

Divergent Views among Practitioners and Educators on Forensic Accounting Education

By Bonita K. Peterson Kramer, Ph.D., CMA, CPA, CIA; Mike Seda, Ph.D., DBA, CPA, CFE; and Georgiy Bobashev, Ph.D.

EXECUTIVE SUMMARY

Universities have responded to the demand for more forensic accountants in recent years by dramatically increasing the number of forensic accounting courses they offer and by offering undergraduate and graduate degrees, certificates, majors, and/or minors in forensic accounting. A survey of forensic accounting educators and practitioners shows the differences in opinions regarding important content areas and teaching techniques in forensic accounting education.

More than a decade ago, numerous widely publicized accounting scandals—such as those at Waste Management, Enron, WorldCom, HealthSouth, and Tyco, among others—motivated leaders in the accounting profession to encourage educators to provide forensic accounting education for accounting students.¹ Fulfilling this request has been a significant task. Very few forensic accounting pedagogical materials existed in the past because it was a new and emerging field. Further, forensic accounting encompasses a variety of fields of expertise. Perhaps the most comprehensive definition of forensic accounting, which clearly indicates that it is a confluence of many different disciplines, is:

A multidisciplinary field that encompasses both a profession and an industry, where civil or criminal economic and financial claims, whether business or personal, are contested within established political structures, recognized and accepted social parameters, and well-defined legal jurisdictions, and informed by the theories, methods, and procedures from the fields of law, auditing, accounting, finance, economics, psychology, sociology, and criminology.²

FORENSIC ACCOUNTING EDUCATION IS ON THE RISE

Research around the early 2000s found that very few colleges and universities offered any type of forensic accounting education. While a thorough review of the literature exploring the availability of forensic accounting education is too extensive for this article, an idea of the explosive growth over the past 15 years or so can be seen from results of representative studies in Figure 1, with a brief summary of the research results provided in Table 1.³

Figure 1 and Table 1 show that universities worldwide have responded to the demand to offer forensic accounting education. Not only are specific individual courses now being offered, but many institutions have developed programs in forensic accounting, including undergraduate and graduate degrees, certificates, minors, and concentrations.

Employment opportunities are plentiful for accounting students with a forensic accounting education. They include public accounting, loss prevention/security, internal audit, and opportunities with federal agencies

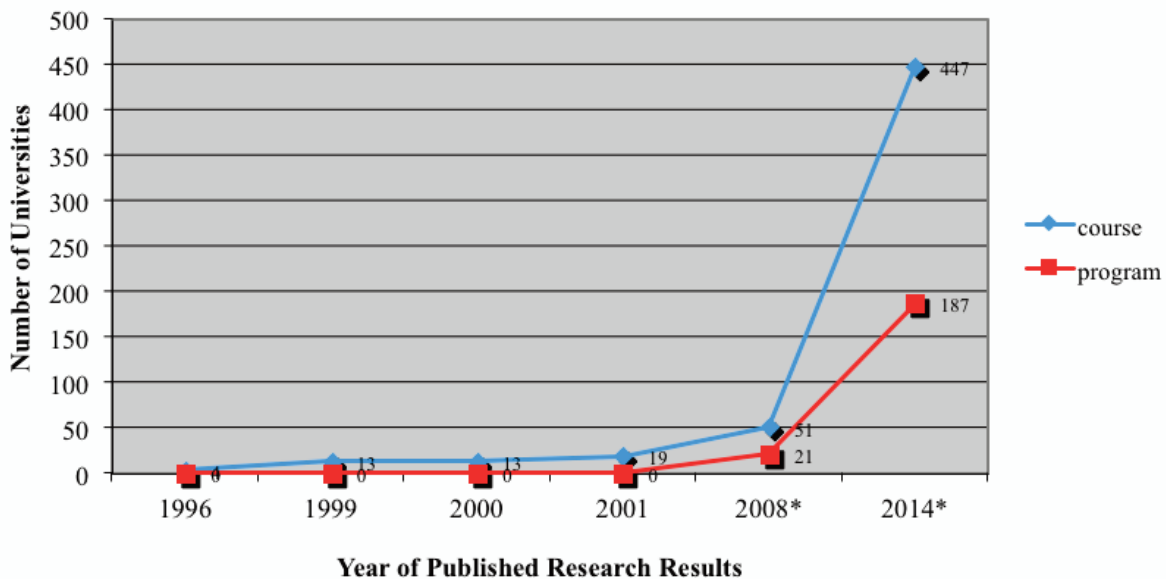
such as the Federal Bureau of Investigation (FBI) and the Internal Revenue Service Criminal Investigation Division (IRS-CID). Yet even if students never choose a forensic accounting career path, the skills they learn will make them better professionals in business whether they work as auditors, managers, or consultants. The demand for forensic accountants today remains strong and continues to grow.⁴

Given this dramatic increase in the amount of forensic accounting education offered, we explored whether forensic accounting educators and practitioners agreed or disagreed on important content or teaching techniques for this topic. Consequently, our results can be useful to educators who want to expand and possibly improve their existing forensic accounting curricula or those who are now considering offering forensic accounting education.

RESEARCH SURVEY

We surveyed 740 randomly selected educators who primarily teach forensic accounting and/or auditing and asked them to complete an online survey about forensic

Figure 1: Sample of Research Illustrating Growth in Forensic Accounting Education Availability



*Also includes universities outside the United States, although the vast majority of these institutions are within the U.S.

Table 1: Summary of Examples of Research in the Availability of Forensic Accounting Education

Study (year published)	Summary
Rezaee, Lander, and Reinstein (1996)	Identified four U.S. universities that teach forensic accounting and discussed the course content in detail.
Peterson and Reider (1999)	Surveyed U.S. universities and found a majority of respondents (84%) include limited forensic accounting topics typically in the first auditing course but sometimes in advanced auditing (15%). Identified only 13 universities that offer a specific course on forensic accounting.
Buckhoff and Schrader (2000)	Surveyed U.S. universities and found only 13 (5% of respondents) offer a forensic accounting course and only 11 (4%) had plans to offer such a class.
Peterson and Reider (2001)	Combining the above two previous studies, identified 19 U.S. universities that offer a forensic accounting course; examined syllabi for specific content and learning activities.
Seda and Kramer (2008)	Surveyed universities worldwide. Found 51 offer a separate forensic accounting course and 21 offer a program or certificate in that field.
Seda and Kramer (2014)	Reviewed websites of accounting programs from more than 1,000 colleges and universities worldwide. Found that 447 offer a separate course and 187 offer a program of some sort (degree, minor, or certificate).

accounting education. We also administered the survey to 40 practitioners who were attending a forensic accounting training seminar.

We designed the survey instrument to answer the following questions:

1. How important do you consider 16 different teaching techniques in a forensic accounting course/program?
2. How important do you consider 14 specific content areas in a forensic accounting course/program?⁵
3. (For educators only) To what degree do you cover the 14 specific content areas in your forensic accounting courses/program?

We received responses from 103 educators and 26 practitioners, providing response rates of 14% and 65%, respectively. The practitioners had an average of 19.4 years of forensic accounting experience.

TEACHING TECHNIQUES

For each of the 16 different teaching techniques, we asked respondents to indicate their opinion of its importance in teaching forensic accounting by using a 5-point scale where the numbers 1, 3, and 5 represent “very important,” “average importance,” and “not at all

important,” respectively. The results are presented in Table 2 in ranked order of the practitioners’ mean responses.

The practitioners’ mean responses for all 16 teaching techniques are less than 3, indicating that they believe all techniques are important to varying degrees, unlike the educators, whose mean responses for nearly half the techniques were greater than 3. Statistically significant differences in the mean responses between the two groups were found in nine of the 16 teaching techniques, as illustrated in Figure 2.

In every one of these nine statistically significant differences, the practitioners considered the teaching techniques to be more important than the educators did. In fact, the practitioners considered the techniques to be of at least above-average importance in all cases, whereas the educators, on average, believed seven of the nine techniques were of below-average importance. When reviewing the types of techniques where these significant differences exist, we found that our results suggest that the practitioners value techniques more highly that add an experiential or “real world” learning component in teaching forensic accounting (such as internships, service learning activities, field trips, role-playing scenarios, coteaching with a practitioner, and moot court activities. They also value computer forensic

Table 2: Opinions on Importance of Various Teaching Techniques for Forensic Accounting Education

(1 = very important; 3 = average importance; 5 = not at all important)

Teaching Technique	Practitioners		Educators	
	Mean	Rank	Mean	Rank
Case studies	1.23	1	1.45	1
Problem-based learning cases and simulations	1.31	2	1.66	2
Digital forensic software (for example, data recovery)	1.38	3	3.06	10
Guest lecturers	1.42	4 (tie)	2.10	5
Internships	1.42	4 (tie)	3.07	11
Data analytics software (such as IDEA)	1.46	6	2.52	8
Computer forensics lab	1.54	7	3.60	15 (tie)
Textbook and supplemental resources (such as a test bank)	1.73	8	2.09	4
Student research projects and presentations	1.81	9 (tie)	2.08	3
Role-playing scenarios	1.81	9 (tie)	2.73	9
Videos	1.85	11	2.16	6
Moot court activities	2.00	12	3.60	15 (tie)
Coteaching	2.04	13	3.43	12
Service learning activities	2.08	14	3.49	13
Field trips	2.31	15	3.55	14
Self-developed materials	2.35	16	2.34	7

skills (such as digital forensic software, digital analytic software, and a computer forensics lab) more highly.

Why do educators rate these techniques as less important than practitioners do? A possible explanation is that these methods of instructional delivery are outside the traditional accounting skill set. For example, data analytics software, digital forensic software, and the use of a computer forensics lab all require some computer knowledge and skills in addition to the necessary hardware and software that may or may not be available at the university. A possible solution would be for accounting departments to work with other disciplines, such as computer science. Similarly, moot court activities require some knowledge of the law, which most accounting faculty do not possess. Once again, working with faculty with legal knowledge, either inside or outside the business department, could help solve this problem.

Service learning activities might require extensive knowledge in all areas that fall within the canopy of forensic accounting. Consequently, these activities

could be very time-consuming for the instructor, who may not feel qualified for all areas that the activity encompasses. Faculty who have implemented this technique in forensic accounting classes have reported it to be quite rewarding, however, and typically work with professionals in the forensic accounting field to help with the activity.⁶

IMPORTANCE OF FORENSIC ACCOUNTING CONTENT AREAS

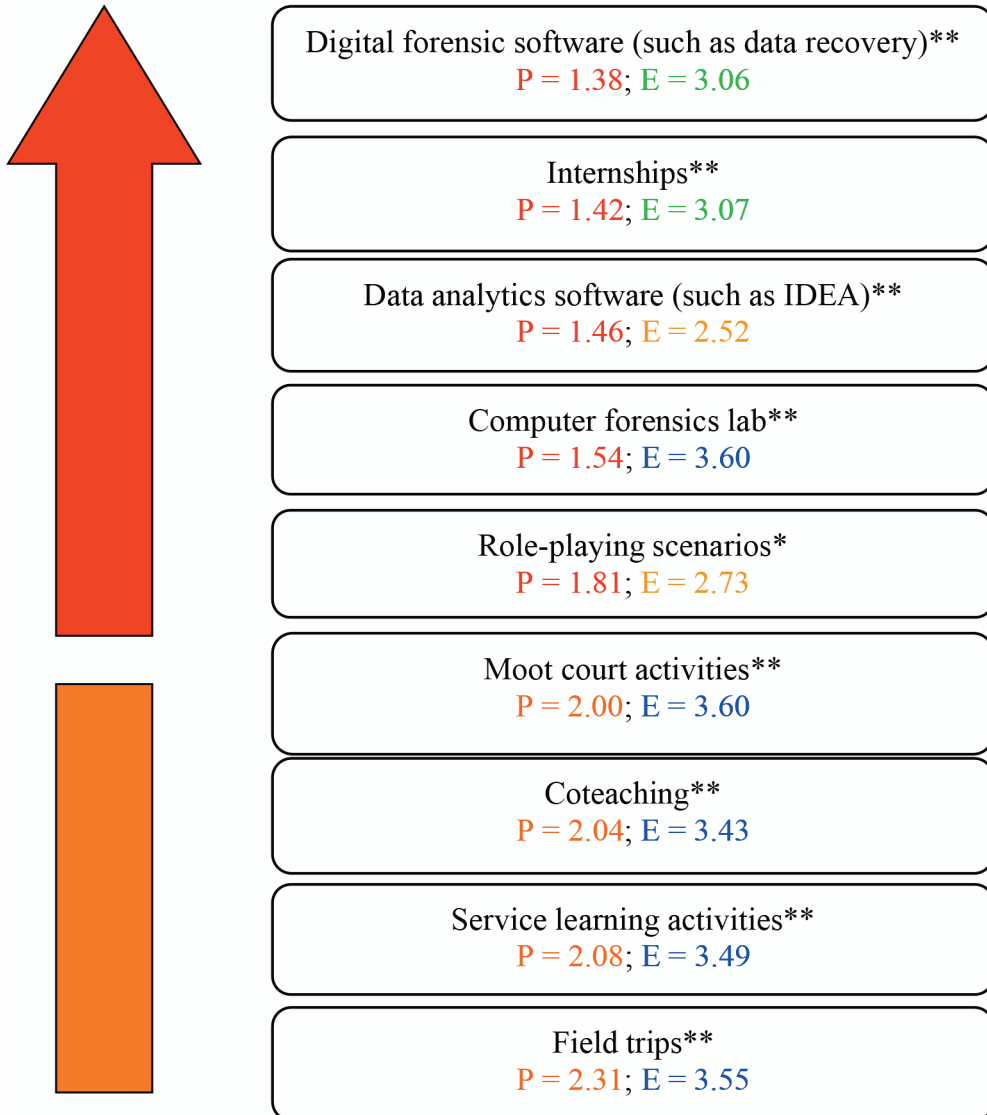
We also asked respondents to indicate their opinion regarding the importance of 14 different topics in forensic accounting by using a 5-point scale where the numbers 1, 3, and 5 represent “very important,” “average importance,” and “not at all important,” respectively. The results are presented in Table 3 in ranked order of the practitioners’ mean responses.

The practitioners’ mean responses for the 14 forensic accounting content areas are less than 3, indicating again that the practitioners believe all topics are important to varying degrees. On the other hand, while the

Figure 2: Statistically Significant Differences between Practitioners' and Educators' Opinions on the Importance of Forensic Accounting Teaching Techniques

(P = practitioners' mean; E = educators' mean, where 1 = very important; 3 = average importance; 5 = not at all important)

More important per practitioners



* Statistically significant at the $p < .05$ level.

** Highly statistically significant at the $p < .01$ level.

Table 3: Opinions on Importance of Content Areas in Forensic Accounting Education

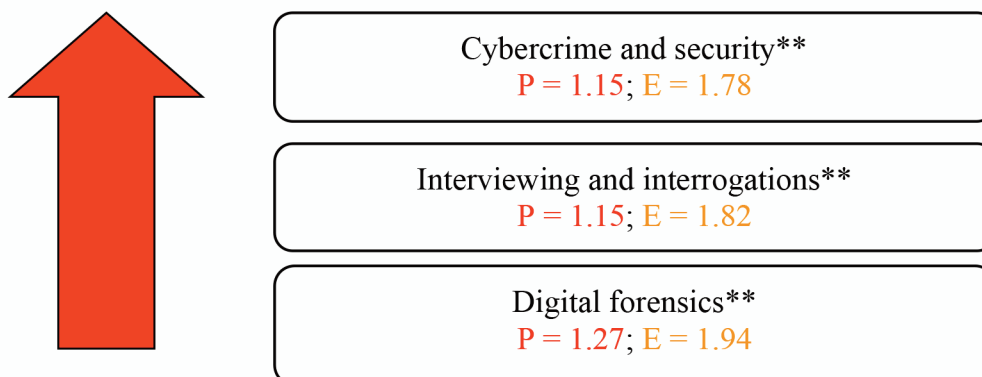
(1 = very important; 3 = average importance; 5 = not at all important)

Content Area	Practitioners		Educators	
	Mean	Rank	Mean	Rank
Fraud prevention/deterrence	1.08	1	1.41	4
Fraud detection methods	1.15	2 (tie)	1.38	1
Fraudulent financial statements and analysis	1.15	2 (tie)	1.40	3
Cybercrime and security	1.15	2 (tie)	1.78	7
Interviewing and interrogations	1.15	2 (tie)	1.82	9
Fraud investigation methods, including the organization and evaluation of evidence	1.19	6	1.51	5
Digital forensics	1.27	7	1.94	10
Asset misappropriation	1.31	8 (tie)	1.39	2
Corruption	1.31	8 (tie)	1.68	6
Data analytics software (such as IDEA)	1.50	10	1.79	8
Forensic psychology, profiling, and the fraud mind-set	1.65	11	2.13	13
Criminology, the legal environment, and ethical issues	1.73	12	2.00	11
Valuation of losses and damages	1.81	13	2.05	12
Remediation and conflict resolution	2.23	14	2.52	14

Figure 3: Statistically Significant Differences between Practitioners' and Educators' Opinions on the Importance of Forensic Accounting Content

(P = practitioners' mean; E = educators' mean, where 1 = very important; 3 = average importance; 5 = not at all important)

More important per practitioners



** Highly statistically significant at the $p < .01$ level.

Table 4: Degree of Coverage of Content Areas in Educators' Forensic Accounting Education

(1 = very important; 3 = average importance; 5 = not at all important)

Content Area	Educators' Coverage ^a		Educators' Opinion on Importance ^b	
	Mean	Rank	Mean	Rank
Fraud prevention/deterrence	1.53	1	1.41	4
Asset misappropriation	1.58	2	1.39	2
Fraudulent financial statements and analysis	1.60	3	1.40	3
Fraud detection methods	1.63	4	1.38	1
Fraud investigation methods, including the organization and evaluation of evidence	1.90	5	1.51	5
Corruption	2.06	6	1.68	6
Interviewing and interrogations	2.22	7	1.82	9
Criminology, the legal environment, and ethical issues	2.42	8	2.00	11
Forensic psychology, profiling, and the fraud mind-set	2.65	9	2.13	13
Data analytics software (such as IDEA)**	2.79	10	1.79	8
Cybercrime and security**	2.85	11	1.78	7
Digital forensics**	3.04	12	1.94	10
Valuation of losses and damages**	3.19	13	2.05	12
Remediation and conflict resolution**	3.62	14	2.52	14

^a 1 = strongly covered; 3 = average coverage; 5 = not covered.

^b From Table 3, where 1 = very important; 3 = average importance; 5 = not at all important.

** Highly significant at $p < .01$.

educators had no mean responses more than 3, there were highly statistically significant differences between their responses and those of the practitioners on the importance of three content topics, as summarized in Figure 3.

Given that the mean responses for all content areas are less than 3, both groups agreed that all 14 topics were important even though the rankings vary to some degree. In each of these three cases of highly significant differences, the practitioners consider the topics to be more important than educators do. It's interesting to note that all three areas are outside traditional accounting topics, so these results may suggest that accounting educators are more comfortable teaching forensic accounting topics that are more in line with mainstream accounting.

ACTUAL COVERAGE OF IMPORTANT FORENSIC ACCOUNTING CONTENT AREAS

We then asked only the educators about the degree of coverage they gave to the 14 different forensic accounting content areas. We know from their previous responses how important they consider each topic to be, but do they give each area a corresponding amount of coverage in their courses/programs? Table 4 shows the results of this question (the two columns on the far right contain the same data from Table 3 for ease of comparison).

The survey results show some disparity between the relative importance educators placed on five forensic accounting topics and the actual coverage they give those topics in the classroom. Specifically, these five content areas are data analytics software (such as

IDEA), cybercrime and security, digital forensics, valuation of losses and damages, and remediation and conflict resolution. All of these areas require a special set of skills and knowledge in niche areas within the field of forensic accounting (i.e., expertise in computers or law) that the average accounting professor probably does not possess, which may explain this disparity.

IMPROVING FORENSIC ACCOUNTING EDUCATION

As previously mentioned, forensic accounting is a multidisciplinary field. The survey results in this article underscore the multidisciplinary aspect of forensic accounting and suggest that it may be impacting the educational offerings. The results show that there are several significant differences between the educators' and practitioners' opinions on forensic accounting content and preferred teaching techniques. Practitioners consider topics outside traditional accounting as more important to include in forensic accounting education and more highly value teaching techniques that add an experiential learning component.

A possible solution that might allow more nontraditional accounting topics to be taught in a forensic accounting course/program would be to develop interdisciplinary programs with other departments, such as criminal justice, computer science, finance, information systems, and law. Further, by partnering with some of these departments, forensic accounting educators might also be able to employ more of the experiential teaching techniques valued more highly by practitioners.

Other strategies that might help incorporate experiential teaching techniques include developing coteaching, adjunct instructor, visiting instructor, and/or guest lecturer arrangements with local professionals in law enforcement, accounting firms, and governmental agencies, and developing student internship opportunities with these organizations.

It is critical, however, for universities to identify not only the core competencies desired by the companies that employ their students, but also their primary stakeholders. This knowledge can drive a university's decision regarding the departments with which it wants to collaborate when developing or improving its forensic accounting education and help it provide the multidisciplinary forensic instruction needed by students. ■

Bonita K. Peterson Kramer, Ph.D., CMA, CPA, CIA, is a professor of accounting at the Jake Jabs College of Business & Entrepreneurship at Montana State University. She also is an IMA® member. She can be reached at bonitap@montana.edu.

Mike Seda, Ph.D., DBA, CPA, CFE, is an assistant accounting professor at the School of Business at Stockton University. You can contact Mike at docseda@gmail.com.

Georgiy Bobashev, Ph.D., is a senior data scientist at the Center for Data Science at RTI International. He can be reached at bobashev@rti.org.

ENDNOTES

- 1 Dick Carozza, "Accounting Students Must Have Armor of Fraud Examination," *Fraud Magazine*, January/February 2002, pp. 30-33; Barry C. Melancon, "A New Accounting Culture," *Journal of Accountancy*, October 2002, pp. 27-30, www.journalofaccountancy.com/issues/2002/oct/anewaccountingculture.html.
- 2 Wm. Dennis Huber and James A. DiGabriele, "Research in Forensic Accounting—What Matters?" *Journal of Theoretical Accounting Research*, March 2014, pp. 40-70.
- 3 Z. Rezaee, G. Lander, and A. Reinstein, "Integrating Forensic Accounting into the Accounting Curriculum," *Accounting Education: A Journal of Theory, Practice and Research*, 1996, pp. 147-162; Bonita K. Peterson and Barbara Reider, "Fraud Education of Accounting Students: A Survey of Accounting Educators," *The National Accounting Journal*, Winter 1999, pp. 23-30; T. Buckhoff and R. Schrader, "The Teaching of Forensic Accounting in the United States," *Journal of Forensic Accounting*, January-June 2000, pp. 135-146; Bonita K. Peterson and Barbara Reider, "An Examination of Forensic Accounting Courses: Content and Learning Activities," *Journal of Forensic Accounting*, January-June 2001, pp. 25-41; Mike Seda and Bonita K. Peterson Kramer, "The Emergence of Forensic Accounting Programs in Higher Education," *Management Accounting Quarterly*, Spring 2008, pp. 15-23, <https://bit.ly/2IMHLbB>; and Mike Seda and Bonita K. Peterson Kramer, "An Examination of the Availability and Composition of Forensic Accounting Education in the United States and Other Countries," *Journal of Forensic & Investigative Accounting*, January-June 2014, pp. 1-46.
- 4 Michael Cohn, "Demand Growing for Forensic Accountants," *Accounting Today*, June 2014, www.accountingtoday.com/blogs/debits-credits/demand-growing-for-forensic-accountants-71116-1.html; Deanna Arteaga, "Demand for 'CPA Sleuths' On the Rise," *AccountingWeb*, December 2013, www.accountingweb.com/article/demand-cpa-sleuths-rise/222901; and Ken Tysiac, "Demand Strong for Forensic Accountants in Wake of Financial Crisis," *CPA Insider*, September 2012, www.cpa2biz.com/Content/media/PRODUCER_CONTENT/Newsletters/Articles_2012/CPA/Sep/ForensicAccounting.jsp.
- 5 We selected our content areas based on a review of current forensic accounting textbooks, specifically D. Larry Crumbley, Lester E. Heitger, and G. Stevenson Smith, *Forensic and Investigative Accounting*, Sixth Edition, Commerce Clearing

House, Chicago, Ill., 2013; William S. Hopwood, Jay J. Leiner, and George R. Young, *Forensic Accounting and Fraud Examination*, Second Edition, McGraw-Hill/Irwin, Boston, Mass., 2012; and Mary-Jo Kranacher, Richard Riley, and Joseph T. Wells, *Forensic Accounting and Fraud Examination*, John Wiley & Sons, Inc., Hoboken, N.J., 2010.

- 6 Richard "Dick" Riley, Sara Melendy, and Martha Doran, "Service Learning Projects: Students Put Skills to the Test and Assist Their Communities," *Fraud Magazine*, July/August 2011, pp. 14-16.