Bryant University

HONORS THESIS

The Perceptions of Accounting: What Do You Think?

BY Brianna DaRin

ADVISOR • Charlie Cullinan

EDITORIAL REVIEWER • Dennis Bline

Submitted in partial fulfillment of the requirements for graduation
with honors in the Bryant University Honors Program

APRIL 2017

Table of Contents

Abstract 1
Introduction 2
Literature Review 3
  Introduction 3
  History & Background 4
  Review of the Literature 7
  Conclusion 15
Methodology 17
Results 20
Conclusion 36
Appendices 38
  Appendix A – (IRB Consent Form-Focus Groups) 38
  Appendix B – (Focus Group Questions) 40
  Appendix C – (IRB Proposal Form-Focus Groups) 41
  Appendix D – (IRB Approval Letter-Focus Groups) 46
  Appendix E – (Focus Group #1 Findings) 47
  Appendix F – (Focus Group #2 Findings) 50
  Appendix G – (Focus Group #3 Findings) 52
  Appendix H – (IRB Proposal Form-Survey) 55
  Appendix I – (IRB Approval Letter-Survey) 59
  Appendix J – (Survey) 60
References 65

ABSTRACT

Accounting is often considered "the language of business," but is sometimes perceived to be a difficult topic. This study seeks to get a deeper understanding as to why business students and other students perceive accounting to be such an intimidating subject. The ultimate research question addressed is: What are the perceptions of accounting among accounting students, non-accounting business students, and non-business students? A review of the relevant background literature led to two hypotheses that assist in answering the research question. Following the literature review and hypotheses development, a two-part process took place: (1) we conducted focus groups and (2) we solicited student perceptions through a survey. The survey's results were used to conduct factor analyses to help determine the underlying constructs related to the perceptions of accounting and accountants. Two analyses were conducted, one using all participants and the other using only students who have previously taken an accounting course. Overall, our results indicate that students who perceive accounting in a more positive light associate positive qualities with accounting and vice versa.

Keywords: Accounting, perceptions, factor analysis

INTRODUCTION

The purpose of this project is to get a deeper understanding as to why business students and other students perceive accounting to be such an intimidating subject. It is important to address this issue because many students may not consider accounting as a choice of study or career path due to their perceptions of accounting. Another goal of this thesis is to comprehend why the culture and climate of accounting is perceived differently by those not in this climate or culture (everyone but accounting majors and professionals.)

The ultimate research question being answered is: What are the perceptions of accounting among accounting students, non-accounting business students, and non-business students? The focus of this project is to answer the research question. To do this, a literature review was performed, which produced two hypotheses. The first hypothesis (H1) was that students' perceptions of accounting and accountants vary by major. Under H1, we produced two sub-hypotheses: (H1a) accounting students view accounting and accountants more favorably than non-accounting majors and (H1b) business students view accounting and accountants more favorably than non-business students. The second hypothesis (H2) developed was accounting students have lower math anxiety than other students.

Following the literature review and hypotheses development, a two-part process took place: (1) we conducted focus groups and (2) distributed a survey. The survey was created based on the conclusions drawn from the focus groups in addition to information discovered through the literature review. These two tools allow for the collection of data, analyzation of results, and discussion of these outcomes to determine whether the hypotheses will be supported or rejected. As business keeps advancing, are the accounting perceptions remaining the same or changing – this question is why the study is vital. This study is designed to educate individuals who have never given accounting a chance due to the negative reputation it has gotten in the past, as well as any student who has, or is, contemplating their career path in business.

LITERATURE REVIEW

Introduction

For Hire: Accountants, please.

As business moves in the direction of more technologically advanced industries and global competition, it is crucial for students to pursue work in business. Accountants will continue to play an essential role in organizations that want to succeed in the constantly changing business world.

The American Institute of Certified Public Accountants (AICPA) closely follows the trends that are taking place in accounting such as the demand for accountants in the U.S. as well as students studying accounting. In 2015, the AICPA published a trend report that helps individuals understand the supply and demand of accountants over the last decade. The general results indicate that the overall demand for accountants has increased. Furthermore, accounting enrollment in educational programs such as bachelor's and master's has increased significantly since the year 2000. One graph even indicates that from 2005 and on, there has been a relatively steady increase of bachelor's and master's degrees in accounting awarded to students. The growing number of students in accounting shows that there is a supply of accountants that exist in the United States. Fortunately, from 1971 until 2014, the total demand for accounting graduates (both bachelor's and master's) has also increased from 8,800 to 43,252. Also, the AICPA (2015) reports that "the overall growth for all new hires was 7%" by CPA firms since 2012. Additionally, the 2015 demand forecast indicated 91% of all firms believed that the number of accounting graduate hires would equal or be greater than previous years. The demand for accountants is high and will remain so for years to come. This is an opportunity for the accounting community to rebrand and re-envision how it would like to be perceived, and thus, improve the diversity of its membership. Effectively communicating what accounting is and what accounting study and employment entail will facilitate this goal. The health of the field relies on deconstructing "the accountant" stereotype.

Despite the increase in accounting graduates in the recent years, there are still negative perceptions that individuals have about accounting. Educating these individuals may bring even

more interest into the accounting field as well as reduce the undesirable perceptions about accounting. This is a topic of study that seems to have a promising future and therefore deserves to be discussed with students and educators of all backgrounds.

Examination of the Perceptions of Accounting: An accountant's account

As an accounting major myself, I find it discouraging when someone remarks that I will "be sitting ***behind*** a desk my entire life" or that I am "***just*** a person that happens to be good with numbers." Over the past few years studying at Bryant, I have had these comments made to me numerous times and it has lead me to want to study exactly why and who holds and perpetuates these perceptions. To examine these perceptions of accounting, I will include accounting students, non-accounting business students, and non-business students in my sample. A two-step process was employed: focus groups and a survey. Many researchers in this field, including the AICPA, have used these techniques to investigate negative perceptions. By using what scholars in this discipline have already published as a benchmark for my own study, I will construct a comparative analysis to better understand why students perceive accounting negatively.

History & Background

History: The evolution of accounting in the revolution of business

Archaeologists found bone labels with markings of counting materials dating 5,000 years ago. In the 15th century, the idea of double-entry bookkeeping was introduced by Luca Pacioli. Between the 15th and 19th century, accounting was mainly what is considered bookkeeping. The 19th century sparks the introduction of modern day accounting with accountants in Britain and Scotland performing audits on British investments. The 20th century is where the modernity of accounting began to take shape such as the creation of the Securities and Exchange Commission (SEC), the founding of the Financial Accounting Standards Board (FASB) and the establishment of the generally accepted accounting principles (GAAP) which are used in the United States. Furthermore, in the 21st century, regulation of accounting work and accountants has boomed due to scandals such as ENRON. The United States Congress passed laws such as the Sarbanes-Oxley Act of 2002 and the Dodd-Frank Act to ensure ethics in the field. The

evolution of accounting has revolutionized how businesses are run, but the negative perceptions of the subject remain constant over time.

Background Pioneers: The language of accountants and accounting in the context of perception

Albu, Albu, Girbina, and Sandu (2011) provided a "framework" of how the stereotypes of accounting have been studied. These researchers made a point that different groups of individuals, teachers, students, co-workers, etc. have all been studied regarding their perception of accounting but only few studies exist where they compare perceptions between and among groups. Albu, Albu, Girbina, and Sandu (2011) outlined methods conducted by various other researchers on their analysis of accounting perceptions from different viewpoints for comparative analysis. These include interviews with students, employees, and recruiters, movie characters' depictions, newspaper and magazine publications, student surveys, Big 4 recruiter literature, internet searches, and what is deemed "post-ENRON" literature. The results of their findings demonstrate that people perceive accountants to be "bad," "corrupt," "boring," "unexciting," "dull," "number-crunchers," and/or "stuffy." These are examples of the adjectives either described by individuals, written about, or portrayed in film. What is so powerful about this article is that these authors also found slightly positive perceptions in a few areas. These more positive perceptions included describing accounting people as "adventurous (young accountants)," "dreamers," "colorful," as well as "honest." Some of these adjectives contradict the overwhelming negative perception findings; it is important to note that the negative perceptions significantly outweigh any positive ones. A point made by Albu, Albu, Girbina, and Sandu (2011) reinforce that there still needs to be more studies to continue investigating the stereotypes and perceptions of accounting to fully comprehend **why** they exist. This study aims to add to this literature by focusing on three different college groups: accounting students, non-accounting business students, and non-business students.

Definitions

In this study, I will use the following definitions to discuss key accounting terms:

1. *Accounting* is defined as "the systematic and comprehensive recording of financial transactions pertaining to a business, and it also refers to the process of summarizing, analyzing and reporting these transactions to oversight agencies and tax collection entities" ("Accounting").
2. *Securities and Exchange Commission (SEC)* is "a government commission created by U.S. Congress with goals of protecting investors, maintaining fair and orderly functioning of securities markets, and facilitating capital formation" ("Securities And Exchange Commission – SEC").
3. *Financial Accounting Standards Board (FASB)* is "a seven-member independent board consisting of accounting professionals who establish and communicate standards of financial accounting and reporting in the United States" ("Financial Accounting Standards Board – FASB").
4. *Generally Accepted Accounting Principles (GAAP)* is "a common set of accounting principles, standards and procedures that companies must follow when they compile their financial statements" ("Generally Accepted Accounting Principles – GAAP").
5. *Sarbanes-Oxley Act of 2002* is often referred to as SOX and is "an act passed by U.S. Congress in 2002 to protect investors from the possibility of fraudulent accounting activities by corporations" ("Sarbanes-Oxley Act Of 2002 – SOX").

It is also important to note that there are several types of accounting that can be studied and although each has its own set of objectives, they all stem from the definition of accounting. The types of accounting are as follows:

6. *Financial accounting* is "the periodic reporting of a company's financial position and the results of operations to external parties through financial statements, which ordinarily include the balance sheet (statement of financial condition), income statement (the profit and loss statement, or P&L), and statement of cash flows" (Schneider, 2016).
7. *Management accounting* focuses on "the preparation and analysis of accounting information within the organization" (Schneider, 2016).
8. *Auditing* is "the examination and verification of company accounts and the firm's system of internal control" (Schneider, 2016). This can be broken down into internal and external auditing.

9. *Tax accounting* is "the application of Internal Revenue Service rules at the Federal level and state and city law for the payment of taxes at the local level" (Schneider, 2016).
10. *Fund accounting* is "used for nonprofit entities, including governments and not-for-profit corporations" (Schneider, 2016).
11. *Forensic accounting* is "the use of accounting in legal matters, including litigation support, investigation and dispute resolution" (Schneider, 2016). Some examples are bankruptcy and fraud.

Review of the Literature

Perceptions of Accounting: To be or not to be?

It is important to note that some studies find both positive and negative perceptions, however the negative perceptions tend to outweigh the positive ones.

Negative Perceptions

Miley and Read (2015) and Howlett (2013) both focus on the stereotypes of accounting, yet they hold different views of these stereotypes. Miley and Read (2015) found that recruiters advertise an accountant as an "ambitious person who seeks an exciting and rewarding career." - However, others believe accountants to be "dull and boring" as well as not having very good social skills. Furthermore, these researchers used "commedia dell' arte" which is a 15th century Italian form of improvisational theater to get a deeper understanding of stereotypes. Through this strategy, Miley and Read (2015) discovered that there is a benefit to "maintaining" the stereotype of accountants in place. They claim that it would not help the profession to try to change this stereotype stating that "the stereotype allows the accounting profession to maintain its exclusivity and accountants hide their power". Miley and Read (2015) conclude that there are negative perceptions about accounting, but it should remain that way. On the contrary, Howlett (2013) analyzes two articles discussing how accountants are perceived by others through their communication skills. Specifically, Howlett (2013) disagrees with the idea that accounting people do not make great sales people by stating "some of the best sales people I've met are senior partners in small firms who have served 30 plus years". He talks about his disappointment that people of today still believe what he considers to be the past stereotypes of accounting. Miley and Read (2015) and Howlett (2013) acknowledge that these negative

perceptions of accounting still exist in today's world; however, one position about the accounting stereotype is that it should remain and the other is that it should be abolished.

Geiger and Ogilby (2000), Hunt, Falgiani and Intrieri (2004), Tan and Laswad (2006) Wells (2009) as well as Steenkamp (2009) all performed studies in relation to perceptions of accounting and used some sort of survey method to produce their findings and analyze their results. Each study used qualitative data and produced quantitative data.

Geiger and Ogilby (2000) conducted a study using 331 participants (both accounting and non-accounting majors) and two different schools. The focus of the study was students' perceptions of accounting and how they change over the time during their first course in accounting. To measure this, the researchers distributed a questionnaire at the beginning of the course as well as at the end of the course. The initial questionnaire included 11 "perception items": courses, career, rewarding, time, look/enjoy, difficulty, boring, motivated, expectation of learning, instructor, and expected grade. Geiger and Ogilby (2000) claim that "with the exception of instructor analysis, students did generally change their perceptions over the semester". Overall, Geiger and Ogilby (2000) found that accounting majors perceived the course more positively than non-accounting majors. Geiger and Ogilby (2000) reinforce the idea of the introductory professor playing a significant role in the students' perceptions as well as interactions with accounting, in this case finding increased indication of boredom with the course over the semester as well as individual instructor changed perceptions.

Hunt, Falgiani, and Intrieri (2004) also had their participants take a survey which included collecting demographic information such as major and class as well as using a 7-point scale on what terms may be used to describe an accountant. The 7-point scale asked participants to rate 58 characteristics, such as "describe his or her impression of accountants at the time that he or she decided on a major" (Hunt, Falgiani, & Intrieri, 2004). The influences of these students' perceptions stemmed from movies, television, and accounting courses versus actually meeting accountants or having a current relationship with an accountant. Hunt, Falgiani and Intrieri (2004) reached the overall conclusion that "non-accounting business students and nonbusiness

students held considerably less positive views of accountants than did accounting majors" (Hunt, Falgiani, & Intrieri, 2004). These perceptions develop from the stereotypes that already exist out there in the world about accounting such as media. This study supports my first hypothesis, however it was conducted over ten years ago. This does not make the study irrelevant however the results may change today.

Tan and Laswad (2006) arranged a study at a University in New Zealand featuring only business students only taking an introductory accounting course. The study's main focus was to understand what impacts a student when they are deciding their major: accounting versus other business majors. The researchers used a survey to collect data and concluded that three factors (personal, referents [parents especially], and control) help determine a student's choice of major. Similar to Geiger and Ogilby (2000), the study emphasized how a student's first accounting course plays a material role regarding their perception of accounting. The idea of introductory classes and professors of accounting seems to be a pattern in deciding whether or not to major in accounting, in turn developing negative perceptions of the subject/profession. Furthermore, Tan and Laswad (2006) state that accounting majors and non-accounting majors hold different personal perceptions of accounting (accounting students favoring the subject versus non-accounting students). This coincides with Hunt, Falgiani and Intrieri (2004) who concluded that there are still negative perceptions about accounting among non-accounting individuals.

Wells (2009) conducted a study with a purpose to "understand how accountants are perceived and to consider how negative and inaccurate perceptions may be changed". Wells (2009) initiated the study with focus groups and interviews and then conducted a survey. The questionnaire that Wells (2009) distributed to his participants included a 5-point scale with 36 questions pairs of words that should be considered opposites. The data collected came from four different groups: "general public, users of accounting services, young people making career decisions, and accountants themselves" (Wells, 2009). Wells' (2009) study confirms that there are negative perceptions/stereotypes that exist among the human population. Wells (2009) explains that people tend to get information on a "need-to-know basis" and when a person does

not need to know something, generalization takes place. Just like the other researchers discussed thus far, Wells (2009) used the study to affirm that these negative perceptions have yet to go away. It is also important to discuss how the Wells (2009) study incorporates all different individuals when many of these researchers focused on students only. Steenkamp (2009) organized a study to examine if students' perceptions of accounting differ depending on gender, home language, or ethical differences. These results indicated that students perceive accountants to be "structured, precise and solitary individuals" (Wells, 2009). Additionally, significant findings showed differences of perceptions of accounting between ethnic groups. The participants in the study were newly-enrolled students as well as students who have completed one, two, and three years schooling.

Steenkamp (2009) applied a survey method containing a 5-point scale with "36 opposing descriptors on the basis of their perceptions of an accountant" (Steenkamp, 2009). The 36 descriptors were broken down into four factors: structured, precise, solitary/independent, and interesting. The conclusions of this study are that the typical view of accountants remains "structured, precise and solitary and less interesting" as well as confirms that the typical stereotypes of accounting/accountants still exist (Steenkamp, 2009). Steenkamp (2009) used a survey similar to the one that Wells (2009) administered. The pattern here is using opposite words and a 5-point scale to get a better understanding of a person's perception of accounting. Among all researchers discussed, it is evident that many students and other individuals believe in the stereotypes of accountants which influence their negative perceptions of accounting.

Positive Perceptions

Hunt, Falgiani and Intrieri (2004) claim that students viewed accountants' professionalism positively from their findings (see above for details on their study).

Nga and Mun (2013) administered a questionnaire to 279 undergraduate business students in Malaysia. Nga and Mun (2013) concentrated on three factors: leadership, professionalism, and ethical values. In addition, a fourth factor, drivers of change, was examined. This idea that accountants are "drivers of change" within in an organization has not been discussed in the

research concentrating on perceptions, specifically negative ones. The results of this study determined that "students perceive accountants positively in leadership, professionalism, and ethical values" (Nga and Mun, 2013). Despite these results, only leadership and professionalism gave a high influence on accountants being drivers of change whereas ethical values had a negative relationship in this aspect. The studies that Hunt, Falgiani and Intrieri (2004) and Nga and Mun (2013) mention the positive perception students have about accountants and their professionalism in the workplace.

Connecting Psychological Characteristics/Aspects of Accounting and Accountants with the Stereotypes and Negative Perceptions

DeCoster and Rhode (1971) compiled a comparative literature review and concluded that most individuals'' attitudes toward certified public accountants (CPAs) are negative. The article touches on how a psychologist, Abraham Maslow, describes accountants: "obsessional, interested in small details, tradition-bound, and noncreative" (DeCoster and Rhode, 1971). The California Psychological Inventory (CPI) was distributed to 56 employees and partners of the eight (at the time) largest accounting firms in Seattle, Washington. The participants filled out a background form and CPI which was comprised of 480 items. The analysis of the participants was broken down even further into multiple comparison groups such as managers/partners, seniors/partners, etc. The findings of this study showed that "CPA firm employees possessed higher personality profiles when compared to samples of salesmen, bank managers, business executives, city school superintendents, architects and military officers-partially denying the validity of the accountant's stereotype as dull, wary, cold, and aloof" (DeCoster and Rhode, 1971). DeCoster and Rhode (1971) define higher personality profiles as scoring higher on sociability, self-acceptance, socialization, self-control, good impression, as well as psychological-mindedness and flexibility scales than other groups the CPA employees were compared to. In summary, the article and researchers believe that the accountant's typical stereotype "may not only be unwarranted, it may also be inappropriate" (DeCoster and Rhode, 1971). The value of this article is in that in 1971, CPA firm employees felt that they have positive attributes, despite the negative perceptions outsiders have. The results of the CPI prove that to be true; it may vary between levels in the company, but overall supported the argument that the accountant stereotype is undeserved. The article also makes it a point to say that the

stereotype may or may not be accurate for the bookkeepers in the accounting industry but not for CPAs (DeCoster and Rhode, 1971).

Learning Styles and Classroom Environment

Opdecam, Everaert, Keer, and Buysschaert (2014) managed a study whose goal was to determine how effective learning preferences are among 291 accounting students in their first year. The participants had the choice to choose between two learning styles: team-learning or lecture-based and from there the professors taught to that method. The researchers discovered that "students with a preference for team learning had a lower ability level, were more intrinsically motivated, had less control of their learning beliefs, were more help seeking, and were more willing to share their knowledge with peers" (Opdecam, Everaert, Keer, & Buysschaert, 2014). The study also claims that a team learning approach is a strong learning technique for students in their first year of classes. When these students were in an introductory course in accounting and learned using their preferred method, they succeeded in the course. This study is one of many that proves to diminish the accounting work to being limited to independence, little communication, and not much social interaction involved. This study also addresses the importance of introductory courses and the way they are presented which has been a common theme throughout this literature review.

Pringle, Dubose, and Yankey (2010) performed a study of 899 sophomore students majoring in business administration fields at a medium sized university in the U.S. The methodology used was a web-based survey focusing on five different characteristics: achievement motivation, conformity, conscientiousness, creativity and extroversion. Each characteristic was measured with either a three-item, five-item, or seven-item scale. Additionally, the responses collected were either on a six-point scale from "disagree strongly" to "strongly agree" or "very unimportant" to "very important" (Pringle, Dubose, & Yankey, 2010). The researchers discuss that their findings coincide with the idea that students choose their majors based on their personalities (i.e. marketing majors are extroverted and accountants are conformists). Thus, this source confirms the idea that the stereotype of accounting such as conformity still exists. Pringle, Dubose, and Yankey (2010) also bring up the idea that these stereotypes are outmoded

and students need to overcome these stereotypes. DeCoster and Rhode (1971) make a very similar case and that was almost 40 years earlier than Pringle, Dubose, and Yankey (2010) and their findings.

Russo, Mertins, and Ray (2013) investigated the question of "whether students with certain personality characteristics do better than others in a managerial accounting course." The methodology used in this study was a KTS-II instrument as well as ten questions consisting of demographic and academic questions. The participants in the study included 109 undergraduate students in five different classes. The findings indicated that students who possessed non-guardian and intuitive personality traits succeeded in the class more than individuals who have guardian and sensing types. Russo, Mertins, and Ray (2013) describe sensing types as individuals who "tend to organize input sequentially and prefer detailed instructions with concrete information." On the other hand, people who are more intuitive types "start with a view of broad concepts seeing patterns, connections, and trends organizing them as a more workable general framework… and may dislike detailed oriented activities" (Russo, Mertins, & Ray 2013). The researchers focused on how important it is for accounting professors to address the needs of those who have guardian and sensing types more when teaching a managerial course. Also, Russo, Mertins, and Ray (2013) argue that financial and managerial courses have differences in the way each subject should be taught. Geiger and Ogilby (2000) as well as Tan and Laswad (2006) say that how a professor teaches is important in a first year accounting course. Although Russo, Mertins and Ray (2013) do not directly state that claim, the ideas are very similar and relate to one another in that teaching styles do impact a student in the course and possibly the student's perceptions.

Accounting's Important Role in Business

Britt (2013) addressed how to "break[ing] the boring accounting stereotype". However, he does it differently than other researchers; he focuses on the demand of accountants since Sarbanes-Oxley Act of 2002 (SOX) as well as their vitality to a business. Britt (2013) uses a quote from Jeannie Patton, vice president of Students, Academics and Membership for the American Institute of CPAs (AICPA) that states "accounting is the language of business, so it makes a

great entrée into a variety of career options." This quote is one example of how Britt (2013) is trying to break this negative stereotype of accounting; he is trying to prove that accounting is not just needed, but highly valued and much more than just number-crunching.

Burger (2008) wrote an article that emphasizes forgetting the accounting stereotype. The article discusses the common ideas of accountants such as the "pencil-pusher" which is a common theme throughout much of this literature. Burger (2008) also refers to the AICPA's projected employment numbers in 2003-2007 and how they demonstrate that the demand for accountants has increased as well as the graduates. Burger (2008) discusses the demand for accountants after SOX was formed. These ideas agree with Britt (2013) and his arguments. Burger also uses quotes from accounting professionals to drive home his argument. For example, Wade Becker, a partner at Beard, Miller Co. stated "Accounting is the language of business…a lot of people think it's just numbers, but it's really a lot more than that. There are a lot of areas outside of numbers that need to be looked at, processes and procedures, what the tone of the company is" (Burger, 2008). This is the second time the idea that accounting is the "language of business" has been discussed in this literature. This term has been used for years; these are examples of how accounting has not deviated from that definition. To steer people away from their negative perceptions about accounting, individuals have to understand how important accounting is as well as the many roles it plays (not just crunching numbers).

Math Apprehension/Anxiety and Accounting

Meixner, Bline, Lowe, and Nouri (2009) conducted a study focusing on four research questions. These questions, each structured differently, all focus on investigating a contributor to perception at the level of math, writing, and oral communication skills required for accounting. The participants in the study consisted of 800 sophomores majoring in business taking principles of accounting classes in the United States. The methodology included distributing a survey at the beginning of the semester to reduce any influence the accounting course could have had on students. The results indicate that "the perception of skills required to be an accounting major by students in other business majors (more math and less communication) is different from the perception of accounting majors. On the other hand, accounting majors'

perceptions of the skills needed to be in an alternative business major is generally similar to the perception of students in the respective major" (Meixner, Bline, Lowe, and Nouri, 2009). The takeaway from these findings is that accounting students understand that accounting does require a high level of communication skills in addition to having math skills while other business majors may not be aware of how demanding communication skills are in the field. These findings support many other researchers' - claims that accounting/accountants are stereotyped as not social individuals or independent or such that the subject/job requires much more math than communication.

This is an area that requires further study. While studies exist to discuss math anxiety OR accounting anxiety, the literature reflects limited research on apprehension of math in relation to accounting.

Conclusion

Most researchers shared some form of the following idea: accounting and accountants are negatively perceived and/or stereotyped in society. A few of the studies reviewed found slightly positive perceptions, but nothing substantial enough to outweigh the negativity towards accounting. Most studies employed surveys using 3-item, 5-item, or 7-item scales to obtain a better understanding of participants' thoughts. Strategies in the methodology include using opposite words to generate honest perceptions as well as studying psychological traits in students taking accounting courses. Other studies concentrated on first year students and their performance in accounting classes in addition to understanding if there are any particular influences that turn students away from accounting such as a professor or stereotypes. Many scholars also indicated that more research has to be done with various groups of individuals and in different regions all around the world to generate an even more concrete understanding of why these perceptions exist.

The purpose of this research thesis and study is to update as well as extend the literature that already exists. As stated in the introduction, we live in a world where business is constantly changing and may be one day the perception of accountants and accounting will change too. If

this study brings the topic to students', professors', and other educators' attention along with other literature that exists out there, maybe the stereotype of accounting can be broken. There is a chance that students do not even give this field of study a try due to the stereotypes and negative perceptions that exist. Through this literature review, it is evident that students studying accounting and accountants share commonalities but these characteristics do not and

METHODOLOGY

The traditional research thesis method was selected as fitting to this study. This process requires a literature review, producing hypotheses, and then testing those hypotheses. In addition to performing research and producing a literature review, a two-step methodology was utilized: (1) focus groups and (2) survey. These two forms of data collection are the backbone to the results as well as the conclusions drawn from this study.

The literature review was executed by using online databases to find scholarly sources that addressed topics relative to the perceptions of accounting. The literature found ranged from the 1970s until early 2010s; many of these articles used the traditional research thesis method because it typically provided effective results. The literature review also demonstrated that communicating with individuals through focus groups or using a survey is an effective way to obtain desired information.

Three focus groups were organized and held in order to get a better understanding of how accounting students, non-accounting business students, and non-business students perceive accounting. Each focus group aimed to have between six to ten participants and were divided by the student's major. Focus Group 1 was for accounting majors only. Focus Group 2 was for all other business majors *besides* accounting. Focus Group 3 was for non-business students (liberal arts majors). All participants were asked to complete a consent form to ensure confidentiality (refer to Appendix A). Additionally, everyone who contributed was asked the same exact questions about their perceptions of accounting and demographic information (refer to Appendix B).

The Institutional Review Board (IRB) at Bryant University requires a form to be completed before any type of experiment to ensure the participant's safety during this project. (Appendix C). Once we received the approval, we were able to conduct the focus groups (refer to Appendix D). In order to increase participation, an incentive of pizza and water was provided to all involved. Students who participated in the focus group presented a variety of perspectives and insights about their perceptions of accounting, accountants, required skills, and personality

traits associated with the field of accounting. These answers (refer to Appendix E) assisted in compiling information that will be used for step 2, the survey.

The second part of this process is the creation and distribution of the survey. The survey's content was based on the results of the focus groups as well as the literature review. The same IRB process used for the focus groups was followed before the administration of the surveys; the form was completed and approved (refer to Appendices H and I). The survey is comprised of seven sections: consent form, accounting adjectives, accountant adjectives, accounting field skills, math anxiety, accounting class experience, and demographics. The first section is to ensure the individual's consent to participate in the study. The next five sections aim to focus on a different topic in regards to the participants' perceptions of accounting. The first section of the five asked participants to state their level of agreement with ten adjectives describing what accounting is. These adjectives included positive connotations such as fun and enjoyable as well as negative connotations such as uninteresting and boring. The second section is similar to the first except that instead of focusing on accounting, it inquired about accountants. Positive and negative words were both used again; examples are intelligent and friendly as well as conservative and dull. The third section targeted the participants' perceptions of required skills necessary to perform in the accounting field such as elementary math, critical thinking, and presentation skills. The fourth section asks a series of questions about the students' past math class experiences. These nine questions serve to demonstrate if the individual possesses math anxiety or not. The final section of the five focuses on the participants' prior accounting course experience if he/she had any. The last section is demographics such as gender, age, major, and GPA to determine if there are any relationships between different groups of people and their perceptions of accounting.

The survey structure used techniques such as a 7 point Likert Scale and semantic differential. Students who partook in the survey were asked to choose their level of agreement (strongly disagree – strongly agree). Additionally, words that are considered opposites were used in questions to determine the student's opinion about the matter. These types of questions were

used in order to measure the participant's attitude as well as perceptions of accounting, accountants, and the skills and traits associated with accounting.

Before the survey distribution to all Bryant students, a pilot test of the survey was completed. The survey was administered to an accounting graduate course at Bryant; the students were asked to critique the survey, not complete it. All critiques were taken into consideration and adjustments were made to compose the final copy of the survey (refer to Appendix J).Once the survey was finalized and ready for distribution, it was sent out in a variety of ways to the Bryant student body. The survey was administered online primarily through e-mailing students; no paper surveys were used.

Approximately 140 undergraduate students at Bryant University completed the survey. Upon the achievement of data collection, the data was transferred into Excel to be exported to a statistical analysis software. For this study, the statistical analysis program selected to perform tests is called SAS. A multivariate analysis was performed, specifically factor and regression analyses. This type of analysis was chosen due to its ability to examine relationships between different variables for complex theories (i.e. perceptions of accounting). The factor analysis allows for multiple variables to be compacted into a few understandable factors. For the clearest results from the data, we chose to utilize the orthogonal technique. The other analysis performed was regression analysis. Once the factors were produced, running the regression analysis multiple times allowed us to estimate relationships among different variables. These two forms of analysis allowed us to determine if the three hypotheses were supported or rejected. The methodology for this study followed a very structured format from focus groups and ending with the data analysis. The purpose of this design is to provide clear and meaningful results.

RESULTS

Perceptions of Accounting

On the survey administered, question one asked participants to agree or disagree with the following adjectives that can describe accounting: fun, boring, organized, secure, uninteresting, time consuming, demanding, repetitive, reliable, and enjoyable. When we performed the factor analysis, three factor loadings (dependent variables) were created and are displayed in Table 1.

Rotated Factor Pattern			
	Factor1	**Factor2**	**Factor3**
Fun	**0.8961**	0.1338	0.0414
Boring	**-0.7826**	-0.0861	-0.0662
Organized	0.0904	**0.7760**	0.1116
Secure	0.0890	**0.8506**	-0.0024
Uninteresting	**-0.7539**	-0.0977	-0.0113
Time consuming	-0.0843	0.0197	**0.9054**
Demanding	0.1301	0.2375	**0.8434**
Repetitive	-0.4763	0.3764	0.3557
Reliable	0.1777	**0.7503**	0.1963
Enjoyable	**0.8685**	0.1547	-0.0661

Table 1

Under factor 1, fun and enjoyable loaded in addition to boring and uninteresting which reverse loaded. These four adjectives make up factor 1 which we decided to call “pleasant.” Factor 1 is named pleasant because it tests the participants’ perceptions of whether accounting is pleasant. Factor 2 consists of three adjectives that loaded: organized, secure, and reliable. We chose to use the term “competent” as the name of factor 2 as these three adjectives can define the level of competency participants’ perceived accounting to have. Time consuming and demanding are the two adjectives that loaded onto factor 3. “Time” is the name of factor 3 because these two adjectives are referring to time length that individuals perceive accounting to be. Once the adjectives loaded onto factors and names were established, multiple regression analyses were performed. For each dependent variable under the regression analysis, the following independent variables were tested: the participant’s major, GPA, gender, taken an accounting

course or not, class year, and level of math anxiety. For the perceptions of accounting results, 139 participants' responses were included.

Under the pleasant construct are the adjectives fun, boring, uninteresting, and unenjoyable and below is the regression analysis results:

Dependent Variable: Combined Factor Score for Pleasant

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	7	54.0070	7.7153	12.02	<.0001
Error	131	84.0978	0.6420		
Corrected Total	138	138.1047			

R-Square	Coeff Var	Root MSE	fun Mean
0.3911	-44991.69	0.8012	-0.0018

Parameter	Estimate	Standard Error	t Value	Pr > |t|
Intercept	0.5217	0.4940	1.06	0.2929
Accounting	1.2712	0.2027	6.27	**<.0001**
Business	0.1703	0.1797	0.95	0.3452
GPA	-0.0057	0.0709	-0.08	0.9364
Gender	0.0722	0.1463	0.49	0.6227
Accounting Course	-0.2164	0.2157	-1	0.3175
Class Year	-0.2180	0.0750	-2.91	**0.0043**
Math Anxiety	-0.0108	0.0077	-1.42	0.159

Table 2

Table 2 indicates that 39.11% of variation in responses are due to the participants' responses to the predictive variables. Additionally, we found that accounting majors perceive accounting to be pleasant more than other majors ($p < .01$). This finding directly correlates to H1, H1a, and H1b. Another highly significant finding is that the higher the student's class year, the less pleasant the student perceives accounting to be ($p < .01$). There were no significant findings about how students perceive accounting to be pleasant and their gender, GPA, math anxiety level, and whether or not he/she has taken an accounting course.

The second construct that was formed is competent and consists of the following adjectives: organized, stable, and reliable (Table 3).

Dependent Variable: Combined Factor Score for Competent

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	7	5.6235	0.8034	0.81	0.5777
Error	131	129.3874	0.9877		
Corrected Total	138	135.0110			

R-Square	Coeff Var	Root MSE	competent Mean
0.0417	-4652.705	0.9938	-0.0214

Parameter	Estimate	Standard Error	t Value	Pr > |t|
Intercept	-0.6234	0.6128	-1.02	0.3109
Accounting	0.1103	0.2515	0.44	0.6615
Business	0.1575	0.2229	0.71	0.4811
GPA	-0.0521	0.0880	-0.59	0.5549
Gender	0.1814	0.1815	1	0.3195
Accounting Course	0.2543	0.2676	0.95	0.3436
Class Year	0.1119	0.0930	1.2	0.2311
Math Anxiety	-0.0163	0.0095	-1.72	**0.0875**

Table 3

Under this dependent variable, there were no significant findings, however there was one marginally significant result. We discovered that the less math anxiety a student feels, the more competent he or she perceives accounting to be ($p < .10$). This result is related to H2.

The last construct, time, is composed of the adjectives time consuming and demanding. Table 4 demonstrates two significant conclusions. Students with lower GPAs as well as females are more likely to perceive accounting to be more time consuming and demanding ($p = < .05$).

Dependent Variable: Combined Factor Score for Time

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	7	16.1466	2.3067	2.48	0.0203
Error	131	122.0452	0.9316		
Corrected Total	138	138.1918			

R-Square	Coeff Var	Root MSE	time Mean
0.1168	-4540.9	0.9652	-0.0213

Parameter	Estimate	Standard Error	t Value	Pr > |t|
Intercept	-1.1953	0.5951	-2.01	0.0466
Accounting	-0.0634	0.2442	-0.26	0.7956
Business	-0.0860	0.2165	-0.4	0.6918
GPA	0.2227	0.0854	2.61	**0.0102**
Gender	0.4203	0.1763	2.38	**0.0186**
Accounting Course	0.0052	0.2598	0.02	0.984
Class Year	0.1236	0.0904	1.37	0.1737
Math Anxiety	-0.0118	0.0092	-1.27	0.2046

Table 4

Perceptions of Accountants

The second question of the survey focused on the respondents' perception of accountants. The adjectives that participants' rated their level of agreement to characterize accountants are: intelligent, boring, friendly, detail-oriented, conservative, shy, adventurous, outgoing, professional, and dull. When the factor analysis was run, three factor loadings were generated (Table 5).

Rotated Factor Pattern			
	Factor1	**Factor2**	**Factor3**
Intelligent	**0.7390**	-0.2264	0.1511
Boring	-0.0941	**0.8087**	-0.1738
Friendly	0.3888	-0.2991	0.4739
Detail-oriented	**0.8209**	0.0295	0.0589
Conservative	**0.6154**	0.3586	-0.0669
Shy	0.1316	**0.7189**	-0.1586
Adventurous	0.0469	-0.1157	**0.9017**
Outgoing	0.0933	-0.2070	**0.9033**
Professional	**0.7567**	-0.1852	0.1595
Dull	-0.2218	**0.7866**	-0.1345

Table 5

Four adjectives loaded onto factor 1: intelligent, detail-oriented, conservative, and professional. For factor 2, boring, shy, and dull loaded onto the factor. The third factor has two adjectives, adventurous and outgoing. Based on commonalities in the underlying construct, we decided to call factor 1 "positive demeanor", factor 2 "tedious", and factor 3 "bold." The adjectives that

loaded onto the factors directly correlate to the names of the factors. Following the factor analysis, a regression analysis was executed. The same independent variables as the perceptions of accounting were tested: the participant's major, GPA, gender, whether they had taken an accounting course or not, class year, and level of math anxiety. We also added the three factors, pleasant, competent, and time, as supplementary predictive variables. The purpose of this was to discern if participants' perceptions of accounting influenced their perceptions of accountants. A total of 133 responses were counted in this analysis.

The first construct, positive demeanor, is made up of the subsequent adjectives: intelligent, detail-oriented, conservative, and professional. It is important to note that the R-square of 39.30% represents the variation in the participants' responses to the independent variables (Table 6).

Dependent Variable: Combined Factor Score for Positive Demeanor

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	10	50.5218	5.0522	7.9	<.0001
Error	122	78.0409	0.6397		
Corrected Total	132	128.5627			

R-Square	Coeff Var	Root MSE	demeanor Mean
0.392974	-1278.136	0.7998	-0.0626

Parameter	Estimate	Standard Error	t Value	Pr > |t|
Intercept	-0.5427	0.5141	-1.06	0.2933
Accounting	0.1939	0.2334	0.83	0.4076
Business	-0.1503	0.1815	-0.83	0.4093
GPA	-0.1480	0.0766	-1.93	**0.0558**
Gender	0.1703	0.1525	1.12	0.2661
Accounting Course	0.2053	0.2234	0.92	0.36
Class Year	0.0859	0.0795	1.08	0.282
Pleasant	0.0732	0.0881	0.83	0.4077
Competent	0.5104	0.0716	7.13	**<.0001**
Time	0.2306	0.0742	3.11	**0.0024**
Math Anxiety	0.0023	0.0079	0.28	0.7767

Table 6

Table 6 displays three major findings, two that are highly significant and one that is marginally significant. First, it was discovered that if the student perceives accountants to have a positive demeanor then the student perceives accounting as competent (p = <.01). Another finding is that if the student perceives accountants to have a positive demeanor then the student perceives accounting as time consuming (p = <.01). Lastly, the analysis revealed that students with higher GPAs perceive accountants to demonstrate a positive demeanor (p = <.10).

For the second dependent variable, tedious, there were three adjectives that loaded onto the factor: boring, shy, and dull. Under this particular analysis, there was only one highly significant finding that students who perceive accounting as less pleasant believe accountants are tedious (p = <.01). No other independent variables proved to have significant results (Table 7).

Dependent Variable: Combined Factor Score for Tedious

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	10	31.2342	3.1234	3.9	0.0001
Error	122	97.7279	0.8010		
Corrected Total	132	128.9620			

R-Square	Coeff Var	Root MSE	unfavorable Mean
0.2422	-7201.57	0.8950	-0.0124

Parameter	Estimate	Standard Error	t Value	Pr > |t|
Intercept	-0.2036	0.5753	-0.35	0.724
Accounting	-0.2212	0.2612	-0.85	0.3988
Business	0.2659	0.2032	1.31	0.193
GPA	0.0452	0.0857	0.53	0.5994
Gender	0.0468	0.1706	0.27	0.7845
Accounting Course	0.0813	0.2500	0.33	0.7455
Class Year	0.0046	0.0889	0.05	0.9592
Pleasant	-0.3545	0.0986	-3.6	**0.0005**
Competent	-0.1265	0.0801	-1.58	0.1168
Time	0.0246	0.0831	0.3	0.7679

Math Anxiety	-0.0082	0.0089	-0.92	0.3585

Table 7

The third and final construct is named bold and is comprised of outgoing and adventurous. Table 8 provides data that demonstrates highly significant and significant findings.

Dependent Variable: Combined Factor Score for Bold

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	10	31.3748	3.1375	3.8	0.0002
Error	122	100.6199	0.8248		
Corrected Total	132	131.9946			

R-Square	Coeff Var	Root MSE	favorable Mean
0.2377	33178.73	0.9082	0.0027

Parameter	Estimate	Standard Error	t Value	Pr > |t|
Intercept	0.4038	0.5838	0.69	0.4904
Accounting	-0.3479	0.2650	-1.31	0.1918
Business	-0.1062	0.2061	-0.52	0.6073
GPA	0.2271	0.0870	2.61	**0.0102**
Gender	-0.4006	0.1731	-2.31	**0.0223**
Accounting Course	-0.0100	0.2537	-0.04	0.9687
Class Year	0.0328	0.0903	0.36	0.717
Pleasant	0.3381	0.1001	3.38	**0.001**
Competent	-0.1302	0.0813	-1.6	0.1117
Time	0.1876	0.0843	2.22	**0.0279**
Math Anxiety	-0.0050	0.0090	-0.55	0.5828

Table 8

We found that if the respondent perceives accounting to be more plesasant than the respondent perceives accountants to be more bold (p = <.01). This relationship is highly significant. Another result is that students with lower GPAs perceive accountants to be bold (p = <.05). Furthermore, we found that females perceive accountants to be more bold than males (p = <.05). The last significant conclusion to be made from this dataset proved to be very interesting. Participants who perceive accounting to be time consuming and demanding perceive accountants to be more bold (p = <.05).

Perceptions of Required Skills

Question three of the survey asks participants their perceptions of what skills are required in the accounting field. The skills that were queried were elementary math, college level math, problem-solving, critical thinking, communication, presentation, information technology, and writing. For this factor analysis, only two factor loadings developed from the data set (Table 9).

Rotated Factor Pattern		
	Factor1	**Factor2**
Elementary math	**0.1576**	0.6680
College level math	**-0.0695**	0.8475
Problem-Solving	**0.5134**	0.6502
Critical Thinking	0.6192	**0.4783**
Communication	0.8306	**0.1344**
Presentation	0.8837	**0.0431**
Information Technology	0.6946	**0.2728**
Writing	0.8307	**0.0416**

Table 9

The first three skills loaded onto factor 1: elementary math, college level math (reverse loading), and problem-solving. We chose to name factor 1 “math skills.” This is because the three skills that loaded onto the factor share commonalities that define the underlying construct as math needs. Five skills loaded onto factor 2: critical thinking, communication, presentation, information technology, and writing. We selected the term “class skills” for factor 2. We believe that the meanings behind these five skills define what is necessary to succeed in a classroom environment including accounting. For this analysis, 142 responses were for used due to missing responses.

The first dependent variable generated from the factor analysis is called math needs and included the following skills: elementary level math, college level math, and problem-solving. Under this construct, we found no significant results and therefore can conclude that these skills have no real impact on perceptions of accounting and other predictive variables (Table 10).

Dependent Variable: Combined Factor Score for Math Needs

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	6	6.5304	1.0884	1.06	0.3891
Error	135	138.4631	1.0257		
Corrected Total	141	144.9935			

R-Square	Coeff Var	Root MSE	mathneeds Mean
0.045039	-17654.8	1.0127	-0.0057

Parameter	Estimate	Standard Error	t Value	Pr > |t|
Intercept	-0.4492	0.6155	-0.73	0.4668
Accounting	0.0024	0.2463	0.01	0.9921
Business	0.2904	0.2270	1.28	0.203
GPA	0.0668	0.0840	0.8	0.4278
Gender	-0.1041	0.1791	-0.58	0.5622
Accounting Course	0.3100	0.2630	1.18	0.2406
Class Year	-0.0105	0.0897	-0.12	0.9073

Table 10

The second dependent variable, called class skills, is made up of critical thinking, communication, presentation, information technology, and writing. Although there were no highly significant or significant findings, there were two marginally significant findings we present. The first conclusion is that accounting majors perceive that class skills are required in accounting more than other majors (p = < .10). We also established that students who are more educated (higher years in school than others) believe class skills are required for accounting (p = <.10). All other predictive variables proved to have no significant results (Table 11).

Dependent Variable: Combined Factor Score for Class Skills

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	6	9.9017	1.6503	1.76	0.1111
Error	135	126.2855	0.9354		
Corrected Total	141	136.1872			

R-Square	Coeff Var	Root MSE	classskills Mean
0.0727	4158.42	0.9672	0.0233

Parameter	Estimate	Standard Error	t Value	Pr > |t|
Intercept	-0.8550	0.5878	-1.45	0.1481
Accounting	0.3981	0.2352	1.69	**0.0928**
Business	-0.0460	0.2168	-0.21	0.8323
GPA	0.0819	0.0802	1.02	0.3092
Gender	-0.0768	0.1711	-0.45	0.6541
Accounting Course	0.2542	0.2512	1.01	0.3133
Class Year	0.1545	0.0857	1.8	**0.0736**

Table 11

Perceptions of Math Anxiety

To measure math anxiety, participants were asked to select their level of agreement with statements describing their past math class(es) experience(s). A factor analysis yielded only one construct. We formed multiple conclusions based on what the data analysis in Table 11 illustrates. Two findings were considered highly significant: students with lower GPAs experience more math anxiety than students with higher GPAs and the higher the class year of the participant, the more anxious he/she is about math. A significant finding that may seem obvious but important is that accounting majors are less anxious about math than other majors ($p = <.05$). Two findings that can be described as marginal are that if the student has taken an accounting course, he/she appears to be more math anxious and that females exhibit higher math anxiety than males ($p = <.10$). Therefore, math anxiety does not drive subjects' perceptions of accounting and accountants (Table 12). These results correlate to H2.

Dependent Variable: Combined Factor Score for Math Anxiety

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	6	3879.9669	646.6612	7.83	<.0001
Error	135	11146.9697	82.5702		
Corrected Total	141	15026.9366			

R-Square	Coeff Var	Root MSE	ma Mean
0.2582	45.4821	9.0868	19.9789

Parameter	Estimate	Standard Error	t Value	Pr > |t|
Intercept	0.1530	5.5521	0.03	0.9781
Accounting	-5.3625	2.2327	-2.4	**0.0177**
Business	1.3124	2.0339	0.65	0.5199
GPA	2.5729	0.7554	3.41	**0.0009**
Gender	2.8225	1.6094	1.75	**0.0817**
Accounting Course	4.3412	2.3822	1.82	**0.0706**
Class Year	2.1502	0.8045	2.67	**0.0085**

Table 12

Supplemental Analyses

Subjects who participated in the survey either have taken an accounting course or have not. We wanted to explore if there is a difference in results when using only students who have taken an accounting course. No new factors were developed because we decided to use factors from the main analysis. There were six dependent variables tested in this analysis: pleasant, competent, time, positive demeanor, tedious, and bold. The first three dependent variables (pleasant, competent and time) used 111 participants. The other three dependent variables (positive demeanor, tedious, and bold) utilized 107 respondents. The predictive variables that were tested in this study are GPA, gender, class year, math anxiety, class organization, class workload, and professor experience. In this analysis, the three new predictive variables were class organization, class workload, and professor experience. Class organization refers to a component of question 14 on the survey. We inquired about how the class was organized such as structure and teaching style. Furthermore, class workload is another part of question 14. We queried about students' workloads in the class(es), such as heavy or light as well as individual or group work. Professor experience refers to question 15 in the survey. This question asked participants to describe their past professor experience in an accounting course(s) using a semantic differential scale. Components of this question include how friendly, lively, helpful, non-intimidating, and approachable the professor(s) was during the course.

The first regression analysis deals with the dependent variable, pleasant. Table 13 represents the results based on the dependent variable pleasant. The R-square for this analysis is 47.11%. The highly significant finding from this analysis is that accounting majors who have taken at

least one accounting course perceive accounting to be more pleasant than other majors (p = <.01). Additionally, we discovered that students who have taken at least one accounting course and had a positive professor experience perceive accounting to be more pleasant. No other predictive variables attested significant results.

Dependent Variable: Combined Factor Score for Pleasant

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	9	49.8085	5.5343	9.07	<.0001
Error	101	61.6049	0.6099		
Corrected Total	110	111.4134			

R-Square	Coeff Var	Root MSE	pleasant Mean
0.4471	8816.762	0.7810	0.0089

Parameter	Estimate	Standard Error	t Value	Pr > |t|
Intercept	0.2937	0.3999	0.73	0.4643
Accounting	1.0633	0.2382	4.46	**<.0001**
Business	0.1026	0.2158	0.48	0.6355
GPA	0.0459	0.0810	0.57	0.5716
Gender	-0.0534	0.1568	-0.34	0.734
Class Year	-0.1292	0.0861	-1.5	0.1365
Math Anxiety	-0.0145	0.0087	-1.66	0.1006
Class Organization	0.0030	0.0837	0.04	0.9712
Class Workload	0.0273	0.0800	0.34	0.7339
Professor Experience	0.2617	0.0907	2.89	**0.0048**

Table 13

The second dependent variable, competent, reported no significant relationships between any of the variables tested (Table 14).

Dependent Variable: Combined Factor Score for Competent

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	9	7.6726	0.8525	0.86	0.5653
Error	101	100.3730	0.9938		
Corrected Total	110	108.0456			

R-Square	Coeff Var	Root MSE	competent Mean
0.0710	-11174.03	0.9969	-0.0089

Parameter	Estimate	Standard Error	t Value	Pr > |t|
Intercept	-0.5394	0.5104	-1.06	0.2931
Accounting	0.0611	0.3040	0.2	0.8412
Business	0.1314	0.2755	0.48	0.6344
GPA	-0.0180	0.1033	-0.17	0.8619
Gender	0.2952	0.2001	1.47	0.1433
Class Year	0.0851	0.1099	0.77	0.4405
Math Anxiety	-0.0138	0.0112	-1.23	0.2201
Class Organization	0.1598	0.1069	1.5	0.1379
Class Workload	-0.0431	0.1021	-0.42	0.6742
Professor Experience	-0.0452	0.1158	-0.39	0.6968

Table 14

Time, the third dependent variable, resulted in two important findings (Table 15). It was determined that students who have taken an accounting course and have lower GPAs believe accounting is more time consuming ($p = <.01$). The other conclusion is that females who have taken at least one accounting course perceive accounting to be more time consuming than males who have taken at least one accounting course ($p = <.05$).

Dependent Variable: Combined Factor Score for Time

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	9	17.1051	1.9006	1.93	0.0563
Error	101	99.6132	0.9863		
Corrected Total	110	116.7183			

R-Square	Coeff Var	Root MSE	time Mean
0.1466	2874.922	0.9931	0.0345

Parameter	Estimate	Standard Error	t Value	Pr > |t|
Intercept	-1.2910	0.5085	-2.54	0.0126
Accounting	0.0997	0.3029	0.33	0.7428
Business	0.0481	0.2745	0.18	0.8611
GPA	0.3104	0.1029	3.02	**0.0032**
Gender	0.4526	0.1994	2.27	**0.0253**
Class Year	0.0522	0.1094	0.48	0.6343
Math Anxiety	-0.0121	0.0111	-1.08	0.2808
Class Organization	0.0544	0.1065	0.51	0.6105
Class Workload	0.1286	0.1017	1.26	0.2093

Professor Experience	-0.0073	0.1153	-0.06	0.9496

Table 15

The fourth dependent variable of this analysis, positive demeanor, had a relatively high R-square of 41.65%. This suggests that 41.65% variation in responses due to the participants' answers to the predictive variables. From this part of the study, two vital findings were produced. Students who have taken at least one accounting course who perceive accounting to be competent believe that accountants have a positive demeanor (p = <.01); this seems to be a very strong relationship. A marginally significant finding is that students who have taken at least one accounting course who perceive accounting to be time consuming believe that accountants have a positive demeanor (p = <.10)-(Table 16).

Dependent Variable: Combined Factor Score for Positive Demeanor

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	12	44.1816	3.6818	5.59	<.0001
Error	94	61.8878	0.6584		
Corrected Total	106	106.0694			

R-Square	Coeff Var	Root MSE	demeanor Mean
0.4165	-1985.216	0.8114	-0.0409

Parameter	Estimate	Standard Error	t Value	Pr > |t|
Intercept	-0.1905	0.4351	-0.44	0.6625
Accounting	0.1617	0.2727	0.59	0.5547
Business	-0.3363	0.2252	-1.49	0.1387
GPA	-0.0884	0.0913	-0.97	0.335
Gender	0.1709	0.1713	1	0.3208
Class Year	0.0603	0.0921	0.65	0.5142
Pleasant	0.0155	0.1040	0.15	0.8821
Competent	0.5434	0.0822	6.61	**<.0001**
Time	0.1583	0.0827	1.91	**0.0586**
Math Anxiety	-0.0012	0.0094	-0.13	0.8985
Class Organization	0.0230	0.0906	0.25	0.8001
Class Workload	-0.0221	0.0852	-0.26	0.7957
Professor Experience	-0.0400	0.1008	-0.4	0.6925

Table 16

Tedious, the fifth dependent variable also had a moderately high R-square at 30.10% indicating that over 30% of the variation in responses was due to the subjects' answers to the predictive variables. From this exploration, two highly significant findings were found. First, students who have taken at least one accounting course perceive accounting as less pleasant think accountants are tedious (p = <.01). The second finding is that students who have taken at least one accounting course who perceive accounting to be less competent believe accountants are tedious (p = <.01). (Table 17)

Dependent Variable: Combined Factor Score for Tedious

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	12	29.6369	2.4697	3.37	0.0004
Error	94	68.8143	0.7321		
Corrected Total	106	98.4512			

R-Square	Coeff Var	Root MSE	unfavorable Mean
0.3010	-2254.197	0.8556	-0.0380

Parameter	Estimate	Standard Error	t Value	Pr > |t|
Intercept	-0.2206	0.4588	-0.48	0.6318
Accounting	-0.1105	0.2875	-0.38	0.7017
Business	0.3667	0.2375	1.54	0.126
GPA	0.1028	0.0962	1.07	0.288
Gender	0.1562	0.1806	0.86	0.3893
Class Year	-0.0527	0.0971	-0.54	0.5886
Pleasant	-0.3352	0.1097	-3.06	**0.0029**
Competent	-0.2510	0.0867	-2.9	**0.0047**
Time	0.0191	0.0872	0.22	0.8272
Math Anxiety	-0.0129	0.0099	-1.3	0.1978
Class Organization	0.0606	0.0955	0.63	0.5272
Class Workload	0.0333	0.0899	0.37	0.7114
Professor Experience	-0.1146	0.1062	-1.08	0.2837

Table 17

The last dependent variable, bold, presented multiple conclusions. The adventurous variable similar to positive demeanor and dull had a fairly high R-square at 31.17% which represents the variation in responses based on the respondents' answers to the predictive variables. There was one highly significant result that is vital to address. First, students who have taken at least

one accounting course and perceive accounting to be pleasant believe accountants are bold (p = <.01). There were three findings that can be considered significant that are important to discuss. Students who have taken at least one accounting course and have lower GPAs perceive accounting to be more bold (p = <.05). Additionally, students who have taken at least one accounting course and believe that accounting is time consuming think accountants are bold (p = <.05). Lastly, accounting majors who have taken at least one accounting course perceive accountants to be bold (p = <.05).

Dependent Variable: Combined Factor Score for Bold

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	12	34.3907	2.8659	3.55	0.0002
Error	94	75.9437	0.8079		
Corrected Total	106	110.3344			

R-Square	Coeff Var	Root MSE	favorable Mean
0.3117	5369.132	0.8988	0.0167

Parameter	Estimate	Standard Error	t Value	Pr > |t|
Intercept	0.1717	0.4820	0.36	0.7225
Accounting	-0.6882	0.3021	-2.28	**0.0250**
Business	-0.3812	0.2495	-1.53	0.1299
GPA	0.2508	0.1011	2.48	**0.0149**
Gender	-0.3047	0.1897	-1.61	0.1116
Class Year	0.0977	0.1020	0.96	0.3406
Pleasant	0.4104	0.1152	3.56	**0.0006**
Competent	-0.1462	0.0911	-1.61	0.1117
Time	0.2327	0.0916	2.54	**0.0127**
Math Anxiety	-0.0014	0.0104	-0.14	0.8902
Class Organization	0.0958	0.1003	0.95	0.3424
Class Workload	0.0570	0.0944	0.6	0.5474
Professor Experience	0.0035	0.1116	0.03	0.9752

Table 18

CONCLUSION

The extensive analysis of data provided for multiple takeaways from this study. Overall, H1 was rejected by the analysis. The only time that a student's major truly came into play was measuring students' perceptions of how pleasant accounting is. The key finding here is that accounting majors perceived accounting to be more pleasant than other majors. This partially supports H1a's claim in that major affected perceptions of accounting but not accountants. H1b was rejected because there was no difference in majors and their perceptions of accounting and accountants. This study supported H2's claim that accounting students have lower math anxiety than other students. This result was found to be highly significant under the math anxiety analysis. However, it is important to note that we found math anxiety does not drive the subjects' perceptions of accounting or accountants. Predictive variables like GPA and class year as well as using factors such as pleasant or positive demeanor, proved to produce numerous significant findings as well.

There were several limitations for this study. The first is that it was a convenience sample. The students' who participated in the study were anyone we could get to take the survey at Bryant University. This could have influenced the results because each class year is not fairly represented in this sample. Another limitation is that the subjects' were Bryant University students only. Therefore, these results can represent Bryant's population but not others necessarily. Lastly, the third limitation is the limited number of non-business majors. Currently, Bryant has 79% business majors, 17% non-business majors, and 4% undecided (Office of Planning and Institutional Research). The overwhelming majority of students are business majors which could have influenced the results; business majors who completed the survey totaled approximately 77% whereas non-business majors only totaled 33%. Therefore, non-business majors' answers may not represent the population accurately.

There are some factors that we would include in future studies. First, a larger sample size. This is not extremely crucial, however the larger the sample size the better it represents the population. Additionally, we believe that this study needs to be performed at other universities. In order to obtain a better understanding of *all* students' perceptions, we would need to

administer this study at a variety of colleges including larger state schools, liberal arts schools, and other business schools. Finally, future studies should include a more thorough breakdown of major. Instead of asking students if they are an accounting major, non-accounting business major, or non-business major, it would be even more helpful to know their exact major such as marketing or biology. This would allow further analysis of the majors and to determine if there is differences between the majors' and their perceptions of accounting and accountants.

This study aimed to demonstrate that perceptions of accounting and accountants do exist and may differ dependent on major. While major may not be the driving force behind students' perceptions, these negative perceptions still do exist today. Additionally, a common perception that accounting is "all math" was not supported by this study because math anxiety did not drive the perceptions of accounting or accountants. Albu, Albu, Girbina, and Sandu (2011) stated in their article that "A misfit is dangerous for the accounting profession". Therefore, are these negative perceptions preventing the wrong people from doing the job? Another important question to consider is: are these negative perceptions pushing away people who would be right for the job? These are vital questions a student who is considering accounting as a major and a career path should ask him/her-self. The only way to truly find out if accounting is right for you is to give it a chance, before you let the negative perceptions make up your mind first.

APPENDICES

Appendix A – (IRB Consent Form-Focus Groups)

VIII. Model for Consent Form

1. Statement of purpose
You are invited to participate in a study of *The Perceptions of Accounting: What Do You Think?* We hope to learn the perceptions of accounting among accounting students, non-accounting business students as well as non-business students. You were selected as a possible participant in this study because you are an undergraduate student at Bryant University with a major in accounting, business, or liberal arts.

2. Description, Including Risks and Benefits
If you decide to participate, we will conduct an experiment involving the following procedures: a 45 to an hour long focus group session. A moderator will ask questions to about 8 to 10 students. There will be a note-taker recording the findings of answers to the questions.

3. Alternative Procedures (optional)
N/A

4. Confidentiality
Any information obtained in connection with this study will remain confidential and will not be disclosed to the general public in a way that can be traced to you. In any written reports or publications, no participant other than the researchers will be identified, and only anonymous data will be presented.
This consent form, with your signature, will be stored separately and independently from the data collected so that your responses will not be identifiable.

5. Compensation and Costs (optional)
The facilitator will be providing pizza and soda/water for all participants.

6. Statement that Participation Is Voluntary
Your participation is totally voluntary, and your decision whether or not to participate will not affect your future relations with Bryant University or its employees in any way. If you decide to participate, you are also free to discontinue participation at any time without affecting such relationships. However, it is requested that you notify the investigator of this.

7. Persons to Contact
If you have any questions, please contact Brianna DaRin, 973-641-1419, bdarin@bryant.edu. If you have any additional questions later, we will be happy to answer them. You can have a copy of this form to keep.

8. Signature Indicating Informed Consent

Please sign below if you have decided to participate. Your signature indicates only that you are at least 18 years of age and have read the information provided above. Your signature does not obligate you to participate, and you may withdraw from the study at any time without consequences.

Signature of Participant	**Date**
Signature of Parent or Legal Guardian (This line should only appear on forms that will be given to participants who are less than 18 years of age.)	**Date**
Signature of Health Care Provider (This line should appear only when research involves participants who are under the care of such a person, and when the condition requiring care may interact with the research procedures.)	**Date**
Signature of Principal Investigator	**Date**

Appendix B – (Focus Group Questions)

- Preliminary Information:
  - Name
  - Gender
  - Age
  - Class Year
  - Major(s)
  - Minor(s)
- Question #1: What's your general view of accounting as a career?
- Question #2: What's your general view of accounting as an academic discipline?
- Question #3: Can you describe any positive attributes about studying and/or working in accounting?
- Question #4: Can you describe any negative attributes about studying and/or working in accounting?
- Question #5: How much math do you think is required to work in or study accounting?
- Question #6: What is your view of accountants overall?
- Question #7: How important do you think communication skills are needed in the accounting field?
- Question #8: Have you ever taken an accounting class? If so, describe it to me.
- Question #9: Has a professor, teacher, and/or academic confidant ever influenced your perception of accounting? If so, how?
- Question #10: Do you think certain personality types go into accounting versus other majors? If so, describe that type of personality.

Appendix C – (IRB Proposal Form-Focus Groups)

VII. Proposal to IRB for Research Involving Human Subjects

Name(s) of Investigators: Brianna DaRin, Honors Student; Charles Cullinan, Faculty Advisor

Title of Research Project: The Perceptions of Accounting: What Do You Think?

Anticipated Start and End Dates of Experiments: Wednesday October 19th and Wednesday October 26th

Basic Level Review

To be considered at the **Basic Level**, the study must not involve children or adults unable to give consent, must not place subjects at more than minimal risk, and must fit one of the following categories (check all that apply). See Section V for description of each category.

___Normal educational practices
___Educational testing
_X_Survey/interview procedures
___Observation of behavior without intervention
___Use of archival data
___Evaluation of Federal research and programs
___Consumer acceptance studies

Risk Assessment

Indicate with a check if any of the following risks are involved:

	Deception as part of the experimental procedure? If yes, the proposal must include a description of the deception and the method of "debriefing" after the experiment.
	Any probing of information which a subject might consider to be personal or sensitive?
	The presentation to the subject of any materials they might find to be offensive, threatening, or degrading?
	Possible compromise of privacy of participant or family, including use of personal information and records?
	The administration of physical stimuli other than auditory or visual stimuli associated with normal activities?
	Deprivation of physiological requirements such as nutrition or sleep?
	Manipulation of psychological and/or social variables such as sensory deprivation, social isolation, psychological stress?
	Physical exertion beyond a level that is moderate for the participant?
	Exposure to drugs, chemicals, or hazardous agents?

Any other situations likely to pose risk? Please identify below:

N/A

Explain the need for any risks for the participants, that is, how they are required for successful completion of the study:

There are no risks for this study. Successful completion of this study would simply giving me their honest opinions about their perceptions of accounting. I will do this through a series of questions.

Project Description

Clearly state the purpose of the study and the area of knowledge it contributes to (or attach document):

My research thesis project plans to investigate and answer the following question: what are the perceptions of accounting among accounting students, non-accounting business students as well as non-business students? The purpose of investigating this question is to obtain a sophisticated understanding of why numerous students identify accounting to be an unapproachable subject. I believe that individuals judge the subject as well as the profession of accounting negatively. There can be multiple factors why these individuals have formed their perceptions. As a part of my exploratory research, I plan to conduct three focus groups and will ask a variety questions pertaining to the students' perceptions of accounting. The results from

the focus group will serve as a basis to the survey I create and distribute later in the semester.

Briefly explain the nature of the experimental procedures and the information to be obtained (or attach document). If students are performing the research, indicate that and describe their activities.
Students will be asked a series of questions and to answer them within groups. I will be a moderator as well as have note-takers to record the findings. See Appendix A below for the questions that will be asked.

Explain measures taken to assure anonymity and confidentiality of the information:

In my paper, I will not reference names of the individuals participating in the focus group. My faculty advisor and I will be the only two individuals that will get to look at the demographic information I collect on the participants.

Participant Description

Describe the approximate number and range of ages of participants in this study:

In total, I am hoping to have between 24-30 participants, ranging from 18 years old to 22 years old.

Describe the criteria for selecting participants:
I will be advertising through e-mail as well as speaking to classes to get the word out. It is up to the participant if they want to participate in the study.

Describe any inducements for subjects to participate (check all that apply):

	Extra credit in a course
	Money. If yes, give approximate value:
	Raffle or other type of contest.
X	Other (please specify): pizza and water/soda

Informed Consent

How and when is informed consent obtained from the participants? Indicate any forms used.

Informed consent will the person signing the sign-up sheet. They are consenting when they decide to participate in the study.

If deception is part of the procedure, explain the deception and describe when and how debriefing is conducted.

N/A

Any other concerns or further comments?

Focus Group Questions (Appendix A):

- Preliminary Information:
    - Name
    - Gender
    - Age
    - Class Year
    - Major(s)

  - Minor(s)

- Question #1: What's your general view of accounting as a career?
- Question #2: What's your general view of accounting as an academic discipline?
- Question #3: Can you describe any positive attributes about studying and/or working in accounting?
- Question #4: Can you describe any negative attributes about studying and/or working in accounting?
- Question #5: How much math do you think is required to work in or study accounting?
- Question #6: What is your view of accountants overall?
- Question #7: How important do you think communication skills are needed in the accounting field?
- Question #8: Have you ever taken an accounting class? If so, describe it to me.
- Question #9: Has a professor, teacher, and/or academic confidant ever influenced your perception of accounting? If so, how?
- Question #10: Do you think certain personality types go into accounting versus other majors? If so, describe that type of personality.

Appendix D – (IRB Approval Letter-Focus Groups)

September, 2016

Brianna DaRin, Charles Cullinan:

RE: IRB Proposal #2016-0919:
TITLE: The Perceptions of Accounting: What Do You Think?

Dear Brianna and Charles:

Your proposal, entitled "The Perceptions of Accounting: What Do You Think?" was considered under IRB Guidelines for expedited review. The IRB Committee of Bryant University approved the proposal September 19, 2016.

Bryant University is strongly committed to adhering to the basic ethical principles related to the conduct of research involving human subjects as set forth in *The Belmont Report: Ethical Principles and Guidelines for the Protection of Human Subjects of Research*. The submission of your proposal to the IRB Committee supports the goals of Bryant University and the IRB Committee and ensures that research involving any members of the Bryant community is in strict accordance with these ethical principles and guidelines.

Thank you for your submission, and good luck with your research.

Very truly yours,

Yoon sukki

Sukki Yoon
Chair, IRB Committee

Appendix E – (Focus Group #1 Findings)

Questions	Adjectives	Quotes	Other Comments
1) What's your general view of accounting as a career?	Stable, reliable, uninteresting, seasonal, time consuming	"don't want as a career, but to help with own business"; "don't plan on staying in accounting, want the background to help with other things in the future"; "don't want to do tax for the rest of my life"	Money, CPA exams, have to keep up with the changing rules, need to have tactical skills
2) What's your general view of accounting as an academic discipline?	Demanding	"it sucks"	The major weeds out many people because of its demands, if you don't put the time in you will fail, it is hard but interesting making you want to know more, when you understand it-it is easy and interesting, when you don't understand it, it's miserable; more interesting when it is problem based versus concepts
3) Can you describe any positive attributes about studying and/or working in accounting?		"group studies are helpful"	Quick promotions, ability to help and manage people, money, very applicable skills
4) Can you describe any negative attributes about studying and/or working in accounting?	Not interesting, boring	"oh accounting? Yikes, someone has to do it!"; "oh you're so friendly!";"good luck with that"; "your personality doesn't match your major"	Can't hold a conversation, time consuming for studying and working, the stigma/stereotype that outsiders perceive of us
5) How much math do you think is required to work in or study accounting?	Elementary		Minimal math, addition/multiplication, understand concepts and where to plug in numbers, more formulas
6) What is your view of accountants overall?	Friendly, hard-working, nice, helpful, eager to		Enjoy their jobs, very educated, even professors are passionate about accounting, not intimidating

	assist, professional, organized		
7) How important do you think communication skills are needed in the accounting field?	Very important		Important for interviews, first impressions, and sets the stage for who you are as a person, need with communicate with co-workers and perspective clients, work is client-based, communicating with customers on day-to-say transactions; Need to express what you're doing throughout the year, double the work when communication channels aren't clear, need to communicate up to date to decrease problems, need the skills to accurately understand what people are talking about in order to perform job accurately/correctly
8) Have you ever taken an accounting class? If so, describe it to me.	Accounting department is terrifying but helpful	Way less group work and group involvement- meanwhile accounting classes "do 30 problems by yourself"; "Exam based, all exams, homework does not count towards your grade but if you don't do it you're screwed"	ACG201- understood and enjoyed class. Others were talking all the time and complaining. Confused with tax class but after a few weeks started understanding and enjoying and it soon became a favorite class; The way they are set up work wise is very individually demanding, very different from other classes/disciplines at Bryant; Need to control self-learning skills and individual time management
9) Has a professor, teacher, and/or academic confidant ever influenced your perception of accounting? If so, how?		One professor "ruined my life" class was terrifying and "made me reconsider my major and want to change it"; Other professor "so helpful, very respectable"; Certain professor made me want to change my major. Totally changed my perspective "oh my god I don't know what I'm doing"	cross the board, come off terrifying and unapproachable, but really are helpful and want you to do well and succeed if you put in the right amount of effort; Many teachers are experienced accountants and can give real life examples to put lessons into perspective which is better than just reading out of a book; Flipped classroom was not good for accounting class structure; CPA based exams- difficult but extremely helpful; Gleim book very helpful but time consuming; Step by step, babysits the class, helpful method; If you can stay with professors and follow them in class you will be okay; Lower level classes no one tries, accounting majors succeed and get higher grades due to skewed scores; Professors scare you away from going abroad; Have separate classes for accounting majors in introductory courses

			because: Other majors are intimidated, Other majors rely on accounting majors
10) Do you think certain personality types go into accounting versus other majors? If so, describe that type of personality.	Tactical, logistical, detail oriented, adaptable, practical, need common sense, very black and white, good moral compass, pushed to be independent --> career calls for independence		All business majors, not just accounting majors, need to be personable and approachable, need to be able to hold a conversation with anyone; accounting majors personalities, not afraid to do the grub work: know how long work is going to take, but do it anyways and not afraid of time commitment; can handle different situations from different angles; need to focus and sit down and know what's going on; do the work, make sure the work is right --> discipline; need to be content with the plethora of rules that are given and need to understand them; marketing vs accounting: creativity from an art perspective lacks more in accounting; creativity from a problem solving perspective (rather equal marketing vs accounting)

Participant Name	Gender	Age	Class Year	Major	Minor
Kafui Gozey	Female	20	2019	Accounting	Spanish
Gabrielle Rinaldi	Female	21	2017	Accounting	Communication, Management
Midori Knowles	Female	21	2017	Accounting	Spanish
John Papasodora	Male	21	2017	Accounting	Economics

Appendix F – (Focus Group #2 Findings)

Questions	Adjectives	Quotes	Other Comments
1) What's your general view of accounting as a career?	Closed minded; repetitive		All numbers; always numbers; paid well; hard to get into it, you have to be qualified and take tests
2) What's your general view of accounting as an academic discipline?		"Everyone should take it so we know the basics even non business students"	Have to be very careful one number can throw off everything; gets in the way of what you want to do (example: abroad vs. 150 credits)
3) Can you describe any positive attributes about studying and/or working in accounting?	Job security	"Company will always need you"	Capable of doing something someone majored in finance can do; teaches you to be precise in everything you do; accounting majors are always the ones with jobs
4) Can you describe any negative attributes about studying and/or working in accounting?	Boring, repetitive		Same process for every company; nothing new ever going on; want to be communicating with others not just behind a computer; not for everyone, more appealing with top level; not a good personal life, very demanding
5) How much math do you think is required to work in or study accounting?		"you have to be good at math, to know where you make your mistakes so you do not have to redo the entire thing over again"	Not much, just using the same basics; must know analytical math; must know how to manipulate the formulas, but still basic; liked financial accounting because it was more basic
6) What is your view of accountants overall?	Stuffy, boring	"Seniors at townhouses last year that were accounting majors were crazy, like they have a double life, having an outlet from dealing with numbers all the time"	Takes a serious person to have an accounting job; have to separate work and social life; have to be responsible, can't have clients seeing you during your personal life
7) How important do you think communication skills are needed in the accounting field?	Task-oriented	"Not important, just important for the person making the deal"	Have to get the numbers from somewhere, so there has to be some sort of communication; not as much communication as other departments might have; people in marketing would need more communication because it is more personal; more independent work, never thought of it as working in a team; led by boss

8) Have you ever taken an accounting class? If so, describe it to me.		“I hated it; "Such a heavy workload, if it was less they would enjoy it more"; " Was an accounting intern, like the financial statements but hates the tax"	The flipped classroom does not work, not motivated to watch the video because it is the same thing in class; something that is interesting but the way it is presented in class ruins it; need to know more about it; different professors, make a difference; IB majors do not have to take managerial
9) Has a professor, teacher, and/or academic confidant ever influenced your perception of accounting? If so, how?		"YES"	Did not understand the professor, made them hate the class; all dependent on the professor; just don’t see themselves in that profession
10) Do you think certain personality types go into accounting versus other majors? If so, describe that type of personality.		"Different companies have different personalities"	For people that want to be stable; Think they’re in it for the money, not for the love of accounting; o Creative people go into marketing, you cannot be creative with numbers

Gender	Age	Class Year	Major	Minor
Female	19	2019	IB: Finance	Psychology
Female	19	2019	IB: Management	French
Female	19	2019	IB: Finance	Spanish; Applied Analytics
Female	19	2019	IB: Marketing	Applied Psychology
Female	19	2019	IB: Global Supply Chain	Not Declared

Appendix G – (Focus Group #3 Findings)

Questions	Adjectives	Quotes	Other Comments
1) What's your general view of accounting as a career?	Tedious, boring	"Happy doing math = happy doing accounting"	A lot of sitting at a desk in a cubicle; great career, people make a lot of money; good for people OCD with numbers; nerdy accountings but also really cool accountants; lots of different kinds of accounting, cannot just say it as one general job
2) What's your general view of accounting as an academic discipline?		"I know nothing about accounting/business"; "ACG classes are good for someone who doesn't necessarily want to be an accountant"	Super rigorous course load; a lot of work; Bryant is a good place for it; learn a lot; important to know and be familiarized with; really hard as a major; financial (first one) was beneficial to other majors, but the second one wasn't
3) Can you describe any positive attributes about studying and/or working in accounting?		"Dicks sporting goods needs an accountant --> everyone needs an accountant"	Money; studying is good because it's math and you don't need to memorize it you just have to understand it; lots of options within different companies and departments; working towards a higher designations; what you learn on the exam is helpful for the job (CPA); if you like a particular industry you can do accounting in it
4) Can you describe any negative attributes about studying and/or working in accounting?	Boring, repetitive	"I have known accountants that have worked crazy hours"	Sitting at a desk; doing the same thing over and over; not a great work life balance
5) How much math do you think is required to work in or study accounting?		"I think of it as all math"; "A high majority of it is math"; "I pictures calculators and books and numbers and math"	A lot of math is required; excessive amounts of math but not the highest level; maybe nothing too in depth, but a good amount of math; doing math, but not calculus; it is more organizational, organizing numbers and placing them into categories that give you answers
6) What is your view of accountants overall?	Super organized, intelligent; quirky	"I feel undereducated compared to them"	One friend in particular: hated accounting hated his life at a particular company, but switched companies and now loves it. He is not the nerdy type, he is more of a social person. I used to think he didn't like it because he didn't fit

			in with the nerdiness but it turned out he didn't like the place
7) How important do you think communication skills are needed in the accounting field?			Under the radar important; you are handling numbers that are relevant to what you're doing therefore social skills might be a little lower needed; you have to explain the numbers to people so you do need to communicate to get the point across, no one wants to talk to an awkward person; super important because you have to talk to your boss and send emails and explain what numbers mean; less important in general compared to someone who does PR and HR, but all jobs communication is important; depends on the kind of accounting job that you have (client based or number cruncher based) number cruncher needs to talk less, client based needs to talk more
8) Have you ever taken an accounting class? If so, describe it to me.		"Yes, I loved it. I took financial accounting and liked my professor and got a 99. It was straightforward. (COM MAJOR) It was a flipped classroom. I remember not even looking at the videos because I didn't think they were helpful. But when I got to class the examples made sense and were helpful. The book was helpful and I used it and I never use books."; "yes, I don't feel like I learned that much. The teacher was not very good. Lecture and problem based. More useful to do the problems and show us how to do it as opposed to just lecturing. It was something I had never done before which is why	Never

		I struggled"; "took it in high school and financial here. I liked it, it was straightforward and made a lot of sense. PowerPoints with a lot of examples. Teacher made it straightforward. "	
9) Has a professor, teacher, and/or academic confidant ever influenced your perception of accounting? If so, how?		"Com professors use accounting curriculum to use the exact opposite for com curriculums. Com is very broad, you have a lot of jobs you can go into. But accounting is more specific and teachers use that as an example. They also say it is a more formal path than com."	Night class professor, adjunct, seemed to not care and was all over the place; It was hard to learn and nothing stuck; High school teacher made accounting really cool by using outrageous problems. Would have a physical check in front of us, it was like playing house with accounting. But in college my professor was foreign, had an accent and wasn't friendly. So it wasn't fun anymore. High school professor made it fun, college professor made it not fun.
10) Do you think certain personality types go into accounting versus other majors? If so, describe that type of personality.	Need to be motivated; introverted and keep to themselves; someone who is very organized	"There is a stereotype that everyone has in their head, even if they know it isn't true"	Some people want to be accountants just to make money even if they are miserable in accounting; definitely an intellectual kind of person, the non-creative brain (the other side of the brain) the more logical side goes into accounting; creative brain is less likely to go into accounting

Participant Name	Gender	Age	Class Year	Major	Minor
Haylee Haas	Female	21	2017	Biology	Business Administration
Lauren Keast	Female	21	2017	Applied Psychology	Management
Shannon Foglia	Female	21	2017	Communication	Marketing
Emily Charbonneau	Female	21	2017	Actuarial; Applied Math	Statistics

Appendix H – (IRB Proposal Form-Survey)

VII. Proposal to IRB for Research Involving Human Subjects

Name(s) of Investigators: Brianna DaRin, Honors Student; Charles Cullinan, Faculty Advisor

Title of Research Project: The Perceptions of Accounting: What Do You Think?

Anticipated Start and End Dates of Experiments December 2016-February 2017

Basic Level Review

To be considered at the **Basic Level**, the study must not involve children or adults unable to give consent, must not place subjects at more than minimal risk, and must fit one of the following categories (check all that apply). See Section V for description of each category.

___Normal educational practices
___Educational testing
_X_Survey/interview procedures
___Observation of behavior without intervention
___Use of archival data
___Evaluation of Federal research and programs
___Consumer acceptance studies

Risk Assessment

Indicate with a check if any of the following risks are involved:

	Deception as part of the experimental procedure? If yes, the proposal must include a description of the deception and the method of "debriefing" after the experiment.
	Any probing of information which a subject might consider to be personal or sensitive?
	The presentation to the subject of any materials they might find to be offensive, threatening, or degrading?
	Possible compromise of privacy of participant or family, including use of personal information and records?
	The administration of physical stimuli other than auditory or visual stimuli associated with normal activities?
	Deprivation of physiological requirements such as nutrition or sleep?
	Manipulation of psychological and/or social variables such as sensory deprivation, social isolation, psychological stress?
	Physical exertion beyond a level that is moderate for the participant?
	Exposure to drugs, chemicals, or hazardous agents?

Any other situations likely to pose risk? Please identify below:

N/A

Explain the need for any risks for the participants, that is, how they are required for successful completion of the study:

There are no risks for this study. Successful completion of this study would simply be answering all questions in the survey to the best of the participant's ability as well as honestly.

Project Description

Clearly state the purpose of the study and the area of knowledge it contributes to (or attach document):

My research thesis project plans to investigate and answer the following question: what are the perceptions of accounting among accounting students, non-accounting business students as well as non-business students? The purpose of investigating this question is to obtain a sophisticated understanding of why numerous students identify accounting to be an unapproachable subject. I believe that individuals judge the subject as well as the profession of accounting very harshly. There can be multiple factors why these individuals have formed their perceptions. As a part of my exploratory research, I have already conducted three focus groups that asked a variety questions pertaining to the students' perceptions of accounting. The results from the focus group served as a basis to the survey I have produced and wish to distribute to the student body over

the next few months to collect more data.

Briefly explain the nature of the experimental procedures and the information to be obtained (or attach document). If students are performing the research, indicate that and describe their activities.

The survey will be distributed online through this link: https://bryant.qualtrics.com/SE/?SID=SV_0jimMzVFtEouKix Additionally, I plan to visit classrooms with a printed version of the survey to distribute to students as well.

Explain measures taken to assure anonymity and confidentiality of the information:

The survey will only collect demographic information such as gender, class year, major(s), and cumulative GPA. I will not be able to know the names of the participants of the survey.

Participant Description

Describe the approximate number and range of ages of participants in this study:

In total, I am hoping to have between 100-300 participants, ranging from 18 years old to 22 years old.

Describe the criteria for selecting participants:

I will be advertising through e-mail as well as speaking to classes to get the word out. It is up to the participant if they want to participate in the study. All participants must be ungraduated

Bryant students.

Describe any inducements for subjects to participate (check all that apply):

X	Extra credit in a course (depending on professor)
	Money. If yes, give approximate value:
	Raffle or other type of contest.
	Other (please specify):

Informed Consent

How and when is informed consent obtained from the participants? Indicate any forms used.

Before the survey questions, there will be the consent form that outlines the factors about participating in the survey. The participant consents when he/she presses yes and continues on to complete the survey.

If deception is part of the procedure, explain the deception and describe when and how debriefing is conducted.
N/A

Any other concerns or further comments?

Appendix I – (IRB Approval Letter-Survey)

November, 2016

Brianna DaRin:

RE: IRB Proposal #2016-1128:
TITLE: The Perceptions of Accounting: What Do You Think?

Dear Brianna:

Your proposal, entitled "The Perceptions of Accounting: What Do You Think?" was considered under IRB Guidelines for expedited review. The IRB Committee of Bryant University approved the proposal November 28, 2016.

Bryant University is strongly committed to adhering to the basic ethical principles related to the conduct of research involving human subjects as set forth in *The Belmont Report: Ethical Principles and Guidelines for the Protection of Human Subjects of Research*. The submission of your proposal to the IRB Committee supports the goals of Bryant University and the IRB Committee and ensures that research involving any members of the Bryant community is in strict accordance with these ethical principles and guidelines.

Thank you for your submission, and good luck with your research.

Very truly yours,

Yoon sukki

Sukki Yoon
Chair, IRB Committee

Appendix J – (Survey)

The Perceptions of Accounting: What Do You Think?

Statement of Purpose: You are invited to participate in a study of The Perception of Accounting: What Do You Think? We hope to learn the perceptions of accounting among undergraduate accounting students, non-accounting business students, as well as non-business students.

Participants: Please note that as a potential participant you must be 18 years of age or older to take part in the study. You can refuse to participate without penalty or loss of benefits to which you are otherwise entitled.

Description of Risks/Benefits: Your participation is voluntary. No discomforts, stresses or risks are expected from participating in this study. Your participation may earn you an extra credit for the course in which you sign up for the study, at the discretion of the instructor. If your instructor decides to provide an extra credit to the participants, please understand that there will be alternative methods of obtaining the equivalent credit. Therefore your grades and class standing will not be affected whether you choose to participate or not to participate. While you may not benefit directly from participation, your participation in this research project may contribute to advancing knowledge that will be helpful in developing persuasive message strategies. Through participation, you will have a great experience with respect to academic stand point and learn the protocol of social science research.

Description of Participation: The completed script of this study will be given to the participants who want to receive it. If you do not feel comfortable with a question, skip it and go on to the next question. You have the right to discontinue your participation at any time without penalty or loss of benefits to which you are otherwise entitled. Closing the survey window will erase your answers without submitting them. You will be given a choice of submitting or discarding your responses at the end of the survey. Thank you for your participation.

Persons to Contact: If you have any questions about this study, please contact me, Brianna DaRin, at (973)-641-1419 or bdarin@bryant.edu.

In consideration of all of the above, I give my consent to participate in this research study. I understand and agree with the statement to take part in this research project.

❍ I Agree

The Perceptions of Accounting: What Do You Think?
Senior Capstone Project for Brianna DaRin

In general, accounting is...

	Strongly Disagree	2	3	4	5	6	Strongly Agree
Fun	❍	❍	❍	❍	❍	❍	❍
Boring	❍	❍	❍	❍	❍	❍	❍
Organized	❍	❍	❍	❍	❍	❍	❍
Secure	❍	❍	❍	❍	❍	❍	❍
Uninteresting	❍	❍	❍	❍	❍	❍	❍
Time consuming	❍	❍	❍	❍	❍	❍	❍
Demanding	❍	❍	❍	❍	❍	❍	❍
Repetitive	❍	❍	❍	❍	❍	❍	❍
Reliable	❍	❍	❍	❍	❍	❍	❍
Enjoyable	❍	❍	❍	❍	❍	❍	❍

In general, accountants are...

	Strongly Disagree	2	3	4	5	6	Strongly Agree
Intelligent	❍	❍	❍	❍	❍	❍	❍
Boring	❍	❍	❍	❍	❍	❍	❍
Friendly	❍	❍	❍	❍	❍	❍	❍
Detail-oriented	❍	❍	❍	❍	❍	❍	❍
Conservative	❍	❍	❍	❍	❍	❍	❍
Shy	❍	❍	❍	❍	❍	❍	❍
Adventurous	❍	❍	❍	❍	❍	❍	❍
Outgoing	❍	❍	❍	❍	❍	❍	❍
Professional	❍	❍	❍	❍	❍	❍	❍
Dull	❍	❍	❍	❍	❍	❍	❍

The Perceptions of Accounting: What Do You Think?
Senior Capstone Project for Brianna DaRin

The following skills are required in the accounting field:

	Strongly disagree	2	3	4	5	6	Strongly agree
Elementary Math	❍	❍	❍	❍	❍	❍	❍
College Level Math	❍	❍	❍	❍	❍	❍	❍
Problem-Solving	❍	❍	❍	❍	❍	❍	❍
Critical Thinking	❍	❍	❍	❍	❍	❍	❍
Communication	❍	❍	❍	❍	❍	❍	❍
Presentation	❍	❍	❍	❍	❍	❍	❍
Information Technology	❍	❍	❍	❍	❍	❍	❍
Writing	❍	❍	❍	❍	❍	❍	❍

Please answer the following questions based on your past math class(es) experience.
1 = Disagree and 5 = Agree

I cringe when I have to go to math class.

	1	2	3	4	5
1	❍	❍	❍	❍	❍

I am uneasy about going to the board in a math class.

	1	2	3	4	5
1	❍	❍	❍	❍	❍

I am afraid to ask questions in math class.

	1	2	3	4	5
1	❍	❍	❍	❍	❍

I am always worried about being called on in math class.

	1	2	3	4	5
1	❍	❍	❍	❍	❍

I tend to zone out in math class.

	1	2	3	4	5
1	❍	❍	❍	❍	❍

I fear math tests more than any other kind.

	1	2	3	4	5
1	❍	❍	❍	❍	❍

The Perceptions of Accounting: What Do You Think?
Senior Capstone Project for Brianna DaRin

I don't know how to study for math tests.

	1	2	3	4	5
1	❍	❍	❍	❍	❍

It's clear to me in math class, but when I go home it's like I was never there.

	1	2	3	4	5
1	❍	❍	❍	❍	❍

I'm afraid I won't be able to keep up with the rest of the class.

	1	2	3	4	5
1	❍	❍	❍	❍	❍

Have you taken an accounting course?

❍ Yes
❍ No

If you have taken an accounting course, what was the class environment like:

	1	2	3	4	5
Individual Work:Group Work	❍	❍	❍	❍	❍
Few exams/quizzes:Many exams/quizzes	❍	❍	❍	❍	❍
Lecture-based:Problem-Based	❍	❍	❍	❍	❍
Light Workload:Heavy Workload	❍	❍	❍	❍	❍
Unstructured:Structured	❍	❍	❍	❍	❍
Disorganized:Organized	❍	❍	❍	❍	❍

If you have taken an accounting course, what was the professor like:

	1	2	3	4	5
Unfriendly:Friendly	❍	❍	❍	❍	❍
Boring:Lively	❍	❍	❍	❍	❍
Unhelpful:Helpful	❍	❍	❍	❍	❍
Intimidating:Nonintimidating	❍	❍	❍	❍	❍
Unapproachable:Approachable	❍	❍	❍	❍	❍

What is your gender?

❍ Male
❍ Female
❍ Prefer not to answer

The Perceptions of Accounting: What Do You Think?
Senior Capstone Project for Brianna DaRin

What is your age?
- ❍ 18
- ❍ 19
- ❍ 20
- ❍ 21
- ❍ 22
- ❍ 23 +
- ❍ Prefer not to answer

What is your class year?
- ❍ Freshman
- ❍ Sophomore
- ❍ Junior
- ❍ Senior
- ❍ Prefer not to answer

What is your major?
- ❍ Accounting
- ❍ Non-accounting business
- ❍ Non-business
- ❍ Prefer not to answer

What is your cumulative GPA?
- ❍ 3.7-4.0
- ❍ 3.4-3.69
- ❍ 3.1-3.39
- ❍ 2.8-3.09
- ❍ 2.5-2.79
- ❍ Below 2.5

Thank you for your participation. Please click the arrow to submit your responses.

REFERENCES

Accounting. Retrieved September 22, 2016, from http://www.investopedia.com/terms/a/accounting.asp

Accountancy stereotypes add up to stable profession (2015, April 1) Retrieved 24 April 2016 from http://phys.org/news/2015-04-accountancy-stereotypes-stable.html

Albu, N., Albu, N., Girbina, M. M., & Sandu, M. I. (2011). A Framework for the Analysis of the Stereotypes in Accounting. *International Journal of Social, Educational, Economic, Business, and Industrial Engineering*, *5*(5). Retrieved April 28, 2016, from http://waset.org/publications/8619/a-framework-for-the-analysis-of-the-stereotypes-in-accounting

Britt, D. (2013, June). Breaking the Boring Accountant Stereotype. Retrieved April 21, 2016, from http://source.southuniversity.edu/not-just-numbers-crunching-accountants-role-changes-28485.aspx

Burger, T. W. (2008, July 27). Forget stereotypes: Accounting is cool. Retrieved April 20, 2016, from http://www.seattletimes.com/business/forget-stereotypes-accounting-is-cool/

DeCoster, D. T., & Rhode, J. G.. (1971). The Accountant's Stereotype: Real or Imagined,

Deserved or Unwarranted. *The Accounting Review, 46*(4), 651–664. Retrieved from http://www.jstor.org/stable/244245

Financial Accounting Standards Board - FASB. Retrieved September 22, 2016, from http://www.investopedia.com/terms/f/fasb.asp?ad=dirN

Geiger, M. A., & Ogilby, S. M. (2000). The first course in accounting: Students' perceptions and their effect on the decision to major in accounting. *Journal of Accounting Education, 18*(2), 63-78. doi:10.1016/s0748-5751(00)00011-7

Generally Accepted Accounting Principles - GAAP. Retrieved September 22, 2016, from http://www.investopedia.com/terms/g/gaap.asp

Howlett, D. (2013, June 24). Time to bury the accounting stereotypes. Retrieved April 25, 2016, from http://diginomica.com/2013/06/24/time-to-bury-the-accounting-stereotypes/

Hunt, S. C., Falgiani, A. A., & Intrieri, R. C. (2004). The Nature and Origins of Students' Perceptions of Accountants. *Journal Of Education For Business, 79*(3), 142-148.

Joyce K.H. Nga, & Mun, S. W. (2013). The perception of undergraduate students towards accountants and the role of accountants in driving organizational change. *Education & Training, 55*(6), 500-519. doi:http://dx.doi.org/10.1108/ET-07-2012-0074

Office of Planning and Institutional Research. (2016). *Undergraduate Student Profile Fall 2016*. Smithfield, RI: Bryant University.

Opdecam, E., Everaert, P., Keer, H., & Buysschaert, F. (2014). Preferences for Team Learning and Lecture-Based Learning Among First-Year Undergraduate Accounting Students. *Research In Higher Education*, *55*(4), 400-432. doi:10.1007/s11162-013-9315-6

Pringle, C. D., Dubose, P. B., & Yankey, M. D. (2010). PERSONALITY CHARACTERISTICS AND CHOICE OF ACADEMIC MAJOR: ARE TRADITIONAL STEREOTYPES OBSOLETE?. *College Student Journal*, *44*(1), 131-142.

Russo, C. J., Mertins, L., & Ray, M. (2013). Psychological Type and Academic Performance in the Managerial Accounting Course. *Journal Of Education For Business*, *88*(4), 210-215. doi:10.1080/08832323.2012.672935

Sarbanes-Oxley Act Of 2002 - SOX. Retrieved September 21, 2016, from http://www.investopedia.com/terms/s/sarbanesoxleyact.asp

Schneider, B. (2016). Accounting Basics: Branches Of Accounting | Investopedia. Retrieved September 21, 2016, from http://www.investopedia.com/university/accounting/accounting2.asp?ad=dirN

Securities And Exchange Commission - SEC. Retrieved September 22, 2016, from http://www.investopedia.com/terms/s/sec.asp

Steenkamp, L. P. (2009, April). An investigation into students' perceptions of accountants. Retrieved April 27, 2016, from https://www.researchgate.net/publication/227429944_An_investigation_into_students'_perceptions_of_accountants

Tan, L. M., & Laswad, F. (2006). Students' beliefs, attitudes and intentions to major in accounting. *Accounting Education*, *15*(2), 167-187.

Wells, P. K. (2009). Perceptions of accounting and accountants: An investigation into how and why these perceptions were formed (Unpublished doctoral dissertation). Auckland University of Technology. doi:http://aut.researchgateway.ac.nz/bitstream/handle/10292/830/WellsPK.pdf?sequence=1&isAllowed=y

Wiley, C. (2013, April). The History of Accounting. Retrieved September 20, 2016, from http://www.accountingedu.org/history-of-accounting.html

2015 TRENDS IN THE SUPPLY OF ACCOUNTING GRADUATES AND THE DEMAND

FOR PUBLIC ACCOUNTING RECRUITS. (2015). AICPA. Retrieved September 20, 2016, from https://www.aicpa.org/InterestAreas/AccountingEducation/NewsAndPublications/DownloadableDocuments/2015-TrendsReport.pdf