Audit Experience, Accounting Education and Perceptions about the Efficacy of Sarbanes-Oxley and the PCAOB

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Since the passage of SOX and the creation of the Public Company Accounting Oversight Board (PCAOB), considerable debate exists about the necessity, cost, and efficacy of the legislation. We examine perceptions about the efficacy of SOX and the PCAOB and whether these perceptions are associated with beliefs about increased auditor responsibilities. Results show that greater self-reported knowledge of the PCAOB is associated with stronger beliefs that audit quality has improved. Additionally, knowledge of SOX is indirectly associated with perceptions of improved audit quality, through a belief that auditors' responsibilities increased because of SOX. These results lend some indirect support to claims that investor confidence has been restored, at least with respect to the audit of the financial statements. However, respondents with audit experience tend to believe less strongly that auditors' responsibilities have increased, and are generally less convinced than those with no audit experience about the efficacy of the legislation.

INTRODUCTION

The Sarbanes-Oxley Act (SOX) and the resulting Public Company Accounting Oversight Board (PCAOB) have undoubtedly ranked among the most significant changes to the auditing profession in many years. Although expressly created to protect investors and the public interest (PCAOB 2010), there is considerable debate about the efficacy of the sweeping legislation in relation to its high cost (e.g. Greenspan 2006; Hockberg, Sapienza and Vissing-Jorgensen 2009; Austen and Dickins 2007; Dodwell 2008) and whether it was necessary at all (Wallison 2004). Wallison (2004) suggested that any "crisis of confidence" resulting from the well-publicized corporate scandals was on the part of the political class and the media, not investors, because sophisticated investors already understood inherent GAAP shortcomings and priced these shortcomings into the market. In terms of costs, ARC Morgan (2005) estimated that, after including increased audit fees and increased internal resources used, first-year SOX compliance costs were approximately $3.5 million per $1 billion in sales for companies with less than $2 billion in sales. Although their estimates were smaller as a percent of sales for those with more than $10 billion in sales ($1 million per $1 billion in sales), they note that the costs are nonetheless high for businesses and society.

On the other hand, proponents of the legislation note that an important goal of the SOX legislation was to improve audit quality and, as a result, to protect the public interest and restore investor confidence

(PCAOB 2010; Wallison 2004). In 2005, SEC Commissioner Cynthia Glassman stressed the need to provide investors with resources and education, especially in regards to SOX, with a view toward protecting investors and restoring investor confidence in the U.S. financial reporting system (Glassman 2005). More recently, in 2007, PCAOB chairman Mark Olson asserted that, as a result of SOX and PCAOB, investor confidence in financial reporting had been restored and that audit firms were focusing more on audit quality, ethics and independence (PCAOB 2007). Further, Austen and Dickins (2007) found that the SOX provisions have not resulted in significant stock delistings that some had predicted. Finally, Huang, Raghunandan, and Rama (2009) provide evidence that Big 4 auditors were no longer likely to offer fee discounts to obtain an initial audit in the post-SOX era, and that that they have become more conservative in terms of accepting new clients.

Examining efforts to restore investor confidence through education about SOX and the PCAOB, and the results of such efforts, is important to policy makers (Glassman 2005).[1] An informed opinion as to whether the SOX legislation and the PCAOB have met their intended goal of protecting the public interest is predicated on stakeholders having knowledge of the SOX legislation and the PCAOB. Further, investors' confidence in the financial markets and their confidence in financial statement audits seem inextricably tied together when one reads the purpose of the SOX legislation and the PCAOB. Therefore, assessing the degree to which investors believe that SOX and the PCAOB have improved audit quality is important for policy makers, accounting researchers, accounting educators and the accounting profession. The degree to which these beliefs are associated with the level of investor knowledge can help guide educational and policy efforts to restore confidence and trust in our financial reporting system. Given the continuing debate about the cost/benefit tradeoff of this sweeping legislation, and potential unnecessary and unintended consequences (D'Aquila 2004), research is necessary to further inform this debate and determine necessary modifications, if any, to the legislation.

Despite assertions on both sides of the debate about the efficacy of the legislation, we are not aware of any research that examines the association, if any, between investors' knowledge of (or education about) SOX or the PCAOB and their confidence in audits. In this study, we conduct such an examination. Based on the reported assertions and claims cited above, if SOX and the PCAOB have accomplished their stated purposes, we expect greater knowledge of the legislation and of the oversight board to be associated with a stronger belief in their efficacy in terms of audit improvements. Therefore, the first purpose of this study is to measure the scope of investors' knowledge of the PCAOB and SOX, and to assess whether such knowledge is associated with exposure to the audit process and accounting education. The second purpose of this study is to determine whether knowledge of SOX and the PCAOB is associated with perceptions of changes in auditors' responsibilities and of improvements in audit quality. Finally, we examine whether these perceptions differ between those with and without exposure to the audit process through experience.

Given the call to better prepare accounting students for a career in the post-SOX auditing environment (Riley et al. 2008), the results of this study suggest that education resulting in increased knowledge of SOX and the PCAOB may lead to increased beliefs in the efficacy of the legislation, at least for those without exposure to the auditing process. The results also provide partial, indirect support for Oxley (2007) who claims that investor confidence has been restored and that "[SOX] has raised the bar for the stands of corporate governance" (page C2). In addition, the results show that perceptions about changes in auditors' responsibility are positively associated with perceptions of improved audit quality.

Importantly, those with audit experience, who presumably are more aware of the regulation's real impact on the audit process, are less convinced than their inexperienced counterparts about the efficacy of the regulation in improving audit quality. Further analyses suggest that these differences may be largely driven by a belief among inexperienced people that the regulation placed a greater burden of responsibility on the auditor. The latter result has potential implications for the literature on the audit expectations gap, most of which was conducted in the pre-SOX era (e.g. Anderson, Lowe and Reckers 1993; McEnroe and Martens 2001). More specifically, if investors' pre-SOX belief was that auditors were not performing to expectations, and they believe that audits improved only because auditors' responsibilities increased, then future research should examine whether the expectations gap has widened.

The following sections will discuss the survey methods and the results across primary areas, followed by implications and conclusions of the study.

METHODS

We surveyed 287 graduate and undergraduate students from three large universities. Our survey instrument included several demographic questions that may potentially contribute to knowledge of the PCAOB and SOX. These include the following: Generally Accepted Accounting Principles (GAAP) knowledge (1-7 scale; Not At All Knowledgeable – Very Knowledgeable), Gender, Age, Highest Degree Earned, Undergraduate Major, Graduate Major, Socioeconomic Status (SES) of Childhood (1-7 scale; Not Very Wealthy – Very Wealthy), and a measure of sophistication as an investor (1-7 scale; Not Very Sophisticated – Very Sophisticated). Questions used to measure PCAOB and SOX knowledge, perceptions of changes in auditors' responsibilities, and improvement in audit quality were also measured on a 1-7 scale and are shown in separate tables. Table 1 shows descriptive statistics related to the participants.

TABLE 1
DESCRIPTIVE STATISTICS (N = 287)

	Minimum	Maximum	Mean	Std. Deviation
GAAP Knowledge *	1	7	5.1	1.4
Gender (1=male, 0=female)	0	1	.55	.5
Age	19	58	24.7	6.0
Socioeconomic Status (SES) **	1	7	4.8	1.3
Investor Sophistication ***	1	7	4.0	1.6
	Percent			
Highest Degree Earned:				
High School	27.0			
Associate	17.1			
Bachelor	41.3			
Master	14.3			
Doctorate	.3			
Undergraduate Major:				
Accounting	62.5			
Accounting & Other	8.4			
Finance	7.3			
Marketing	3.3			
Management	8.0			
Information Systems	.7			
Economics	2.2			
Other	7.6			
Graduate Major:				
Accounting	60.6			
Accounting & Other	1.6			
Finance	5.9			
Management/MBA	27.7			
Information Systems	.5			
Other	3.7			

* GAAP knowledge is measured using a Likert Scale as follows: 1 equals very little or no knowledge of GAAP and 7 is very knowledgeable.

** Socioeconomic Status is measured using a Likert Scale as follows: 1 equals not very wealthy and 7 equals very wealthy.

*** Investor Sophistication is measured using a Likert Scale as follows: 1 equals no knowledge of investing whereas 7 equals very knowledgeable.

The sample includes 102 undergraduate students and 185 graduate students. Participants report a mean knowledge of GAAP of 5.1, suggesting they are familiar with financial reporting. Males contribute to 55% of the sample and the average age is 24.7 years. The sample reflects a middle-income background (SES mean = 4.8), and a moderate level of self-reported sophistication as an investor (mean = 4.0). Accounting represents the largest percentage of both undergraduate majors (62.5%) and graduate majors (60.6%).

Self-Reported Knowledge of SOX and PCAOB

Table 2 shows the mean responses relative to respondents' self-reported knowledge about SOX and the PCAOB, broken down between those with one or more years of audit experience and two groups of inexperienced students: 1) undergraduate students in an accounting class, masters students who majored in accounting as an undergraduate, and graduate students majoring in accounting ("Accounting Students") and 2) masters students with no accounting undergraduate.[2] Participants responded on a seven-point scale from 1 (No knowledge at all) to 7 (A great deal of knowledge).

TABLE 2
KNOWLEDGE OF SOX AND PCAOB (N=287)

		Inexperienced		
Survey Item	**Audit Experience**	**Accounting Students**	**MBAs**	**Total Non-Experience**
25. Knowledge of Sarbanes-Oxley Act	5.48 (2.34)	4.57 (1.27)	4.30 (1.68)	4.87 (1.32)
22. Knowledge regarding purpose and function of the PCAOB	5.51 (2.59)	3.01 (1.48)	2.21 (1.82)	3.83 (1.04)

The top number in each row represent the average response using a Likert-scale of 1 (no knowledge at all) to 7 (a great deal of knowledge) and the number in parentheses represents the t-statistic from one-tailed test as to whether the differences are statistically different from one another.

As shown in Table 2, those with audit experience report more knowledge of SOX and of the PCAOB than either of the two groups with no experience. A post-hoc comparison shows that the difference between the experienced group and either of the two inexperienced groups is statistically highly significant ($p<.001$), whether with regard to SOX or the PCAOB. Within the inexperienced group, accounting students (undergraduates and masters) were not significantly different from masters students without an accounting background ($p>.50$). However, they were significantly higher in self-reported knowledge of the PCAOB ($p<.03$).

Both groups with no professional audit experience indicated considerably less knowledge of the PCAOB than of the legislation which brought it about, although the PCAOB is a key part affecting audits and, ostensibly, financial statements. The relatively lower level of PCAOB knowledge is perhaps due to the greater amount of press exposure given to the legislation. If so, then their perceptions are likely associated more with the overarching legislation than to the specific provisions such as the establishment of the PCAOB. Within the "No Experience" group, we also compared masters and undergraduate students to assess whether the low level of knowledge is attributable primarily to undergraduates, who could be considered "naïve" for purposes of this study. The differences between masters and undergraduate students did not approach statistical significance either for SOX ($p>.60$) or PCAOB ($p>.80$). Therefore, the differences in self-reported knowledge levels do not appear to be due to the education level of the student.

Has the Auditor's Responsibility Changed?

Pre-SOX studies of the "expectations gap" (e.g. McEnroe and Martens 2001) already suggested a considerably higher expectation of auditors by investors than by the profession itself. Table 3 shows results related to whether participants perceive significant changes to the audit firms' actual responsibilities because of the passage of the legislation. Participants responded on a seven-point scale from 1 (Much less responsibility) to 7 (Much more responsibility).

TABLE 3
CHANGES IN THE RESPONSIBILITY OF THE AUDIT FIRM (N=287)

		Inexperienced		
Survey Item	**Audit Experience**	**Accounting Students**	**Nonaccounting Students**	**Total Inexperience**
26. To what extent do you believe the Sarbanes-Oxley Act changes the audit firm's responsibility to investors?	4.85 (2.36)	5.81 (1.08)	5.43 (1.25)	5.38 (1.22)
23. To what extent do you believe the PCAOB changes the audit firm's responsibility to investors?	4.50 (2.45)	4.74 (0.87)	4.61 (1.22)	4.63 (0.97)

The top number represents the average response using a Likert-scale of 1 (much less responsibility) to 7 (much more responsibility) and the number in parentheses represents the t-statistic from one-tailed test as to whether the differences are statistically different from one another.

Table 3 shows results consistent with the notion that investors (or potential investors) believe that the audit firm's responsibility has changed as a result of SOX. This is especially true for the non-experienced group. The difference between the experienced and either of the two non-experienced groups is highly significant for SOX ($p<.02$). Interestingly, the inexperienced accounting students had the highest mean response, significantly higher than the audit-experienced group ($p<.02$), although not different from those without an accounting background ($p>.15$). With regard to the PCAOB, the group did not make a statistically significant difference in their responses. It is possible that the lack of a difference here is merely due to the low levels of PCAOB knowledge for the inexperienced groups, indicated previously in Table 2.

Has Audit Quality Improved?

Because improving audit quality is an important purpose of the legislation, we also asked participants whether they believe such improvement occurred. Students responded on a seven-point scale (1=No Improvement; 7=A Great Deal of Improvement) indicating whether they believe SOX and the PCAOB improved audit quality. Table 4 shows the mean responses.

As shown in Table 4, there appears to be a gap between those with and without audit experience in terms of whether SOX has improved audit quality. Presumably, those with audit experience should have a more informed view as to whether audit quality has increased. The experienced group was significantly lower in their response than the inexperienced accounting students ($p<.01$), and "marginally" different from masters students who did not major in accounting ($p<.08$). The difference between the two inexperienced groups was not significant ($p>.20$). Regarding the PCAOB, the experienced group differed significantly only from the inexperienced accounting students ($p<.01$) and did not differ from the masters students without an accounting background ($p>.8$). The two inexperienced groups were "marginally" different in their responses about the PCAOB ($p<.07$).

TABLE 4
PERCEPTIONS OF IMPROVED AUDIT QUALITY (N=287)

Survey Item	Audit Experienced	Inexperienced		
		Accounting	Nonaccounting	Total Inexperienced
27. To what extent do you believe that the Sarbanes-Oxley Act (also referred to as SOX) has improved audit quality?	4.54 (2.24)	5.51 (1.06)	5.11 (1.53)	5.07 (1.29)
24. To what extent to you think that the existence of the PCAOB improves audit quality?	4.60 (2.11)	5.01 (0.89)	4.47 (1.47)	4.76 (1.10)

The top number represents the average response using a Likert-scale of 1 (no improvement) to 7 (a great deal of improvement) and the number in parentheses represents the t-statistic from one-tailed test as to whether the differences are statistically different from one another.

Because perceptions could differ depending upon *level* of experience, we partitioned the experienced group into those with one year (N=72) versus those with two or three years (n=38). Those with only one year of experience did not differ from their more experienced counterparts, either with regard to SOX or PCAOB ($p>.15$ in both cases). Thus, they appear to develop their perceptions about the efficacy of SOX within their first year of training and do not change that perception significantly during the next year.

Additional Analyses – Path Analyses

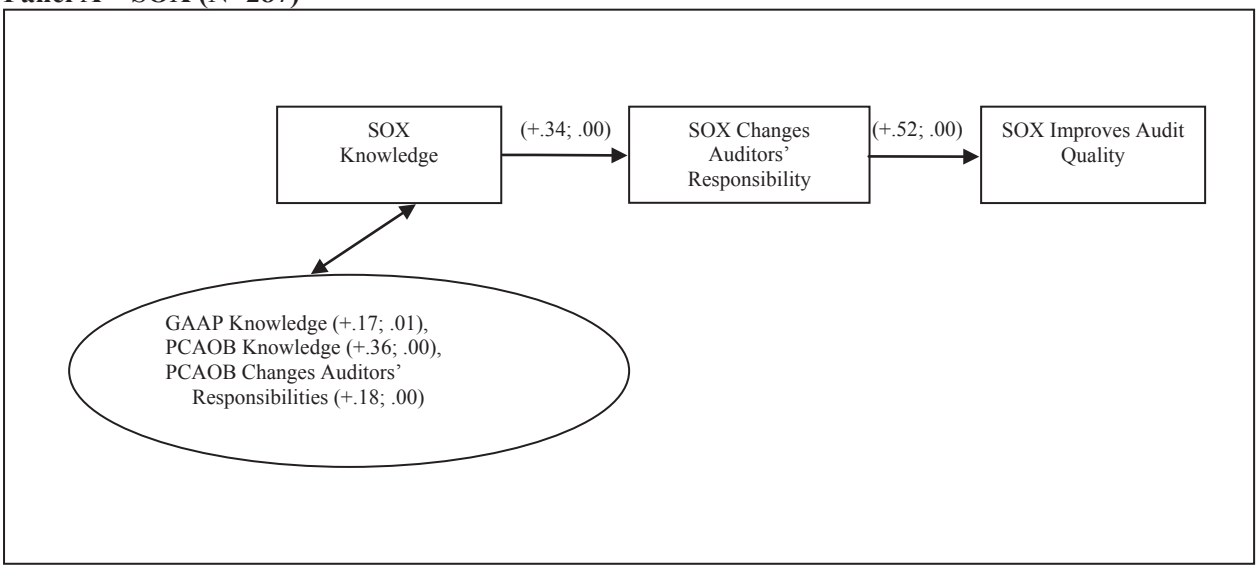
If the legislation has done anything to change perceptions about audit quality, as part of the over-arching purpose of increasing confidence in the financial markets, then we expect increasing knowledge of SOX and the PCAOB to be associated with increased beliefs that audit quality has improved as a result. However, we also wish to examine whether such beliefs about improved audit quality (reported in Table 4 above) are associated with beliefs that auditors' responsibilities have increased (reported in Table 3 above). If knowledge of SOX (and/or PCAOB) is no longer associated with a belief that audit quality has increased, after controlling for beliefs about increasing auditors' responsibilities, then it is possible that the public has placed the onus for any desired improvements squarely on the shoulders of the auditors.

Figure 1 formally displays the model that we test, separately for SOX and the PCAOB. We used path analysis to test our model. The first link allows for the likelihood that control/demographic variables will be associated with SOX/PCAOB knowledge. We also included the other model's main variables due to the correlation between these variables.[3] The significant control variables identified in the first link were then included when testing later links in the model. The path analysis results are shown in Figure 1 and depict only the significant paths ($p < .05$, 2-tailed). Beta coefficients and 2-tailed p-values are shown for each variable.

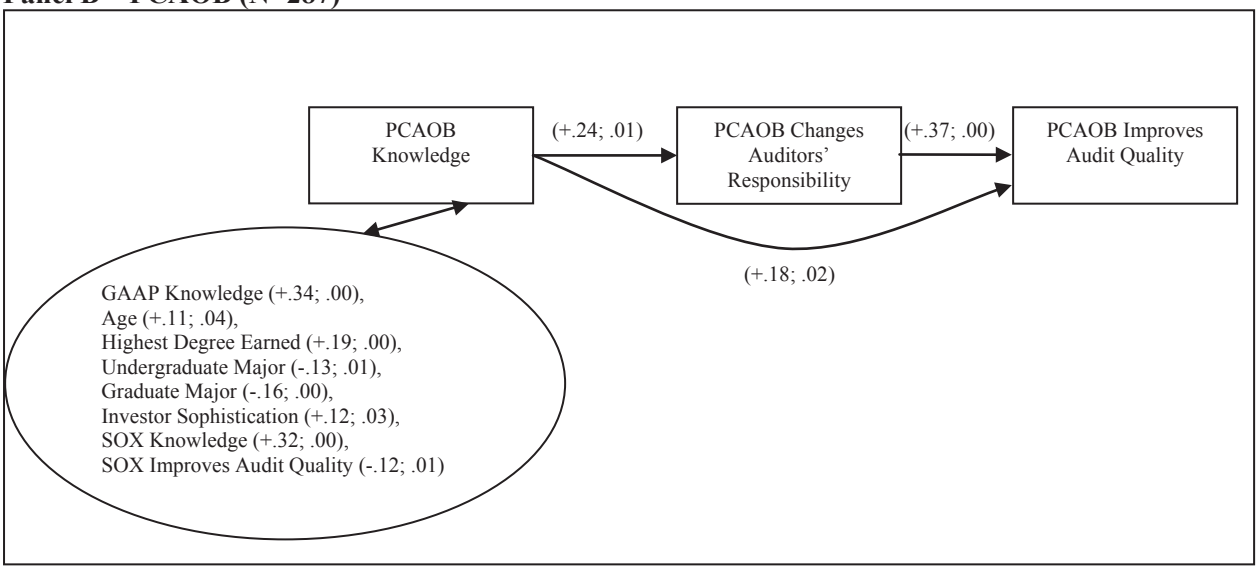
Panel A of Figure 1 shows the path analysis results for SOX. Three variables are significantly and positively associated with SOX knowledge: GAAP knowledge (+.17; .01), PCAOB knowledge (+.36; .00) and a perception that the PCAOB changes the auditors' responsibilities (+.18; .00).[4] The second link in the model shows that knowledge of SOX is positively associated with perceptions of changes in auditors' responsibilities due to SOX (+.34; .00). The last link shows that perceptions of changes in auditors' responsibilities are associated with perceptions of improved audit quality as a result of SOX (+.52; .00). There was no significant direct link between self-reported SOX knowledge and a belief that SOX improved audit quality.

FIGURE 1
MODELS OF PERCEIVED EFFICACY OF THE SARBANES-OXLEY ACT AND THE PCAOB

Panel A – SOX (N=287)



Panel B – PCAOB (N=287)



*Path analysis was used to test each model. Significant control variables are included, along with (Beta Coefficients; 2-tailed p-values).

As Panel B of Figure 1 shows, factors positively associated with PCAOB knowledge include GAAP knowledge (+.34; .00), age (+.11; .04), higher levels of education (+.19; .00), higher levels of self-reported investor sophistication (+.12; .03), and SOX knowledge (+.32; .00). The undergraduate major (-.13; .01) and the graduate major (-.16; .00) are also significantly associated with PCAOB knowledge. ANCOVA analyses including the significant control variables shown in Figure 1 indicate that, for the undergraduates, accounting students have the highest PCAOB knowledge with an estimated marginal mean of 4.0 on a 1-7 point scale. Planned comparisons using a Bonferroni correction for multiple comparisons show that accounting is only significantly different from finance (estimated marginal mean =

2.8). For the graduate students, again, accounting students have the highest knowledge (estimated marginal mean = 4.2). Accounting, finance and management are not significantly different from each other, but are all significantly higher than MBA students (estimated marginal mean = 2.3). Finally, participants' perceptions that SOX improves audit quality are negatively associated with PCAOB knowledge (-.12; .01). Because all of these variables have a significant association with PCAOB knowledge, they are included as control variables when testing the main links in the model.[5]

The second link in the model shows that knowledge of the PCAOB is positively associated with a belief that the PCAOB has changed the auditors' responsibilities (+.24; .01). The final link shows that perceptions about changes in responsibility are associated with perceptions of improved audit quality (+.37; .00). In addition, as shown in Panel B, there is a direct link between knowledge of the PCAOB and perceptions that the PCAOB improves audit quality (+.18; .02).

Professional Audit Experience

Because participants with more exposure to the financial statement audit process are presumably more likely to have a more informed view as to whether audit quality has increased, we further tested the models shown in Figure 1 by subdividing the sample into those with one or more years of professional audit experience (n=110) and those without (n=177). For those without professional audit experience, in the PCAOB model, PCAOB knowledge is associated with GAAP knowledge, SOX knowledge and perceptions that SOX improves audit quality, and the main links in the first model hold. In the SOX model, SOX knowledge is associated with PCAOB knowledge and perceptions that the PCAOB improves audit quality, and the main links in the second model hold as well.

Interestingly, the models do not hold for participants with professional audit experience. In the PCAOB model, PCAOB knowledge is associated with GAAP knowledge, age, SOX knowledge, perceptions that SOX changes the auditors' responsibilities and perceptions that SOX improves audit quality. However, PCAOB knowledge is not significantly associated with perceptions that the PCAOB changes the auditors' responsibilities, and neither is the responsibility variable associated with perceptions of improvements to audit quality. These results seem to suggest that, while respondents with professional audit experience generally have more knowledge of the PCAOB than those without, their knowledge is not associated with beliefs about increases in auditors' responsibilities and improved audit quality, though it is for those without professional audit experience.

Our test of the SOX model shows similar results. None of the control variables are significantly associated with SOX knowledge for those with professional audit experience. In addition, SOX knowledge is not significantly associated with perceptions that SOX changes the auditors' responsibilities, but perceptions that SOX changes the auditors' responsibilities are significantly and positively associated with perceptions that SOX improves audit quality. As a final analysis, we also subdivided the participants into those with an accounting major (either undergraduate or graduate) and those not majoring in accounting. We tested both the PCAOB and SOX models for each group. Although the control variables differ somewhat from our original results, both the PCAOB and SOX models hold for both the accounting and non-accounting groups.

IMPLICATIONS AND CONCLUSIONS

As expected in this study, those with practical exposure to the audit process indicated significantly more familiarity with SOX and the PCAOB than did those with no such exposure, regardless of whether the inexperienced group had an accounting background. Additional statistical analyses showed that, for the business students in our study, increased knowledge of both the PCAOB and SOX is positively associated with perceptions of changes in auditors' responsibilities, and these perceptions are, in turn, associated with perceptions of improvement in audit quality. Therefore, it appears that educating investors about SOX and the PCAOB potentially results in perceptions of improved audit quality. Our results also lend some indirect support to the PCAOB's claim that investor confidence has been restored, at least in terms of their confidence in financial statement audits.

It is also possible, however, that accounting undergraduate education does not have the effect that educators would hope. Within the group with no practical audit exposure, accounting students (undergraduates, masters in accounting students with no audit experience and MBA students who majored in accounting as an undergraduate) did not view themselves as any more knowledgeable with regard to SOX than masters students without an accounting educational background, although they were higher on self-reported PCAOB knowledge. The results suggest that perceptions about SOX and the PCAOB are quite possibly formed more effectively with actual exposure to the auditing process than through formal education.

The surprising results of this study were the perceptions of students with professional audit experience. As expected, these students were more familiar with SOX and the PCAOB than those without professional audit experience. However, their perceptions that the PCAOB and SOX changes the auditors' responsibilities and improves audit quality are significantly lower than those without professional audit experience. It is quite interesting that our participants with professional audit experience, who likely have hands-on experience with internal control audits and other changes in the audit process that resulted from SOX and the PCAOB, seem less optimistic about their efficacy than investors without any audit experience.

The results discussed in the preceding paragraph, coupled with the path analysis results, raise a potential issue about investors' expectations. The results suggest that SOX knowledge is only indirectly associated with a belief in improved audit quality, and this link occurs through a perception that the auditors' responsibility has changed. The separate results for participants with professional audit experience, who have greater self-reported knowledge of SOX and the PCAOB, revealed that their greater knowledge level is not significantly associated with a belief that auditors' responsibilities have increased. If investors view audit quality as having increased because they think the legislation places a greater burden of responsibility on the auditor, it is possible that the new legislation has increased the expectations gap. The pre-SOX literature on the expectations gap generally supports the existence of a gap between investors' expectations of auditors and the auditors' true professional responsibilities (e.g. McEnroe and Martens 2001).

The SOX legislation and the PCAOB have undoubtedly changed the auditors' responsibilities to an extent. Clearly, the move from a self-regulated profession to one now subject to extensive oversight is a significant change. In terms of the auditor's responsibility, one significant change is that financial statement auditors for publicly registered clients must now explicitly report on the audit client's internal control system (Messier, Glover, and Prawitt 2010), whereas they did not previously have to do so. In addition, the act further placed restrictions on the performance of non-audit services.

Regardless of which side one takes in the debate about the efficacy of SOX and the PCAOB, it is no panacea. Audits still involve sampling and audit risk still exists. Fraud – especially when collusion occurs – will continue to be difficult to detect in many instances. Interestingly, if the establishment of the PCAOB has brought about improvements in audit quality, the improvements may not be for exactly the reasons that the average investor believes. While investors may believe that improvements resulted primarily from increasing the responsibilities of the auditor, the most significant changes may instead have occurred through such changes as increased conservatism on the part of the auditor in terms of first-year audit fees and in client acceptance/retention (Huang et al. 2009). Such potential differences in attributions are perhaps not important as long as the already-significant expectations gap has not become wider. Future research should further examine the extent to which investors and auditors differ in their beliefs about the efficacy of the legislation and their attributions as to the causes.

The results of the current study should be interpreted in light of its limitations. First, the survey respondents were students at the time of their responses. While the students with some audit experience are arguably a reasonable proxy for practitioners with respect to our particular survey items, future researchers should consider the use of those with greater amounts of experience. It is possible that some of our participants simply do not have adequate perspective as to how the post-SOX audit environment compares with that of the pre-SOX era. Also, while MBA students have been found to be a reasonable proxy for nonprofessional investors (Elliott et al. 2007), other studies using groups of "actual" investors

would potentially provide a richer look at investors' viewpoints. Despite these limitations, we believe that the results add to the literature by offering evidence of perceptual differences among those with different levels of exposure to the audit process, and we call for further research to examine more closely the issues raised.

ENDNOTES

[1] In discussing the five themes of SOX, Glassman notes the importance of investor education and stresses the idea that corporate governance is best assessed from an (educated) investor perspective.
[2] Elliott et al. (2007) show that graduate students may be good proxies for nonprofessional investors, particularly when given a task with low integrative complexity. They note that graduate students likely have more formal-education-based knowledge than the average nonprofessional investor, which may be particularly pertinent with respect to our survey.
[3] Since the PCAOB was created as a result of SOX, knowledge, audit responsibility and perceived improvement in audit quality for one of these variables are likely correlated with the other variables.
[4] Again, in addition to these results (but not shown in Figure 1 – Panel B for simplicity), PCAOB knowledge (-.43; .00) and perceptions that the PCAOB changes the auditors' responsibility (.40; .00) also have a significant direct link to perceptions that SOX changes the auditors' responsibility, and PCAOB knowledge (-.19; .01) also has a direct link to perceptions that SOX improves audit quality.
[5] For simplicity reasons, we do not illustrate in Figure 1 the significant direct links of these control variables with the other main variables in the model. Higher levels of education (-.24; .00) and perceptions that SOX improves audit quality (+.24; .00) are associated with perceptions that the PCAOB changes the auditors' responsibilities. Furthermore, perceptions that SOX improves audit quality are associated with perceptions that the PCAOB improves audit quality (+.38; .00).

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