Howie’s Café Caper:  
A case study in employee embezzlement and forensic accounting

Shondra Johnson  
Bradley University

Gail Petravick  
Bradley University

Simon Petravick  
Bradley University

ABSTRACT

This case is based on the actual prosecution and conviction of an employee for embezzlement. She was sentenced to four years of imprisonment, and her conviction was upheld on appeal. Students are given background information about the embezzlement and 14 findings of fact, which were taken from the actual court case. They use this information to examine how the Defendant committed the crime applying forensic accounting techniques, while developing analytical skills of nonfinancial factors. Upon completion of this case, students will have evaluated the way in which internal controls are applied in a retail establishment using the COSO framework as a guide for their analysis. Ultimately, students gain the understanding of how the lack of controls could allow the opportunity to perpetrate fraud. Furthermore, students prepare a net worth analysis to show the existence of income from unknown sources before showing how the Defendant had intent to commit the fraud. Students conclude the case by converting their forensic accounting analysis into a detailed explanation of how the facts support the required legal elements of embezzlement.

Keywords: COSO, Embezzlement, Forensic accounting, Fraud investigation, Net worth analysis, Skimming
BACKGROUND FACTS

Becky McGill worked as the assistant manager of Howie’s Café in Fort Lauderdale, Florida. The Café has a general manager and 16 part-time employees. Howie’s Café provides breakfast and lunch Monday through Friday. Lunch generates the majority of sales, and most sales are a result of walk in customers. While patrons typically walk in, some catering business exists. Becky has served as assistant manager at Howie’s Café for Mr. Howard, the owner and founder of the café, for more than eight years. Her total employment at Howie’s spans nearly 18 years.

Becky has two teenage children. The oldest one plans to attend college in the near future. Becky McGill worked as the assistant manager of Howie's Cafe in Fort Lauderdale, Florida, inherited the cafe. It took Sue six weeks after her financial records, so she asked Becky to mail her the daily cash reports, bank deposits slips and office buildings.

• Preparing the cash bank for the cash register
• Closing out the register, counting cash receipts, and preparing the daily cash report
• Correcting errors and making adjustments
• Making the bank deposits, receiving the bank statement, and reconciling the bank account
• Preparing employee time cards

In June, Year 1, Mr. Howard was diagnosed with cancer. His condition weakened in Year 2 and he was unable to go to the café every day. Because Mr. Howard trusted Becky so much, he looked to her to oversee much of the day to day tasks at the cafe and to fax him the daily cash sales reports. Mr. Howard did not receive any other income, expense, or financial statements.

The sales report was based on information pulled from a Z tape, a paper report printed by a cash register. See Figure 1 (Appendix) for an example of a Z tape.

The kind of register operated by Howie’s Cafe allowed the printing of a Z tape only when the manager or assistant manager used a special key. Typically, a business will attach a Z tape to the daily cash report as support for amounts collected. The Z total, or accumulated total amount of sales for the register, is printed at the bottom of the Z tape. The Z total may only be reset to zero by the manufacturer of the register. The Z tape also provides a subtotal of daily sales by category and by payment method.

Shortly after Mr. Howard’s illness worsened in Year 2, the County began a major highway construction project on the road in front of the cafe. Customers could always access the cafe despite the construction. The ongoing road construction, however, made it very difficult for some customers to drive to the cafe.

In September of Year 3, Mr. Howard passed away. Mr. Howard’s daughter, Sue, a food and beverage manager for a hotel in Florida, inherited the cafe. It took Sue six weeks after her father’s death before she could focus on the needs of the cafe. Her first task was to review the financial records, so she asked Becky to mail her the daily cash reports, bank deposits slips and bank statements for the previous six months. Sue quickly realized that for the better part of Year 3 the cafe was operating at a loss. Sue questioned Becky about the large losses, and Becky replied that business was down significantly due to the road construction. Sue knew this did not sound right because most of the customers actually walked to the cafe from the neighboring office buildings.
Sue began reviewing the cafe’s bank account information for Year 3 and noticed that the bank deposits for the last few months did not include the expected level of cash.

Sue hired a new general manager and told Becky that she would be reassigned to work as part of the serving staff. This means that Becky would not be an assistant manager and would no longer have responsibility for any of the operations. Becky could continue working as a cashier on an as-needed basis.

Sue called her father’s accountant to discuss these findings and he told her to call the Economics Crime Division of the Sheriff’s Office and together they would conduct an investigation. The detectives in the Economics Crime Division issued a subpoena for Becky McGill’s personal bank account records, credit card records and other records. Together they summarized the information which would allow for the preparation of a net worth analysis. This information is shown in detail in Table 1 (Appendix).

The accountant’s analysis revealed that over a nine month period in Year 3 Becky made 107 cash deposits with many of the deposits being in the range of $9,750.00 to $9,999.00. When Becky was questioned why she had so many large cash deposits, she said that she was a part-time professional gambler and played the slot machines at the casino every weekend. Becky told the accountant that she had big wins in early Year 3, including a $20,000 video poker payoff, and that she gambled on her winnings and earned income thereafter.

ACCOUNTANT’S FINDINGS OF FACT

Sue and her accountant met with the detectives and presented their findings which are stated below and are collectively known as the Accountant’s Finding of Facts.

Facts determined by the Accountant

1. Accountant stated that Defendant’s daily cash sales reports consistently matched to the penny the amount of cash she deposited, a rare occurrence in retail cash sales.
2. The accountant stated that two “Z” tapes were run on the cash register and that one Z tape was always missing and not turned in with the daily cash report. The business only used one cash register
3. The accountant also stated that the Z tapes submitted with the Defendant’s daily cash report were precisely cut just before the cumulative total sales (NRGT), and only provided the sales figures by categories and payment methods. He noticed cumulative total sales were missing from the Z tapes. The change in cumulative total sales between two complete Z tapes provides the amount of receipts that should have been deposited. The accountant noted that the total sales (TS) provided on intermediate Z tapes did not equal the difference between the two cumulative total sales referred to above. See the forensic analysis on the example Z tape in Figure 1.
4. The accountant opined that his physical examination of the Z tapes suggested a logical cutting point to conceal the fraud scheme would be above the cumulative total sales and just below net sales.
5. The accountant demonstrated how overcharges could allow someone to take cash from the cafe and not reflect poorly on the cafe’s revenue. For instance, a customer is charged $5 for a sandwich that is normally sold for $4. The sandwich would be recorded in the register at $4,
but $5 would be collected from the customer. This type of fraud scheme is known as sales skimming.
6. Accountant opined that the cafe suffered a cash shortage of approximately $250,000 between Jan. 1 and Sept. 21 of Year 3.

Facts Provided by Surveillance Investigator of Chip and Deal Casino

7. The casino investigator stated that Defendant held a “player’s club card” - obtained voluntarily by the patron; it tracks the patron’s casino activity and provides rewards or cash back based on number of points accumulated.
8. Printed coin-in reports show patron’s “coin-in” on slot machines. (“Coin-in” is the combination of actual cash put into slots and credits accumulated by winning.) Investigator reviewed copies of Defendant’s coin in reports from the date she began using her “player’s club card” and copies of pay-out documentation for Years 2 through 4. The coin-in report does not give a breakdown of how much is actual cash and how much are actual credits accumulated by winning. Investigator stated that the report on Defendant’s card showed increased activity in Year 2 and Year 3. Defendant’s “Coin-in Report” shows in excess of $1.7 million in a combination of actual cash and reward credits for Year 3. Defendant converted her winning credits into cash. Casino payouts were made in cash for amounts less than $1,000 and by check for amounts in excess of $1,000.
9. Defendant’s winnings in Year 3 as she reported to the IRS were approximately $135,000. Defendant did not report any losses.

Facts Provided by Employees

10. The general manager stated that she told the Defendant to stop running two Z tapes on the cash register. The general manager stated that reported cash sales from the cash register doubled when two Z tapes were not run.
11. The accountant stated that the Defendant told him she ran a Z tape from the cash register each day to determine what food items sold and what she needed to order. General manager stated that Defendant was not the person who did the ordering of food. Another employee ordered food and stated that she did not use the Z tapes in determining how much and what food to order.
12. At work, the Defendant was observed exchanging higher denomination bills in the cash register with gambling winnings from her purse, so that cafe workers would not have to get change from the bank.
13. Defendant’s gambling activity increased in Year 2 and Year 3, but her earned income remained at $35,000.

Information Provided by the Defendant

14. Defendant stated that she cut the Z tapes for a study which was being conducted to cuts costs and waste in the cafe. After the study was done, Defendant admitted that she continued to cut the bottom off the Z tape to track inventory. She did not explain how the bottom half of the
tapes had been removed just above the grand total amount or how the grand total amount was necessary for the study or for her ordering purposes.

**CHARGES AGAINST BECKY**

After reviewing the information from Sue and her accountant, coupled with their own investigation, the detectives arrested Becky McGill and charged her with embezzlement of $250,000, as well as other charges. Furthermore, the detectives contacted the Criminal Investigation Division of the IRS and requested them to begin an Income Tax Evasion case on Becky McGill.

The District Attorney needs assistance in developing an understanding of embezzlement. He feels that it may be too hard for the jury to grasp. He feels if the jury does not fully understand the count of embezzlement they may find her not guilty on all the other counts. The District Attorney engages you as a consulting expert accountant. Your task is to analyze the elements of embezzlement, and identify the facts that support the allegation, based on the investigation conducted by Sue’s accountant and the detectives.

**CASE QUESTIONS**

**PART ONE.** The purpose of this question is to examine why Becky committed fraud. The Fraud Triangle and the COSO Internal Control – Integrated Framework provide a useful way to analyze the facts.

a. Explain what perceived pressure(s) Becky may have faced. How might Becky rationalize her fraudulent actions?

b. Describe what factors in Howie’s Café system of internal control led to and facilitated Becky’s manipulation of the Z tapes and the theft. In your answer, fully define each of the five components included in the COSO Internal Control – Integrated Framework. The Framework, as updated in 2013, helps organizations design potentially effective internal controls. Relate your explanations back to the framework’s five components.

c. What could Howie’s Café have done differently to detect this fraud earlier or prevent it from happening?

**PART 2.** The purpose of this question is to demonstrate how a net worth analysis, a technique used by both the IRS and the Department of Justice, can show that there is income from unknown sources.

a. Using the information in Table 1, prepare a net worth analysis using the indirect approach to calculate Becky’s income from unknown sources for years 2 and 3.

b. Provide a narrative explanation of how it will help prove embezzlement. Explain how Becky will attempt to refute these arguments.

**PART 3.** The purpose of this question is to explain how the fraud occurred. The “elements of fraud plus inquiry” model of fraud investigation as indicated in Table 2 (Appendix), provides one way to describe how a fraud occurs: theft, concealment and conversion.
a. Categorize each of the 14 “Findings of Fact” as “theft”, “concealment” or “conversion”. If a finding fits into more than one category, so indicate. If a finding does not fit into any category, indicate “NA”. You may also include any of the Background Facts that help you detect where and when the fraud occurred. For any Background Fact that you include, categorize it as theft, concealment and/or conversion.

b. For the benefit of the readers of your report and a potential jury, briefly summarize how each Finding of Fact helps prove the particular category or categories (theft/concealment/conversion) you assigned for that paragraph.

PART 4. The purpose of this question is to show how Becky had the intent to commit fraud. Analyze the accountant’s 14 Findings of Fact and determine which specific facts would help prove Becky’s intent to defraud. Intent can be proven by circumstantial (indirect) evidence by showing one or more of the following:
   a. Motive (no legitimate reason)
   b. Non-accidental
   c. Opportunity to commit fraud
   d. Concealment
   e. Conversion
   f. Corroborating witnesses

Separately list out each category (4a)-(4f) given above. After each category, state or summarize which specific Findings of Fact(s) help(s) prove that category. For ease of reference, please provide the specific Finding of Fact paragraph number(s). Findings of Fact may be used more than once. You may also include any of the Background Facts that would help you to prove criminal intent. You should carefully consider each and every fact and determine if it is relevant to proving intent.

PART 5. This part of the case study represents your summary of the facts, as they relate to each element of embezzlement. Embezzlement can be defined as:
   - Defendant took or converted
   - Without the knowledge of owner
   - Money or property of another
   - That was entrusted to Defendant (i.e., Defendant had legal custody/lawful possession)

   a. Analyze each of the four elements of embezzlement (stated above) and briefly summarize, in narrative form, the specific Findings of Fact and Background Facts that help prove each element. Please state the specific paragraph numbers you are discussing in the narrative. For example: *Defendant took or converted (paragraphs 5,6,8,13): Insert narrative.* Conclude by writing a 1½ -2 page, double-spaced report to assist the District Attorney in analyzing the strengths and weaknesses of the case.
   b. Prepare a professional, formal oral presentation of your written “summary to the attorney.” Your presentation should be 3-5 minutes in length. You may use notes when giving your presentation.
CASE LEARNING OBJECTIVES AND IMPLEMENTATION GUIDANCE

This case is based on an actual criminal investigation and prosecution of an employee who was responsible for maintaining financial records. It demonstrates an understanding of the relationship between law and forensic accounting. Names, dates and locations have been changed. After the restaurant owner died, the owner’s daughter inherited the business and discovered unexplained losses. She retained an accountant, who recommended contacting the local District Attorney. The accountant and police conducted a forensic investigation, resulting in an employee being charged with several counts of fraud, including embezzlement.

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The purpose of the case is to enable the student to act as a consulting expert to assist the District Attorney. Students are required to use their forensic accounting skills to analyze the evidence and determine whether embezzlement may have occurred, based on the facts already obtained by the accountant and detectives. “Forensic accounting is the application of investigative and analytical skills for the purpose of resolving financial issues in a manner that meets standards required by courts of law.” (Hopwood et al. 2012, 3)

In order to realistically portray the workplace and fraud investigations, this case purposefully does not include a complete set of data. Students are challenged to use their forensic accounting knowledge, logic and intuition to analyze accounting data, organize it under the required legal elements of embezzlement, draw conclusions as to the existence of embezzlement, and communicate their results to the prosecutor in non-technical language. Students are afforded the opportunity to evaluate internal controls in an operational setting using the COSO framework.

LEARNING OBJECTIVES

After completing the case study, students should be able to:

1. Evaluate the internal controls in a retail establishment, using COSO as the framework for analysis, and discuss how lack of controls could allow the opportunity to commit fraud. By utilizing COSO, students are able to understand both fraud detection and fraud prevention.
2. Conduct a net worth analysis and provide a narrative explanation to prove the amount of embezzlement by circumstantial evidence.
3. Understand the relationship between financial and nonfinancial factors when conducting a forensic analysis.
4. Incorporate use of the fraud triangle, professional skepticism, and the Elements of Fraud Plus Inquiry Method, adapted from Albrecht’s “fraud triangle plus inquiry” method (Albrecht et al. 2012, 211) into the development of the embezzlement allegation, thereby supporting or not supporting the likelihood of the allegation. See Table 2 in case for the Elements of Fraud Plus Inquiry Method.
5. Convert their forensic accounting analyses into an explanation of how the facts support the required legal elements of embezzlement.
6. Present their findings to the District Attorney in accurate, non-technical language that would be understandable to a jury of laypersons.

IMPLEMENTATION GUIDANCE AND TEACHING METHODS
Recognizing the need for accountants who wish to acquire special expertise in the area of fraud examination, this case was specifically developed for use in a graduate course entitled “The Legal Aspects of Fraud Examination.” Successful prosecution of fraud cases is often due to the testimony of accountants who demonstrate that fraud has occurred, despite the lack of eyewitnesses. Accountants demonstrate the fraud through an application of accounting techniques. In essence, this case study is a culmination of the application of various forensic accounting techniques and other non-accounting skills, which the students have developed over the entire course. This case study counted for 40% of the total grade for the course and was used in lieu of a cumulative final examination in the course.

Employing a formative approach, the authors used various lectures and related graded assignments for each part of the case, as a way to equip the students with the skills and knowledge which were required for completion of this case study. Each homework assignment was followed by a class discussion. This course was a seven-week course that met for three hours, twice per week. Given the intensity of the workload as well as course content, for ease of both preparing case answers and grading, the authors assigned the case study in parts. This made the workload manageable for both students and the professors. Due to the extensive amount of analysis required for each part of the case, the authors recommend assigning it in parts, even if the course is taught under the quarter or semester system.

Due to the degree of skill required to successfully complete this course, the initial target market consisted of students who were enrolled in either a Master of Science in Accountancy or a Master of Business Administration program. In doing this, the authors felt assured that students possessed the proper fundamental academic skills. The ideal target audience is the MSA or MBA student who has taken forensic accounting, accounting courses which cover internal controls and use the COSO criteria, and an introductory business law course (frequently called a “legal environment of business” course). The business law course may be an undergraduate or graduate level course which requires analysis of actual court cases.

USE OF CASE STUDY IN UNDERGRADUATE COURSES

The concepts of fraud examination and the fraud triangle most likely would be new topics for both undergraduate and graduate students. This case study is atypical of other cases used to assess an accounting student’s knowledge, since it incorporates an analysis of the legal claim of embezzlement. In particular, Parts 4 and 5, which deal with the technical analysis of criminal prosecution, would not be suitable for lower-level students who have not taken a business law course. These parts demonstrate mastery of the skills of converting accounting techniques into legal requirements, a completely separate discipline from which accounting students are accustomed. Parts 4 and 5 are the most challenging portions of the case study and are recommended for use only with students who have satisfied the prerequisites.

The authors believe certain parts of the case which relate to assessment of internal controls could be used in undergraduate introductory auditing classes. Students get the opportunity to identify and explain appropriate internal controls, use the COSO criteria and determine which controls are lacking. Furthermore, Parts 1 and 2 of the case require application of the fraud triangle and calculation of a net worth analysis. Since the net worth analysis may represent a new concept, it may need to be demonstrated in class. After such demonstration, this concept can be well understood by undergraduate accounting students.
GENERAL GUIDANCE

The case is assigned in parts after lectures are given on the civil and criminal court systems, types of fraud, fraud investigation and proof of criminal intent. After each lecture and before assigning a particular case part, students could be given practice questions on each topic. Classroom discussions of these practice exercises allow students to brainstorm their ideas and theories and begin to appreciate the relationship between law and accounting. Students develop a sense of confidence in learning the material before doing the graded case study.

Case questions are used to introduce students to occupational fraud and the nature of fraud schemes, including the elements of the fraud triangle as identified in SAS 99 (AICPA 2002). The questions allow students to participate in the fraud evaluation process in a systematic way. Questions for each part are sequenced so that students move from a general evaluation of control risk and review of internal controls, to application of the fraud triangle, and finally, to an assessment of the likelihood of embezzlement. The sequence is intended to demonstrate how weaknesses in controls, plus opportunities and rationalization can lead to fraud.

Parts Four and Five of the case contain a completely different area of critical analysis: as consulting expert accountants, students must shift from the more familiar role of “thinking like an accountant” to the unfamiliar task of thinking like a lawyer. They must transpose their findings into facts which prove each legal element of embezzlement in fact occurred. Last, students prepare a written report for the district attorney which summarizes their analysis.

This case could be worked individually or in teams. However, to maximize participation and ensure individual mastery of each topic, students prepare individual written answers for each part of the case as a graded homework assignment. Subsequently, during class, students are then randomly divided into teams to discuss their answers. The group approach allows them to share their insights and experiences and provides an opportunity for brainstorming. Brainstorming is a mandated procedure of SAS No. 99 (AICPA 2002). Discussions of each part are lively but students are clearly uncomfortable with the lack of clear-cut, absolute answers. Students also are challenged when required to explain accounting concepts in plain language which could be understood by a non-accountant. Brainstorming is used for each section of the case except for the final written report for the prosecutor. The authors recommend using group discussion throughout the case, not merely at the beginning, since the insights offered by various students enable the teams to perform a more in-depth analysis than they would probably perform individually. The lecture/practice/case study strategy provides a uniform, systematic approach which enables the students to test and refine the embezzlement allegation.

Instructor Input/ Student Feedback

This case was used during four semesters and was team-taught by an accounting professor who is also a certified fraud examiner and an attorney. Instructors who are fraud examiners or who have been testifying fraud experts could substitute for an attorney in teaching this case study. Students completed two course evaluations – one regarding the course as a whole and a second one specifically addressing the case itself.

Students were interested in learning that the problem was based on an actual case and felt that they benefitted from the group discussions because they were able to draw on the experiences and ideas of others in the group, especially from students who had more practical work experience in retail sales.
Students mentioned that they felt most challenged in three distinct areas: first, when they were required to describe accounting procedures in plain language that a jury could understand; second, in thinking like a lawyer instead of an accountant when they had to adapt accounting analysis, procedures and facts to the very technical legal elements of embezzlement. Last, students felt uncertain and uncomfortable when attempting to prove criminal intent by circumstantial evidence. A student commented that Part Four gave a sense of uncertainty because the findings of fact apply to more than one criteria for proving intent. Using practice problems helped alleviate some of this tension.

As accounting students, they are more familiar with answers that can be given with certainty; in exploring the legal aspects of fraud examination, the use of circumstantial (indirect) evidence led them into gray areas and uncertainty. Surprisingly, however, they mentioned learning how to use circumstantial evidence was one of the most important things they learned from the case. As one student summarized, “I learned how important it is to use each piece of information made available, not just pick and choose what seems important, when proving intent.” Another student observed “when people say prove the case ‘to the letter of the law’ they weren’t kidding. It is very precise and logical. There is so much that needs to be proven that is not shown on TV shows.”

The authors have refined the case during the four semesters in which they used it. The authors’ experience indicates the following:

1. The case is a good tool in illustrating what internal controls are and the need for such controls. Use of the COSO framework gave students a concrete guideline against which they could measure an existing organization’s performance. Instructors should give a brief refresher lecture on COSO before the assignment.
2. The net worth analysis provides “hands on” experience in demonstrating a skill, but a short lecture should be given beforehand.
3. There is no existing textbook on “legal aspects of fraud examination” and the course was not a complete course on all aspects of fraud examination. However, the students indicated, and the authors agree, that lack of a textbook was not important. Instead, providing separate lectures on the topics covered in the case study itself filled the gap satisfactorily. Lecture materials were developed primarily by adapting information provided by the Association of Certified Fraud Examiners.
4. To ensure students completed their own work, the authors required them to submit individual answers to each part of the case study for a grade. Their submissions were then used for discussion and further learning purposes. Students said they appreciated the opportunity to discuss their answers in small groups because it helped them expand their critical analysis. They were then able to incorporate this knowledge into their analysis of subsequent parts of the case study. Many students echoed the comments made by one student: “I found it interesting that several students interpreted the facts differently than I. It made group discussions interesting and thought-provoking.”

**Time Parameters**

Each part of the case study has a homework portion. Estimated completion times are provided here to assist instructors in implementing the case.

Reading the case study, 1 hour
Part One, Applying the fraud triangle and COSO analysis, 2-3 hours
Part Two, Net worth analysis chart and narrative, 1 hour
Part Three, Elements of fraud plus inquiry, 2-3 hours
Part Four, Proof of intent, 3-4 hours
Part Five, Written report to attorney, 2 hours

Class discussion in randomly-composed small groups averaged 30-45 minutes for Parts One, Three and Four. After small group discussions concluded, each group summarized its findings for the benefit of the entire class. Large group discussions averaged 10 minutes each. Part Two was summarized in a ten minute recap. No discussion was held for Part Five.

Individual students gave oral presentations in groups of five students per time bloc. Students in each time bloc provided anonymous written feedback to the presenting student immediately after the presentation.

Average grading time for each Part was 3 hours (25 students per class)

TEACHING NOTES

The purpose of this case is to provide students with the opportunity to apply forensic accounting skills to facts obtained in an actual fraud investigation. It is designed to assist students in proving the legal existence of embezzlement in a systematic manner. The steps used are:

1. application of the fraud triangle method to identify indicia of fraud;
2. application of the elements of fraud plus inquiry method to analyze facts from a legal rather than from an accounting perspective, and
3. provide factual support to prove the legal elements of criminal embezzlement.

The instructor’s role is to provide information to students as they work through each of the fraud investigation steps outlined above. Students are likely to struggle most with the inherent uncertainty of dealing with circumstantial evidence and not knowing how many facts are legally sufficient to prove fraud was committed. Also, students are challenged to explain their analysis in non-accounting terminology which would be understandable to a jury. The authors recommend allowing students to struggle through practice problems in advance of assigning the case study in order to allow them to assimilate the material provided in lectures and develop some sense of confidence.

This case study was designed for use in a graduate course which emphasizes the legal elements of fraud examination, but Part One, which relates to the evaluation of internal controls and Part Two, which requires construction of a net worth analysis, could be assigned to various levels of students in auditing or accounting courses. Part Three, which involves application of the elements of fraud plus inquiry method, could be used in a fraud examination class.

Any principles of auditing textbook that explains fundamental internal control concepts would be helpful to students in completing this case study. In addition, the Association of Certified Fraud Examiners provides a bi-annual report of Occupational Fraud and Abuse. The most recent report is the 2012 Report to the Nations on Occupational Fraud and Abuse. This report addresses control weaknesses that contribute to fraud, as well as the effectiveness of specific controls. (Association of Certified Fraud Examiners 2012, 36-38)

ANSWERS TO CASE QUESTIONS
In order to make the material more manageable for both students and instructors, the case was assigned in parts after relevant lectures and practice exercises were completed. Forty percent (or 230 points) of the student’s course grade was based on this case. Parts One (60 points) and Two (20 points) were assigned together. Part Three (50 points) was graded based on completion. Seventy points were allocated to Part Four. The final part, Part Five, was worth 30 points with 20 points for the written narrative and 10 points for the oral presentation.

**Part One: Application of the Fraud Triangle and COSO Analysis**

Prior to completing Part One, a lecture is given on the fraud triangle, a model developed by criminologist Donald R. Cressey. Professor Cressey hypothesized that most occupational frauds were caused by a combination of three elements (Wells 2004, 6): a perceived pressure/unshareable problem, a perceived opportunity and a way to rationalize the fraud as acceptable. The fraud triangle has been adopted as part of SAS No. 99. The fraud triangle is apropos in the case because Becky, the person completing the embezzlement, has characteristics that fit Cressey’s theory.

a. Answers will vary, but students should identify pressure to sustain her gambling habits/addiction, and perhaps pressure to maintain a certain lifestyle. Further, since Becky’s husband is unemployed and she has two children who hope to attend college, Becky is probably feeling a financial strain. The majority of employees who commit fraud against their employers have no previous criminal history; few, if any, people would consider them to be law breakers. Thus it seems unlikely that there was a fraudster inside Becky waiting to be released. Rather, the pressures that Becky felt, combined with an opportunity and rationalization, probably lead Becky to commit the fraud.

b. Early on, Becky might rationalize her fraud by saying that she is just borrowing the money with the intention of repaying it from her winnings. She might also rationalize her fraud by claiming that she is not being adequately compensated for all of her responsibilities. Additionally, she may have felt that even after the thefts, Howie was still running a profitable business and would not miss the money that was taken; in other words, no one was hurt by her actions.

c. The COSO internal control framework provides a structure by which students can identify specific internal control failures that may have contributed to the fraud scheme. This Part also provides an opportunity to discuss the importance of the specific environment in which the fraud occurred- a retail restaurant business. Answers will vary, but student should identify and fully define the five COSO internal control elements and comment on key facts:

- Control environment includes integrity, ethical values and competence of the entity's people; management's philosophy and operating style; the way management assigns authority and responsibility, and organizes and develops its people; and the attention and direction provided by the board of directors. Management is responsible for the establishment of the control environment which sets the tone for how the business operates. Students should note that Howie’s illness and absence made it nearly impossible from him to create any type of environment that encourages the elements making up the control environment. For example, an absent owner cannot demonstrate a commitment to integrity and ethical values or establish an operating style. Since the company is privately owned, the owner, rather than the board of
directors, may provide attention, direction, and oversight. Once again, this does not happen due to Howie’s condition.

- Risk assessment begins with the company’s objectives and relates to identifying situations that will hinder the company from achieving those objectives. Students should note that Mr. Howard placed great trust in Becky and as a result, did not perform any risk assessment. There is no mention of any risk or objectives and how matters were to be handled in Mr. Howard’s absence. The unexplained loss of revenue is a severe lapse in the business’ objectives. If proper risk assessment had been implemented, it would be apparent that giving Becky such broad authority would provide an opportunity for theft of cash.

- Control procedures include policies, procedures and practices that ensure risk mitigation strategies are carried out, and that management achieves their objectives. Procedures can be segregation of duties, system of authorizations, independent checks, physical safeguarding and documenting/recording. Students should note that Becky carried out revenue transactions from start to finish. There was no segregation of duties, no independent checks and no system of authorization or other proper controls over Becky. Becky had keys to the building and access to the cash in the cafe with little to no accountability. Please note that relying on trust represents the absence of control.

- Monitoring is the oversight of controls through internal monitoring and evaluations by independent parties. Students should note that Mr. Howard placed too much trust in Becky and required very little from her in the way of reports and other communication. When he was absent, there was no monitoring done by other employees, nor by any external parties. There were no video cameras or other ways to observe the effectiveness of controls. Monitoring only occurred after Sue took over the business. It should be noted that her monitoring immediately uncovered problems.

- Information and communications support all other control components by communicating control responsibilities to employees and providing information in a form and time frame that allows people to carry out their duties. Students should note that there was no accounting information system for obtaining financial information on the cafe. Becky had the ability to physically manipulate the Z tapes. She was able to remove information that would have alerted the accountant or other employees of the accounting irregularities. There was no attempt to explain the tone at the top, a code of conduct, or communication to employees that controls are in place and fraud will not be tolerated. There was no attempt to communicate to employees the objectives of the business and how various matters should be handled in Mr. Howard’s absence. Mr. Howard was not capable of communicating to his employees the potential fraud risks and the proper controls that could mitigate these risks.

d. Recommended steps to reduce fraud could include:

- Setting a code of conduct regarding standard operating procedures, fraud policies and punishments and communicating those to employees;
- Identifying risks and establishing controls that would mitigate those risks. Management should assume a much more active role in daily management;
- Segregating duties regarding recording sales, completing the daily sales report, making bank deposits and reconciling bank statements;
- Adopting physical safeguards such as installation of a video camera;
• Implementing a system of authorizations and independent checks of documents for accuracy and also to monitor employee activities. For example, someone independent of the sales reporting process should make sure that the z-tapes are complete and properly attached to the sales reports.

Part Two: Net Worth Analysis (Indirect Method)

Using information obtained from detectives, students prepare a net worth analysis. Students begin by determining the amount of income from unknown sources. Then, they use reverse proof to rule out any valid reasons for such income. Students ultimately suggest how such income represents circumstantial evidence that Becky committed embezzlement. Then net worth analysis may be presented in more than one way. Included in these teaching notes are two such presentations in Tables 3 and 4 (Appendix).

Narrative Portion of Student Solution: Answers will vary but should cover the following concepts. First, fraud investigators would use this information to explain that Becky has no logical reason to explain income from unknown sources. Second, they would explain that there is no logical explanation for Becky to have no liabilities when her salary has remained the same. Third, there is no explanation for how Becky would be able to purchase a $125,000 addition to her home, jewelry, and an additional vehicle when her income has not increased and she has not borrowed any money.

Becky would be expected to refute these conclusions by claiming her changes in lifestyle and ability to pay off debts were due to the fact that she had large gambling winnings. She might also claim that she inherited the money.

Part Three: Detecting Fraud – Theft, Concealment, Conversion

Students apply the elements of fraud (theft, concealment, conversion) plus inquiry method adapted from Albrecht’s Elements of Fraud Plus Inquiry Method (Albrecht et al. 2012, 211). They extend their understanding of conducting a fraud examination from an accountant’s perspective to a legal perspective. In particular, Part Three is most helpful as a preliminary step in proving intent to commit fraud.

Answers will vary but should cover the following key points. The numbered paragraphs below correspond to each of the 14 Findings of Fact.

Fact 1 - CONCEALMENT. Daily cash reports consistently matched, to the penny, the cash she turned in. This is rare in retail sales and illustrates the defendant took great care to ensure it matched exactly and prevent anyone from suspecting cash was missing. This rare consistency raises a red flag of concealment.

Fact 2 - CONCEALMENT. The financial function of the cafe only needs one Z tape to record sales and receipts information each day. It would be rare for a small business to run two Z tapes. A larger business might run two and submit one to the home office. Running two Z tapes allows Becky to keep two records, which only serves the purpose of allowing Becky to hide misuse of funds. The amount of sales on the missing Z tape represents stolen funds. Please refer to Figure 1.

Fact 3 - CONCEALMENT. Cutting the Z tapes allows someone to make up his own grand total or to hide certain sales and keep the cash. Becky could conceal the grand total and then create
her own. Also if one Z tape is run each day, the change in the cumulative total should equal the detailed sales dollars on the Z tape. Since Becky ran two Z tapes during a single day, the change in cumulative total should not be equal. Becky tries to conceal this by removing the running total from the bottom of each Z tape.

Fact 3 - THEFT. Z tape totals did not match bank records of daily deposits. This helps prove the cash was taken. Since Becky was given responsibility for printing Z tapes and recording cash each day, cutting the Z tapes infers that she must have taken the cash and altered the records to conceal her actions.

Fact 4 - CONCEALMENT. The proper cut-off point was not followed, the sequential numbering of the tapes had a gap, and important information was missing as a result. This shows the Z tapes were altered for no legitimate purpose but to defraud.

Fact 5 - THEFT. The opportunity to take cash from the café through overcharged sales exists.

Fact 5 - CONCEALMENT. Since inflated charges would not be reflected in sales, this would hide embezzlement of cash.

Fact 5 - CONVERSION. The amount of the overcharge would allow Becky to pocket the extra amount and use it as she wishes.

Fact 6 - THEFT. Since the money was no longer in the possession of the business, the inference is that someone else had it or used it. The cash shortage in this time period occurred when Becky was in control of the café, and it is most likely attributable to theft.

Fact 7 - CONCEALMENT Becky tried to use her player’s club card to conceal her thefts as gambling winnings.

Fact 8 - CONVERSION. The $1.7 million amount of cash and credits for Year 3 gambling activity shows how the defendant used the money she embezzled. It shows that on her yearly salary of $35,000, this amount of spending would be impossible.

Fact 9 - CONCEALMENT. It would be odd that a gambler would not report losses on his tax return. Since gambling is a game of chance, the likelihood of not incurring losses is virtually impossible. Based on the amounts shown on the coin-in report, Becky appears to have underreported her winnings to the IRS in order to conceal all the unknown income she has and make it less obvious that the large sums may have been acquired by fraud.

Fact 10 - CONCEALMENT. After Becky was told to stop running two tapes on the register each day, cash sales doubled. This could support the inference that Becky took the second Z tape with the cumulative totals so that others would not know how much the actual daily total was before she made her adjustments.

Fact 10 - THEFT. Since Becky was the only person running the register with two tapes, this helps prove that she was the “someone” taking the cash and possibly overcharging for orders.

Fact 11 - CONCEALMENT. Becky was not responsible for ordering food, so her implausible explanation of why she ran the second tape indicates she had another motive, such as keeping track of how much money she stole from the café.
Fact 12 - CONCEALMENT. The act of “making change” was only to conceal the taking of the money. Becky wanted to keep all communications about the cafe accounts between herself and the bank and not give other employees any opportunity to ask the bank questions about the accounts.

Fact 12 - CONVERSION. She converted cash to her own use in gambling through the exchanges of cash.

Fact 12 - THEFT. Since others observed Becky exchanging higher denomination bills in the register for bills in her purse, this is evidence of the act of theft. There is no guarantee that she was not taking more than what she was replacing and then covering this theft by adjusting the register totals.

Fact 13 - CONVERSION and THEFT. It would be impossible for Becky to win as much money as she says she did simply from gambling with the income from her salary. Her unexplained change in lifestyle and living beyond her means is indirect evidence that she stole money from the cafe and converted it to her own use.

Fact 14 - CONCEALMENT. Becky tried to use a legitimate reason (the study) for cutting the tapes, but was unable to explain why she needed to cut the tapes for the study or for the purpose to order food for the cafe. In the normal course of business, someone who deals with that type of information on a daily basis would have an immediate answer as to why she cut the tapes. Since Becky was not responsible for ordering food, her remaining reason (to track inventory) was a lie made for no other reason than to hide her thefts.

Background Information

In addition to the 14 Findings of Fact, students may provide background information to support the existence of concealment, theft and/or conversion as described below.

Concealment:
- Falsifying cash reports and financial records
- Claimed she was a part-time professional gambler
- Concealed her theft by claiming gambling “winnings” on her tax return
- Used highway construction as excuse for declining sales
- Lack of segregation of duties allowed Becky to steal cash and cover it up by making fictitious recordings

Theft/Conversion:
- Completely trusted by Mr. Howard; had keys to store (theft, concealment, conversion)
- Bank deposits for last two months did not include any cash (theft)
- Made 107 “cash deposits” ranging from $9,750-$9,999 over a nine-month period (conversion)

Conversion:
- Admitted to big gambling wins in Year 3 including $20,000 video poker payoff
- Admitted to more winnings and earned income after this
The authors felt students needed more practice in proving intent; therefore, the authors treated Question Three as an interim step toward proving intent and gave a completion grade, rather than grading for correctness. Students welcomed the opportunity to discuss their answers in groups. After grading, Question Three was returned to students to enable them to answer Part Four.

**Part Four: Proof of Intent**

The importance of proving intent to commit fraud cannot be overstated. Intent is one of the most difficult elements to prove since it is usually based on circumstantial (indirect) evidence. Instructors should remind students that since criminal charges must be proved “beyond a reasonable doubt”, students should utilize every fact possible, and emphasize that facts can have multiple applications. Part Four is the most time consuming part of the case study in terms of analysis and grading. Students are likely to struggle with it because of the inherent uncertainty of definitively proving that the fraudster had the requisite intent to commit fraud. Students expressed frustration with the lack of absolutes and certainty and felt uncomfortable stepping outside their familiar roles as accountants. A lecture regarding federal rules of evidence and practice exercises were provided. Students reported that it was very helpful to have several practice cases.

This case study lists the guidelines for proof of intent which were discussed in class. For the instructors’ convenience in grading, students provided cites to each specific Findings of Fact as well as a summary.

a. Motive: Is there a legitimate motive for her action?

1. Daily cash report always matched perfectly to amount of cash turned in. Very rare-infers Becky manipulated records so no one would suspect wrongdoing

2. One Z tape always missing

(2,3,4) No legitimate reason to cut Z tapes and hide totals. The totals assist in making the deposits- to cut them off would maker her job harder if she was not attempting to commit fraud

(3, 4) Z tape always cut in inappropriate place

(5) No reason to overcharge for sales if she was not gaining from it or covering the cash shortages with it

(11) Lied about using Z tapes to order food when it wasn’t her job to order food.

(13) No legitimate reason to prevent employees from changing their own denominations at the bank. This activity was done so that cafe employees did not go to the bank and access information

(14) Continuing to run two Z tapes after study was completed on the grounds that she needed information for re-ordering food was false. Running two tapes had no legitimate purpose

b. Non-accidental: Was she repeatedly engaged in the activity?
(1) Daily cash report always even. Very rare, which infers continued manipulation of record to ensure daily cash reports balanced so no one would suspect wrongdoing

(2) One Z tape always missing

(3) Daily cash report always precisely cut above the cumulative total sales

(6) Cash shortage over nine months in Year 3

(11) Ran daily Z tapes to “order food” when it wasn’t her job.

(12) Made “change” for employees so they wouldn’t have to go to the bank

(13) Increased gambling activity in Year 3

(14) Continued to run Z tape after study concluded on the grounds that she needed information for re-ordering food was false

c. Opportunity to commit fraud: Weaknesses in the control system or override of controls by management

(2) One Z tape always missing. She was responsible for including all appropriate information, including the Z tape—destroyed evidence

(5) Could overcharge for sales—access to cash register

(12) Opportunity to use cash register to “make change” for employees

d. Concealment (hiding the fraud)

Did she try to hinder the investigation in any way?

(3) By cutting Z tapes, accountants had to calculate grand totals manually, adding work to their investigation.

(11) Lied to investigators about reordering food. Added to time spent investigating because they had to check out her story.

(14) Said she needed Z tape for the study—need to check out her story.

Did she attempt to conceal the activity?

(1) Daily cash reports matched cash turned in—points to falsifying reports to cover the theft.

(2) One Z tape always missing—when Becky stopped running two Z tapes, cash sales doubled. When using two Z tapes, she could disguise the amount of cash she was taking out of the register by showing lower sales on the Z tape. It is harder to conceal theft with only one Z tape.

(3) Z tapes cut—could point toward discrepancy in register amounts. Evidence of true totals was destroyed. Only gave sales figures by categories so that discrepancy between subtotals and grand totals might not be noticed.
If she took cash from breakfast sales, she could cover up by inflating sales charges to other customers.

Coin-in report shows $1.7 million in cash and winning points.

Reported salary of $35,000 and other income of $135,000. Reported income on tax return compared to level of gambling activity and a modest salary implies concealment of income from unreported sources.

Changing bills at register so she could skim money from the register or keep employees from going to the bank and accessing account information, thus discovering the fraud.

Continuing to cut Z tapes after the study concluded and also continued even though she did not order food. Continuing to run two Z tapes after the study was completed on the grounds that she needed information for re-ordering food was false. Running two tapes had no legitimate purpose.

**Did she make any conflicting statements?**

None.

**Did she make any false statements during the investigation?**

Said she needed to run two Z tapes so that she would know how much food to reorder, when in fact this was the job of another employee.

Said she cut the Z tapes for the study and continued to cut the bottom of the Z tape to track inventory.

Students should conclude that these facts show that an action or accounting activity had no legitimate motive and was done solely for the purpose of concealing the fraud.

e. Conversion

Instructor may need to reiterate the legal definition of conversion i.e. converting to one’s own use, as well as the accounting definition i.e. conversion of an asset from one form to another.

**Did she personally gain from the activity?**

Had access to cash from sales.

Amount of theft- $250,000.

Obtained players club card voluntarily – using money and accumulating points is a personal use activity and gain.

Increased credits at casino. Shows she used money for personal use at casino.

Possible underreported income to IRS.

Need to spend money gambling in hopes of winning.
(12) Exchanged bills at cash register. By exchanging money she personally gained by not having workers go to the bank which could allowed her a chance to skim money.

(12) Made change for employees at the cash register—since she closed the registers and prepared the cash reports, no one would notice if she had taken the cash from the register.

(13) Increased gambling in Year 2 and Year 3.

(13) Increased gambling activity in Year 3. Had a lot of cash from winning at casino.

f. Corroborating Witness Statements (statements made to co-workers, managers or third parties)

(4) Accountant could testify about the logical place to cut the Z tape.

(11) Employee who ordered food could testify that she did not use Z tapes when ordering food.

(12) Employees who saw this could testify they observed Becky changing bills at cash register.

Background facts: Sue could testify about the cash shortages and loss of profits.

Part Five: Written Report to Attorney

Part Five requires students to finally summarize all facts that help prove the existence of criminal embezzlement. Answers should be summarized in narrative form so that they can be used as the basis for oral presentations. For the instructors’ convenience in grading, supportive Findings of Fact are also listed by paragraph number. Students find this part very challenging because now they are required to “think like a lawyer” and categorize facts under purely legal criteria according to the definition of embezzlement.

1. Defendant took or converted

(1) Daily cash reports consistently matched to the penny the amount of cash Defendant turned in. This is highly unusual.

(2) Two Z tapes were run on the breakfast cash register but only one was turned in by defendant with the daily cash report.

(5) Accountant demonstrated how overcharges on sales could allow someone to take cash from the cafe and not reflect poorly on the cafe’s revenue.

(8,9,13) Defendant’s gambling activity increased in Year 2 – Year 3. Defendant’s coin-in report showed in excess of $1.7 million in actual cash and reward credits which she could use at the casino, and her other income reported to the IRS was approximately $135,000. Defendant’s earned income was $35,000 in Year 2 and Year 3.

(10) Defendant was told to stop running two Z tapes on the breakfast register. When she did so, reported cash receipts from the breakfast register doubled. (12) Defendant was observed at work exchanging higher denominations bills at the cash register with
gambling winning from her purse, so the staff would not have to run to the bank to make change.

(14) Defendant could not explain why she kept cutting the Z tape after the study was concluded.

Background facts: Defendant’s job description included counting cash receipts and delivering the daily cash report to the accounting department.

2. Without the knowledge of owner

(2) Two Z tapes were run on the cash register but only one was turned in by defendant with the daily cash report.

(3) An examination of the Z tapes showed that they were precisely cut just before the grand total, so that only sales figures by categories were shown. Cumulative grand totals were missing from the Z tapes.

(7) Accountant showed how sales could be manipulated and not reflect on the cafe’s revenue shows how the owner could be kept unaware of the fraud.

(10) Cash sales doubled when Defendant was told to stop running two Z tapes (invigilation period) shows that she was hiding overcharges on sales and was hiding her fraud.

(11) However, Defendant did not explain how the bottom half of the tapes were removed just above the grand total, or how the grand total amount was necessary for the study or for her ordering purposes.

(14) Defendant admitted that she cut the Z tapes during a study that was being conducted to eliminate waste in the cafe. Defendant stated that she continued to cut the Z tapes after the study concluded to track inventory for re-ordering purposes.

(14) Defendant was not the person who ordered food and the employee who ordered food did not use the Z tapes in determining what or how much to order.

Background Facts: Defendant’s job description included counting cash receipts and delivering the daily cash report to the accounting department.

3. Money or property of another

(1) Daily cash reports consistently matched to the penny the amount of cash Defendant turned in.

(6) The accountant documented a $250,000 loss in the first nine months of Year 3.

These facts support the claim that Defendant had stolen money from the business.

Background Facts: All cash receipts from breakfast register belonged to the company.

For two months, the daily bank deposit did not contain any cash.
Gambling payout exceeding $1,000 were paid by check, not cash, but Defendant made many large cash deposits to her bank account

4. That was entrusted to defendant (defendant had legal custody/lawful possession)

(1) Defendant’s job description included counting cash receipts and delivering the daily cash report to the accounting department.

(12) Defendant had access to the cash register and was observed changing bills in the cash register with money from her purse.

**Summary of Proof of Intent**

Becky’s intent to embezzle is proven indirectly through several actions. Repeatedly cutting Z tapes in an inappropriate place and providing perfect daily cash reports show the action was non-accidental and committed for no reason other than to embezzle. She had a motive to embezzle to support her gambling habit. Weak internal controls and lack of segregation of duties provided an opportunity to steal. Concealment is shown by manipulating the Z tapes, overcharging for sales and lying about why she needed to run two tapes or change bills at the register. Conversion is shown by an unexplained increase in net worth in Year 3 and gambling activity increasing to $1.7million in Year 3. Finally, corroborating witness statements regarding the falsity of Becky’s explanation for running the Z tapes, observing Becky change bills, and the accountant’s explanation of use of Z tapes all combine to prove intent to commit fraud.

**REFERENCES**


Association of Certified Fraud Examiners (ACFE) *Report to the Nations on Occupational Fraud and Abuse 2012 Global Fraud Study*. Austin, TX: ACFE.


**Figure 1 – Example Z Tapes**
Note – Some items included in the Key have not been used in the Example Z Tapes to simplify the examples.

Table 1 – Information for Preparation of Net Worth Analysis
<table>
<thead>
<tr>
<th>Item</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addition to residence</td>
<td>$0</td>
<td>$0</td>
<td>$125,000</td>
</tr>
<tr>
<td>Annual federal tax payments</td>
<td>$0</td>
<td>$6,000</td>
<td>$6,000</td>
</tr>
<tr>
<td>Annual life insurance premiums</td>
<td>$0</td>
<td>$4,800</td>
<td>$4,800</td>
</tr>
<tr>
<td>Annual living expenses</td>
<td>$20,000</td>
<td>$20,000</td>
<td>$22,000</td>
</tr>
<tr>
<td>Annual salary</td>
<td>$35,000</td>
<td>$35,000</td>
<td>$35,000</td>
</tr>
<tr>
<td>Automobile</td>
<td>$20,000</td>
<td>$20,000</td>
<td>$20,000</td>
</tr>
<tr>
<td>Automobile loan payable as of yearend</td>
<td>$10,000</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Cash balances as of yearend</td>
<td>$6,000</td>
<td>$12,000</td>
<td>$25,000</td>
</tr>
<tr>
<td>Certificates of deposit as of yearend</td>
<td>$50,000</td>
<td>$50,000</td>
<td>$50,000</td>
</tr>
<tr>
<td>Diamond ring and other jewelry</td>
<td>$0</td>
<td>$0</td>
<td>$30,000</td>
</tr>
<tr>
<td>Investments in stocks and bonds as of yearend</td>
<td>$30,000</td>
<td>$30,000</td>
<td>$30,000</td>
</tr>
<tr>
<td>Mortgage balance as of yearend</td>
<td>$90,000</td>
<td>$50,000</td>
<td>$0</td>
</tr>
<tr>
<td>Other annual income</td>
<td>$25,000</td>
<td>$5,000</td>
<td>$62,000</td>
</tr>
<tr>
<td>Residence</td>
<td>$100,000</td>
<td>$100,000</td>
<td>$100,000</td>
</tr>
<tr>
<td>Second automobile</td>
<td>$0</td>
<td>$0</td>
<td>$50,000</td>
</tr>
</tbody>
</table>
Table 2 – Elements of Fraud Plus Inquiry Method

**Theft Investigative Methods**
1. Surveillance and covert operations
2. Invigilation
3. Seizing and searching computers
4. Physical evidence

**Concealment Investigative Methods**
1. Documentation evidence
2. Audits
3. Electronic searches
4. Physical asset counts

**Conversion Investigative Methods**
1. Searching public records
2. Online resources
3. The net worth method

**Plus Inquiry Investigative Methods**
1. Interviews and interrogation
2. Honesty testing

(Adapted from Albrecht et al. 2012, 211)
Table 3 – Net Worth Analysis (Presentation A)

<table>
<thead>
<tr>
<th></th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASSETS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residence</td>
<td>100,000</td>
<td>100,000</td>
<td>225,000</td>
</tr>
<tr>
<td>Stocks and bonds</td>
<td>30,000</td>
<td>30,000</td>
<td>30,000</td>
</tr>
<tr>
<td>Automobiles</td>
<td>20,000</td>
<td>20,000</td>
<td>70,000</td>
</tr>
<tr>
<td>CDs</td>
<td>50,000</td>
<td>50,000</td>
<td>50,000</td>
</tr>
<tr>
<td>Cash</td>
<td>6,000</td>
<td>12,000</td>
<td>25,000</td>
</tr>
<tr>
<td>Jewelry</td>
<td></td>
<td></td>
<td>30,000</td>
</tr>
<tr>
<td><strong>TOTAL ASSETS</strong></td>
<td>206,000</td>
<td>212,000</td>
<td>430,000</td>
</tr>
</tbody>
</table>

|                  |        |        |        |
| **LIABILITIES**  |        |        |        |
| Mortgage balance | 90,000 | 50,000 | 0      |
| Auto loan        | 10,000 | 0      | 0      |
| **TOTAL LIABILITIES** | 100,000| 50,000 | 0      |

|                  |        |        |        |
| **NET WORTH**    | 106,000| 162,000| 430,000|

|                  |        |        |        |
| Change in net worth | 56,000 | 268,000| 32,800 |
| Plus total expenses | 30,800 | 30,800 | 30,800 |
| = Total net worth increase | 86,800 | 300,800| 32,800 |
| Less known income | 40,000 | 97,000 |
| = Income from unknown sources | 46,800 | 203,800|

|                  |        |        |        |
| **INCOME**       |        |        |        |
| Salary           | 35,000 | 35,000 | 35,000 |
| Other            | 25,000 | 5,000  | 62,000 |
| **TOTAL INCOME** | 60,000 | 40,000 | 97,000 |

|                  |        |        |        |
| **EXPENSES**     |        |        |        |
| Federal taxes paid |        | 6,000  | 6,000  |
| Life insurance premiums | | 4,800  | 4,800  |
| Other living expenses | 20,000 | 22,000 |
| **TOTAL EXPENSES** | 30,800 | 32,800 |
### Table 4 – Net Worth Analysis (Presentation B)

<table>
<thead>
<tr>
<th></th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASSETS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residence</td>
<td>100,000</td>
<td>100,000</td>
<td>100,000</td>
</tr>
<tr>
<td>Addition to Residence</td>
<td>0</td>
<td>0</td>
<td>125,000</td>
</tr>
<tr>
<td>Stocks and bonds</td>
<td>30,000</td>
<td>30,000</td>
<td>30,000</td>
</tr>
<tr>
<td>Automobile #1</td>
<td>20,000</td>
<td>20,000</td>
<td>20,000</td>
</tr>
<tr>
<td>Automobile #2</td>
<td>0</td>
<td>0</td>
<td>50,000</td>
</tr>
<tr>
<td>CDs</td>
<td>50,000</td>
<td>50,000</td>
<td>50,000</td>
</tr>
<tr>
<td>Cash</td>
<td>6,000</td>
<td>12,000</td>
<td>25,000</td>
</tr>
<tr>
<td>Jewelry</td>
<td></td>
<td></td>
<td>30,000</td>
</tr>
<tr>
<td><strong>TOTAL ASSETS</strong></td>
<td>206,000</td>
<td>212,000</td>
<td>430,000</td>
</tr>
<tr>
<td><strong>LIABILITIES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mortgage balance</td>
<td>90,000</td>
<td>50,000</td>
<td>0</td>
</tr>
<tr>
<td>Auto loan</td>
<td>10,000</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL LIABILITIES</strong></td>
<td>100,000</td>
<td>50,000</td>
<td>0</td>
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<tr>
<td><strong>NET WORTH CALCULATION</strong></td>
<td></td>
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</tr>
<tr>
<td>Total assets</td>
<td>206,000</td>
<td>212,000</td>
<td>430,000</td>
</tr>
<tr>
<td>Less: Total liabilities</td>
<td>100,000</td>
<td>50,000</td>
<td>0</td>
</tr>
<tr>
<td><strong>NET WORTH</strong></td>
<td>106,000</td>
<td>162,000</td>
<td>430,000</td>
</tr>
<tr>
<td><strong>Change in net worth</strong></td>
<td>56,000</td>
<td>268,000</td>
<td></td>
</tr>
<tr>
<td><strong>EXPENSES</strong></td>
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<tr>
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<tr>
<td>Life insurance premiums</td>
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<tr>
<td>Other living expenses</td>
<td>20,000</td>
<td>22,000</td>
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<tr>
<td><strong>TOTAL EXPENSES</strong></td>
<td>30,800</td>
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<tr>
<td><strong>TOTAL INCOME CALCULATION</strong></td>
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<tr>
<td>Change in net worth</td>
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<tr>
<td>Living expenses</td>
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<td>32,800</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>86,800</td>
<td>300,800</td>
<td></td>
</tr>
<tr>
<td><strong>INCOME FROM KNOWN SOURCES</strong></td>
<td></td>
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</tr>
<tr>
<td>Salary</td>
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<td><strong>TOTAL</strong></td>
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<tr>
<td><strong>INCOME FROM UNKNOWN SOURCES</strong></td>
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<tr>
<td>Total income</td>
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<tr>
<td>Less: Income from known sources</td>
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<td><strong>TOTAL</strong></td>
<td>46,800</td>
<td>203,800</td>
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