

# **Accounting for Ethics: Emphasis on Ethics Education in US Collegiate Business Curricula**

The Honors Program  
Senior Capstone Project  
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**ABSTRACT**

The accounting field holds a background in ethical understanding to be of great importance. The purpose of this project was to investigate the extent to which ethics education is emphasized and implemented within the business, and specifically accounting, curricula of US collegiate level institutions. Course curricula from a sample of 445 AACSB (Association to Advance Collegiate Schools of Business) accredited business programs in the US were examined for their emphasis on ethics education. This emphasis was quantified through a novel measurement, the Ethics Education Index, which is an originally constructed weighted measure of the number of stand-alone courses dealing with ethics in accounting and business programs as well as the frequency of ethical terminology used as descriptors within course catalog offerings and within each schools' mission statement of the 2015-2016 course catalogs. From this data, the measures of the Ethics Education Index were standardized and then compared with various school categorical characteristics, including religious affiliation, number of undergraduate students and faculty, private vs. public institution, male or female dean, and US region, to be analyzed for any relationship between these variables. Prior hypotheses were made in relation to the correlations with the Ethics Education Index. Results and conclusions were drawn to determine the impact of the categorical variables on the Ethics Education Index score of the colleges and universities studied.

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### **INTRODUCTION**

Ethics education is becoming increasingly more valuable to students pursuing a degree in accounting and business and to employers seeking these graduates (Hopen, 2002, p. 15). Accounting is seen as a sociotechnical subject meaning that it relies on values and judgments as well as financial information and reports. In my opinion, this value and judgment side in relation to ethics should be emphasized more throughout education as it is an important attribute of accounting that is tested in the profession. The AACSB requires school curriculums to incorporate ethics education in order to be considered for accreditation (Madison & Schmidt, 2006, p. 100). This can be through a stand-alone course or integrated throughout different courses (Madison & Schmidt, 2006, p. 99). The permissible variation that occurs within different AACSB school curricula following the same standard is astounding. Whether schools are actually making ethics a priority in their curriculum depends on many different factors. The CPA examination and the National Association of State Boards of Accountancy (NASBA) are considering mandating a certain number of credit hours out of the 150 credit hour requirement to sit for the CPA examination to be dedicated to ethics education (Breaux, Chiasson, Mauldin, & Whitney, 2010, p. 2). Currently, about 35 state boards for CPA licensing have a requirement of passing a separate Professional Ethics Examination within two years after passing the Uniform CPA Examination (AICPA, 2016). A competitive ethics program at a collegiate level institution provides for a well-rounded curriculum and potentially an academic advantage for students graduating from these colleges and universities leading to improved employment opportunities.

The objectives of this project were varied. First, this project intended to quantify and rank the sample of AACSB programs based on the extent of their ethics education through the construction of the Ethics Education Index (EEI). Second, it formed hypotheses on the level of school categorical factors' impact on ethics education. Third, it assessed whether these school characteristics (religious affiliation, number of undergraduate students and faculty, private vs. public institution, male or female dean, and US region) influence the significance placed on ethics education of accounting and business programs at collegiate institutions in the US through the use of the EEI. Lastly, this project highlighted the gaps or opportunities

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for more ethics education in different areas of business education at these colleges and universities.

These tasks were accomplished through construction of the novel measurement “Ethics Education Index.” This index quantified each institution’s ethics content through four components that summed to an Overall EEI “score”. The four components included EEI 1-Accounting Ethics Course, EEI 2-Business Ethics Course, EEI 3-Ethical Terminology in Mission Statement, and EEI 4-Ethical Terminology in Course Catalog Descriptions. The individual components were standardized and weighted based on designated importance to ethics emphasis. This EEI scorecard was then compared to a qualitative data set of school characteristics (religious affiliation, number of undergraduate students and faculty, private vs. public institution, male or female dean, and US region) to analyze any influence the characteristics may have had on Overall EEI and each of its components.

The data were analyzed within the SAS System in two separate tests: a bivariate t-test and a multivariate regressions test. From the bivariate analysis, the data showed that religious affiliation and whether a school is classified as private or public were statistically associated with Overall EEI score. In the multivariate analysis, the data shows that whether a school is private or public and the student/faculty ratio were statistically associated with Overall EEI. US Region also showed statistically significant result in terms of the West versus all other regions. Religious affiliation only showed significance in a bivariate analysis, while whether the dean is male or female failed to show significance in either test.

This study made key contributions to the literature that were previously unseen. The construction of the Ethics Education Index was a way to standardize and quantify ethics for an individual institution. This was a novel measurement used to score colleges and universities against one another based on the amount of ethics they incorporate into their curriculum at face value from direct observation of their 2015-2016 university course catalogs. This study has lasting implications for future business and accounting program curriculum development at the university level.

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**LITERATURE REVIEW**

As previously stated, accounting is a “sociotechnical” subject matter. It is based in financial information and fundamental analysis but also calls forth judgments, values, and morality. Therefore, accounting education cannot just be skill-building and concept-based, it needs to incorporate ethics and ethical decision making at every step of the way (Frank, Ofobike, & Gradisher, 2010). Ethics education has infiltrated business and accounting curricula in the US and around the world, has found its place on the CPA examination, and is a major asset that professional service firms find necessary in job-seekers who will one day represent the accounting profession.

**Introduction**

Ethics education is becoming increasingly more valuable in pursuit of a degree in accounting and business. Incorporating ethics, whether through education, examination, or professional codes of conduct, has been on the agenda of every major accounting-affiliated board. Ever since 2001, the time period Massey and Hise call the “post-Enron era” in their article “Walking the Walk: Integrating Lessons from Multiple Perspectives in the Development of an Accounting Ethics Course”, a demand for ethics education in the accounting curricula of colleges and universities has been made (2009, p. 481). State boards have stepped in to regulate matters of importance such as ethics education requirements prior to obtaining CPA certification or practicing. A core issue is waiting for requirements to catch up with the needs of the profession. The applicability of ethics is more important than ever to the many parties affected and its implications are far-reaching. This study is relevant and important in the context of ethics education because education in general needs to meet the current demands of the field in order to influence its future.

A student currently enrolled at an AACSB accredited institution preparing to take the CPA exam and enter the accounting profession will find this viewpoint is very relevant to their career path. Source selections in reviewing the vast body of literature on ethics education were made from a number of scholarly professional accountancy, business, and education journals in order to gain an understanding of the history of ethics education, the current status

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of ethics curriculum incorporation, and the future of the issue. As the topic is currently highly contested and intrinsic to many changes being made in the near future, it is important to collect from the most recent sources. Many sources published in scholarly journals were used as reference to the history of the topic, while the current state was examined through the websites of professionally affiliated accounting boards and associations. These included, the PCAOB (Public Company Accounting Oversight Board), the SEC (Securities and Exchange Commission), the AICPA (American Institute of Certified Public Accountants), the NASBA (National Association of State Boards of Accountancy), and the AACSB (Association to Advance Collegiate Schools of Business).

### Background/History

Accounting scandals like those of Enron, WorldCom, and Tyco have reshaped the accounting profession to position itself on the offensive of these types of white collar crimes. These scandals and responses to them like the passing of the Sarbanes-Oxley Act in 2002 have been catalysts in the development of regulation and direction in ethics requirements for education, examination, and the profession. The Sarbanes-Oxley Act, or SOX 2002, was intended to directly combat these egregious failures of professional duties and fraudulent activities. Since its institution, SOX 2002 has transformed the codes of ethics at publicly traded companies with an intention to prevent these deplorable acts from occurring and to build trust from the public in accountants and auditors once again (Canary & Jennings, 2008).

In order to better understand the profession's impact on ethics from a regulatory point of view, it is important to know the key players involved and their influence on ethics as they will be referred to throughout. Authority in accounting for the US is created and maintained by these bodies:

- PCAOB (Public Company Accounting Oversight Board) - Established for oversight of auditors and the auditing profession. The PCAOB has established a set of rules on Ethics and Independence in order to guide the audit for public companies involving quality control, ethical matters, and independence guidance (Louwers, Ramsay, Sinason, Strawser, & Thibodeau, 2016).

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- SEC (Securities and Exchange Commission) - Federal body responsible for regulating the accounting profession including oversight of the PCAOB. Directly involved in the establishment of SOX 2002 (Louwers et al., 2016).
- AICPA (American Institute of Certified Public Accountants) Professional Ethics Executive Committee (PEEC) - Committee of high importance for ethics authority regarding CPAs in the form of the AICPA Code of Professional Conduct (Louwers et al., 2016).
- NASBA (National Association of State Boards of Accountancy) - Responsible for the 55 jurisdictions of state boards of accountancy as a regulatory body for the profession and authority to mandate requirements within each state. The objectives listed on the NASBA website contain specific ethics guidance stating they will “Promote ethical behavior in the profession by: educating all relevant stakeholders in the critical importance of high-level ethical behavior, encouraging Boards to maintain ethical standards for their licensees, emphasizing the importance of moral reasoning and ethical behavior, supporting the NASBA Center for the Public Trust” (NASBA, 2016).
- AACSB (Association to Advance Collegiate Schools of Business) - Promotes the connection between students, academia, and business to advance the educational business network among schools in the US and internationally. Aims to bolster the educational standard of business schools to prepare ready and able business professionals. Specifically within their core values is ethics, which drives many of their initiatives (AACSB, 2016).

Defining “ethics” is also crucial to the complete understanding of what constitutes an ethical dilemma and how having the foresight to deal with these types of situations can directly affect someone’s future within an accounting education or career. Without ascertaining what ethics is, there is no foundation for educating students and professionals about it. The word ethics comes from the Greek “ēthikē” meaning the science of morals and is also based on the Latin “ethos” relating to an appeal to ethics. The definition of ethics from the Oxford English Dictionary states it as “the branch of knowledge or study dealing with moral principles”



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(2016). Business ethics, the lens through which much of this study is focused, is defined as “a moral principle relating to business” or “a set of such principles conceived of as forming a code of conduct in business” (Oxford English Dictionary, 2016).

Another informative piece of literature from the topic of ethics education comes forth from the authoritative body at the heart of this study, the AACSB. The AACSB’s report of the Ethics Education Task Force promulgated a piece titled “Ethics Education in Business Schools” where it urges AACSB accredited institutions to amplify their ethics education content in order to better serve their students. Ethics education is critical to the development of the student. The AACSB set forth key actions to bolster the ethics education of business schools. These include an Ethics Education Resource Center, an Accreditation Team Training, AACSB Publications and Events, and Curriculum Development (Phillips et al., 2004).

### Review

In reviewing the extensive literature published on business and accounting ethics education, I have found many overlapping themes and trends in the analysis and conclusions drawn by those who have developed the topic. School curricula and educational standards are operating within a gray area at the moment as a solid foundation for teaching ethics is difficult to construct. Many of the authoritative bodies including the AACBS, NASBA, AICPA, educators, and students have taken initiatives to increase the ethics education within business and accounting programs at the collegiate level (Bernardi & Bean, 2006, p. 1-2). Ethical decision making processes must be applied to ethical scenarios and situational analyses through education. There is also equal criticism that “ethics” essentially cannot readily be taught or that ethics education should be fixed on the “backburner” of accounting or business education. A motivation of putting together the Ethics Education Index is to demonstrate how the diversity of ethical standards, not just in education, but in the profession and the workplace, does make teaching ethics very difficult. The literature discussed the foundation behind ethics being grounded in a psychological and moral perspective, but these perspectives are not universal. Ethics may be rooted in morality and psychology in some respects but not

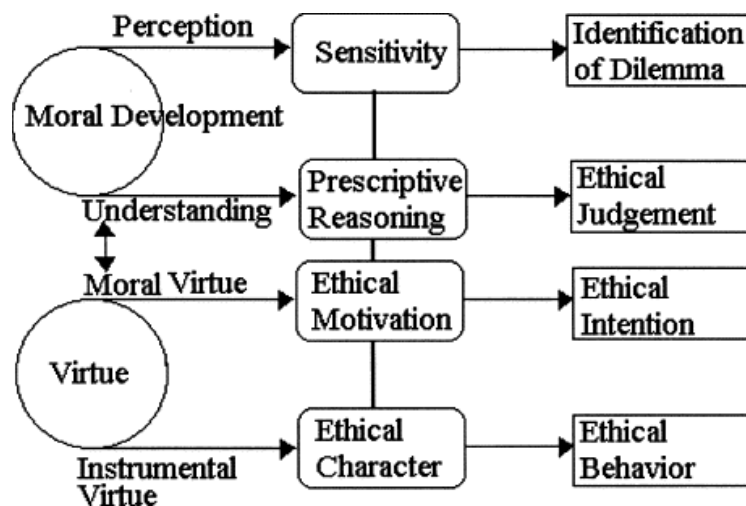
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others. Ethics then transfers its application to inform our decisions in business and accounting. The literature on ethics education is quite extensive as it encompasses a broad range of topics, ruling bodies, and implications for the future of the accounting profession (Frank, Ofobike, & Gradisher, 2010, p. 132).

**Ethical Decision Making**

The field of ethics has been thoroughly researched and investigated. One pioneer researcher on this topic is Mary Beth Armstrong. Armstrong has written on ethics education and morals extensively since the 1980s. In the article, “Ethics education in accounting: moving toward ethical motivation and ethical behavior,” Armstrong discusses the background of moral decision making that informs ethical situations. Armstrong uses “Thorne’s integrated model of ethical decision making” (see below) to detail the process of moral development, virtue, and psychological components of the ethical situations (Armstrong, Ketz, & Owsen, 2003).



*Figure 1: Thorne's Integrated Model of Ethical Decision-Making*

**Challenges of Teaching Ethics**

Ethics education has been a challenge for accounting educators. There are no clear cut standards currently for what needs to be taught in an ethics education curriculum which makes the diversity of approaches and requirements so great. Educators at some institutions are not equipped to teach this topic in their classes or find it hard to use textbooks or lesson plans that will properly bring up relevant ethical discussions during class time. Because there

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is no straightforward universal or national standard for every state to follow, educators find it difficult to work it into the curriculum in an effective and standardized way as one would teach accounting foundations. This brings up the point that ethics is not a “content” subject but a “process” of decision-making in subjective situations. Instructors have struggled in classifying ethics in education. Is it a skill, a quality, an attribute, a learned behavior? There is no unequivocal answer to these questions which has made it a challenge for educators to structure a curriculum around ethics. Unlike the uniformity of the CPA Examination, each state may choose how intense of an ethics education requirement they wish to enforce for students and accounting professionals. In its long history, ethics education has been unregulated at the classroom level for the most part. Educators feel that receiving only partial guidance in this area to properly teach a course coupled with a lack of other resources impedes their ability to fulfill this obligation to their students (Frank, Ofobike, & Gradisher, 2010).

There are many considerations that go into why schools do or do not choose to require a business or accounting ethics course along with the general educational requirements. As partially examined in this study and in the article “Business Ethics as a Required Course: Investigating the Factors Impacting the Decision to Require Ethics in the Undergraduate Business Curriculum,” internal and external factors of religion, school size, affiliation, and financial resources all impact the course requirements (Rutherford, Parks, Cavazos, White, 2011, p. 176).

The AACSB requires schools to incorporate ethics education in their curricula in order to be considered for accreditation. This can be through a stand-alone ethics course or integrated throughout different courses (Madison & Schmidt, 2006, p. 99). Up until 1991, the AACSB mandated that schools must have a stand-alone ethics course. The reason for the change from mandatorily requiring a stand-alone course to just incorporation throughout several courses or a stand-alone course was to provide for more widespread membership into the AACSB. The AACSB delegated this new approach as “mission-based” as it allowed schools to attain AACSB accreditation simply by fulfilling its mission (Rutherford et al., 2012). It is still

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highly contested as to which approach, incorporation throughout or stand-alone course, is better for an all-around ethics education. A cost-benefit analysis of the economics of teaching ethics is needed to address this. Questions that need to be addressed are: what are the costs of just incorporating ethics throughout different courses rather than having a stand-alone course? Further, what are the benefits of each? The economics of teaching ethics can definitely not be ignored when comparing a stand-alone course to the integration approach.

### **The CPA Examination and its Requirements**

Another common theme within the literature was the CPA examination and the NASBA considering mandating a certain number credit hours dedicated to ethics education out of the 150 credit hour requirement to sit for the CPA examination in most states (Breux, Chiasson, Mauldin, & Whitney, 2010). This number of credit hours would be set at six, three within accounting and three in the business core (Massey & Van Hise, 2009). Texas, for example, is a special case, in that Texas already requires all students to take at least three semester hours of an ethics-specific course at a recognized educational institution within their required 150 credit hours. Texas Board Rule 511.58 states that the ethics course needs to:

“provide students with a framework of ethical reasoning, professional values and attitudes for exercising professional skepticism and other behavior that is in the best interest of the public and profession. The ethics program should provide a foundation for ethical reasoning and include the core values of integrity, objectivity and independence...”

(Texas State Board of Public Accountancy, Educational Requirements)

Texas is a forerunner in the mandatory incorporation of ethics education in their institutional curricula. Unfortunately, the three credit hours may not be included solely in the undergraduate education as many ethics courses are only offered at the advanced graduate level within the 150 credit hours. Still, if the build-up to implementation of a widespread ethics curriculum continues, it would not be surprising to see other states adopt rules similar to that of Texas.

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Currently, about 35 state boards require passing a separate Professional Ethics Examination within two years after passing the Uniform CPA Examination to become a CPA (AICPA, 2016). This demonstrates that ethics is held as a matter of importance to many states and the AICPA already. A competitive ethics program provides for a well-rounded curriculum and could provide academic advantage for students graduating from colleges and universities leading to improved employment opportunities. Contrarily, the study “Ethics education in accounting curricula: Does it influence recruiters’ hiring decisions of entry-level accountants?” (2010) analyzed whether the accounting curriculum influences the hiring decisions for companies taking on entry-level accountants and discovered that it was not a prevalent enough factor to sway recruiters either way. In the time since this study took place, the more recent literature now seems to contradict this finding, suggesting that having a background in ethics from an accounting curriculum would allow students to perform better on the CPA examination, improve job performance, and also serve as a valid talking point in an interview situation. If a school offers a detailed ethics education, this differentiates one candidate seeking a job from another. The growing conversation about ethics education presents this advantage to job candidates (Breux et al., 2010).

### **Ethics in Law and Medicine**

The comparison of a certified professional accountant’s obligations to that of a doctor or lawyer was another theme of the literature. Within the accounting profession, not only are accountants expected to adhere to ethical codes of conduct, but also have the public interest at stake. Doctors and lawyers on the other hand have an obligation to only their patient or client, respectively. However, even with this distinction between these professional fields, if doctors and lawyers can be taught ethical practices within their respective fields, so too can accountants. There is already a vast body of literature regarding ethics education in law and medicine not only for undergraduates, but especially at the PhD level. Liu, Yao, and Hu (2012) explained how educational approaches to ethics from law and medicine can be transferred to accounting in their article, “Improving Ethics Education in Accounting: Lessons from Medicine and Law.”

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### **Ethics and Morality**

Lastly, an overarching theme of the ethics literature is its foundation in morality and psychology. Although most of the literature revolved around ethics in accounting and business, the cognitive side behind ethics also plays a key role. In the article “Development of Moral Judgement Among Undergraduate University Students” Good and Cartwright use Kohlberg’s theory of moral development and reasoning to explain how the university student makes decisions and applies ethical reasoning. The article goes on to discuss how even though Kohlberg separates his theory from religion, the religious university usually places more concern on intellectual capacity and moral development than other non-religious institutions. The university catalogs at religious institutions also tend to give more emphasis to referring to moral development and ethics (1998).

The vast amount of literature in the study of ethics and specifically accounting ethics denotes the importance of the topic. Ethics education has become a necessary component of college and university curricula. The literature notes that the ethics “culture” at colleges and universities impacts the overall curriculum for that institution. The ethical consciousness at the university level needs to become a priority at the student and educator level (Keenan, 2014). The role of the AACSB as the association responsible for building the network of accredited collegiate level schools is important to this study. Requiring some form of ethics education was the first step. It is interesting to evaluate how schools perform using the Ethics Education Index in regards to their actual curriculum content. An ethics program likely makes any business or accounting curriculum stronger than before if it can be taught by capable educators in a standardized form. It is fascinating, yet unsettling to note that young professionals possibly enter the business world without having had the background or experience that comes from an ethics education. Efforts in the future will need to be made by the pertinent boards in accountancy to see ethics education requirement come to fruition.

### **HYPOTHESES**

#### **Categorical Factor Choice**

The categorical factors chosen for this study reflect the previous literature as well as new components that were originally introduced. Religious affiliation was chosen as a factor

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because religion itself has proven to impact the field of ethics. Both religion and ethics are grounded in morality and their values are well-aligned. As discussed previously in the article by Good and Cartwright, religious institutions adhere to a different set of moral standards and focus more intently on moral intellectual development as a whole over non-religious institutions. This is not to say that students and educators at religious institutions are more moral and ethical than those at non-religious institutions, but this study sought to explain whether the values upheld by religion were directly translated into the course requirements, curriculum, and mission of the college or university.

The next two characteristics, number of students/faculty and whether the institution is public or private were chosen based on similar patterns of reasoning. The number of undergraduate students and faculty within a school of business influences the resources and opportunities at a particular school and the allocation of these resources. I chose this factor to analyze under the assumption that with more faculty comes more of a chance for one or more faculty members to be able to teach a course on ethics or incorporate it in their teaching. There is more of a possibility that even an elective course on ethics in business and accounting can be offered outside the core requirements for a degree. Also, a lower student to faculty ratio would indicate a more personalized education where ethical scenarios can be brought up and discussed more easily in a class of 30 students than in a large lecture hall-based classroom of up to 300 students at a time. Resource allocation also is influenced by whether an institution is classified as public or private. Whether an institution was classified as public or private was used as another categorical characteristic because school endowment per student and resources available at a large public state university can vary significantly from that of a smaller private college. I found particular interest in how these two factors may impact the amount of ethics in the business programs of different schools.

The factor of male or female dean was incorporated because it was something I had not seen examined in the previous literature. The role of the dean represents leadership of the school of business at an institution. The values of male and female leaders can differ in general and this can impact the curriculum and courses offered to students. As discussed by Fine in the article

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“Women Leaders’ Discursive Constructions of Leadership,” ethics is a critical consideration for women leaders especially. Fine summarizes the following findings in part:

“The narratives of the women in this study point toward the centrality of ethical considerations in the conceptualization and exercise of leadership, with particular emphasis on an ethic of caring. Their stories suggest a moral discourse of leadership, which offers rich possibilities for developing new theoretical approaches to leadership ethics, an area of leadership theory that is underdeveloped” (2009, p. 194).

Leadership, in general, is aligned with generally male-focused characteristics of being strong, commanding, assertive, and powerful. Women leaders, as Fine explains, more often incorporate characteristics of inclusiveness, collaboration, nurturing, egalitarian, and communicative leadership. As with religion, this is not to say that all men and women deans of business schools fall into one or either of these classifications of leadership, or that on the whole, women are more moral and ethical than men. This study aimed to discover whether having a male or female dean correlated with the emphasis on ethics within course curricula (Fine, 2009).

The last factor used was US region. A reason this factor was incorporated was due in part to the great variation across state boards of accountancy and education. For example, students at a Texas University, as discussed previously, have an entirely different requirement than the rest of the country in terms of the amount of ethics incorporated into their higher education. Also, the separate regions of the country are known in general for having diverse political and religious views which could impact ethics education at colleges and universities that fall in these regions. The southern region, also referred to as the “Bible Belt” may be more influenced by religion, and therefore ethics, than other regions.

From all five of these internal and external factors that influence a school’s capacity or decision to incorporate an ethics course into their curriculum the hypotheses of this study were formed. The expectations of the impact on the Ethics Education Index (EEI) for Overall EEI score are as follows:

- **Hypothesis 1 (H1):** Schools that are religiously affiliated will exhibit higher scores on the EEI scale relative to non-religiously affiliated schools.



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- **Hypothesis 2 (H2):** Schools that are private institutions will exhibit higher scores on the EEI scale relative to public schools.
- **Hypothesis 3 (H3):** Schools that have a lower undergraduate student to faculty ratio will exhibit higher scores on the EEI scale relative to schools with a higher undergraduate student to faculty ratio.
- **Hypothesis 4 (H4):** Schools that have a female dean will exhibit higher scores on the EEI scale relative to schools with a male dean.
- **Hypothesis 5 (H5):** Schools that are from the South (SO) will exhibit higher scores on the EEI scale relative to other US regions.

Based on these research hypotheses, it follows that the null hypothesis for each H1-H5 is that there is no difference in terms of Overall EEI score between any of the categorical variables as stated above.

## **METHODOLOGY**

### **Informed Study Design**

Most of the measures within previous studies relating to ethics were qualitatively based. The survey was a popular method used by some researchers to ascertain the level of ethics education from educators, students, and universities. Other analyses categorized different types or levels of ethics or performed a mapping and graphing on a coordinate plane for various ethical dimensions. Few methodologies were quantitative in ranking scales and providing measures for defining ethics and what leads to the most effective ethics education. No studies provided for an index to quantify ethics upon at the university level.

Although the survey method was well-received and provided valuable insights, responses were subjective and posed challenges for comparison across a wide range of universities. I found the quantitative studies set themselves apart from the research which is why I chose to quantify ethics education along the Ethics Education Index that was created for direct comparison to the categorical factors chosen. The raw data I needed to gather was specific, available, and relatively easy to access from the public domain on the AACSB website and websites of the colleges and universities studied.

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In designing this study, the categorical factors of each school analyzed were influenced by previous research as well as new models that I wanted to introduce. The intention was to see whether these factors (religious affiliation, number of undergraduate students and faculty, private vs. public, male or female dean, and US region) predicted or influenced where a school ranked on the Ethics Education Index.

### Summary and Sample

This project is classified as a traditional research thesis study. The study set out to find whether certain institution categorical factors influenced the incorporation of ethics education in US AACSB institution curricula. The first part of the study intended to create a comparative scale to quantify each school's incorporation of ethics. I created this novel measurement known as the Ethics Education Index (EEI). In order to calculate total EEI "score" per school, the list of 519 AACSB accredited schools was compiled as my working sample size from the AACSB website. The sample was limited by US AACSB schools using the search tool on the AACSB website (APPENDIX A). Modifications to the sample size were made due to certain institutions only having a graduate program accredited by the AACSB (this study looks at undergraduate curricula exclusively), or certain institutions that did not fill out the required AACSB survey and therefore had no data to compare with other institutions. From the original 519 schools, 74 were eliminated for various reasons including data availability and lack of accreditation for undergraduate curriculum versus graduate curriculum. This left the remaining sample of 445 schools to quantify.

### Methodology Details

The next step consisted of quantitative and qualitative data collection. In the quantitative data set, data for the construction of the four components of the EEI were collected, classified as EEI 1, EEI 2, EEI 3, and EEI 4. EEI 1 was the measure of the number of stand-alone ethics courses in each school's accounting core curriculum. This was measured by using the "ctrl + f" function of the computer with the term "ethic" to find each use of the word "ethical", "ethics", or "ethically" (or other variation of the word "ethics") within the title of an accounting course, deeming that course a stand-alone course on ethics. EEI 2 consisted of the

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number of stand-alone ethics courses in each school's general business curriculum. The same "ctrl + f" function was used in a similar manner to gather this number of stand-alone business ethics courses. For EEI 1 and EEI 2, a variation of the word "ethics" had to appear in course name for it to be classified as a stand-alone ethics course. EEI 3 consisted of the frequency of "ethical" terminology within each institution's general mission statement, usually found at the beginning of the course catalog. Lastly, EEI 4 consisted of the frequency of the same "ethical" terminology within the course descriptions of the school of business in their course catalog. Each course within the catalog includes a small paragraph description entailing what the course will consist of and what topics will be covered. Ethics was a topic frequently discussed in some of these descriptions and therefore used as an EEI metric. The metrics of EEI 3 and EEI 4 were a documented count of the number of times a variation of the word "ethics" was used indicating how integrated ethics is throughout the entire curriculum as opposed to stand-alone course offerings.

In a second qualitative data set, the data regarding the categorical school characteristics were collected. For each institution, the AACSB provided information on the number of undergraduate students and faculty or affiliation as a public or private institution. Further research was individually conducted, usually from the school website for each institution, to determine whether the school was religiously affiliated and if the school of business at a particular institution had a male or female dean. The data for US region was determined by dividing the US into five regions: Northeast (NE), South (SO), Midwest (MW), West (WE), and Other (OT). Each institution was located in a specific state or territory and was further classified into the geographical regions (see APPENDIX B-US Region Breakdown by State).

To construct the Ethics Education Index, the data first needed to be standardized within each EEI component 1-4. This was done by calculating the z-scores for each entry. The z-score is a standard score for each entry in each category that indicates how many standard deviations a value in the data set is away from the mean. This was used as a standardizing mechanism for the large variance in the normal distributions of the data and in tally totals among all four dimensions of this data set. The z-score is calculated as indicated below:

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$$z = \frac{(x - \mu)}{\sigma}$$

where

x = EEI entry value

$\mu$  = mean of that EEI component

$\sigma$  = standard deviation

Next, each component of the EEI was weighted for its overall significance to the study to provide for the total measure on the Ethics Education Index (EEI) known as Overall EEI. EEI 1-Accounting Ethics Course was weighted 30%, EEI 2-Business Ethics Course was weighted 25%, EEI 3- Term Frequency in Mission Statement was weighted 15%, and EEI 4- Term Frequency in Course Catalog was weighted 30%. I assigned the weights based on each component's significance to the overall ethics incorporation. A well-developed accounting curriculum at an institution would likely include a stand-alone ethics course which is why it is given the most substantial weight of 30%. A course in business in general was still important which is why it is assigned a slightly lesser weight of 25%. The mission statement was assigned the least weight at 15% because it had the least variation of the four categories and has the least overall effect on the actual course curriculum. Lastly, the other most substantial weight was assigned to EEI 4 dealing with term frequency in the course catalog as this was the most accurate measure for how much ethical influence there is in the entire catalog for the school of business. The weight for each dimension was multiplied by the z-score for each institution. Finally, the weighted z-scores of each institution for EEI 1-4 were summed for the total or Overall EEI score (See APPENDIX C for the EEI Equation).

The next step in this study consisted determining if there was any significant influence or correlation between the Overall EEI score for each institution and the categorical factors in the second data set (religious affiliation, number of undergraduate students and faculty, private vs. public institution, male or female dean, and US region). For this portion, the data was exported from Excel into the SAS statistical software system. SAS is a Statistical Analysis System and software suite that enables the user to do advanced statistical analysis on a set of data. The categorical factors acted as the independent variables and were used to

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determine whether you could predict the EEI scores based on these independent variables. Data from the Overall EEI score as well as each of its individual components, EEI 1-4, acted as the dependent variables.

**RESULTS**

The results of this study were derived from the SAS System Output. The variables tested are listed in Table 1 below for reference. In the first column, the independent variables of categorical school characteristics is shown. In the second column, the dependent variables consisting of the Total EEI and four components of EEI are shown.

<b>Table 1: Variables</b>	
<b>Independent Variables</b>	<b>Dependent Variables</b>
Religious Affiliation	Total EEI
Classification (Public vs. Private)	EEI 1-Accounting Ethics Course
Dean Gender (Male or Female)	EEI 2-Business Ethics Course
# of Full-time UG Students	EEI 3-Mission Statement Terms
# of Full-time UG Faculty	EEI 4-Course Catalog Terms
Student/Faculty Ratio	
US Region	

Next, Table 2 displays descriptive univariate results for the quantifiable measures including population size n, the mean, standard deviation, minimum, and maximum. As is shown in Table 2, the mean number of students for all 445 schools is 1,617 and mean number of faculty of about 62 per institution. The average student/faculty ratio was 25/1. About 31% of schools are classified as private and 17% are religiously affiliated. For all 445 schools, the maximum number of stand-alone accounting ethics courses offered at an individual institution was 4 and maximum number of stand-alone business ethics courses was 13. The maximum number of times an ethical term was used in a mission statement was 10 and maximum in the course catalog was 153 times for one institution. Also in Table 2 are the maximum and minimum standardized scores for each of the EEI components and Total EEI.

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**Table 2: Univariate Descriptive Statistics**

<b>Variable</b>	<b>n</b>	<b>Mean</b>	<b>Std Dev</b>	<b>Min</b>	<b>Max</b>
EEL 1-Accg Course (wtd: 30%)	445	0.0000	0.30	-0.10	2.81
EEL 2-Business Course (wtd: 25%)	445	0.0000	0.25	-0.20	1.57
EEL 3-Mission Statement Terms (wtd: 15%)	445	0.0002	0.15	-0.11	1.13
EEL 4-Course Catalog Terms (wtd: 30%)	445	0.0000	0.30	-0.30	3.47
Total EEL	445	0.0002	0.68	-0.71	4.15
Stand-Alone Ethics Course-Accounting	445	0.1393	0.41	0.00	4.00
Stand-Alone Ethics Course-Business	445	1.5000	1.84	0.00	13.00
Ethical Terminology in Mission Statement	445	0.8600	1.21	0.00	10.00
Ethical Terminology in Course Catalog	445	12.1400	12.19	0.00	153.00
# of Full-Time Undergraduate Students	445	1616.9800	1368.58	24.00	9460.00
# of Full-Time Undergraduate Faculty	445	62.3700	42.23	10.00	257.00
Student/Faculty Ratio	445	25.3500	11.01	0.92	86.43
Private	445	0.3080	0.46	0.00	1.00
Religious	445	0.1674	0.37	0.00	1.00

Bivariate Results

First, a bivariate t-test was conducted for the categorical variables (Religious Y/N, Dean M/F, and Public/Private). A two-sample t-test analyzes whether the difference between population means are statistically different from one another. The t-value measures the size of the difference relative to the variation in the data also known as the standard error. This value can be positive or negative, but the greater the absolute value of the t-value, the greater the evidence is that there is a significant difference between population means. The p-value is effectively linked to the t-value. The p-value delineates the statistical significance of the difference in the means represented by the t-value. The t-value is highlighted in the following charts showing the significance of each test. In Table 3 below you can find the description of the p-value and the confidence levels associated.

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<b>Table 3: p-Value Description</b>			
<b>P-Value</b>	<b>Confidence</b>	<b>Denoted</b>	<b>Significance</b>
$p > 0.10$	< 90%	n.s.	Not Significant
$p \leq 0.10$	$\geq 90\%$	*	Marginally Significant
$p < 0.05$	>95%	**	Significant
$p < 0.01$	>99%	***	Highly Significant

After conducting the bivariate t-test within the SAS system, the relevant data was consolidated into Table 4 below. The three bivariate categorical factors included religious affiliation (Yes/No), designation as a Private or Public institution, and whether the dean of the business school is male or female. The means on the Ethics Education Index which includes EEI 1-Accg Course, EEI 2-Business Course, EEI 3-Mission Terms, EEI 4-Catalog Terms were shown to demonstrate how they inform Overall EEI and were compared between the categorical variables.

As shown in Table 4, there was a highly significant difference in means for Religious Yes/No for the Overall EEI, EEI 2-Business Course, and EEI 4-Catalog Terms. The mean EEI score of religiously affiliated schools was significantly higher than the mean of non-religious schools for these three EEI components. In comparing private and public institutions to the EEI and its components, the data showed high significance in the difference between means for the same three dimensions, Overall EEI, EEI 2-Business Course, and EEI 4-Catalog Terms. The mean EEI score for private institutions was significantly higher than the mean of public institutions.

Lastly, in comparing the bivariate t-test for the dean of the business school at each institution being male or female we failed to find statistical significance under any EEI component. EEI 3-Mission Statement approached marginal significance but there was not enough evidence to suggest a significant relationship.

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<b>Table 4: Bivariate t-Test Results</b>					
	<b>Overall EEI</b>	<b>EEI 1 Accg Course</b>	<b>EEI 2 Business Course</b>	<b>EEI 3 Mission Terms</b>	<b>EEI 4 Catalog Terms</b>
<b>Religious</b>					
<b>Yes</b>	0.2248	0.1467	2.1733	1.0533	16.3333
<b>No</b>	-0.0459	0.1378	1.3595	0.8184	11.2946
t Value	(3.16***)	0.17	(3.55***)	1.54	(3.30***)
Pr > t	0.0017	0.8658	0.0004	0.1253	0.0010
<b>Private</b>	0.1467	0.1449	1.8768	0.9348	15.4493
<b>Public</b>	-0.0663	0.1368	1.3257	0.8235	10.658
t Value	(3.07***)	0.19	(2.95***)	0.90	(3.90***)
Pr > t	0.0023	0.8478	0.0033	0.3703	0.0001
<b>Dean</b>					
<b>Male</b>	0.0006	0.1364	1.4000	1.0182	11.8455
<b>Female</b>	-0.0028	0.1403	1.5284	0.8054	12.2418
t Value	0.05	0.09	0.64	1.60	0.30
Pr > t	0.9638	0.9309	0.5253	0.1096	0.7676

Multivariate Results

Next, multivariate regressions were performed along all of the categorical variables. The multivariate test is more robust as it compares multiple relations between all of the variables simultaneously. This lends itself to changes in some of the results previously analyzed in the bivariate analysis. Additionally, a new column labelled “Coefficients” (highlighted in orange) was added to this table to show the average change in Overall EEI within each of the categorical variables. The results of the multivariate regression can be found in Table 5 below.



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In analyzing the multivariate results for US Region, there was a high significant difference between the means of the West region and all other regions. The West was used as a base figure in the multivariate test. As shown in Table 5, there was a high significant difference in means for the West in Overall EEI with the means of all four other regions, Midwest, Northeast, Other, and South, compared to the West. The figures in the coefficients column show how much lower average Overall EEI was for each of the other regions compared to the West. For example, on average the Midwest region had an Overall EEI score about 0.2872 less than the West region. Also, for the component EEI 1-Accounting Course, there was a high significant difference between the West and the Midwest, Northeast, and South, and a significant difference between the mean of the Other region and the mean for the West. For EEI 2-Business Course, the Northeast showed a high significant difference from the West, the Other region showed a marginally significant difference, and the South region showed a significant difference between its mean and the mean of the West region.

When looking at the number of full-time undergraduate faculty within the school of business, there was a high significant relationship that the more faculty at a school, the higher the mean score for the school on the EEI scale for Overall EEI, EEI 1-Accounting Course, EEI 2-Business Course, and EEI 4-Catalog Terms. The coefficient value demonstrates that for every 1 faculty member added to a school, the Overall EEI score increases on average by 0.0089. In reference to the number of full-time undergraduate students, there was a negative relationship in the number of students and a school's mean score on the EEI scale. The results showed the fewer students at a certain school, the higher the mean score on the EEI scale. On average, for every 1 student added to a school, the Overall EEI score drops by 0.0002. The components Overall EEI and EEI 4-Catalog Terms were highly significant in this relationship with number of full-time undergraduate students. EEI 1-Accounting Course showed significant results for the mean score based on the number of full-time undergraduate students. The Student/Faculty ratio demonstrated a similar result as it is a quotient of the number of full-time undergraduate students and full-time undergraduate faculty metrics. There was a high significant negative relationship between the mean Student/Faculty ratio and Overall EEI and EEI 4-Catalog Terms. The relationship between Student/Faculty ratio and EEI 1-Accounting Course is

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significant. These results show the lower the student/faculty ratio the higher the mean score for the school on the EEI. Again, the coefficient demonstrates that as the student/faculty ratio increases, or there are more students per one faculty member, the Overall EEI score decreases on average by 0.0177.

For the multivariate regressions of private versus public institutions, there was a highly significant difference for the mean of private institutions versus the mean of public institutions for Overall EEI and EEI 4-Catalog Terms. On average, the mean of private institution scores on the EEI components was higher than the mean of public institutions. The coefficient tells us that private schools on average scored about 0.2337 points higher on the Overall EEI than public schools.

The multivariate results failed to show a significant difference between the mean scores for religious institutions versus non-religious institutions when moving from a bivariate t-test to a multivariate regressions. We also failed to find significance in the testing of private schools by religious institutions. There was an underlying relationship between these categorical variables because any religious school is also denoted as private in the data. Only schools that are private and non-religious separate these two categorical variables. Once again, results failed to show a significant difference between the mean scores of institutions where the dean is male or female with the EEI metrics. In the overall results, the component EEI 3-Mission Terms failed to make a significant difference in means for any of the categorical variables studied.

The R-square value demonstrates the amount of variation explained by the model. The level of R-square fluctuates between EEI components. Overall EEI R-square is the highest for any component of EEI at 13% which is sufficient for this population. EEI 3-Mission Terms is the lowest at 2% demonstrating the least amount of predictability over the population variation with its poor R-square level. The other three components of EEI have an R-square of roughly 10% each which is also sufficient for this study.

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**Table 5: Multivariate Regression Results**

	Overall EEI			EEI 1 Accounting Course		EEI 2 Business Course		EEI 3 Mission Terms		EEI 4 Catalog Terms	
	Coefficients	t-value	Pr > t	t-value	Pr > t	t-value	Pr > t	t-value	Pr > t	t-value	Pr > t
	<b>US Region (vs. West)</b>										
<b>Midwest</b>	-0.2872	(-3.14***)	0.0018	(-4.59***)	<.0001	-1.49	0.1382	0.03	0.9792	-1.26	0.2096
<b>Northeast</b>	-0.3709	(-3.99***)	<.0001	(-5.16***)	<.0001	(-2.82***)	0.0050	0.25	0.8021	-1.58	0.1138
<b>Other</b>	-0.9851	(-2.55***)	0.0111	(-1.96*)	0.0512	(-1.87*)	0.0623	0.05	0.9579	(-2.24**)	0.0258
<b>South</b>	-0.2933	(-3.40***)	0.0007	(-5.04***)	<.0001	(-2.11**)	0.0358	1.00	0.3183	-1.38	0.1691
<b># Full-Time UG Faculty</b>	0.0089	(4.25***)	<.0001	(3.06***)	0.0024	(2.73***)	0.0066	0.45	0.6531	(3.96***)	<.0001
<b># Full-Time UG Students</b>	-0.0002	(-2.91***)	0.0038	(-2.45***)	0.0145	-1.23	0.2189	-0.87	0.3874	(-2.59***)	0.0098
<b>Student/Faculty Ratio</b>	-0.0177	(-3.06***)	0.0024	(-2.54***)	0.0115	-1.27	0.2049	-0.58	0.5603	(-2.96***)	0.0033
<b>Private (vs. Public)</b>	0.2337	(2.33***)	0.0044	1.25	0.2128	1.57	0.1169	-0.38	0.7040	(2.86***)	0.0045
<b>Religious (vs. Non-religious)</b>	0.0564	0.09	0.9308	0.00	0.9960	0.14	0.8894	-0.76	0.4471	0.47	0.6374
<b>Private*Religious</b>	0.0798	0.12	0.9037	-0.13	0.9000	0.20	0.8450	1.01	0.3142	-0.29	0.7693
<b>Dean F (vs. Dean M)</b>	-0.0002	0.00	0.9981	0	0.9969	-0.59	0.5535	1.61	0.1091	-0.35	0.7236
<b>R-square</b>	0.1308			0.1043		0.0993		0.0208		0.1075	
<b>F Value</b>	5.92			4.59		4.34		0.83		4.74	

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The Case of Texas

As mentioned previously, Texas is a special case when it comes to ethics education requirements. In order to further test the multivariate results in SAS, we ran a multivariate regressions additionally adding a breakdown by state. For this test, we separated Texas which had 31 schools total in the sample and compared the EEI mean for Texas only with all other states, denoted “not Texas”. The means for the Western region ranked higher on the EEI scale than the other regions for most measures of EEI. Texas falls into the Western region as can be seen from APPENDIX B, therefore, we wanted to see if this relationship followed through the results. The results of the multivariate regressions with the addition of Texas can be found in Table 6 below.

Overall, we found the multivariate test including Texas became more robust as the R-square increased along Overall EEI and each of its components EEI 1-4 once Texas was added. We found a significant difference in Overall EEI and EEI 4-Catalog Terms that Texas by itself was more likely to rank lower on the Overall EEI than non-Texas schools. According to the coefficient result, Texas scored on average 0.3216 lower on Overall EEI than non-Texas schools.

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**Table 6: Multivariate Regression Results (with Texas)**

	Overall EEI			EEI 1 Accounting Course		EEI 2 Business Course		EEI 3 Mission Terms		EEI 4 Catalog Terms	
	Coefficients	t-value	Pr > t	t-value	Pr > t	t-value	Pr > t	t-value	Pr > t	t-value	Pr > t
	<b>US Region (vs. West)</b>										
<b>Midwest</b>	-0.3827	(-3.83***)	0.0001	(-4.50***)	<.0001	(-2.03**)	0.0403	-0.74	0.4584	(-2.01**)	0.0452
<b>Northeast</b>	-0.4635	(-4.59***)	<.0001	(-5.04***)	<.0001	(-3.24***)	0.0013	-0.51	0.6129	(-2.29**)	0.0227
<b>Other</b>	-1.0914	(-2.82***)	0.0051	(-2.03**)	0.0426	(-2.05**)	0.0406	-0.17	0.8671	(-2.28**)	0.0136
<b>South</b>	-0.3885	(-4.07***)	<.0001	(-4.87***)	<.0001	(-2.61***)	0.0094	-0.10	0.9199	(-2.15**)	0.0325
<b># Full-Time UG Faculty</b>	0.0088	(4.23***)	<.0001	(3.04***)	0.0025	(2.70***)	0.0071	0.42	0.6766	(3.94***)	<.0001
<b># Full-Time UG Students</b>	-0.0002	(-2.82***)	0.0050	(-2.42**)	0.0161	-1.16	0.2455	-0.79	0.4304	(-2.51**)	0.0124
<b>Student/Faculty Ratio</b>	-0.0161	(-2.78***)	0.0056	(-2.43**)	0.0156	-1.07	0.2831	-0.37	0.7133	(-2.71***)	0.0070
<b>Private (vs. Public)</b>	0.2148	(2.14**)	0.0328	1.18	0.2392	1.43	0.1521	-0.53	0.5945	(2.69***)	0.0075
<b>Religious (vs. Non-religious)</b>	0.0522	0.08	0.9355	0.00	0.9978	0.13	0.8928	-0.77	0.4427	0.47	0.6402
<b>Private*Religious</b>	0.1057	0.16	0.8720	-0.11	0.9107	0.22	0.8229	1.04	0.2981	-0.26	0.7959
<b>Dean F (vs. Dean M)</b>	-0.0028	-0.04	0.9686	-0.02	0.9868	-0.62	0.5354	1.58	0.1154	-0.39	0.6978
<b>Texas (vs. not Texas)</b>	-0.3216	(-2.30**)	0.0220	-0.78	0.4350	-1.63	0.1041	(-1.83*)	0.068	(-2.07**)	0.0387
<b>R-square</b>	0.1413			0.1056		0.1048		0.0283		0.1163	
<b>F Value</b>	5.92			4.25		4.22		1.05		4.74	

## **DISCUSSION**

### **Hypotheses**

At the beginning of this study, expectations were developed to predict how the categorical variables would influence overall EEI. These hypotheses were as follows:

- **Hypothesis 1 (H1):** Schools that are religiously affiliated will exhibit higher scores on the EEI scale relative to non-religiously affiliated schools.
- **Hypothesis 2 (H2):** Schools that are private institutions will exhibit higher scores on the EEI scale relative to public schools.
- **Hypothesis 3 (H3):** Schools that have a lower undergraduate student to faculty ratio will exhibit higher scores on the EEI scale relative to schools with a higher student to faculty ratio.
- **Hypothesis 4 (H4):** Schools that have a female dean will exhibit higher scores on the EEI scale relative to schools with a male dean.
- **Hypothesis 5 (H5):** Schools that are from the South (SO) will exhibit higher scores on the EEI scale relative to other US regions.

Based on these research hypotheses, it follows that the null hypothesis for each H1-H5 is that there is no difference between any of the categorical variables as stated above.

In terms of the bivariate analysis, we reject the null hypothesis for H1 and H2. In rejecting the null hypothesis, we conclude that there was a significant difference in the direction we expected for both the religious affiliation variable and private versus public institution variable. We fail to reject the null hypothesis for H4, dean as male or female, due to the fact that the analysis failed to show a significant difference in mean Overall EEI score when the dean was male versus female.

In terms of the multivariate analysis, we can reject the null hypothesis for H2 and H3. In rejecting the null hypothesis, we conclude that there was a significant difference in the direction we expected for the private versus public variable and student/faculty ratio variable. We fail to reject the null hypothesis for H1, H4, and H5 due to the fact that the analysis failed

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to show a significant difference in the mean Overall EEI for the religious affiliation, dean as male or female, and US region in the results we expected. US region was only statistically significant in terms of the West versus all other regions.

In looking at the “Case of Texas” results, they are counterintuitive to what we expected. Due to the fact that Texas had a special ethics education requirement and belonged to the West region, the region for which we saw the highest score on the EEI, we expected Texas to rank higher in terms of EEI than the rest of the country. The results show that the mean Overall EEI score for Texas actually ranked lower than the rest of the country, in aggregate, on the EEI scale. This does not mean that Texas is unethical or even the least ethical state, but that its results did not sway the West region in the way we had expected. We believe the results do not follow our reasoning for the fact that the Texas education requirement requires an ethics course within the total 150 credit course requirement. The 150 credit hour requirement usually includes a graduate year of study for most programs. Because this study only looked at the undergraduate curricula of colleges and universities, the ethics courses required by Texas law may have been excluded by this study if they appeared in the graduate portion of the curriculum. By adding Texas, the other results are primarily similar in significance to the multivariate results without Texas.

### Limitations

There are some limitations to this study. One limitation includes the subjectivity of the construction of the EEI. This subjectivity applies exclusively to the metrics chosen to measure the components of EEI 1-4 and Overall EEI and the weights assigned to each. There are many other metrics that could compose an EEI as we have done, but these metrics were those we thought best measured a course catalog objectively. The weights are not assigned arbitrarily, but are constructed exclusively based on my own conclusions and reasoning for the importance of each component constructing the EEI.

A second limitation includes an analysis going from curriculum to classroom. In this study, the course catalogs of all the various institutions were studied for their incorporation of ethics.

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However, there is no analysis of whether a school that says a course or courses include ethics in the curriculum actually does in the classroom. It is not feasible to look at every class that says it incorporates ethics in some form and then sit-in on the class to see if it actually does for every institution studied. The course catalog was simply used as the most objective measure while also being indicative of what a course covers at its most basic level.

Another limitation applies to only studying the undergraduate curriculum of each college or university. By excluding any graduate or PhD programs at the various institutions there may be more ethics education incorporation at these levels versus just the undergraduate level. The constraints on the timeframe of this capstone project meant restricting the data to only undergraduate curricula at the schools. It is still important to include ethics education at the undergraduate level because not all students pursue a graduate degree to fulfill the 150 credit hour requirement at every institution.

A final limitation deals with data availability on different levels. Originally, this study was proposed to follow students taking the curriculum courses of certain schools and how this affected ethics in their careers as they continued throughout their professional life. Due to the historical data that would be required for this and the timeframe required to observe students as they progress into their careers, this was not feasible. Also, many institutions were eliminated from the original 519 AACSB school sample due to a lack of data available that was necessary for comparison and inclusion in this study. For example, it was a common theme in my data collection for Ivy League institutions to not fill out the survey required annually by the AACSB to update statistics at each school. These surveys were a primary source for my data collection of the categorical variables. If a school had not filled out the 2015-2016 survey I could not collect the comparable data to include in the overall sample.

### Next Steps

There are several next steps that should be taken in future research regarding this study. The first would be the inclusion of other categorical variables to compare their influence on the EEI. Due to lack of data availability across all institutions, many of these variables could not



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be included in this study. Examples of this include school endowment per student and other financial constraints of the university that would affect the overall curriculum and ethics incorporation. Also an analysis of Ivy League versus non-Ivy League schools could be done if they were not eliminated from the study.

In other future research, graduate schools and PhD programs should also be included in this study to get an overall picture of the amount of ethics in the entire curriculum of the university. Also, if time allowed, it would be interesting to follow the students enrolled in the 2015-2016 curriculum into their careers to see if the amount of ethics education they received had an overall effect on their career decisions and ethical dilemmas that may arise. Finally, the 74 schools that had to be eliminated for data availability reasons should be included in a separate study to see whether these schools would have an impact on the results. This is especially relevant for the Ivy League schools that had to be left out. These institutions are renowned as some of the best institutions in the world, therefore their emphasis on ethics education within their curricula should definitely be included in further research. It would also be interesting to take a look at schools that are not accredited by the AACSB to see if they are more or less ethical than the schools that are accredited. AACSB schools are held to a specific ethics standard; whether this standard makes a difference would be telling for ethics education.

Lastly, some future research on the white-collar crime scandals of Enron, WorldCom, and Tyco should be done. This research would include what schools each of the criminals in these egregious failures went to and whether they received an ethics education or took an ethics course at their respective college or university. If they did not receive an ethics education, it would be interesting to see if this would have made a difference in the decisions they made to commit these crimes overall.

## **CONCLUSIONS**

### Contributions

There are various contributions of this research on the field of accounting and on ethics education in general. First, the novel Ethics Education Index is a contribution to the literature not seen before quantified in this manner and with the components we have included. The metrics used for each component and overall score assigned to the index are original dimensions intended to rank schools on the index. This type of empirical study was directly observed and quantified through the novel measurement. The EEI scores of each individual university demonstrate the vast amount of variation among AACSB schools all proposed to be following the same ethics standard.

### Implications

Several implications of this study relate to curriculum development at higher education institutions. This study could impact curriculum development by including more ethics courses and related content within the course structures of a university business or accounting program. If a school ranks lower on the current EEI scale for 2015-2016, they may want to reevaluate the structure and content of their courses to boost their standings. With increased ethics education becoming a theme for the future of accounting education, it will be important for schools to know where they rank in comparison. Also, the perceived level of ethics at certain institutions may be a deciding factor for students entering college in order to ensure they are receiving a well-rounded education at whatever institution they choose. Additionally, employers could use the EEI in order to recruit students they know are getting the ethics education that will help them in their future careers.

In summary, this study demonstrates how the standard AACSB requirement for ethics education permits wide variation in ethics incorporation within the curricula of colleges and universities accredited by the AACSB. This is exemplified through the construction of the Ethics Education Index to quantify the emphasis on ethics education for all schools along a standard metric (See APPENDIX D for various EEI Highlights). From the bivariate analysis, the data showed that religious affiliation and whether a school is classified as private or public

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made a statistically significant difference on average in Overall EEI score. In the multivariate analysis, the data showed that whether a school is private or public and the student/faculty ratio made a statistically significant difference on average in Overall EEI. US Region also showed statistically significant result in terms of the West versus all other regions. Religious affiliation only showed significance in a bivariate analysis while whether the dean is male or female failed to show significance in either test. These results have overarching implications on the future of ethics education at the university level.

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### APPENDICES

#### APPENDIX A – AACSB Website

The screenshot shows the AACSB International website. The header includes the AACSB logo and the tagline "Advancing Quality Management Education Worldwide". The navigation bar contains links for "myAACSB", "The Exchange", "BizSchoolJobs", "BestBizSchools", and "Login". Below the navigation bar, there are links for "About", "Careers", and "Contact Us". The main content area features a search bar and a list of navigation options: "Membership", "Accreditation", "Events", "Knowledge", and "Publications". The "Accreditation" section is expanded, showing "Accreditation Home" and "Newly Accredited Schools". The main heading is "AACSB-Accredited Universities and Schools". Below this heading, there is a paragraph explaining the importance of business school accreditation. There are two filters: "Filter by Accreditation: -- ALL --" and "Filter by Location: United States". A "Search" button is located below the filters. The results table shows two schools: "Abilene Christian University (United States - TX)" and "Arlinghi University (United States - NY)". Both schools have checkmarks under the "Business" and "Accounting" columns.

	Business	Accounting
<b>Abilene Christian University</b> (United States - TX) College of Business Administration <a href="#">Website</a>   <a href="#">Member Profile</a>	✓	
<b>Arlinghi University</b> (United States - NY)	✓	

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**APPENDIX B – US Region Breakdown by State**

<b>Northeast (NE)</b>	<b>South (SO)</b>	<b>Midwest (MW)</b>	<b>West (WE)</b>	<b>Other (OT)</b>
Connecticut	Alabama	Illinois	Alaska	US Territories
Delaware	Arkansas	Indiana	Arizona	Washington D.C.
Maine	Florida	Iowa	California	
Maryland	Georgia	Kansas	Colorado	
Massachusetts	Kentucky	Michigan	Hawaii	
New Hampshire	Louisiana	Minnesota	Idaho	
New Jersey	Mississippi	Missouri	Montana	
New York	North Carolina	Nebraska	Nevada	
Pennsylvania	South Carolina	North Dakota	New Mexico	
Rhode Island	Tennessee	Ohio	Oklahoma	
Vermont	Virginia	South Dakota	Oregon	
	West Virginia	Wisconsin	Texas	
			Utah	
			Washington	
			Wyoming	

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APPENDIX C – Ethics Education Index Equation

Illustration of Construction of the EEI Score for an individual institution (School A):

$$\text{Overall EEI (School A)} = \left( \left[ \frac{X_{EEI1} - \mu_{EEI1}}{\sigma_{EEI1}} \right] \times 30\% \right) + \left( \left[ \frac{X_{EEI2} - \mu_{EEI2}}{\sigma_{EEI2}} \right] \times 25\% \right) + \left( \left[ \frac{X_{EEI3} - \mu_{EEI3}}{\sigma_{EEI3}} \right] \times 15\% \right) + \left( \left[ \frac{X_{EEI4} - \mu_{EEI4}}{\sigma_{EEI4}} \right] \times 30\% \right)$$

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APPENDIX D – EEI Highlights

TOP 5 SCHOOLS

- 1 • University of Notre Dame
- 2 • San Jose State University
- 3 • University of Denver
- 4 • Brigham Young University
- 5 • Loyola University of Chicago

BOTTOM 5 SCHOOLS

- 441 • U.S. Air Force Academy
- 442 • University of Louisville
- 443 • University of South Carolina
- 444 • Indiana University Kokomo
- 445 • Montana State University-Billings

Where does **Bryant University** rank on the EEI? **171/445** schools

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