



Characteristics and Skills of the Forensic Accountant

Charles Davis
Professor of Accounting
California State University
Sacramento

Ramona Farrell
Managing Partner
Ueltzen & Company, LLP
Sacramento, California

Suzanne Ogilby
Associate Dean and
Professor of Accounting
California State University
Sacramento

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Executive Summary

The marketplace requires the forensic accountant to possess a different skill set from the traditional accountant.

The authors surveyed attorneys, CPAs and academics and received responses from 126 attorneys, 603 CPAs and 50 accounting/auditing professors in June 2009 to better understand the current perceptions of what it means to be an effective forensic accountant. This white paper describes in detail the key findings from that research and identifies areas for further investigation and opportunities for forensic accounting training programs and instructional settings to strengthen the effectiveness of the forensic accountant.

There are essential traits and characteristics that forensic accountants should possess.

The survey found that 60% or more of the attorneys ranked being analytical, detailed-oriented and ethical as essential traits and characteristics. All three respondent groups agreed that being analytical was the most essential characteristic for the forensic accountant to possess. This finding suggests that, from a marketplace perspective, whether you are a traditional accountant or a forensic accountant, there are at least three traits and characteristics that are shared by and essential to both professions.

There are inconsistent perceptions of the forensic accountant's core skills.

Despite common traits and characteristics identified by all three respondent groups, only attorneys ranked effective oral communication as their top core skill for forensic accountants and that was followed by the forensic accountant's ability to simplify the information. Auditing skills were ranked fifth, in a top-five ("Top 5") ranking, by the attorneys, and ranked second by the academics but were not ranked in the Top 5 by the CPAs.

The reasons why forensic accountants are ineffective, from the attorney's perspective, are consistent with the identification of core skills.

More than 80% of the attorney respondents identified inability to simplify the information and ineffective oral communication skills as the top-two reasons why forensic accountants are ineffective, which is consistent with their Top 5 ranking of core skills for forensic accountants. The CPAs, on the other hand, identified inability to identify key issues and lack of investigative intuitiveness as the most common reasons for a forensic accountant's ineffectiveness.





It is important for a forensic accountant to possess a relevant credential.

All three respondent groups strongly agreed with this statement. With regard to specific credentials, it was interesting to note that, although a new credential through the AICPA, the CFF was recognized by all three respondent groups to hold relatively the same level of importance as the CFE.

There is some indication that a traditional classroom setting is still the preferred environment for providing an effective education for the forensic accountant.

There was strong agreement between the academic and CPA respondents that online educational programs, although more cost-effective, may not be the best environment for developing successful forensic accountants. When considering the notion of developing a successful forensic accountant and the importance of being an effective communicator from a marketplace perspective, then perhaps there is merit to providing training in a hybrid setting that requires face-to-face interactions.

Introduction

Before the latest economic downturn, the accounting profession had already undergone radical changes as a result of the Enron and WorldCom debacles, as well as other accounting scandals. With the spotlight on the accounting profession, a new market with a new breed of accountants — forensic accountants — has emerged.

With the current economic downturn, we have seen an increased demand for forensic accounting services as the public deals with financial collapses, increased white collar crime and growing occurrences of occupational fraud. The Association of Certified Fraud Examiners (ACFE) estimates that occupational fraud losses cost organizations \$994 billion annually.¹

As the American Institute of Certified Public Accountants (AICPA) recently learned, forensic accounting is in high demand. When the AICPA formed a committee to develop its Certified in Financial Forensics (CFF) certification program in June 2008, the goal of the committee was to award 900 credentials by the end of year one. That goal was quickly realized and surpassed. By the end of September 2009, the AICPA had awarded more than 3,500 CFF certifications², which is more than four times the number of certifications projected.

¹ ACFE 2008 *Report to the Nation*

² AICPA CFF Credential Committee

Being an effective accountant does not necessarily translate into being an effective forensic accountant. Being an effective forensic accountant requires the professional to possess a broad spectrum of skills and knowledge. In 2006, Bruce Dubinsky, a partner and director of forensic accounting and dispute analysis at the Bethesda, Maryland firm of Dubinsky & Company, PC, emphasized that:

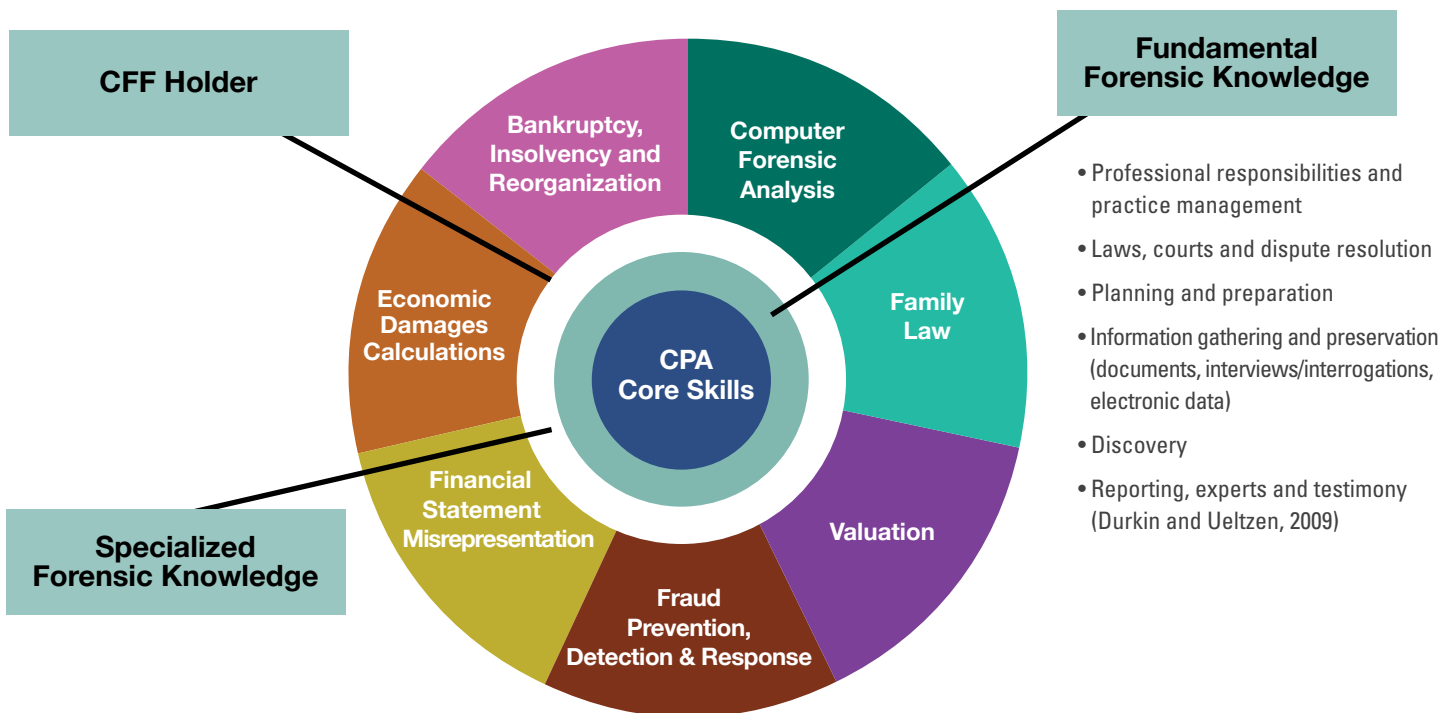
Although forensic accounting is currently on the “hot” list of client services, there are plenty of accountants getting involved who shouldn’t be because they don’t understand the ins and outs of the niche...Many accountants think it is simply fraud investigation, and it’s not. It is really much more than dealing with the numbers. It’s no longer just basic fraud work.³

The AICPA has recognized forensic accounting services to generally involve:

- The application of specialized knowledge and investigative skills possessed by CPAs
- Collecting, analyzing and evaluating evidential matter
- Interpreting and communicating findings in the courtroom, boardroom or other legal/administrative venue (Durkin and Ueltzen, 2009)

Based on the AICPA’s understanding, there are certain skills and characteristics that a forensic accountant should possess that include analytical characteristics, and investigative and communication skills. The AICPA’s CFF Core Focus Wheel demonstrates the various areas of specialized forensic knowledge available to the forensic accountant.

Focus of the CFF



³ Kahan, S. (2006). "Sherlock Holmes enters accounting: Dramatic increase in fraud brings more CPA sleuths into the industry." *Accounting Today*, 20(8), 1, 32-33.

Fundamental forensic knowledge includes:

- Professional responsibilities and practice management
- Laws, courts and dispute resolution
- Planning and preparation
- Information gathering and preservation (documents, interviews/interrogations, electronic data)
- Discovery
- Reporting, experts and testimony (Durkin and Ueltzen, 2009)

As can be seen in the chart, foundational to the forensic accountant's fundamental forensic knowledge and specialized forensic knowledge are the "CPA Core Skills." From a traditional accounting perspective, these core skills include education, training and experience with generally accepted accounting principles (GAAP) and its application, attest services, tax, general knowledge of business law and ethics for CPAs. From a forensic accounting perspective there may be a different set of core skills required.

Through research and conducting a web-based survey, we set out to learn more about the core skills that a forensic accountant should possess and how those skills translate into a CPA being an effective forensic accountant. Relevant to the forensic accountant and forensic accounting as a niche practice area, some of the areas explored were:

- Traits and characteristics
- Core skills
- Enhanced skills
- Specialties needed and certifications
- Areas for improvement

Specifically, the researchers investigated the perception of professionals in the field, and those associated with forensic accountants, about the knowledge and skills forensic accountants should possess and currently possess to provide high-quality services. We solicited responses from attorneys, generally the consumers of forensic accounting services, to provide a benchmark for identifying the skills and characteristics needed for the professional who is going to provide forensic accounting services. Accounting educators were also surveyed as providers of the potential supply of entry-level accountants destined for the forensic accounting field. We asked all of the respondents to identify, from their perspective, the Top 5:

- Essential traits and characteristics for a forensic accountant
- Core skills that a forensic accountant needs to possess
- Most relevant enhanced skills that a forensic accountant should possess
- Most frequent reasons why forensic accountants are ineffective



From the responses provided by the attorneys, CPAs who provide forensic accounting services, and professors of accountancy, there appears to be a wide gap between the understanding of the skills and knowledge needed, and the ability to transfer those skills in the practice of forensic accounting. As more professionals enter the niche practice area of forensic accounting and universities develop curriculum to address this growing demand, it is imperative that there be a better understanding of perceptions and expectations with regard to this new breed of accountant — the forensic accountant.

Literature Review

The body of forensic accounting literature that has emerged since the 1990s has mirrored the changing scope of concerns about this topic. A number of articles focused on the increasing demand for accountants to conduct forensic accounting activities and on the broadening definition of forensic accounting away from a narrow fraud detection definition (Cohen, Crain, & Sanders, 1996; Baron, 2006; Wells, 2003; Rezaee, Crumbley, & Elmore, 2006).

The educational literature focused on descriptive studies of university offerings. Some universities integrated fraud or forensic accounting throughout the accounting curriculum while others offered individual fraud or forensic accounting courses and/or entire fraud accounting programs (Buckhoff & Schrader, 2000; Peterson & Reider, 2001; Rezaee, Crumbley, & Elmore, 2004; Seda & Kramer, 2008). Specific recommendations for model curriculums were developed (National Institute of Justice, 2005) as well as identification of the characteristics of developmental approaches for curriculum (Smith and Crumbley, 2009).

Concurrently, researchers began to question what the important specialized skills and technical abilities of forensic accountants are (Cohen, Crain, & Sanders, 1996; Harris & Brown, 2000; Messmer 2004, Ramaswamy, 2005), and experience levels (Grippio & Ibex, 2003). DeGabriele (2008) extended these studies by surveying accounting academics, forensic accounting practitioners and users of forensic accounting services to further define the relevant skills of forensic accountants. DeGabriele identified nine competencies for the three major stakeholder groups and had the participants rate their agreement/disagreement with the importance of those competencies. DeGabriele was able to group the competencies into those related to knowledge and ability and those related to performance.⁴ DeGabriele's results suggest that the three major stakeholder groups differ on all of the knowledge and ability items but agree on all of the performance items. His results also suggest that academics and practitioners have more agreement over the important forensic accountant skills than the users of forensic accounting services.

The AICPA recognizes the demand for forensic accountants who have the appropriate professional knowledge base and have developed a Certified Financial Forensics (CFF) designation and educational program. This certification is predicated on the current Certified Public Accountant (CPA) designation as the starting point for the new CFF designation and is designed to incorporate the broad scope of forensic accounting services as illustrated in the AICPA's CFF Core Focus Wheel.

⁴ "The knowledge and abilities component relates to whether an individual has the background knowledge and thinking skills to be effective, whereas the performance component relates to the individual's ability to turn this knowledge and ability into an effective presentation." p 337

The present study contributes to the forensic accounting skills literature in four ways. The present study: (1) makes a distinction between characteristics and skills, (2) has a larger sample size that enhances the ability to generalize the results, (3) complements the educational model the AICPA has developed for the CFF designation in that we survey respondents about the perceived importance of core skills and enhanced skills and experience, and (4) offers additional feedback regarding the approach to educating future forensic accountants.

Methodology

To address our research questions, we surveyed three groups of individuals: (1) CPAs who are primarily working as forensic accountants, (2) attorneys who employ the services of forensic accountants, and (3) academics in the field — accounting professors. The population of CPA respondents was developed with the help of the AICPA. The survey project was announced on the AICPA website and an email was sent to each member in the organization's Forensic and Valuation Services Section. The population of attorney respondents was developed with the help of members of the Bar, including the American Bar Association. The population of academic respondents was developed with the help of the American Accounting Association (AAA) through contact with the members of its Forensic and Investigative Accounting Section.

By requesting the views of both forensic accountants and those who employ them, we have attempted to derive viewpoints from providers and users in the field. Academics were chosen because they are involved in developing the curricula of auditing and forensic accounting. This research addressed relevant academic issues and, as such, the educational respondent group played an important role in developing our results.

We used an online survey program that maintained the entire database of responses for later analysis. The questionnaire was administered during Summer 2009. Figure 1 provides the number of respondents by group in our sample of 779 respondents.

Primary Profession — 779 Survey Respondents

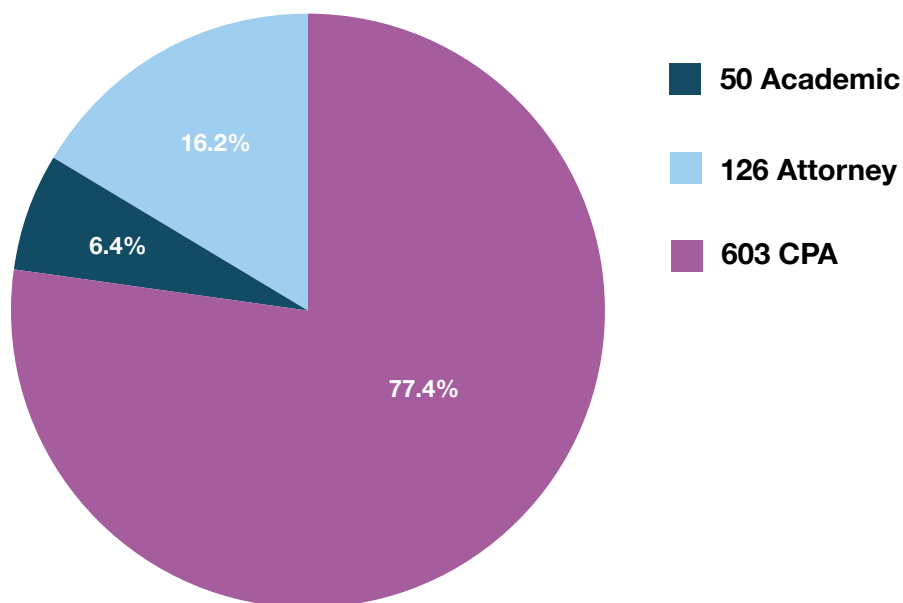


Figure 1



Response Rate

The three groups, attorneys, academics and CPAs, were given the same questionnaire, although the three groups received slightly different subsets of the questions. The size of the available population for each group was different. The response rates were computed as the quotient of the number of questionnaires answered to the number of email requests opened by members from each group. The response rates by group are: attorneys (15.44%), academics (34.24%) and CPAs (45.86%).

The questionnaire is reproduced in the appendix.

Results and Discussion

The discussion of the survey results is divided into eight sections:

1. Demographics
2. Areas of specialty for a forensic accountant
3. Traits, characteristics and skills of forensic accountants
4. Credentials for forensic accountants
5. Protocols and abilities of forensic accountants
6. Need for additional specialization and breadth
7. Effectiveness of forensic accountants
8. Forensic accounting educational issues

1. Demographics

Overall, the sample of respondents for this study is primarily male (except academics, which are almost evenly split), well educated with a significant proportion holding advanced degrees, highly experienced (for those in practice) and hold at least one license or certification. Most of the attorneys and CPAs have been in practice more than 15 years.

Given its recent inception, the CFF is well represented with 73% of the CPA respondents possessing the certification. Almost the entire sample of attorneys and CPAs is involved with forensic accounting, with a surprisingly high percentage of academics as well. The appendix provides the full demographic statistics for the sample.

Areas of Specialty Needed

	Attorney		Academic		CPA (Have)	
	Rank	%	Rank	%	Rank	%
Financial Statement misrepresentations	1	89.7	1	92.0	4	41.1
Economic damages calculations	2	88.9	3	80.0	2	58.8
Fraud prevention, detection and response	3	86.3	1	92.0	1	58.9
Valuation	4	79.5	4	76.0	3	57.0
Bankruptcy, insolvency and reorganization	5	71.8	5	72.0	6	22.5
Family law	6	59.8	6	54.0	5	35.2
Computer forensic analysis	7	53.0	2	86.0	7	7.6

Figure 2

2. Areas of Specialty for a Forensic Accountant

Using the AICPA-identified areas of specialty, as demonstrated in the AICPA's CFF Core Focus Wheel, attorneys and academics were asked to rank the areas of specialty appropriate for a forensic accountant. What are the specialty areas most appropriate for forensic accountants and in which areas are they working? CPAs were asked a similar question — what are your areas of specialty? Both questions provided the same answer alternatives. Figure 2 provides the results.

The “areas of specialty needed” choices in Figure 2 are ordered using the attorney group’s ranking as the benchmark for easier comparison across groups. The rankings across the three groups are more similar than they are different, indicating a fairly high degree of agreement about the specialty areas forensic accountants should be, and are, involved in.

Engagements involving financial statement misrepresentations and fraud prevention were ranked first by the attorneys and the academics. However, the academics equally ranked the fraud prevention and detection responses first in agreement with the first ranking of the CPAs. Economic damages work was ranked second by the attorney and CPA groups. The academics ranked computer forensic analysis second, while the attorneys and CPAs ranked this specialty area last.

For the sample of respondents, attorneys are utilizing forensic accountants most frequently in cases involving financial statements, economic damages and fraud. CPAs who are forensic accountants also are frequently involved in these same types of engagements, with valuation work engaged in somewhat more frequently than financial statement misrepresentations.



The ranking for the identified specialty areas may be influenced by the respondent's area of specialty. For example, if a significant number of attorneys provide services in defense of CPAs for tax or accountancy malpractice, then it would be expected that financial statement misrepresentations would receive greater emphasis by the attorney respondents. Similarly, if a significant number of attorney respondents do not specialize in family law, then it would be expected that the family law specialty area would receive a lower ranking.

In absolute terms, more than 50% of attorney and academic respondents specified all specialty areas as appropriate for forensic accounting engagements. However, the percentages overall were much lower for the CPA respondents, reflecting their own specialties. The similarity of rankings across the three groups reflects an agreement between the perceived frequency of specialty engagement, and what is actually occurring in practice. Although there is overlap inherent in the choices provided, the list of specialty areas for forensic accounting was developed from the literature and appears to be reasonably representative.

"None of the above" also was a choice; the responses were 10%, 14% and 3%, respectively, for attorneys, academics and CPAs. The choice of "none of the above" by respondents may reflect the continuing debate about what constitutes forensic accounting and its relationship to fraud detection.⁵ Perhaps the most general of definitions is that forensic accounting is accounting analysis that can be used in a court of law.⁶ However, the majority of our respondents appear to be comfortable with a more inclusive definition of forensic accounting.

The significantly lower ranking for the computer forensic analysis specialty area by the CPA respondents may reflect the relative "newness" of the need for this kind of expertise in the forensic accounting field. CPAs in practice often partner with others proficient in technology.⁷ The AICPA does offer specialized technology credentials such as the Certified Information Technology Professional (CITP). The higher response rates by those who demand forensic accounting services versus those who supply those services may indicate a strategic niche for future practice development.⁸ Additionally, educators are increasingly calling for the incorporation of technology into the forensic accounting curricula (Houck, et al., 2006).

⁵ See How Divergent Are Pedagogical Views Toward The Fraud/Forensic Accounting Curriculum?, G. Smith, D. Crumpley, *Global Perspectives on Accounting Education*, v. 6, 2009.

⁶ See Forensic Accounting Gaining In Numbers, R. McGaw, *Denver Business Journal*, August 25, 2006.

⁷ See Strategies for Forming an Effective Forensic Accounting Team, K. Pope, B. Ong, *The CPA Journal*, April 1, 2007.

⁸ The increased reliance on computerized systems has made fraud easier. See Forensic Accounting Gaining in Numbers, *Denver Business Journal*, August 25, 2006.



3. Traits, Characteristics and Skills of Forensic Accountants

The questionnaire was designed to elicit from practitioners, educators and consumers of forensic accounting services their perceptions of the characteristics and skills important to success or level of effectiveness in the forensic accounting field. The education and training of forensic accountants is affected by an understanding of the underlying essential traits, characteristics and core skills appropriate or necessary for the field. The perceived relevant enhanced skills also affect the education and training for forensic accountants as they choose an area of specialization. The questionnaire addressed these issues in three questions, all of which were answered by the three groups of respondents.

The list of choices provided by these three questions was developed through a review of the relevant academic and professional literature, consultation with the AICPA's CFF Credential Committee consisting of forensic accountant practitioners and in conjunction with the professional experience of the authors. Forensic credentialing programs provided additional information. The choices for each question were limited in number to maintain a reasonable questionnaire length. The small percentage of responses for "other (please specify)" attests to the comprehensiveness of choices provided for these three questions.

The respondents were asked to choose the Top 5 items for each question from a larger number of attributes. For example, the first of the three questions was: "Please identify the five essential traits and characteristics for a forensic accountant." Figures 3, 4 and 5 present the results for the three questions by group. Again, each set of results is ordered by the attorney group ranking from 1 (highest) to 5 to facilitate intergroup comparisons.

In Figure 3, the 78% value for "Analytical" under "Attorney" means that 78% of the attorney respondents ranked "Analytical" as one of the Top 5 essential traits and characteristics. Respondents did not rank the traits and characteristics 1 – 5, but rather chose five of the essential traits and characteristics without ranking within that Top 5. The rank of "1" reflects that more attorneys chose "Analytical" in their Top 5 than any other trait or characteristic.

Perhaps the most striking finding in the traits and characteristics results is the highest frequency of choosing "Analytical" for all three groups in the Top 5 with the "Detail-oriented" choice close behind for attorneys and CPAs. Complementing the analytical characteristic is the "Inquisitive" trait and the "Persistent" trait. These highly ranked traits suggest the need for the forensic accountant to seek out all relevant information for an engagement, as well as be able to process it and solve the problem at hand.

The need to be analytical in a forensic accounting engagement may be the initial and most important overall characteristic, without which other traits and abilities would be difficult to develop. The importance of analytical traits and abilities is supported by earlier studies as well. For example, DiGabriele (2008) found that deductive analysis and

Essential Traits and Characteristics

	Attorney	Rank	Academic	Rank	CPA	Rank
Analytical	78%	1	90%	1	86%	1
Detail-oriented	64%	2	35%		49%	3
Ethical	60%	3	65%	2	49%	3
Responsive	41%	4	2%		10%	
Insightful	39%	5	29%		24%	
Inquisitive	22%		48%	4	52%	2
Intuitive	26%		40%		38%	5
Persistent	19%		46%	5	30%	
Skepticism	12%		54%	3	43%	4
Evaluative	30%		15%		16%	
Function well under pressure	28%		23%		35%	
Generate new ideas and scenarios	27%		10%		16%	
Confident	24%		10%		20%	
Makes people feel at ease	13%		17%		9%	
Team player	10%		4%		5%	
Adaptive	8%		13%		20%	
Other (please specify)	8%		2%		6%	

Figure 3

analytical proficiency were important attributes for the forensic accountant. Prior to that study, Messmer (2004) proposed that analytical abilities are important in the practice of forensic accounting. In sum, these results provide additional weight to the assertion that analytical characteristics are critical to the forensic accountant's ability to provide value-added services in engagements calling for more than simply auditing skills and problem-solving abilities.

After analytical or problem-solving traits, "softer" or more interpretive and interpersonal traits were ranked next highest. For example, the "Intuitive" trait was ranked in the Top 5 only by CPAs, at rank "5." CPAs also chose the "Inquisitive" and "Skepticism" traits that support "Intuitive," second and fourth highest overall, respectively. In addition, "Ethical," was ranked third by those in the field, with academics ranking it second. The high ranking of "Ethical" is consistent with the mission of the forensic accountant. Also, "Responsive" and "Skepticism" were chosen frequently. This second tier of interpretive traits may build on the more analytical and individual skills that form the basis for the ability of the forensic accountant to provide value-added services.

A developing belief is that intuition springs from specific knowledge and abilities gained through experience. Intuition and judgment may reflect knowledge or habit.⁹ With increased experience and knowledge, the forensic accountant may also be improving intuition, which has been described as logical analysis already programmed into our minds from our experience and learning.¹⁰ When the attorney respondents ranked "Insightful" as fifth in their Top 5 essential

⁹ See A. Hayashi, When To Trust Your Gut, *Harvard Business Review*, February 2001, and D. Stauffer, Your Managerial Intuition: How Much Should You Trust It? Can You Improve It?, *Harvard Management Update*, June 1997.

¹⁰ This emphasis on experience could have implications for the education and training of entry-level accountants versus the education and training of forensic accountants developing enhanced skills and specializations.

traits and characteristics, they may have seen insightfulness as the result of this intuitive logical analysis.

Less frequently chosen traits include “Team player,” “Adaptive,” “Making people feel at ease,” “Confident” and “Generate new ideas and scenarios.” These traits and characteristics are primarily people/interpersonal skills. The perception of the forensic accountant appears to be one who is similar to a detective focused on the problem at hand. Interpersonal skills may be important, but the orientation toward problem solving appears to be more important to the success or effectiveness of the forensic accountant. However, the forced choice of only five core skills could have affected the rankings. An extended study that separates out the ranking of more technical versus people/interpersonal skills could be useful.

Figure 4 presents the “Core Skills” results. Overall, what they indicate is that communication skills are key to the effectiveness of the forensic accountant and should be emphasized. Compared with the essential traits and characteristics results, there was less agreement across the three groups of respondents on core skills. Attorneys chose “Effective oral communicator” most frequently on average, reflecting the need to effectively represent verbally a position in a court of law.¹¹ CPAs concurred by choosing it third most frequently in the Top 5 and “Effective written communicator” second, perhaps indicating the importance of preparing internal reports and documentation for review by colleagues, or the submission of a written report to the court. Similarly, the ability to simplify the information (ranked second most important by attorneys) becomes more critical when

Core Skills

	Attorney	Rank	Academic	Rank	CPA	Rank
Effective oral communicator	61%	1	28%		43%	3
Simplify the information	57%	2	11%		30%	
Critical/strategic thinker	49%	3	62%	1	50%	1
Identify key issues	38%	4	30%		32%	
Auditing skills	37%	5	53%	2	31%	
Investigative ability	37%	5	45%	3	41%	4
Effective written communicator	21%		34%		43%	2
Investigative intuitiveness	24%		36%		39%	5
Synthesize results of discovery and analysis	37%		43%	4	36%	
Think like the wrongdoer	4%		38%	5	14%	
Understand the goals of a case	33%		9%		19%	
Tell the story	30%		9%		16%	
See the big picture	30%		21%		30%	
Organize an unstructured situation	28%		32%		34%	
Solve unstructured problems	7%		30%		31%	
Research skills	6%		21%		10%	
Solve structured problems	2%		0%		2%	
Other (please specify)	0%		2%		2%	

Figure 4

¹¹ See Skills Used in Litigation Services, M. Cohen, M. Crain, A. Sanders, *Journal of Accountancy*, v. 182, issue 3, 1996, p. 101.



giving oral testimony before a jury or providing demonstrative evidence in a court of law.

Academics and CPAs chose “Critical/strategic thinker” most frequently in the Top 5 core skills. This is consistent with the high frequency of choosing the analytical trait. Interestingly, academics chose “Auditing skills” second most frequently whereas this skill did not make it into the Top 5 for CPAs, most of whom have such skills. Attorneys rated “Auditing skills” along with “Investigative ability” fifth most frequently in the Top 5 core skills. Closely related to the analytical trait is “Synthesize results of discovery and analysis,” in fourth place for academics. Similarly, “Organize an unstructured situation” was fairly high-ranked by all three groups of respondents.

In terms of quite different skills, CPAs again were the only respondents rating intuition (“Investigative intuitiveness”) in the Top 5. CPAs apparently see the value of both analytical abilities, and the much more vague ability to develop productive hunches based on information as filtered through their experience. Academics rated “Investigative intuitiveness” sixth most frequently. While the attorneys did not rank investigative intuitiveness in their Top 5, they did acknowledge the importance of the forensic accountant skills to include an investigative nature by ranking “Investigative ability” in the Top 5 core skills. This response may also coincide with the attorney response to the essential traits and characteristics in that “Insightful” is one of the Top 5 essential traits and characteristics that a forensic accountant should possess.

Those core skills in the middle of the overall ranking, such as “Think like the wrongdoer,” “Understand the goals of the case,” “Tell the story” and “See the big picture” are core skills one would initially believe to be important in forensic accounting, but their specific wording may have caused the somewhat lower ranking (although academics did rate “think like the wrongdoer” fifth). More generalized skills appear to be favored by the respondent groups. Being an effective oral communicator and having the ability to simplify the information are core skills that, if possessed, would enable the forensic accountant to do some of these more specific skills such as “Tell the story” and “Synthesize results.”

The core skills rated less frequently include “Solve unstructured problems” and “Solve structured problems,” both of which reflect analytical skills. The respondents lower rating for “Solve unstructured problems” is at odds with the DiGabriele (2008) study, which found a higher rating for that skill by surveyed practitioners and academics. Respondents to our survey may have been distinguishing between traits and skills whereas the prior study did not attempt to make this distinction. This finding, together with the top ranking for “Critical/strategic thinker” for both academics and CPAs (ranking of third for attorneys), implies that a higher level pattern of planning and evaluating complex forensic accounting situations is required — beyond that of purely analytical abilities.

The “Enhanced Skills” question provided a very specific set of choices for the respondents. The choices are specific to the type of engagement and, as such, are similar to some of the area of specialty choices discussed previously.

Enhanced Skills

	Attorney	Rank	Academic	Rank	CPA	Rank
Analyze and interpret financial statements and information	91%	1	64%	3	79%	1
Testifying	74%	2	30%		49%	4
Knowledge of relevant professional standards	70%	3	36%	5	38%	
Audit evidence	53%	4	34%		26%	
Fraud detection	53%	4	79%	1	56%	3
Asset tracing	35%	5	28%		36%	
Electronic discovery	19%		43%	4	18%	
General knowledge of rules of evidence and civil procedure	28%		43%	4	49%	5
Interviewing skills	13%		70%	2	63%	2
Possess specialized technical skills	30%		23%		42%	
Internal controls	26%		32%		25%	
Conflict negotiation and resolution	9%		9%		17%	
Knowledge of law enforcement	1%		11%		3%	
Other (please specify)	1%		0%		3%	

Figure 5

As indicated by the small percentage of respondents answering “Other (please specify),” the skills listed represent a substantial portion of the specific skills currently being requested by those engaging forensic accountants.

As reported in Figure 5, attorneys and CPAs agreed on “Analyze and interpret financial statements and information” as the most important enhanced skill. Their agreement is consistent with the fact that the attorneys in the sample hire forensic accountants with great frequency. The high ranking for this enhanced skill may also reflect the current dominance of this specific type of engagement. The frequency for attorneys was 91%, the highest percentage by a large margin— nearly all attorneys chose this enhanced skill in the Top 5. Similarly, this result is consistent with the attorney respondents’ top ranking for “Financial statement misrepresentations” in the earlier question on area of specialty. Academics and CPAs ranked that specialty area “1” and “4,” respectively, compared with the “3” and “1” ranking, respectively, for the “Analyze and interpret financial statements and information” enhanced skill. However, CPAs were somewhat inconsistent in their ranking of fraud detection for the two questions (enhanced skill, 3; specialty area, 1).

The second most highly chosen enhanced skill for attorneys is “Testifying,” whereas for academics and CPAs their second choice was “Interviewing skills.” There is a similarity among these skills, both of which involve oral communication and thinking on one’s feet. Interviewing is more highly ranked than “Fraud detection,” and “Knowledge of relevant professional standards,” which suggests the importance of interviewing as a means of obtaining pertinent information for a case. The image of the forensic accountant as a detective again is suggested by this finding. Complementing CPAs’ choice of “Interviewing skills” as second is their choice of “Testifying” as fourth. If attorneys generally conduct their own interviews, then it is not surprising that



“Interviewing skills” did not rank in attorney respondents’ Top 5 enhanced skills. Attorneys would not perceive interviewing skills as necessary for the forensic accountant to be effective. The need for a forensic accountant to conduct or participate in an interview may be dependent upon the engagement. The fact that “Testifying” was ranked so highly by the attorneys reinforces their perception that being an effective oral communicator and possessing the ability to simplify the information are core skills that speak to the effectiveness of the forensic accountant.

“Knowledge of relevant professional standards” was rated in the Top 5 enhanced skills with the third highest frequency for attorneys, a result consistent with attorneys’ top choice. This enhanced skill was ranked fifth for academics but did not make the Top 5 for CPAs who ranked “Analyze and interpret financial statements and information” first. Again, the response by the attorneys could be directly related to services performed, i.e., defense of CPAs in tax malpractice or accountancy malpractice engagements. CPAs may be assuming that knowledge of professional standards is an underlying prerequisite to the analysis and interpretation of financial statements and that the real task is applying that knowledge. This assumption is consistent with the AICPA’s requirement that the CPA designation is a necessary component to the CFF designation. In addition, only attorneys chose “Audit evidence” as one of the Top 5 enhanced skills, tied with auditing at rank “4” and only 26% of CPAs chose “Audit evidence” in the Top 5. This may indicate that auditing skills provide useful experience for a forensic accountant, but much more is needed for success in the field.¹²

Fraud detection, considered by many to be one of the most important aspects of forensic accounting, made the Top 5 for each group with attorneys at rank “4,” academics at rank “1” and CPAs at rank “3.” This finding places fraud detection among the more important activities in the forensic accounting field. The ratings were only slightly below those for the previous question about specialty areas (ratings of 3 for attorneys and 1 for academics and CPAs). Academics were completely consistent about their view that fraud detection is the most critical enhanced skill and activity in forensic accounting. These results may also indicate that academics view the field of forensic accounting through a narrower lens or think “forensic accounting” is fraud detection rather than through a wider lens that sees the breadth of specialized forensic accounting services available.

Rounding out the Top 5 ranked enhanced skills for attorneys is “Asset tracing.” Essentially the same percentage of CPAs also chose this enhanced skill as one of the Top 5. Also for CPAs, their fifth most frequent pick was “General

¹² The degree to which auditing skills are needed for forensic accounting has frequently appeared in the literature as an issue. See Strategies for Forming an Effective Forensic Accounting Team, K. Pope, B. Ong, *The CPA Journal*, April 1, 2007. Others decry the deficiencies of auditing as training for forensic accountants. For example, Seda states that courses in financial accounting and auditing do not provide the type of training required to deter fraud (M. Seda, B. Kramer, The Emergence of Forensic Accounting Programs in Higher Education, *Management Accounting Quarterly*, March 2008.)

knowledge of rules of evidence and civil procedure,” indicating their increasing service in legal proceedings as it involves accounting. This reflects one of the more general views or definitions of forensic accounting.

The enhanced skills chosen with much less frequency in the Top 5 include “Possess specialized technical skills,” “Internal controls,” “Conflict negotiation and resolution,” and “Knowledge of law enforcement.” The low percentage for “Internal controls” is consistent with the low ranking for “Audit evidence” except for attorneys. These findings suggest that forensic accounting is very much an interdisciplinary profession favoring those with strong general skills. However, specific skills may supplement this general ability to perform forensic accounting engagements.¹³

“Electronic discovery” again was rated fairly low, although it occupied the fourth rank for academics. Academics also ranked as second the specialty area of “Computer forensic analysis” in a previous question.¹⁴ Consistent with the academic respondents’ ranking, we believe that forensic accounting will evolve ever more toward computerized information systems because most business data is created and processed electronically with most of it never being printed (Kahan, 2006). The Rules of Evidence in courts of law have been broadened to encompass electronic discovery as a means of responding to requests in the discovery process. Forensic accountants will need to specialize more and work in larger teams if the field is to become a major force in tackling computer-based crime.

In sum, over the three questions addressing essential traits and characteristics, core skills and enhanced skills, respondents chose more generalized traits and skills more frequently in the Top 5, with analytical aspects being considered somewhat more important to the more integrative aspects such as ethics and intuition, although the latter were also rated relatively high.

4. Credentials for Forensic Accountants

The questionnaire included two questions concerning credentialing for forensic accountants. The first question was concerned with general perceptions. Respondents were asked to use a 1 – 5 rating scale (Strongly Agree = 1, Agree, Neutral, Disagree, Strongly Disagree = 5). Figure 6 provides the results.

On average, each group of respondents strongly supported the notion that a credential is a positive attribute for forensic accountants. CPAs were slightly less inclined to favor a credential although the differences do not

An effective forensic accountant should possess a relevant credential:

Average Rating: 1 = strongly agree			
	Attorneys	Academics	CPAs
	1.49	1.38	1.54

Figure 6

¹³ One suggested pathway to success in forensic accounting is two years of audit experience plus several years of experience working for a law enforcement agency, plus a forensic accounting certification (J. Wells, The Fraud Examiners: Sleuthing Careers Bring CPAs Personal and Professional Satisfaction, *Journal of Accountancy*, v. 196, issue 4, 2003.)
¹⁴ Many frauds and other intentional deceptions involve computerized systems (G. Smith, Computer Forensics: Helping to Achieve the Auditor's Fraud Mission?, *Journal of Forensic Accounting*, v. 6, p. 119 - 134).

The following credentials are important to the forensic accountant:

Average Rating: 1 = strongly agree			
	Attorneys	Academics	CPAs
CFF	2.00	2.00	2.22
CFE	2.14	1.51	2.00
ABV	2.25	2.49	2.63

Figure 7

appear to be significant. Some of the CPAs may consider the CPA license sufficient. Attorneys may feel that the courtroom credibility of the forensic accountants they hire is enhanced by a relevant credential.

The high ratings across the three groups agree with other surveys reporting a strong preference for holding a credential. For example, the AICPA surveyed law firms and found that approximately 75% of respondents expected a forensic accountant to hold a specialized credential (Regan and Ebersbacher, 2008). The strongly stated preference for a relevant credential is consistent with the respondents' demographic results. Almost all attorneys hold a license to practice, 80% of academics are CPAs (although many are not in practice), and almost all in the CPA group hold the CPA license. Of the CPA group (the forensic accountants in our sample), 73% hold the CFF Credential, 40% hold the CFE Credential and 36% hold the ABV Credential. Except for the CFF for the CPA group, considerably less than 50% of all respondents possessed a relevant credential.

The second question was concerned with specific credentials. Respondents were asked to use the same 1 – 5 rating scale (Strongly Agree = 1, Agree, Neutral, Disagree, Strongly Disagree = 5). Figure 7 provides the results.

The attorney respondents had a slight preference for the CFF Credential; CPA and academic respondents placed more emphasis on the CFE Credential for forensic accountants. Since the CFF is a very new credential having been approved in May 2008, it may be too early for CPAs to judge its importance, even though 73% of them hold that certification. The response by the attorneys for the CFF may be directly related to their knowledge of and level of respect for the AICPA and its credential programs. The lower rating for the ABV (Accredited in Business Valuation) may be attributed to its more specific focus, rather than forensic accounting in general.

5. Protocols and Abilities of Forensic Accountants

Previous sections of this survey research focused on specific characteristics, skills and specialty areas of forensic accountants. This section considers forensic accountants' activities and abilities more broadly in an effort to clarify the "big picture" view of the field. In this regard, four questions were posed in the questionnaire.

In an introduction to an issue of the *Journal of Forensic Accounting*, the Editor-in-Chief D. Larry Crumbley discusses the "evidentiary nature of accounting data" and posits three procedural protocols of forensic accounting as a way of dividing its purview into broadly general categories: (1) discovery, (2) analysis, and (3) communication.¹⁵ Discovery refers to the identification of relevant key issues and information in a forensic accounting engagement. Analysis

¹⁵ www.rtedwards.com/journals/JFA/evidentiary.html

Importance of three protocols of forensic accounting:

Most Important = 1; Important = 2; Least Important = 3			
	Attorneys	Academics	CPAs
Discovery	2.38	1.74	2.27
Analysis	1.44	1.60	1.72
Communication	2.18	2.66	2.01

Figure 8

refers to the interpretation of the discovery results, and communication refers to the presentation of the information orally and in written form. The first question in this section asked respondents to rank these three protocols in order of importance. We asked that there be no ties. Figure 8 shows the results across the three groups.

Consistent with the essential traits and characteristics findings, respondents in each group rated the analysis protocol as most important. Even though “Discovery” precedes “Analysis” in a forensic accounting engagement, the apparent ability of the forensic accountant to incorporate the information toward a solution is most critical. The groups diverge somewhat in their ranking of importance for “Discovery” and “Communication.” Attorneys and CPAs, who work together on forensic engagements, both ranked the communication protocol ahead of the discovery protocol. The ability of the forensic accountant to effectively communicate with the attorney and effectively convey findings or opinions in a court of law is critical for attorneys, as well as for their expert witness CPAs. These results stress the importance of the forensic accountants’ ability to be an effective oral communicator and simplify the information from the perception of the attorney respondents. Academics provided the opposite ranking placing the discovery protocol well ahead of the communication protocol. The results for the latter two protocols are consistent with the importance placed on the core skill “Effective oral communicator” previously discussed. There, only attorneys and CPAs rated this core skill in the Top 5 on average. Academics again placed less emphasis on “Communication” relative to other skills or aspects of the engagement.

As another way to identify the macro expectations for the forensic accountant, the second question in this section asked respondents: if they were an employer of forensic accountants, would they value “Analytical abilities,” “Investigative intuitiveness” and “A diverse background.” Respondents were asked to use the 1 – 5 rating scale (Strongly Agree = 1, Agree, Neutral, Disagree, Strongly Disagree = 5). Figure 9 provides the results.

Macro expectations for the forensic accountant:

Average Rating: 1 = strongly agree			
	Attorneys	Academics	CPAs
Analytical abilities	1.16	1.15	1.18
Investigative intuitiveness	1.45	1.17	1.31
A diverse background	2.63	2.15	2.09

Figure 9

From your observation of forensic accountants, intuition can be:

Average Rating: 1 = strongly agree			
	Attorneys	Academics	CPAs
Taught	2.97	2.55	3.14
Learned from experience	1.93	1.53	1.86

Figure 10

Here again the three respondent groups placed “Analytical abilities” at the top of the characteristics valued of forensic accountants. The differences in the average ratings are minor. The order of average rating was the same for each group. “Investigative intuitiveness” was ranked second, and “A diverse background” was third.

Although investigative intuitiveness is ranked second to analytical abilities, it was nonetheless considered important as measured by the absolute average rating. These findings on ordering relative to analytical abilities and importance of intuition are consistent with those found for the earlier questions on essential traits and characteristics, and core skills. The rating on these two abilities was virtually indistinguishable for academics but for both attorneys and CPAs, there was a greater difference in the ratings.

Analytical and intuitive abilities have been conjectured to be both learned and based on experience and were valued considerably more than a diverse background. The lower rankings for a diverse background could be a result of the lack of definition provided for what constitutes “A diverse background.” Conversely, analytical and intuitive abilities are more specific terms and had been introduced into the survey multiple times prior to the respondents encountering this question.

The last two questions in this section looked more closely at intuition. In the development of the questions and literature review for this research, we found that the contribution of intuition in the forensic accounting field is not well understood. We asked whether (1) intuition can be taught or learned from experience, and (2) whether breadth or depth of knowledge is more important to the development of intuitive abilities. Figures 10 and 11 provide the results of these two questions. Both questions used the 1 – 5 rating scale (Strongly Agree = 1, Agree, Neutral, Disagree, Strongly Disagree = 5).

Strong agreement is exhibited across the three groups of respondents that it is much more likely for intuition to be acquired through experience, compared to an instructional program. CPA respondents were the most reluctant to state that intuition can be taught. This survey provides some evidence to suggest that intuitive abilities are important to the forensic accountant and must be learned from experience. In addition, our survey results have consistently suggested that analytical traits, characteristics, core and enhanced skills, are important along with the strong results for intuition and insightfulness. To the extent that analytical abilities are utilized and sharpened through experience on accounting and auditing engagements, perhaps this continuous improvement of analytical abilities lays the foundation for the development of intuition. The natural progression of forensic accountants through accounting and auditing positions into the forensic accounting specializations as opposed to entry-level positions is consistent with this interpretation.

The following complement intuition:

Average Rating: 1 = strongly agree			
	Attorneys	Academics	CPAs
Breadth of experience	1.52	1.30	1.45
Depth of knowledge	1.57	1.34	1.67

Figure 11

Whether intuition can be taught is an important question for the development of forensic accounting programs. Although the research is in infancy, some evidence suggests there is great variation in the ability of individuals to develop insight and intuition.¹⁶ However, the more knowledge and experience an individual possesses, the greater the emerging intuitive ability. Educational programs for forensic accounting certainly can provide a considerable amount of the training required for individuals who wish to be part of a forensic accounting team. The amount of actual work experience required will vary among individuals.

The absolute average rankings, as shown in Figure 11, support the contention that both experience and knowledge, as well as breadth and depth, benefit the development of intuition. The two dimensions may be interactive in that an individual with greater depth of experience may gain more knowledge and more depth of knowledge may facilitate the benefits of experience. The ordering of experience versus knowledge is the same for each of the three groups and the rating of experience ahead of knowledge is consistent with the findings in the previous question.

6. Need for Additional Specialization and Breadth

Respondents indicated that both breadth of experience and depth of knowledge enhance the effectiveness of the forensic accountant. One could argue that depth of knowledge, in part, is derived from specialization. Therefore, we were interested in the respondent viewpoints on continuous improvement for forensic accountants.

To guide the focus on the future, we asked the two questions shown in Figures 12 and 13. Both questions used the 1 – 5 rating scale (Strongly Agree = 1, Agree, Neutral, Disagree, Strongly Disagree = 5). The first question considered experience, the second knowledge. In an effort to reduce the number of questions, we limited the questions asked of attorneys to practice-related issues, and they were not asked the second question related to knowledge.

There is an increasing need for the forensic accountant to be:

Average Rating: 1 = strongly agree			
	Attorneys	Academics	CPAs
A more broadly experienced professional	2.36	1.96	1.96
More specialized within the field	2.34	1.85	1.95

Figure 12

¹⁶ See B. Bower, Road to Eureka! Insight May Lie at the End of a Chain of Neural Reactions, *Science News*, v.173, Issue 12, March 22, 2008, p. 184.

There is an increasing need for the forensic accountant to have more:

Average Rating: 1 = strongly agree		
	Academics	CPAs
General business knowledge	1.62	1.80
Technical accounting knowledge	1.68	2.09

Figure 13

Academics and CPAs responded similarly, agreeing that more experience of both types was needed. Attorneys were somewhat less concerned about the need for more experience of either type. For all respondents, however, the absolute average rating was less strong than that for “experience” in the previous question. Perhaps respondents are relatively satisfied with the current abilities of forensic accountants, an issue addressed in a later question, making it ever more difficult to be both broadly experienced as well as specialized. The insignificant rating differences within the three respondent groups between the “broadly experienced” versus “specialization” questions may be an acknowledgement by those respondents that the increasingly complex nature of forensic accounting engagements necessitates specialization.

In Figure 13, we see a small preference for more general business knowledge, but the differences do not appear to be significant — again, both are valued significantly. CPAs were less inclined to believe more technical accounting knowledge is needed, and these are the professionals who actually serve as forensic accountants. This finding supports the notion that although accounting knowledge is important, it is only a base for understanding a business more broadly — the kind of understanding required for the forensic accountant to effectively consider a wide range of information as it affects the engagement. Although the findings for CPAs at first may seem to conflict with those of the previous question, specialized experience in the field does not equate with more technical accounting knowledge. Forensic accounting is much broader in scope.

7. Effectiveness of Forensic Accountants

How effective are forensic accountants currently? What areas should they focus on for improvement? This section of the survey considered these issues, and also canvassed respondents about the potential usefulness of an assessment tool for employers of forensic accountants.

The first of the three questions in this section was: “Please indicate your level of satisfaction with the effectiveness of the forensic accounting services you have received.” This question uses the 1 – 5 rating scale (Strongly Agree = 1, Agree, Neutral, Disagree, Strongly Disagree = 5). Only attorneys were asked this question, since they are the primary consumers of forensic accounting services in our sample. The average rating was 1.74, indicating a high degree of satisfaction overall. This speaks well for the current state of forensic accounting services, with room for improvement.

The second question attempted to identify factors causing dissatisfaction with forensic accounting services. Only attorneys and CPAs were asked this question because educators were assumed to possess significantly less experience in actual forensic accounting engagements. Figure 14 has the results.

Identify The Five Most Frequent Reasons Why Forensic Accountants Are Ineffective

	Attorney	Rank	CPA	Rank
Inability to simplify the information	89%	1	66%	4
Ineffective oral communication	80%	2	68%	3
Inability to understand the goals of a case	67%	3	55%	
Inability to identify key issues	65%	4	72%	1
Lack of investigative intuitiveness	57%	5	68%	2
Ineffective written communication	40%		64%	5
Inability to synthesize	56%		49%	
Inflexible/close-minded	47%		59%	
Other	3%		4%	

Figure 14

The two groups chose the same factors for four of the five top factors, although the ordering of the rankings on individual factors did not agree. For attorneys, the top-two factors were “Inability to simplify the information” and “Ineffective oral communication.” For CPAs, the top-two were “Inability to identify key issues” and “Lack of investigative intuitiveness.” “Ineffective oral communication” was ranked third by CPAs, but the ranking was essentially a tie for second.

The results highlight the importance of communication as a core skill for the forensic accountant. As reported previously, the attorney respondents had recognized “Effective oral communication” and ability to “Simplify the information” as the top-two core skills for the forensic accountant to possess. Rounding out the Top 5 core skills for this respondent group was “Investigative abilities” whereas in the current survey question “Lack of investigative intuitiveness” was one of the Top 5 reasons a forensic accountant was ineffective. Therefore, the latter ratings are very consistent with attorneys’ previous rating for core skills discussed above. They rated “Effective oral communicator” as the number-one core skill and “Simplify the information” second.

From the CPA’s perspective, the Top 5 reasons that forensic accountants are ineffective differ from the attorney responses. One reason for the differences in responses may be in self-interpretation by the CPA for ineffectiveness on an engagement. If the CPA respondent viewed the question from a hiring perspective, then the results could reflect issues with CPAs that were hired by the public accounting firm to perform forensic accounting services for its clients.

The top reason for ineffective forensic accounting services for CPAs was “Inability to identify key issues,” which is similar to the inability to simplify the information. “Lack of investigative intuitiveness” was second for CPAs consistent with an earlier section where CPAs strongly agreed that “Investigative intuitiveness” was important for an employer. In terms of core skills, CPAs rated “Critical/strategic thinker” first, which is consistent with “Inability to identify key issues.” The frequency ratings for the Top 5 factors are much closer for CPAs than for attorneys.

A forensic accounting assessment tool would be useful to/for:

Average Rating: 1 = strongly agree				
	Academic	Rank	CPA	Rank
Identify the requisite characteristics and skills	1.83	1	2.18	1
Identify specialization areas for employee/professional development	1.87	2	2.19	2
Campus career counseling/choice of major	2.17	3	2.60	4
Hiring decisions	2.17	3	2.47	3
Retention/promotion decisions	2.36	4	2.61	5

Figure 15

Overall, the results for this question may be suggesting that, at present, forensic accountants have more proficient analytical skills relative to the more interpretative and integrative skills. The latter may require a longer period of time to master. Again, this interpretation would be consistent with previously presented results and discussion.

The last question in this section asked respondents whether an assessment tool could be useful for identifying traits and skills, assisting with hiring decisions, and for identifying specific skills to be improved for individuals already employed. Academics and CPAs were asked this question because the educators are experienced with assessment and CPAs both serve as and employ forensic accountants. Respondents were asked to use the 1 – 5 rating scale (Strongly Agree = 1, Agree, Neutral, Disagree, Strongly Disagree = 5). Figure 15 shows the results with factors ranked in order by the academic respondent preference.

The average rating for academics is 2.08 and for CPAs, 2.4. Academics were somewhat stronger in their belief that an assessment tool would be useful. The ordering across the individual uses of such a tool was quite similar. Both have a slight preference for applying an assessment tool at the skills level, in comparison to specific employment decisions. An assessment tool that focuses on traits, characteristics and skills, could assist students with identifying or narrowing down career choices under the umbrella of accounting.

Whether individuals possess the essential traits, characteristics and core skills for forensic accountants is important to their potential employers. There appears to be potential for additional research on the components of an assessment tool as it might be used to assist in hiring decisions and professional development of the forensic accountant.

8. Forensic Accounting Educational Issues

The last section of results concerns educational issues related to forensic accounting. The primary focus of this study was not on educational issues but several broad aspects of educating forensic accountants were addressed. This study also was constrained by survey length; maintaining a reasonable response rate was a concern.

The following will provide an effective education for the forensic accountant:

Average Rating: 1 = strongly agree		
	Academics	CPAs
Online educational programs	2.68	2.55
Traditional classroom educational programs	1.74	1.96
Case studies	1.36	1.71

Figure 16

The essential traits and characteristics, core and enhanced skills required of forensic accountants should be considered when educational programs are developed. A relatively larger amount of research has addressed forensic accounting educational issues compared with traits and skills. The number of education-related studies reflects the steady increase in forensic accounting and the resulting increase in number of educational programs devoted to the field.

Respondents were asked to answer two questions using the 1 – 5 rating scale (Strongly Agree = 1, Agree, Neutral, Disagree, Strongly Disagree = 5). The first question addressed educational delivery strategies. Figure 16 provides the results.

The two groups responding to this question are in close agreement both in strength of response and ordering of strategies. The overall preference appears to be for case studies incorporated within a traditional classroom setting. This result is consistent with an earlier question about acquiring intuition — respondents indicated that experience was the more effective way to acquire it.

Compared with lecture-discussion of didactic materials, case studies provide a rich pedagogical approach involving more complex and involved situations and interactions among several variables. The same is true of mock depositions and mock trials. The active participation required simulates actual situations and affords the individual the opportunity to develop or enhance their forensic accounting skills and, more specifically, communication skills. Case studies that are effectively written and taught, and call for oral delivery or presentations, require the application of both the analytical and integrative skills valued by employers of forensic accountants.¹⁷ For example, the student must solve problems by utilizing only the relevant data from larger sets, and convey findings orally and in writing. The lower rating for online programs also may reflect a preference for an interactive environment more easily facilitated in the traditional classroom or a hybrid of online and face-to-face meetings. This finding is in opposition to the ever-increasing numbers of online programs and classes. The demographics of the respondents may also factor in to the lower rating for online programs. The respondents may be unfamiliar with the latest technological developments in interactive capabilities for online programs and classes.¹⁸

¹⁷ Cases are a popular pedagogical strategy. Peterson and Reider (2001) found that cases were used in 69% of the programs surveyed. Rezaee et al. (2004), found that cases were the most frequently used learning mechanism in courses of institutions surveyed.

¹⁸ More than 70% of respondents in practice (attorneys and CPAs) have more than 15 years of experience in their field suggesting that their exposure to alternative learning environments may be limited.

Forensic accounting programs are effective as a:

Average Rating: 1 = strongly agree		
	Academics	CPAs
Stand alone undergraduate program	2.81	3.04
Component of undergraduate programs	2.26	2.08
Graduate program	1.64	2.13
Means of maintaining public confidence	2.38	2.40

Figure 17

The second question addressed the level at which a forensic accounting program should be developed and offered. We included a response alternative asking whether such programs would play a role in maintaining public confidence in the profession given the ethical lapses on the part of businesses and accounting firms over the past several years. Figure 17 provides the results.

Compared with the results of the first question, these results are somewhat weaker and mixed across the two groups. Academics' preference for "Graduate program" was the strongest preference. Both groups were essentially neutral for "Standalone undergraduate program." Taking the view that a forensic accounting program should build on an undergraduate accounting base, we would have expected less neutrality and more disagreement. CPAs had a slight preference for having the forensic accounting curriculum as part of an undergraduate program. Separating the forensic accounting program, either at the graduate level or as a component of an existing accounting undergraduate level, appears to be the preferred approach. This result is contrary to an earlier Rezaee et al. (2004) study that reported 50% of academicians preferred integration of forensic accounting material into existing accounting and auditing courses. For example, Peterson and Reider (2001) found, from an examination of course syllabi, that almost all forensic accounting courses in the sample were graduate courses.

A recent study conducted by Smith & Crumbley (2009) reported that 65% of college programs surveyed offered one course in fraud or forensic accounting, and 22.5% offered two. Five percent or fewer had three to six courses. Approximately 58% of the courses were graduate-level. These results indicate a steady increase in the number of college programs that offer fraud or forensic accounting programs over the last decade.¹⁹

There was lukewarm support for the notion that forensic accounting educational programs will help the public's perception of accounting. The results reflect a challenge for educators. Additional research is needed to provide guidance on the appropriate approach given the resource constraints faced by most institutions. The dominant model currently is to provide a course or two in forensic accounting, or integrate forensic accounting into the existing curriculum, and let on-the-job experience do the rest. The academic community and the practitioner community such as the AICPA should collaborate to develop consistent and congruent educational opportunities before and after college degrees are earned.

¹⁹ Buckhoff & Schrader (2000) reported that only 5% of college programs surveyed offered a full course in forensic accounting with 4% more planning to do so while 28% include forensic accounting as part of another course. Rezaee et al. (2004), found that 25% of programs surveyed offered a separate forensic accounting course.



Conclusions and Limitations

The main objective of this research was to gain a clearer understanding of the essential traits and characteristics and core skills that forensic accountants are expected to possess for the varied investigative matters for which they are retained. This research study and the results revealed that analytical characteristics remain the foremost trait that forensic accountants are expected to possess. The results also revealed that communication skills, the ability to simplify the complex, and the ability to present opinions in a legal setting are critical to the effectiveness of the forensic accountant. There is also a need for the forensic accountant to be able to look beyond the analytical details and see the big picture — to start with the goal in mind. What this study brings to light is the understanding that there are certain traits and characteristics, and core and enhanced skills, that forensic accountants need to possess for the types of projects on which they are engaged to work. Along with the increased demand for forensic accounting services, the study demonstrated that the marketplace expects the forensic accountant to possess certain characteristics and core skills as well as relevant credentials or certifications.

With this increased understanding of the ideal DNA for an effective forensic accountant, professional societies and associations, and academic institutions can expand their forensic accounting training programs or instructional classes to encompass all aspects of forensic accounting to enable the forensic accountant to meet or exceed market expectations. In addition to this content guidance, these results can guide choices of instructional tools and modes of delivery for the development of a successful forensic accounting team member.

The increased demand for forensic accountants, and consequently, the increasing number of CPAs and other professionals who hold themselves out as forensic accountants, suggest that more effort should be directed toward providing insight and training on the requisite characteristics, core and enhanced skills needed to qualify an individual as a forensic accountant.

We recognize that survey research has inherent limitations, such as the inability to generalize beyond the sample, non-response bias, and sample size, which is small relative to the total population. In addition, within the questionnaire, answer-choice lists may not be comprehensive, potentially biasing the findings. Alternatively, answer choices may be aggregations of more than one aspect, or the answer choices may overlap. In general, limiting the ranking to five for specific questions could have affected the interpretation of the results and conclusions.

Bibliography

- Baron, Laura. (2006). CPAs Are a Hot Commodity. *Journal of Accountancy*, v. 201, issue 2.
- Bower (2008). Road to Eureka! Insight May Lie at the End of a Chain of Neural Reactions, *Science News*, v. 173, i. 12, March 22, p. 184.
- Buckhoff, T., and Schrader, R. (2000). The Teaching of Forensic Accounting in the United States, *Journal of Forensic Accounting*, v. 1, p. 135.
- Cohen, M., Crain, M. A. Sanders, A. (1996). Skills Used in Litigation Services. *Journal of Accountancy*, v. 182, i. 3, p. 101.
- Crumbley, D. Larry (2009). Journal of Forensic Accounting, www.rtedwards.com/journals/JFA/evidentiary.html, January 9.
- DiGabriele, J. (2008). An Empirical Investigation of the Relevant Skills of Forensic Accountants. *Journal of Education for Business*, July/August, p. 331-338.
- Durkin, R., and Ueltzen, M. (2009). The Evolution of The CFF Credential, *The Practicing CPA*, July/August.
- Grippe, F.J., and Ibex, T. (2003). Introduction to Forensic Accounting. *National Public Accountant*, v. 4, p. 4-8.
- Harris, C.K., and Brown, A.M. (2000). The Qualities of a Forensic Accountant. *Pennsylvania CPA Journal*, v. 71, p. 2-3.
- Messmer, M. (2004). Exploring Options in Forensic Accounting. *National Public Accountant*, v. 5, p. 9-20.
- Hayashi (2001). When To Trust Your Gut. *Harvard Business Review*, February.
- Houck (2006). Forensic Accounting as an Investigative Tool. *The CPA Journal*, August 1.
- Kahan, S. (2006). Sherlock Holmes enters accounting: Dramatic increase in fraud brings more CPA sleuths into the industry. *Accounting Today*, 20(8), 1, p. 32-33.
- McGaw, Renee. (2006). Forensic Accounting Gaining in Numbers. *Denver Business Journal*, August 25.
- National Institute of Justice. (2005). *Education and training in fraud and forensic accounting: A guide for the educated institutions, stakeholder organizations, faculty and students*. (NCJRS Publication No. NIJ 21-7589). Washington, D.C.: U.S. Government Printing Office.
- Peterson, B., and Reider, B. (2001). An Examination of Forensic Accounting Courses: Content and Learning Activities. *Journal of Forensic Accounting*, v. 2, p. 25.
- Pope, K., and Ong, B. (2007). Strategies for Forming an Effective Forensic Accounting Team, *The CPA Journal*, April 1.
- Ramaswamy, V. (2005). Corporate Governance and the Forensic Accountant. *The CPA Journal*, v. 75, p. 69-70.
- Regan, G., and Ebersbacher, B. (2008). Behind Closed Doors: The New Certified in Financial Forensics Credential. *California CPA Magazine*, September.
- Rezaee, Z., Crumbley, D., and Elmore, R. (2004). Forensic Accounting Education: A Survey of Academicians and Practitioners. *Advances in Accounting Education Teaching and Curriculum Development*, v. 6, p. 193.
- Smith, G. (2002). Computer Forensics: Helping to Achieve the Auditor's Fraud Mission? *Journal of Forensic Accounting*, v. 6, p. 119 – 134.
- Smith, G. and Crumbley, D. (2009). How Divergent Are Pedagogical Views Toward the Fraud/Forensic Accounting Curriculum? *Global Perspectives on Accounting Education*, v. 6, p. 1 - 24.
- Stauffer, D. (1997). Your Managerial Intuition: How Much Should You Trust It? Can You Improve It? *Harvard Management Update*, June.
- Wells, J. (2003). The Fraud Examiners: Sleuthing Careers Bring CPAs Personal and Professional Satisfaction, *Journal of Accountancy*, v. 196, issue 4.

Appendix 1: Demographics and Involvement with Forensic Accounting

Gender				
		Attorney	Academic	CPA
Female		20%	48%	24%
Male		80%	52%	76%
Education Level				
		Attorney	Academic	CPA
BS		77%	84%	98%
MS		13%	80%	40%
JD		96%	2%	5%
Doctorate		4%	84%	3%
Primary Profession				
	All Groups	Years in Practice	Attorney	CPA
CPA in Practice	68%	0-5 years	6%	5%
Civil Attorney	15%	6-10 years	8%	10%
Criminal Attorney	1%	11-15 years	5%	13%
Academic	6%	More than 15	81%	72%
Other	10%			
Licenses and Certifications				
		Attorney	Academic	CPA
CPA		10%	80%	97%
CFF		2%	18%	73%
CFE		0%	35%	40%
ABV		0%	6%	36%
Attorney at Law		99%	2%	3%
None		1%	16%	2%
Involvement With Forensic Accounting				
		Attorney	Academic	CPA
I retain services of forensic accountants.		96%	2%	4%
I consider myself a forensic accountant.		3%	49%	93%
I employ forensic accountants in my firm.		3%	2%	25%
I have no involvement.		3%	53%	5%

Appendix 2: Questionnaire

1. What is your PRIMARY profession? Please check only one.

- ☐ CPA in Practice
- ☐ Civil Attorney
- ☐ Criminal Attorney
- ☐ Academic
- ☐ Other

2. What is your gender?

- ☐ Female
- ☐ Male

3. What is your level of education? Please fill in your major area for all that apply.

- ☐ Bachelor's (major area)
- ☐ Master's (major area)
- ☐ Juris Doctor (major area)
- ☐ Doctorate (major area)

4. Please check all area(s) of specialty that you believe are appropriate for a forensic accountant (check all that apply).

- ☐ Bankruptcy, insolvency and reorganization
- ☐ Computer forensic analysis
- ☐ Economic damage calculations
- ☐ Family law
- ☐ Financial statement misrepresentations
- ☐ Fraud prevention, detection and response
- ☐ Valuation
- ☐ Other (please specify)

5. How many years have you been practicing?

- ☐ 0-5 years
- ☐ 6-10 years
- ☐ 11-15 years
- ☐ More than 15

6. What licenses and certifications do you possess? Please check all that apply.

- ☐ CPA
- ☐ CFF
- ☐ CFE
- ☐ ABV
- ☐ Attorney at Law
- ☐ None
- ☐ Other (please specify)

7. What is your involvement with forensic accounting services? Please check all that apply.

- ☐ I retain services of forensic accountants.
- ☐ I consider myself a forensic accountant.
- ☐ I employ forensic accountants in my firm.
- ☐ I have no involvement.

8. Please identify the five (5 not counting "other") essential traits and characteristics for a forensic accountant.

- ☐ Adaptive
- ☐ Analytical
- ☐ Confident
- ☐ Detail-oriented
- ☐ Ethical
- ☐ Evaluative
- ☐ Function well under pressure
- ☐ Generate new ideas and scenarios
- ☐ Inquisitive
- ☐ Insightful
- ☐ Intuitive
- ☐ Make people feel at ease
- ☐ Persistent
- ☐ Responsive
- ☐ Skepticism
- ☐ Team player
- ☐ Other (please specify)

9. Please identify the five (5 not counting "other") core skills that a forensic accountant needs to possess.

- ☐ Auditing skills
- ☐ Critical/strategic thinker
- ☐ Effective oral communicator
- ☐ Effective written communicator
- ☐ Identify key issues
- ☐ Investigative ability
- ☐ Investigative intuitiveness
- ☐ Organize an unstructured situation
- ☐ Research skills
- ☐ See the big picture
- ☐ Simplify the information
- ☐ Solve structured problems
- ☐ Solve unstructured problems
- ☐ Synthesize results of discovery and analysis
- ☐ Tell the story
- ☐ Think like the wrongdoer
- ☐ Understand the goals of a case
- ☐ Other (please specify)

- 10. Please identify the five (5 not counting “other”) most relevant enhanced skills that a forensic accountant should possess.**
- o Analyze and interpret financial statements and information
 - o Asset tracing
 - o Audit evidence
 - o Conflict negotiation and resolution
 - o Electronic discovery
 - o Fraud detection
 - o General knowledge of rules of evidence and civil procedure
 - o Internal controls
 - o Interviewing skills
 - o Knowledge of law enforcement
 - o Knowledge of relevant professional standards
 - o Possess specialized technical skills
 - o Testifying
 - o Other (please specify)
- 11. Importance of a credential: please use the rating scale provided to answer the next question (Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree).**
- o An effective forensic accountant should possess a relevant credential
- 12. The following credentials are important to the forensic accountant (use the scale: Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree).**
- o CFF
 - o CFE
 - o ABV
 - o Other (please specify)
- 13. Assuming the following are the three procedural protocols of forensic accounting, please provide your ranking of the three in order of importance to the success of the engagement (Most Important, Important, Least Important — no ties, please).**
- o Discovery
 - o Analysis
 - o Communication
- 14. If you were an employer of forensic accountants, you would value (use the scale: Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree):**
- o Analytical abilities
 - o Investigative intuitiveness
 - o A diverse background
- 15. From your observation of forensic accountants, intuition can be (use the scale: Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree):**
- o Taught
 - o Learned from experience
- 16. The following complement intuition (use the scale: Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree).**
- o Breadth of experience
 - o Depth of knowledge
- 17. Please indicate your level of satisfaction with the effectiveness of the forensic accounting services you have received (use the scale: Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree).**
- o I am satisfied.
- 18. Identify the five (5 not counting “other”) most frequent reasons why forensic accountants are ineffective.**
- o Ineffective oral communication
 - o Ineffective written communication
 - o Lack of investigative intuitiveness
 - o Inability to synthesize
 - o Inability to simplify the information
 - o Inability to identify key issues
 - o Inflexible/close-minded
 - o Inability to understand the goals of a case
 - o Other (please specify)
- 19. Please use the rating scale provided to answer the next two questions. There is an increasing need for the forensic accountant (Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree):**
- o To be a more broadly experienced professional
 - o To be more specialized within the field (for example, business valuation, fraud investigation, etc.)
- 20. Please use the rating scale provided to answer the next two questions. There is an increasing need for the forensic accountant (Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree):**
- o To have more general business knowledge
 - o To have more technical accounting knowledge
- 21. The following will provide an effective education for the forensic accountant (use the scale: Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree):**
- o Online educational programs
 - o Traditional classroom educational programs
 - o Case studies

22. Forensic accounting programs are effective as a
(use the scale: Strongly Agree, Agree, Neutral,
Disagree, Strongly Disagree):

- ☐ Stand alone undergraduate program
- ☐ Component of undergraduate accounting programs
- ☐ Graduate program
- ☐ Means of maintaining public confidence

23. A forensic accounting assessment tool would be
useful for (use the scale: Strongly Agree, Agree,
Neutral, Disagree, Strongly Disagree):

- ☐ Identifying requisite characteristics and skills
- ☐ Campus career counseling/choice of major
- ☐ Hiring decisions
- ☐ Retention/promotion decisions
- ☐ Identifying specialization areas for employee/
professional development

24. Please check your area(s) of specialty (check all
that apply).

- ☐ Bankruptcy, insolvency and reorganization
- ☐ Computer forensic analysis
- ☐ Economic damage calculations
- ☐ Family law
- ☐ Financial statement misrepresentations
- ☐ Fraud prevention, detection and response
- ☐ Valuation
- ☐ None of the above
- ☐ Other (please specify)