

Original Research Article**Student Perceptions of Accounting and Business Scandals on the Accounting Profession**

Abstract

The purpose of this study was to determine the impact of accounting and business scandals on business student perceptions of the accounting profession to determine if they are differentiated by maturity factors. Student maturity is distinguished by age, class standing, and number of accounting classes taken. The study results are based on a survey of business student perceptions regarding their understanding of accounting scandals, related to business student's knowledge of scandals, student perceptions about the accounting profession, and student perceptions about ethics and business. It is interesting to note that the more mature a student is, as measured by age, the more they perceive that the accounting profession has implemented adequate measures to avoid future accounting scandals. Students disagree with the statement that accounting scandals have made the accounting profession more attractive, as separated by the maturity factor of age. Students agree that accounting scandals have stressed the importance of good ethical conduct in the accounting profession. Considering maturity as measured by courses taken, students are reading business publications often. The findings of this study have important implications for students and professors alike by enabling efforts to dialog with students about ethical and professional issues.

Keywords: Accounting scandals, ethics, student maturity, age, class standing, Sarbanes-Oxley, student perceptions

27 **1.0 Introduction**

28 The reputation of the accounting profession has suffered dramatically since the Enron
29 scandal and failure of Arthur Anderson (Theuri and Weickgenannt, 2008). However, corporate
30 accounting scandals, accounting irregularities, and income restatements continue to rise,
31 heralding a call for more effective accounting ethics education (Mastracchio, 2008). Educators
32 shape the values of individuals and society, while accounting educators also play key roles in
33 shaping professionals values (Burton and Sack, 1989). These scandals have resulted in changes
34 to the regulatory environment for financial accounting reporting.

35 The passage of the Sarbanes-Oxley Act of 2002 (SOX), is a direct result of these
36 accounting scandals, and has dramatically changed the accounting and auditing professions. This
37 has also brought into question the ethics education required for students and accounting
38 professionals. The Public Company Accounting Oversight Board (PCAOB) was a direct result of
39 SOX, whose purpose is to oversee and inspect the audits and auditors of public companies.
40 Management's responsibility for financial reporting is increased by SOX and requires the CEO
41 and the CFO of public companies to certify the quarterly and annual statements submitted to the
42 SEC. Anyone knowingly falsely certifying the financial statements is subject to criminal
43 prosecution. In addition, another major change is SOX's requirement that all public companies
44 issue a report on internal control. Companies must acknowledge management's responsibility for
45 maintaining controls and assess the effectiveness of their internal control structure and
46 procedures (Nichols, 2006).

47 Even with these regulations and closer scrutiny on business accounting, the perception of
48 the accounting profession is doubtful and ethics education is in need of change. According to

49 Liu, Yao, and Hu (2012), ethics education in accounting shows deficiencies in terms of code-
 50 bound content, less formal training, hands-on training, and less partnering, as compared to
 51 medicine and law. The National Association of State Boards of Accountancy (NASBA) has been
 52 considering what is necessary in regards to curriculum for accounting education or whether to
 53 rely on educational institutions or accrediting bodies to decide what is adequate. Some believe
 54 that additional changes to the Certified Public Accounting Examination on content specification
 55 areas regarding ethics would lead academia to change the subject matter in business and
 56 accounting courses (Mastracchio, 2008).

57 Blanthorne, Kovar, and Fisher (2007), presented the results of a comprehensive survey of
 58 accounting faculties' opinions and practices regarding ethics education. They found that
 59 accounting educators recognize the importance of ethics education to satisfy the profession's
 60 needs. Accounting educators indicate that they are the most appropriate source of ethics
 61 education and prefer practical application over theoretical course content. In the study, they
 62 found only 18% of accounting instructors reporting that they do not teach ethics in their courses
 63 and 75% stating that they should teach more ethics. These instructors also reported that the
 64 integration of ethics was supported by 98% of respondents, with only 27% thinking that a
 65 philosophy class teaching normative ethical theory was necessary. Bloch, Brewer, and Stout
 66 (2012) posit that accounting students must be trained as potential leaders who can shape the
 67 future of business.

68 According to Buchan (2005), research in accounting ethics is a fairly recent phenomenon.
 69 Recent scandals have dominated the news and the role of the accounting profession has been
 70 questioned by students, the accounting profession, the public, legislators, and regulators. The

current perceptions of the accounting profession by students studying business and accounting is important in determining the implications for academicians in teaching professional ethics and conduct.

This study examines student perceptions of recent ethical scandals and the resulting regulatory actions and the impact on the accounting profession. In addition, the perceptions of students are considered regarding education in accounting. These perceptions are considered in relationship to factors of student demographics based on the following factors: age, major, grade point average (GPA), class standing (freshman, sophomore, etc.), the number of accounting courses taken, and sex.

Prior studies have focused on the overall value judgment of ethical issues and even measuring students' perceptions with maturity as the differentiating value. The findings of this study should contribute to the ethics literature by evaluating various students' perceptions as differentiating variables. The results of this study should also be of value in the development of business courses that aide in student understanding of ethics and the regulatory process. It is critical for those seeking to enter the accounting profession to participate in setting ethical standards to ensure the continued health of the profession.

2.0 Literature Review

The accounting and business irregularities at Arthur Anderson, Citigroup, Health South Corporation, Countrywide, Lehman Brothers, Merrill Lynch, Thornburg Mortgage, and Qwest Communications have created a renewed need to examine business in an ethical context. The insider trading at ImClone Systems, scandals at Tyco, Adelphia, and Madoff are additional reasons for organizations to make a renewed effort to establish standards for conducting

business. Business ethics is more challenging in today's global economy, as many business practices, safety issues, and environmental concerns differ throughout the world. However, a good sense of business ethics is critical for the accounting profession and business.

The importance of ethics in accountancy can be viewed from the demise of Arthur Anderson and other auditing firms who were publicly dishonored for disregarding or compromising high ethical integrity in accounting that, among other things, led to the corporate accounting scandals of the late 1990s and the early 2000s. Cantoria (2010) found that accountants helped mislead the public by certifying fraudulent financial reports of companies as being true and correct. Incidences of unethical accounting conduct precipitated the passage of the Sarbanes-Oxley Act of July 2002.

2.1 Scandals

Cantoria (2010) stated that the Sarbanes Oxley (SOX) Act was a result of the careful study of all the malfeasance and manipulations committed that led to the accounting scandals in the early part of the 21st century. The laws implemented by the SOX Act brought about changes that deal heavy penalties to its offenders and do not excuse anyone from ignorance of the GAAP accounting rules and policies. To buttress the importance of ethics in the accounting profession, the following is a chronology of recent high profile accounting fraud cases that sent shocking waves across the nation.

2.1.1 Waste Management Scandal (1998).

Waste Management, based in Houston Texas, is a publicly traded waste management company. A new CEO and management team while going through the books found reported fake

114 income of \$1.7 billion created by lengthening depreciation time on its tangible assets thus
 115 understating depreciation expense. Waste Management settled shareholders' class-action suit for
 116 \$457 million. Arthur Andersen audited its books and was fined \$7 million by the Security and
 117 Exchange Commission. Arthur Anderson firm eventually went out of business (accounting-
 118 degree.org. n. d.; Cantoria, 2010; Deal Book 2012).

119 **2.1.2 Enron Scandal (2001).**

120 Enron Corporation was based in Houston Texas and was a commodities, energy and
 121 service company. It kept huge debts off its balance sheets. Enron created bogus companies
 122 through which it routed huge bank borrowings. Internal whistleblower, Sherron Watkins, as well
 123 as Enron's suspicious high stock prices exposed the scandal. Benston (2003) stated that Enron's
 124 stock price was suspiciously high and had increased from a \$7 low in the 1990s to a high of \$90
 125 per share in mid-2000 and eventually hit bottom less than \$1 by the end of 2001, leading them to
 126 file for bankruptcy protection. Shareholders lost \$74 billion and more than 20,000 people lost
 127 their jobs and retirement accounts. Arthur Andersen, one of the Big 5 global accounting firms,
 128 was found guilty of fudging Enron's accounts and this led its dissolution (accounting-degree.org,
 129 n.d.; Patsuris, 2002; Cantoria, 2010; Deal Book 2012) In 2006, chief executives of Enron,
 130 Kenneth L. Lay and Jeffrey K. Skilling, were found guilty of convicted of fraud and conspiracy.
 131 Kenneth Lay died before being sentenced and Mr. Skilling was subsequently sentenced to 24
 132 years in prison (DealBook, 2012).

133 **2.1.3 WorldCom Scandal (2002).**

WorldCom, the nation's largest long-distance telecommunications company, inflated assets by as much as \$11 billion and underreported line costs by capitalizing, rather than expensing. It overstated revenues with fake accounting entries to avoid showing heavy losses in the company's financial statements (DealBook, 2012). The internal auditing department at WorldCom uncovered \$3.8 billion worth of fraud and exposed the company leading to a loss of 30,000 jobs (Patsuris, 2002). The Chief Financial Officer was fired, the controller resigned, and the company filed for bankruptcy. Bernard John "Bernie" Ebbers, the CEO, was sentenced to 25 years for fraud, conspiracy and filing false documents with regulators (accounting-degree.org, n.d.; Patsuris, 2002; Cantoria, 2010, Deal Book 2012). WorldCom was then acquired by Verizon Communications in 2005 and is now known as MCI Inc.

2.1.4 Tyco Scandal (2002).

Patsuris (2002) stated that Tyco, a Swiss company with U.S. operational headquarters in Princeton, New Jersey, is a company with diversified product lines. Tyco's New Jersey CEO and CFO stole \$150 million and overstated company income by \$500 million. They siphoned money through unapproved loan disbursements, as well as, through fraudulent stock sales (accounting-degree.org, n.d.). Money disguised as executive bonuses or benefits was smuggled out of the company. The CEO, Dennis Kozlowski, and the Chief Financial Officer Mark Schwartz were accused of civil fraud and theft and sentenced to 8-25 years in prison (accounting-degree.org, n.d.; Patsuris, 2002).

2.1.5 Qwest Communications International, Inc. (2002).

Patsuris (2002) found that Qwest Communications International, Inc., a large United States telecommunications company, headquartered in Denver, Colorado, provided services to

14 states in the US. It inflated revenue using network capacity "swaps" and "improper accounting for long-term deals". Qwest admitted that an internal review found that it inflated its sales revenues by \$1.16 billion. Quest was fined \$250 million to settle the Securities and Exchange Commission (Patsuris, 2002).

2.1.6 HealthSouth Scandal (2003).

HealthSouth was based in Alabama as the largest publicly traded health care provider company in the United States. It allegedly overstated its earnings by \$1.4 billion to meet stockholder expectations (accounting-degree.org, n.d.). CEO Richard Scrushy, sold \$75 million in stock, a day before the company reported a huge loss, prompting SEC suspicions. Scrushy was acquitted of all 36 counts of accounting fraud, but convicted of bribing the governor of Alabama, leading to a 7-year prison sentence (accounting-degree.org, n.d.; Cantoria, 2010; DealBook 2012).

2.1.7 American International Group (AIG) 2005.

AIG is a multinational insurance corporation. It was involved in a huge accounting fraud with a value of about \$3.9 billion, as well as, in manipulation of stock price and bid-rigging. It showed loans as revenue and directed clients to insurers that the company had payoff agreements with, and encouraged traders to inflate AIG stock price. In 2008, it recorded the largest quarterly corporate loss in history at that time of \$61.7 billion, and was bailed out by the federal government. A possible tip off by a whistle blower got the SEC investigation started at AIG. It suffered the penalties from the SEC for \$10 million in 2003 and \$1.64 billion in 2006, and paid a Louisiana pension fund \$115 million, and three Ohio pension funds a total of \$725 million

178 (accounting-degree.org, n. d.). The executives at AIG compensated themselves to the tune of
179 over \$165 million in bonuses (accounting-degree.org, n.d.; Patsuris, 2002; DealBook, 2012).

180 **2.1.8 Bernie Madoff Scandal (2008).**

181 Bernard L. Madoff Investment Securities, LLC, was a Wall Street investment firm
182 founded by Madoff. Bernard Madoff was the former NASDAQ chairman. When Madoff let his
183 sons know about his scheme, they immediately alerted the SEC. Madoff pleaded guilty to 11
184 federal crimes and admitted that his business was an elaborate Ponzi scheme. It swindled
185 investors \$64.8 billion. Returns to investors were not paid from profits but out of their own
186 money or that of other investors. Madoff was eventually sentenced to 150 years in prison and
187 ordered to pay restitution of \$170 billion (accounting-degree.org, n. d.).

188 **2.1.9 Accounting ethics in the classroom.**

189 Can the causes of current accounting scandals be attributed to the failure to teach ethics at
190 the undergraduate level? The undergraduate student has limited exposure to a traditional course
191 teaching ethical behavior. When and where will the accounting/business student be introduced
192 to ethical behavior? Research has determined that the primary source of ethics education in
193 accounting students was not found in intermediate or advanced financial accounting courses, but
194 was found in auditing textbooks (Gordon, 2010) There is a brief exposure to ethics in auditing
195 courses presented through the “Code of Professional Conduct”.

196 The concept of a standalone ethics course being taught to undergraduate accounting and
197 business students is not a new concept. Professor Stephen E. Loeb addressed the concept of
198 ethics training for public accounting students and business students in general in his research
199 (Lobe and Bedingfield, 1972). Furthermore, a finding of the National Commission on Fraudulent

200 Financial Reporting recommends that the need for additional coverage of ethics in accounting
201 and business education is real (Treadway Commission, 1987, pp. 16, 82-83). However, many
202 accounting faculty do not feel comfortable and some think that they are not qualified to teach
203 ethics (Everett, 2007).

204 The American Accounting Association (AAA) suggested that a code of ethics for
205 accounting academics is a viable option (American Accounting Association, 1981). The AAA
206 was charged with the task of determining if there was a need to develop a code of ethics and
207 rules of professional conduct for accounting academics. The conclusion of the committee was
208 that there was not enough support for a code of ethics for accounting academics (American
209 Accounting Association, 1981). Many feel that it is time to revisit the need for a code of conduct,
210 a code of ethics, and an ethics committee in business education and organizations (Loeb, 1994;
211 Lukerath-Rovers, & De Bos, 2011).

212 According to Lobe (1989), the establishment of an ethics committee at the corporate
213 level, would better provide employees with an escape valve from the pressures that are natural to
214 the profession of accounting. The perspective of the senior executives regarding ethical practices
215 is important to help develop corporate culture. Ethical business practices should be modeled by
216 senior executives, if management regards truth and leadership as important attributes to the
217 organization.

218 **2.2 Student perceptions of ethical scandals.**

219 Determining the role of gender, academic status, and ethical education is important to

220 academicians. Luthar, DiBattista, and Gautschi (1997) determined in their study of 691
 221 undergraduate seniors and freshman in a college of business, that gender was strongly correlated
 222 to perceptions of what an ethical climate should be. Furthermore, females showed a more
 223 favorable attitude regarding ethical behaviors than did their male counterparts. Underclassmen
 224 indicated at a higher rate than upperclassmen that they believe that business ethics are related to
 225 business outcomes. They also found that an ethical education was significantly correlated to an
 226 ethical current climate and what an ethical climate should be. More importantly students, who
 227 had been exposed to an ethical education in a course, were likely to believe that ethical behavior
 228 should be related to successful business outcomes.

229 According, to Guffey & McCartney (2008), the role of a college education is to produce
 230 ethical graduates and that ethical graduates are more likely to perform as professionals in an
 231 ethical manner. Their study of 397 students in upper-level accounting courses in seven large
 232 public universities in the US examined the construct of the perceived importance of an ethical
 233 issue (PIE), as a determinant of ethical decision making for accounting students. It was
 234 determined that PIE was related to ethical judgment and behavioral intention in an academic
 235 setting. Ethical judgment was found to be associated with behavioral intent and that the greater
 236 the perceived importance of an ethical issue, the greater becomes the motivation to act ethically.
 237 Research tends to also support the belief that employees will conform to the ethical values of
 238 their leaders what they support and reinforce (Treviño and Brown, 2004). A code of ethics for
 239 students is a way to communicate the importance of ethical behavior and that environmental
 240 contexts influence behavior, too. This research reinforces the findings of (McCabe & Treviño,
 241 1993; Clikeman & Henning, 2000), that a socialization process and strong culture regarding

242 ethical behavior in a business or school that a person belongs to, is of great influence to shape the
243 importance of ethical issues, such as reduced cheating.

244 Theuri & Weickgennant (2008) examined the effects of maturity on students' perceptions
245 of how accounting scandals impact the accounting profession. They examined a population of
246 117 college business majors on three factors determining student maturity: age, class standing
247 (sophomore, junior, etc.), and the number of courses in accounting that the student had taken.
248 The results of this study indicate that student maturity is a significant determinant of student
249 perceptions and differentiation in their understanding of accounting scandals, legislative
250 response to scandal, response adequacy, and the viability of the accounting profession. They
251 conclude that the effects of ethical scandals on business students' perception differentiated by
252 maturity is important to academicians and this may increase their sensitivity to their students'
253 needs during times of scandals, especially considering the influence of teachers in shaping their
254 ethical perceptions.

255 Coleman, Kreuze, & Langsam (2004) surveyed 338 business students regarding their
256 perceptions of the accounting profession and business scandals in terms of their class rank,
257 major, gender, and frequency of reading business publications. Their study indicated that overall,
258 those respondents were aware of the corporate income restatements and accounting irregularities.
259 They found that 91% of respondents agreed that many companies have been involved in income
260 restatements and accounting irregularities during the last year. They also learned that student
261 perceptions indicated that they believed that the investing public is not easy to forgive and forget
262 these scandals. Most students were in favor of stiff penalties from the SEC against firms against
263 companies and individuals not providing fair and full accounting information disclosure. The

student respondents of this research did not indicate that they were intending to change their major as a result of the accounting and business scandals. Respondents indicate that the profession remains honorable and that the scandals have reduced the attractiveness of the profession. They recommended that a tarnished image requires accounting programs in higher education to address this concern.

3.0 Methodology

A survey questionnaire was developed to determine student perceptions about the accounting profession during a period post Enron and WorldCom, but at a time when recent and significant accounting scandals have occurred at Olympus Corporation and Autonomy Corporation. The survey was conducted in undergraduate and graduate business courses where students were read the adult consent to participate form by their instructors. Students completed the survey in less than 15 minutes and submitted their surveys to the course instructor who then provided them to the researchers. The total population surveyed for this research was 320 and responses were 185 with all surveys deemed usable in the data analysis yielding a 58% response rate. Table 1 presents a summary profile of the student respondents. Approximately 49.7% of the respondents were female and 50.3% male. The majority of respondents were under 24 years-of-age or under at 75.1% with the remaining 24.9% over 24 years-of-age. A total of 80.5% of respondents were non-accounting business majors, while 19.5% were accounting majors. Approximately 82.1% of respondents were undergraduate business students and 17.9% were MBA students. The majority of students had a 3.00 GPA or greater and had taken four or less accounting classes.

Table 1. Demographic Profile of Respondents

		N=185	
		Frequency	Percent
Sex:	Female	92	49.7%
	Male	93	50.3%
Age:	24 and Under	139	75.1%
	Over 24	46	24.9%
Major:	Accounting	36	19.5%
	Others (Business)	149	80.5%
Class Standing:	Undergraduate	152	82.1%
	Graduate (MBAs)	33	17.9%
GPA:	Under 2.49	4	2.2%
	2.50-2.99	26	14.1%
	3.00-3.49	66	35.7%
	3.50-4.00	89	48.0%
Accounting Courses Taken:	Four or less	159	86.0%
	Over four classes	26	14.0%

This study addresses three main research questions regarding students' maturity and their perceptions of the impact accounting and business scandals had on the accounting profession as follows:

1. Do student perceptions of effects of scandals on the accounting profession differ based on maturity factors?
2. Do student perceptions of effects of scandals on ethics and business education differ based on maturity factors?
3. Do student perceptions of effects of scandals and their knowledge about scandals differ based on maturity factors?

In this study, maturity factors are represented by age, class standing, and number of accounting courses taken.

4.0 Results

4.1 First Analysis

The first analysis was conducted to determine the mean, median, and standard deviation of the survey questions used to answer each of the three research questions. Table 2 presents the perceptions of effects of scandals on the accounting profession. The top two mean scores were

found in question 3 and 4. Table 3 presents the perceptions of effects of scandals on ethics and business education. The top two mean scores were found in questions 5 and 2. Table 4 presents student perceptions of effects of scandals and their knowledge about scandals. Questions 2 and 5 represent the top two mean scores.

Table 2. Student Perceptions of Effects of Scandals on the Accounting Profession

N=185

	Mean	Median	SD
<i>Your opinion or level of agreement with...</i>			
1. The accounting profession remains an attractive profession.	2.31	2	1.07
2. Corporate income restatements and accounting irregularities have caused me to rethink my career choice.	3.64	4	1.05
3. I plan to change my college major from accounting/business to other fields, because of these accounting scandals involving restatements and accounting irregularities.	4.11	4	.98
4. The accounting scandals have made a career in accounting more attractive.	3.75	4	.94
5. The accounting scandals have stressed the importance of good ethical conduct in the accounting profession.	2.04	2	.77

Table 3. Student Perceptions of Effects of Scandals on Ethics and Accounting Education

N=185

	Mean	Median	SD
<i>Your opinion or level of agreement with...</i>			
1. A business ethics education in college is necessary for ethical business practices.	2.37	2	1.02
2. A business ethics education in college will reduce scandals.	2.67	3	.94
3. A business ethics education in college will result in business success.	2.55	3	.90
4. It is important for a good business education that an ethical code of conduct is in place at a school.	1.98	2	.76
5. A required ethics class for all business majors would decrease accounting scandals in business.	2.94	3	1.12

Table 4. Student Perceptions of Effects of Scandals and Their Knowledge About Scandals

N=185

	Mean	Median	SD
<i>Your opinion or level of agreement with...</i>			
1. During the last decade, many companies have been involved in corporate income restatements and accounting irregularities.	2.17	2	.67
2. I understand what was entailed in the accounting scandals.	2.88	3	.95
3. The Securities and Exchange Commission (SEC) failed to ensure corporate disclosures were full and fair and this resulted in behavior that caused these corporate scandals.	2.68	3	.70
4. Managers are responsible for these accounting scandals?	2.23	3	1.07
5. The accounting profession has implemented adequate measures to avoid future scandals?	2.72	3	.85
6. I read business publications often?	2.06	2	1.05

4.2 Correlation Analysis

A test for a linear relationship between each perception variable and the overall maturity of the subjects was initially performed prior to an investigation of how each of the three measures of maturity (age, class standing, and number of accounting courses taken) impacts the various perception variables of interest. Since the maturity variables are based on categorical data, the Spearman *Rho* correlation coefficient is used to test for the relationship.

Table 5 presents student perceptions of the effects of scandals on the accounting profession and the correlation coefficient and corresponding significance. A strong positive linear correlation exists between respondents' class and two perception variables of interests. The age of the student also exhibits a strong positive linear correlation with one variable of interest. Accounting courses taken has a strong positive correlation with two variables of interest. It is important to note that only those variables exhibiting a statistically significant linear relationship are reported.

Table 6 presents student perceptions of the effects of scandals on ethics and business education and the correlation coefficient and corresponding significance. A strong positive linear correlation exists between respondents' age and two perception variables of interest. The age of the student also exhibits a strong positive linear correlation with one variable of interest.

Table 7 presents student perceptions of the effects of scandals and their knowledge about scandals on the accounting profession and the correlation coefficient and corresponding significance. A strong positive linear correlation exists between respondents' class and three perception variables of interests. The age of the student also exhibits a strong positive linear correlation with two variables of interest. Accounting courses taken has a strong positive correlation with three variables of interest.

Table 5. Student Perceptions of Effects of Scandals on the Accounting Profession

N=185			
	Class	Age	Courses
	r-coeff (sign)	r-coeff (sign)	r-coeff (sign)
<i>Your opinion or level of agreement with...</i>			
1. The accounting profession remains an attractive profession.	.030 (.683)	-.040** (.588)	-.302** (.000)
2. Corporate income restatements and accounting irregularities have caused me to rethink my career choice.	.129*(.080)	.018(.804)	-.138 (.060)
3. I plan to change my college major from business to other fields, because of these accounting scandals involving restatements and accounting irregularities.	-.094 (.205)	-.095(.199)	-.136 (.065)
4. The accounting scandals have made a career in accounting more attractive.	.086 (.242)	-.007 (.927)	-.179 (.293)
5. The accounting scandals have stressed the importance of good ethical conduct in the accounting profession.	-.215** (.003)	-.110 (.135)	-.151* (.040)

Table 6. Student Perceptions of Effects of Scandals on Ethics and Accounting Education

N=185

	Class	Age	Courses
	r-coeff(sign)	r-coeff(sign)	r-coeff(sign)
<i>Your opinion or level of agreement with...</i>			
1. A business ethics education in college is necessary for ethical business practices.	.090 (.223)	-.165* (.025)	.040 (.591)
2. A business ethics education in college will reduce scandals.	.101 (.170)	.134 (.069)	.048 (.513)
3. A business ethics education in college will result in business success.	.180 (.014)	.175* (.017)	.044 (.549)
4. It is important for a good business education that an ethical code of conduct is in place at a school.	-.181 (.014)	.006 (.934)	.012 (.870)
5. A required ethics class for all business majors would decrease accounting scandals in business.	-.077 (.298)	.125 (.091)	.063 (.392)

Table 7. Student Perceptions of Effects of Scandals and Their Knowledge About Scandals

N=185

	Class	Age	Courses
	r-coeff(sign)	r-coeff(sign)	r-coeff(sign)
<i>Your opinion or level of agreement with...</i>			
1. During the last decade, many companies have been involved in corporate income restatements and accounting irregularities.	-.190** (.010)	-.198** (.007)	-.151* (.040)
2. I understand what was entailed in the Accounting scandals.	-.173* (.018)	-.202** (.006)	-.321** (.000)
3. The Securities and Exchange Commission (SEC) failed to ensure corporate disclosures were full and fair and this resulted in behavior that caused these corporate scandals.	-.119 (.107)	-.131 (.075)	-.130 (.078)
4. In your opinion, who is responsible for these accounting scandals?	.057 (.444)	.093 (.207)	-.078 (.293)
5. The accounting profession has implemented adequate measures to avoid future scandals?	-.035 (.638)	-.041 (.582)	-.078 (.293)
6. How often do you read business publications?	.198** (.007)	-.261** (.003)	.230** (.002)

4.3 Linear Regression Analysis

In order to determine the extent to which the maturity variables reported in Tables 5, 6, and 7 are a factor in influencing the responses to the perception effects, linear regression

analysis (reduced and full models) were run on the significant relationships. Each of the maturity levels served as independent variables with the perception effects as the dependent variable. Tables 8, 9, and 10 present the summary results of the analysis.

In the model that investigates whether the accounting profession remains an attractive profession age is statistically related to students' perception ($p=.000$) after controlling for class standing and number of courses taken [see Table 8(q. 1)]. When age is removed from the model and class standing is introduced by itself, class standing is statistically significant ($p=.000$) in explaining student perceptions, accounting courses taken is also significant ($p=.000$). In a full model that includes age, class standing, and number of accounting courses taken, none are significant.

In the model that investigates whether the accounting scandals have made a career in accounting more attractive age is statistically related to students' perception ($p=.005$) after controlling for class standing and number of courses taken [see Table 8(q. 5)]. When age is removed from the model and class standing is introduced by itself, class standing is statistically significant ($p=.021$) in explaining student perceptions, accounting courses taken is also significant ($p=.000$). In a full model that includes age, class standing, and number of accounting courses taken, courses taken presents the only significant finding.

In the model that investigates whether the accounting scandals have stressed the importance of good ethical conduct in the accounting profession age is statistically related to students' perception ($p=.001$) after controlling for class standing and number of courses taken [see Table 8(q. 6)]. When age is removed from the model and class standing is introduced by itself, class standing is statistically significant ($p=.004$) in explaining student perceptions,

accounting courses taken is also significant ($p=.007$). In a full model that includes age, class standing, and number of accounting courses taken none is significant.

Table 8. Full and Reduced Regression Models of Student Perceptions of Effects of Scandals on the Accounting Profession

N=185				
	Model	Age	Class	Courses
	<i>F-value(sign)</i>	<i>t-value(sign)</i>	<i>t-value(sign)</i>	<i>t-value(sign)</i>
<i>Your opinion or level of agreement with...</i>				
1. The accounting profession remains an attractive profession.				
Model with Age only	6.010 (.015)	-2.452 (.000)	-----	-----
Model with Class only	5.806 (.017)	-----	17.368 (.000)	-----
Model with Courses only	4.509 (.035)	-----	-----	25.302(.000)
Model with Age & Class	3.559 (.030)	-1.141 (.26)	-1.051 (.294)	-----
Model with Age & Courses	4.139 (.017)	-1.924 (.056)	-1.492 (.137)	-----
Model with Class and Courses	3.900 (.034)	-----	-1.799 (.074)	-1.400 (.163)
Model with Age, Class, & Courses	2.947 (.034)	-1.019 (.309)	-.764 (.446)	-1.302 (.195)
5. The accounting scandals have made a career in accounting more attractive.				
Model with Age only	8.128 (.005)	-2.851 (.005)	-----	-----
Model with Class only	5.402 (.021)	-----	-2.324 (.021)	-----
Model with Courses only	16.431 (.000)	-----	-----	-4.053 (.000)
Model with Age & Class	4.232 (.016)	-1.733 (.085)	.604 (.547)	-----
Model with Age & Courses	9.997 (.000)	-1.831 (.069)	-----	-3.377 (.001)
Model with Age, Class, & Courses	6.630 (.000)	-1.469 (.144)	.073 (.942)	-3.311 (.001)
6. The accounting scandals have stressed the importance of good ethical conduct in the accounting profession.				
Model with Age only	10.676 (.001)	3.267 (.001)	-----	-----
Model with Class only	8.312 (.004)	-----	2.883 (.004)	-----
Model with Courses only	7.559 (.007)	-----	-----	2.749 (.007)
Model with Age & Class	5.821 (.004)	1.797 (.074)	-----	1.924 (.056)
Model with Age & Courses	7.269 (.001)	2.596 (.010)	-----	-----
Model with Class & Courses	6.028 (.003)	-----	2.088 (.038)	-----
Model with Age, Class, & Courses	4.95 (.003)	1.639 (.103)	.061 (.544)	1.755 (.081)

In the model that investigates whether student's agree with whether a business education in college is necessary for ethical practices and age is statistically related to students' perception ($p=.013$) after controlling for class standing and number of courses taken [see Table 9(q. 1)]. In a

544 full model that includes age, class standing, and number of accounting courses, age is significant
545 (p=.019).

546 In the model that investigates whether a accounting ethics education in college will result
547 in business success and age is statistically related to students' perception (p=.019) after
548 controlling for class standing and number of courses taken [see Table 9(q. 3)]. In a full model
549 that includes age, class standing, and number of accounting courses, none is significant.

550
551 Table 9. Full and Reduced Regression Models Student Perceptions of Effects of Scandals on
552 Ethics and Accounting Education

N=185				
	Model	Age	Class	Courses
	F-value(sign)	t-value(sign)	t-value(sign)	t-value(sign)
<i>Your opinion or level of agreement with...</i>				
3. A business ethics education in college will result in business success.				
Model with Age only	5.610 (.019)	2.368 (.019)	-----	-----
Model with Age, Class, & Courses	2.476 (.063)	1.136 (.257)	1.217 (.225)	-.824 (.411)
5. A business ethics education in college is necessary for ethical business practices.				
Model with Age only	6.230 (.013)	2.496 (.013)	-----	-----
Model with Age, Class, & Courses	2.184 (.092)	2.147 (.033)	-2.700 (.788)	-.485 (.628)

569 In the model that investigates whether student's agree with whether during the last
570 decade many companies have been involved in corporate income restatements and accounting
571 irregularities, accounting courses taken is statistically related to students' perception (p=.000)
572 after controlling for class standing and number of courses taken [see Table 10(q. 1)]. In a full
573 model that includes age, class standing, and number of accounting courses taken, accounting
574 courses taken is significant (p=.000).

575 In the model that investigates whether a student understands what was entailed in the
576 accounting scandals, accounting course taken is significant (p=.035) after controlling for age and

577 class standing [see Table 10(q. 2)]. In a full model that includes age, class standing, and number
578 of accounting courses, courses taken is significant (p=.000).

579 In the model that investigates how often do you read business publications, class standing
580 is significant (p=.000) after controlling for age and accounting courses taken [see Table 10(q.
581 6)]. When the model with courses only is examined it is significant (.000). In the model with
582 class standing and course standing, class is significant (.038). In a full model that includes age,
583 class standing, and number of accounting courses, none is significant.

584 Table 10. Full and Reduced Regression Models Student Perceptions of Effects of Scandals and
585 Their Knowledge About Scandals

N=185				
	Model	Age	Class	Courses
	F-value(sign)	t-value(sign)	t-value(sign)	t-value(sign)
<i>Your opinion or level of agreement with...</i>				
1. I read accounting publications often.				
Model with Class only	6.708 (.010)	-----	17.368 (.000)	-----
Model with Courses only	3.354 (.035)	-----	-----	25.302 (.000)
Model with Class & Courses	3.888 (.022)	-----	2.088 (.038)	-1.032 (.303)
Model with Age, Class, & Courses	2.584 (.055)	1.333 (.895)	1.206 (.090)	1.037 (.301)
2. During the last decade, many companies have been involved in corporate income restatements and accounting irregularities.				
Model with Courses only	20.360 (.006)	-----	-----	20.276 (.000)
Model with Age, Class, & Courses	8.448 (.000)	.711 (.478)	1.14 (.252)	-.501 (.000)
6. I understand what was entailed in the Accounting scandals.				
Model with Courses only	4.535 (.035)	-----	-----	-2.130 (.035)
Model with Age, Class, & Courses	2.184 (.092)	2.147 (.033)	-2.70 (.788)	-.485 (.628)

611 Table 11. Results of Multiple Comparison Test of Students' Perception of Scandals' Effect

	Age	Class	Courses
	F-value(Sign)	F-value(Sign)	F-value(Sign)
What are student perceptions of the accounting profession?			
1. The accounting profession remains an			

619	attractive profession.	1.772 (.153)	.780 (.547)	.867 (.434)
620				
621	2. These corporate income restatements and			
622	accounting irregularities have caused me to			
623	rethink my career choice.	.511 (.728)	1.477 (.236)	.548 (.702)
624				
625	3. I plan to change my college major from			
626	business to other fields, because of these			
627	accounting scandals involving restatements			
628	and accounting irregularities.	1.415 (.246)	.298 (.744)	.229 (.875)
629				
630	4. The accounting scandals have made a			
631	career in accounting more attractive.	3.904 (.009)	.645 (.593)	.919 (.472)
632				
633	5. The accounting scandals have stressed the			
634	importance of good ethical conduct in the			
635	accounting profession.	6.285 (.004)	1.229 (.307)	.626 (.606)
636				

637 **Table 12. Results of Multiple Comparison Test of Students' Perception of Scandals' Effect**

638		Age	Class	Courses
639		F-value(Sign)	F-value(Sign)	F-value(Sign)
640				
641				
642	What are student perceptions about ethics and business education?			
643	1. A required ethics class for all business			
644	majors would decrease accounting .			
645	scandals in business.	.638 (.638)	.495(.739)	1.505 (.237)
646				
647	2. A business ethics education in college			
648	is necessary for ethical business practices.	.705 (.593)	.916 (.468)	.757 (.530)
649				
650	3. A business ethics education in college will			
651	reduce scandals.	.648 (.632)	1.234 (.319)	1.502 (.388)
652				
653	4. A business ethics education in college will			
654	result in business success.	.432 (.785)	.528 (.716)	2.16 (.122)
655				
656	5. It is important for a good business			
657	education that an ethical code of conduct			
658	is in place at a school.	1.215 (.316)	.100 (.982)	1.15 (.351)
659				

660
661 **Table 13. Results of Multiple Comparison Test of Students' Perception of Scandals' Effect**

662		Age	Class	Courses
663		F-value(Sign)	F-value(Sign)	F-value(Sign)
664				
665				
666	Do students feel they are knowledgeable about accounting and business scandals?			
667				
668	1. During the last decade, many companies			
669	have been involved in corporate income			

670	restatements and accounting irregularities.	1.960 (.135)	.966 (.422)	1.018 (.415)
671				
672	2. I understand what was entailed in the			
673	accounting scandals.	.978 (.430)	1.058 (.382)	2.492 (.066)
674				
675	3. The Securities and Exchange Commission			
676	(SEC) failed to ensure corporate disclosures			
677	were full and fair and this resulted in			
678	behavior that caused these corporate			
679	scandals.	1.528 (.221)	.642 (.612)	.534 (.712)
680				
681	4. Managers are responsible for these			
682	accounting scandals?	199 (.896)	1.709 (.187)	.854 (.476)
683				
684	5. I read business publications often.	1.219 (.318)	.368 (.829)	2.918 (.046)
685				
686	6. The accounting profession has implemented			
687	adequate measures to avoid future scandals?	3.234 (.021)	2.136 (.103)	1.463 (.252)
688				

689 5.0 Discussion

690 5.1 Perceptions Differentiated By Age

691 Student respondents were divided into two groups based on age categories of 24 and
692 under (n=139) and over 24 (n=46). When examining the mean scores of younger college students
693 compared with their older counterparts, older college students perceived that they were more
694 knowledgably about business and scandals. In Table 11, statements 4 and 5, with p values of
695 (.004) and (.009), respectively, indicate that these statements have different mean values. In
696 table 12 and 13, mean scores between age groups are similar; however, in question six in Table
697 13, there is a statistically significant difference observed at (.021) between age groups, indicating
698 a difference between mean scores. The remaining statements present p values with significance
699 levels greater than the α level (.05), indicating that the mean scores between age groups are
700 similar. These results are consistent with Silver and Valentine (2000) and Theuri and
701 Weickgenannt (2008) who found that older students present more positive ethical attitudes than
702 younger students.

703 **5.2 Perceptions Differentiated By Class Standing**

704 Students were divided into two groups based on their class standing, undergraduate
705 (n=152) and MBA (n=33). MBA student results present higher mean scores, overall, than
706 undergraduates. In Table 11, statement 5 has significant p value of (.046), indicating that this
707 statement has different mean values between classes. In table 12 and 13, mean scores between
708 age groups are similar. These findings align with those of Theuri and Weickgenannt (2008) who
709 found differences in class standings and student perceptions of ethics.

710 **5.3 Perceptions Differentiated By Number of Accounting Courses Taken**

711 Students were divided into two groups based on the number of accounting classes taken,
712 four and under classes taken (n=152), and over four classes taken (n=33). Overall, students who
713 had taken four accounting classes or less perceived that they were more knowledgeable than
714 those who had taken more than four classes about the accounting profession, ethics, and business
715 education. Each of the individual statements present p values with significance levels greater
716 than α level (.05), indicating that the mean scores between age groups are similar.

717 **6.0 Discussion**

718 There are a number of limitations of this study that include the specialized nature of the student
719 sample. The student sample was drawn exclusively from undergraduate and graduate accounting and
720 business courses at only one private non-profit institution of higher learning. Second, the single institution
721 at which students were surveyed was in the United States. These conditions limit the generalizability of
722 the results to other types of institutions throughout the United States and global.

723 Nonetheless, interesting findings have resulted from the examination of student
724 perceptions of accounting scandals and maturity factors. Results indicate that older students feel
725 that the accounting profession has implemented adequate measures to avoid future accounting
726 scandals. As separated by age, students disagree with the statement that accounting scandals
727 have made the accounting profession more attractive. Students agree that accounting scandals
728 have stressed the importance of good ethical conduct in the accounting profession. Considering
729 maturity as measured by course taken, students are reading business publications often.

730 The findings of this study contribute to the literature about business ethics by considering
731 the effects of accounting and business scandals on student perceptions of the accounting
732 profession when maturity factors are measured. Business instructors influence their students in
733 shaping their opinions about ethics and ethical practices and the opportunity to dialogue about
734 the topic. The results from this study indicate that student perceptions of accounting scandals, as
735 distinguished by maturity, vary based on factors of age, class standing, and number of
736 accounting classes taken.

737 Accounting educators and their institutions must ensure that the supply of qualified,
738 intelligent, and ethical accountants meets the changing professional standards and future market
739 demands. It is not enough to accept students who volunteer to enroll in colleges and universities
740 as accounting majors. The responsibility is to recruit not only outstanding students, but those
741 with high ethical values. Ethics education in terms of ethical practices is needed in the business
742 and accounting curriculums. This is required to improve the accounting profession and to gain
743 the trust of the public. Students must be provided with the knowledge, skills, and ethical
744 standards to help improve the reputation of the accounting profession.

Damage-control lessons learned from the surge of these corporate accounting scandals, if passed to new breed of accountants and business persons, should help prevent a future repeat of such history. The high cost in reputation and economic damage to companies must be communicated to student accountants, if they are to learn from history and avoid future damages that further diminish public confidence in the accounting profession. Accounting students should be made to understand the great importance of high integrity and public confidence in the accounting profession. By learning lessons from past scandals, future accountants may avoid the high cost of accounting fraud to the profession and the affected firms.

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