

Ethical Attitudes of Accountants: Recent Evidence from a Practitioners' Survey

Tisha L. N. Emerson
Stephen J. Conroy
Charles W. Stanley

ABSTRACT. Recent highly publicized ethical breaches including those at Enron and WorldCom have focused attention on ethical behavior within the accounting profession. At the heart of the debate is whether ethical attitudes of accountants are to blame. Using a nationally representative sample of accounting practitioners and a multidisciplinary student sample at two Southern United States universities, we compare sample responses to 25 ethically charged vignettes to test whether they differ. Overall, we find no significant difference – even for a specific “accounting tricks” vignette, which resembles the Enron and WorldCom situations. We do find, however, that the practitioners were more accepting of vignettes that involved physical harm (PH) to individuals and those that were legal (but ethically questionable). We postulate

that accounting practitioners may apply a legalistic framework to their assessment of the acceptability of each vignette. Focusing on an “accounting tricks” vignette, we also find no significant difference between auditors and institutional practitioners compared to all other types of accountants in the sample. We conclude that ethical attitudes of accounting practitioners do not differ significantly by specialty area.

KEY WORDS: accountants, accounting practitioners, accounting scandals, business ethics, Enron, empirical analysis of business ethics, ethical attitudes

“By accepting membership (in the American Institute of Certified Public Accountants), a certified public accountant assumes an obligation of self-discipline above and beyond the requirements of laws and regulations.... The Principles call for an unwavering commitment to honorable behavior, even the sacrifice of personal advantage. (Preamble to the AICPA Code of Professional Conduct (AICPA, 2004))

Tisha L. N. Emerson is an Assistant Professor of Economics at Baylor University in Texas. In addition to business ethics, Professor Emerson has published articles in the areas of environmental economics and economic education. She teaches courses in environmental economics, international trade, intermediate microeconomics and microeconomic principles.

Stephen J. Conroy is an Associate Professor of Economics at the University of San Diego in California. In addition to business ethics, Professor Conroy has published articles in the areas of economic development and demography, economics of education and economics of aging. He teaches courses in managerial economics at both the graduate and undergraduate level, as well as undergraduate courses in urban and regional economic development, intermediate microeconomics and principles of micro- and macroeconomics.

Charles W. Stanley is an Associate Professor of Accounting at Baylor University in Texas. In addition to business ethics, Dr. Stanley has published articles in the areas of financial accounting, managerial accounting, auditing, accounting systems, tax, and professional ethics for accountants. He has also authored several on-line continuing education courses for CPAs including one that meets the Texas State Board of Accountancy requirements for continuing education by Texas CPAs. He teaches courses in auditing, ethics, financial accounting and managerial accounting in the MBA program at Baylor.

Introduction

Recent highly publicized corporate scandals involving, most notably, Enron and WorldCom, have focused public attention on the accounting practices that led to the companies' fall. At the heart of the debate is whether accounting practices or the standards themselves were to blame. In an attempt to address the latter, Congress passed the Sarbanes-Oxley Act of 2002 that was, according to the American Institute of Certified Public Accountants (AICPA), “the most significant legislation affecting the accounting profession since 1933.”¹ Among the provisions of Sarbanes-Oxley was the creation of a five-member Public Company Accounting Oversight Board (PCAOB) to “set and enforce auditing, attestation, quality control and ethics (including

independence) standards for auditors of public companies.”²

As current Federal Reserve Board Governor (and former member of the Financial Accounting Standards Board’s Emerging Issues Task Force), Bies (2002), indicated, the impetus for this landmark legislation was clear – to “help restore confidence in the (accounting) profession.” Nevertheless, Bies noted that “quality and integrity cannot be legislated,” with the implication that closing the legal loopholes may not be a sufficient condition to prevent such scandals in the future. Similarly, Beasley and Hermanson (2004, p. 12) suggest that “many accounting fraud cases begin with activities that might be characterized as in the gray zone: not completely acceptable, but not clearly inappropriate.”

Were the recent scandals just the tip of the iceberg – as the constant barrage of media coverage implied? Securities Exchange Commission (SEC) chairman, William Donaldson argued the following:

... I feel it is most important to note that currently, there are approximately 15,000 publicly held companies in the United States. Despite the recent attention to malfeasance in corporate America and conflicts of interest on Wall Street, I believe that the majority of companies are run by honest, dedicated people who consistently strive to make good decisions on behalf of their shareholders, employees and other stakeholders and in Wall Street’s case, strive to offer investment services in a sincere and transparent way. But, despite the long track records of integrity built over the course of many years, as the bubble fever accelerated, standards began to erode, even among the very best and even, I might add, among the traditional gatekeepers charged with ensuring legal and accounting integrity (May 8, 2003 in a speech delivered to the Economic Club of New York).

Similar opinions were offered by Brown (2002) and Cross (2002, p. 32), who believed recent scandals were the work of “a few arrogant and greedy ‘colleagues’ (that) dishonored (the accounting) profession.”

In fact, prior research in moral reasoning ability (Armstrong, 1987; Lampe and Finn, 1992, 1994; Ponemon and Glazer, 1990; St. Pierre et al., 1990) has indicated that accountants and accounting students generally exhibit lower moral reasoning ability than other population groups.³ However, the findings are not uniformly negative for accounting

students (e.g., Jeffrey, 1993). Further, there is some question about whether the measured differences are actually reflecting a political bias in the Defining Issues Test (DIT) (Jones et al., 2003; see Bernardi et al., 2004 for a counter argument).

In addition to the aforementioned political bias, one other concern of the DIT (employed in the vast majority of studies in this area) is that it measures moral reasoning ability, not ethical sensitivity to business-or accounting-related issues *per se*. Recent research suggests that this may limit the appropriate conclusions that can be drawn from these investigations. For example, Thorne (2000) and Massey (2002) found that measuring cognitive moral capacity alone is insufficient to determine moral reasoning. Further, ethics scores in generic ethical dilemmas were lower for auditors than in context-specific scenarios (Massey, 2002), suggesting, for example, that prior concerns about lower ethical reasoning ability among accounting practitioners may be exaggerated.

The Multidimensional Ethics Scale (MES) serves as an alternative methodological approach to the DIT. The MES, developed by Reidenbach and Robin (1988, 1990), measures ethical decision-making and includes eight items comprising the ethical dimensions of moral equity, relativism, and contractualism. Cohen et al. (1993) extend and validate the MES in subsequent investigations, including in the area of accounting practitioners (Flory et al., 1991; Cruz et al., 2000) and in international comparisons (Cohen et al., 1995, 1996, 2001). Still the MES, like the DIT, has received its share of criticism, specifically for (a) lacking an appropriate theoretical framework grounded in psychology and (b) relying on biased empirical validation constructs (Jones and Ponemon, 1993; see Flory et al., 1993 for a reply).

Given the aforementioned concerns about each of the measurement instruments, we chose a third alternative, firmly rooted in the business ethics literature – a multiple vignette approach to analyze ethical attitudes towards specific business contexts, where ethical attitudes measure the degree of acceptability of an ethically sensitive vignette. We selected a series of previously published vignettes (see e.g., Harris, 1991; Longenecker et al., 1989), which have been discussed extensively elsewhere (Conroy and Emerson, 2004; Emerson and Conroy, 2004). This methodological approach (see, for example, Borkowski and Ugras, 1992, 1998; Duizend and

McCann, 1998; Farling and Winston, 2001; Grant and Broom, 1988; Kantor and Weisberg, 2002; McCuddy and Peery, 1996) provides the opportunity for researchers to analyze ethical attitudes along a variety of dimensions such as “utilitarian,” “justice and rights” (Borkowski and Ugras, 1992), or as an aggregate (Kantor and Weisberg). In this current endeavor, we analyze the extent to which respondents are “legalistic” (appealing to the letter of the law to shape their ethical attitudes) and whether respondents are more “materialistic” (appealing to financial, as opposed to physical harm (PH)).

In addition to its flexibility, a key advantage of this approach is that it provides the opportunity to analyze very specific business contexts, particularly in this case, the use of “accounting tricks.” It also provides the opportunity to address specific areas of interest (e.g., type of harm implied by vignette, level of moral reasoning implied, etc.), or overall attitudes on a broad range of issues, while providing comparability with previously published research (e.g., see Emerson and Conroy, 2004; Harris, 1991; Longenecker et al., 1989). However, we admit that one of the limitations of our approach is that we are not able to provide one composite (individual) measure of moral development such as the DIT’s “P-score,” or a reliable aggregated measure of ethical orientation such as the Multidimensional Ethical Scale (MES) (Cohen et al., 1996) for comparison across samples. In order to account for this, we have included a control group for comparison.

Using a nationally representative sample of accounting practitioners, we compare ethical attitudes of practitioners to a multidisciplinary student sample at two Southern United States universities (as a proxy for the general population), to see if there are significant differences in ethical attitudes. Given the mixed results for moral reasoning ability of accountants compared to non-accountants, we formalize our research question about ethical attitudes as follows: there is no systematic difference in ethical attitudes between accounting practitioners and a multidisciplinary student sample.

We wish to build upon previous work in this area by (a) expanding the sample size (e.g., using a large, nationally representative sample of accounting practitioners and a large comparison group of students from all disciplines, grade levels, etc. from two universities), (b) increasing the scope (e.g., including

accounting practitioners from all types of firms and specializations), and (c) employing the multiple vignette approach (including 25 previously published vignettes). Our control group is a convenience sample of university students from a variety of disciplines (not just accounting) (see Armstrong, 1987).

Controls for individual characteristics

Prior research in this area has demonstrated that a number of individual level characteristics serve as good predictors of ethical attitudes. Further, since we wish to accurately measure the difference between the ethical attitudes of practitioners and students – groups that may have systematic differences in characteristics (e.g., age) – we control for potential differences in the composition of the samples. The business ethics literature has consistently demonstrated that gender, age, and, to a lesser degree, race play key roles in predicting an individuals’ ethical attitudes. For example, numerous studies have shown that females exhibit “stronger ethical attitudes” than their male counterparts (see Eynon et al., 1997; Shaub, 1994; Sweeney, 1995; St. Pierre et al., 1990 for accounting practitioners and students; and Borkowski and Ugras, 1998; Conroy and Emerson, 2004, for a summary of the business ethics literature). Anecdotally, the main “whistle blowers” at Enron (Sherron Watkins) and WorldCom (Cynthia Cooper), were women.

Age is also a key indicator of ethical attitudes. Research by Emerson and Conroy (2004), Allmon et al. (2000), Terpstra et al. (1993), and Miesing and Preble (1985) support the meta-analysis findings of Borkowski and Ugras (1998) that older students exhibit more ethical inclinations. Further, Stevens (1984) and Arlow and Ulrich (1980) find younger business students exhibit lower ethical standards than older business executives. These findings with respect to age tend to support Kohlberg’s (1981) theory of moral development that suggests that individuals may experience a moral maturation over the course of their life cycle, *ceteris paribus*. Indeed, with respect to moral reasoning ability, Rest (1986, p. 176), concludes that “Two meta-analyses of about 10,000 subjects indicate that age/education accounts for 30–50% of the variance in DIT scores.” Still, there are notable exceptions to this result (Eynon et al., 1997).

While the effect of race or ethnicity in predicting moral reasoning seems small or ambiguous for the DIT (King and Mayhew, 2002), other studies using our approach find that an individual's race (Conroy and Emerson, 2004; McCuddy and Peery, 1996) or degree of religiosity (Allmon et al., 2000; Barnett et al., 1996; Conroy and Emerson, 2004; Miesing and Preble, 1985; Siu et al., 2000; Smith and Oakley, 1996; Terpstra et al., 1993; Wolkomir et al., 1997) may serve as predictors of ethical attitudes. Such characteristics may be associated with an individual's exposure to certain experiences that may in turn influence their attitudes about various ethical situations. By controlling for these characteristics, as well as age and gender, we more accurately measure the difference in ethical attitudes attributable to the practitioner–student dimension.

The present study

We investigate the ethical attitudes of accounting practitioners in order to help us understand the role that such attitudes may have played in recent business scandals (e.g., Enron and WorldCom). We ask whether there is some systematic difference between the ethical attitudes of accountants and the general public (proxied by a multidisciplinary student sample) that may have led to the behavior alleged in the highly publicized scandals.

Sample

In our current study, we survey accounting practitioners and students at two Southern United States universities (one private and one public) in the period after the Enron “scandal”.⁴ We obtained a mailing list from the AICPA for a nationally representative, random sample of 5000 of its members. Recipients were asked to complete and return the anonymous survey. The response rate to the one-time mailing was 10.4%, which is slightly lower than the 13–16% response rate for similar investigations (e.g., Armstrong, 1987; Elias, 2002; Eynon et al., 1997).⁵ The student sample was collected as a convenience sample where the authors asked students in a variety of classes to complete the survey (see Conroy and Emerson, 2004; Emerson and Conroy, 2004, for a

more extensive description of the student sample). The result is a multidisciplinary student sample selected from a variety of business and non-business majors.

Our survey instrument includes 25 vignettes based largely on questionnaires designed by Longenecker et al. (1989), Clark (1966), Fritzsche and Becker (1982), and Harris (1991). As noted above, in adopting vignettes from previously validated instruments, we increase the reliability of our results and the consistency of our approach in line with that used in the empirical business ethics literature. Further the vignettes include a variety of ethically sensitive issues including accounting tricks, pressure sales, questionable profit-maximizing behavior, bribery, and gender discrimination.

Respondents were asked to rank the degree to which they felt the behavior described in each vignette was ethically acceptable using a seven point Likert-type scale (ranging from never acceptable, “1,” to always acceptable, “7”). Thus, higher mean vignette response scores suggest a higher degree of acceptability for the proposed vignettes. (A full list of vignettes is included in Appendix A.) The instrument also included a number of demographic questions that provide personal background information about each respondent. There are a total of 1133 observations in the sample (520 practitioners, 613 students), but those with missing values were dropped (see Table III for the specific sample size for the analysis of each vignette).

Empirical model

Our survey elicits ordered responses with regard to the acceptability of the vignettes, with respondents “rating” the acceptability of each vignette. As a result, our dependent variable takes on ordered integer values. By using an ordered probit for our analysis we account for the ordinal and discrete (as opposed to cardinal and continuous) nature of our data. This type of estimation procedure provides consistent and efficient estimates of the relationship between the vignette “acceptability” responses and the individual characteristics of the respondent.

The independent variables used to explain the variation in the ordered response variable are the demographic variables elicited at the end of the questionnaire. More specifically, following Maddala (1983, p. 47), the underlying response model is:

$$Y = B'x_i + v_i \quad (i = 1, 2, \dots, n),$$

where Y is the underlying response variable, B is a vector of parameter estimates that correspond to the vector of explanatory variables, x_i , and v_i is the residual. The independent variables include the following: dummy variables for “male,” “white,” “age group” and a religiosity^{6, 7} variable – “pray(s) weekly” (respondent prayed weekly or more frequently over the past year) as well as the variable of interest, accounting “practitioner.”

Description of data

Descriptive statistics for each of the 25 vignettes are presented by sub-sample in Table I. We categorized each vignette as legal (L), illegal (I) or ambiguous (A) based on criminal legal standards⁸ and by type of (potential) harm – PH or financial harm (FH). The weighted mean for all 25 vignettes is 2.54 for practitioners and 2.87 for students, both of which are below the uniformly distributed hypothetical mean of 4.0 (see Miesing and Preble, p. 470). For the practitioner sample, all but three of the vignettes, “S” (computer firm donates obsolete computers for tax credit), “V” (charitable giving from profits), and “X” (not upgrade smokestack) have mean response scores significantly lower than 4.0 (at the 5% level of statistical significance). For the student sample, all but two vignettes have mean response scores that are significantly lower than 4.0 – they include vignettes “S” and “H” (bribe to purchasing agents). This implies that these vignettes appear to have the highest average level of acceptability for each of the samples, respectively.

Among the vignettes respondents found least-acceptable, several have mean response scores of less than 2.0 (at the 5% level of statistical significance).⁹ In the practitioner sample vignettes “A,” “B,” “C,” “D,” “I,” “Q,” “T,” and “U” all have mean response scores less than 2.0. The vignettes in the student sample with mean response scores of 2.0 or less are “B,” “D,” “K,” “Q,” and “W.” For both samples, the lowest of these is for vignette “Q.” Perhaps this is because it contains *two* controversial components – one which is clearly illegal (rolling-back odometers of used cars) and the other which is legally ambiguous (increase high-pressure sales tactics) since “high-pressure” could be interpreted by

respondents as including misrepresentation of facts. The illegality (and financial harm) described in vignette “Q,” however, is not likely driving down the responses as other vignettes describing illegal behavior or behavior that may result in financial harm had significantly higher mean responses. Rather, we suggest the responses to this vignette may be driven by the ease with which respondents may identify with the “victims” of behavior depicted in vignette “Q.”

Descriptive statistics for the independent variables used in the ordered probit estimation are presented in Table II. Slightly more than three-fifths (61%) of the entire sample is male. The sample is predominantly white (86%), and relatively young – over half are 30 years old or younger (53%). This is not surprising given that over half the entire sample are students. The majority of practitioners (68%) were in the 20–50 year old age range, while just over half (54%) of the students were under 20 years of age and 92% are under 30. The mean value for the religiosity variable, “pray(s) weekly,” indicates that about two-thirds (68%) report having prayed on at least a weekly basis during the past year.¹⁰ Nearly half of the sample (46%) were accounting practitioners and active members of the AICPA. Comparing the two sub-samples, in addition to the expected difference in age, the practitioner sample had slightly more males (68% versus 57%), was less ethnically diverse (94% versus 80% white), and prayed less frequently (62% versus 72% prayed weekly or more frequently). These differences underscore the potential importance of using a multivariate analysis that controls for sample composition as we have done here.¹¹

Results

Estimation results for each of the 25 vignettes are presented in Table III. The coefficient for the variable of interest, “practitioner,” is statistically significant (at the 10% level or better) and negative in 12 of the 25 vignettes, implying that practitioners have significantly lower levels of acceptability associated with these vignettes than do students. For eight of the remaining 13 vignettes, however, practitioners indicated significantly higher levels of acceptability and on the remaining five vignettes there is no statistically significant difference between the ethical attitudes of practitioners and students. Given the mixed nature of

TABLE I
Summary statistics of responses to vignettes, including category, by sample

Vignette	Brief description	Categories		Practitioner sample			Student sample		
		Legality	Harm	Mean response	Standard deviation	N	Mean response	Standard deviation	N
A	Pad expense account	I	FH	1.172	0.622	518	2.495	1.621	604
B	Exceed legal lim. pollution	I	PH	1.272	0.742	518	1.585	1.006	610
C	Recommend bad stock	L	FH	1.375	0.763	518	1.982	1.137	610
D	Underreport income for tax	I	FH	1.410	0.988	519	1.882	1.344	609
E	Bribe to foreign official	I	FH	2.567	1.537	517	3.729	1.752	908
F	Hire employee to get secret	L	FH	3.411	1.758	518	3.769	1.902	611
G	Collusion to reduce comp.	I	FH	2.250	1.584	516	3.734	1.697	606
H	Bribe to purchasing agents	L	FH	2.936	1.542	518	3.969	1.727	610
I	Insider stock purchase	I	FH	1.249	0.811	519	2.852	1.903	607
J	Promotion of friend over other	L	FH	3.048	1.617	518	2.827	1.663	613
K	Safety design flaw cover-up	L	PH	2.019	1.255	519	1.781	1.172	608
L	Accounting tricks to conceal	L		3.241	1.786	519	3.436	1.845	608
M	Hire male employee	I	FH	2.836	1.725	519	2.387	1.643	608
N	Deceptive advertising	I	FH	2.586	1.630	517	3.386	1.882	606
O	Hire consult. To deceive	A	PH	2.430	1.726	514	2.287	1.693	603
P	Free software, violation of ©	I	FH	1.931	1.285	520	3.465	1.881	607
Q	Roll-back odom./hi-pres. sales	I	FH	1.079	0.372	520	1.567	1.091	607
R	Editor pulls name from expose	L	PH	1.967	1.309	518	2.725	1.571	603
S	Donate obsolete computers	L		5.882	1.494	519	4.935	2.013	602
T	Announce open to bribes	I	FH	1.358	0.908	520	2.530	1.583	602
U	Bribe manager to make sale	L		1.612	1.112	520	2.272	1.420	603
V	Charitable giving from profits	L	FH	4.705	2.013	508	3.013	1.608	600
W	Cut costs, inc. risk of harm	L	PH	2.373	1.561	518	1.987	1.400	602
X	Not upgrade smokestack	L	PH	4.963	1.608	518	3.724	1.940	602
Y	Noisy factory in residential	L		3.847	1.760	516	3.110	1.679	602

Key for Legality: A: ambiguous; I: illegal; L: legal.

Key for Harm: FH: financial harm; PH: physical harm.

TABLE II
Descriptive statistics for combined and sub-samples

Independent variables	Total sample	Practitioners	Students
Number (percentage) of practitioners	520 (45.9%)	520 (100%)	0 (0.00%)
Number (percentage) male*	616 (61.0%)	274 (67.5%)	342 (56.6%)
Number (percentage) <20 years of age**	323 (28.9%)	0 (0.00%)	323 (53.7%)
Number (percentage) 20–30 years of age	272 (24.3%)	40 (7.70%)	232 (38.5%)
Number (percentage) 31–40 years of age	182 (16.3%)	135 (26.2%)	47 (7.80%)
Number (percentage) 41–50 years of age	178 (15.9%)	178 (34.5%)	0 (0.00%)
Number (percentage) 51–60 years of age	133 (11.9%)	133 (25.8%)	0 (0.00%)
Number (percentage) >60 years of age	30 (2.70%)	30 (5.80%)	0 (0.00%)
Number (percentage) who pray weekly***	746 (67.6%)	320 (62.1%)	426 (72.3%)
Total number of subjects	1133 (100%)	520 (45.9%)	613 (54.1%)

*Of the total 123 subjects who failed to indicate their gender, 114 were practitioners and 9 were students.

**Of the total 15 subjects who failed to indicate their age, 4 were practitioners and 11 were students.

***Of the total 29 subjects who failed to indicate their prayer frequency, 5 were practitioners and 24 were students.

these results, we conclude that there is no significant, systematic difference between the ethical attitudes of practitioners and students. That is, practitioners and students in our study express no general systematic differences in their attitudes of the acceptability of ethically charged situations.

Questions of the ethicality of accountants arose in 2001 due to the Enron–Arthur Andersen scandal. One of our vignettes (L), presented behavior similar to that alleged in the scandal,

A comptroller selected a legal method of financial reporting which concealed some embarrassing financial facts that would otherwise have become public knowledge.

For this particular vignette, there was no significant difference in the acceptability between the practitioner and student samples. While care must be taken in drawing conclusions from a single vignette, we believe that this result implies that practitioners and the general population (proxied by our student sample) are similar in their perception of the acceptability of using such “accounting tricks” and that some of the accusations about the highly publicized misdeeds of the accounting profession may be unfounded.

One systematic difference between sub-samples does emerge, however, from an analysis by vignette type. That is, if we look at the type of behavior in the vignettes for which practitioners are more accepting than the student sample (K, M, O, S, V, W, X and

Y), six of the eight present behavior that, while ethically questionable, is still legal. Further, four of the eight vignettes potentially lead to physical harm to third parties. This finding is consistent with previous investigations (e.g., Lampe and Finn, 1994) that have found a higher percentage of accountants and accounting students based their moral reasoning on Kohlberg’s stage 4 “rule and order” oriented logic. In seven of the eight vignettes, the activities depicted also increase firm profits. This is also consistent with previous research of CPA’s in supervisory positions (Burns and Kiecker, 1995) in which ethical responses were moderated by expected economic benefits (e.g., profits) to the firm. Thus, while practitioners were not significantly different from students in their perception of the acceptability of the use of “accounting tricks” in the Enron–Andersen or WorldCom vein, they are more accepting of vignettes that depict legal – but ethically questionable – activities that increase firm profits. This finding confirms the need for legal remedies (e.g. Sarbanes–Oxley) to address concerns about ethical breaches.

Further, at the heart of the Enron–Andersen scandal were the alleged ethical breaches by both industrial accountants at Enron and the auditors at Andersen (see Healy and Palepu, 2003). Even though we found no systematic difference between accounting practitioners and our student sample, we investigate whether there is a systematic difference between these two sub-groups of accounting practitioners (industrial

accountants and auditors) vis-à-vis the rest of the practitioner sample (including tax accountants, tax consultants, government accountants, educators, and others). Comparing the ethical attitudes of respondents in these accounting specialties to the remainder of the practitioners, we find no significant difference in the ethical attitudes of auditors or industry specialists in comparison to those in other accounting specialties.¹² In fact in such analyses, the only significant predictors of ethical attitudes were the age group and educational level of the respondent.

Findings in Table III on age and gender controls are consistent with the bulk of empirical findings presented elsewhere. Males consistently found the ethically questionable situations presented in the vignettes more acceptable. In 21 of the 25 vignettes – the highest proportion for all explanatory variables – the effect of being male was positive and statistically significant at the 10% level or better. As a result, we conclude that gender is associated with significantly different ethical attitudes – at least for 21 of the 25 vignettes. The effect of age is also apparent from our results. In 19 of the 25 vignettes, the effect of being older is statistically significant at the 10% level or better. In 18 of these vignettes older age is associated with lower levels of acceptability of the vignettes, and with higher acceptability in only one case (vignette “V,” charitable giving from firm profits). These findings are also consistent with other published reports (for gender and age: Borkowski and Ugras, 1998; Conroy and Emerson, 2004; for gender: Callahan, 1990; Keller, 1988; Smith and Oakley, 1997) We conclude that age and gender are consistent, robust predictors of ethical attitudes.

Other significant findings bear mentioning. Respondents who prayed weekly (or more frequently) reported lower levels of acceptability for the behavior in 12 of the 25 vignettes. This result is in line with the business ethics literature indicating that higher levels of religiosity are associated with stronger ethical attitudes (see Conroy and Emerson, 2004; Miesing and Preble, 1985; Smith and Oakley, 1996). Finally, the results for our race variable are mixed. In 9 of the 25 vignettes, whites reported lower levels of acceptance of the ethically questionable behavior presented in the vignette. For four of the remaining vignettes whites reported higher levels of acceptability and in the remaining 12 vignettes there was no statistically significant difference between whites and

non-whites. As a result, we find no systematic effect of race on ethical attitudes.

Discussion and implications

The recent ethical scandals involving accounting practitioners have refocused attention on the ethical standards and behavior of accountants. While some legal adjustments (e.g., the Sarbanes-Oxley Act of 2002) have already been implemented, there are still some lingering concerns about the ethical attitudes of accounting practitioners. We have attempted to address the veracity of these concerns by comparing the ethical attitudes of a nationally representative sample of accounting practitioners to a multidisciplinary student sample comprised of students from two large Southern United States universities. Specifically, controlling for a number of individual characteristics, we test whether practitioners and students differ in terms of their ethical attitudes regarding 25 ethically charged vignettes. We find that accounting professionals were less-accepting (i.e., had higher ethical attitudes) of 12 of the 25 vignettes but more accepting of eight of the remaining 13 and expressed no significant difference in the remaining five. Thus, we are *unable* to conclude that there is any significant systematic difference between the two groups. However, we do find that accounting practitioners are significantly more accepting of scenarios in which there is potential physical harm, but less accepting of violating the law. We conclude that accounting practitioners may be guided by a legalistic or “rule and order” framework. Whether this is due to selection bias into the field (Ponemon, 1992) or academic training is, of course, unknown.

We also attempt to identify any significant relationship in ethical attitudes based on accounting practitioner’s specialty classification. In particular, since recent ethical scandals have involved auditors and industrial accountants, we focus on an “accounting tricks” vignette (“L”) to test whether these classifications are significant predictors of ethical attitudes. Findings presented here suggest that ethical attitudes of practitioners in these sub-disciplines are no different from their counterparts in the other (i.e., tax accounting, government, education, consulting or “other”) classifications.

TABLE III
Ordered probit analysis of relationship between ethical evaluation of vignettes and demographic characteristics

<i>Characteristics of respondents</i>	A	B	C	D	E
Practitioner	-0.859***	0.029	-0.333**	-0.493***	-0.549***
Male	0.265***	0.304***	0.020	0.131*	0.278***
White	-0.325***	-0.264**	-0.261**	-0.218**	-0.145
Age	-0.324***	-0.269***	-0.175***	-0.047	-0.103**
Pray weekly	-0.115	-0.171*	-0.155*	-0.310***	-0.105
Log likelihood	-1059	-814	-1097	-1018	-1711
N	971	976	976	976	974
<i>Characteristics of respondents</i>	F	G	H	I	J
Practitioner	0.098	-0.551***	-0.284**	-0.728***	0.127
Male	0.253***	-0.077	0.211***	0.071	0.402***
White	-0.121	-0.159*	-0.086	-0.354***	-0.046
Age	-0.145***	-0.187***	-0.164***	-0.346***	-0.004
Pray weekly	-0.065	-0.072	-0.106	-0.102	-0.901
Log likelihood	-1844	-1667	-1775	-1193	-1712
N	977	971	977	975	980
<i>Characteristics of respondents</i>	K	L	M	N	O
Practitioner	0.230*	0.061	0.236*	-0.164	0.322***
Male	0.451***	0.243***	0.801***	0.381***	0.306***
White	0.083	0.048	0.135	0.119	-0.189*
Age	-0.025	-0.082**	-0.001	-0.159***	-0.108**
Pray weekly	-0.149*	-0.112	0.016	-0.172**	-0.219***
Log likelihood	-1235	-1827	-1545	-1735	-1500
N	979	979	979	976	971
<i>Characteristics of respondents</i>	P	Q	R	S	T
Practitioner	-0.754***	-0.369**	-0.281**	0.392***	-0.604***
Male	-0.022	0.364***	0.177**	0.210***	0.286***
White	-0.124	-0.207*	0.076	0.162*	-0.157
Age	-0.145***	-0.337***	-0.163***	0.038	-0.298***
Pray weekly	-0.360***	-0.254**	-0.168**	-0.083	-0.280***
Log likelihood	-1598	-656	-1517	-1609	-1208
N	978	978	978	976	976
<i>Characteristics of respondents</i>	U	V	W	X	Y
Practitioner	-0.364***	0.671***	0.656***	0.596***	0.570***
Male	0.381***	0.293***	0.553***	0.305***	0.331***
White	-0.176*	-0.012	0.215**	0.281***	0.362***
Age	-0.163***	0.092**	-0.186***	0.015	-0.103**
Pray weekly	-0.204***	0.056	-0.174**	-0.047	-0.107
Log likelihood	-1260	-1760	-1367	-1807	-1774
N	977	964	976	975	973

Key: ***denotes significance at 1%, **at 5%, and *at 10% levels.

Consistent with prior investigations, we do find that individual characteristics explain much of the variation in ethical attitudes. For example, males and younger respondents had lower ethical attitudes (i.e., found ethically charged vignettes to be more acceptable).

Praying at least once a week was associated with stronger ethical attitudes (finding the vignettes less-acceptable) while results for race were mixed.

There are some research limitations to this investigation. First, the generalizability of these results is

somewhat limited, given that the student samples were from only two universities in the same region of the country. Future endeavors are warranted that can expand the comparison group to include students from different regions of the United States. Further, expanding the comparison group to include non-students may also prove fruitful. Second, the usual caveats that ethical attitudes (as with moral reasoning ability) do not necessarily imply behavior (Weber and Gillespie, 1998) apply here. Third, we have not been able to account for possible social desirability or “halo effects” (see Cohen et al., 1996) in responses. However, there is no reason to believe that the effects would have differed systematically between comparison groups and thus would not affect our results. Fourth, future work should attempt to include more robust controls, such as political orientation.

While this investigation may be reassuring to policymakers who are concerned that the few highly publicized ethical breaches were only the tip of the ethical iceberg, findings presented here suggest that accounting practitioners – whether due to selection bias, training/socialization, or some other factor not accounted for here – may be more likely to follow the letter of the law. Thus, there may be some benefit from changing the legal code, such as Sarbanes-Oxley, but we cannot say whether benefits would exceed costs in a full cost-benefit analysis. Longitudinal investigations that measure ethical attitudes over time may be fruitful in order to identify whether changes in laws (e.g., Sarbanes-Oxley), CPA codes of conduct, or other factors affect ethical attitudes over time.

APPENDIX A

Complete vignette descriptions

Vignette	Description
A	An executive earning \$100,000 a year padded his expense account by about \$3000 a year
B	In order to increase profits of the firm, a general manager used a production process that exceeded legal limits for environmental pollution
C	Because of pressure from his brokerage firm, a stockbroker recommended a type of stock that he did not consider to be a good investment
D	A small business received one-fourth of its gross revenue in the form of cash. The owner reported only one-half of the cash receipts for income tax purposes
E	A company paid a \$350,000 “consulting” fee to an official of a foreign country. In return, the official promised assistance in obtaining a contract that will produce \$10 million profit for the contracting company
F	A company president found that a competitor had made an important scientific discovery that would sharply reduce the profits of his own company. He then hired a key employee of the competitor in an attempt to learn the details of the discovery
G	A highway-building contractor deplored the chaotic bidding situation and cutthroat competition in his industry. He therefore, reached an understanding with other major contractors to permit bidding which would provide them with a reasonable profit
H	A company president recognized that sending expensive Christmas gifts to purchasing agents might compromise their positions. However, he continued the policy since it was common practice and changing it might result in a loss of business
I	A corporate director learned that his company intended to announce a stock split and increase its dividend. On the basis of this information, he bought additional shares and then following the announcement sold them for a gain
J	A corporate executive promoted a loyal friend and competent manager to the position of divisional vice president in preference to a better-qualified manager with whom he had no close personal ties
K	An engineer discovered what he perceived to be a product design flaw that constituted a safety hazard. His company declined to correct the flaw. The engineer decided to keep quiet, rather than taking his complaint outside the company
L	A comptroller selected a legal method of financial reporting which concealed some embarrassing financial facts that would otherwise have become public knowledge

APPENDIX A

Continued

Vignette	Description
M	An employer received applications for a supervisor's position from two equally qualified applicants but hired the male applicant because he thought that some employees might resent being supervised by a female
N	As part of the marketing strategy for a product, the producer changed its color and marketed it as "new and improved," even though its other characteristics were unchanged
O	Facing large clean-up costs, a mining company that produces arsenic as a by-product of its regular operations hired research consultants to show that the safe level of arsenic in drinking water is higher than previously believed
P	An owner of a small business firm obtained a free copy of a copyrighted computer software program from a business friend rather than spending \$500 to obtain his own program from the software dealer
Q	Jack is a used car salesman who was under pressure from his boss to increase sales in order for the company to survive. In response, he began rolling back odometers and using high-pressure sales tactics
R	Lester is editor of the Daily Paper, which was running an expose article about defective products being sold by local businesses. One of the owners of these businesses, Shoes, Inc., called Lester and threatened to pull out his advertising in the Daily Paper if the expose mentioned his story by name. Lester agreed to remove the "Shoes, Inc." name from the article
S	Pears, Inc., a large computer manufacturer recently introduced a new line of computers that made their existing line functionally obsolete. Pears, Inc. decided to donate the obsolete computer inventory to a local school district and in so doing, Pears, Inc. received a tax break and improved its image on social responsibility
T	Dean is a purchasing agent who has the final say on which suppliers his firm will buy from. Dean let it be known that when price and other things were equal, his purchasing decisions could be swayed by receipt of an "appropriate" gift
U	Martha is a new sales representative who is taking over a sales territory in which her firm has been unsuccessful in landing a very large client, Giant, Inc. Determined to make the sale, Martha decided to violate company policy and pay for a gift to Giant, Inc.'s manager
V	The board of directors of TTT, Inc., recently approved a policy earmarking 7.5% of its profits for corporate giving. The funds will come directly out of retained earnings and thereby reduce the payout of dividends to the stockholders of the firm
W	The design department of XYZ Child Corporation recently developed a new, lighter weight baby carrier. The new design is less expensive to manufacture, but has a slightly higher risk of handle collapse which could cause injury to children. XYZ decided to produce and market the carrier anyway
X	An electricity producer decided not to upgrade a smokestack scrubber since its releases are still within the legal limits and the upgrade would reduce profits by 10%
Y	A factory that makes very loud noise during production located next to a residential neighborhood, because land costs were lower there

APPENDIX B
Analysis of practitioner sub-sample for “accounting tricks” vignette (“L”)

Characteristics of respondents	Model 1	Model 2
Male	0.134	0.137
White	-0.310	-0.334
Age	-0.176***	-0.178***
Tenure at current position	0.009	0.010
Post-baccalaureate degree	0.207*	0.218*
Pray weekly	-0.090	-0.088
Audit	0.031	0.024
Industry	0.047	0.034
Consultant		-0.369
Log likelihood	-657	-656
N	357	357

Key: ***denotes significance at 1%, **at 5%, and *at 10% levels.

Notes

¹ AICPA web site: ‘Landmark Accounting Reform Legislation Signed into Law’. Retrieved August 9, 2003 at <http://www.aicpa.org/pubs/cpaltr/Sept2002/landmark.htm>

² Ibid

³ In a summary of the literature on auditors, Jones et al. (2003) report on only two published studies dealing with auditors’ ethical action/behavior. Both of these found a positive relationship between ethical development and auditor’s ethical behavior.

⁴ The university populations from which the student samples were drawn may be accurately characterized by their fall 2003 freshman classes. The private university is religiously affiliated and had an incoming first-time freshman class of 2678. Sixty-three percent of the class was female, 26% were from racial/ethnic minority groups, 2.4% were from foreign countries, and 81% were residents of the state where the university is located. The freshman class had a mean score of 1179 on the Recentered SAT and a mean score of 24 on the Enhanced ACT. The public university had an incoming first-time freshman class of 914. Fifty-eight percent of the class was female, 22% were from racial/ethnic minority groups, 1.9% were from foreign countries, and 83% were residents of the state where the university is located. The freshman class had a mean score of approximately 1055 on the Recentered SAT and a mean score of about 21.5 on the Enhanced ACT.

⁵ Due to funding constraints, we were unable to perform a follow-up mailing, which accounts for the slightly lower response rate. Further, we did not have access to information about the mailing universe to address potential response bias issues.

⁶ Following Barnett et al. (1996) and others, we have chosen to use the term “religiosity” however we acknowledge that its use is not universal (see Siu et al., 2000). Based on our reading of the literature, we conclude that the operationalization of the term (made explicit below) is more important than the actual term used.

⁷ We re-estimated the model replacing “pray weekly” with controls for frequency of church attendance, religious affiliation, and a self-reported degree of religious fervor. Frequency of church attendance (at least weekly) was an equally strong predictor (statistically significant for 12 of the 25 vignettes, at the 10% level). Religious affiliation was a statistically significant predictor (at the 10% level) in only five of the 25 vignettes. We believe that the limited power of religious affiliation in explaining ethical attitudes is due to the commonalities amongst the various world religions. Finally, self-reported religious fervor was a better predictor of ethical attitudes, statistically significant in 15 of the 25 vignettes (at the 10% level or better). The meaning of this result is less clear, however, than for the frequency of prayer or church attendance as respondents may have had varying subjective interpretations of this question on the survey. Our operationalization of religiosity is thus based on *behavior*, as opposed to cognition or affect (see Barnett et al., 1996). Estimation results for these other specifications are available from the authors upon request.

⁸ We consulted an academic attorney familiar with the business ethics literature for advice in this area.

⁹ Since the means were actually well below the hypothetical mean of 4.0, we chose a lower threshold (2.0) though we admit that this is a somewhat arbitrary designation.

¹⁰ We note that the prayer frequency (weekly or more) of the student population from the public university was the same as that of the practitioners (62%) while that of the student population from the private-religiously affiliated university was considerably higher (82%). Values for the religiosity measures between the universities were consistently different. These differences, however, are controlled for in the statistical analysis reported in Table - III and thus not of significant concern.

¹¹ Note that while the sub-samples vary for each vignette for which data is complete, the summary statistics characterizing each of these sub-samples do not significantly differ from those of the entire sample and thus are accurately characterized by Table II.

¹² Estimates for the practitioner sub-sample are included in Appendix B.

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Tisha L. N. Emerson
Department of Economics,
Baylor University,
P.O. Box 98003 Waco,
TX, 76798-8003,
U.S.A.
E-mail: Tisha_Nakao@baylor.edu

Stephen J. Conroy
School of Business Administration,
University of San Diego,
5998 Alcalá Park, San Diego,
CA, 92110-2492,
U.S.A.
E-mail: sconroy@sandiego.edu

Charles W. Stanley
Department of Accounting and Business Law,
Baylor University,
P.O. Box 98003 Waco,
TX, 76798-8003,
U.S.A.
E-mail: Charles_Stanley@baylor.edu