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## Vouch and Trace: A Revenue Recognition Audit Simulation

Charles R. (Tad) Miller and Arline Savage

**ABSTRACT:** The purpose of this project is to help students apply auditing procedures that pertain to revenue recognition. In particular, students gain a better understanding of (1) the importance of management's occurrence, accuracy, and cutoff assertions regarding revenue; (2) the relationship between an auditing procedure and an audit objective; (3) how to perform an audit procedure; and (4) how to create audit work papers. The project includes four types of revenue misstatements. Students must design a procedure to detect misstatement, and then determine how to best use supporting documents to provide evidence that recorded sales actually occurred and are recorded at the correct value in the correct reporting period. All supporting documents for this project are stored on the Internet for easy access. This project requires very little class time and the time required of students is very reasonable. Students can also conveniently complete the project anywhere they have access to the Internet.

**Keywords:** revenue recognition; revenue overstatement; occurrence; accuracy; cutoff; audit work papers.

For the things we have to learn before we can do them, we learn by doing them, e.g., men become builders by building and lyreplayers by playing the lyre.

—Aristotle

### INTRODUCTION

**Y**ou are a new accounting graduate and this is your first week on the job at the Los Angeles office of a CPA firm. You are still adapting to Los Angeles and to your new job in this fast-paced and exciting environment. Here you are, plucked from a small city located among farmland in the Midwest, adjusting to the big-city lifestyle. You earn more than you ever imagined and you live in an overpriced, tiny apartment. Last night, you couldn't fall asleep because of the street noise and the excitement of your move, so you stayed up far too late reading a book called *The Financial Numbers Game: Detecting Creative Accounting Practices* (Mulford and Comiskey 2002). The last chapter you read was called "Recognizing Premature and Fictitious Revenue" (Mulford and Comiskey 2002, 159-196). You finally fell asleep thinking about the topic and your first training session for new employees, scheduled to start the next day. The previous week you had read another intriguing book called *The Number: How the Drive for Quarterly Earnings Corrupted Wall*

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*Charles R. (Tad) Miller and Arline Savage are both Professors at California Polytechnic State University at San Luis Obispo.*

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*Street and Corporate America* (Berenson 2003), which had also piqued your interest in this topic.

You arrive at the conference center early. The only other person in the seminar room is Ms. Claire Rogers, a senior partner from San Francisco who is the instructor for the first training session on Revenue Recognition. "Good morning. Please sit down," Claire Rogers says. "What do you think of Los Angeles? I'm very interested in hearing about your initial impression of your new job."

"As you might imagine, this is all very new and exciting to me," you reply. "In fact, I was reading a book last night that I believe will help me with this training."

"I'm impressed. What were you reading about?" she asks.

"How to detect premature or fictitious revenue," you answer, because the last chapter you read is the first one that comes to mind. "Although we covered the topic in our auditing class at college, I did not realize that this type of financial statement fraud was so pervasive in the real world."

You are now on a roll. Before Ms. Rogers has a chance to respond, you continue: "The Association of Certified Fraud Examiners conducted a fraud survey in 2006. This investigation of 120 reported cases of financial statement fraud found that fictitious revenues accounted for 43 percent of such fraud schemes. Schemes involving timing differences, where the fraudsters manipulate net income by recording sales in the last month of one fiscal year and the matching expenses in the first month of the next financial year, accounted for 28 percent of the fraud schemes (ACFE 2006). An older study sponsored by the Committee of Sponsoring Organizations (COSO) found that more than half of financial statement frauds involve revenue and/or accounts receivable, the two most common types being fictitious and premature revenues (Beasley et al. 1999). Also, the Securities and Exchange Commission (SEC) identifies revenue recognition as an issue that surfaces in a significant number of enforcement cases and the largest single issue involved in restatements of financial statements (Turner 2001). This is not a new problem. It's been around for a long time."

When Ms. Rogers finally gets a word in, she says: "Yes, there are many high-profile cases involving misstatement of revenue. For example, in 2002 it was reported that AOL inflated sales by recording barter deals and advertisements sold on behalf of others as revenue to keep up its growth rate. This was done in an effort to seal the deal in AOL's bid for Time Warner (Wells 2005). Your research is very timely for this training session, but don't forget that revenue misstatements can also result from errors. In 2004, 16.4 percent of error-driven restatements of annual or quarterly financial statements filed with the SEC were related to erroneous recording of revenue" (Gullapalli 2005).

The room starts filling up. Ms. Rogers says: "I look forward to continuing our conversation during lunch, if you would care to join me at my table. But now I need to start this session."

Ms. Rogers walks to the front of the room, welcomes the firm's newest employees, allows the employees to introduce themselves, and jumps right into training mode. "I want to see how much you learned in college," she says. "You will start by auditing reported revenue at College Business Computers (CBC) for the year ended December 31, 2008. In our training simulation, CBC is a private company. We first train you to audit private companies. For these companies, we must comply with the auditing standards of the American Institute of Certified Public Accountants (AICPA). In subsequent training sessions, we will focus on public companies that are regulated by the Public Company Accounting

Oversight Board (PCAOB). Here is a printout of the CBC sales journal.<sup>1</sup> I will now tell you about the client's sales process."

Ms. Rogers pauses as we turn on our laptops to take notes. "This is what I know," she continues. "CBC creates a sales order when a customer places an order by telephone. The sales department forwards one copy of the sales order to the warehouse and a second copy to the accounts receivable department. When the goods are shipped to the customer, the warehouse creates a shipping document and forwards one copy of the shipping document to the accounts receivable department. All goods are shipped F.O.B. shipping point. Although CBC's policy and procedures manual states that the accounts receivable department is to prepare the invoice only after receiving both the sales order and the shipping document, there is no control in place to ensure that employees follow this procedure to prevent someone from preparing an invoice prior to receiving the shipping document. After preparing the invoice, the receivables department forwards a copy to the accounting department, where the invoice is posted to the sales journal. Sales orders are filed in the sales office, shipping documents are filed in the warehouse, and invoices are filed in the accounting department."

Ms. Rogers waits for us to finish taking notes before she continues: "You are to design an audit procedure that will detect revenue misstatements by testing the following assertions: occurrence, accuracy, and cutoff. For this training session, you need to select a sample of ten transactions from one of the following: (1) Sales Journal, (2) Sales Orders (filed in the sales department), (3) Shipping Documents (filed in the warehouse), or (4) Invoices (filed in the accounting department). Bear in mind that, for a real audit, you will be using statistical and nonstatistical sampling techniques to determine the correct sample size. That topic is out of scope for this training session. We'll be covering statistical sampling and the related software program that our firm uses in a subsequent training session.

"Once you select your sample of ten transactions, you need to obtain supporting evidence by tracing or vouching the ten transactions to related source documents. For instance, if you select a sample of ten entries from the sales journal, you might vouch from the sales journal to the related invoice, shipping documents, and sales order. If you select a sample of ten sales orders, you might trace the sales orders to the related shipping documents and invoices and finally into the sales journal. Or you might select your sample from the shipping documents or the invoices. Only one of these approaches is correct. You must determine which approach will provide evidence supporting the audit objective. Your goal is to obtain the most persuasive evidence that sales are not misstated. It should be helpful to know that the shipping document numbers are cross-referenced on the invoices and that the sales order numbers are cross-referenced on the shipping documents.

"Finally, I want to emphasize that your deliverable to me should include two work papers. The first is a memorandum, which must include the audit client's name; the account or system being audited; the name of the auditor who performed the procedure; the date; whether it is an analytical procedure, test of controls, test of account balance, or test of transactions; the objective of the procedure; the assertions to which the procedure relates; the tolerable error; a detailed description of the procedure; and your conclusion."

After giving the trainees time to read through the list, Ms. Rogers explains, "For 'Description of the Procedure,' you need to include a detailed description so that another auditor could replicate the procedure you use. The conclusion should be stated in terms of the objective. For this project, the conclusion should state that sales are fairly presented,

<sup>1</sup> Available at: [www.VouchandTrace.com](http://www.VouchandTrace.com).

materially misstated, or that additional evidence is needed to provide a reasonable basis for a conclusion. For planning purposes, assume that 1 percent of sales is material. The issue of materiality will be comprehensively covered in a subsequent training session. If you find misstatements on an actual audit engagement, you may request that the client make an audit adjustment based on materiality considerations. The second work paper is a spreadsheet indicating the items in the sample. Be sure to use tick marks to explain any exceptions that you found while performing the procedure.”

Ms. Rogers hands out two documents to each trainee and says, “Here are examples for you to follow. The memorandum is labeled Appendix A and the example of the spreadsheet is labeled Appendix B.” She continues, “Use the following words carefully: invoice, shipping document, sales order, invoice file, shipping document file, order file, sales journal, vouching, and tracing. Although you might believe you have a better name for a document or file, it is best to use the standardized name so everyone understands which document or file you are referencing.”

Then Ms. Rogers calls your name and asks, “Could you please read your notes out loud so that your colleagues can double-check their work?”

You read your notes to the class and correct your typing errors. Then, you head off to a breakout room to begin your assignment.

### **Instructions and Deliverables**

1. The sales journal, sales orders, shipping documents, invoices, and price list are online at <http://www.VouchandTrace.com>.
2. Prepare an audit program. Alternatively, your instructor will provide you with an audit program.
3. Complete the two work papers requested by your audit manager, Ms. Claire Rogers.
4. As you may recall from auditing classes at university, it is very important for you to understand the internal controls over the sales process at CBC. From the information provided by Ms. Rogers, identify any control deficiencies (AICPA 2006) for this company that might impact your assessment of control risk. Recommend internal control procedures that could be implemented to address any deficiencies you noted. You can find the definitions of control deficiencies, significant deficiencies and material weaknesses in SAS 112 (AU Section 325) under authoritative standards on the AICPA’s website. In general, how does the assessment of control risk impact the extent of an auditor’s substantive tests of transactions?
5. If you find any errors in the ten transactions you selected, use an Excel spreadsheet to calculate the sample mean and project a value for a proposed audit adjustment (see Appendix A for an example of an audit adjustment and Appendix B for the related calculation). Please remember that this project has as its focus revenue recognition audit procedures rather than statistical sampling, and your sample was not randomly selected. Consequently, you cannot statistically evaluate your results as you would on an actual audit engagement.

### **REFERENCES**

American Institute of Certified Public Accountants (AICPA). 2006. *Communication of Internal Control Related Matters Identified in an Audit*. Statement on Auditing Standards No. 112. New York, NY: AICPA.

**APPENDIX A**

**Sample Memorandum (Work Paper 1)**

**College Business Computers  
Sales and Collection Cycle**

**Performed by: Manuel Quijano  
Date: 4/25/08**

**Nature of test:** Tests of transactions.  
**Objective:** The objective of this procedure is to determine if the sales account is misstated.  
**Assertion(s):** Occurrence, Accuracy, and Cutoff.  
**Tolerable error:** For the sales account we have determined tolerable error to be 1 percent of sales.  
**Procedure:** The sample includes ten entries from the sales journal for the year ended Dec. 31, 2007. Each entry was vouched to the related invoice. The date, customer name, and amount from the sales journal were agreed to the invoice. The invoice was vouched to the related shipping document. The customer information, items sold, and quantities on the invoice were agreed to the shipping document. The shipping document and invoice were vouched to the related sales order. The customer information, items sold, and quantities on the shipping document were agreed to the sales order. The customer information, items sold, quantities, and prices on the invoice were agreed to the sales order.  
 For example, invoice 6478 was selected from the sales journal. The date, customer name, and sales total from the sales journal were agreed to the corresponding information on invoice 6478. Invoice 6478 indicated the goods were shipped on shipping document 4927. From invoice 6478, the customer information, items sold, and quantities were agreed to the shipping document. The shipping document indicated the order was placed on sales order 10107. The customer information, items sold, and quantities on shipping document 4927 were agreed to the corresponding information on sales order 10107. The customer information, items sold, quantities, and prices on invoice 6478 were agreed to sales order 10107.  
**Conclusion:** Three exceptions were found in the sample (see Appendix B, Work Paper 2). The sample results indicate that sales are materially overstated.

We propose the following audit adjustment to reduce the recorded value to our projected value:

|                     |             |             |
|---------------------|-------------|-------------|
| Sales               | \$75,069.00 |             |
| Accounts Receivable |             | \$75,069.00 |

**APPENDIX B**

**Sample of Work Paper 2**

**College Business Computers  
Sales and Collection Cycle**

**Performed by: Manuel Quijano  
Date: 4/25/08**

**Nature of test:** Tests of transactions.  
**Objective:** The objective of this procedure is to determine if the sales account is misstated.

Assertion(s): Occurrence, Accuracy, and Cutoff.  
 Tolerable error: For the sales account we have determined tolerable error to be 1 percent of sales.  
 Procedure: Please see Appendix A, Work Paper 1, for a description of the procedures performed in this work paper.

| Invoice | Ship Doc | Sales Order | Customer             | Revenue Recognized | Audited Amount | Difference  |    |
|---------|----------|-------------|----------------------|--------------------|----------------|-------------|----|
| 6478    | 4927     | 10107       | Steel Tank           | 9,182.00           | 9,182.00       | 0.00        |    |
| 6481    | 4929     | 10109       | Ready Mix Concrete   | 22,546.00          | 22,546.00      | 0.00        |    |
| 6487    | 4935     | 10115       | Edward's Sports      | 4,188.00           | 4,188.00       | 0.00        |    |
| 6492    | 4939     | 10119       | Standard Motor Co.   | 4,538.00           | 4,538.00       | 0.00        |    |
| 6498    | 4945     | 10125       | Burger Queen         | 9,182.00           | 9,182.00       | 0.00        |    |
| 6500    |          |             | Flora Design Studio  | 3,432.00           | 0.00           | (3,432.00)  | #1 |
| 6507    | 4953     | 10133       | Steak House          | 18,908.00          | 18,908.00      | 0.00        |    |
| 6515    | 4961     | 10141       | Foothill Cyclery     | 12,446.00          | 11,572.00      | (874.00)    | #2 |
| 6517    | 4963     | 10143       | Sanders and Smith-PC | 11,982.00          | 11,982.00      | 0.00        |    |
| 6521    | 4971     | 10151       | Sports Clothing      | 12,376.00          | 0.00           | (12,376.00) | #3 |
|         |          |             |                      |                    |                |             |    |
|         |          |             | Sample mean (AVE)    |                    | 9,209.80       | 1,668.20    |    |
|         |          |             | Projected value (PV) |                    |                | 75,069.00   |    |
|         |          |             |                      |                    |                |             |    |

AVE = the sample mean of the audited values.

PV = the projected value is the sample mean of the errors multiplied by the number of items in the population.

#1 = Occurrence—no shipping document or sales order to support this sale.

#2 = Accuracy—the prices on the invoice were greater than the prices quoted on the sales order.

#3 = Cutoff—the shipping document indicates this order was not shipped until January 2008.

### TEACHING NOTES

Teaching Notes are available only to full-member subscribers to *Issues in Accounting Education* through the American Accounting Association's electronic publications system at <http://aapubs.aip.org/tnae/>. Full-member subscribers should use their usernames and passwords for entry into the system where the Teaching Notes can be reviewed and printed.

If you are a full member of AAA with a subscription to *Issues in Accounting Education* and have any trouble accessing this material, then please contact the AAA headquarters office at [office@aaahq.org](mailto:office@aaahq.org) or (941) 921-7747.

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