

**FORENSIC ACCOUNTING EDUCATION:
A SURVEY OF ACADEMICIANS AND PRACTITIONERS**

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ABSTRACT

This study gathers opinions of both academicians and practitioners regarding the importance, relevance, and delivery of forensic accounting education. Results indicate that the demand for and interest in forensic accounting is expected to continue to increase; more universities are planning to provide forensic accounting education; both groups of respondents viewed forensic accounting education as being relevant and beneficial to accounting students, the business community, the accounting profession, and accounting programs; and the majority of 49 suggested forensic accounting topics are considered as important for integration into the accounting curriculum by both groups of surveyed academicians and practitioners. Results also indicate that some significant differences exist regarding topical coverage of forensic accounting between academicians and practitioners. These results are useful to universities and colleges that are considering integrating forensic accounting education into their curriculum or redesigning their forensic accounting courses.

Keywords: Forensic accounting; Accounting curriculum; Anti-fraud education; Financial scandals

Data Availability: The survey data used in this study are available from the authors upon request.

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I. INTRODUCTION

We have recently witnessed significant emphasis on improving investor confidence and public trust in financial reports. Reported financial scandals (e.g., Enron, WorldCom, Global Crossing, Qwest, Parmalat) have eroded investor confidence and made forensic accounting an attractive career opportunity for accountants to combat fraud. Forensic accounting is defined in this study as the practice of rigorous data collection and analysis in the areas of litigation support consulting, expert witnessing, and fraud examination.¹ There is evidence of considerable growth in forensic accounting careers (AccountingWeb 2002): on April 10, 2002, ABC News carried a fanciful item imagining a new TV series named “Fraud Squad,” underscoring the fast growing field of forensic accounting; *U.S. News and World Report*, in a February 8, 2002 report, named forensic accounting as one of the eight most secure career tracks over the next few years; many universities are currently offering forensic accounting related courses;² there are several professional organizations and associations promoting fraud examination and forensic accounting;³ and three of the top six accounting niche services fall within the forensic accounting area: business valuations, litigation support, and forensic/fraud (Covaleski 2003). At present, there appears to be a gap between forensic accounting practices and education in the sense that forensic accounting is viewed as one of the most secure career tracks, yet there are only a limited number of accounting programs offering forensic accounting courses.

There is little background data available, and rarely any evidence post-Enron, Andersen, and other financial scandals, with respect to the integration of forensic accounting education into the accounting curricula and particularly whether academicians’ actions are consistent with the needs of practitioners for well-trained and knowledgeable forensic accountants. This paper

reports the opinions of academicians and practitioners about the importance, relevance, and delivery of forensic accounting education. To assist with curriculum design of forensic accounting, this study examines both academicians' (accounting faculty) and practitioners' (certified public accountants, CPAs) views of: (1) demand for and interest in forensic accounting education; (2) relevance of forensic accounting education; (3) methods of integrating forensic accounting into the accounting curriculum; and (4) topical content of forensic accounting education. Accounting programs generally recognize the value of practitioners' inputs when designing program content, because their views and suggestions can improve the relevance of programs, and foster graduates' marketability.⁴ These views and insights from academicians and practitioners are useful to universities and colleges that are considering integrating forensic accounting into their curriculum or redesigning their forensic accounting courses.

Results indicate that: the majority of both academicians and practitioners expect that future demand for and interest in forensic accounting will increase; more accounting programs are planning to provide forensic accounting education; both groups of respondents viewed forensic accounting education as being relevant and beneficial to students, the accounting profession, and the business community; the majority of the 49 suggested forensic accounting topics are considered important for integration into the accounting curriculum; and (5) only minor differences of opinion between academicians and practitioners are found regarding the delivery and topical content of forensic accounting education. The results have public interest implications on the grounds that: the business community and the accounting profession are deeply concerned with reported financial and accounting scandals; the demand for forensic accounting practices in rebuilding eroded investor confidence in financial reports is increasing;

and the need for the reexamination of the content, coverage and delivery of forensic accounting education post-Enron and other financial scandals is justifiable.

This paper is organized as follows. As a background and motivation for our study, the next section reviews relevant prior literature. Section III discusses methods and procedures used in gathering and analyzing data pertaining to forensic accounting. Results are presented in Section IV. Section V discusses curriculum design of forensic accounting education, and the final section concludes the study.

II. REVIEW OF LITERATURE

KPMG's Fraud Survey (2003) reveals that more companies are: recently experiencing incidents of fraud than in prior years; taking measures to combat fraud; and launching new anti-fraud initiatives and programs in response to the Sarbanes-Oxley Act of 2002 (KPMG 2003). PricewaterhouseCoopers' (PWC) 2003 Global Crime Survey indicates that 37 percent of respondents in 50 countries reported significant economic crimes with the average loss per company of \$2,199, 930 (PWC 2003). These survey results underscore the importance of forensic accounting practice and education. Prior research (Rezaee 2002; Crumbley 2001; Peterson and Reider 1999, 2001; Rezaee et al. 1996; Rezaee and Burton 1997) reviews the literature on forensic accounting practices, certifications, and education. These studies also provide evidence indicating that forensic accounting education has evolved from being limited, to continuing professional education sessions for practicing accountants, to a current state of being offered as a credit course by several universities. Buckhoff and Schrader's study (2000, 135) finds, "adding a forensic accounting course to the accounting curriculum can greatly benefit the three major stakeholders in accounting education—academic institutions, students, and employers of accounting graduates."

Prior related studies are classified into two groups. The first group consists of studies that examine course syllabi to determine the coverage of forensic accounting including fraud investigation education. Groomer and Heintz (1994) analyze the topics covered in internal auditing courses in the United States and Canada and find that fraud related topics were taught in more than 31 percent of examined internal auditing courses. Rezaee et al. (1996) examine the coverage of forensic accounting in the accounting curriculum and find that only a handful of universities offer a fraud and/or forensic accounting course, and suggest that the accounting curriculum provide a knowledge acquisition base in forensic accounting as part of curriculum changes in response to the mandated American Institute of Certified Public Accountants (AICPA) 150-hour accounting program. Peterson and Reider (2001) review forensic accounting course syllabi of universities and analyze the level of course offering, learning objectives, content of forensic accounting courses, and course requirements.

Studies in this group provide information on a small sample of universities that are already offering forensic accounting and/or fraud investigation courses. These studies address only the “supply side” of the equation in the sense that they provide information on what is being taught or what academicians feel are important forensic accounting topics. We review a sample of 21 universities that are currently offering forensic accounting related courses and have their syllabi available online.⁵ These syllabi and other related prior studies were reviewed in designing the survey instrument. Table 1 presents a summary of forensic accounting course descriptions, objectives, and assignments and other requirements. The three most important course objectives specified in the reviewed syllabi are: (1) providing education on pervasiveness of and the cause of fraud and white-collar crime; (2) exploring methods of fraud detection,

investigation and prevention; and (3) obtaining insight on fraud prevention and identifying weaknesses in internal control systems.

The second group of prior research consists of survey studies of practitioners and/or academicians regarding fraud investigation and/or forensic accounting courses and topics. Rezaee and Burton (1997) conclude that the demand for forensic accounting services and education will continue to increase, and that practicing Certified Fraud Examiners (CFEs) favor offering a separate forensic accounting course whereas academicians prefer integrating forensic accounting topics throughout existing accounting courses. Buckhoff and Schrader (2000) find that the majority of responding institutions indicated that offering a course in forensic accounting is only slightly important to their accounting program. Rezaee (2002) conducts a survey of a small sample of undergraduate and graduate accounting students and finds that responding students believed forensic accounting offers rewarding career opportunities, yet forensic accounting education is not getting adequate attention in the accounting curriculum and should be further promoted in colleges and universities. Many of these studies provide information on the “demand side,” the views of students and practitioners on the importance and delivery of forensic accounting. Thus, forensic accounting coverage in today’s accounting curricula is not well defined.

This study focuses on both the supply and demand sides of forensic accounting education, and attempts to provide information that may be useful for faculty and universities considering offering a course in forensic accounting in light of most recent changes in the business environment and the accounting profession. New insights from both practitioners and academicians should be useful, as many accounting programs throughout the nation began to offer forensic accounting related courses to provide a better understanding of this emerging area

of accounting practice. This study contributes to the literature on forensic accounting by: shedding light on the increasing importance of forensic accounting in the business and academic communities post-Enron, Andersen, and other reported financial scandals; presenting new evidence from a sample of academicians and practicing CPAs regarding the emphasis on forensic accounting education and practice; and analyzing the opinions obtained from both academicians and practitioners pertaining to the new interest in forensic accounting and the ever-changing priorities in the key forensic accounting issues and topics, which set the future direction and role of forensic accounting education.

III. METHODS AND PROCEDURES

Two methods are used in gathering data pertaining to forensic accounting education. First, we perform a content analysis of a sample of 21 forensic accounting course syllabi. Forensic accounting syllabi were either received from professors teaching a forensic accounting (fraud examination) course or obtained from accounting programs' World Wide Web (Web) sites. The compiled 21 syllabi were submitted to content analysis to identify the list of forensic accounting course description, objectives, and assignments. The primary focus of studied syllabi is on fraud examination and a minimal attention has been given to other two areas of forensic accounting practice (litigation consulting and expert witnessing). Forensic accounting topics included in 21 analyzed syllabi were organized and combined with other forensic accounting topics in developing the questionnaire.

[Insert Table 1 here]

Second, we conduct a nationwide survey of accounting academicians and practicing CPAs to determine the demand, benefits, coverage, and delivery of forensic accounting education. A random sample of 1,000 accounting professors, teaching primarily auditing and

financial accounting, was selected from Hasselback's 2002 *Accounting Faculty Directory*. A random sample of 1,000 practicing CPAs, primarily partners and managers of public accounting firms, was purchased from the AICPA. A four-page questionnaire was sent to the selected academicians and a shorter, two-page version of the questionnaire was mailed to practitioners. Copies of the two versions of the questionnaire, modified appropriately for the respective groups, are presented in Appendices 1 and 2. To improve the response rate, each questionnaire was accompanied by a pre-addressed, postage-paid envelope and a cover letter stating the survey objectives, assuring confidentiality of the responses, agreeing to share the summary of findings, and giving the approximate time needed to complete the questionnaire.

The four-page, five-section questionnaire was prepared, pre-tested, revised, and then mailed to the subjects.⁶ The four main sections of the questionnaire asked respondents for their perceptions of the: (1) future demand for and interest in forensic accounting; (2) current and future methods of delivery of forensic accounting education; (3) benefits, support, and obstacles of forensic accounting education coverage; and (4) degree of relative importance of topics related to forensic accounting education.⁷ The last section collected demographic and background information used for classification purposes. Panel A of Table 2 shows that 153 usable responses were returned from academicians, providing a response rate of 15.4 percent, and 105 usable responses were received from practitioners, resulting in a response rate of 10.7 percent. The overall response rate is above 13 percent. While this response rate is lower than might be desired, response rates of this level are not uncommon when certain types of individuals are surveyed (Dillman 1978; Hodge 2003). We compare late responses with early responses and find no significant differences.

The chi-square test of independence was used to test for differences in responses involving categorical dependent variables for the between subject analysis. The Kruskal-Wallis non-parametric analysis of variance was used to examine differences in responses in the ranked data. The strength of response metric approach was used to determine the strength of response of each of the groups (academicians, practitioners) on each of the selected 49 topics ranked in a five-point Likert scale. Following Campbell and Mutchler (1988), we measure the strength of responses by taking the absolute value of the difference between the mean response of the group and the neutral response, which was 3.0. Mean responses that fall within .5 point of the midpoint (3.0) can be considered as neutral ratings. We find no additional statistically significant differences in the strength of response across the selected 49 forensic accounting topics between academicians and practitioners other than those being identified by the use of a non-parametric test.

Demographic data presented in Panel B of Table 2 show that (1) more than 58 percent of the responding schools would be able to obtain administrative support to offer a forensic accounting course; (2) more than 69 percent of responding academicians were from AACSB-accredited colleges; (3) responded faculty were almost equally from all ranks of full professors, associate professors, and assistant professors (36, 27, and 28 percent respectively); (4) more than 30 percent of academicians were from southeast universities, about 27 percent from northeast universities, 26 percent from mid-west, more than ten percent from southwest, and the approximately seven percent remaining were from far-west, rocky mountains and northwest universities; and (5) more than half of responding universities graduate more than 100 students in business and less than 25 students in accounting per year. Nearly 55 percent (82 percent) of responding universities graduate less than 25 students in their master programs in business

(accounting). Further analysis of responses (not reported) indicates that participating practitioners were all in auditing practices at manager or higher level with medium to large accounting firms widely spread throughout the nation. Almost all responded practicing CPAs (except for a few) indicated interest in forensic accounting practice.

[Insert Table 2 here]

IV. RESULTS

Results of this study are presented and discussed in the following six sections: (1) relevance of forensic accounting education; (2) perceived benefits of forensic accounting education; (3) curriculum development of forensic accounting; (4) presentation techniques; (5) curriculum content of forensic accounting; and (6) demographic differences in responses.

Relevance of Forensic Accounting Education

Results from our analysis of the future demand for and interest in the three areas of forensic accounting services (litigation support, expert witnessing, fraud examination) are presented in Table 3. The majority of both groups of respondents reported that they believe the future demand for and interest in all three areas of forensic accounting will increase. However, differences in responses on the future demand for and interest in litigation support and expert witnessing between the two groups of respondents are statistically significant (.01 and .05 levels of significance respectively) in the sense that practitioners expect higher growth in these two areas of forensic accounting practices (litigation support, expert witnessing) than academicians. In fact, some academicians even believe that demand and interest for litigation support and expert witnessing will decrease. Slightly more than half of the responded academicians felt that there would be an increase in demand and interest in litigation support and expert witnessing (58.1 percent and 53.6 percent respectively). More than 40 percent of academicians felt demand

and interest in litigation support and expert witnessing would remain the same (41.3 percent and 43.8 percent respectively). Of the two forensic accounting practices, practitioners felt there would be more demand and interest in litigation support rather than expert witnessing (75.1 percent and 63.5 percent respectively). The majority of academicians (93.3 percent) and practitioners (88.2 percent) expect future demand for and interest in fraud examination to increase. More practitioners (9.9 percent) felt that demand for and interest in fraud examination would remain the same versus 6.1 percent of the academicians. Differences in responses between practitioners and academicians regarding fraud examination are not statistically significant.⁸

Perceived Benefits of Forensic Accounting Education

Given the increased demand for forensic accounting practice and education, we asked respondents to rank the importance of perceived benefits of forensic accounting education on a five-point Likert scale, with “5” indicating “very important” and “1” representing “not important.” Table 4 shows that academicians considered the following benefits as being important (mean response of higher than 3.5): (1) strengthening the credibility of financial reporting; (2) promoting responsible corporate governance; (3) increasing the demand for individuals possessing forensic accounting education and skills; (4) preparing students to engage in fraud examination; (5) making students more desirable in the marketplace; and (6) satisfying society’s demand for forensic accounting education and practice. Practitioners, while viewing the above benefits as important, placed more emphasis on the importance of preparing students to engage in litigation consulting and expert witnessing as the most important benefits of forensic accounting.

There is a difference of opinions between practitioners and academicians with respect to the benefits of forensic accounting education. Mean responses for practitioners for litigation support and expert witnessing were higher than for academicians (3.59 and 3.53 versus 3.19 and 2.96 respectively), which are statistically significant at the one percent level. These results suggest that litigation support and expert witnessing do not have the same support at the university level as in the marketplace and practitioners place more emphasis on these two areas of forensic accounting. Academicians placed slightly more importance than practitioners on this debatable issue that a forensic accounting background makes students more desirable in the marketplace (3.62) versus practitioners (3.23). There are statistically significant differences in responses between the two groups, with respect to the possible impact of forensic accounting education on promoting responsible corporate governance and strengthening the credibility of financial reporting in the sense that academicians realize more benefit in this area than practitioners. Reported financial scandals and regulatory responses have galvanized more interest in corporate governance and its role in improving quality, reliability, and transparency of financial statements. Corporate governance participants, including the board of directors, the audit committee, top executives, internal auditors, and external auditors, are being held more accountable and responsible for business activities and financial reports in the wake of the Enron, Andersen, and other reported scandals. These results are consistent with the recent report of the Ethics Education Task Force of the AACSB, which states “knowing the principles and practices of sound, responsible corporate governance can also be an important deterrent to unethical behavior” (AACSB 2004: 6).

Curriculum Development

Responses from academicians pertaining to the curriculum development of forensic accounting are presented in Table 5. Panel A of Table 5 indicates that 36.4 percent of the respondents reported they do not cover any forensic accounting at all in their accounting program. Only 16.2 percent of the respondents have a separate forensic accounting course, with 50 percent indicating that forensic accounting is integrated through other accounting and auditing courses. Panel B indicates that 5.2 percent will begin forensic accounting coverage in one year, 12.3 percent within two years, and 14.3 percent within 5 years, whereas 20.8 percent do not plan to offer forensic accounting coverage. These results are encouraging in the sense that more than 16 percent of our sample respondents reported that they offer separate forensic accounting courses, whereas the Buckhoff and Schrader (2000) study reported only about nine percent of their responding institutions were offering or planning to offer a course in forensic accounting.

We asked several questions pertaining to the curriculum development of forensic accounting education. Responses were ranked on a five-point Likert scale, with “5” indicating “strongly agree” and “1” representing “strongly disagree.” Panel C of Table 5 reveals that academicians strongly agree, with the mean response in parentheses, that: reported financial statement fraud committed by high profile companies such as Enron and WorldCom has galvanized more interest in and demand for forensic accounting including fraud examination (4.25); the accounting curriculum should provide forensic accounting coverage (4.02); and colleges and universities should encourage and advise students on career opportunities in forensic accounting (3.99). The responding academicians also slightly agreed, with the mean response in parentheses, that: the current accounting curriculum is not sufficiently responsive to society’s demand for forensic accounting education and practice (3.81); forensic fieldwork

auditing should be integrated into auditing textbooks and audit engagements (3.78); and there are numerous employment opportunities in forensic accounting (3.40).

Participating academicians were asked to indicate the severity of a number of obstacles in integrating forensic accounting education into the accounting curriculum. Panel D of Table 5 shows that the mean responses for all listed obstacles, except for lack of student interest and lack of job opportunities, are greater than 3, indicating some degree of perceived severity. The main obstacles to the integration of forensic accounting into the curriculum, with the mean response in parentheses, are: lack of financial resources (3.54); lack of instructional material (3.49); lack of administration interest and support (3.41); and lack of faculty interest (3.25). Lack of financial resources, instructional materials, administration, and faculty interest can impede the integration of forensic accounting into the accounting curriculum.⁹ These results suggest that the primary obstacles facing delivery of forensic accounting education are institutional in nature (i.e., faculty, funding, administration), and not because of a perceived lack of demand by employers and students.

Presentation Techniques

We ask academicians to rank the importance of several listed learning mechanisms in teaching a forensic accounting course by using a five point scale. Results presented in Table 6 indicate that the most commonly used methods are cases, textbooks, research projects, guest speakers, and videos. Cases and textbooks are represented the most important learning mechanisms in teaching a forensic accounting course (mean responses of 4.36 and 4.25 respectively). Research projects (mean response of 3.97) and guest speakers (mean response of 3.63) are also considered important teaching methods. Video presentation is viewed as a slightly important teaching technique (mean response of 3.32). Respondents did not consider field trips

to professional organizations and correctional facilities as a popular way of teaching a forensic accounting course. Learning mechanisms presented in Table 6 are consistent and support teaching assignments provided in Table 1 from the review of a sample of 21 existing forensic accounting syllabi. One respondent commented that “we need more workbooks (with answers) for online students and PowerPoint slides that inform as well as entertain.”

Curriculum Content of Forensic Accounting

Given the increased demand for forensic accounting, a major question is “what should be the content of a forensic accounting education?” Table 7 ranks the importance of coverage of 49 topics in forensic accounting by using a Likert scale of one to five, with five being the “most important” and one being the “least important.”¹⁰ The results were tested for differences in responses between academicians and practitioners using the parametric t-test and the nonparametric chi-square. Chi-squares, presented in Table 7, and parametric t-statistics produced similar results. Topics are presented in Table 7 according to their mean response rankings by academicians. There were statistically significant differences in responses between academicians and practitioners on 18 of the 49 topics. The comparison of responses of academicians and practitioners reveals that not only were there differences in the rankings of topics, as determined by the strength of responses (not reported), but also statistically significant differences in responses between the two groups.

Results presented in Table 7 indicate that the topics, “Fundamentals of fraud” and “Financial statement fraud” were ranked number one and two respectively by both academicians and practitioners, with the academicians ranking them higher. The main disparity between the two groups involved the topic of “Effective report writing,” which was ranked as third by practitioners and as low as 20th by academicians. Practitioners tended to rank fraud-type topics

lower than academicians. For example, “elements of fraud: pressure, opportunity, and rationalization” was ranked sixth by academicians, but practitioners ranked this topic 16th. The most robust differences in rankings between academicians and practitioners are on the following topics: (1) elements of fraud consisting of pressure, opportunity, and rationalization; (2) types of fraud; (3) environmental and business red flags; (4) anti-fraud criteria; (5) techniques in locating hidden assets; (6) effective report writing; (7) expert testimony and expert witness techniques; and (8) litigation consulting techniques. Academicians showed more interest than practitioners in the coverage of fraud examination including topics such as types of fraud, environment and business red flags, elements of fraud, and anti-fraud criteria. While practitioners considered fraud examination important, they placed more importance on topics pertaining to techniques in locating hidden assets, compliance with applicable laws and regulations, conflicts of interest investigating techniques, expert testimony and expert witness techniques, effective report writing, and litigation consulting techniques.

Results presented in Table 7 reveal that although the relative importance of forensic accounting topics varied between academicians and practitioners, there is a general consensus as to the relevance of these topics in forensic accounting. Mean responses from academicians on 12 of the 49 listed forensic accounting topics are greater than 4, suggesting a high degree of importance and relevance of coverage of these topics in a forensic accounting course. Practitioners, on the other hand, placed a high degree of importance on 10 of the 49 topics, with mean responses of greater than 4. The 13 top-ranked topics, with the mean response greater than 4, by both academicians and practitioners are: (1) fundamentals of fraud; (2) financial statement fraud; (3) types of fraud (e.g., employees, management); (4) cooking the books and problems in accounting; (5) elements of fraud: pressure, opportunity and rationalization; (6) anti-fraud

controls; (7) internal control evaluation; (8) theory and methodology of fraud examination; (9) principles of ethics and corporate code of conduct; (10) fraud detection and deterrence programs; (11) anti-fraud auditing standards; (12) analytical review procedures; and (13) effective report writing.

Demographic Differences in Responses

The nonparametric t-test was performed to examine differences in the responses between academicians in AACSB schools versus those in non-AACSB schools. There were only a few statistically significant differences between these two groups of respondents. Faculty from AACSB-accredited colleges placed more importance than those from non-AACSB schools on satisfying society's demand for forensic accounting education and practice, and preparing students to engage in fraud examination as primary benefits of forensic accounting education. The mean responses on other questions were not statistically significant, indicating that there is a general agreement between these two groups of academicians regarding the importance, delivery, and topical coverage of forensic accounting. We did not find any variable being statistically correlated with academic rank (e.g., assistant, associate, or full professors). We divide academic respondents (in terms of size) into three categories of those from small, medium, and large universities, according to their undergraduate business enrollment (e.g., small ≤ 100 , $101 < \text{medium} < 300$, and large ≥ 300 students). Results (not reported) indicate respondents from medium sized universities reported lack of administrative interest and support, lack of instructional materials, and lack of financial resources as of less significant impediments to forensic accounting integration in accounting curricula than their counterparts at small and large universities.

Limitations and Suggestions for Future Research

This study is subject to the limitations of any survey research. First, the apparently homogeneous subjects (accounting faculty and CPA practitioners) may have systematic biases in their perceptions as to the relevance and coverage of forensic accounting in the accounting curriculum. While this should not negate interest in the results, the generalizability of findings beyond that population may be limited. Second, a non-response bias may be present in the results. It is not possible to determine how non-respondents would have answered. However, as a test of non-response bias, late responses were compared to early responses, assuming that late responses are similar to non-responses (Solomon 1990). There were no significant differences in the responses of early respondents and late respondents.

Third, the 49 forensic accounting topics reported in Table 7 are derived from the extensive review of related literature and content analysis of the selected 21 forensic accounting syllabi. It is possible that these topics do not represent all of the topics that should be covered in forensic accounting education. The list of selected topics is by no means all-inclusive, even though respondents were asked to add topics not covered in the list and some respondents commented that several topics overlap. Finally, results should be applied with care due to the sample size (153 academicians and 105 practitioners) and response rate (15.4 percent and 10.7 percent respectively). As suggested by one of the respondents, future research should examine the feasibility of integrating forensic accounting as modules into a graduate capstone course to assist accounting programs to either plan a 45-hour semester course in forensic accounting or integrate these modules into a variety of accounting and auditing courses. Future research should also examine other curriculum design issues not adequately addressed in this study, such as who is best suited to teach a forensic accounting course (e.g., tenured faculty, clinical faculty,

practitioners)?; should such a course be a required or elective offering?; where is a forensic accounting course more relevant (e.g., undergraduate, graduate)?; and is a forensic accounting course best appropriate to be taught in the accounting program or team taught with coordination and cooperation with other disciplines (e.g., finance, law)? The next section addresses some of these issues.

V. CURRICULUM DESIGN OF FORENSIC ACCOUNTING EDUCATION

Several fundamental questions pertain to the curriculum design and development of forensic accounting education. The first question is “Should accounting programs integrate forensic accounting education into their curriculum?” Reported financial scandals, regulatory responses, ACFE’s anti-fraud education programs, and results of this study (see Table 2) provide strong support for and interest in the coverage of forensic accounting particularly anti-fraud education, in the accounting curriculum as demanded by the marketplace post-Enron, Andersen and other business and accounting scandals.

The second question is that given the demand for and interest in forensic accounting, “How should forensic accounting education be integrated into the accounting curriculum?” Two different approaches to coverage of forensic accounting education are possible. These approaches are integration of forensic accounting through accounting and auditing courses and offering of a stand-alone forensic accounting course. It can be argued that forensic accounting education should be integrated into the accounting curriculum throughout existing accounting and auditing courses. The rationale for this approach is that the three fields of forensic accounting (litigation consulting, expert witnessing, and fraud examination) are significantly affecting all aspects of today’s business. Forensic accounting topics can be infused into existing upper level accounting and auditing courses. This process assures coverage of all critical aspects

of forensic accounting, without having to add a new course into already saturated accounting curricula. However, this approach has a few major impediments. First, adding forensic accounting to existing accounting and auditing courses can overburden faculty and students alike in dealing with courses already saturated with related materials. Second, accounting faculty may not wish to add forensic accounting topics to their courses primarily because of their own lack of comfort with forensic accounting topics. Finally, instructors may have to drop some of the existing accounting and auditing subjects in order to add forensic accounting topics.

Nevertheless, results presented in Panel A of Table 5 indicate that about 50 percent of responded academicians preferred integration of forensic accounting education through existing accounting and auditing courses.

The second approach is to offer a distinct forensic accounting course(s) at either the undergraduate or graduate level. Panel A of Table 5 shows that only 16 percent of responded academicians reported that their accounting program offers a separate forensic accounting course. Offering a separate forensic accounting can give more focus to forensic accounting topics, particularly anti-fraud education, and ensure adequate coverage of forensic accounting education. Many universities have begun to offer anti-fraud education courses. For example, the ACFE identifies 100 universities that have made commitments to offer an anti-fraud education course promoted and supported by the ACFE (ACFE 2003). However, our experience indicates that many universities are struggling with how to integrate forensic accounting education including anti-fraud education into their courses and curriculum primarily because curriculum changes involve both financial and personal costs as well as administrative commitments and guarantees for success. Our survey results (Panel D of Table 6) show that major impediments to forensic accounting integration in the accounting curriculum are lack of financial resources,

instructional materials, administrative support and faculty interest. There are too few faculty interested in teaching and developing forensic accounting course materials. If forensic accounting, particularly anti-fraud concepts and techniques, were integrated into accounting texts, a broader set of universities could incorporate forensic accounting education into their curriculum. We are witnessing incorporation of post-Enron related fraud and ethics cases in most accounting texts. Nevertheless, there are no broad, widely distributed materials to help universities integrate forensic accounting into their curriculum, even though the need for such education has been considerably recognized.¹¹

The third question is, for accounting programs that decide to offer a forensic accounting course, “Should they offer it at the undergraduate or graduate level?” The examination of 21 forensic accounting syllabi indicates that the majority of accounting programs offer their forensic accounting courses at the graduate and/or graduate/undergraduate level to ensure that students have had a sufficient understanding of the various business and accounting concepts covered at the undergraduate level before they are given the opportunity to take a forensic accounting course. Universities may offer forensic accounting at the undergraduate level based on the expectation that graduating accounting students should have exposure to forensic accounting topics at the undergraduate level in order to be successful in the ethically challenging and practically scrutinized and regulated business environment. However, any undergraduate forensic accounting course may be best placed toward the end of the undergraduate curriculum as an elective course.

The final question is, regardless of the selected method of delivery of forensic accounting (integration, separate course), “What are the important and relevant forensic accounting topics that should be covered in forensic accounting education?” This study identifies 49 distinct

forensic accounting topics that should make up the content of forensic accounting education.

Both groups of our respondents viewed the majority of these topics (see Table 7) as important for consideration by accounting programs in developing their forensic accounting curriculum. The convergence of forensic accounting topics in a separate course or the integration of those topics into upper-level courses requires the classification of interrelated topics into smaller subsets or tiers. The tiers can be used individually or in groups to allow instructors to customize their syllabi. In terms of ranking of forensic accounting topics presented in Table 7, forensic accounting modules can be arranged into three tiers. The first tier, consisting of topics ranked one through 20 by both groups, involves fundamentals of fraud, financial statement fraud, types of fraud, fraud prevention and deterrence programs, anti-fraud auditing standard, effective report writing, and environmental and business red flags. The second tier, consisting of topics ranked 21 to 30, focuses on the corporate governance, financial reporting process and analysis, earnings management, professional standards pertaining to forensic accounting, criminology and white-collar and economic crimes, legal element of fraud, occupational fraud, and security and privacy. Finally, the third tier, consisting of topics ranked 31 through 49, concentrates on careers in forensic accounting, expert testimony and expert witness techniques, litigation consulting techniques, shareholder litigation, crime control techniques, conflicts of interest investigating techniques, compliance with applicable laws and regulation, interview skills and legal aspects of interviews, intellectual property fraud, business valuations and cost estimates, and rules of evidence. Some of the listed topics in Table 7 may be similar and could be combined and arranged differently in these three tiers. The lack of adequate research directed at identifying and grouping forensic accounting topics suggests the need to use some systematic approach to

develop a taxonomy of these topics. This study should help in modularizing forensic accounting topics.

V. CONCLUSION

The past two decades have witnessed significant changes in the business environment including globalization, technological advances and now with reported high-profile financial scandals, ways to improve public trust and investor confidence in financial reports. Emerging regulatory, social, economical, ethical, and legal challenges facing corporate America that contribute to an increasing demand for forensic accounting should encourage accounting programs to place more focus on this area of accounting. We conducted a nationwide survey of academicians and practitioners to determine the importance, relevance, and delivery of forensic accounting education. Results should aid in setting the future direction and role of forensic accounting practices and education. Results indicate that (1) the demand for and interest in forensic accounting is expected to continue to increase; (2) more universities are planning to provide forensic accounting education; (3) both groups of respondents viewed forensic accounting education relevant and beneficial to accounting students, the business community, the accounting profession, and accounting programs; (4) the majority of 49 suggested forensic accounting topics are considered as very important for integration into the accounting curriculum by both groups of surveyed academicians and practitioners; and (5) the relative importance of these topics varies between the two groups, however, there is a general consensus as to the importance of these topics in forensic accounting.

Forensic accounting is a fast-developing accounting area, especially given today's fraudulent business practices and financial scandals, litigious business environment, and regulatory initiatives. Forensic accounting education has not received adequate coverage in the

accounting curriculum as demanded by the marketplace. Forensic accounting courses have emerged in the same fashion as international accounting courses in the 1980s, and e-commerce courses in the 1990s, with individual faculty and accounting programs designing courses based on their interests, skills, philosophies, and demands. We suggest that accounting programs assess the structure, content, and delivery of forensic accounting education in the context of the results presented in this study, and to continue to explore innovative teaching methods and a more integral approach to the coverage of forensic accounting education. The coverage of forensic accounting in the accounting curriculum should assist graduating accounting students to successfully pursue their careers and ease the transition from the classroom to a professional career.

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ENDNOTES

¹ The terms “forensic accounting” and “fraud examination” have been interchangeably used in the literature and by professional organizations, and there is a controversial issue of what is the appropriate title for a college course in this area of accounting. This study takes no position on this controversial issue and the purpose is to shed light on the coverage of this important area of accounting.

² Much has changed in recent years in forensic accounting education and practice. For example, Rezaee et al. (1996) reported only a handful of universities offered forensic accounting related courses in the 1990s. We identify 21 universities that are currently providing forensic accounting courses. Furthermore, the Association of Certified Fraud Examiners (ACFE) has listed more than 100 colleges and universities that participate in its Higher Education Program by offering fraud examination courses. The list is available at <http://www.cfenet.com>. We were unable to obtain course syllabi for all of the ACFE Higher Education Program participating schools.

³ Rezaee (2002) provides a detailed discussion of several organizations that are currently promoting and sponsoring forensic accounting and fraud examination certifications. These organizations are: the American College of Forensic Examiners International (ACFEI) which sponsors the Certified Forensic Accounting (Cr. FA) designation; (2) the Association of Certified Fraud Examiners (ACFE), which promotes the Certified Fraud Examiner (CFE) designation; (3) the Forensic Accountants Society of North America (FASNA) which is a member-driven and self-governed network of certified public accounting firms specializing in forensic accounting; and (4) the National Association of Certified Valuation Analysts (NACVA), which sponsors the Certified Forensic Financial Analyst (CFFA).

⁴ One may argue that accounting curricula should be driven by the academicians’ ideas and visions of what is in the best interest of students, and not by practitioners’ demands. However, it is important that accounting curricula be aligned with the needs of the market if the accounting programs are to survive and thrive. This also reduces employers’ criticism about accounting programs being out of touch with reality.

⁵ A list of these universities, currently offering forensic accounting related courses along with course titles and descriptions is available upon request from the authors.

⁶ The initial questionnaire was pilot tested by sending it to more than ten academicians for review and criticism. Suggestions and comments of these participants, primarily related to wording, scaling, content, and organization were incorporated to the final version of the questionnaire.

⁷ The selected topics were compiled from an extensive review of the literature on forensic accounting (e.g., forensic accounting books, course syllabi, and journal articles), and were ranked in importance on a five-point Likert scale ranging from “most important” to “least important.”

⁸ Practitioners who chose to comment on this section report that “it is a good field, accounting students should be proficient at it;” (2) “I believe it should have been part of accounting education from a few decades ago;” (3) “I feel that forensic accounting will be big area of the future for accountants;” (4) “In today’s climate, all accountants – external, internal, forensic consultants, and corporate accountants – must develop forensic techniques;” and (5) “A forensic accountant is more than a fraud auditor or security guard.” Academicians’ comments are: “forensic accounting is just good auditing;” (2) “It is ‘Fraud Examination’ as the preferred title, which is more inclusive of the broader topics covered than is implied in ‘Forensic Accounting’;” and (3) “this is an increasingly important area for auditors and internal management as the accounting function in large organizations becomes more sophisticated.”

⁹ Several respondents made the following comments regarding obstacles in delivery of forensic accounting education: “most faculty are not qualified to teach a fraud course;” (2) “the accounting major has so many required courses;” (3) “we are reluctant to add more required courses in the accounting curriculum;” and (4) “there are many things we need to teach before we start on forensic accounting.”

¹⁰ The 49 reported forensic accounting topics are compiled from an extensive review of prior studies, textbooks, and course syllabi in forensic accounting and fraud examination. Furthermore, respondents were asked to add topics not covered in the list.

¹¹ Since the survey, there is now one forensic textbook available for adoption (Crumbly, Heitger, and Smith 2003), and one fraud examination textbook available (Albrecht 2003).

TABLE 1
FORENSIC ACCOUNTING COURSE DESCRIPTION, OBJECTIVES, AND ASSIGNMENTS
(n=21)

Course Description	Percent*	Course Objectives	Percent*	Assignments	Percent*
1. An examination of various aspects of fraud prevention and detection, including the sociology of fraud, elements of fraud, types of fraud involving accounting information, costs of fraud, use of controls to prevent fraud, and methods of fraud detection.	53	1. Provide education on pervasiveness of and the causes of fraud and white-collar crime.	33	1. Individual written assignments	100
2. Accounting concern with detection and prevention of fraud and white-collar crime.	14	2. Explore methods of fraud detection, investigation, and prevention	23	2. Research projects	100
3. Study and application of the procedures and techniques used in the prevention, investigation, and detection of fraud and white-collar crime.	9	3. Obtain insight on fraud prevention and identifying weaknesses in internal control systems	9	3. Academic research journal readings	95
4. Study of social, ethical, legal, and political considerations that surround fraud	9	4. Acquire a broad overview of the nature and magnitude of the problem of economic fraud.	5	4. Group projects	90
5. Cover all of the major methods employees use to commit occupational fraud	5	5. Provide students an opportunity to gain experience in investigative (forensic) accounting.	5	5. Internet readings, practitioner journal readings	86
6. Student will learn why fraud is committed, how it will be deterred, and how it will be detected.	5	6. Increase fraud awareness	5	6. Text book readings	57
7. Study of the nature and scope of White-Collar criminal activity.	5	7. Learn aspects of fraud detection	5	7. Discussion and oral presentations	43
		8. Understand the role of accountant in prevention, detection, and investigation of fraud.	5	8. Interview paper	38
		9. The motivation for perpetrators of fraud	5		
		10. The warning signs of fraudulent activity	5		
Total	100		100		

*Percentages are rounded up, and reviewed syllabi require more than one assignment

TABLE 2**Panel A: Responses**

	<u>Academicians</u>	<u>Practitioners</u>	<u>Total</u>
Mailed	1000	1000	2000
Undeliverable*	9	17	26
Potential Responses	991	983	1974
Usable Responses	153	105	258
Response Rate	15.4%	10.7%	13.1%

* The undeliverable surveys were due to changes in address, non-affiliation of the subjects with the survey schools or firms, and/or the firm's policy of not participating in any survey studies.

Panel B: Demographical Data

	Yes		No		Not Sure	
	Number	Percentage	Number	Percentage	Number	Percentage
1. Would you be able to obtain administrative support to offer a forensic accounting course?	89	58.2	55	35.9	9	5.9
2. Is your school AACSB accredited?	106	69.3	47	30.7		
3. What is your current position? (in percentages)	Full	Assoc.	Assistant	Other		
	36.2	27.0	27.6	9.2		
4. Regional classification of responding schools:						
	Number	Percentage				
Southeast	46	30.1				
Northeast	41	26.8				
Midwest	40	26.2				
Southwest	16	10.4				
Far West	4	2.6				
Rocky Mountains	4	2.6				
Northwest	2	1.3				

Table 2, Panel B cont.

5. How many students do you graduate per year in Business?

Percentages of Responses

	25 or Less	26-50	51-75	76-100	101- 150	151- 200	201- 250	251- 300	>300
Undergraduate	24.3	5.3	7.2	7.2	15.1	7.9	3.9	5.3	23.8
Master	55.3	12.5	3.3	9.2	7.1	5.3	0.00	5.3	2.0
Doctoral	100.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

6. How many students do you graduate per year in Accounting?

Undergraduate	52.0	15.8	6.6	13.8	5.9	2.6	0.00	0.70	2.6
Master	82.2	13.2	2.00	2.00	.6	0.00	0.00	0.00	0.00
Doctoral	100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 3
RELEVANCE OF FORENSIC ACCOUNTING SERVICES

Do you expect future demand and interest in the following three areas of forensic accounting to:

	Percentage					
	Litigation Support		Expert Witnessing		Fraud Examination	
	Academicians	Practitioners	Academicians	Practitioners	Academicians	Practitioners
Increase?	58.1	75.0	53.6	63.5	93.3	88.2
Remain the same?	41.3	25.0	43.8	36.5	6.1	9.9
Decrease?	0.6	0.0	2.6	0.0	0.6	1.9
Total	100	100	100	100	100	100
Chi-square (Kruskal-Wallis Test, K-W)	12.393**		5.592*		1.095	

*Significant at 5%

**Significant at 1%

TABLE 4
PERCEIVED BENEFITS OF FORENSIC ACCOUNTING EDUCATION

Benefits	Academicians		Practitioners		K-W Chi-Square
	Mean Response	Standard Deviation	Mean Response	Standard Deviation	
Strengthen the credibility of financial reporting	3.95	1.03	3.61	1.07	6.501**
Promote responsible corporate governance.	3.87	0.94	3.34	1.13	16.012**
Demand for individuals possessing forensic accounting education and skills is increasing	3.82	0.82	3.77	0.95	.008
Prepare students to engage in fraud examination.	3.75	0.90	3.71	1.02	.034
Make students more desirable in the marketplace.	3.62	0.96	3.23	1.19	7.090**
Satisfy society's demand for forensic accounting education and practice	3.51	1.03	3.29	1.07	2.224
Prepare students to engage in litigation support consulting.	3.19	0.97	3.59	1.02	10.491**
Prepare students to engage in expert witnessing	2.96	1.05	3.53	1.07	16.907**

** Significant at 1%

TABLE 5
CURRICULUM DEVELOPMENT OF FORENSIC ACCOUNTING
(Responses from Academicians)

Panel A: How do you integrate forensic accounting education into your curriculum?*

	Number	Percentages
a. Integrate through accounting and auditing courses	77	50.0
b. Do not cover forensic accounting at all	56	36.6
c. Offer a separate forensic accounting course	25	16.3

* More than one response was allowed

Panel B: If you do not currently offer any forensic accounting coverage, when are you planning to do so?

	Number	Percentages
a. Within a year	8	5.2
b. Within two years	19	12.4
c. Within five years	22	14.4
d. Do not plan to offer such coverage	32	20.9

Table 5, cont.

Panel C: Please indicate the extent to which you would agree with the following statements:

Statements	Mean Responses	Median	Standard Deviation
Current high-profile financial statement fraud cases, including Enron and WorldCom, galvanize more interest in and demand for forensic accounting, including fraud examination.	4.25	5.00	.992
The accounting curriculum should provide forensic accounting coverage.	4.02	4.00	.913
Colleges and universities should encourage and advise students on career opportunities in forensic accounting.	3.99	4.00	.917
The current accounting curriculum is not sufficiently responsive to society's demand for forensic accounting education and practice.	3.81	4.00	1.080
Forensic fieldwork auditing should be integrated into auditing textbooks and audit engagements.	3.78	3.00	.870
There are numerous employment opportunities in forensic accounting.	3.40	4.00	.973

Table 5, cont.

Panel D: Perceived obstacles in the integration of forensic accounting education:

Obstacle*	Mean Responses	Median	Standard Deviation
Lack of financial resources	3.54	4.00	1.232
Lack of instructional materials including textbooks	3.49	3.00	1.140
Lack of administrative interest and support	3.41	4.00	1.232
Lack of faculty interest	3.25	3.00	1.230
Lack of job opportunities	2.49	2.00	1.033
Lack of student interest	2.31	2.00	1.089

*Other obstacles being reported are no slack in the curriculum and many other required courses.

TABLE 6
IMPORTANCE OF LEARNING MECHANISMS IN TEACHING A FORENSIC
ACCOUNTING COURSE

Mechanism*	Mean Responses	Median	Standard Deviation
Cases	4.36	4.00	1.993
Textbooks	4.25	4.00	.943
Research Projects	3.97	4.00	.931
Guest speakers	3.63	4.00	1.045
Videos	3.32	3.00	.988
Field trips (to professional organizations and correctional facilities)	2.73	3.00	1.204

*Other learning mechanisms being reported are student presentations, internships, and case studies.

TABLE 7
CURRICULUM CONTENT: COMPARISON OF ACADEMICIANS VS. PRACTITIONERS

Academicians					Practitioners		
Rank	Mean Response	Standard Deviation	Curriculum Content	K-W Chi-Square	Rank	Mean Response	Standard Deviation
1	4.52	0.74	Fundamentals of fraud	3.580	1	4.30	0.77
2	4.41	0.83	Financial statement fraud	4.093 *	2	4.23	0.83
3	4.32	0.83	Types of fraud (e.g., employees, management)	6.467**	8	4.07	0.86
4	4.24	0.91	Cooking the books and problems in accounting	1.356	4	4.12	0.93
5	4.23	0.82	Anti-fraud controls	2.074	13	3.96	1.17
6	4.21	0.93	Elements of fraud: pressure, opportunity and rationalization	8.462**	16	3.91	0.91
7	4.18	1.05	Internal control evaluation	1.375	5	4.10	1.10
8	4.15	0.96	Theory and methodology of fraud examination	0.001	7	4.07	1.14
9	4.13	0.95	Principles of ethics and corporate code of conduct	0.250	6	4.09	0.91
10	4.09	0.92	Fraud detection and deterrence programs	2.175	10	4.00	0.77
11	4.04	0.92	Anti-fraud auditing standards	0.504	18	3.81	0.90
12	4.03	0.97	Analytical review procedures	0.067	9	4.00	0.97
13	3.96	.89	Anti-fraud criteria	4.406*	24	3.67	1.12
14	3.95	1.02	Environmental and business red flags	8.818**	29	3.60	1.14
15	3.90	1.02	Cyber and computer fraud	.922	11	3.99	1.02
16	3.89	.90	Anti-fraud training	.378	17	3.88	1.17
17	3.88	.96	Anti-fraud education	.105	20	3.76	1.17
18	3.87	.96	Professional standards pertaining to forensic accounting	.660	15	3.91	1.11
19	3.83	1.04	Manipulation of related party transactions	.951	12	3.98	.89
20	3.78	1.12	Effective report writing	10.585**	3	4.22	.88
21	3.74	1.11	Earnings management	3.199	30	3.56	.98
22	3.73	1.15	Financial reporting process and analysis	.518	23	3.71	.93
23	3.70	1.03	Criminology and white-collar and economic crimes	.005	22	3.72	1.00
24	3.69	1.17	Financial reporting standards and principles	.476	19	3.79	1.05
25	3.59	1.15	Techniques in locating hidden assets	4.671*	14	3.94	.84
26	3.58	1.03	Legal elements of fraud	.749	21	3.72	.96

Table 7 cont.

Academicians			Curriculum Content	K-W Chi-Square	Practitioners		
Rank	Mean Response	Standard Deviation			Rank	Mean Response	Standard Deviation
27	3.57	1.18	Corporate governance	3.137	38	3.36	.962
28	3.48	1.05	Conducting internal investigations	.964	28	3.60	.88
29	3.43	.96	Security and privacy	.041	34	3.50	.95
30	3.38	1.21	Statistical sampling	1.925	43	3.24	1.02
31	3.36	1.08	Careers in forensic accounting	.415	42	3.25	1.12
32	3.35	1.09	Knowledge of the legal system	3.744	27	3.65	.82
33	3.32	1.12	Occupational fraud	1.721	32	3.52	1.01
34	3.31	.883	Bribery and corruption investigation	.583	45	3.24	1.06
35	3.30	1.14	Conflicts of interest investigating techniques	4.894*	26	3.65	.90
36	3.28	1.08	Intellectual property fraud	.275	47	3.22	1.03
37	3.27	1.03	Compliance with applicable laws and regulations	8.739**	25	3.65	.98
38	3.26	1.22	Interview skills and legal aspects of interviews	.475	36	3.44	1.01
39	3.24	1.17	Crime control techniques	.696	39	3.36	.93
40	3.17	1.11	Shareholder litigation	1.471	40	3.33	1.12
41	3.15	1.05	Professional organizations sponsoring forensic accounting	4.447**	48	2.86	1.08
42	3.06	1.04	Resolution of allegations of misconduct	6.923*	37	3.40	.84
43	3.05	1.20	Rules of evidence	8.470*	33	3.51	1.08
44	2.92	1.13	Business valuations and cost estimates	7.806*	41	3.33	.977
45	2.89	1.16	Expert testimony and expert witness techniques	16.329*	35	3.49	.98
46	2.85	1.15	Litigation consulting techniques	22.069*	31	3.54	.95
47	2.82	1.09	Modeling and discounting future damages	10.601*	46	3.24	.83
48	2.60	1.14	Trial and cross-examination	21.383*	44	3.24	1.01
49	2.06	.97	Valuation expert in divorce	30.832*	49	2.86	1.13

* Significant at 5%

** Significant at 1%

Appendix 1
Four-Page Questionnaire Sent to Selected Academicians

FORENSIC ACCOUNTING QUESTIONNAIRE

This questionnaire is designed to determine the coverage of forensic accounting education in the accounting curriculum. *Forensic accounting is defined as the practice of rigorous data collection and analysis in the areas of litigation support consulting, expert witnessing, and fraud examination.* Following the completion of the questionnaire, please return it in the enclosed pre-addressed, postage-paid envelope. Thank you for your cooperation.

1. Do you expect future demand and interest in the following three areas of forensic accounting to:

	Litigation Support	Expert Witnessing	Fraud Examination
Increase?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Remain the same?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Decrease?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unsure?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. How do you integrate forensic accounting education into your curriculum?

- _____ Do not cover forensic accounting at all.
 _____ Offer a separate forensic accounting course.
 _____ Integrate through accounting and auditing courses.

3. If you do not currently offer any forensic accounting coverage, when are you planning to do so?

- _____ Within a year _____ Within five years
 _____ Within two years _____ Do not plan to offer such coverage

4. Please indicate the extent to which you would agree with the following statements by circling the appropriate responses where 1=strongly disagree and 5=strongly agree.

	Strongly <u>Disagree</u>				Strongly <u>Agree</u>
a. The current accounting curriculum is not sufficiently responsive to society's demand for forensic accounting education and practice.	1	2	3	4	5
b. The accounting curriculum should provide forensic accounting coverage.	1	2	3	4	5
c. Colleges and universities should encourage and advise students on career opportunities in forensic accounting.	1	2	3	4	5
d. Current high-profile financial statement fraud cases, including Enron and WorldCom, galvanize more interest in and demand for forensic accounting, including fraud examination.	1	2	3	4	5
e. There are numerous employment opportunities in forensic accounting.	1	2	3	4	5
f. Forensic fieldwork auditing should be integrated into auditing textbooks and audit engagements.	1	2	3	4	5

Appendix 1 cont.

5. Please indicate the importance of the perceived benefits of forensic accounting education and practice by circling the appropriate number where 1=least important and 5=most important.

	<u>Least Important</u>				<u>Most Important</u>
a. Satisfy society's demand for forensic accounting education and practice.	1	2	3	4	5
b. Strengthen the credibility of financial reporting.	1	2	3	4	5
c. Promote responsible corporate governance.	1	2	3	4	5
d. Make students more desirable in the marketplace.	1	2	3	4	5
e. Demand for individuals possessing forensic accounting education and skills is increasing.	1	2	3	4	5
f. Prepare students to engage in fraud examination.	1	2	3	4	5
g. Prepare students to engage in litigation support consulting.	1	2	3	4	5
h. Prepare students to engage in expert witnessing.	1	2	3	4	5
i. Others (please specify)_____	1	2	3	4	5

6. Please indicate the severity of the following perceived obstacles in integrating forensic accounting into the accounting curriculum by circling the appropriate number (1=not severe; 5=very severe).

	<u>Not Severe</u>				<u>Very Severe</u>
a. Lack of faculty interest.	1	2	3	4	5
b. Lack of administrative interest and support.	1	2	3	4	5
c. Lack of student interest.	1	2	3	4	5
d. Lack of instructional materials including textbooks.	1	2	3	4	5
e. Lack of financial resources.	1	2	3	4	5
f. Lack of job opportunities.	1	2	3	4	5
g. Others (please specify)_____	1	2	3	4	5

7. Please indicate the importance of covering the following topics in a forensic accounting course or modules integrated into an auditing course by circling the appropriate number where 1=least important and 5=most important.

	<u>Least Important</u>				<u>Most Important</u>
a. Fundamentals of fraud	1	2	3	4	5
b. Theory and methodology of fraud examination	1	2	3	4	5
c. Valuation expert in divorce	1	2	3	4	5
d. Careers in forensic accounting	1	2	3	4	5
e. Professional organizations sponsoring forensic accounting	1	2	3	4	5
f. Anti-fraud criteria	1	2	3	4	5
g. Anti-fraud education	1	2	3	4	5
h. Anti-fraud controls	1	2	3	4	5
i. Anti-fraud training	1	2	3	4	5
j. Anti-fraud auditing standards	1	2	3	4	5
k. Shareholder litigation	1	2	3	4	5

Appendix 1 cont.

	<u>Least Important</u>				<u>Most Important</u>
l. Professional standards pertaining to forensic accounting	1	2	3	4	5
m. Types of fraud (e.g., employees, management)	1	2	3	4	5
n. Financial statement fraud	1	2	3	4	5
o. Modeling and discounting future damages	1	2	3	4	5
p. Financial reporting standards and principles	1	2	3	4	5
q. Interview skills and legal aspects of interviews	1	2	3	4	5
r. Security and privacy	1	2	3	4	5
s. Analytical review procedures	1	2	3	4	5
t. Conflicts of interest investigating techniques	1	2	3	4	5
u. Techniques in locating hidden assets	1	2	3	4	5
v. Crime control techniques	1	2	3	4	5
w. Litigation consulting techniques	1	2	3	4	5
x. Effective report writing	1	2	3	4	5
y. Knowledge of the legal system	1	2	3	4	5
z. Legal elements of fraud	1	2	3	4	5
aa. Trial and cross-examination	1	2	3	4	5
ab. Rules of evidence	1	2	3	4	5
ac. Expert testimony and expert witness techniques	1	2	3	4	5
ad. Principles of ethics and corporate code of conduct	1	2	3	4	5
ae. Fraud detection and deterrence programs	1	2	3	4	5
af. Internal control evaluation	1	2	3	4	5
ag. Conducting internal investigations	1	2	3	4	5
ah. Resolution of allegations of misconduct	1	2	3	4	5
ai. Financial reporting process and analysis	1	2	3	4	5
aj. Environmental and business red flags	1	2	3	4	5
ak. Statistical sampling	1	2	3	4	5
al. Corporate governance	1	2	3	4	5
am. Bribery and corruption investigation	1	2	3	4	5
an. Business valuations and cost estimates	1	2	3	4	5
ao. Compliance with applicable laws and regulations	1	2	3	4	5
ap. Cyber and computer fraud	1	2	3	4	5
aq. Criminology and white-collar and economic crimes	1	2	3	4	5
ar. Earnings management	1	2	3	4	5
as. Elements of fraud: pressure, opportunity, and rationalization	1	2	3	4	5
at. Intellectual property fraud	1	2	3	4	5
au. Manipulation of related party transactions	1	2	3	4	5
av. Occupational fraud	1	2	3	4	5
aw. Cooking the books and problems in accounting	1	2	3	4	5

Appendix 1 cont.

8. At what level do you think a forensic accounting course should be offered?

_____ Graduate _____ Undergraduate _____ Both graduate and undergraduate _____ None

9. Please indicate the importance of the following learning mechanisms in teaching a forensic accounting course by circling the appropriate number where 1=least important and 5=most important.

	<u>Least Important</u>				<u>Most Important</u>
a. Textbooks	1	2	3	4	5
b. Research projects	1	2	3	4	5
c. Videos	1	2	3	4	5
d. Cases	1	2	3	4	5
e. Guest speakers	1	2	3	4	5
f. Field trips (e.g., to professional organizations, correctional facilities)	1	2	3	4	5
g. Other (please specify)_____	1	2	3	4	5

10. Would you be able to obtain administrative support to offer a forensic accounting course?

_____ Yes _____ No

11. Is your school AACSB accredited?

_____ Yes _____ No

12. What is your rank?

_____ Full Professor _____ Associate Professor _____ Assistant Professor _____ Other

13. Please check your university location in one of the following regional classifications:

_____ Northeast _____ Southeast _____ Far West _____ Midwest
 _____ Northwest _____ Southwest _____ Rocky Mountains

14. How many students do you graduate per year in each of the following categories?

Business Undergraduate Masters Doctoral
 Accounting

15. Comments: Please feel free to comment on forensic accounting education and practice.

Thank you for your cooperation and assistance. If you wish to receive a copy of the results of this study, please check the following space and enclose your business card []. Please submit a copy of your course outlines for forensic accounting or any related materials.

Appendix 2

Two-Page Questionnaire Sent to Practitioners

FORENSIC ACCOUNTING QUESTIONNAIRE

This questionnaire is designed to determine the coverage of forensic accounting education in the accounting curriculum. *Forensic accounting is defined as the practice of rigorous data collection and analysis in the areas of litigation support consulting, expert witnessing, and fraud examination.* Following the completion of the questionnaire, please return it in the enclosed pre-addressed, postage-paid envelope. Thank you for your cooperation.

1. Do you expect future demand and interest in the following three areas of forensic accounting to:

	Litigation Support	Expert Witnessing	Fraud Examination
Increase?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Remain the same?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Decrease?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unsure?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. Please indicate the importance of the perceived benefits of forensic accounting education and practice by circling the appropriate number where 1=least important and 5=most important.

	Least Important				Most Important
a. Satisfy society's demand for forensic accounting education and practice.	1	2	3	4	5
b. Strengthen the credibility of financial reporting.	1	2	3	4	5
c. Promote responsible corporate governance.	1	2	3	4	5
d. Make students more desirable in the marketplace.	1	2	3	4	5
e. Demand for individuals possessing forensic accounting education and skills is increasing.	1	2	3	4	5
f. Prepare students to engage in fraud examination.	1	2	3	4	5
g. Prepare students to engage in litigation consulting.	1	2	3	4	5
h. Prepare students to engage in expert witnessing.	1	2	3	4	5
i. Others (please specify)_____	1	2	3	4	5

3. Please indicate the importance of covering the following topics in a forensic accounting course or modules integrated into an auditing course by circling the appropriate number where 1=least important and 5=most important.

	Least Important				Most Important
a. Fundamentals of fraud	1	2	3	4	5
b. Theory and methodology of fraud examination	1	2	3	4	5
c. Valuation expert in divorce	1	2	3	4	5
d. Careers in forensic accounting	1	2	3	4	5
e. Professional organizations sponsoring forensic accounting	1	2	3	4	5
f. Anti-fraud criteria	1	2	3	4	5
g. Anti-fraud education	1	2	3	4	5
h. Anti-fraud controls	1	2	3	4	5
i. Anti-fraud training	1	2	3	4	5

Appendix 2 cont.

		Least Important				Most Important
j.	Anti-fraud auditing standards	1	2	3	4	5
k.	Shareholder litigation	1	2	3	4	5
l.	Professional standards pertaining to forensic accounting	1	2	3	4	5
m.	Types of fraud (e.g., employees, management)	1	2	3	4	5
n.	Financial statement fraud	1	2	3	4	5
o.	Modeling and discounting future damages	1	2	3	4	5
p.	Financial reporting standards and principles	1	2	3	4	5
q.	Interview skills and legal aspects of interviews	1	2	3	4	5
r.	Security and privacy	1	2	3	4	5
s.	Analytical review procedures	1	2	3	4	5
t.	Conflicts of interest investigating techniques	1	2	3	4	5
u.	Techniques in locating hidden assets	1	2	3	4	5
v.	Crime control techniques	1	2	3	4	5
w.	Litigation consulting techniques	1	2	3	4	5
x.	Effective report writing	1	2	3	4	5
y.	Knowledge of the legal system	1	2	3	4	5
z.	Legal elements of fraud	1	2	3	4	5
aa.	Trial and cross-examination	1	2	3	4	5
ab.	Rules of evidence	1	2	3	4	5
ac.	Expert testimony and expert witness techniques	1	2	3	4	5
ad.	Principles of ethics and corporate code of conduct	1	2	3	4	5
ae.	Fraud detection and deterrence programs	1	2	3	4	5
af.	Internal control evaluation	1	2	3	4	5
ag.	Conducting internal investigations	1	2	3	4	5
ah.	Resolution of allegations of misconduct	1	2	3	4	5
ai.	Financial reporting process and analysis	1	2	3	4	5
aj.	Environmental and business red flags	1	2	3	4	5
ak.	Statistical sampling	1	2	3	4	5
al.	Corporate governance	1	2	3	4	5
am.	Bribery and corruption investigation	1	2	3	4	5
an.	Business valuations and cost estimates	1	2	3	4	5
ao.	Compliance with applicable laws and regulations	1	2	3	4	5
ap.	Cyber and computer fraud	1	2	3	4	5
aq.	Criminology and white-collar and economic crimes	1	2	3	4	5
ar.	Earnings management	1	2	3	4	5
as.	Elements of fraud: pressure, opportunity, and rationalization	1	2	3	4	5
at.	Intellectual property fraud	1	2	3	4	5
au.	Manipulation of related party transactions	1	2	3	4	5
av.	Occupational fraud	1	2	3	4	5
aw.	Cooking the books and problems in accounting	1	2	3	4	5

4. Comments: Please feel free to comment on forensic accounting education and practice.

Thank you for your cooperation and assistance. If you wish to receive a copy of the results of this study, please check the following space and enclose your business card []