

## **Graduate Education and the Audit Expectations Gap in the Post-Sox Era**

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*Many attempts have been made to address the audit expectations gap, ranging from educating investors to creating tougher auditing standards; however, the most appropriate formula continues to be open to debate. Prior studies have primarily focused on the effect of formal audit education; the current study examines whether differential levels of education (MBA vs. undergraduate), whether accounting or otherwise, are associated with differential levels of an expectations gap. The results suggest that education level may moderate the gap, and that well-placed interventions at the MBA level would potentially be effective in educating a large group of investors.*

### **INTRODUCTION**

The expectations gap has troubled the auditing profession for at least 80 years. For example, in 1937, a massive fraud at McKesson and Robbins was exposed (McEnroe and Martens 2001) by its auditors.<sup>1</sup> An “expectations gap” arises when there is a divergence between what the auditor believes his/her responsibilities to be and what investors believe about those responsibilities (McEnroe and Martens 2001).<sup>2</sup> The expectations gap has generated a great deal of litigation and has been referred to by Anderson, Lowe and Reckers (1993) as “...the root of the profession’s legal woes” (p. 713). The gap has been shown to exist internationally as well (Hussain 2003; Lin and Chen 2004; Siddiqui, Nasreen and Choudhury-Lema 2009). Generally, differences between investors’ and auditors’ viewpoints about the auditor’s responsibilities relates primarily to audits of general-purpose financial statements (Guy and Sullivan 1988; Anderson et al 1993; Lowe 1994; Epstein & Geiger 1994; Chenok 1994; McEnroe & Martens 2001). For example, many investors believe that auditors inspect *every* document during an audit engagement and ought to be able to find *any* mistake or *any* fraud that has occurred (Messier, Glover and Prawitt 2010; Louwers, Ramsay, Sinason, Strawser and Thibodeau 2011). Investors also hold different views from auditors about the extent of an auditor’s general oversight responsibility and on such important issues as the detection of illegal acts and misstatements resulting from management or employee fraud, and the signal the audit should send about the auditee’s financial health (McEnroe and Martens 2001; Taub 2005).

In examining the expectations gap, Porter (1993) argues that it is important first to analyze whether a particular criticism relates to unreasonable expectations or to deficient performance on the part of the auditors. Several attempts have been made in the past to reduce the expectations gap, by both lowering

investors' expectations through education and improving auditors' performance through changing standards (Zhang 2007). In terms of changing standards, in 1988, the AICPA issued nine new Statements on Auditing Standards (SASs) known as the "expectations gap" standards, aimed at reducing the gap by placing a greater burden on the auditors (Guy and Sullivan 1988). Of course, the Sarbanes-Oxley Act of 2002 ("SOX") and the establishment of the Public Company Accounting Oversight Board ("PCAOB") were aimed largely at auditors (AICPA 2007), who ostensibly were not meeting the expectation of protecting the public interest.

In examining the effects of education aimed at addressing the "unreasonable expectations" aspect of the gap, the appropriate forum does not appear to have been established conclusively (Boyle and Canning 2005). Darnill (1991) found that the public generally viewed the work of the auditor as complex and uninteresting and that mass communication about the role of auditing would, therefore, not have a meaningful effect in reducing the gap. Instead, the authors argued for investor education as a principle means of reducing the gap. Subsequent studies have generally found that audit education reduces misunderstandings about the role of auditors (Monroe and Woodliff 1993; Pierce and Kilcommins 1997; Ferguson, Richardson and Wines 2000), but there are varying results. Gramling, Schatzberg, and Wallace (1996) found some evidence that undergraduate auditing coursework could reduce the gap in some areas, but that a gap still existed between practitioners and accounting students even after they had completed their auditing coursework. They suggest the possibility that the auditors' experience affects the differences between themselves and students, due to the auditors' greater knowledge of the business environment, economic issues, and economic/cost-benefit tradeoffs that affect the audit environment. Hussain (2003) partially replicated and extended the Gramling et al. study in Oman. Boyle and Canning (2005) found that increasing audit education was actually associated with an increase in the "deficient performance gap" aspect of Porter's (1993) model. They suggested this gap increase and a harsher view by those preparing to enter the profession was due to a removal of the "mystique" surrounding the accounting and auditing profession.

The current study contributes to this literature in two primary ways. First, we examine the basic question of whether an expectations gap continues to exist, post-SOX, and in what areas the gap is relatively more pronounced, if any. The SOX and PCAOB have now been in effect for several years and many commentators believe that investor confidence appears to have been largely restored (PCAOB 2007b; Austen and Dickins 2007; Oxley 2007). Further, the "taint of impropriety hanging over the profession" described by Sternberg (2002) seems to be a distant memory. Still, however, there is considerable debate about the efficacy of the sweeping legislation in relation to its high cost (e.g. Hockberg, Sapienza and Vissing-Jorgensen 2009; Austen and Dickins 2007; Dodwell 2008) and whether it was necessary at all (Wallison 2004). It is likely that the new regulations and the increased scrutiny of the profession since 2002 have partially provided the education called for by McEnroe and Martens (2001) in their pre-SOX study as a means of reducing the gap, and that the gap is now less pronounced. On the other hand, it is also possible that investors might interpret the legislation as merely increasing the auditor's responsibility, thereby increasing the gap. Therefore, it is important to understand whether the expectations gap still exists, or if it is perhaps wider (Akers, Maher, and Giacomino 2003). Evidence of a significant gap would further cast doubt on whether we have progressed beyond where we were prior to SOX, whereas evidence that the gap is decreasing supports the notion that the legislation actually brings investors and auditors closer in their understanding of the responsibilities of the latter in the context of the annual audit.

A second contribution is to extend the literature examining the relationship between education and the expectations gap. Prior studies have primarily examined the effect of undergraduate audit education itself (Monroe and Woodliff 1993; Pierce and Kilcommins 1997; Ferguson, Richardson and Wines 2000; Boyle and Canning 2005; Gramling, Schatzberg and Wallace 1996). We argue that many investors will never have an auditing course unless they pursue an accounting degree, but that they may possess or pursue an MBA degree. We further posit that graduate students, whether audit-experienced or not, are potentially more sophisticated as investors and their maturity and greater exposure to the business world could be

associated with perceptions that differ from those of undergraduate students. The current study uses both undergraduate and graduate students, with and without audit experience, to examine whether the expectations gap differs depending upon the experience and education level of the student. A finding that the expectations gap is lesser for those at the graduate level would suggest that educational interventions in graduate business school could be effective.

We find that an expectations gap continues to exist in terms of general audit assurance and in arguably more sensitive areas such as fraud detection and the financial health of a company, the latter being generally assumed in the absence of a “going concern” opinion. However, there is some evidence that perceptions of students at the graduate level differ from those at the undergraduate level and educational interventions at the MBA level hold promise for helping to make investors’ expectations more realistic. Overall, the results of this study can assist practitioners, educators, and regulators in terms of future education of investors and future standard setting for the auditing profession including mitigating the expectations gap between the investing public and the auditing profession.

The remainder of this paper is as follows. In Section II, we discuss prior literature in this area and articulate our research questions; in Section III, we present our research methods; in Section IV, we discuss our findings. Finally, in Section V, we discuss the conclusions and limitations of our study.

## **PRIOR LITERATURE AND DEVELOPMENT OF RESEARCH QUESTIONS**

The term “expectations gap” has been used in relation to auditing at least as far back as 1974 (Liggio, 1974; Porter, 1993). In fact, McEnroe and Martens (2001) suggested that the notion of an expectations gap may have originated in the public hearings surrounding the McKesson and Robbins fraud exposed in 1937. In 1974, the Cohen Commission was commissioned by the AICPA to determine whether an expectation gap indeed existed. As noted in McEnroe and Martens (2001), this commission concluded that a major gap existed and that users’ expectations were not being met in many important areas.

Since the 1970s, the gap has been the subject of a number of studies which generally supported its existence (e.g. Anderson et al. 1993; Epstein and Geiger 1994; McEnroe and Martens 2001). Epstein and Geiger (1994) conducted a national survey of 246 investors who owned 100 or more shares of stock listed on the American and New York Stock Exchanges. They found that nearly one-half of the investors expected absolute assurance that auditors would detect material misstatements due to errors (unintentional misstatements). Over 70% of the investors expected absolute assurance that material misstatements due to fraud (intentional misstatements) would be detected, despite an explicit recognition in SAS No. 53 that fraudulent misstatements are more difficult to detect than errors. Perhaps important with regard to litigation resulting from the expectations gap, Anderson et al (1993) provided evidence that expectations gap extends to federal and state judges.

Porter (1993) breaks the gap into two components: A reasonableness gap and a performance gap. The former denotes the difference between what society expects of auditors and the “duties reasonably expected of auditors” (p. 50), while the latter represents the difference between what society can reasonably expect and what they perceive the auditor as achieving. She argues that it is important to categorize criticisms under one of these components in order to determine the best approach for reducing a particular area of the gap. Subsequent studies and qualitative analyses (e.g. McEnroe and Martens 2001; Bostick and Luehlring 2004) recognize the importance of Porter’s model and categorize their findings accordingly.

McEnroe and Martens (2001) compared responses of audit partners and investors (from the American Association of Individual Investors) and found significant disagreements about what should occur before an unqualified opinion is issued. For instance, the investors’ expectations about internal controls and the detection of fraud and illegal acts were considerably greater than were those of the professional auditors. Also important was the difference as to whether “Every item of importance to investors and creditors has been reported or disclosed in the financial statements.” Clearly, the latter leaves room for differences in judgments about such factors as materiality or which specific items matter most to investors. Finally,

another difference with important implications is the extent to which investors expected auditors to perform as a “public watchdog” prior to issuing an unqualified opinion. Over 70% of their investor group either agreed or strongly agreed with that statement, compared with 41% of the auditors. Interestingly, however, the auditors actually placed a greater responsibility for the auditee’s economic viability on the auditors than did the investor group. This latter result is surprising since, although assessing the economic viability of a company is an important byproduct of the audit, the *primary* purpose of an audit is to express an opinion about the fairness of presentation of the statements. However, some studies yield contrary conclusions. For example, Harris and Marxen (1997) compared responses of 56 auditors and 65 of their clients and found that the clients did not hold unreasonable expectations of the auditors and did not tend to judge the actual performance of their auditors in an overly negative light.

A handful of studies have examined the expectations gap in the post-SOX era. For instance, focusing on the “deficient performance” aspect of Porter’s (1993) model, Bostick and Luehlfling (2004) qualitatively analyzed the gap specifically with respect to illegal acts. The authors postulated that deficiencies in professional standards may have contributed to McEnroe and Marten (2001) earlier results and that the profession still needed to revisit ways to improve auditors’ detection of illegal acts, despite the passage of SOX and other recent standards resulting from well-publicized financial reporting scandals. Schelluch and Gay (2006) examined beliefs of auditors, users and preparers of *prospective* financial information and found that auditors assumed a higher level of responsibility for the prospective financial information than users or preparers attributed to them. Akers, Maher and Giacomino (2003) challenged the assertion of a 2002 report by Weiss Ratings, Inc. (Weiss Reports, Inc. 2002) that there was a “broad and massive failure by auditors to adequately detect and warn of accounting irregularities and bankruptcies.” (Weiss Reports, Inc. 2002, 12). The Weiss Report was submitted to the U.S. Senate while the Senate deliberated on the bill that later became the Sarbanes-Oxley Act. Akers et al. (2003) applied the Weiss criteria to an arguably more appropriate sample of companies, and concluded that the Weiss claims submitted to the Senate contributed to a widening of the expectations gap.

Studies of the effects of education on the gap have primarily focused on audit education itself, and generally suggest that audit education reduces the gap in perceptions between students and auditors (Monroe and Woodliff 1993; Humphrey, Moizer and Turley 1993; Gramling et al. 1996; Hussein 2003). However, beliefs about the effectiveness and desirability of audit education for the purpose of reducing the gap is far from universal (Sikka et al. 1992, as cited in Boyle and Canning 2005; Humphrey et al. 1993; Williamson and Major 2001). Gramling et al. (1996) found that, while audit education was effective in some areas, the gap still existed after students completed an undergraduate auditing course. Similarly, Hussain (2003) surveyed students before and after completing an auditing class in Oman and found that the expectations gap existed there as well. Hussain called for greater coverage of the audit function in introductory accounting textbooks.

A recent study by Siddiqui, Nasreen and Choudhury-Lema (2009) found a similar effect for auditing education in Bangladesh, particularly in the area of audit reliability. Siddiqui et al. (2009) examined the effect of both traditional and case-based auditing education and found that, while introducing cases about accounting scandals increases student interest, such educational approaches appear to contribute to increasing expectations about auditors’ responsibilities. Boyle and Canning (2005) focused on the “deficient performance” aspect of Porter’s (1993) model and administered a survey to three groups of students who had varying previous levels of exposure to audit education. They found that greater levels of audit education were associated with greater skepticism about auditors’ performance, with those about to enter the profession being the most skeptical.

With a few exceptions (Bostick and Luehlfling’s 2004, Boyle and Canning 2005, Akers et al. 2003, Hussain 2003, Siddiqui et al. 2009), studies of the expectations gap are primarily from the pre-SOX era. The assertions by Akers et al. (2003) suggest the possibility that the expectations gap widened as a result of the Sarbanes-Oxley Act. The current study seeks to examine the more basic question of whether the gap continues to exist and, if so, in what areas and whether the gap is mitigated by the level of investor education and exposure to auditing. Unlike Bostick and Luehlfling (2004) and Boyle and Canning (2005),

this study relates primarily to the “unreasonable expectations” aspect of Porter’s (1993) model. Second, since prior studies relating education to the expectations gap have focused on undergraduate auditing coursework, we examine whether graduate education has the potential to reduce the gap.

The primary research questions of interest can be articulated as follows:

*Research Question One:*

Does an expectations gap continue to exist, between those exposed to auditing through experience and those lacking such exposure, with respect to:

- a. general audit assurance?
- b. fraud detection?
- c. the financial health of the company under audit?

*Research Question Two:*

If the gap does exist, does it depend upon level of education (undergraduate versus graduate)?

The answers to the first question will provide insights into the areas in which there is still an expectations gap, if any, regarding knowledge of auditors’ responsibilities. The second question is important because it addresses whether a higher business education level appears to mitigate the existence of an expectations gap. A finding that education level (masters vs. undergraduate) potentially makes a difference would suggest that graduate education offers an opportunity for accounting educators at that level to intervene by ensuring that their material includes information aimed at reducing the gap.

## **METHODS**

We administered a survey instrument to three primary groups of students. The first group consisted of masters students in accounting at a private institution, most of whom had at a least one year of experience at a Big 4 accounting firm. The second group consisted of undergraduate cost accounting and tax students at a separate, public institution who, although they are predominately accounting majors, have generally not yet been exposed to auditing in a class. A third group consists of MBA students from two public universities who were generally older and expected to be relatively more sophisticated than the second group, although the majority of the MBA group did not have an accounting undergraduate background. MBA students have been used in many studies as a proxy for nonprofessional “investors” (Elliott et al. 2007).<sup>3</sup> Given this rich cross-section of respondents, our study allows for a comparison between those with audit experience and two groups of students with varying investor sophistication levels. Following prior research, our first group of nonprofessional investors is considered to be sophisticated, whereas the second and third are considered to be more naïve though not unsophisticated.

## **RESULTS**

Table 1 shows demographic information arranged based on whether students were enrolled at the masters or undergraduate level. The age of graduate students was significantly greater than that of undergraduate students ( $F=37.3$ ;  $p<.001$ ). Participants were asked to rate their knowledge of generally accepted accounting principles (GAAP) on a seven-point scale from 1 (not at all knowledgeable) to 7 (very knowledgeable). Graduate students were significantly higher in their self-assessed level of GAAP knowledge ( $F=6.6$ ;  $p<.02$ ). Finally, participants were also asked to rate their sophistication level as a capital markets participant on a seven-point scale from 1 (not very sophisticated) to 7 (very sophisticated). Graduate students were significantly higher on this item ( $F=58.4$ ;  $p<.001$ ). Of the total of 287 participants, 158 were male and 128 were female, while one did not respond to that item.

Additional analysis, however, sheds further light on the comparisons discussed in the preceding paragraph. The student participants fall primarily into three groups: 1) a group at one school consisting of

graduate students in accounting with primarily an accounting undergraduate background (75% of that group), 2) a group at a second school consisting of either undergraduate students (largely accounting majors) or MBA students, and 3) a group of MBA students at a third school with predominately non-accounting undergraduate backgrounds (91%). Separate analyses of variance with the school as the independent variable (at three levels) reveal that the school is highly significant ( $p < .001$ ) for both GAAP knowledge and capital markets sophistication. Post hoc analyses (Bonferroni adjustment) reveals that Group 1 > Group 2 > Group 3 at  $p < .001$  for GAAP knowledge. These differences suggest, not surprisingly, that a greater amount of accounting training is important in GAAP knowledge. The same analysis for self-reported capital markets sophistication reveals the following pattern: Group 1 (mean 5.37) > Group 2 (mean 3.27) = Group 3 (mean 3.58). Therefore, the first group's self-reported capital markets sophistication is clearly above those of the other two that consisted either solely of MBA students (primarily non-accounting background) or a combination of MBA and undergraduate students (primarily accounting majors). Groups 2 and 3 did not differ on this item. (See Appendix Table 1)

Table 2 shows statistics for the same demographic items as in Table 1, arranged instead by whether participants indicated some audit experience. The measurement is dichotomous and compares responses of those indicating one or more years of experience with those indicating none. There was no significant age difference between the two groups ( $F = .11$ ;  $p > .7$ ). As expected, those indicating one or more years of audit experience also indicated a significantly better understanding of GAAP ( $F = 86.89$ ;  $p < .0001$ ) and a greater level of capital markets sophistication ( $F = 78.66$ ;  $p < .0001$ ). (See Appendix Table 2)

Table 3 shows descriptive statistics on several items related to the responsibilities of financial statement auditors. The table compares mean responses for those with no audit experience and those with one or more years of experience. This table is modeled largely after a pre-SOX study by McEnroe and Martens (2001) and the breakdown is believed appropriate because, with respect to the items in this survey, respondents with training in auditing arguably should be able to answer more "correctly," with relatively low responses for the items based on the way the scale is constructed. The table also shows the frequency of responses in each category. All of the between-group differences are significant at .05 or less, indicating the apparent continued presence of a gap in perceptions. As expected, there is a fairly high level of agreement from both groups that the financial statements are "guaranteed" to be mathematically accurate, prepared in accordance with GAAP, and free of material misstatements.

With respect to bankruptcy and the existence of fraud, the gaps are significant and in a direction that was expected assuming that investors hold auditors to a higher standard than do the auditors themselves. The magnitude of the difference is greatest with respect to the existence of fraud. Therefore, the answer to the first research question is that there still appears to be a gap in expectations of the auditor, post-SOX, between those exposed to auditing through experience (sophisticated investors) and those not having the benefit of such exposure (naïve investors). (See Appendix Table 3)

Research question 2 is concerned with whether graduate education has the potential to reduce the expectations gap. Table 4 shows a breakdown of the means from Table 3 for experienced and inexperienced respondents, further broken down between graduate and undergraduate students. For graduate students, experience is significant at .05 or less for all items except Item 3. For undergraduate students, however, experience is marginally significant ( $p < .10$ ) for items 4 and 5 and not significant for any others. Interestingly, the mean response for a "guarantee" against bankruptcy is highest for the experienced undergraduate group. Since that group consists primarily of those with some internship experience who perhaps have had undergraduate auditing, they may simply be more familiar with the "one year" rule-of-thumb for deciding on a going-concern qualification and some perhaps overlooked the word "guaranteed" while completing the survey. Note, however, that the mean responses in Table 4 tend to go down for all groups from Items 1-3 to Items 4-6, the latter arguably representing issues most likely to land the auditor in court for an alleged audit failure. Still, there are statistically significant gaps in a direction that is perhaps not surprising. However, the results do show that those at the graduate level, with or without auditing experience, tended to hold more "realistic" viewpoints than did their counterparts at the undergraduate level. (See Appendix Table 4)

To provide a more direct and rigorous test for the second research question, we examined the interaction between experience (again 1 vs. 0) and level of student (masters vs. undergrad). We included gender and age as covariates, along with an indicator variable based on whether the student was enrolled in a course in which all or a majority of the students would have had an auditing course (“HadAudit”). Table 5 shows F statistics and significance values for each of the independent variables and covariates, with the survey items from Tables 3 and 4 serving as dependent variables. Controlling for other factors, the interaction between the level of the student (masters vs. undergraduate) and having experience is significant at .05 or less for Items 1 (mathematical accuracy), 4 (no bankruptcy within one year), 5 (no bankruptcy within two years), and 7 (internal controls). For Item 2 (free of material misstatements), the level of the student has a significant main effect ( $p=.023$ ), while experience has a marginally significant effect ( $p=.084$ ). For Item 3 (full accordance with GAAP), “Had Audit” is highly significant ( $p=.004$ ), while the level of the student has a marginally significant main effect ( $p=.097$ ) and experience does not approach significance. Given the clear message about “conformity with GAAP” that is conveyed in the typical introductory auditing class, the latter result is perhaps not surprising.

Item 6 (no fraud) is arguably one of the most important items in terms of auditor liability. For this item, the level of the student remains highly significant ( $p=.001$ ), while experience is marginally significant ( $p=.052$ ). Two of the covariates, age and “Had Audit”, are highly significant. For this important aspect, there appears to be a gap between those exposed to auditing, either through experience or in class, and those who have no exposure to auditing. It is possible based on these results that the increasing sophistication that results from having graduate education (and perhaps age) adds value to investors’ set of information about auditors’ responsibilities. Overall, with respect to the second research question, the results suggest that graduate education does potentially mitigate the expectations gap relative to such important areas as bankruptcy and fraud detection responsibility. (See Appendix Table 5)

Since the majority of “real-world” investors may indeed have *no* auditing course or experience, the third research question seeks to provide a further test of the potential association between graduate education and beliefs about auditors’ responsibilities. We performed separate analyses including only the group with no audit experience to examine whether the level of education within this group makes a difference.<sup>4</sup> Masters and undergraduates did not differ significantly on items 1-3 ( $p>.10$  in all cases). However, undergraduates were significantly higher ( $p<.05$  in all cases) on items 4-7. In another analysis, we included control variables for gender, whether a student’s undergraduate major is accounting (yes or no), and whether a student was enrolled in a course in which all or the majority have already had the undergraduate auditing course. “Had audit” is highly significant for items 1, 3, and 6 (fraud). Interestingly, having accounting as an undergraduate major is significant only for item 3 ( $p<.02$ ). The masters vs. undergraduate distinction remains highly significant for items 4 through 6 ( $p<.03$  in each case). The latter result suggests that, for those *without* auditing experience, graduate education may be associated with a lessening of the expectations gap on such important items as bankruptcy and fraud detection, although we are unable to suggest any causation from this study.

## CONCLUSIONS AND DISCUSSION

The results overall suggest that a gap continues to exist, post-SOX, between those exposed to auditing through experience and those with no audit experience in their beliefs about financial statement auditors’ responsibilities. This gap exists in terms of general audit assurance and potentially more sensitive areas such as “guaranteeing” that no fraud has occurred at the company and that bankruptcy will not occur in the near future. The results about bankruptcy provide support for the assertion by Akers et al (2003) that going concern opinions (or lack thereof) may present an important source of the expectations gap, even in the post-SOX era. For example, a going concern opinion might be viewed by these respondents as a signal that bankruptcy is imminent. It is important to note that providing reasonable assurance about the fair presentation of financial statements in accordance with GAAP is a separate issue from opining on whether the company is going to go bankrupt. The typical financial statement audit is designed expressly

to result in an opinion on the former, but may be silent on the latter unless the auditor finds evidence of “substantial doubt” about the company’s ability to continue as a going concern, generally beyond one year from the date of the financial statements. Indeed, one can envision a scenario in which the statements were fairly presented and the auditor reasonably did not conclude that substantial doubt existed as of the date of the balance sheet, only to find out eight months later that changing economic or industry conditions now threaten the company. While the statements may have been fairly presented, if the company subsequently goes bankrupt, will the investors not still claim that the auditors should have known? The profession’s long history with litigation suggests that they will. It seems highly likely that “fair presentation in accordance with GAAP” will no longer matter at that point, but will instead be inextricably mixed with “likelihood of staying financially afloat” in investors’ minds.

The separate results for those with *no* auditing experience are important because this group may indeed better represent the majority of nonprofessional investors. The results suggest that, controlling for other potentially important variables, graduate education could be influential in reducing the expectations gap for this important group. Although we cannot necessarily infer causation in this study, the results are consistent with such a possibility. Accounting courses taken by masters students that include a financial accounting and/or financial statement analysis element should perhaps provide some focus on the expectations gap, because many such students are likely to be current or future investors. Our results suggest that well-placed educational “interventions” at the MBA level might be particularly effective and important, assuming that the MBA population consists of prime candidates for current or future equity investing. Based on the relatively-harsher views taken in the Boyle and Canning (2005) study by those preparing to enter the profession, perhaps there are implications for the many universities that now have five-year accounting programs as well. Students in their fifth year of these programs are sometimes viewed as graduate students and have perhaps even had their auditing course already by that time. For those that are enrolled in such courses as financial statement analysis in these programs, it would not seem entirely inappropriate, given Boyle and Canning’s results, to reiterate the “true” role of auditors and the misunderstandings that often result.

The results of the current study differ from those of the pre-SOX study by McEnroe and Martens (2001) in at least one important way. Specifically – and consistent with Akers et al. (2003), our results suggest that investors may place more of the responsibility for the auditee’s economic viability on the auditors than was indicated in their study. Whether this difference is a result of SOX/PCAOB, the use of different populations, or an unknown artifact, seems worthy of further analysis. If the former is the “true” answer, then it is possible that the gap is wider with regard to this important area. In combination with the findings of prior literature, our results leave the questions still remaining: What do investors believe about the essence of an audit? Is it fraud detection, monitoring of management, assessment of economic viability, or all of the above? As a practical matter, does fraud detection only matter ultimately to investors if the company goes bankrupt? After all, the issue seems likely to arise publicly only in the event of the company’s financial failure. Do investors know how to disentangle the auditor’s discussion of “fair presentation” of the statements from the auditor’s responsibility regarding the entity’s financial viability? Finally, does an investor know what an “unqualified opinion” is? Do they perceive the difference between an “unqualified opinion” and “qualified, except for” opinion?

The debate is likely to continue about how to reduce the expectations gap. Porter (1993) argues that the appropriate corrective action depends upon whether a criticism of auditors falls under the performance gap or the reasonableness gap. Efforts to address the former generally place the onus primarily on the profession to address the gap by either issuing additional standards or training auditors (e.g. Bostick and Luehlhing 2004; Sutton 2002; Zikmund 2008), while addressing the latter often relates to education (McEnroe and Martens 2001). However, the question of how and toward whom the education would be most effectively targeted is still open to debate. Our results suggest that accounting educators can help to bring investors’ expectations to a more realistic level by targeting a potentially important group of current or future investors, i.e. M.B.A. students. It is doubtful that merely continuing to ramp up already-high expectations will, by itself, be effective in reducing the gap. To some extent, in the final analysis, the gap

may always exist and one's view about the best way to reduce it may depend upon whether s/he is an auditor or an investor who has just lost a significant amount of money from an investment.

This research must be interpreted in light of the limitations inherent in survey research. First, the population of respondents consists of students, although we believe our large cross-section of students is appropriate for our research questions. Second, we are unable to conclude that graduate education necessarily "causes" any moderating effect on the expectations gap, and what causes those effects. Third, some may have misread the survey and overlooked such important words as "guarantee", something which auditing textbook writers are generally careful to point out as something an auditor does not do (e.g. Louwers et al. 2011; Messier, Glover and Prawitt 2010). Finally, as previously explained, our "Had Audit" variable is based on whether a student was enrolled in a class in which all or a majority of the class had completed an auditing class. It is possible that a limited number had not and, even if they had, it is perhaps likely that the passage of time after they have completed the course is associated with a decay in their memory of auditors' true responsibilities. Future researchers in this area should consider asking the student directly if they have completed an auditing course, and if so, how long it has been since they completed the course.

## ENDNOTES

<sup>1</sup> Ironically, investors placed most of the blame on the firm's auditors for not uncovering the fraud earlier (McEnroe and Martens 2001), implying that the auditors had a responsibility beyond what the profession required.

<sup>2</sup> Throughout the paper we use the "gap" and "expectations gap" interchangeably.

<sup>3</sup> Elliott et al. (2007) conclude that MBA students display judgment similar to that of nonprofessional investors when the task is of low integrative complexity. The current study merely surveys their perceptions and involves low task complexity.

<sup>4</sup> Masters students indicate moderately higher self-reported sophistication levels as investors ( $p < .10$ ) than did undergraduates; although the mean responses for both groups appear modest (3.66 vs. 3.25 on a seven-point scale).

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APPENDIX

**TABLE 1**  
**DEMOGRAPHIC INFORMATION FOR MASTERS VS. UNDERGRADUATE**

		N	Mean	Std. Deviation	Min	Max
Age	Undergrad	138	22.73	5.10	20	58
	Masters	123	26.98	6.12	19	56
	Total	261	24.73	5.98	19	58
GAAP Knowledge (1)	Undergrad	138	4.92	0.91	3	7
	Masters	147	5.33	1.65	1	7
	Total	285	5.14	1.36	1	7
Capital Markets Sophistication (2)	Undergrad	138	3.30	1.40	1	7
	Masters	156	4.60	1.47	1	7
	Total	284	3.96	1.58	1	7

- (1) Indicates participants' response to the question: "What is your level of knowledge of 'generally accepted accounting principles'", on a seven point scale from 1 (not at all knowledgeable) to 7 (very knowledgeable).
- (2) Indicates responses to the question: "How would you rank yourself as a capital markets participant (investor), on a seven-point scale from 1 (not very sophisticated) to 7 (very sophisticated).

**TABLE 2**  
**DEMOGRAPHIC INFORMATION FOR AUDIT EXPERIENCE**

		N	Mean	Std. Deviation	Min	Max
Age	No Experience	172	24.64	6.82	19	58
	Experience	88	24.90	3.93	20	41
	Total	260	24.73	5.99	19	58
GAAP Knowledge (1)	No Experience	176	4.62	1.30	1	7
	Experience	108	5.97	0.99	2	7
	Total	284	5.13	1.36	1	7
Capital Markets Sophistication (2)	No Experience	176	3.39	1.48	1	7
	Experience	108	4.91	1.26	1	7
	Total	284	3.97	1.58	1	7

- (1) Indicates participants' response to the question: "What is your level of knowledge of 'generally accepted accounting principles'", on a seven point scale from 1 (not at all knowledgeable) to 7 (very knowledgeable).
- (2) Indicates responses to the question: "How would you rank yourself as a capital markets participant (investor), on a seven-point scale from 1 (not very sophisticated) to 7 (very sophisticated).

**TABLE 3**  
**DESCRIPTIVE STATISTICS FOR AUDIT EXPERIENCE**

	Years Exper	Mean	Std. Dev	Sig. Test	Frequency of Responses					
					Strongly Disagree (1)	Disagree (2 or 3)	Neutral (4)	Agree (5 or 6)	Strongly Agree (7)	Total
<b>To what extent do you agree that the financial statement auditor guarantees any of the following assertions?</b>										
1. The complete mathematical accuracy of the financial statements.	0	5.45	1.43	<.001	7	9	11	109	40	176
	1 or >	6.31	0.96		0	2	1	47	60	110
2. The audited financial statements are free of material misstatements.	0	5.59	1.35	<.001	2	14	8	108	44	176
	1 or >	6.12	1.02		1	1	5	57	46	110
3. The company's audited financial statements are prepared in full accordance with generally accepted accounting principles (GAAP).	0	6.30	0.94	<.03	0	4	5	73	94	176
	1 or >	6.15	0.97		1	1	1	63	44	110
4. That the company will not go bankrupt within one year.	0	4.01	1.91	<.001	26	46	22	66	16	176
	1 or >	3.03	2.27		46	24	9	16	15	110
5. That the company will not go bankrupt within two years.	0	3.58	1.74	<.001	26	60	32	53	5	176
	1 or >	2.92	2.17		47	23	11	17	12	110
6. That <b>no</b> fraud has occurred at the company.	0	4.26	1.96	<.001	23	40	22	67	24	176
	1 or >	2.42	1.77		50	27	13	14	4	108
7. That a company's internal controls exist and are functioning in accordance with documented policies and procedures.	0	5.39	1.27	<.02	4	9	19	118	26	176
	1 or >	5.61	1.17		1	4	11	70	22	108

**TABLE 4**  
**BREAKDOWN OF TABLE 3 MEANS BY MASTERS AND UNDERGRADUATE STUDENTS**

	Masters			Undergrad		
	Experienced?		Total*	Experienced?		Total*
To what extent do you agree that the financial statement auditor guarantees any of the following assertions?	No	Yes		No	Yes	
1. The complete mathematical accuracy of the financial statements.	5.64	6.53(a)	6.17	5.35	5.48	5.37(d)
2. The audited financial statements are free of material misstatements.	5.52	6.24(a)	5.95	5.63	5.65	5.63(e)
3. The company's audited financial statements are prepared in full accordance with generally accepted accounting principles (GAAP).	6.36	6.21	6.28	6.26	5.96	6.21
4. That the company will not go bankrupt within one year.	3.44	2.49(a)	2.91	4.30	5.04(c)	4.43(d)
5. That the company will not go bankrupt within two years.	3.13	2.49(b)	2.78	3.82	4.52(c)	3.93(d)
6. That <b>no</b> fraud has occurred at the company.	3.67	2.01(a)	2.72	4.57	3.91	4.46(d)
7. That a company's internal controls exist and are functioning in accordance with documented policies and procedures.	5.07	5.69(a)	5.43	5.57	5.30	5.52

- (a) Difference between experienced and inexperienced significant at .01 or less
- (b) Difference between experienced and inexperienced significant at .05 or less
- (c) Difference between experienced and inexperienced marginally significant at .10 or less
- (d) Overall mean difference (masters vs. undergrad) significant at .01 or less
- (e) Overall mean difference (masters vs. undergrad) significant at .05 or less

**\*The total means do not tie to the means in Table 3 due to the difference in the breakdown (Masters vs. Undergrad in Table 4)**

**TABLE 5**  
**TESTS FOR INTERACTION BETWEEN AUDIT EXPERIENCE AND LEVEL OF STUDENT**  
**(Significance at p<.05 indicated in bold.)**

	Covariates				Independent Variables		Interaction
		Gender	Age	Had Audit (1 vs. 0)	Experience (1 vs. 0)	Undergrad (1 vs. 0)	Experienced X Undergrad
<b>Dependent Variable</b>							
1. Complete mathematical accuracy	F	2.722	5.977	33.511	23.101	20.844	4.899
	Sig.	0.100	<b>0.015</b>	0.000	0.000	0.000	0.028
2. Free of material misstatements	F	0.004	7.738	1.039	3.003	5.210	2.227
	Sig.	0.950	<b>0.006</b>	0.309	0.084	0.023	0.137
3. Full accordance with GAAP	F	1.272	0.332	8.578	0.015	2.775	0.755
	Sig.	0.260	0.565	0.004	0.903	0.097	0.386
4. No bankruptcy within one year	F	1.754	12.990	0.023	0.548	21.339	10.280
	Sig.	0.187	<b>.000</b>	0.879	0.460	0.000	0.002
5. No bankruptcy within two years	F	0.679	11.908	1.209	0.090	13.651	6.203
	Sig.	0.411	<b>0.001</b>	0.273	0.764	0.000	0.013
6. No fraud at the company	F	0.499	15.850	29.208	3.814	12.165	2.552
	Sig.	0.481	<b>0.000</b>	0.000	0.052	0.001	0.111
7. Internal controls existing and functional	F	0.197	0.186	0.009	0.363	0.098	4.486
	Sig.	0.657	0.666	0.926	0.547	0.755	0.035