

Running head: FORENSIC ACCOUNTING EDUCATION

1

Fraud and the Evolution of Forensic Accounting Education

Abel Pors

A Senior Thesis submitted in partial fulfillment
of the requirements for graduation
in the Honors Program
Liberty University
Spring 2018

Acceptance of Senior Honors Thesis

This Senior Honors Thesis is accepted in partial fulfillment of the requirements for graduation from the Honors Program of Liberty University.

Jamie E. Stowe, D.B.A., C.P.A.
Thesis Chair

Gene Sullivan, Ph.D.
Committee Member

Joel M. Cox, Ed.D.
Committee Member

Cindy Goodrich, Ed.D., M.S.N., R.N., C.N.E.
Assistant Honors Director

Date

Abstract

Forensic accounting, the use of accounting practices in court, developed as a field separate from traditional accounting or auditing throughout the 1900's. As fraud changed the landscape of auditing practice, forensic accounting slowly began to take shape as the accountant's answer to fraud. After a series of major frauds at the beginning of the 21st century, forensic accounting became one of the most demanded fields of accounting. The profession, though, was still relatively in its infancy: forensic accountants were predominantly untrained aside from firsthand experience. Since the early 2000's, schools have begun rapidly implementing forensic accounting programs to meet the increasing demand for forensic accountants. As the demand continues to increase, however, education offerings will be needed.

Fraud and the Evolution of Forensic Accounting Education

The field of forensic accounting is one that has recently garnered much interest from both public and professional sources, especially after a number of large-scale frauds were uncovered early in the 21st century. Despite this interest, the field has remained shrouded in a certain amount of mystery; though forensic accounting has existed for more than half a century, educational institutions have only recently begun implementing forensic accounting programs. While the recent expansions in forensic accounting education offerings are crucial to this still-developing field, further expansion must occur in order to fully meet the demand. In order to continue the development of forensic accounting education, it is necessary to understand not only what forensic accounting is, but also the context in which it has developed across the years.

Forensic Accounting Overview

Definition of Forensic Accounting

In a 2006 interview with Mary-Jo Kranacher (2006), Joseph Wells, chairman of the Association of Certified Fraud Examiners, stated that “‘Forensic accounting’ is the application of any accounting technique for courtroom purposes” (p. 1). The American Institute of Certified Public Accountants (AICPA, 2018) defines forensic accounting as involving “the application of specialized knowledge and investigative skills possessed by CPAs to collect, analyze, and evaluate evidential matter and to interpret and communicate findings in the courtroom, boardroom, or other legal or administrative venue” (para. 1). Silverstone, Sheetz, Pedneault, and Rudewicz (2012) presented a list of other definitions from the literature, indicating there are as many definitions of forensic

accounting as there are forensic accountants. While definitions of forensic accounting are not in complete agreement, they all contain the same core idea: forensic accounting is accounting work intended to be used in court (Silverstone et al., 2012).

Functions of Forensic Accounting

As with the definition of forensic accounting, the literature is somewhat divided on how exactly forensic accounting should be subdivided. Also similar to the definition, however, a general agreement exists as to general, functional categories of forensic accounting. Rezaee, Lander, and Reinstein (1992), writing on the topic, group the different facets of forensic accounting into three primary areas of function: litigation support consulting, expert witnessing, and investigating fraud. These three areas are interrelated in scope, though different in practice.

Accountants as litigation support consultants. According to Rezaee et al., (1992), litigation support consulting encompasses “legal actions where financial information requires critical analysis for possible wrongful actions” (p. 33). Litigation support consulting would include investigating or evaluating any sort of financial information that would then be used in court (Rezaee et al., 1992). This would be the catch-all category for such matters as divorce settlements, damage estimates, interpretation of generally accepted accounting principles, etc. (Rezaee et al., 1992). The need for accountants as litigation support consultants is no doubt partly due to the truth captured in the common saying: “accounting is the language of business.” When financial matters are up for discussion, it only makes sense to involve accountants in the process to serve as translators. While providing interpretation of information to be

presented in court, the litigation support consultant would not necessarily appear in court. If a litigation support consultant were to bring his expertise to the courtroom, he would be also serving the next function: expert witness.

Accountants as expert witnesses. Expert witnessing is the logical continuation of litigation support consulting. Hiring an accountant to interpret financial data for a court case sometimes is not enough: if the subject matter is complicated enough, it may become necessary to have the accountant himself explain the data in front of the judge and jury (Rezaee et al., 1992). In addition to clarifying complex issues, the expert witness, as opposed to a regular witness, enjoys the privilege of testifying based on professional opinion (Rezaee et al., 1992).

Accountants acting as expert witnesses is a practice that has existed for hundreds of years. According to Dr. Larry Crumbley (as cited in Singleton, Singleton, & Bologna, 2010), the first record of such forensic accounting was in 1817, when an accountant was called as an expert witness to testify in the case of a bankrupt estate. Crumbley (as cited in Singleton et al., 2010) marked this as the beginning of the forensic accounting profession. More than a century later, the expert witnessing field of forensic accounting functioned in much the same way: ordinary accountants being summoned to court to testify. This model functioned, but not without problems: accountants, after all, are not lawyers. A 1988 article written by Rene Sacasas for *The National Public Accountant*, "The Accountant as Expert Witness," identified three specific difficulties with this arrangement.

The first is identified as “survey costs” incurred by the accountant (Sacacas, 1988). Per Sacacas, survey costs are costs associated with preliminary consideration of the scope and circumstances of the case in question. Survey costs might include such things as researching the situation and reputation of the client, attorney, etc. (Sacacas, 1988). For an accountant appearing in court as an extra duty, these costs could be burdensome.

The second issue was the preparation required in order to prepare an expert testimony (Sacacas, 1988). Sacacas indicated preparation is of paramount importance, holding the potential to significantly sway the outcome of the case. As such, the preparation for a proper expert testimony requires the dedication of a substantial amount of time (Sacacas, 1988).

The third challenge presented in Sacacas’ article was the different skillset required for presenting evidence in court than for doing typical accounting work. Sacacas cited the subtleties of courtroom etiquette as a major challenge to an accountant used to a much more direct flow of information in a business environment. Even well-prepared material, if presented poorly, could fall flat in front of a judge and jury (Sacacas, 1988). According to Rezaee et al. (1992), expert witnesses would be required to “lucidly explain complex, technical subjects to the judge and jury” (p. 33). To take concepts which are in themselves difficult to understand and explain them to people who have no background in accounting or finance is itself an additional skill (Rezaee et al., 1992).

Robert Reilly, nearly a decade after Sacacas’ article, showcased much the same problem in a 1999 issue of *The CPA Journal*. Reilly’s article, titled “Expert Witness

Procedures for Accountants” is written to accountants, offering a brief summary of what to expect from being called as an expert witness, including admonitions such as: “Unless you are absolutely certain of your answer, don’t trust your memory” (p. 25). Much of the article addressed the sort of courtroom nuances Sacasas (1988) mentioned; for example, Reilly (1999) warned accountants to avoid such things as leading questions, verbal traps, or even vague expressions: concepts common to courtroom proceedings but lacking in the accounting environment. Clearly, there was much more to courtroom procedure than the accountants’ education was preparing them to operate within.

Accountants as fraud examiners. Rezaee et al.’s (1992) third area of forensic accounting was fraud examination. This field of forensic accounting experienced rapid growth during the 1990’s. Terry Storevik (as cited in Fowler, 1991), a director of litigation support services with Robert Half International Inc., described fraud examination as “the hottest field in accounting...” (p. 1). According to Storevik, the demand for forensic accountants with relevant experience for fraud examination purposes far outweighed the supply, citing the additional skillset and training required in order to properly qualify an accountant to investigate fraud.

As was the case with litigation support consulting and expert witnessing, traditional accounting education was not sufficient to qualify an accountant to investigate fraud (Storevik as cited in Fowler, 1991). Most of the experience garnered by those Storevik had worked with was attributable to “accident, or learning through the school of hard knocks” (as cited in Fowler, 1991, p. 2). He did, however, refer to the then-newly-founded ACFE, as well as seminars facilitated by the AICPA as an attempt to meet the

need (Storevik in Fowler, 1991). The accountant's interaction with fraud, however, was not always limited to fraud examination. A history of the interaction of the accounting profession with fraud is helpful to understanding the development of fraud examination as a field of practice.

The Accountant's Changing Role in Combatting Fraud

1900-1979

Throughout the early 1900's, a general awareness of and concern with fraud developed (Smith, 2015). Not surprisingly, the public looked to accountants, specifically financial auditors, as those responsible for the prevention and detection of fraud (Smith, 2015). As Smith (2015) indicated, however, this system quickly became unworkable: increasingly complex businesses and a much higher volume of lawsuits combined to urge the accounting profession to shift the responsibility for fraud management from auditors to the companies' management. Instead of auditors being expected to detect fraud in financial reports, they were charged with reviewing the statements for fair presentation (Smith, 2015). By the 1950's, fraud detection assurance was explicitly declaimed in the AICPA's (1951) *Codification of Statements on Auditing Procedure*.

Nevertheless, the public still wanted accountants to deal with fraud (Smith, 2015). In the 1970's, a new spree of publicized fraud cases, involving corporations such as Equity Funding, National Student Marketing, and ZZZZ Best to whom auditors had issued unqualified opinions, sparked an acquiescence towards the public's demand: auditors were considered liable for detecting any material frauds a competent auditor would be expected to uncover during their audit (Smith, 2015).

1980-1989

This perception of auditors as the answer to fraud was driven home during the mid-1980's as another series of scandals ensued, involving companies such as Drysdale Government Securities, Washington Public Power Supply System, Baldwin-United Corp., and E.S.M. Government Securities (Grundfest & Berueffy, 1989). These failures were attributed, in part, to insufficient audit practice (Grundfest & Berueffy, 1989). The responsibility of accountants for fraud at the time was further established in *U.S. v. Arthur Young* (1984), when the U.S. Supreme Court acknowledged the independent auditor as the "public watchdog" (p. 818) against fraud.

The accounting profession rose to this challenge, accepting more fully the mantle of fraud prevention and examination. In order to facilitate that role, however, research had to be done: the accounting profession would not approach the issue blindly. In 1985, a group of five accounting and auditing organizations (the American Institute of Certified Public Accountants, the American Accounting Association, the Financial Executive Institute, the Institute of Internal Auditors, and the National Association of Accountants), established the National Commission on Fraudulent Financial Reporting (NCFRR), also known as the Treadway Commission, and later as the Committee of Sponsoring Organizations (COSO) (Grundfest & Berueffy, 1989). The purpose of this committee was to "identify causal factors that can lead to fraudulent financial reporting and steps to reduce its incidence" (NCFRR, 1987, p. 1).

The NCFRR released their report in 1987, including in it many recommendations to public companies, independent public accountants, regulatory and legal entities, and

finally to educators. One of the issues identified by the NCFRR (1987) was the lack of proper education in accounting curricula concerning fraudulent financial reporting. Their recommendations included both vertical and horizontal expansion of accounting degree programs. According to the NCFRR (1987), both graduate and undergraduate accounting degree programs lacked sufficiently broad education, recommending increased liberal arts studies to expand the general knowledge of accounting graduates. The NCFRR (1987) also recommended a more in-depth education in the matters of fraud, positing that a single course in ethics was not sufficient to address the matters of fraudulent financial reporting. According to the NCFRR, accounting and auditing textbooks of that time contained “little to no discussion” (p. 80) of fraud. The NCFRR proposed education about fraud should be thoroughly integrated into the classes accounting majors would take, including but not limited to courses about: management, finance, business law, information systems and auditing.

Exposure to fraudulent financial reporting practice itself was not the only recommendation the commission made (NCFRR, 1987). The report also indicated that an increased knowledge of the legal and regulatory environment was essential for business and accounting students. This was to include the idea of the public trust, and the students’ future professional responsibilities to maintain that trust.

Other issues identified by the NCFRR (1987) were a lack of the judgment, critical thinking, and problem-solving skills that are the groundwork for proper treatment of fraud. The NCFRR advised that involving students in difficult historical cases while actively encouraging judgment and analytical skills would result in graduates better

prepared for the real world. The technique would serve as a base of knowledge for the students to draw upon when confronted with new and difficult situations in the business world, such as those involving fraud.

The NCFRR was not the only response to the public's ever-increasing interest in fraud. In 1988, Dr. Joseph Wells, an FBI agent with an accounting background, founded the Association of Certified Fraud Examiners (ACFE, 2016). This newly minted organization introduced the Certified Fraud Examiner (CFE) certification for any professionals who were responsible for investigating or otherwise interacting with fraud (ACFE, 2016). Forming the ACFE was a recognition of the fact that "at that time, fraud detection and deterrence were handled by two disparate groups: accountants who didn't know anything about investigation fraud, and investigators, who didn't know anything about accounting" (ACFE, 2016, p. 1).

1990-1999

During the 1990's, awareness of fraud continued to increase. Additionally, as Fowler (1991) noted, the field of fraud examination in forensic accounting began to receive attention. In 1997, Rezaee and Burton, accounting professors at Middle Tennessee State University, published an article in the *Managerial Auditing Journal* about the state of forensic accounting education. They indicated that not only were levels of fraud increasing, but also the trend from the 1970's continued: the public expected ever-increasing commitment from accountants to anti-fraud activities (Rezaee and Burton, 1997; Smith, 2015). Rezaee and Burton (1997) surveyed academicians and CFE's about various aspects of forensic accounting education. Both groups surveyed indicated

demand for forensic accountants was increasing, but the CFE's reported this demand at a significantly higher level. This indication was consistent with the other areas of the literature: despite the public's increasing concern with fraud and the associated call for improved qualifications for those investigating fraud, accounting educators were sluggish in their response to the call.

Rezaee and Burton (1997) also asked the survey participants how they believed forensic accounting should be integrated into education programs. Both groups agreed, while CFE's agreed more strongly, that the educational offerings in forensic accounting at the time were not sufficient to meet the public's demand and should be expanded. The groups disagreed, however, on how this should be achieved: CFE's believed this expansion would best be accomplished through the addition of a course concentrated on forensic accounting, while academicians believed integrating forensic accounting material into existing classes would be better.

2000-2009

The turn of the 21st century brought with it a number of large and highly-publicized frauds involving major U.S. corporations. Large, well-respected companies such as Enron, WorldCom, Tyco, Merrill Lynch, J. P. Morgan, Goldman Sachs, HealthSouth, Fannie Mae, etc. were found to be committing fraud of all types: overstated assets, hidden debt, inflated revenues, unrecorded expenses, and more (Gireux, 2008). For the rest of this paper, this series of frauds will be referred to as the *fraud outbreak* for brevity.

Many of the frauds were driven by external pressures such as mounting need to meet high earnings expectations during a stock market bubble in the late 1990's, but other issues were present as well (Gireux, 2008). "Executive greed, ruthlessness, a lack of ethical standards, accommodating auditors, law firms, investment bankers, lack of proper regulatory oversight..." (p. 1226) were some of those identified by Gireux (2008) in the case of Enron. As Gireux indicated, the accounting profession was somewhat to blame for the frauds that occurred around the beginning of the new century. Albrecht, Albrecht, and Albrecht (2008) identified three specific areas in which the accounting profession was responsible for the fraud outbreak: the structure of Generally Accepted Accounting Principles (GAAP), money-chasing auditors, and insufficient education.

GAAP. The first issue Albrecht et al. (2008) addressed was the very nature of GAAP. They argued that because GAAP is structured as a rules-based system, it created a great deal of leeway in finding and exploiting loopholes. According to Nesbitt and Shiekh (2007), three times as many accounting scandals were committed under the oversight of U.S. GAAP (rules-based) than under International Financial Reporting Standards (principles-based) from 2001-2005. Specifically in the case of Enron, Special Purpose Entities used to commit the fraud had been designed in such a way no specific rules or laws were broken, even though the intention behind them was fraudulent (Albrecht et al., 2008).

Behavior of Certified Public Accountant (CPA) firms. The second way in which the accounting profession was to blame was the willingness of CPA firms to pursue profit rather than the public interest (Albrecht et al., 2008, p. 3). Many large

accounting firms found the market for consulting services to be much more profitable than their audit services (Albrecht et al., 2008). According to Albrecht et al., accounting firms would audit new companies at a loss to secure their business for consulting services, which would then be the true source of the firm's income. While the practice of offering consulting services itself did not necessarily affect the auditors' independence, it caused the auditors to neglect their true function of financial statement certification and instead focus on consulting work (Albrecht et al., 2008). Additionally, the reliance of CPA firms on consulting revenues for profitability led to major conflicts of interest: in order to retain consulting contracts, auditors would be encouraged to report favorably on the company even if problems were found (Louwers, Blay, Sinason, Strawser, & Thibodeau, 2018). In time, this combination of factors resulted in the laxer audit practice from CPA firms Albrecht et al. pointed to as a factor in the fraud outbreak (Albrecht et al., 2008).

Accounting education. The third issue identified by Albrecht et al. (2008) was in the realm of education. Despite the urging of those such as the NCFRR in 1987, Dr. Wells of the ACFE in 1988, and Rezaee and Burton in 1997, education about fraud was still sadly insufficient in business and accounting students (Albrecht et al., 2008). As Albrecht et al., stated:

...most business school graduates would not recognize a fraud if it hit them between the eyes. The large majority of business students don't understand the elements of fraud, perceived pressures and opportunities,

the process of rationalization, or red flags that indicate the possible presence of dishonest behavior. (p. 5-6)

In response to the fraud outbreak, the U.S. Congress passed the Public Company Accounting Reform and Investor Protection Act of 2002, commonly known as the Sarbanes-Oxley Act or SOX (Yallapragada, Roe, & Toma, 2012). This legislation was composed to address many issues deemed to have led to the frauds, pushing the ultimate responsibility for fraudulent financial reporting firmly onto company's management (Spiceland, Sepe, Nelson, & Thomas, 2016). Additionally, SOX established the Public Company Accounting Oversight Board (PCAOB) to create standards for both internal and external auditors (Spiceland, Sepe, Nelson, & Thomas, 2016).

The impact of the 21st century fraud outbreak did not stop with the penning of SOX. Not only did investors in companies like Enron and WorldCom suffer crushing losses, but also the accounting profession itself lost something Barry Melancon (2002), president of the AICPA, described as its "most priceless asset:" its reputation. In his rousing 2002 speech at the Yale School of Management, Melancon addressed the profession as a whole in uncompromising terms, rallying accountants across the U.S. to work ceaselessly to restore that reputation. Melancon (2002) acknowledged the important role of SOX moving forward, but warned against any temptation towards apathy in restoring the accounting profession to the place of trust and confidence it once held in the eyes of the public. While anti-fraud legislation and regulation was considered significant in the process, Melancon (2002) made it clear the accounting profession as a whole would have to embrace changes on many levels in order to recover.

Two years later, Rezaee (2004) expanded on Melancon's discussion of the public trust in relation to the auditor's function. Rezaee (2004) identified an "expectation gap" (p. 136) between what the public demanded from a public company audit and what auditors were willing and able to provide. This gap was the same one that developed throughout the 1900's, expanding dramatically in the 1980's when the accounting profession acquiesced to assuming some level of responsibility for fraud in audited companies (Rezaee, 2004). According to Rezaee (2004), this initially well-intentioned move by the profession failed due to a lack of the same passion and integrity Melancon (2002) called for, resulting in an even wider gap between public expectation and auditor's performance than had previously been seen. By 2002, the gap was larger than ever; according to Lynn Turner (as cited in Rezaee, 2004), a former SEC chief accountant, there was

a chasm as wide and as deep as the Grand Canyon between what the public expects from us and what we deliver in the way of an audit... we must close the chasm by changing what we deliver in the way of an audit and audit report, to conform to the desires of our customer. (p. 136)

Rezaee (2004) posited that steps could be taken to reduce the gap between the public and the profession, largely consisting of increasing levels of transparency. More open communication about the true purpose of the audit, which had shifted from the 1980's goal of fraud detection to a more modern goal of assuring fair presentation, would lead to more realistic expectations from the public (Rezaee, 2004). While SOX required company management to sign off on financial statements, thereby assuming

responsibility for any fraud in the reporting, Rezaee (2004) recognized the need to continue increasing the accountants' awareness of fraud. Though auditors were no longer expected to be the "public watchdog" as they were in the 1980's, Rezaee believed an important step towards restoring public trust in auditors was to focus on fraud detection anyway.

While SOX publicly corrected audit expectations, Rezaee once again made the call for increased education in the areas of fraud. Rezaee (2004) posited that focusing on fraud detection in accounting education was an important step towards restoring the public trust. This was to include those who had already earned their CPA licenses. In order to change the profession's mindset as a whole, Rezaee argued, it was necessary to shift not only the textbook education of young graduates, but also the continuing professional education required of CPA's.

The Effects of the Fraud Outbreak on Forensic Accounting

One of the effects of the fraud outbreak was to bring a particular field of accounting into the spotlight: forensic accounting. The lack of formal forensic accounting training documented in the literature became apparent. This spurred the accounting education world into action, causing it to truly recognize and develop forensic accounting as a distinct field for the first time.

Terminology. Recently, the distinction between the terms "forensic accounting" and "fraud examination" have been blurred. The fraud outbreak at the turn of the century served to increase the demand for forensic accountants trained to investigate fraud, bringing the field of fraud examination to the forefront of forensic accounting practice.

According to Wells (as cited in Kranacher, 2006), the fraud outbreak transformed the terms “forensic accounting” and “fraud examination” into synonyms. Silverstone et al. (2012) noted the same issue, stating that much of the literature on forensic accounting focused on fraud examination to the exclusion of the other functional areas encompassed within the field of forensic accounting. Wells (as cited in Kranacher, 2006) clarified that while forensic accounting is in fact a broader term, encompassing any accounting work used in court *including* fraud examination, recent events have shifted the emphasis of forensic accounting so heavily towards fraud examination the two became essentially synonymous.

Fraud examination is a specific subset of forensic accounting dealing with the investigation of financial fraud for the purpose of gathering evidence to use in court. While forensic accounting applications in tax disputes, divorce proceedings, etc., are in fact forensic accounting (these issues would be classified as litigation support consulting or expert witnessing [Rezaee, 1992]), the current popular understanding of forensic accounting would struggle to identify them as such, lacking the presence of any fraud. There is a very real sense in which the focus of contemporary literature has shifted the *functional* definition of forensic accounting. While it remains important to preserve the original definition of forensic accounting, in order to achieve consistency with source material, the rest of this paper will use the term “forensic accounting” to refer specifically to fraud examination, unless otherwise noted.

Education. The new standards established by SOX set straight the role of auditors in combatting fraud: limited responsibility for detection based on standard

financial statement and internal control audits. The auditor's function was firmly removed from the 1980's concept of being the public's watchdog against fraud, focusing instead on assuring a fair presentation of the company's financial data and internal controls (Louwers et al., 2018). The auditor does serve in some capacity as an agent of fraud detection during the course of an audit, as most frauds ultimately result in falsified financial statements, but fraud detection was no longer considered a primary goal of the audit (Louwers et al., 2018).

Fraud detection, however, is not the same thing as fraud examination. At the same time as auditors were stepping back from their engagement of fraud, a rising awareness of the need for trained professionals to deal with fraud after it happened came to the forefront. These professionals were forensic accountants.

This rising awareness sparked explosive growth in the profession (Crumbley & Apostolou, 2002). According to Crumbley and Apostolou (2002), forensic accounting was listed in 2002 by the *U.S. News and World Report* as the "number one most secure career track" (p. 16). While the demand for forensic accountants was increasing, however, the issue of supply still remained.

Despite the rapidly increasing demand for forensic accountants, the trend identified by Storevik (as cited in Fowler, 1991) had unfortunately continued: outside of supplementary seminars and certification programs, forensic accounting education was mostly earned by experience on the job. A job summary posting cited by Crumbley and Apostolou (2002) indicated that while the ACFE was growing rapidly, requirements to be a forensic accountant were a B.S. in accounting, between two and four years of

accounting experience, and usually a CPA license. While forensic accounting had been recognized as a distinct field, those called upon to perform forensic accounting were still regular accountants.

Forensic accounting had not yet been integrated into the degree programs of many colleges and universities, nor were there programs available specifically in forensic accounting. The lack of such programs, however, would not go unnoticed. Articles soon began to appear in accounting journals, especially accounting education journals, proposing model curricula and degree programs for forensic accounting.

The Model Curriculum. In 2006, an article in *The CPA Journal* was published summarizing the exposure draft of a model curriculum for forensic accounting and fraud, which had been released in 2005 (Houck et al., 2006). The researching and drafting of this curriculum was sponsored by a grant given to West Virginia University's (WVU's) accounting division by the National Institute of Justice in 2003 (Houck et al., 2006). Composed by a team of 46 experts, this research was intended to bring forensic accounting education closer to meeting the demand (Houck et al., 2006). The draft emphasized several fields of study considered by the panel to be crucial to forensic accounting education yet generally lacking in traditional accounting programs:

- Criminology, including the “nature, dynamics, and scope of fraud and financial crimes; the legal, regulatory, and professional environment; and ethical issues” (Houck et al., 2006, p. 69);
- Fraud, including “prevention, deterrence, detection, investigation, and remediation in the following areas: asset misappropriation, corruption, and

false representations; financial statement fraud; and fraud and forensic”

(Houck et al., 2006, p. 69); and

- “Forensic and litigation advisory services, including research and analysis, valuation of losses and damages, dispute investigation, and conflict resolution” (Houck et al., 2006, p. 69).

The model curriculum was drafted into a four-course graduate certificate program designed to be implemented at WVU, the university which hosted the research process (Kranacher et al., 2008). This four-course program was tested in 2004, with a total of 18 students completing it successfully (Kranacher et al., 2008). After this student testing, the panel revised the model curriculum and passed it on to professionals in the field for further scrutiny (Kranacher et al., 2008). Once the feedback of the professionals had been considered and integrated, the model curriculum was released to the public at the end of 2005 (Kranacher et al., 2008). Along with WVU’s four-course program, several other universities were notably quick to react to the demand for forensic accounting education.

Florida Atlantic University. Florida Atlantic University (FAU) was one of the first-responders to the forensic accounting education crisis. In 2003, FAU instituted a master’s degree program in forensic accounting, the first such program to be offered in the United States (Young, 2008). While this program was developed before the model curriculum from WVU’s research team was completed, FAU did not fail to account for it; upon the model curriculum’s release in 2005, FAU compared their program to the model curriculum and adjusted it as needed. FAU’s forensic accounting degree was designed

with working professionals in mind: accounting professionals would have the opportunity to continue their professional education via studying forensic accounting (Young, 2008). The program consisted of ten sequential courses, five courses to provide a background in accounting fields (Accounting Information Systems, Auditing, Concepts of Federal Income Tax, Accounting for E-Commerce, and Graduate Business Communications) and five concentrated specifically on fraud examination and forensic accounting (Accounting Fraud Examination Concepts; Accounting Fraud Examination Conduct and Procedures; Forensic Accounting and Legal Environment; Forensic Accounting, Fraud, and Taxation; and Business Valuation) (Young, 2008). This program was meant to be completed over a two-year period.

This spread of courses was designed to provide a broad base of both underlying principles and specific areas of forensic accounting (Young, 2008). The Forensic Accounting and Legal Environment course, for example, incorporated “law, courtroom procedure, and service as an expert witness” (Young, 2008, p. 594). These are the very areas of difficulty Sacasas (1988) and Reilly (1991) wrote to address; 12 years later, accounting education programs were finally beginning to respond. FAU also addressed the need for fraud examiners to be trained not in only in theory but also in practice by requiring both an *Accounting Fraud Examination Concepts* and an *Accounting Fraud Examination Conduct and Procedures* course.

Georgia State University. In 2008, Fletcher, Higgins, Mooney, and Buckhoff, accounting professors at Georgia Southern University (GSU), published an article in *Southern Business Review* titled “Our School’s Campaign for Distinction in Forensic

Accounting.” This program was fueled by a combination of several factors, among which was the fraud outbreak at the beginning of the century (Fletcher et al., 2008). According to Fletcher et al., the school viewed the development of a forensic accounting program to not only be an important step in furthering accounting education, but also as a way for GSU to distinguish itself: at the time, few schools were offering programs in forensic accounting.

The implementation of the forensic accounting program at GSU was not an easy process. Forensic accounting first came to their attention in 2001 as a potential niche for development (Fletcher et al., 2008). After assessing the feasibility of adding forensic accounting in 2003, they took the first steps towards implementation. As Rezaee would note a year later in 2004, however, they quickly realized forensic accounting was a very different field from the traditional accounting programs they offered: the faculty at GSU itself was not equipped to properly teach forensic accounting (Fletcher et al., 2008). Through a combination of targeted hiring and professional development opportunities offered to faculty, GSU was able to assemble a qualified forensic accounting education team by the end of 2004 (Fletcher et al., 2008).

Four years after the idea was first considered, a fully-fledged forensic accounting program was introduced to GSU. The implementation of forensic accounting at GSU was effected through a total of ten classes: five on the undergraduate level as a minor and five on the graduate level as a degree concentration (Fletcher et al., 2008). The undergraduate classes were initiated in GSU’s fall 2005 semester, while the graduate classes were first offered in the summer of 2007 (Fletcher et al., 2008). These early

programs were important to the development of forensic accounting, but more were needed.

Forensic Accounting Education After the Fraud Outbreak

The reaction sparked by the fraud outbreak certainly raised awareness of the need for more and better forensic accounting education. However, while development of the model curriculum and the implementation of the first few forensic accounting programs were *key* steps towards answering the demand, they were only the *first* steps. A few programs in a few universities were not enough education to support a rapidly-growing field.

Continuing Demand

In 2008, Mike Seda and Bonita Peterson Kramer, scholars in the forensic accounting field, published an article detailing the continued mismatch between the demand and the supply for forensic accountants. While more and more schools were implementing undergraduate and graduate degree and certification programs, the size and estimated growth of the field far outweighed the educational opportunities offered (Seda & Kramer, 2008). The article was written more as a reminder of the continued need for forensic accounting education than as a doomsday prediction (Seda & Kramer, 2008). Nonetheless, Seda and Kramer (2008) reported ever-increasing pressure from those employing accountants (predominantly the Big Four accounting firms and the FBI) on universities to implement forensic accounting courses and programs.

Meier, Kamath, and He (2010), having noted the demand and subsequent production of forensic accounting offerings in higher education, conducted a survey in

2009 of all 171 AACSB (Association to Advance Collegiate Schools of Business) certified schools. While a fair number offered various certification, specialization, or concentration programs within other degrees, only four out of the 171 schools offered degree programs for forensic accounting (Meier et al., 2010). Only 20 of the 171 schools were found to offer a course in forensic accounting, and only 27 of them a course in fraud examination (Meier et al., 2010). Only seven of the schools overlapped, offering both a course in forensic accounting and one in fraud examination (Meier et al., 2010). According to Meier et al. (2010), these offerings were not sufficient to meet the continued demand for forensic accounting education: indeed, despite the sharply increased demand for forensic accountants due to the fraud outbreak, Meier et al. (2010) indicated that the educational offerings had grown no faster than had already been anticipated in Rezaee and Burton's 1997, *before* the fraud outbreak.

Difficulties in Implementation

The sluggish growth of forensic accounting education programs naturally begs the question: if forensic accounting was such a stable and demanded career path, why were educational institutions not responding more quickly? Several answers exist in the literature. Though mentioned in the literature, a lack of curriculum will not be herein considered as a difficulty in implementation due to the previously-discussed completion of the model curriculum in 2005.

Lack of faculty. One of the biggest obstacles to the implementation of forensic accounting education was a lack of individuals both qualified and willing to teach forensic accounting. According to a 2009 survey of academicians in the forensic

accounting field, this was the most severe obstacle (Seda & Kramer, 2009). This issue was also identified in Young's (2008) report of FAU's forensic accounting program. According to Young (2008), there were two reasons why professors were leery of teaching forensic accounting: time and knowledge.

Time was considered a difficulty because the professors at FAU already had classes to teach. The responsibilities of assuming new courses in new subject areas discouraged many professors from accepting the role (Young, 2008). Knowledge was identified as an issue because, as discussed previously, the demand for forensic accounting education stemmed from a very real difference between traditional accounting and forensic accounting. Even as traditional accountants were found to be not prepared to perform forensic accounting, traditional accounting educators were not found to be prepared to teach forensic accounting (Fletcher et al., 2008; Young, 2008).

Lack of room in curriculum. Another major obstacle to the implementation of forensic accounting education was a general dearth of extra credit-hours in accounting programs (Seda & Kramer, 2009). Despite the 150 credit-hours required in order to sit for the CPA exam, there are already so many courses required for an accounting degree that integrating forensic accounting courses into undergraduate or even graduate accounting programs would necessitate the elimination of accounting classes considered core to the degree programs (Seda & Kramer, 2008). This issue was especially pressing in 2001, when courses on ethics and international standards were already slated for addition into accounting degree programs (Seda & Kramer, 2008).

Contemporary Forensic Accounting Education

Higher Education

Despite the obstacles to the growth of forensic accounting education in higher education, it continued to spread. Five years after Seda and Kramer's (2009) previous research, they completed another survey of forensic accounting educational offerings. In 2014, Seda and Kramer researched over a thousand schools across the world that offered accounting programs to determine the extent of forensic accounting education available. Specifically, the survey included 900 schools within the U.S., and 186 schools from other nations. Seda and Kramer (2014) found that 447 of the schools surveyed offered separate courses in forensic accounting, a significant increase from Meier et al.'s (2010) survey. Additionally, Seda and Kramer (2014) found that 187 of the 1086 schools surveyed offered specific forensic accounting undergraduate and graduate degrees, minors, tracks, concentrations, or specializations. According to Seda and Kramer (2014), this represented a "very strong and positive momentum" (p. 7) in the development of forensic accounting education.

Certifications

In addition to university degrees, there are many certifications available to forensic accountants today. Like the very functions of forensic accounting, many of these certifications are interrelated in scope but different in practice. Table 1 represents a list of such certifications compiled by G. Stevenson Smith, PhD, CPA, CMA, and Chair of Accounting at John Massey School of Business in a 2015 article.

Table 1 <i>Certifications Available to Forensic Accountants</i>	
Certification	Issuing Institution
Certified in Financial Forensics (CFF)	American Institute of Certified Public Accountants
Certified Forensic Accountant (Cr.FA)	American Board of Forensic Accounting
Certified Forensic Investigator (CFI)	Association of Certified Forensic Investigators of Canada
Certified Fraud Examiner (CFE)	Association of Certified Fraud Examiners
Certified Fraud Specialist (CFS)	Association of Certified Fraud Specialists
Certified Professional Forensic Accountant (CPFAcct)	Institute of Certified Forensic Accountants
Chartered Certified Forensic Accountant (CFFA)	Association of Chartered Certified Forensic Accountants
Forensic Certified Public Accountant (FCPA)	Forensic CPA Society
Master Analyst in Financial Forensics (MAFF)	National Association of Certified Valuation Analysts

Increasing Demand

Even after the immediate effects of the fraud outbreak had subsided, the market for forensic accountants is continuing to grow. According to Palmer (2017), the field is

still in its beginning stages of growth. Even as forensic accounting education expands, the need for it is expected to continue increasing as well. Seda and Kramer (2017) surveyed educators and practitioners in forensic accounting, the majority of which agreed the demand for forensic accounting professionals will continue to increase over the next five years. Until accounting education providers can match the demand for forensic accounting education, this disparity will continue to be a current issue.

Conclusion

While today there are many opportunities to learn about forensic accounting at a variety of schools, this was not always the case. The fraud outbreak at the beginning of the century turned the spotlight of the accounting education world onto this still-emerging field, transforming it from a novelty profession into one of the most demanded accounting fields of the century. As such, educational institutions have been working hard to implement forensic accounting programs and certifications into their existing offerings, resulting in explosive growth in the number and variety of forensic accounting education opportunities. Future expansion of accounting education offerings will be crucial as the field continues to develop and the demand for forensic accountants continues to grow.

References

- ACFE. (2016). About ACFE 2016. Retrieved from http://www.acfe.com/uploadedFiles/ACFE_Website/Content/documents/About%20ACFE%202016.pdf
- AICPA. (1951). Codification of statements on auditing procedure. Retrieved from <http://clio.lib.olemiss.edu/cdm/ref/collection/deloitte/id/11723>
- AICPA. (2018). Forensic accounting. Retrieved from <https://www.aicpa.org/interestareas/forensicandvaluation/resources/litigation.html>
- Albrecht, W. S., Albrecht, C., & Albrecht C. C. (2008). Current trends in fraud and its detection. *Information Security Journal: A Global Perspective*, 17(1), 2-12. doi: 10.1080/19393550801934331
- Crumbly, L. & Apostolou, N. (2002). Forensic accounting: A new growth area in accounting. *The Ohio CPA Journal*, 61(3), 16-20.
- Fletcher, L. B., Higgins, L. N., Mooney, J. L., & Buckhoff, T. A. (2008). Our school's campaign for distinction in forensic accounting. *Southern Business Review*, 33(1), 15-27.
- Fowler, E. M. (1991, July 16). Careers; 'Forensic accountants' in demand. *The New York Times*. Retrieved from <http://www.nytimes.com/1991/07/16/business/careers-forensic-accountants-in-demand.html>
- Gireux, G. (2008). What went wrong? Accounting fraud and lessons from the recent scandals. *Social Research*, 74(4), 1205-1238.

Grundfest, J. A., & Berueffy, M. (1989). The Treadway commission report: Two years

later. Retrieved from

<https://www.sec.gov/news/speech/1989/012689grundfest.pdf>

Houck, M. M., Kranacher, M., Morris, B., Riley, R. A., Robertson, J., & Wells, J. T.

(2006). Forensic accounting as an investigative tool: Developing a model

curriculum for fraud and forensic accounting. *The CPA Journal*, 76(8), 68-70.

Kranacher, M. (2006). The battle against fraud: Seeking the accounting profession's

support. *The CPA Journal*, 76(9). Retrieved from

<http://archives.cpajournal.com/printversions/cpaj/2006/906/p16.htm>

Kranacher, M., Morris, B. W., Pearson, T. A., & Riley, R. A. (2008). A model curriculum

for education in fraud and forensic accounting. *Issues in Accounting Education*,

23(4), 505-519.

Louwers, T. J., Blay, A. D., Sinason, D. H., Strawser, J. R., & Thibodeau, J. C. (2018).

Auditing and assurance services, (7th ed.). New York, NY: McGraw-Hill

Education.

Meier, H. H., Kamath, R. R., & He, Y. (2010). Courses on forensics and fraud

examination in the accounting curriculum. *Journal of Leadership, Accountability,*

and Ethics, 8(1), 1-8.

Melancon, B. C. (2002). A new accounting culture. *Journal of Accountancy*. Retrieved

from

<https://www.journalofaccountancy.com/issues/2002/oct/anewaccountingculture.ht>

ml

NCFRR. (1987). Report of the national commission on fraudulent financial reporting.

Retrieved from <https://www.coso.org/Documents/NCFRR.pdf>

Nisbett, A. V. & Sheikh, A. (2007). Accounting scandals: Does “rules vs. principles” matter? *Tennessee CPA Journal*,

Palmer, T. (2017). Forensic accounting services in the US. *IBISWorld Industry Report*.

Retrieved from

<http://clients1.ibisworld.com/reports/us/industry/industryoutlook.aspx?entid=4791>

Reilly, R. F. (1999). Expert witness procedures for accountings: Do’s and don’ts for success in the courtroom. *The CPA Journal*, 69(3), 24-28.

Rezaee, Z. (2004). Restoring public trust in the accounting profession by developing anti-fraud education, programs, and auditing. *Managerial Auditing Journal*, 19(1), 134-148. doi: 10.1108/02686900410509857

Rezaee, Z. & Burton, E. J., (1997). Forensic accounting education: Insights from academicians and certified fraud examiner practitioners. *Managerial Auditing Journal*, 12(9), 479-489.

Rezaee, Z., Landers, G. H., & Reinstein, A. (1992). Forensic accounting: Challenges and opportunities. *Ohio CPA Journal*, 51(5), 33-37.

Sacasas, R. (1998). The accountant as expert witness. *The National Public Accountant*, 33(10), 22-29.

Seda, M. & Kramer, B. (2008). The emergence of forensic accounting programs in higher education. *Management Accounting Quarterly*, 9(3), 15-23.

- Seda, M. & Kramer, B. (2009). State of forensic accounting tracks at the university undergraduate/graduate levels and the related need to change the educational model used in the accounting curriculum. *Journal of Forensic Studies in Accounting and Business*, 1(1), 23-50.
- Seda, M. & Kramer, B. (2014). An examination of the availability and composition of forensic accounting education in the United States and other countries. *Journal of Forensic & Investigative Accounting*, 6(1). Retrieved from http://web.nacva.com/JFIA/Issues/JFIA-2014-1_1.pdf
- Silverstone, H., Sheetz, M., Pedneault, S., & Rudewicz, F. (2012). *Forensic accounting and fraud investigation for non-experts*, (3rd ed.). Hoboken, NJ: John Wiley & Sons, Inc.
- Singleton, T. W., Singleton, A. J., & Bologna, G. J. (2010). Fraud auditing and forensic accounting. Retrieved from <https://ebookcentral-proquest-com.ezproxy.liberty.edu>
- Smith, G. S. (2015). The past, present, and future of forensic accounting. (2015). *The CPA Journal*, 85(3), 16-21.
- Spiceland, J. D., Sepe, J. F., Nelson, M. W., & Thomas, W. B. (2016). *Intermediate accounting*, 8th ed. New York, NY: McGraw-Hill Education.
- U.S. v. Arthur Young, 465 U.S. 805 (1984).
- Yallapragada, R. R., Roe, C. W., & Toma, A. G. (2012). Accounting fraud, and white-collar crimes in the United States. *Journal of Business Case Studies*, 8(2), 187-192.

Young, G. R. (2008). Forensic accounting and FAU: An executive graduate program.

Issues in Accounting Education, 23(4), 593-599.