional 30 credits	Total	158	20.3%	40.3%	32	6.3%	24.6%	126	23.8%	42.8%
Total Compensation	Total	131	\$ 165,109	\$ 354,783	24	\$ 158,283	\$ 142,725	107	\$ 166,640	\$ 387,217
Percentage earning over \$200,000 (high income level)	Total	147	20.41%	40.44%	28	28.6%	46.0%	119	18.5%	39.0%

Figure 12: Survey Demographics Job Satisfaction Comparison

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Personality Traits

The accountants reporting high job satisfaction have several traits that were stronger than those accountants who are considered to not be satisfied with their careers. Accountants who are pleased with their work are more organized, agreeable, conscientious, assertive, creative, social, intellectual, emotionally stable, and extroverted. The only trait that is not different between the two groups is perfection seeking. All accountants equally display the trait of perfection seeking, regardless of their job satisfaction levels. *Figure 13* displays the statistical differences in personality traits.

		N	Total Sample	Std. Deviation	N	High Job Sat	Std. Deviation	N	Lower Job Sat	Std. Deviation
ORGANIZED	Total	148	5.94	0.58	29	6.25	0.47	119	5.86	0.59
AGREEABLE	Total	158	5.50	0.77	32	5.95	0.53	126	5.38	0.77
CONSCIENTIOUS	Total	158	5.59	0.73	32	5.82	0.79	126	5.53	0.71
ASSERTIVE	Total	148	5.11	0.85	29	5.69	0.77	119	4.97	0.82
CREATIVE	Total	148	5.00	0.83	29	5.57	0.76	119	4.86	0.78
SOCIABILITY	Total	158	5.15	0.98	32	5.49	0.94	126	5.06	0.98
INTELLECT	Total	148	4.86	0.86	29	5.49	0.75	119	4.70	0.82
EMOTIONAL STABILITY	Total	148	5.04	1.00	29	5.34	1.01	119	4.97	0.99
EXTROVERT	Total	158	4.43	0.96	32	4.69	0.75	126	4.36	1.00
PERFECTION	Total	158	4.50	1.01	32	4.62	1.19	126	4.47	0.97

Figure 13: Personality Traits Job Satisfaction Comparison

Beliefs of Survey Respondents

In comparison to differences in income, job satisfaction levels do not lead to as many differences in beliefs of survey respondents regarding their current situation. Those accountants considered to display high levels of job satisfaction do believe that they have more job satisfaction than others but do not see differences in their beliefs about having more money or success than others as compared to less satisfied colleagues. These results are outlined in *Figure 14*.

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		N	Total Sample	Std. Deviation	N	High Job Sat	Std. Deviation	N	Lower Job Sat	Std. Deviation
Believe they make more money than others	Total	148	4.25	1.59	29	4.24	2.12	119	4.25	1.45
Believe they have more job satisfaction than others	Total	148	4.95	1.34	29	6.07	1.13	119	4.68	1.25
Believe they are more successful than others	Total	148	4.60	1.37	29	4.93	1.73	119	4.52	1.27

Figure 14: Beliefs of Survey Respondents with High Job Satisfaction

Opinions of Accountants with High Job Satisfaction

The previously discussed opinion-based questions also yielded varying results with different levels of job satisfaction. Less disagreement was found among questions related to the necessity of the additional 30 credits, how to spend the additional 30 credits, and sources of career failures in accounting. Factors leading to success in accounting careers, however, were much more varied in regards to responses from people with more or less job satisfaction.

In response to questions related to the additional 30 credit hours, there were no significant differences based on the need and impact of the additional 30 credit hours. People with both high and low job satisfaction agreed in these areas. One source of disagreement was in the ranking of how to best use these additional 30 credits towards an MBA. Statistically, accountants with higher levels of job satisfaction believed that this was the best possible use of the additional 30 credits with a ranking of 5.56, while the less satisfied accountants would have ranked it second to an MS Accounting by scoring the MBA at 5.01. These areas of interest yielded higher standard deviations with averages of 1.9 for high job satisfaction and 1.6 for lower job satisfaction, which indicates that there is less agreement on the subject of the additional 30 credit hours.

Many of the differences between higher job satisfaction and lower job satisfaction reveal themselves in the statistical analysis of factors that positively impact career success in accounting. There were factors that the groups ranked differently, including having people skills, obtaining a bachelor's degree in accounting, having strong written and verbal communication skills, being conscientious, being open to new ideas and new experiences,

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having computer and software skills, knowing the accounting material, beginning with good early career assignments, being creative. Accountants with higher job satisfaction ranked all of these factors higher than accountants with lower job satisfaction except for two factors, including having an internship while in college and obtaining the additional 30 credit hours. These two factors were ranked as less important to those with higher job satisfaction.

Finally, the sources of career failure in accounting are statistically ranked in a similar order for both categories, except for poor written and verbal communication skills. Accountants exhibiting high job satisfaction believe that this source of failure has the highest negative impact on accounting careers at a ranking of 6.16. Respondents with lower job satisfaction ranked this factor at 5.69, which would be second to being knowledgeable about accounting subjects. *Figure 15* displays detailed data for all opinions tested in the respondent group.

		N	Total Sample	Std. Deviation	N	High Job Sat	Std. Deviation	N	Lower Job Sat	Std. Deviation
Should 30 credit hours be req? (% yes)	Total	158	51.9%	50.1%	32	62.5%	49.2%	126	49.2%	50.2%
Do added credits reduce pool? (% yes)	Total	158	47.5%	50.1%	32	46.9%	50.7%	126	47.6%	50.1%
Do credit hrs improve quality? (% yes)	Total	158	33.5%	47.4%	32	34.4%	48.3%	126	33.3%	47.3%
How to Spend 30 Credits?										
		N	Total Sample	Std. Deviation	N	High Job Sat	Std. Deviation	N	Lower Job Sat	Std. Deviation
Get MBA?	Total	158	5.12	1.72	32	5.56	1.79	126	5.01	1.69
Get MS Accounting?	Total	158	5.23	1.66	32	5.09	1.97	126	5.26	1.58
Get MS Business?	Total	158	4.79	1.61	32	5.06	1.93	126	4.72	1.52
Get More undergrad accounting credits?	Total	158	4.32	1.67	32	4.53	1.97	126	4.26	1.60
Get more undergrad business credits?	Total	158	4.15	1.68	32	4.16	1.89	126	4.15	1.63
Get MS Not Business?	Total	158	3.52	1.61	32	3.56	2.03	126	3.51	1.50
More undergrad Lib Arts Credits?	Total	158	3.04	1.62	32	3.00	1.76	126	3.05	1.59
Success Factors										
		N	Total Sample	Std. Deviation	N	High Job Sat	Std. Deviation	N	Lower Job Sat	Std. Deviation
Handle Workload	Total	158	6.47	0.69	32	6.63	0.61	126	6.44	0.71
People Skills	Total	158	6.27	0.95	32	6.59	0.71	126	6.18	0.99
Obtain BS Accounting	Total	158	6.25	1.20	32	6.56	0.76	126	6.17	1.28
Verbal Communication Skill	Total	158	6.06	1.03	32	6.56	0.76	126	5.94	1.05

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Hard Worker	Total	158	6.46	0.85	32	6.56	0.95	126	6.43	0.82
Conscientiousness	Total	158	6.19	1.02	32	6.47	0.72	126	6.12	1.07
Organized	Total	158	6.18	0.86	32	6.38	0.87	126	6.13	0.85
Openness	Total	158	5.94	1.01	32	6.31	0.82	126	5.84	1.03
Computer Skills	Total	158	5.94	1.07	32	6.28	0.81	126	5.86	1.11
Handling stress well	Total	158	6.28	0.81	32	6.28	0.96	126	6.29	0.77
Accounting know how	Total	158	5.89	1.01	32	6.22	0.87	126	5.80	1.03
Seeking Perfection	Total	158	5.80	1.07	32	6.00	1.11	126	5.75	1.06
Good relationship with boss	Total	158	5.78	0.98	32	5.84	1.19	126	5.77	0.92
Good early assignments	Total	158	5.33	1.45	32	5.81	1.51	126	5.21	1.42
Creativity	Total	158	5.20	1.30	32	5.81	0.90	126	5.05	1.34
Good interviewing skills	Total	158	5.72	1.19	32	5.81	1.49	126	5.70	1.10
Work for Strong Company	Total	158	5.49	1.19	32	5.44	1.61	126	5.51	1.07
Prestige of School	Total	158	5.16	1.23	32	5.31	1.09	126	5.12	1.26
Agreeable	Total	158	4.87	1.51	32	5.25	1.55	126	4.77	1.49
Being mentored	Total	158	5.04	1.78	32	5.13	1.86	126	5.02	1.77
Extrovert	Total	158	4.65	1.28	32	4.88	1.29	126	4.59	1.27
Good job market	Total	158	4.70	1.67	32	4.72	1.92	126	4.69	1.61
Obtain CPA	Total	158	4.40	2.43	32	4.31	2.60	126	4.42	2.39
Internships	Total	158	4.03	2.13	32	3.22	2.31	126	4.23	2.04
Additional 30 Credits	Total	158	2.55	1.93	32	2.03	1.91	126	2.68	1.92
Sources of Failure:		N	Total Sample	Std. Deviation	N	High Job Sat	Std. Deviation	N	Lower Job Sat	Std. Deviation
Poor Verbal Communication	Total	158	5.78	1.37	32	6.16	1.44	126	5.69	1.34
Poor people skills	Total	158	5.76	1.45	32	6.03	1.58	126	5.69	1.42
Lack of accounting knowledge	Total	158	5.81	1.60	32	5.88	1.72	126	5.79	1.58
Not able to handle stress	Total	158	5.67	1.67	32	5.88	1.68	126	5.62	1.67
Poor computer skills	Total	158	5.56	1.47	32	5.81	1.42	126	5.50	1.48
No BS Accounting	Total	158	5.65	1.70	32	5.78	1.75	126	5.61	1.70
Poor interviewing skills	Total	158	5.27	1.67	32	5.25	1.95	126	5.28	1.60
Poor relations with boss	Total	158	4.97	1.55	32	5.22	1.58	126	4.91	1.54
Hardworking	Total	158	5.11	1.58	32	5.19	1.64	126	5.09	1.57
Poor early career assignments	Total	158	4.27	1.72	32	4.56	1.87	126	4.20	1.68
Working for weak company	Total	158	4.34	1.49	32	4.50	1.95	126	4.30	1.36
Not getting CPA	Total	158	4.21	2.15	32	4.47	2.29	126	4.14	2.12

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Perfectionism	Total	158	3.91	1.75	32	4.16	1.99	126	3.85	1.69
Poor job market	Total	158	4.30	1.74	32	4.13	1.84	126	4.35	1.72
No mentor	Total	158	3.99	1.93	32	4.03	2.10	126	3.98	1.90
Weak college reputation	Total	158	3.86	1.64	32	3.75	1.76	126	3.89	1.62
Agreeable	Total	158	3.53	1.63	32	3.66	1.98	126	3.49	1.53
Extroverted	Total	158	3.47	1.66	32	3.34	1.94	126	3.50	1.59
Conscientious	Total	158	3.42	1.68	32	3.28	1.85	126	3.45	1.64
No internships	Total	158	3.54	1.84	32	3.09	2.13	126	3.66	1.75
Creative	Total	158	3.32	1.58	32	3.06	1.63	126	3.38	1.57
Not earning added 30 credits	Total	158	2.85	1.92	32	2.69	2.09	126	2.89	1.89
Openness	Total	158	2.54	1.56	32	2.63	1.76	126	2.52	1.52
Organized	Total	158	2.33	1.66	32	2.34	1.88	126	2.33	1.61

Figure 15: Differences of Opinion: Job Satisfaction Comparison

REGRESSION ANALYSIS

As a secondary approach and to address the potential effect of omitted variable bias, personality factors of the success groups versus the less successful groups were evaluated using linear regression incorporating age and gender as control variables. Results as compared to ANOVA (one way, not using the control variables) were close, but in many cases, after controlling for significant effects of age and/or gender, the results are somewhat different. Equations (1) and (2) can be referenced to understand the two regressions run with personality traits as the independent variables. The dependent variables in each respective regression were earning income over \$200,000 or having high job satisfaction. See Figure 16a and Figure 16b for the regression results. Figure 17 is the color coding, which will be helpful to determine the results. /effect significance color coded. In Figure 17, there is a color code for the level of significance of each effect. Red font indicates significant differences among higher achieving accountants and lower achieving accountants.

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Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.959	.397		-2.417	.017
AGREE	.057	.049	.107	1.169	.245
ASSERTIVE	.044	.061	.092	.713	.477
CONSCIEN	-.027	.067	-.048	-.396	.692
CREATIVE	.106	.067	.216	1.587	.115
EMOTSTABIL	.058	.037	.144	1.595	.113
EXTROVERT	.018	.053	.043	.339	.735
INTELLECT	-.147	.060	-.312	-2.441	.016
ORGANIZE	.056	.090	.081	.623	.534
PERFECTION	.007	.036	.017	.183	.855
SOCIABILITY	.008	.044	.020	.188	.851
Gender	.210	.074	.256	2.827	.005
Age	.001	.003	.043	.472	.638

Figure 16a: Results of High Income Regression

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Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-1.496	.367		-4.075	.000
AGREE	.105	.045	.201	2.329	.021
ASSERTIVE	.107	.057	.231	1.899	.060
CONSCIEN	.012	.062	.022	.193	.847
CREATIVE	.004	.062	.008	.060	.952
EMOTSTABIL	-.020	.034	-.050	-.588	.557
EXTROVERT	-.090	.049	-.219	-1.842	.068
INTELLECT	.107	.056	.232	1.931	.056
ORGANIZE	-.002	.083	-.002	-.020	.984
PERFECTION	-.007	.034	-.018	-.214	.831
SOCIABILITY	.045	.040	.113	1.114	.267
Gender	.015	.069	.019	.220	.826
Age	.006	.002	.204	2.378	.019

Figure 16b: Results of High Job Satisfaction Regression

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Code	Confidence	Sig (p<)
weakest	<80%	1.00
weak	80 to 89%	0.20
moderate	>90%	0.10
strong	>95%	0.05
strongest	>99%	0.01

Figure 17: Key of Significance

Notice that in the tables above, there are significant effects of the age and gender control variables in the regression models. These are consistent with those reported in literature (Waldman & Avolio 1986). For the high income regression, those accountants that were more creative and more emotionally stable earned greater than \$200,000 annually (>80% confidence, $p < .20$). The strongest significant difference was that they were more often male, which is consistent with the literature as stated above. With 95% confidence, higher earning accountants exhibit the trait of being intellectual less than their lower earning counterparts. More data would help to solidify these conclusions, since the conclusions are primarily at the weaker levels of >80% confidence. In the case of higher levels of job satisfaction, being more agreeable, assertive, intellectual, and older tended to lead to higher levels of job satisfaction. One interesting finding was that lower levels of extroversion tended to cause higher levels of job satisfaction. The results of the higher job satisfaction regression exhibited higher levels of confidence, but again, more data would be needed for stronger conclusions.

DISCUSSION AND CONCLUSIONS

The Stereotypical Personality of Accountants

Based on the survey population, some conclusions can be drawn regarding the personality of the profession as a whole and also comparing more successful and less successful accountants. The overall population is very organized, conscientious, and agreeable but is not highly perfection-seeking or extroverted. Although at values above the mid-point on the likert scale, it can be concluded that the population is weakly perfection-seeking and weakly

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extroverted (not stereotypically introverted!). The rankings partially support H1, which indicated that accountants surveyed would fit the society-generated stereotype that accountants are not extroverted and are not creative. Extroversion was the lowest ranking characteristic, which recognizes that accountants are not as highly extroverted as what might be expected of sales people or politicians. Creativity was ranked in the lower end of the fourth cluster out of six clusters, which allows us to conclude that creativity is not a strong trait of accountants but that it is found in some accountants (it is above “4” in the accountant population). Organizational skills seem to be most important to the field of accounting as evidenced by this strongest personality trait. Interestingly, sociability was ranked fourth, which somewhat contradicts the low ranking of extroversion, since it indicates that accountants do enjoy the company of people and being social with friends despite their less extroverted personalities.

The implications of this data suggest a personality type that would enjoy the field of accounting. For high school and college students attempting to determine a career path, this data may help more organized, conscientious, and introverted students elect accounting as a profession. Students who are not organized likely should not choose careers in accounting based on this data, since it seems to be an essential trait of accountants. There are likely accountants in the profession who can be described as disorganized or extroverted, but they are less common than the organized and introverted types. Hiring managers should consider these characteristics in the hiring process in order to find candidates that are more likely to remain in the profession and achieve success.

Comparison of More Successful and Less Successful Accountants Personality Traits

Responses to the survey supported H2 that more successful accountants would display differences in personality traits as compared to less successful accountants when success is measured by income and job satisfaction.

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First, we consider accountants who are more successful based on income levels of \$200,000 or more per year. As previously mentioned in the results section, more successful accountants earning over \$200,000 per year were statistically more assertive, emotionally stable, and creative than less successful accountants when looking at the one way ANOVA results. After correcting for age and gender, it can still be argued that emotional stability and assertiveness are important, but also, there are indications that agreeableness, sociability and organizational skills also contribute. These results may imply that students with these traits should in fact enter the field of accounting despite some contradiction with the generally accepted stereotypes of the profession. For example, accountants are generally considered to be less extroverted, which is often associated with passivity. In contrast, successful accountants tend to exhibit higher levels of assertiveness. It is possible that the importance of this trait may be linked with the increasing need to comply with accounting regulation. Less assertive accountants may be more apt to pass on areas of accounting work which are controversial, resulting in lower quality work, less valuable experience, and lower potential for promotion or job enrichment. One question that remains is whether these traits are developed as a result of advancing to their elevated positions within companies, or if they are inherent in the personality of the higher success accountants.

Next, we examine the personality of accountants who are more successful based on higher versus lower levels of job satisfaction. Accountants who are satisfied tend to exhibit all characteristics at significantly higher levels than those accountants who are unsatisfied in their profession. The only factor that is not significantly different is the level of perfection seeking, which is ranked at the bottom for personality traits describing those accountants highly satisfied with their careers. The other traits included being assertive, conscientious, creative, social, intellectual, extroverted, organized, agreeable, and emotionally stable. Even after controlling for age and gender, these personality factors still are shown to be significantly different between high and lower satisfaction groups. These results may suggest that most of these traits are important to success (as measured by satisfaction) in the field of accounting

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and that accountants who can successfully develop each of these characteristics are more likely to experience high job satisfaction and grow in their careers. The higher scores in the personality spectrum may indicate that these individuals have greater overall passion for what they do. When companies are recruiting to hire new accountants, these traits could be easily tested and compared among candidates to determine the accountant most likely to succeed in the position. Hiring managers should look for the traits that have been identified in respondents who are earning at least \$200,000 or are highly satisfied with their work. However, since potentially many other factors not captured in this study could lead to success, we caution care in making inferences or extrapolating from these results..

Ranking of Success Factors

Overall, the order of the rankings of factors that positively affect success in accounting were statistically the same between the high and low income and job satisfaction groupings, but certain factors were weighted more or less when differentiating between successful and unsuccessful accountants as measured by earnings and job satisfaction levels. In support of H3, more successful accountants ranked certain factors significantly differently than less successful accountants did. Four factors differed when considering success by income levels, and eleven factors differed when considering success by job satisfaction.

Accountants who are successful on the basis of income over \$200,000 per year saw being mentored as more significant in determining the success of accounting professionals. This aspect could be a result of their current impact on individuals that they are managing. It is also likely that they themselves had a “white knight” early on their career. These results also could be considered to indicate that if gender equality is important, then females in the profession must be mentored to increase the ratio of females in the high success categories as measured by income. The more successful accountants are on average older than those who are earning less, so it is possible that they are recognizing their ability to help the individuals in their management teams. In contrast, higher earning accountants scored good interviewing

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skills, agreeableness, and additional 30 credit hours as less significant compared to individuals earning less. The implications of these statistical differences may be a result of either not being required to complete the credit hours or with their higher age, not being close to the immediate effects of these factors. The younger, lower-earning accountants may see the daily impact of their recent studying based on the recent completion of the 30 credits and interview process. They may more often remember which knowledge they acquired as a result of these credits, whereas it is possible that the older accountants have come to accept this knowledge as second nature. As young accountants begin to develop and enter the workforce, they should consider taking the perspective of the more successful accountants and should look for possible mentors that could help them as they progress in their careers. Firms may also want to consider further enhancing mentor programs and to encourage new employees to take advantage of the knowledge that their mentors can offer them.

In comparing accountants with higher and lower levels of job satisfaction, there was much more disagreement amongst scores. Accountants with high levels of job satisfaction scored the following with higher significance than the rankings of accountants with lower levels of job satisfaction: having people skills, obtaining an undergraduate degree in accounting, having verbal and written communication skills, being conscientious, being open to new ideas and experiences, having knowledge about computers, being knowledgeable in accounting, having good early career assignments, and being creative. These results seem to emphasize the need to work well with people and to have technical knowledge in the field of accounting. Accountants with higher levels of job satisfaction score creativity higher, which may suggest that accounting is not as “black and white” as the stereotype of accountants implies. Instead, creativity seems to be important to individuals who are more satisfied with their careers. In contrast, having an internship in college and obtaining the additional 30 credits were scored lower by accountants with higher job satisfaction than those who are less satisfied. When students today are worried about obtaining internships and completing the additional 30 credits, these results may indicate that they should not place as much emphasis on these

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hurdles to their future success. Accountants surveyed who are satisfied in their careers do not place as much emphasis on these factors yet still have experienced success in the form of high job satisfaction. Instead, young accountants should develop social and professional relationship skills and enhance their knowledge of accounting principles and practices. These factors seem to be more important to more successful accountants.

Ranking of Failure Factors

The hypothesis (H4), which stated that more successful accountants would rank factors leading to career failure differently than less successful accountants, was supported by this study. More differences were evident in the comparison of higher and lower level income accountants as compared to higher and lower job satisfaction.

Accountants earning over \$200,000 per year scored four categories higher than their peers who are earning under \$200,000. The four categories they statistically scored higher for having an impact on career failure in accounting were poor verbal communication skills, inability to handle stress, poor relations with management, and poor early career assignments. They also scored the additional 30 credits as having even less of an impact on career failure in comparison with those who earn less. For students considering the field of accounting, they should consider the levels of stress that they can handle on a day to day basis, since it appears to be a significant factor that accountants believe leads to failure in accounting careers. Additionally, students should develop their interpersonal and communication skills in order to create a positive professional relationship with their bosses, which may even help them obtain better early career assignments and avoid failure through poor early career assignments. Again, the 30 credit hours are not considered influential to determining career success or failure in accounting. Perhaps the CPA certification boards requiring the additional credits should consider the effectiveness of this stipulation. It is possible that the impact of the requirement is too insignificant to ask of students considering the resources required for individuals to obtain the credits.

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Compared to the differences among higher income and lower income accountants, respondents with high job satisfaction did not disagree as much with their less satisfied peers when scoring the factors that lead to failure in accounting careers. The only statistical difference between the two groups was in the consideration of written and verbal communication skills. Accountants with high job satisfaction scored poor written and verbal communication skills as the greatest contributor to failure in accounting careers, whereas accountants with lower job satisfaction would have ranked knowledge in accounting as the most significant influence on failure in accounting careers. Again, the data is emphasizing the need for strong communication skills and the ability to relate well with people in order to avoid failure and ultimately achieve success. Those accountants with high job satisfaction also ranked knowledge in the field of accounting as important but scored the people and communication focused factors as having greater impact on failure. Therefore, we can draw a conclusion that suggests people-oriented accountants (possibly indicating extroversion) will experience more success in accounting careers and will be more likely to avoid failure. Firms recruiting new employees should consider these factors as they look for young accountants. When recruiters receive applicants with high GPAs and high CPA exam scores, heavy weight should also be placed on communication skills in determining the best candidates, since it is a factor that significantly influences the possibility of success or failure in accounting careers.

Impact of the CPA Credit Hour Requirements

H5 stated that more successful accountants will place less emphasis on the CPA credit hour requirements in determining success than their less successful counterparts. This hypothesis resulted in a mixed response depending on how success is defined. If success is defined as simply earning over \$200,000 per year, then the hypothesis is supported that more successful accountants place less emphasis on the additional 30 credit hours, but if success is defined as simply achieving higher levels of job satisfaction, then the hypothesis is not supported.

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Only 36.7% of accountants earning over \$200,000 felt that the additional 30 credit hours should be required. In the overall population, 50.3% said that the 30 credits should continue to be a standard for CPA certification, and 53.9% of accountants earning less than \$200,000 agreed that the credit hours should be required. Significantly fewer successful accountants felt that this requirement was necessary, and even fewer felt that the credit hours improved the quality of professional accountants. Only 16.7 percent agreed that quality of accountants was enhanced by the additional 30 credits. The dispute lies in the fact that 62.5% of accountants with high job satisfaction thought that the 30 additional credits should be required. Based on this data, no conclusions can be drawn as to whether the additional 30 credits should or should not be emphasized in the career path of accountants. It is possible that the differences in opinion are a result of its fairly recent development as a requirement. Older accountants, in most cases, were not required to fulfill these credits and may be unsure of their effect on quality of accountants. Older accountants have been able to achieve success despite not completing the credit requirement for the CPA certification, and for this reason, they may have scored it lower, skewing the results. If earning money is the goal, it is possible that these 30 credits are frivolous and should be eliminated from CPA certification. Job-satisfied accountants, however, seem to disagree and see the credit hours as needed.

How to Complete the Additional 30 Credit Hours

Many states are requiring the additional 30 credit hours for CPA certification, but few are stipulating how to earn the 30 credit hours. Students are wondering if they should complete them at the undergraduate or graduate level and if they should be in accounting, related fields of study, or unrelated fields of study. Survey respondents were asked to score the possible ways to obtain the additional 30 credits to determine which would be the most beneficial to career success in accounting. H6 indicated that more successful accountants would place greater emphasis on graduate level business coursework including the MS Accounting and MBA as the best use of the additional 30 credit hours than their less successful peers. Results did not support this hypothesis, since both more and less successful accountants ranked these

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two degree paths as the best options for completing the additional 30 credit hours. The ranking was agreed upon by successful accountants as measured by both job satisfaction levels and income levels. They consistently scored the MBA and graduate work in accounting as most likely to contribute to success in accounting and scored credits unrelated to accounting or business as least likely to contribute to success in accounting careers. Interestingly, they all ranked graduate level coursework as greater contributors to career success than completing the additional 30 credits at the undergraduate level.

These results seem to suggest that accountants believe these credits should be focused in the business realm rather than taking any more elective courses to fulfill the requirement. In addition, they would like to see these credits completed at a higher level instead of squeezing them into an undergraduate program. The added benefit of fulfilling these requirements gives the option of entering the workforce with a graduate degree, which often boosts the pay scale much faster than entering the workforce with only an undergraduate degree. Employers may want to consider asking potential new-hires what their 150 credit hours were comprised of and how they determined which courses they wanted to take. In the case of those surveyed, MBA or MS Accounting students appear to be on the best track to success in the field, and firms may want to consider placing these candidates higher in their pool of potential hires.

Ranking of the Additional Credit Hours as a Factor Contributing to Success

For the final hypothesis tested in this study, H7 predicated that accountants surveyed will overall rank obtaining the additional credit hours as a less important success factor in comparison with all other factors considered. Results supported this hypothesis with the 30 additional credits being statistically lowest among the rankings of factors that lead to career success in accounting. It was the only factor in the twelfth/lowest cluster of factors. On average, accountants surveyed scored this factor at 2.59, indicating little to no impact on creating career success for accountants. This ranking could indicate that accounting firms do not need to place as much of an emphasis on the CPA certification for lower level

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accountants. Some firms are requiring the completion of 150 credit hours before being considered for hiring, but they may be preventing some quality accountants from entering their firm at an early age when they could be gaining valuable experience. It is possible that these credit hours will improve the quality of their work, but they may not need them right away to begin becoming successful if they do not have the resources to complete the credits upon completion of their undergraduate degree.

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SUMMARY OF CONCLUSIONS

#	Hypothesis	Supported/Not Supported/Partially Supported/Mixed Response
H1	The personality traits of accountants will be similar to stereotypical views of accounting professionals, including a lack of creativity and low extroversion.	PARTIAL
H2	More successful accountants will display differences in personality traits in comparison with less successful accountants when using compensation and job satisfaction as measures for success. For example, accountants who are more creative or extroverted will be more successful.	SUPPORTED
H3	More successful accountants (using compensation and job satisfaction as measures for success) will rank factors leading to career success differently than less successful accountants.	SUPPORTED
H4	More successful accountants (using compensation and job satisfaction as measures for success) will rank factors leading to career failure differently than less successful accountants.	SUPPORTED
H5	More successful accountants, as measured by compensation and job satisfaction, place less emphasis on the CPA credit hour requirements and the CPA certificate itself in determining success than do their less successful counterparts.	MIXED RESPONSE

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H6	More successful accountants, as measured by compensation and job satisfaction, place greater emphasis on graduate level business coursework (MBA, MS Acct) as a means to complete the additional 30 credit hour requirement and as a contributor to success than do their less successful counterparts.	SUPPORTED
H7	Accountants surveyed will generally rank obtaining the 30 additional credit hours as a less important success factor as compared to other factors considered.	SUPPORTED

LIMITATIONS

There are various limitations associated with the generalizability and reliability of this study. Some of the limitations have already been discussed in the methodology section of this report. The limitations are primarily related to the size of the sample. Larger sample size might help to gain greater inference with a larger, more diverse set of subjects. The data was collected from primarily one university, so there could be systematic factors due to the geographic homogeneity of the sample which limits generalization, since many graduates of Bryant University are located in the Northeast region. On the other hand, since essentially all factors investigated were at the individual level, the fact that there was some level of homogeneity in the sampling environment aids in subject to subject comparability (almost like laboratory conditions). In addition, if a larger sample size was available, groupings of compensation and job satisfaction could be explored further. For example, comparisons could be made between those with both low compensation and low job satisfaction versus those with high levels of both success measures. (0,0 versus 1,1).

Censoring could have impacted the results based on the use of likert scales from 1 to 7. For example, if a person is very organized, the highest possible score they can achieve is a 7. The

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same is true for the opposite scenario where a person does not exhibit the trait of being organized and can only score a 1 on the scale. Therefore, people on the extreme ends of the scales are censored, which may have impacted statistical differences. For example, it is possible that in reality there should be a higher average for accountants who are very satisfied with their work. The use of multi-question scales helps to reduce the risk of censoring since several questions work to develop the average calculations.

Biases may have played a role in this study, particularly in the form of omitted variable bias and non-response bias. When the ANOVA was prepared, averages were compared of each group (i.e. assertiveness of high wage earners versus low wage earners). Each group was considered to be identical with no other factors at play. However, higher wage earners tended to be men, and if the study omits the effect of gender, results may confuse the difference between assertiveness of men versus women as being the difference between high and low wage earners. This possibility was observed in the regression results and is attempting to help reduce omitted variable bias. As previously discussed in the methodology, non-response bias was compensated for by comparing the surveyed population to the population that received the email as a whole.

Finally, our definition of success as an accountant is very subjective. We defined success as either earning over \$200,000 annually or having high levels of job satisfaction (top 20% of respondents). Another researcher could develop an entirely different definition of success as an accountant and find varied results. Overall, this study would benefit by additional data.

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REFERENCES

- AICPA. "150 Hour Requirement ." *Welcome to the AICPA* . N.p., n.d. Web. 25 Apr. 2012.
<<http://www.aicpa.org/BECOMEACPA/>>
- Bougen, Philip D. "Joking Apart: The Serious Side to the Accounting Stereotype." *Accounting, Organizations, and Society* 19.3 (1994): 319-335. Print.
- Burke, Jude Miller, and Mark Attridge. "Pathways To Career And Leadership Success: Part 1- A Psychosocial Profile Of \$100K Professionals." *Journal Of Workplace Behavioral Health* 26.3 (2011): 175-206. *Academic Search Premier*. Web. 23 Apr. 2012.
- Churchill, Gilbert, Ford Neil M., Walker Jr. Orville C. (1974). Measuring the Job Satisfaction of Industrial Salesmen. *Journal of Marketing Research*, 11, 254-260.
- Cook, J.W.(1960). Public Accounting Experience For Private Accountants. *Accounting Review*, 35(1), 93. Retrieved from EBSCOhost.
- Cronbach, L. J. (1951). Coefficient Alpha and the Internal Structure of Tests. *Psychometrika*, 16(3), 297-334.
- Howell, David (2002). *Statistical Methods for Psychology*. Duxbury. pp. 324–325. ISBN 0-534-37770-X.
- Kirk, RE (1995). *Experimental Design: Procedures For The Behavioral Sciences* (3 ed.). Pacific Grove, CA, USA: Brooks/Cole.
- Kopalle, Praveen K. Lehmann, Donald R. (2001). Strategic Management of of Expectations: The role of disconfirmation sensitivity and perfectionism. *JMR*, 38, (August). Pp.386-394.
- McNamee, Stephen J. and Robert K. Miller, Jr. (Spring 2004). The Meritocracy Myth. *Sociation Today* Volume2, Number 1, University of North Carolina at Wilmington.
- Mount, M.K. & Barrick, M.R. (1995). The Big Five personality dimensions. *Research in Personnel and Human Resources Management*, 13, 153–200.
- Muda, Salwa and Che Hassan, Anita and Abd. Samad, Ros Norita (2009) *Requirement of soft skills among graduating accounting students employers and UiTM students' view / Salwa Muda , Anita Che Hassan , Ros Norita Abd. Samad*. Technical Report. Institute of Research, Development and Commercialization , Universiti Teknologi MARA.

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Seibert, S., Kraimer, M. & Crant, J. (2001). What do proactive people do? A longitudinal model linking proactive personality and career success. *Personnel Psychology*, 54(4), 845-874.

"SPSS FAQ: What does Cronbach's alpha mean? ." *UCLA Academic Technology Services*. N.p., n.d. Web. 15 Apr. 2012. <<http://www.ats.ucla.edu/stat/spss/faq>

Stock, James H., and Mark W. Watson. *Introduction to econometrics*. Toronto: Addison Wesley, 2003. Print.

Park, L.(1994). Good accounting skills: What more does a successful accountant need?. *Journal of Education for Business*, 69(4), 231. Retrieved from EBSCOhost.

Raghunandan, K., Read, W.J., & Brown, C.D.(2003). The 150-hour rule: Does it improve CPA exam performance? *Managerial Auditing Journal*, 18(1), 31-31-38. Retrieved from <http://search.proquest.com/docview/274641007?accountid=28525>.

Reynolds, Kristy E. Beatty, Sharon E. (1999b), A relationship customer typology. *JR*, 75 (4). pp. 509-523.

Safari, Afidah(1999). A study on personality type, Environmental factors and perceptions on job attributes between graduating Accounting students and graduates on public accountant as a career choice / Afidah Safari. Masters thesis, Universiti Teknologi MARA (TiTM).

Scovill, H.T.(1946). Education For The Public Accounting On The Collegiate Level. *Accounting Review*, 21(3), 261. Retrieved from EBSCOhost.

Tschohl, John. "The Qualities Of Successful People." *Managing Service Quality* 9.2 (1999): 78-80. *PsycINFO*. Web. 23 Apr. 2012.

Tett, R.P., Jackson, D.N., Rothstein, M., & Reddon, J.R.(1994). Meta-Analysis of Personality-Job Performance Relations; A Reply To Ones, Mount, Barrick, and Hunter (1994). *Personnel Psychology*, 47(1), 157-172. Retrieved from EBSCO host.

Waldman, D.A., & Avolio, B.J. (1986). A meta-analysis of age differences in job performance. *Journal of Applied Psychology*, 71(1), 33-38. Doi:10.1037/0021-9010.71.1.33.

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APPENDIX 1

Survey Draft

A. The first section of this survey is used to classify you as a respondent. Please attempt to provide accurate answers and complete all questions. Your responses will be kept completely confidential.

1. I consider myself to be an accountant based on my college training. Yes / No
2. I consider my background and experience to be in the field of accounting. Yes / No
3. I am a member of a professional accounting society presently. Yes / No
4. I have been a member of a professional accounting society at some point in the past. Yes / No
5. At one point in my career I have been employed as an accountant or in a related professional field. (Yes /No)
6. I have a Bachelors degree in accounting? Yes / No
 - a. If yes, please identify College and Year of graduation:
 - i. College Name (ie Bryant University) _____
 - ii. Year of Graduation: _____
 - b. If no: Please indicate your education level: (check all that apply)
 - i. High School
 - ii. Associates Degree..... List Major _____ Name of School _____ Year of Graduation _____
 - iii. Bachelors Degree List Major _____ Name of School _____ Year of Graduation _____
7. I have a graduate degree(s) (up to three entries)
 - i. Degree (MS, MBA, PhD)
 - ii. Academic Department (ie accounting) _____
 - iii. College Name (ie Bryant University) _____
 - iv. Year of Graduation _____
 - v. Degree (MS, MBA, PhD)
 - vi. Academic Department (ie accounting) _____
 - vii. College Name(ie Bryant University) _____
 - viii. Year of Graduation _____
 - ix. Degree (MS, MBA, PhD)
 - x. Academic Department (ie accounting) _____
 - xi. College(ie Bryant University) _____
 - xii. Year of Graduation _____
8. Age: What year were you born? _____
9. Gender: What's your gender? Male / Female

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10. Income : What is your annual salary in 2011 (including bonuses and commissions) in U.S. dollars?
11. What is your current job title? _____
12. How many staff do you manage (include direct reports, and all employees within the structure) _____
13. What is the name of your employer (no abbreviations please)? _____ Location (state) _____
14. How many years have you been working as a professional accountant? (years of professional employment)
15. Do you have a CPA? Yes / No
 - a. if so how many years have you had it?

B. Opinion Questions related to accounting career success: Based on your experience please rate the following items in terms of how these may impact accounting career success.

1. No impact.....minor positive impactmoderate positive impact.....highest positive impact 10.

1. Earning an undergraduate degree in accounting
2. Deep Knowledge in the field of accounting
3. The academic institutions attended
4. Internships while in college
5. Being mentored by a more experienced person
6. Good Early career assignments
7. 30 additional credits as required for CPA exam
8. Obtaining the CPA certificate (passing the CPA exam)
9. Excellent verbal and written communication skills
10. Excellent computer and software skills
11. Excellent people skills
12. Working very hard, handling work load well
13. Being conscientious
14. Being creative
15. Being organized
16. Being open to new ideas and new experiences
17. Being agreeable
18. Being extroverted
19. Seeking perfection and highest quality work output
20. Ability to handle stress, not neurotic
21. Strong Job Market and ease of finding work (available jobs)
22. Good relationship with supervisor

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23. Choice of employer (strong company performance)

24. Good Interviewing Skills (job search)

B. Opinion Questions related to accounting career limitation: Based on your experience

please rate the following items in terms of how these may impact accounting career success.

1. No impact.....minor negative impactmoderate negative impact.....highest negative impact 10.

1. Weak Job Market and difficulty finding work (available jobs)

2. Poor relationship with supervisor

3. Choice of employer

4. Poor Interviewing Skills (job search)

5. Not earning an undergraduate degree in accounting

6. Lack of Knowledge in the field of accounting

7. The academic institutions attended

8. Not doing Internships while in college

9. Not being mentored by a more experienced person

10. Early career assignments not good

11. Not earning 30 additional credits after undergraduate degree (CPA exam requirement)

12. Not Obtaining the CPA certificate (not passing the CPA exam)

13. Poor verbal and written communication skills

14. Poor computer and software skills

15. Poor people skills

16. Working too hard, not handling work load well

17. Being overly conscientious

18. Being too creative

19. Being too organized

20. Being too open to new ideas and new experiences

21. Being too agreeable

22. Being too extroverted

23. Overly Seeking perfection

24. Not able to handle stress, neurotic

C. Addition College Credit Requirement (beyond undergraduate degree)

In recent years there has been an added requirement that prior to taking the CPA exam requiring that a candidate must complete his or her undergraduate degree and also earn 30 additional college credits.

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1. If you were in a position to decide, would you continue the 30 credit hour requirement? (Yes / No)
2. Do you think that the additional 30 credit hour requirement reduces the pool of qualified students who choose accounting as a major (Yes / No)
3. Do you think that the additional 30 credit hour requirement significantly improves the quality of new accountants (Yes / No)
4. Optional Comments:_____

Given that the additional credit requirement currently allows candidates to select the courses that they take please rate the impact on future accounting career success of the following options using the scale below:

1. Earn additional undergraduate accounting credits
2. Earn additional undergraduate business credits
3. Earn additional undergraduate credits not related to accounting or business (ie liberal arts, science, etc)
4. Earn Masters Degree in Accounting
5. Earn Masters Degree in Business or Related Field
6. Earn Masters Degree in an academic area other than Business, or Accounting
7. Earn MBA (Masters of Business Administration)

The following items are a list of descriptions that describe you. Using the scale of 1 being that you strongly disagree and 10 that you strongly agree, please indicate how closely these statements match your opinions and personality.

1. Strongly Disagree10. Strongly Agree

D. JS

1. My work is creative.
2. My work is valuable.
3. I have plenty of freedom on my job to use my own judgment.
4. My job is exciting.
5. My work is satisfying.
6. I'm really doing something worthwhile in my job.
7. I am unproductive in my work.
8. My work is useless.
9. My job is interesting.

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10. My work is challenging.
11. My job is often dull and monotonous.
12. My work gives me a sense of accomplishment.

E. Soc

1. I like to be with people.
2. I prefer working with others than working alone.
3. I find spending time with people more enjoyable than solitary activities, such as reading a book.
4. I tend to be a loner.
5. I prefer to do things alone.
6. I am not very sociable.
7. I do not like parties and social events.

F. Perf

1. I hate being less than the best at things.
2. I get mad at myself when I make mistakes.
3. It is very important for me to be right.
4. It makes me uneasy to see an error in my work.
5. One of my goals is to be perfect in everything I do.
6. I should be upset if I make a mistake.
7. Little errors bother me a lot.
8. People will probably think less of me if I make a mistake.

G. Personality Factors

1. Am the life of the party.
2. Feel comfortable around people.
3. Start conversations.
4. Talk to a lot of different people at parties.
5. Don't mind being the center of attention.
6. Don't talk a lot.
7. Keep in the background.
8. Have little to say.
9. Don't like to draw attention to myself.
10. Am quiet around strangers.
11. Am interested in people.
12. Sympathize with others' feelings.
13. Have a soft heart.
14. Take time out for others.
15. Feel others' emotions
16. Make people feel at ease.

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17. Am not really interested in others.
18. Insult people.
19. Am not interested in other people's problems.
20. Feel little concern for others
21. Am always prepared.
22. Pay attention to details
23. Get chores done right away.
24. Like order.
25. Follow a schedule.
26. Am exacting in my work.
27. Leave my belongings around.
28. Make a mess of things.
29. Often forget to put things back in their proper place.
30. Shirk my duties
31. Am relaxed most of the time.
32. Seldom feel blue.
33. Get stressed out easily.
34. Worry about things.
35. Am easily disturbed.
36. Get upset easily.
37. Change my mood a lot.
38. Have frequent mood swings.
39. Get irritated easily.
40. Often feel blue.
41. Have a rich vocabulary.
42. Have a vivid imagination.
43. Have excellent ideas.
44. Am quick to understand things.
45. Use difficult words.
46. Spend time reflecting on things.
47. Am full of ideas.
48. Have difficulty understanding abstract ideas
49. Am not interested in abstract ideas.
50. Do not have a good imagination.
51. Pay attention to details.
52. Complete tasks successfully.
53. Have an eye for detail.
54. Demand quality.
55. Set high standards for myself and others.
56. Make well-considered decisions.
57. Follow through on my commitments.
58. Detect mistakes.

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59. Think ahead.
60. Seldom notice details.
61. Put little time and effort into my work.
62. Don't pay attention.
63. Like to solve complex problems.
64. Ask questions that nobody else does.
65. Know the answers to many questions.
66. Challenge others' points of view.
67. Can easily link facts together.
68. Have difficulty understanding abstract ideas.
69. Avoid philosophical discussions.
70. Am not interested in theoretical discussions.
71. Consider myself an average person
72. Am not interested in speculating about things.
73. Take charge.
74. Have a strong personality.
75. Know how to captivate people.
76. See myself as a good leader.
77. Can talk others into doing things.
78. Am the first to act.
79. Do not have an assertive personality
80. Lack the talent for influencing people.
81. Wait for others to lead the way.
82. Hold back my opinions.

Thank you for taking part in this important research program.

If you would like to receive a soft copy of the final report when completed and be eligible to win an Apple iPod Nano, please provide your email address in the space below.

References for Validated Survey Instruments

D. JS = Job Satisfaction The "Overall" Job

Churchill, Gilbert, Ford Neil M., Walker Jr. Orville C. (1974). Measuring the Job Satisfaction of Industrial Salesmen. *Journal of Marketing Research*, 11, 254-260.

Authors report the range of alpha for the reduced scale items of .77 to .94.

E. Soc = Sociability / Social Skills

Reynolds, Kristy E. Beatty, Sharon E. (1999b), A relationship customer typology. JR,

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75 (4). pp. 509-523.

Reynolds and Beatty (1999b) reported an alpha of .82 (n=364) for the scale.

F. Perf = Perfectionism

Kopalle, Praveen K. Lehmann, Donald R. (2001). Strategic Management of of Expectations: The role of disconfirmation sensitivity and perfectionism. JMR, 38, (August). Pp.386-394.

Kopalle and Lehmann (2001) report an alpha of .88.

G. Personality Factors

<http://ipip.ori.org/newMultipleconstructs.htm>

Questions Key for Each Factor

Factor I (Surgency or Extraversion)

- 10-item scale (Alpha = .87)*
- + keyed Am the life of the party.
 Feel comfortable around people.
 Start conversations.
 Talk to a lot of different people at parties.
 Don't mind being the center of attention.
- keyed Don't talk a lot.
 Keep in the background.
 Have little to say.
 Don't like to draw attention to myself.
 Am quiet around strangers.

Factor II (Agreeableness)

- 10-item scale (Alpha = .82)*
- + keyed Am interested in people.
 Sympathize with others' feelings.

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Have a soft heart.
Take time out for others.
Feel others' emotions.
Make people feel at ease.

- keyed Am not really interested in others.
 Insult people.
 Am not interested in other people's problems.
 Feel little concern for others.

Factor III (Conscientiousness)

- + keyed *10-item scale (Alpha = .79)*
 Am always prepared.
 Pay attention to details.
 Get chores done right away.
 Like order.
 Follow a schedule.
 Am exacting in my work.

- keyed Leave my belongings around.
 Make a mess of things.
 Often forget to put things back in their proper place.
 Shirk my duties.

Factor IV (Emotional Stability)

- + keyed *10-item scale (Alpha = .86)*
 Am relaxed most of the time.
 Seldom feel blue.

- keyed Get stressed out easily.
 Worry about things.
 Am easily disturbed.
 Get upset easily.
 Change my mood a lot.

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Have frequent mood swings.
Get irritated easily.
Often feel blue.

Factor V (Intellect or Imagination)

- 10-item scale (Alpha = .84)*
- + keyed Have a rich vocabulary.
 Have a vivid imagination.
 Have excellent ideas.
 Am quick to understand things.
 Use difficult words.
 Spend time reflecting on things.
 Am full of ideas.
- keyed Have difficulty understanding abstract ideas.
 Am not interested in abstract ideas.
 Do not have a good imagination.

III+/V+ vs III-/V- (.78) ORGANIZATION

- + keyed Pay attention to details.
 Complete tasks successfully.
 Have an eye for detail.
 Demand quality.
 Set high standards for myself and others.
 Make well-considered decisions.
 Follow through on my commitments.
 Detect mistakes.
 Think ahead.
- keyed Seldom notice details.
 Put little time and effort into my work.
 Don't pay attention.

V+/II- vs V-/II+ (.81) CREATIVITY

- + keyed Like to solve complex problems.
 Ask questions that nobody else does.
 Know the answers to many questions.

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Challenge others' points of view.
Can easily link facts together.

- keyed Have difficulty understanding abstract ideas.
 Avoid philosophical discussions.
 Am not interested in theoretical discussions.
 Consider myself an average person.
 Am not interested in speculating about things.

Assertiveness

- + keyed 10-item scale (Alpha = .85)
 Take charge.
 Have a strong personality.
 Know how to captivate people.
 See myself as a good leader.
 Can talk others into doing things.
 Am the first to act.
- keyed Do not have an assertive personality.
 Lack the talent for influencing people.
 Wait for others to lead the way.
 Hold back my opinions.

Final Survey Distributed to Participants