RUTGERS

Rutgers Business School Newark and New Brunswick

The Case for Using Continuous Auditing and Continuous Monitoring to Mitigate Enterprise Risk in Not-for-Profits

> By: Charlie Dietz and Stephen Kozlowski

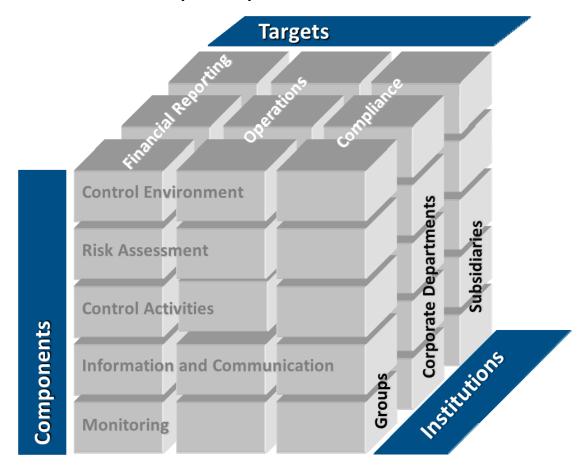


The Case for Using Continuous Auditing and Continuous Monitoring to Mitigate Enterprise Risk in Not-for Profits Index

- A. Overview of Enterprise Risk Management
- B. The Case for Using Continuous Auditing and Continuous Monitoring (CA/CM)
- C. The Rutgers Not-for-Profit CA/CM Pilot Project
- D. Applying CA/CM Concepts to Mitigate Risks



The Committee of Sponsoring Organizations of the Treadway Commission (COSO) Framework Cube





1. Targets

- a. Financial Reporting
- b. Operations
- c. Compliance

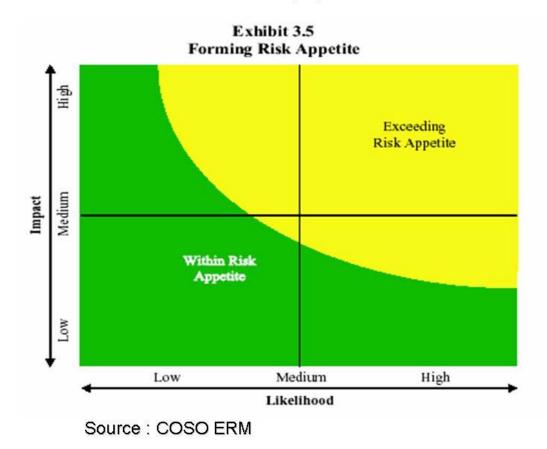


2. Risk management involves the balancing of management's risk appetite with its ability to meet strategic, operational, reporting and compliance objectives.

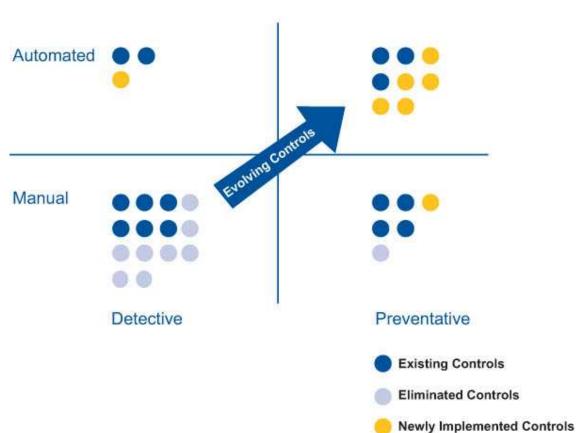
- a. Identification of risks
- b. Prioritization of risks
- c. Treatment of risks
- d. Monitoring of risks



Risk Appetite







CONTROL MATRIX



3. Who is Responsible Managing Enterprise Risk?

- a. Executive management
- b. Audit committee
- c. Investigation group
- d. Compliance function
- e. Controller's group
- f. Internal audit
- g. IT
- h. Security
- i. Legal department
- j. Human resources



1. What is Continuous Auditing and Continuous Monitoring?

- a. Very often, the terms "continuous auditing" and "continuous monitoring" are used interchangeably
- b. The difference is the ownership of the process
- c. Continuous auditing (CA) is the responsibility of internal audit and is a method used to perform control and risk assessments automatically on a frequent basis.
- d. Continuous auditing changes the audit paradigm from periodic review of selected transactions to ongoing audit testing of 100 percent of transactions.
- e. Continuous monitoring (CM) is owned and performed by management or the business process owner, as part of their responsibility to implement and maintain effective control systems.

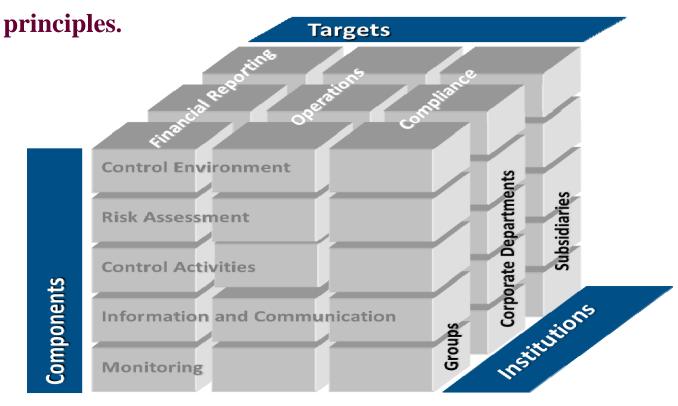


- 1. What is Continuous Auditing and Continuous Monitoring? (continued)
 - f. Since management is responsible for internal controls, it should have a means to determine, on a ongoing basis, whether the controls are operating as designed.
 - g. By being able to identify and correct control systems on a "real" time basis, the overall control system can be improved.
 - h. Typical additional benefits to the organization are the instances of error and fraud are significantly reduced, operational efficiency is enhanced, and bottom-line results are improved through a combinations of cost savings and a reduction in overpayment and revenue leakage.



The COSO Report – Internal Control – Integrated Framework – Executive Summary, May 2013

2. The framework sets out 5 components made up of 17 fundamental





Control Environment	1 The organization demonstrates a commitment to integrity and ethical values.
	2 The board of directors demonstrates independence from management and exercises oversight of the development and performance of internal controls.
	3 Management establishes, with board oversight, structures, reporting lines, and appropriate authorities and responsibilities in the pursuit of objectives.
	4 The organization demonstrates a commitment to attract, develop, and retain competent individuals in alignment with objectives.
	5 The organization holds individuals accountable for their internal control responsibilities in the pursuit of objectives.



Risk Assessment	6	The organization specifies objectives with sufficient clarity to enable the identification and assessment of risks relating to objectives.
	7	The organization identifies risks to the achievement of its objectives across the entity and analyzes risks as a basis for determining how the risks should be managed.
	8	The organization considers the potential for fraud in assessing risks to the achievement of objectives.
	9	The organization identifies and assesses changes that could significantly impact the system of internal controls.



Control Activities	10	The organization selects and develops control activities that contribute to the mitigation of risks to the achievement of objectives to acceptable levels.
	11	The organization selects and develops general control activities over technology to support the achievement of objectives.
	12	The organization deploys control activities through policies that establish what is expected and procedures that put policies into action.



Information and Communication	13	The organization obtains or generates and uses relevant, quality information to support the functioning of internal control.
	14	The organization internally communications information, including objectives and responsibilities for internal control, necessary to support the functioning of internal control.
	15	The organization communicates with external parties regarding matters affecting the functioning of internal control.



Monitoring Activities	16	The organization selects, develops, and performs ongoing and/or separate evaluations to ascertain whether the components of internal control are present and functioning.
		The organization evaluates and communicates internal control deficiencies in a timely manner to those parties responsible for taking corrective action, including senior management and the board of directors, as appropriate.



3. The Report to the Nations on Occupational Fraud and Abuse - 2014 Global Fraud Study by the Association of Certified Fraud Examiners (ACFE)





3. Excerpts from the Report of the Nations

- a. Occupational Fraud and Abuse Classification System (Fraud Tree)
- b. Frequency and Median Loss of Asset Misappropriation
 (Combination of figure 6,10 and 21 of the Report)
- c. Frequency of Anti-Fraud Controls (Combination of figures 31 and 33 of the Report)
- d. Median Loss and Duration on Presence of Anti-Fraud Controls – (Combination of figure 37 and 38 of the Report)



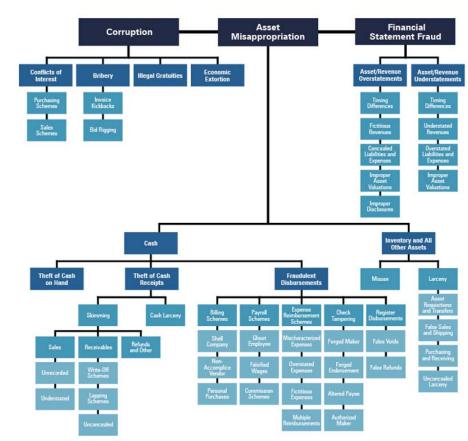


Figure 3: Occupational Fraud and Abuse Classification System (Fraud Tree)

© 2014 Association of Certified Fraud Examiners, Inc. All rights reserved.



Report to the Nations

Frequency of and Median Loss by Asset Misappropriation

	Sorted by				Median Duration	
Asset	Frequency	Frequency	Frequency		of	
Misappropriation Schemes	Combined	< 100	100 and more	Median	Scheme	
(See Fraud Tree)		Employees	Employees	Loss	in Months	Sub-Schemes
1Billing	22.30%	28.70%	20.30%	\$ 180,000	24	Shell company, Non-Accomplice Vendor and Personal Purchases
2 Non-cash	21.00%	18.10%	22.80%	\$ 95,000	12	Misuse and Larceny: Asset requisition and transfers, False sales and shipping, Purchasing and receiving and Unconcealed larceny
3 Expense reimbursements	13.80%	16.50%	13.10%	\$ 30,000	24	Mischaracterized expenses, Overstated expenses, Fictitious Expenses and Multiple Reimbursements
4 Cash on hand	11.90%	12.00%	12.70%	\$ 18,000	18	Theft of cash on hand
5Skimming	11.80%	17.00%	10.20%	\$ 40,000	18	Theft of cash receipts: Sales, Receivables, Refunds and Other
6 Check tampering	10.90%	22.10%	6.80%	\$ 120,000	26	Forged Maker, Forged Endorsement, Altered Payee and Authorized Maker
7 Payroll	10.20%	16.50%	8.20%	\$ 50,000	24	Ghost employees, Falsified Wages and Commission Schemes
8 Cash larceny	8.90%	14.40%	7.80%	\$ 50,000	18	Theft of cash receipts
9 Register disbursements	2.80%	3.20%	2.80%	\$ 20,000	14	False Voids and False Refunds
	· · · · ·					0



Report to the Nations Frequency of Anti-Fraud Controls

		Sorted by		
	Anti-Fraud Controls	Worldwide	United States	Difference
1	External audit of financial statements	81.4%	72.5%	8.9%
2	Code of conduct	77.4%	72.8%	4.6%
3	Internal audit department	70.6%	58.8%	11.8%
4	Management certification of financial statements	70.0%	63.4%	6.6%
5	External audit of internal control over financial reporting	65.2%	59.2%	6.0%
6	Management review	62.6%	55.0%	7.6%
7	Independent audit committee	62.0%	53.3%	8.7%
8	Hotline	54.1%	51.5%	2.6%
9	Employee support programs	52.4%	65.6%	-13.2%
10	Fraud Training for managers/executives	47.8%	50.3%	-2.5%
11	Fraud training for employees	47.8%	48.4%	-0.6%
12	Anti-fraud policy	45.4%	42.0%	3.4%
13	Dedicated fraud department - function or team	38.6%	34.8%	3.8%
14	Proactive data monitoring/analysis	34.8%	36.1%	-1.3%
15	Formal fraud risk assessments	33.5%	34.5%	-1.0%
16	Surprise audits	33.2%	28.7%	4.5%
17	Job rotation/mandatory vacation	19.9%	17.8%	2.1%
18	Rewards for whistleblowers	10.5%	12.0%	-1.5%



Report to the Nations

Median Loss and Duration on Presence of Anti-Fraud Controls

									Sorted by Weighted
		Amo	ount			Dura	ation		Factors
	\$	\$	\$	\$ %	Months	Months	Months	%	\$ %
	Loss	Loss	Reduction	Reduction	Undetected	Undetected	Reduction	Reduction	Reduction
								in Duration	
	if	if	if	if	if	if	if	if	Plus
	Control	Control	Control	Control	Control	Control	Control	Control	Months %
Anti-Fraud Controls	Not in Place	In Place	In Place	In Place	Not in Place	In Place	In Place	In Place	Reduction
1 Proactive data monitoring/analysis	181,000	73,000	108,000	59.67%	24	12	12	50.00%	109.67%
2 Management review	208,000	100,000	108,000	51.92%	24	13	11	45.83%	97.76%
3 Surprise audits	164,000	93,000	71,000	43.29%	24	12	12	50.00%	93.29%
4 Formal fraud risk assessments	168,000	94,000	74,000	44.05%	23	12	11	47.83%	91.87%
5 Fraud Training for managers/executives	168,000	100,000	68,000	40.48%	24	12	12	50.00%	90.48%
6 Hotline	168,000	100,000	68,000	40.48%	24	12	12	50.00%	90.48%
7 Dedicated fraud department - function or team	164,000	100,000	64,000	39.02%	24	12	12	50.00%	89.02%
8 Internal audit department	180,000	100,000	80,000	44.44%	24	14	10	41.67%	86.11%
9 Anti-fraud policy	155,000	100,000	55,000	35.48%	24	12	12	50.00%	85.48%
10 Code of conduct	200,000	100,000	100,000	50.00%	24	16	8	33.33%	83.33%
11 External audit of internal control over financial reporting	180,000	103,000	77,000	42.78%	24	15	9	37.50%	80.28%
12 Employee support programs	200,000	90,000	110,000	55.00%	18	14	4	22.22%	77.22%
13 Fraud training for employees	164,000	100,000	64,000	39.02%	21	13	8	38.10%	77.12%
14 Job rotation/mandatory vacation	150,000	100,000	50,000	33.33%	20	12	8	40.00%	73.33%
15 Management certification of financial statements	184,000	120,000	64,000	34.78%	24	15	9	37.50%	72.28%
16 Independent audit committee	150,000	120,000	30,000	20.00%	24	14	10	41.67%	61.67%
17 Rewards for whistleblowers	135,000	100,000	35,000	25.93%	18	12	6	33.33%	59.26%
18 External audit of financial statements	186,000	125,000	61,000	32.80%	24	18	6	25.00%	57.80%



4. Public Perspective - Washington Post Article - Published October 26, 2013

A Washington Post analysis identified more than 1,000 nonprofit organizations that have reported a **"significant diversion"** of assets since 2008, when a question about such losses first began being phased in on federal Form 990 disclosure reports.

While some diversions involve legal exchanges, most are attributed to theft or embezzlement, sometimes leading to the loss of tens of millions of dollars to a single organization.

Filing instructions direct organizations to explain what happened on Schedule O, usually located toward the end of the form.

www.washingtonpost.com/wp-srv/special/local/nonprofit-diversions-database/



Public Perspective

- Association of American Medical Colleges: \$5.1MM by an employee via payments to legitimate and fictitious organizations via fraudulent invoices, beginning in 2005
- American Legacy Foundation: \$3.4MM by an employee; action was not taken for three years after warning signs were noted
- * Youth Service America: \$2MM by an employee starting in 2009
- Maryland Legal Aid Bureau: \$1.1MM (to \$2.5MM) by the finance director and accomplice
- * Miami Beach Community Health Center: \$7MM by the chief executive officer

Rutgers Rutgers Business School Newark and New Brunswick

The Case for Using **Continuous Auditing** and Continuous Monitoring

5. Reputation of Organization Washington Post – November 30, 2007

The United Way of the National Capital Area's campaign for fiscal 2006-07 raised \$35.8 million, a 1.7 % increase from the previous year.

Donations dropped substantially (from \$90 millions to \$35 millions) in 2002-03, when the Organization came under fire for questionable spending by top leaders, bloated overhead costs and other financial improprieties.

United Way Fundraising Rises After Scandal-Induced Plunge By Peorlin Rocker. Wathington Post Stoff Writer A Slight Rebound The embattled United Way of e National Capital Area will re-ort today that its fundralsing ive collected \$35.3 million in last fiscal year. a 1.7 percent that from the year before, a it recorded its lowest total ista decade. regn the increase is Total compaign recalipts In railings of college ofil leaders said it is a stored trust in the or-which has been hat-financial and manage-. \$82 million rou hit Z. Wailanan-Walver Cijni Collidens Hospital Foundati 6. House of Ruth 67 000 nov ive in fiscal 2000 SOUNCE: United Vegetal das National I real today. Contri ions from private-sector em ters, a key indicator of corpo inport, grew by about 5 per-from \$19.6 million to million, The douations collected in the scing distributed t sign show that the using goal of \$40 million (said analy the United Way's ocal effiliates reported re-of about \$4.17 million for the 2006-07 campaign, a 2-3 pe se from the year before aul Rick Beloux, vice presearch at the nation t drive among federal gov-at employees, which had ating about \$50 million a he United Way has not you he CBC av raised about \$15.2 million carly part of the dec-former chief exec-uer, was accused of ceal employees last year. Anderson was reemited to re-the United Way's fendratsas much as \$1.5 million ng prowess and salvage its repu-ation. He and other leaders of the tation. He and other leaders of the companisation came under fire after they projected a fundarising total of 159 million (or the 2004-95 campaign but a hister andit found that the total was 358 it million. The organization and does not an leasen projection and does not an leasent projection and does not an leasents fundarising totals will be from the organization during the 27 years he worked there. Other executives were accused of cheat-ing the organization ont of lean-dreds of thousands of dollars. Inington Pos ad nuclits and Washington Fost scipptions also uncovered stionable spending by top lead-and bloated uverhead tools. a served two years in priors or being released in 2006, unid the constal, neary corpo-tops pulled out of the fundrais-drives. The Desice Way also drives. The Desce Way also ts contract to run the Coun Twenthals, particularly from

The United Way of the National Capital Area's comparing for fixed 2006-07 neised \$36.8 million, a 1.7 percent increase from the previous year, Donations dropped sublantially un 2008 OU when the organization come under fire for questionable spending by top leaders, bloated overhead costs and other financial impropr



5899,527 390,005 463,525 4 Catholic Chaitles of the Archaicese of Via 426.555 5. Calledia Charilius of the Diopese of Articoto 409.07 403,002 / Maxe-A-West to Installion of the Mid-Atlanti

years and years, if tredibilit cupid ever return," said Het Johnson, executive director of t

thent, and chief executive of the Catholic Charities of the Architic cese of Washington, a

confidence of United Way is con

eally convi Barry LeNoir, pread District hased United

the District-based United Blat Fund. "They've got a great lead over there, great leadership, gre integrity. They've taken the sto forward, they're transporter there's nothing highles with with

d: "I thin



Case Study #3: A Trade Association with a Payroll of approximately 55 Employees that is using ADP as their Third-Party Payroll Processor 1. Preliminary Challenges to the Pilot Project

- ✤ Buy-in
 - Data security and integrity concerns
 - Privacy and confidentiality concerns
 - Learning curve
- Technology
 - Data storage systems
 - Software systems
 - Organizational processes
 - Cost of data analytics software (IDEA, ACL and Excel)
- Lack of uniformity of data
- Understanding accounting processes and existing internal controls



2. Implementation Challenges to the Pilot Project

- Drafting of a service agreement between the Trade Association and Rutgers
- Understanding accounting payroll processes
- Determining the type of software systems being used
- ✤ Identifying internal controls
- ✤ Lack of uniformity of data
- Manual documentation of payroll changes, authorizations and approvals

3. Implementation Challenges Overcome by

- a. Used the Trade Association's In-House Counsel to draft service agreement
- b. Used a payroll questionnaire to identify key processes and controls
- c. Conducted staff interviews
- d. Ascertained if complementary user entity controls per ADP's Service Organization Controls (SOC 1) Report were implemented by the Trade Association
- e. Used CaseWare IDEA for data testing
 - 1) Allowed for importing of various types of data basis such as Excel and PDF files
 - 2) Allowed for audit trail
 - 3) Used of various functions such as formulas and script writing



3. Implementation Challenges Overcome by (continued)

- f. Scrubbed data in order to get information into an unified format
 - 1) Table Append Function Data was "appended" with pay period and pay date attributes to allow for loading individual payroll runs (register and timesheets) into single, combined register and timesheet tables to execute tests of data across time periods using a single table (Important Take Away Point)
 - Table Joining Function Common attributes shared across the tables standardized to allow for "table joins" (example timesheets joined with payroll registers) (Important Take Away Point)
 - Employee numbers existed in 4 and 5 digit configurations from the download of the timesheets while the employee numbers were 6 digit configuration from the download of the payroll registers (needed to add zero prefixes)



- 3. Implementation Challenges Overcome by (continued)
 - g. Developed a prototype "Payroll Change Form" using Excel in order to capture employee master and change information in a digital format
 - Individual fields in the form are password protected to provide for different access levels allowing for an unique "form administrator", "preparer" and "approver"
 - h. Created standardized formulas and scripts to automate some of the testing procedures
 - i. Created standardized "dashboard" and "summarization of monitoring" reports
 - j. Developed a methodology as to the type of the testing
 - 1) Level 1 Testing Review of Basic Attributes
 - 2) Level 2 Testing Joining and Comparing of Databases
 - 3) Level 3 Testing Recalculation of Attributes



		NAFO	
	National As	sociation of Flea Owners	
		30 Fairfax Blvd.	
		irfax, VA 22030	
	PAYRO	LL CHANGE FORM	
Form Number	2015.100	Form revised as of	18-Nov-2015
Basic Data			
Employee Name	Charles Dietz III		
Employee #	<mark>99999</mark>		
Effective Date	22-Nov-2015		
New Hire Date	22-Nov-2015		
Termination Date	22-Nov-2015		
Rehire Date	22-Nov-2015		
Address			
Street	10508 Sideburn Court		
City	Fairfax		
State	VA		
Zip	22032		
Country	USA		
Title/Position	Manager		
DOB	26-Nov-1952		
SSN#	xxx-xx-5362		
Security Key	225		
Compensation			
	100.000.00		1.000.00
CT1 - Compensation - Type 1	100,000.00	CT2 - Compensation - Type 2	1,300.00



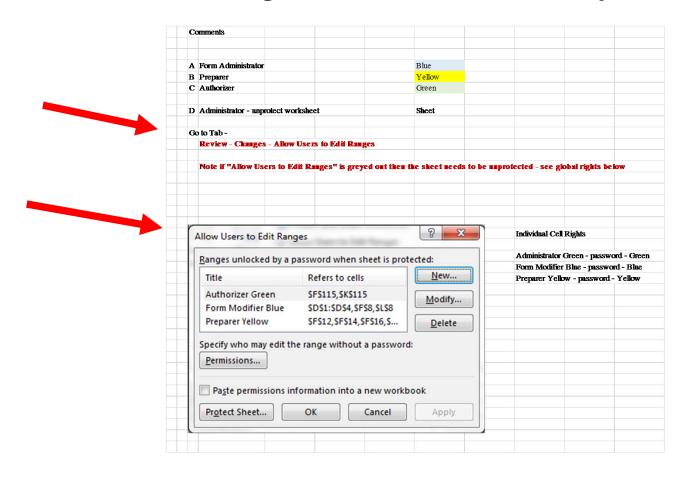
CT3 - Compensation - Type 3	1,000.00	CT4 - Compensation - Type 4	1,400.00
CT5 - Compensation - Type 5	1,200.00	CT6 - Compensation - Type 6	1,500.00
Vithholdings - Pre Tax		Image: marked bit is a state of the state of th	
WHPRE1 - WH - Pre Tax - 1	1.00	WHPRE2 - WH - Pre Tax - 2	<mark>8.00</mark>
WHPRE3 - WH - Pre Tax - 3	2.00	WHPRE4 - WH - Pre Tax - 4	<mark>9.00</mark>
WHPRE5 - WH - Pre Tax - 5	3.00	WHPRE6 - WH - Pre Tax - 6	10.00
WHPRE7 - WH - Pre Tax - 7	4.00	WHPRE8 - WH - Pre Tax - 8	11.00
WHPRE9 - WH - Pre Tax - 9	5.00	WHPRE10 - WH - Pre Tax - 10	12.00
WHPRE11 - WH - Pre Tax - 11	6.00	WHPRE12 - WH - Pre Tax - 12	<u>13.00</u>
WHPRE13 - WH - Pre Tax - 13	7.00	WHPRE14 - WH - Pre Tax - 14	14.00
Vithholdings - Post Tax			
WHPOST1 - WH - Post Tax - 1	21.00	WHPOST2- WH - Post Tax - 2	<mark>28.00</mark>
WHPOST3 - WH - Post Tax - 3	22.00	WHPOST4 - WH - Post Tax - 4	<mark>29.00</mark>
WHPOST5 - WH - Post Tax - 5	23.00	WHPOST6 - WH - Post Tax - 6	<mark>30.00</mark>
WHPOST7 - WH - Post Tax - 7	24.00	WHPOST8 - WH - Post Tax - 8	<mark>31.00</mark>
WHPOST9 - WH - Post Tax - 9	25.00	WHPOST10 - WH - Post Tax - 10	32.00
WHPOST11 - WH - Post Tax - 11	26.00	WHPOST12 - WH - Post Tax - 12	<mark>33.00</mark>
WHPOST13 - WH - Post Tax - 13	27.00	WHPOST14 - WH - Post Tax - 14	34.00



Taxes							
14768							
Federal WH - Status	Status	1	Married	1			
Federal WH - Number			2				
State WH			VA				
State WH - Status			Married				
State WH - Number o	of Exemptions	-	2				
	1						
Health Insurance (See Pr	e-Tax for WH	Amount)					
Health Insurance - Op	otion #		3				
Health Insurance - Co			Married				
Direct Deposit Accounts							
Routing Number - 1		<mark>99999999</mark>					
Bank Account - 1		88888888					
Amount - 1		1,000.00					
Percentage - 1		90.0000%					
Routing Number - 2		77777777					
Bank Account - 2		66666666					
Amount - 2		2,000.00					
Percentage - 2		5.0000%					
l'electinage 2							
Routing Number - 3		5555555					
Bank Account - 3		4444444					
Amount - 3		98,000.00					
Percentage - 3		5.0000%					
Routing Number - % I	Remainder	22222222					
Comments		Test					
Preparer Signature		Jolanda Arnold			Preparer Date	22-N	ov-2015
Authorized Signature		David Collins			Authorized Signature	Date 22-N	ov-2015
. Idaloi 220 Signature				_	. Inthorneou Dignature	2410 22-11	0. 2015

32

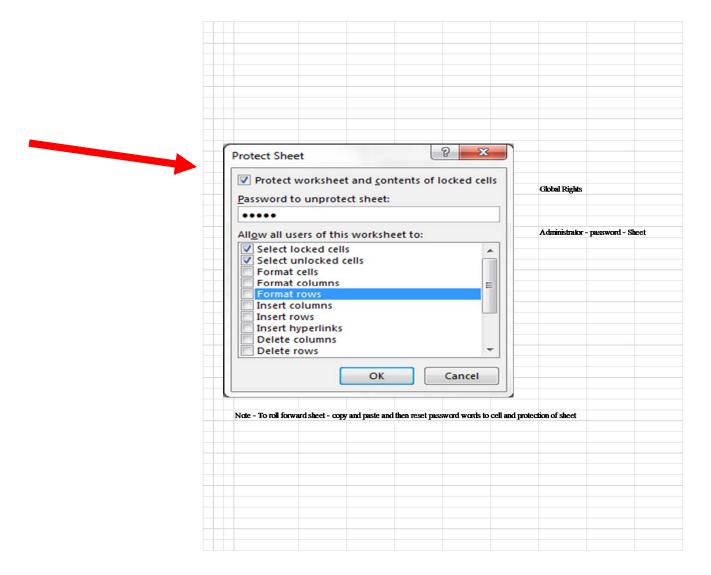






New Range		
<u>T</u> itle:		
Range5		
Refers to ce	ells:	
=\$D\$76	1	"New" or "Modify"
Range <u>p</u> ass	word:	
Permission	ns OK Cancel	
Allow Users to	o Edit Ranges	
	D Edit Ranges Cked by a password when sheet is protected:	
	cked by a password when sheet is protected:	
<u>R</u> anges unlo	cked by a password when sheet is protected:	
Ranges unlo Title	cked by a password when sheet is protected:	
Ranges unlo Title Blue	cked by a password when sheet is protected: Refers to cells SES9:SKS9	
Ranges unlo Title Blue Green Test	cked by a password when sheet is protected: Refers to cells SES9:SKS9 SBS61:SHS63 SCS74 Pelete	
Banges unlo Title Blue Green Test	cked by a password when sheet is protected: Refers to cells SES9:SKS9 SBS61:SHS63 SCS74 Modify Delete may edit the range without a password:	
Ranges unlo Title Blue Green Test Specify who	cked by a password when sheet is protected: Refers to cells SES9:SKS9 SBS61:SHS63 SCS74 Modify Delete may edit the range without a password:	





35



- 3. Implementation Challenges Overcome by (continued)
 - k. Developed a Formal Report Format
 - 1) List of participants
 - 2) Scope
 - 3) Background
 - 4) Criteria
 - 5) Project inputs
 - 6) Data testing
 - 7) Comments and suggestions
 - 8) Concluding remarks



- 4. Testing Performed Using a Tier Approach
 - a) Level 1 Testing Review of Basic Attributes
 - 1) Federal W/H Less Than \$100
 - A script was written using IDEA extraction software to test for employees with federal withholding of less than \$100 per payroll period
 - 2) State W/H Less Than \$100
 - ✤ A script was written using IDEA extraction software to test for employees with state withholding of less than \$100 per payroll period.
 - 3) All elements of payroll check included in database except for
 - ✤ A script was written to determine if all elements of the payroll check were included in the database.



- 4. Testing Performed Using a Tier Approach (continued)
 - b. Level 2 Testing Joining and Comparing of Databases
 - 1) Who got paid without a timesheet? (joining of timesheets to payroll register)
 - Scripts were written to join the Timesheet with Payroll Register databases.
 - By using the concatenate function in Excel, the data was modified to have employee numbers in the same format for both databases.
 - In addition, the Payroll Register database was modified to include transaction number, pay period date and payroll paid date attributes.



- 4. Testing Performed Using a Tier Approach (continued)
 - b. Level 2 Testing Joining and Comparing of Databases (continued)
 - 2) Who got paid after termination? (joining of changes in master file with payroll register
 - A password protected Excel Payroll Change Form was developed (See prior slides 30 through 35). The Payroll Change Form allowed payroll changes to be documented in an electronic format that included the ability to separate access rights by the Form's Administrator, Preparer and Authorizer.
 - Using fictitious payroll data, an Excel Payroll Change Form worksheet was created and then printed to a PDF. The PDF was imported into IDEA extraction software by writing an IDEA PDF extraction template script.
 - The number of days between the termination date and date of pay was calculated by writing a formula after joining the Payroll Change From with the Payroll Register.



- 4. Testing Performed Using a Tier Approach (continued)
 - c. Level 3 Testing Recalculation of Attributes
 - 1) Retirement Contribution Difference between gross pay and eligible pay
 - ✤ A script was written to calculate the difference between the gross pay and eligible pay by employee by payroll register.
 - 2) Retirement Contribution Difference between employee's 401(k) contribution and employer's match
 - ✤ A script was written to calculate the difference between employee's 401(k) contribution deduction and the employer's match.



- 4. Testing Performed Using a Tier Approach (continued)
 - d) Dashboard Report with Year-to-Date Information
 - 1) Summary of gross payroll per pay register by payroll period
 - 2) Summary of number of employees per pay register by payroll period
 - 3) Summary of year-to-date payroll gross payroll by employee compared to gross payroll by payroll register



- 5. Findings
 - a. One or two employees consistently had federal withholding of less than \$100 per payroll period
 - b. Several employees consistently had state withholding of less than \$100 per payroll period
 - c. Missing payroll attribute for a couple of payrolls (individual payroll data did not cross foot)
 - d. Two to three employees consistently were paid without submitting a timesheet
 - e. Identification of an employee being paid after termination
 - f. Differences between employee 401(k) contribution and employer match



Applying CA/CM Concepts to Mitigate Risks

ACFE

Fraud Risk Assessment – Forms

Module #8 – Purchasing and Billing Schemes

Purchasing and Billing Schemes include:

- Shell company schemes, which occur when an employee submits invoices for payment from a fictitious company controlled by the employee
- Pay-and-return schemes, which occur when an employee arranges for overpayment of a vendor invoice and pockets the overpayment amount when it is returned to the company
- Personal purchase schemes, which occur when an employee submits an invoice for personal purchases to the company for payment, or when an employee uses a company credit card for personal purchases

Questionnaire Key

1. Does the organization have a purchasing department?

The organization should have a purchasing department that is separate from the payment function.

2. Is the purchasing department independent of the accounting, receiving, and shipping departments?

The purchasing department should be independent of the accounting, receiving, and shipping departments.



Module #8 – Purchasing and Billing Schemes (continued)

3. Do purchase requisitions require management approval?

Management should approve all purchase requisitions. CA/CM solution - Obtain a list of authorizers and compare to PRs.

4. Do purchase orders specify a description of items, quantities, prices, and dates?

Purchase orders should specify a description of items, quantities, prices, and dates. CA/CM solution - Verify that POs have descriptions, quantities, prices and dates.

5. Are purchase order forms pre-numbered and accounted for?

Purchase order forms should be pre-numbered and accounted for. CA/CM solution - Perform gap testing.

6. Does the company maintain a master vendor file?

The company should maintain a master vendor file. CA/CM solution - Join master vendor file with purchase/disbursement register and determine if all vendors used were listed on the master vendor file.



Applying CA/CM Concepts to Mitigate Risks

Module # 8 – Purchasing and Billing Schemes (continued)

7. Are competitive bids required for all purchases?

Companies should require competitive bids for all purchases. CA/CM solution - Join purchase/disbursement register with competitive bid documentation

8. Does the receiving department prepare receiving reports for all items received?

The receiving department should prepare receiving reports for all items received. CA/CM solution – Use gap testing.

9. Does the receiving department maintain a log of all items received?

The receiving department should maintain a log of all items received. CA/CM solution – Use gap testing.

10. Are copies of receiving reports furnished to the accounting and purchasing departments?

Copies of receiving reports should be furnished to the accounting and purchasing departments. CA/CM solution - Join receiving reports with POs etc.



Module # 8 – Purchasing and Billing Schemes (continued)

11. Are purchasing and receiving functions separate from invoice processing, accounts payable, and general ledger functions?

Purchasing and receiving functions should be segregated from invoice processing, accounts payable, and general ledger functions. CA/CM solution - Identify who is authorized and join list of authorized users to invoice documents.

12. Are vendor invoices, receiving reports, and purchase orders matched before the related liability is recorded?

Companies should match vendor invoices, receiving reports, and purchase orders before recording the related liability. CA/CM solution - Write formula to compare dates on RR, POs and GL posting date.

13. Are purchase orders recorded in a purchase register or voucher register before being processed through cash disbursements?

Purchase orders should be recorded in a purchase register or voucher register before being processed through cash disbursements. CA/CM solution – Write formula to compare dates.



Module # 8 – Purchasing and Billing Schemes (continued)

14. Are procedures adequate to ensure that merchandise purchased for direct delivery to the customer is promptly billed to the customer and recorded as both a receivable and a payable?

Companies should implement procedures adequate to ensure that merchandise purchased for direct delivery to the customer is promptly billed to the customer and recorded as both a receivable and a payable. CA/CM solution – Write formula to compare date customer billed to date receivable and payable posted in the general ledger.

15. Are records of goods returned to vendors matched to vendor credit memos?

Records of goods returned to vendors should be matched to vendor credit memos. CA/CM solution – Merge delivery return slips with vendor credit memos.

16. Is the accounts payable ledger or voucher register reconciled monthly to the general ledger control accounts?

The accounts payable ledger or voucher register should be reconciled monthly to the general ledger control accounts.

CA/CM solution – On an ongoing basis obtain who and date accounts payable ledger was reconciled to the general control accounts to monitor timeliness of review.



Module #8 – Purchasing and Billing Schemes (continued)

17. Do write-offs of accounts payable debit balances require approval of a designated manager?

Write-offs of accounts payable debit balances should require approval of a designated manager. CA/CM solution – Join write-offs of AP debit balance entries, including date, preparer and who approved with a list of authorized managers.

18. Is the master vendor file periodically reviewed for unusual vendors and addresses?

The master vendor file should be reviewed periodically for unusual vendors and addresses. CA/CM solution - Write a formula to identify vendors in the master vendor with unusual attributes. The unusual attribute could be a vendor with similar names, two vendors with the same address, etc.

19. Are vendor purchases analyzed for abnormal levels?

Vendor purchases should be analyzed for abnormal levels. CA/CM solution – Write a formula to identify split vendor purchases for purchases just below an approval threshold.



Module #8 – Purchasing and Billing Schemes (continued)

20. Are control methods in place to check for duplicate invoices and purchase order numbers?

Companies should implement control methods to check for duplicate invoices and purchase order numbers. CA/CM solution – Perform Gap detection.

21. Are credit card statements reviewed monthly for irregularities?

Credit card statements should be reviewed monthly for irregularities. CA/CM solution – Write a formula to search for charges to unusual vendors such as the Virginia ABC Store or request an email alert when a charge is made in excess of a threshold.

22. Are vendors with post office box addresses verified?

All vendors with post office box addresses should be verified.

CA/CM solution – Write a formula to search for vendors with a post office either in the master vendor file and/or the address used when the disbursement is made.



Module #8 – Purchasing and Billing Schemes (continued)

23. Are voucher payments reviewed regularly for proper documentation?

Voucher payments should be reviewed regularly for proper documentation. CA/CM solution – Write formula to review a documentation completion checklist for all the proper approvals and dates.

24. Is access to the accounts payable sub-ledger and the general ledger restricted? Does access create an audit trail?

Access to the accounts payable sub-ledger and the general ledger should be restricted and an audit trail should be created.

CA/CM solution – Join logins by individual, time and date and with a list of authorized users and their level of authorization.



Module 8 - Purchasing and Billing Schemes			
	Yes	No	Not Applicable
Does the organization have a purchasing department?			
Comments:			
Is the purchasing department independent of the accounting, receiving, and shipping departments?			
Comments:			
Do purchase requisitions require management approval?			
Comments:			
Do purchase orders specify a description of items, quantities, prices and dates?			
Comments:			
Are purchase order forms pre-numbered and accounted for?			
Comments:			
Does the company maintain a master vendor file?			
Comments:			



Module 8 - Purchasing and Billing Schemes (continued)			
	Yes	No	Not Applicable
Are competitive bids required for all purchases?			
Comments:			
Does the receiving department prepare receiving reports for all items received?			
Comments:			
Does the receiving department maintain a log of all items received?			
Comments:			
Are copies of receiving reports furnished to the accounting and purchasing departments?			
Comments:			



Module 8 - Purchasing and Billing Schemes (continued)					
	Yes	No	Not Applicable		
Are purchasing and receiving functions separate from invoice processing, accounts payable, and general ledger functions?					
Comments:					
Are vendor invoices, receiving reports, and purchase orders matched before the related liability is recorded?					
Comments:					
Are purchase orders recorded in a purchase register or voucher register before being processed through cash disbursements?					
Comments:					
Are procedures adequate to ensure that merchandise purchased for direct delivery to the customer is promptly billed to the customer and recorded as both a receivable and a payable?					
Comments:					



Module 8 - Purchasing and Billing Schemes (continued)			
	Yes	No	Not Applicable
Are records of goods returned to vendors matched to vendor credit memos?			
Comments:			
Is the accounts payable ledger or voucher register reconciled monthly to the general ledger controls accounts?			
Comments:			
Do write-offs of accounts payable debit balances require approval of a designated manager?			
Comments:			
Is the master vendor file periodically reviewed for unusual vendors and addresses?			
Comments:			



Module 8 - Purchasing and Billing Schemes (continued)			
	Yes	No	Not Applicable
Are vendor purchases analyzed for abnormal levels?			
Comments:			
Are control methods in place to check for duplicate invoices and purchase order numbers?			
Comments:			
Are credit card statements reviewed monthly for irregularities?			
Comments:			
Are vendors with post office box addresses verified?			
Comments:			
Are voucher payments reviewed regularly for proper documentation?			
Comments:			
Is access to the accounts payable sub-ledger and the general ledger restricted? Does access create an audit trail?			
Comments:			



Applying CA/CM Concepts to Mitigate Risks

ACFE

Fraud Risk Assessment – Forms

Module #10 – Expense Schemes

Expense Schemes include:

Mischaracterized expense schemes, which occur when an employee requests reimbursement for a personal expense, claiming the expense to be business related

- Overstated expense schemes, which occur when an employee overstates the cost of actual expenses and seeks reimbursement
- Fictitious expense schemes, which occur when an employee invents a purchase and seeks reimbursement for it
- Multiple reimbursement schemes, which occur when an employee submits a single expense for reimbursement multiple times

Questionnaire Key

1. Are the expense accounts reviewed and analyzed periodically using historical comparisons or comparisons with budgeted amounts?

Companies should periodically review and analyze expense accounts using historical comparisons or comparisons with budgeted amounts.

2. Do employee expense reimbursement claims receive a detailed review before payment is made?

Employee expense reimbursement claims should receive a detailed review before payment is made.



Module #10 – Expense Schemes (continued)

3. Are employees required to submit detailed expense reports?

Employees should be required to submit detailed expense reports containing receipts, explanations, amounts, etc.

4. Is a limit placed on expenses such as hotels, meals, and entertainment?

Companies should place a spending limit on expenses such as hotels, meals, and entertainment.

5. Are receipts required for all expenses to be reimbursed?

Companies should require receipts for all expenses to be reimbursed.

6. Are supervisors required to review and approve all expense reimbursement requests?

All expense reimbursement requests should be reviewed and approved by supervisors.

7. Is there a random authentication of expense receipts and expenses claimed?

A policy requiring the periodic review of expense reports, coupled with examining the appropriate detail, can help deter employees from submitting personal expenses for reimbursement.



Module 10- Expense Schemes			
	Yes	No	Not Applicable
Are the expense accounts reviewed and analyzed periodically using historical comparisons or comparisons with budgeted amounts?			
Comments:			
Do employee expense reimbursement claims receive a detailed review before payment is made?			
Comments:			
Are employees required to submit detailed expense reports?			
Comments:			
Is a limit placed on expenses such as hotels, meals, and entertainment?			
Comments:			E



Module 10 - Expense Schemes (continued)			
	Yes	No	Not Applicable
Are receipts required for all expenses to be reimbursed?			
Comments:			
Are supervisors required to review and approve all expense reimbursement requests?			
Comments:			
Is there a random authentication of expense receipts and expenses claimed?			
Comments:			



Applying CA/CM Concepts to Mitigate Risks

ACFE

Fraud Risk Assessment – Forms

Module # 9 – Payroll Schemes

Payroll Schemes include:

Ghost employee schemes, which occur when a person not employed by the company is on the payroll

- Overpayment schemes, which occur when a company pays an employee based on falsified hours or rates
- Commission schemes, which occur when the amount of sales made or the rate of commission is fraudulently inflated

Questionnaire Key

1. Is the employee payroll list reviewed periodically for duplicate or missing Social Security numbers?

Organizations should check the employee payroll list periodically for duplicate or missing Social Security numbers that may indicate a ghost employee or overlapping payments to current employees.

2. Are personnel records maintained independently of payroll and timekeeping functions?

Personnel records should be maintained independently of payroll and timekeeping functions.



Module # 9 – Payroll Schemes (continued)

3. Are references checked on all new hires?

Organizations should perform reference checks on all new hires.

4. Are sick leave, vacations, and holidays reviewed for compliance with company policy?

Sick leave, vacations, and holidays should be reviewed for compliance with company policy.

5. Are appropriate forms completed and signed by the employee to authorize payroll deductions and withholding exemptions?

Employees should complete and sign appropriate forms to authorize payroll deductions and withholding exemptions.

6. Is payroll periodically compared with personnel records for terminations?

Payroll should periodically be compared with personnel records for terminations to ensure that terminated employees have been removed from the payroll.

7. Are payroll checks pre-numbered and issued in sequential order?

Payroll checks should be pre-numbered and issued in sequential order.



Module # 9 – Payroll Schemes (continued)

8. Is the payroll bank account reconciled by an employee who is not involved in preparing payroll checks, does not sign the checks, and does not handle payroll distribution?

The payroll bank account should be reconciled by an employee who is not involved in preparing payroll checks, does not sign the checks, and does not handle payroll distribution.

9. Are payroll registers reconciled to general ledger control accounts?

Payroll registers should be reconciled to general ledger control accounts.

10. Are cancelled payroll checks examined for alterations and endorsements?

Cancelled payroll checks should be examined for alterations and endorsements.

11. Is access restricted to payroll check stock and signature stamps?

Access to payroll check stock and signature stamps should be restricted.

12. Are payroll withholdings for taxes, insurance, etc. examined to determine if any employees are not having these items deducted from their paychecks?

Payroll checks that do not have withholdings for taxes, insurance, etc. should be investigated.



Module # 9 – Payroll Schemes (continued)

13. Is the employee payroll list reviewed periodically for duplicate or missing home addresses and telephone numbers?

The employee payroll list should be reviewed for duplicate or missing home addresses and telephone numbers.

14. Is the account information for automatically deposited payroll checks reviewed periodically for duplicate entries?

Account information for automatically deposited payroll checks should be reviewed periodically for duplicate entries.

15. Is an employee separate from the payroll department assigned to distribute payroll checks?

An employee separate from the payroll department should be assigned to distribute payroll checks.

16. Are new employees required to furnish proof of immigration status?

Companies must require new employees to furnish proof of immigration status.

17. Does any change to an employee's salary require more than one level of management approval?

Changes to an employee's salary should require more than one level of management approval.



Module # 9 – Payroll Schemes (continued)

18. Does overtime have to be authorized by a supervisor?

Overtime should be authorized by a supervisor.

19. Do supervisors verify and sign timecards for each pay period?

Supervisors should verify and sign time timecards for each pay period.

20. Are commission expenses compared to sales figures to verify amounts?

Comparing commission expenses to sales figures to verify amounts is an important control procedure that can help to detect payroll fraud.

21. Does someone separate from the sales department calculate sales commissions?

Someone separate from the sales department should calculate sales commissions.



Module 9 - Payroll Schemes			
	Yes	No	Not Applicable
Is the employee payroll list reviewed periodically for duplicate or missing Social Security numbers?			
Comments:			
Are personnel records maintained independently of payroll and timekeeping functions?			
Comments:			
Are references checked on all new hires?			
Comments:			
Are sick leave, vacations, and holidays reviewed for compliance with company policy?			
Comments:			



Module 9 - Payroll Schemes (continued)			
	Yes	No	Not Applicable
Are appropriate forms completed and signed by the employee to authorize payroll deductions and withholding exemptions?			
Comments:			
Is payroll periodically compared with personnel records for terminations?			
Comments:			
Are payroll checks pre-numbered and issued in sequential order?			
Comments:			
Is the payroll bank account reconciled by an employee who is not involved in preparing payroll checks, does not sign the checks, and does not handle payroll distribution?			
Comments:			



Module 9 - Payroll Schemes (continued)			
	Yes	No	Not Applicable
Are payroll registers reconciled to general ledger control accounts?			
Comments:			
Are cancelled payroll checks examined for alterations and endorsements?			
Comments:			
Is access restricted to payroll check stock and signature stamps?			
Comments:			
Are payroll withholdings for taxes, insurance, etc. examined to determine if any employees are not having these items deducted from their paychecks?			
Comments:			



Module 9 - Payroll Schemes (continued)			
	Yes	No	Not Applicable
Is the employee payroll list reviewed periodically for duplicate or missing home addresses and telephone numbers?			
Comments:			
Is the account information for automatically deposited payroll checks reviewed periodically for duplicate entries?			
Comments:			
Is an employee separate from the payroll department assigned to distribute payroll?			
Comments:			



Module 9 - Payroll Schemes (continued)			
	Yes	No	Not Applicable
Are new employees required to furnish proof of immigration status?			
Comments:			
Does any change to an employee's salary require more than one level of management approval?			
Comments:			
Does overtime have to be authorized by a supervisor?			
Comments:			
Do supervisors verify and sign timecards for each pay period?			
Comments:			



Module 9 - Payroll Schemes (continued)			
	Yes	No	Not Applicable
Are commission expenses compared to sales figures to verify amounts?			
Comments:			
Does someone separate from the sales department calculate sales commissions?			
Comments:			



Questions

