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# Schemes, Scams and Swindlers: Insights into Organizational Fraud

Illinois State Internal Audit Advisory Board  
2012 Fall Government Auditing Conference

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# Perp Poetry

Oh what a tangled web we weave  
When first we practice to deceive.

But once we've practiced for a while,  
Oh my, how we've improved our style!

# Today.....

- Latest trends in fraud
- Examples of fraud schemes
- Fraud detection
- Tips to reduce fraud risk



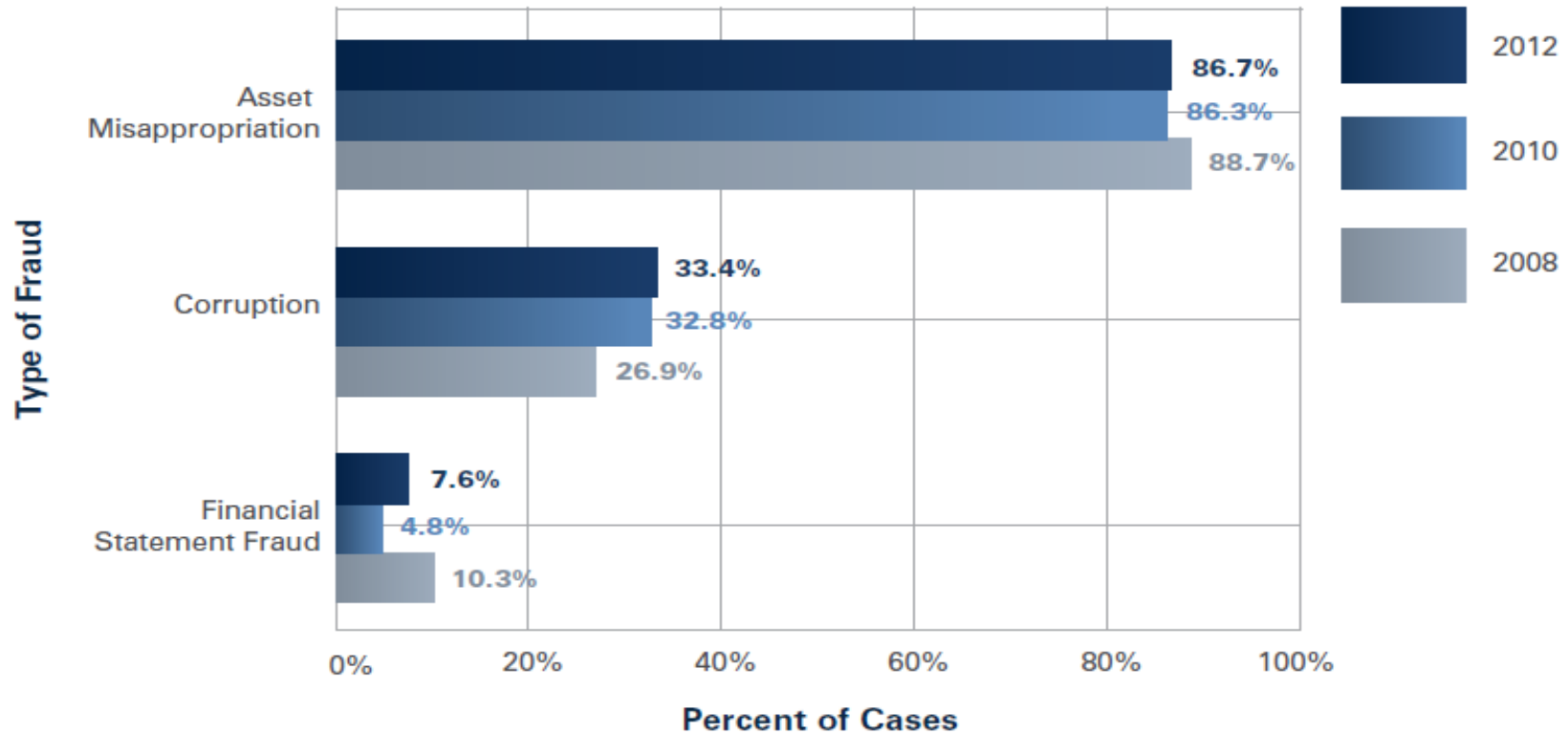
# What's the Cost of Fraud in 2012?

- 5% of revenues lost to fraud/abuse\*
- \$3.5 trillion global losses\*
- 20% of frauds are > \$1.0 million\*
- Reputational black eye
- Managers/officers may be held responsible



# Type of Fraud and Frequency

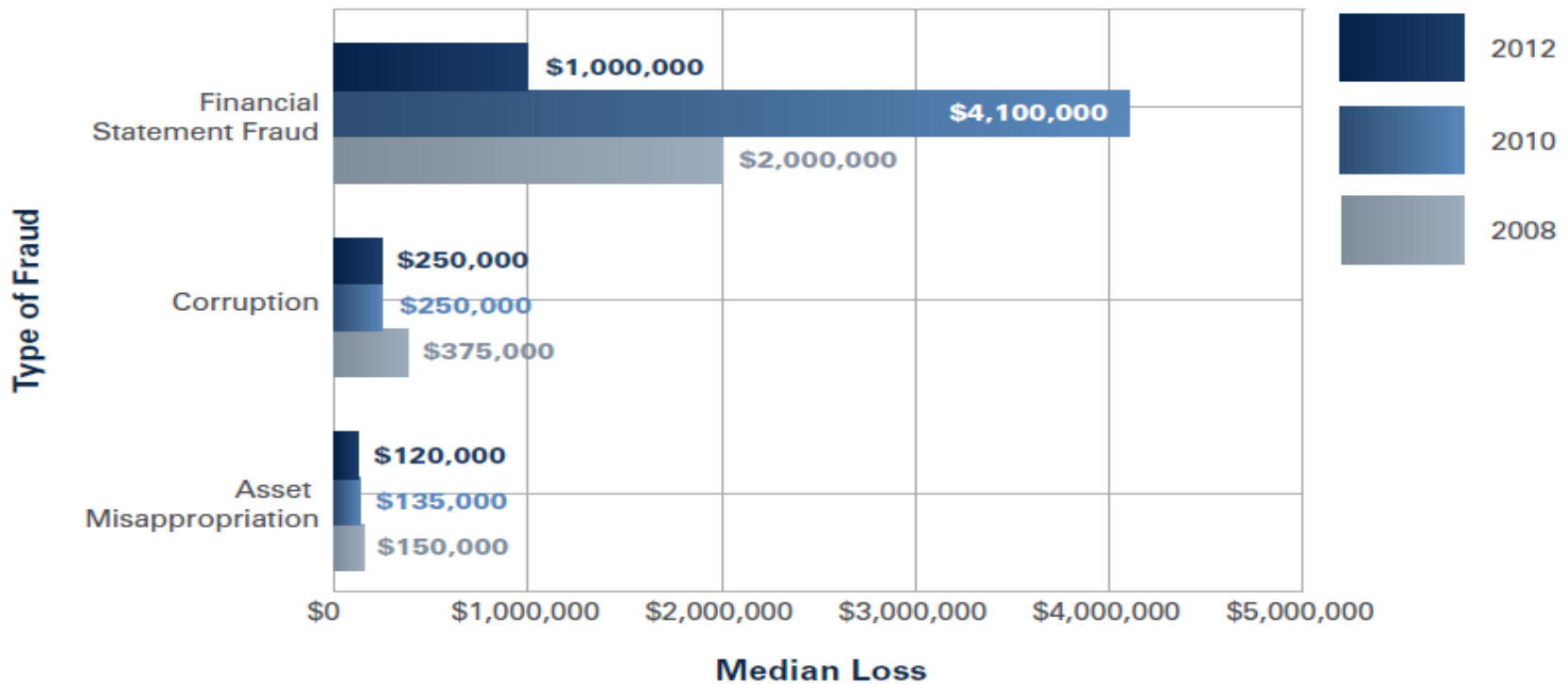
Occupational Frauds by Category — Frequency



Source: 2012 Report to the Nations - Association of Certified Fraud Examiners, Inc.

# Frauds – by Median Loss

Occupational Frauds by Category — Median Loss



# Top 5 Industries Victimized By Fraud – By Frequency

<u>Ranking</u>	<u>Industry</u>	<u>Median Loss</u>
#1	Banking	\$232,000
#2	Government	\$100,000
#3	Manufacturing	\$200,000
#4	Healthcare	\$200,000
#5	Education	\$ 36,000

Source: 2012 Report to the Nations - Association of Certified Fraud Examiners, Inc.

# How Occupational Fraud is Committed

Asset Misappropriation Sub-Categories					
Category	Description	Examples	Number of Cases	Percent of All Cases	Median Loss
<b>SCHEMES INVOLVING THEFT OF CASH RECEIPTS</b>					
Skimming	Any scheme in which cash is stolen from an organization <i>before</i> it is recorded on the organization's books and records	<ul style="list-style-type: none"> <li>Employee accepts payment from a customer but does not record the sale and instead pockets the money</li> </ul>	203	14.6%	\$58,000
Cash Larceny	Any scheme in which cash is stolen from an organization <i>after</i> it has been recorded on the organization's books and records	<ul style="list-style-type: none"> <li>Employee steals cash and checks from daily receipts before they can be deposited in the bank</li> </ul>	152	11.0%	\$54,000
<b>SCHEMES INVOLVING FRAUDULENT DISBURSEMENTS OF CASH</b>					
Billing	Any scheme in which a person causes his or her employer to issue a payment by submitting invoices for fictitious goods or services, inflated invoices or invoices for personal purchases	<ul style="list-style-type: none"> <li>Employee creates a shell company and bills employer for services not actually rendered</li> <li>Employee purchases personal items and submits an invoice to employer for payment</li> </ul>	346	24.9%	\$100,000
Expense Reimbursements	Any scheme in which an employee makes a claim for reimbursement of fictitious or inflated business expenses	<ul style="list-style-type: none"> <li>Employee files fraudulent expense report, claiming personal travel, nonexistent meals, etc.</li> </ul>	201	14.5%	\$26,000
Check Tampering	Any scheme in which a person steals his or her employer's funds by intercepting, forging or altering a check drawn on one of the organization's bank accounts	<ul style="list-style-type: none"> <li>Employee steals blank company checks and makes them out to himself or an accomplice</li> <li>Employee steals an outgoing check to a vendor and deposits it into his or her own bank account</li> </ul>	165	11.9%	\$143,000
Payroll	Any scheme in which an employee causes his or her employer to issue a payment by making false claims for compensation	<ul style="list-style-type: none"> <li>Employee claims overtime for hours not worked</li> <li>Employee adds ghost employees to the payroll</li> </ul>	129	9.3%	\$48,000
Cash Register Disbursements	Any scheme in which an employee makes false entries on a cash register to conceal the fraudulent removal of cash	<ul style="list-style-type: none"> <li>Employee fraudulently voids a sale on his or her cash register and steals the cash</li> </ul>	50	3.6%	\$25,000
<b>OTHER ASSET MISAPPROPRIATION SCHEMES</b>					
Misappropriation of Cash on Hand	Any scheme in which the perpetrator misappropriates cash kept on hand at the victim organization's premises	<ul style="list-style-type: none"> <li>Employee steals cash from a company vault</li> </ul>	164	11.8%	\$20,000
Non-Cash Misappropriations	Any scheme in which an employee steals or misuses non-cash assets of the victim organization	<ul style="list-style-type: none"> <li>Employee steals inventory from a warehouse or storeroom</li> <li>Employee steals or misuses confidential customer financial information</li> </ul>	239	17.2%	\$58,000



# Victim Organizations

Banking and Financial Services 229 Cases		
Scheme	Number of Cases	Percent of Cases
Corruption	83	36.2%
Cash on Hand	48	21.0%
Cash Larceny	29	12.7%
Billing	29	12.7%
Non-Cash	24	10.5%
Financial Statement Fraud	22	9.6%
Skimming	21	9.2%
Check Tampering	21	9.2%
Expense Reimbursements	13	5.7%
Register Disbursements	9	3.9%
Payroll	3	1.3%

Government and Public Administration 141 Cases		
Scheme	Number of Cases	Percent of Cases
Corruption	50	35.5%
Billing	33	23.4%
Non-Cash	27	19.1%
Skimming	25	17.7%
Expense Reimbursements	19	13.5%
Payroll	18	12.8%
Check Tampering	15	10.6%
Cash on Hand	12	8.5%
Cash Larceny	10	7.1%
Financial Statement Fraud	9	6.4%
Register Disbursements	4	2.8%

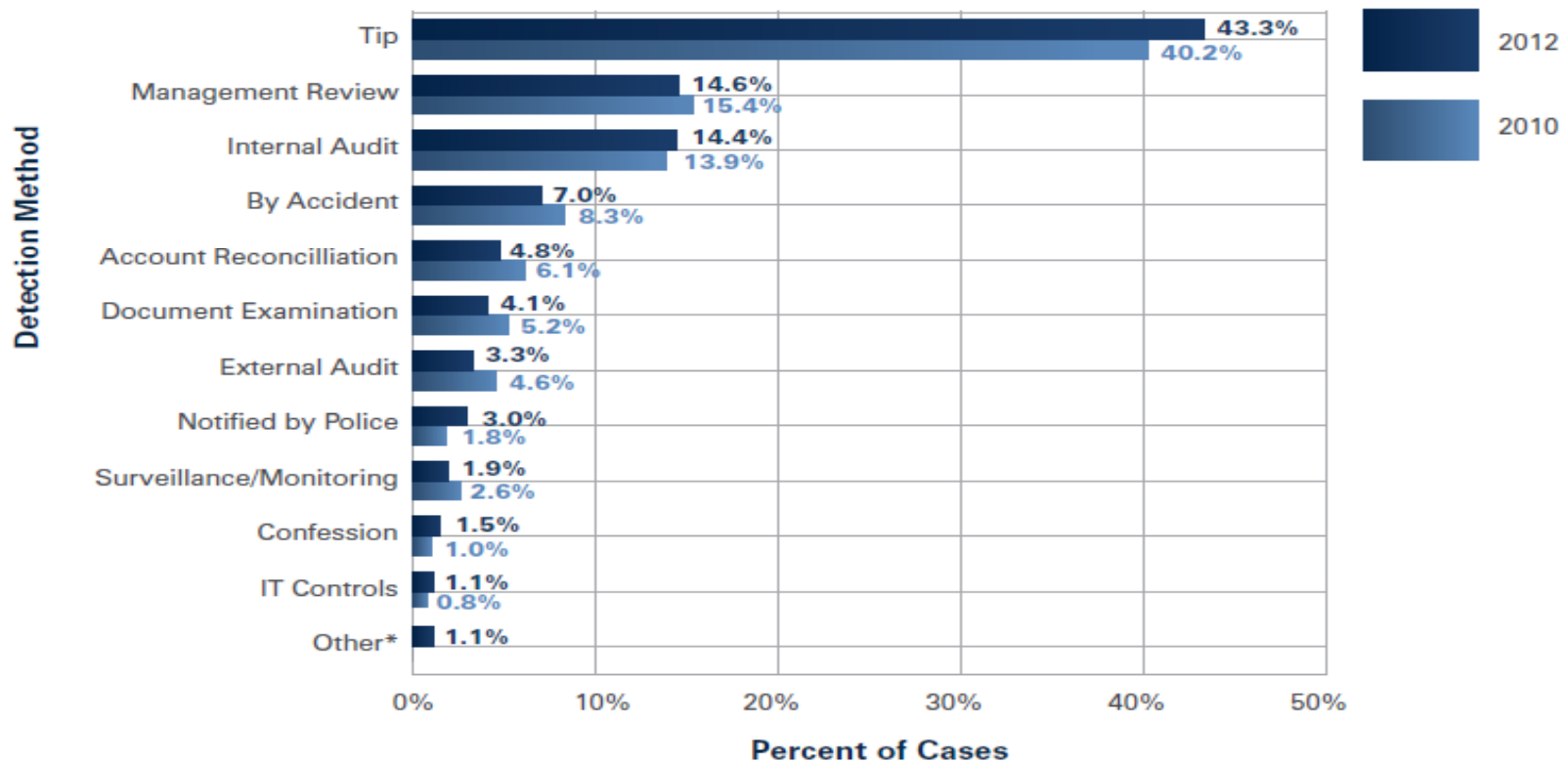
# Victim Organizations

Manufacturing 139 Cases		
Scheme	Number of Cases	Percent of Cases
Corruption	47	33.8%
Billing	44	31.7%
Non-Cash	39	28.1%
Expense Reimbursements	25	18.0%
Check Tampering	16	11.5%
Payroll	16	11.5%
Financial Statement Fraud	16	11.5%
Cash on Hand	14	10.1%
Skimming	11	7.9%
Cash Larceny	9	6.5%
Register Disbursements	5	3.6%

Health Care 92 Cases		
Scheme	Number of Cases	Percent of Cases
Billing	33	35.9%
Corruption	28	30.4%
Expense Reimbursements	19	20.7%
Skimming	18	19.6%
Check Tampering	17	18.5%
Non-Cash	17	18.5%
Cash Larceny	16	17.4%
Payroll	14	15.2%
Cash on Hand	14	15.2%
Financial Statement Fraud	9	9.8%
Register Disbursements	6	6.5%

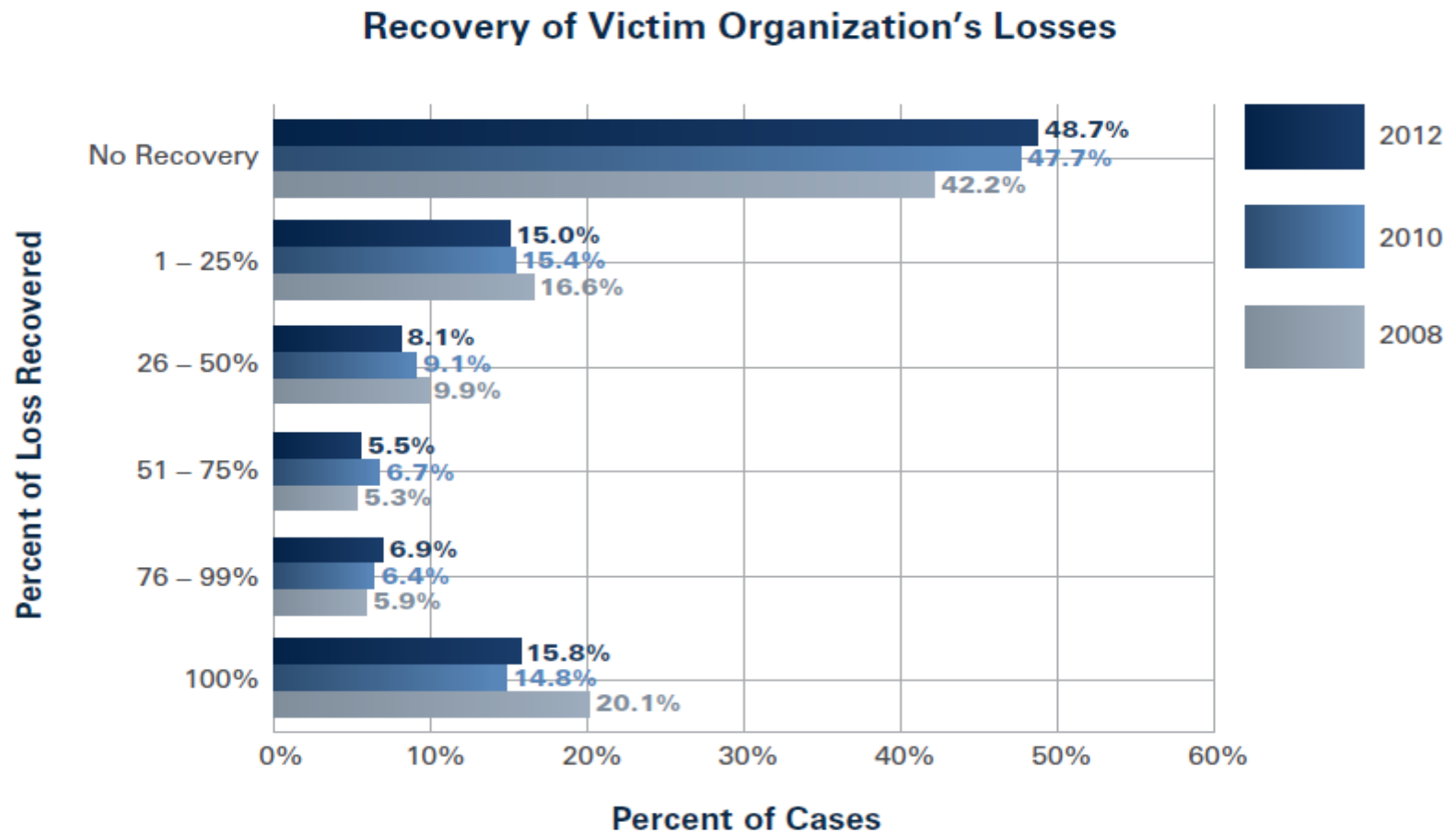
# How Frauds Are Detected

## Initial Detection of Occupational Frauds



\*"Other" category was not included in the 2010 Report.

# Recovery of Losses after Fraud



Source: 2012 Report to the Nations - Association of Certified Fraud Examiners, Inc.

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# Does this look like a “Financial Assassin”?



# Fraud Triangle

Perceived  
pressure  
facing  
individual

Perceived  
opportunity  
to commit  
fraud

Exacerbated in  
economic downturn

Can be  
managed

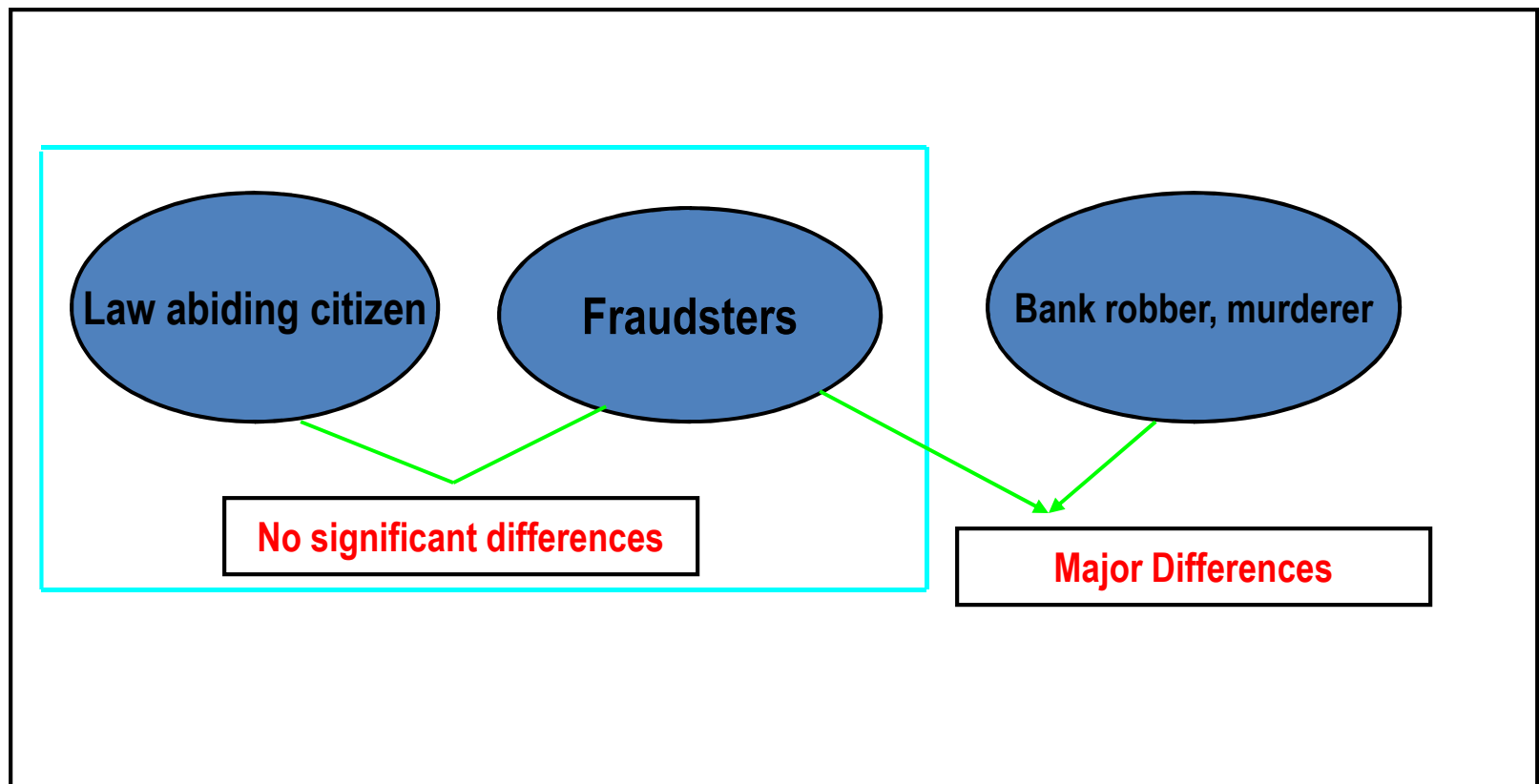
Person's rationalization  
or integrity

# Profile of an Embezzler

- Nicest people in the office
- Long-term employees (trust factor)
- Age: 40 years & over
- Men more likely to be involved
- College-educated
- Could be any departmental employee
- Grandparents, ministers & otherwise “good” citizens



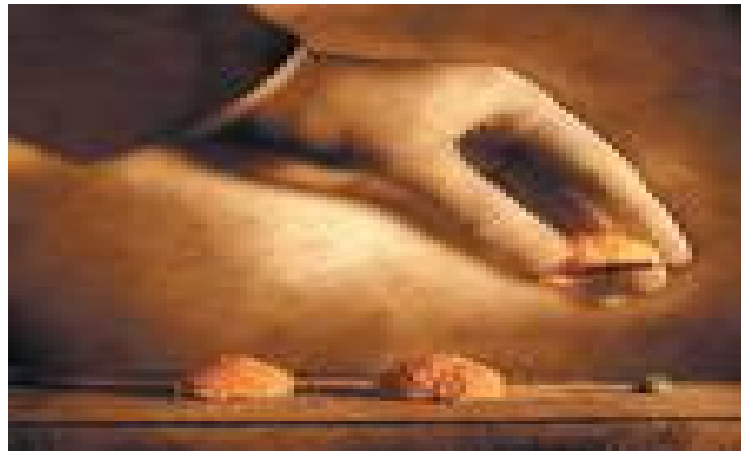
# Fraud Perpetrators – They’re More Like You and Me





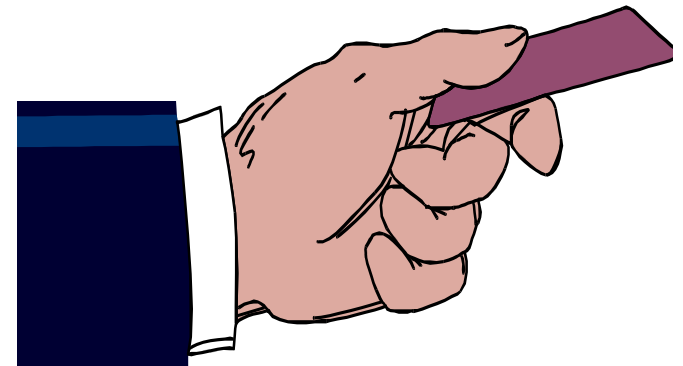
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# Common Fraud Schemes



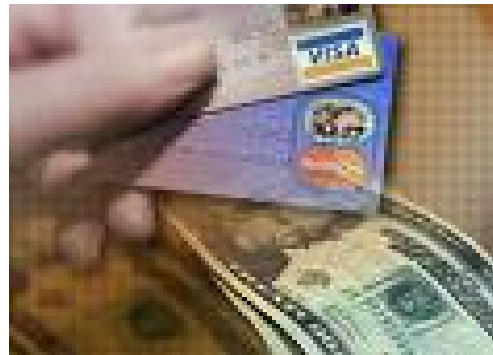
# Accounts Payable & Purchasing Frauds

- Organizational credit cards
- Watch for: Electronic debits used to pay personal bills
- Fictitious services
- Personal bills paid by company



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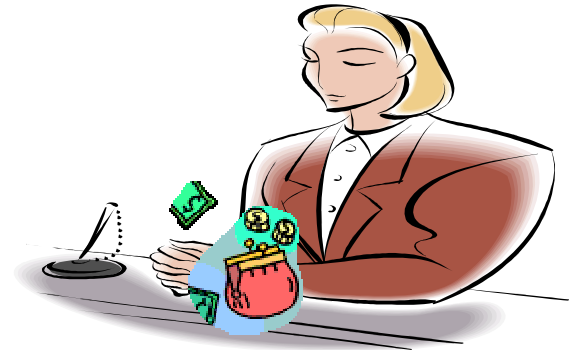
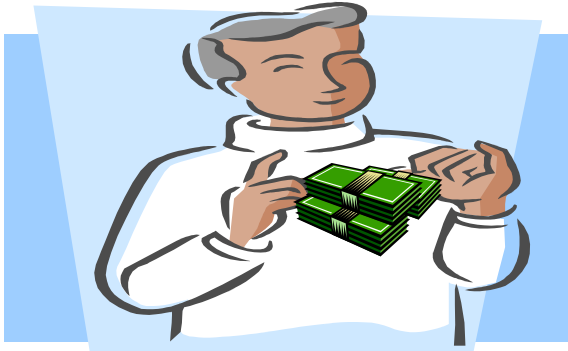
# Credit Cards



# Cash Schemes

- Stealing payments – how is it covered up?
  - ❖ Accounts written off
  - ❖ Accounts are lapped
- “Special” receipts – rebates, refunds, etc.
- Special bank accounts
- Offsite locations
- Altering bank deposits





<u>Cash</u>	<u>Checks</u>	<u>Total Recorded</u>
<del>\$1,000</del>	<del>\$1,000</del>	\$2,000
+500		\$2,500
<b>\$1,000</b>	<b>\$1,500</b>	

# Early Warning Signs of Fraud

- Someone protective over their work
- Takes very few vacations
- Might work strange hours
- Personal financial problems
- Lifestyle out of line with compensation
- Account reconciliations are always off
- **Don't miss these warning signs!!**



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# Ticket Scandal



# Ticket Scandal

## Summary of Case:

- \$1.0 million+ (face value) in tickets sold to brokers
- Multiple employees involved
- Lasted for at least 5 years
- Disguised as complimentary tickets/other
- Ticket broker split profits with employee(s)
- Complete breakdown/lack of controls



# Ticket Scandal

## How Did It Start?

- Starts with a “jailhouse” snitch
- Getting ready to be sentenced in another case
- Knows about the ticket selling ring
- Tries to use as a last minute bargaining chip
- This starts the ball rolling – December 2009
- IRS and FBI start criminal investigation

# Ticket Scandal

- Ticket office had the climate of “*an ice cream store where the employees feel free to sample the wares.....*”
- Tickets sold for cash and favors
- One guy – quick \$25,000 for Final 4 tickets
- Favors – e.g. reduced apartment rent
- Landlord calls wanting “points”

# Ticket Scandal

- Work performed
  - ❖ Analysis of email traffic
  - ❖ Analysis of files on 17 computers
  - ❖ Data analysis of ticket sales
- Gold mine of information
  - ❖ Text messages on laptop
  - ❖ The employee had no idea his iPhone dumped all this onto his laptop

# Ticket Scandal Conclusion

- Still some fallout
- Early 2012 - two police officers suspended for dismissing speeding tickets in exchange for basketball tickets
- Multiple guilty pleas
- Black eye on athletic program

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# Corruption and Kickbacks



# Kickback Investigation

- Large international company
- Several emails from whistleblower
- Whistleblower claims a long-time executive is getting kickbacks from a vendor
- Company unsure what to believe

# Obstacles and Allegations

- Vendor in the middle east
- Language barriers
- Disgruntled ex-wife
- Special backdoor email account
- Money laundered through brother or ex
- Communications are in “code”
- His “cut” = 20%

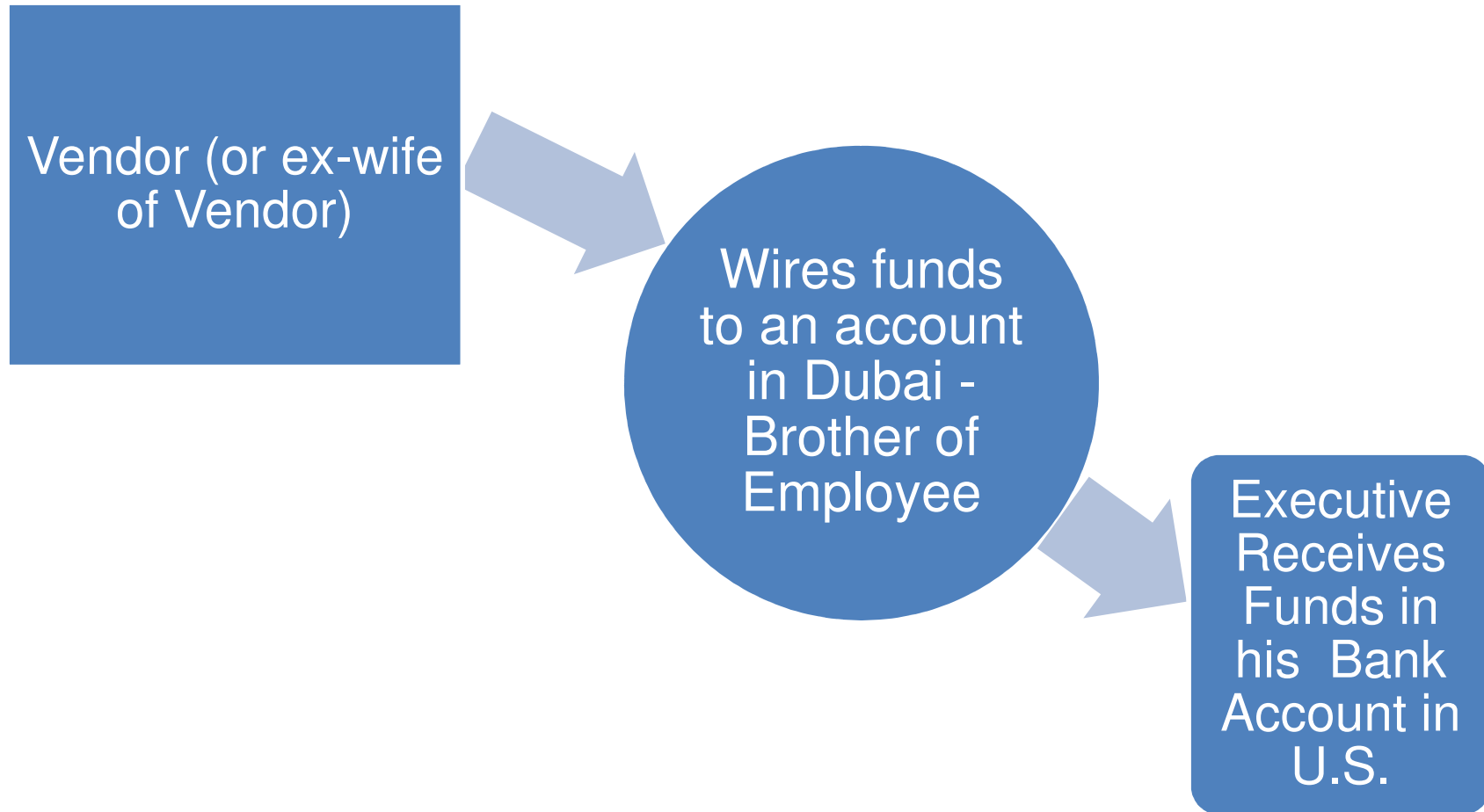
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# Our Tasks

- Attempt to verify authenticity of emails
- Computer forensics
- Talk to the executive
- Talk to others who may have knowledge



# Flow of Funds



# Other Evidence

- Ex-wife provided wire confirmations
- Vendor in iPhone messages, contacts
- Executive internet history found:
  - ❖ Regularly logged onto the vendor portal
  - ❖ Logged on and changed password immediately after being asked about it
  - ❖ Screen shots matching emails forwarded by whistleblower

# Thoughts on Kickback Schemes

- Approach is different than usual scheme
- Can be very difficult to uncover
- Computer forensics essential
- Cooperation of whistleblower & others
- Understanding close relationships is key
- Knowing work history, connections, etc.

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# Other Creative Schemes



# Sick & Vacation Leave Fraud – Actual Case

## September, 1997

- Top government official convinces City Council to allow him to sell (cash out) unused leave time
- Added amendment to his existing employment contract
- City Council approves

# Sick & Vacation Leave Fraud

## Sample Leave Fraud Activity

Leave time: June 11, 2002 contract	442 days
Leave sold back in next 8 weeks	<u>107 days</u>
	<b>335 days</b>

## So the pattern was to...

- Get City Council to approve new contract
- Pass it off as “minor” change
- After approval: Sell batches of leave time
- A few months (or weeks) later – another contract

# Leave Buyback Scheme – End Result

- 7 year period: over 2,000 days of leave sold
- Equivalent to 60 years worth of leave
- Final tally: \$675,000 in leave time cashed out
- He became bolder: other benefits added
- Convicted
- Sentenced to 51 months in federal prison

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# Detection and Monitoring: Harnessing the Power of Data





# Finding the Smoking Guns



Data Mining: Search for certain patterns & transactions in large data sets using electronic methods – *e.g.*, transactions indicative of fraud or errors

# Why Data Mining?

- Need to find specific or certain types of transactions
- Boil down millions of lines of data
- Massive amounts of electronic data waiting for you
- Better software tools for examining complex data sets
- Traditional sampling is generally ineffective
- Faster than manually searching documents

# Check Sequence Analysis


Journal	Reference	Date	Credits	Account Number	Account Name
AP	667411	05/03/2006	-41.10	04-00-1010	CASH(SUPER NOW & SWEEP)
AP	667412	05/03/2006	-37.50	02-00-1010	CASH(SUPER NOW & SWEEP)
AP	667413	05/03/2006	-1280.00	03-00-1010	CASH(SUPER NOW & SWEEP)
AP	667414	05/03/2006	-454.84	03-00-1010	CASH(SUPER NOW & SWEEP)
AP	667417	05/04/2006	-895.38	03-00-1010	CASH(SUPER NOW & SWEEP)
AP	667418	05/04/2006	-282.44	03-00-1010	CASH(SUPER NOW & SWEEP)
AP	667419	05/04/2006	-1482.66	03-00-1010	CASH(SUPER NOW & SWEEP)
AP	667420	05/04/2006	-170.18	03-00-1010	CASH(SUPER NOW & SWEEP)
AP	667421	05/04/2006	-960.00	10-00-1010	CASH(SUPER NOW & SWEEP)
AP	667422	05/04/2006	-4700.00	04-00-1010	CASH(SUPER NOW & SWEEP)
AP	667423	05/04/2006	-275.25	03-00-1010	CASH(SUPER NOW & SWEEP)
AP	667424	05/04/2006	-65.92	03-00-1010	CASH(SUPER NOW & SWEEP)
AP	667425	05/04/2006	-5000.00	07-00-1010	CASH(SUPER NOW & SWEEP)
AP	667426	05/04/2006	-216.00	03-00-1010	CASH(SUPER NOW & SWEEP)
AP	667427	05/04/2006	-257.11	03-00-1010	CASH(SUPER NOW & SWEEP)
AP	667428	05/04/2006	-54.74	03-00-1010	CASH(SUPER NOW & SWEEP)
AP	667429	05/08/2006	-108.00	03-00-1010	CASH(SUPER NOW & SWEEP)
AP	667430	05/08/2006	-500.00	04-00-1010	CASH(SUPER NOW & SWEEP)
AP	667431	05/08/2006	-500.00	04-00-1010	CASH(SUPER NOW & SWEEP)
AP	667432	05/08/2006	-1000.00	04-00-1010	CASH(SUPER NOW & SWEEP)
AP	667433	05/08/2006	-112.25	03-00-1010	CASH(SUPER NOW & SWEEP)
AP	667434	05/08/2006	-270.00	03-00-1010	CASH(SUPER NOW & SWEEP)
AP	667435	05/08/2006	-174.55	03-00-1010	CASH(SUPER NOW & SWEEP)
AP	667436	05/08/2006	-658.39	03-00-1010	CASH(SUPER NOW & SWEEP)
AP	667437	05/08/2006	-8205.44	03-00-1010	CASH(SUPER NOW & SWEEP)

## Gaps Found:

Reference	Gap Start (Inclusive)	Gap End (Inclusive)	Number of Missing Items
667,415			1
667,416			1
667,867			1
667,894			1
667,895			1
668,421			1
669,604			1
670,858			1
670,886			1
671,406			1

Date	Voucher	Payee	Address	Address	Amount
01/18/2005	VRRE2157	SUMMITT PROPERTIES	C/O CHAPAHOME LLC	HOLD FOR PICK-UP	\$ 338,772.62
02/02/2005	VRRE2233	111 13TH STREET LLC	C/O CHAPPAHOME SERVICES INC.	HOLD FOR PICK-UP	397,007.00
03/10/2005	VRRE2337	1301 LIMITED PARTNERSHIP	C/O CHAPPAHOME SERVICES INC.	HOLD FOR PICK-UP	350,000.00
03/29/2005	VRRE2358	JAD ASSOCIATES, INC.	C/O CHAPPAHOME SERVICING	HOLD FOR PICK-UP	379,000.00
10/18/2005	VRRE2822	BGEE LLP/CHAPPA HOME	C/O WILKES ARTIS	HOLD FOR PICK-UP	329,913.31
11/14/2005	VRRE2871	JACKSON-CAMPBELL	CHAPPAHOME DESIGN, INC.	HOLD FOR PICK-UP	234,227.20
12/19/2005	VRRE2909	FIFTEEN STREET LTD PARTNERSHIP	C/O CHAPPAHOME CORPORATION	HOLD FOR PICK-UP	309,900.08
01/12/2006	VRRE2936	THIRTEENTH STREET ASSOCIATES	C/O CHAPPAHOME, INC	HOLD FOR PICK-UP	380,000.00
02/09/2006	VRRE2971	BBLAKE COMPANY LLC	CHAPPAHOME INC	HOLD FOR PICK-UP	346,800.00
03/09/2006	VRRE3025	1425 F STREET, LLC CHAPPAHOME	C/O DAVID FUSS, ESQ	HOLD FOR PICK-UP	356,900.00
04/12/2006	VRRE3071	STOLADI PROPERTY GROUP	C/O CHAPPA HOME INC.		385,700.00
05/15/2006	VRRE3118	MRL POST, LLC	C/O CHAPPAHOME LIMITED	HOLD FOR PICK-UP	387,900.00
08/25/2006	VRRE3296	1120 VERMONT STREET ASSOC, LLC	C/O CHAPPAHOME LLC	HOLD FOR PICK-UP	410,000.00
09/26/2006	VRRE3363	LINCON SQUARE, LLC	CHAPPAHOME DESIGN LTD	HOLD FOR PICK-UP	458,670.00
04/04/2007	VRRE3538	CHAPPAHOME INC, LLC	C/O JEFF NADEL ESQ	HOLD FOR PICK-UP	465,000.00
04/25/2007	VRRE3715	CHAPPAHOME INC.	C/O WILKES ARTIS, LLC	HOLD FOR PICK-UP	398,680.00
				Total	\$ 5,928,470.21

 Acronyms in payee name

 No address-  
"c/o"

 Hold for Pick  
Up

 Even dollar  
amount

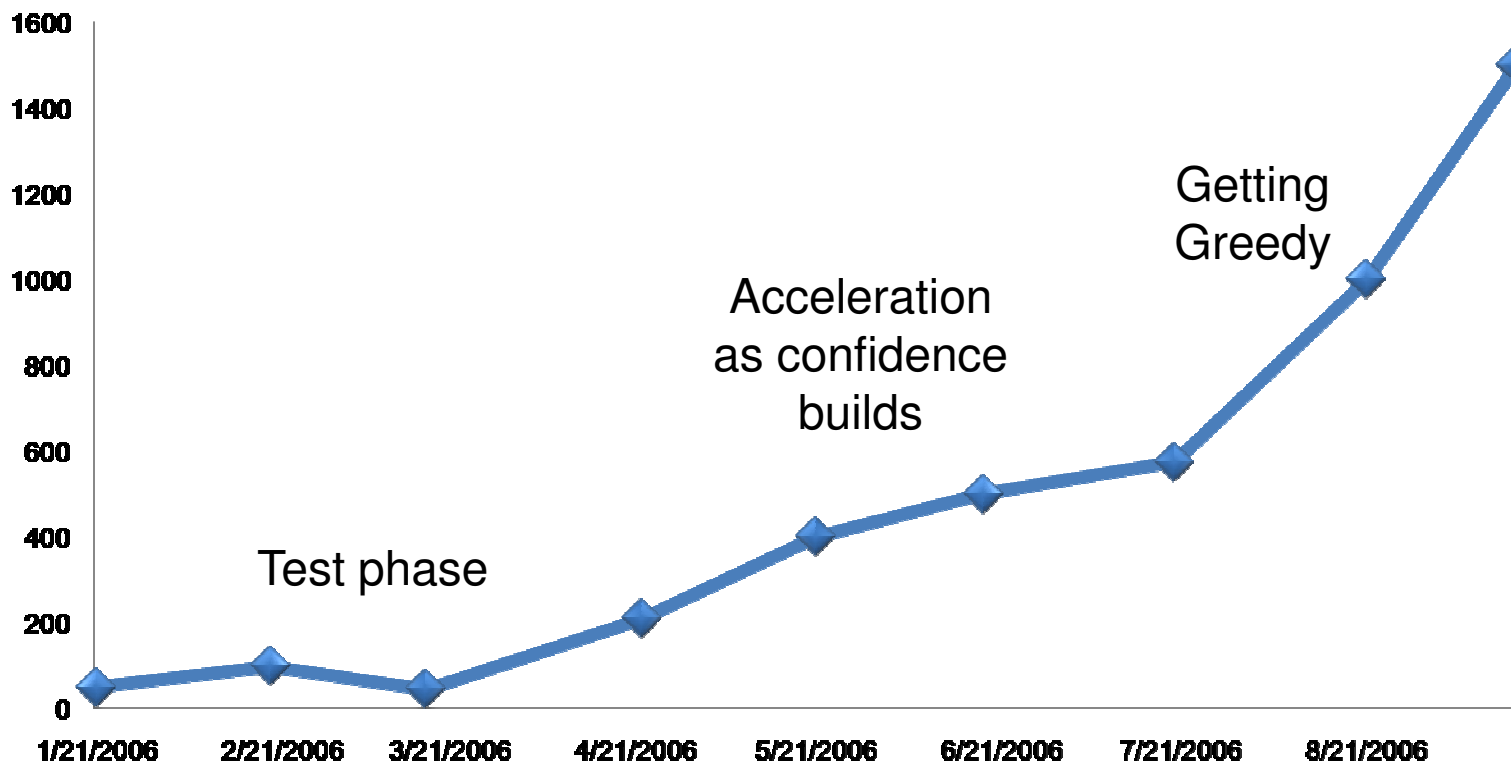
Date	Voucher	Payee	Address	Address	Amount
11/01/2000	VRRE3024	HELMET-CROW COMPANY	ATTN: JEFF NADEL, ESQ	HOLD FOR PICK-UP	\$ 124,829.01
02/28/2001	VRRE3387	LASOLANA DC, INC	ATTN: HELMET-CROW, AGENT	HOLD FOR PICK-UP	168,163.08
10/18/2006	VRRE3396	1118 LO ASSOC	C/O HELMET CORPORATION	HOLD FOR PICK-UP	460,000.00
02/12/2007	VRRE3515	HHEMLET COMPANY, INC	C/O DAVID A FUSS, ESQ	HOLD FOR PICK-UP	490,560.54
05/22/2007	VRRE3755	HELMET INC, COP	C/O DAVID FUSS ESQ	HOLD FOR PICK-UP	541,100.74
				Total	\$ 1,784,653.37

Source: Report of Investigation - Office of Tax and Revenue Investigation  
Special Committee – District of Columbia

# Vendor Trending Analysis

## Time Series Analysis: Acceleration

Vendor: JLM Plumbing Authorized: Janice L. McPhearson

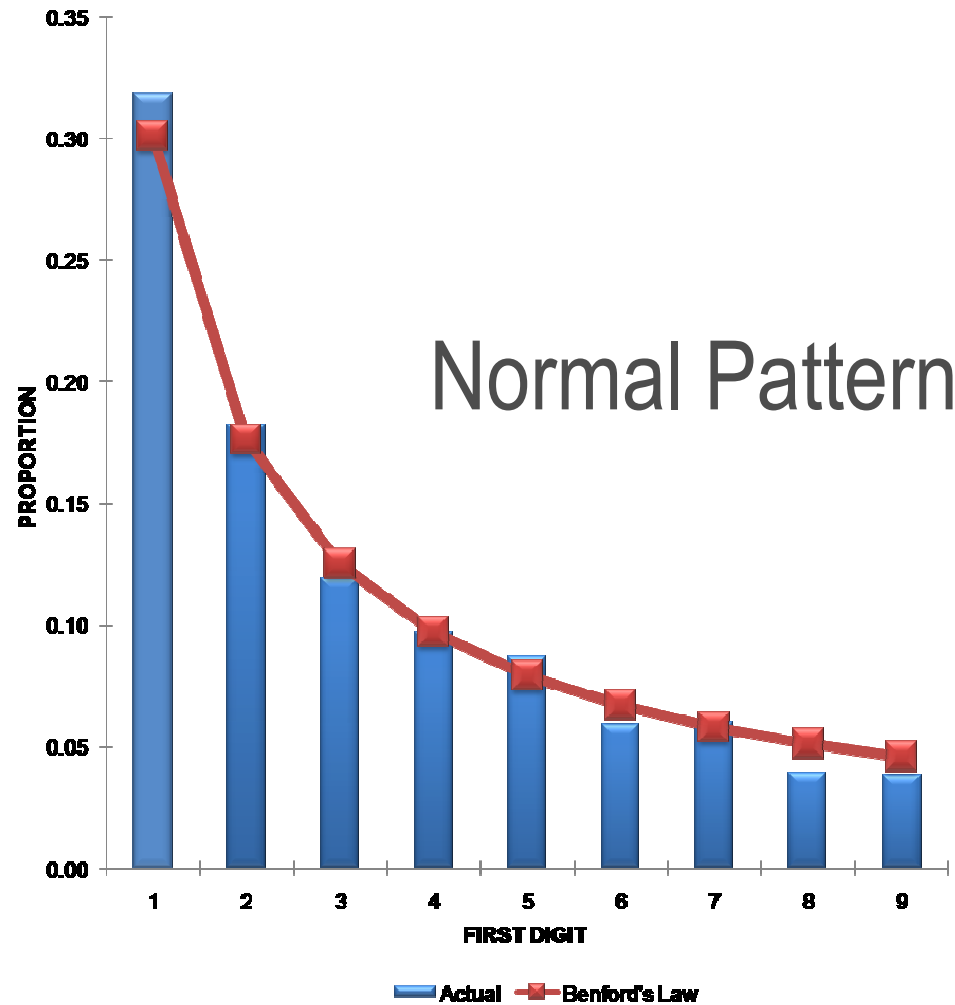


# Applying Benford's Law

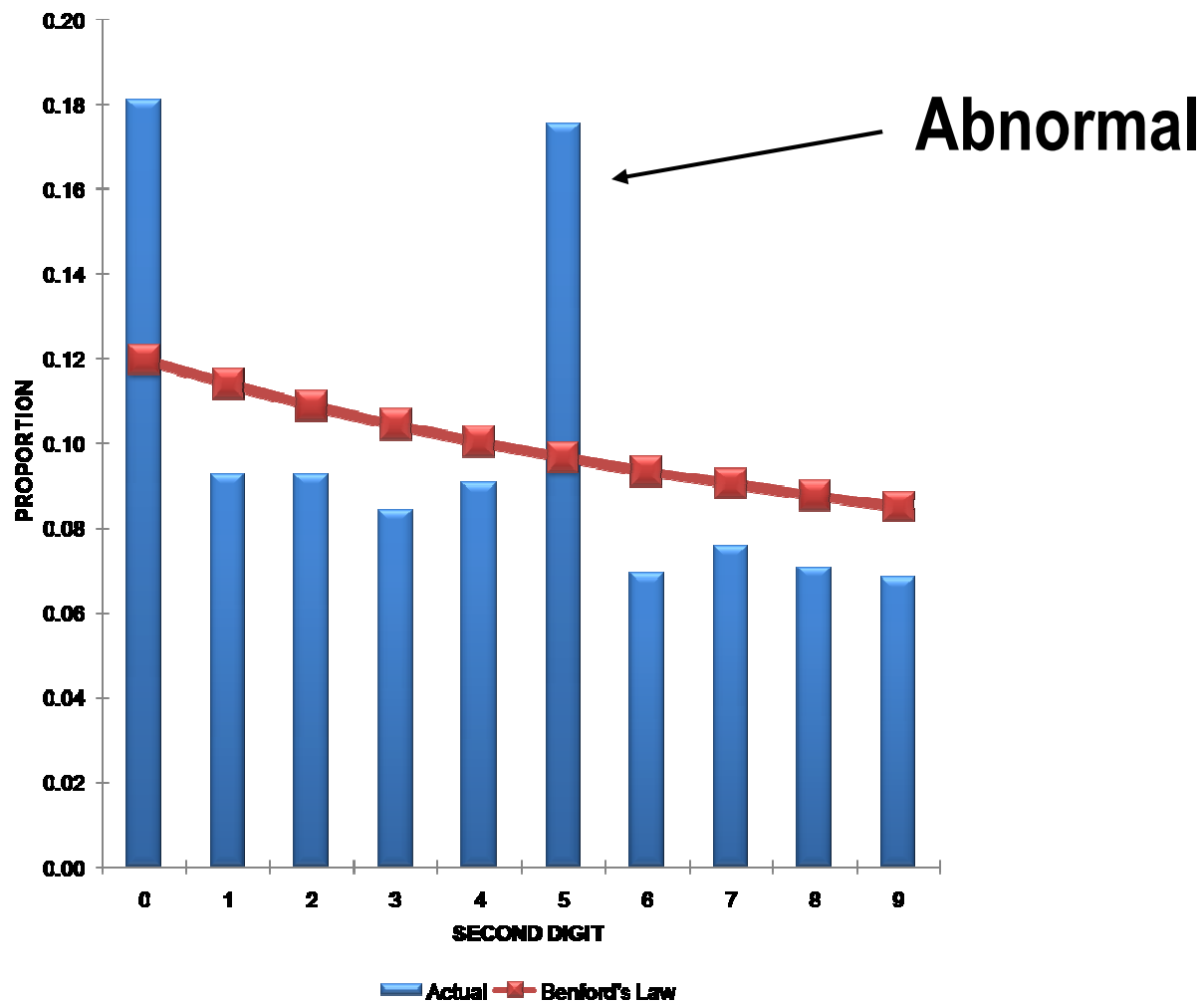
## Benford's Law Expected Frequencies

<u>First Digit</u>	<u>Expected Frequency</u>	<u>Second Digit</u>	<u>Expected Frequency</u>
1	30.10%	0	11.97%
2	17.61%	1	11.39%
3	12.49%	2	10.88%
4	9.69%	3	10.43%
5	7.92%	4	10.03%
6	6.69%	5	9.67%
7	5.80%	6	9.34%
8	5.12%	7	9.04%
9	4.58%	8	8.76%
		9	8.50%

# Benford's Law – A/P



# Benford's Law – A/P





# Name and Address Mining

- ***Name and ID analysis***

- ❖ Direct matching
- ❖ Phonetic matching (Double Metaphone Hybrid)
- ❖ Compare to known name dictionaries
- ❖ Anagram search
- ❖ Duplicate Employee ID / SSN, Invalid SSNs

- ***Address analysis***

- ❖ Direct matching
- ❖ No address, invalid address, PO/RR address
- ❖ Proximity by latitude/longitude lookup
- ❖ Address is a known mailbox service (FedEx Kinkos, UPS Store, etc.)
- ❖ Visual Map Analysis

# Accounts Payable Mining

AP: Fictitious vendors, duplicate payments, etc.

- ❖ Benford's analysis
- ❖ Acronym search on employee name
- ❖ Acceleration (systematic spending increases) via time series analysis
- ❖ Duplicate invoices
- ❖ Duplicate payments
- ❖ Identify invoices in excess of n% of vendor average
- ❖ Compare PO/invoice amount to check amount
- ❖ Identify transactions ending in 5 or 0
- ❖ Baseline vendor activity against overall activity
- ❖ Classify transactions by clerk/approver
- ❖ Compare multiple vendor master files over 3 years
- ❖ Identify statistical outliers (Z-score method)



# Payroll Mining

- ***Payroll Detail***

- ❖ Employees with no deductions
- ❖ PR activity subsequent to termination
- ❖ Employee vs department baselines (\$ and hrs)
- ❖ Department vs company baselines (\$ and hrs)
- ❖ Benford's analysis of gross / net payroll
- ❖ Time series analysis
- ❖ Employee with no sick/vacation/time off
- ❖ Computed pay rate vs. Employee master rate
- ❖ Compare actual pay rates to rate schedule

- ***Other analysis***

- ❖ Duplicate phone number(s)
- ❖ Duplicate direct deposit accounts
- ❖ Short duration of hire/termination

# Five Factors Allowing Fraud to Occur Today

## #1 – Blind trust

- ❖ Trust naturally builds
- ❖ Eventually little/no oversight
- ❖ Good people can be tempted when given too much control

**Tip:** Don't make it so tempting for someone who may be going through a difficult time

# Five Factors Allowing Fraud to Occur Today

#2 – I know my employees, *i.e.* “We don’t have fraud here”

## Fact:

Large frauds will often be committed by those close to you, not new employees

# Five Factors Allowing Fraud to Occur Today

## #3 – Not questioning or following up on unusual items

- ❖ Small pieces of frauds are often seen before full blown discovery

**Tip:** Research recurring discrepancies

# Five Factors Allowing Fraud to Occur Today

## #4 – Not establishing basic controls to stop or detect fraud

❖ “We don’t have enough people to segregate duties”

**Tip:** At a minimum, put a second set of eyes on contracts, reports, reconciliations, etc.

**Tip:** Smaller organizations - have someone else review bank statements

# Five Factors Allowing Fraud to Occur Today

## #5 – Employees suspect fraud, but are afraid to notify someone

### What employees say

- ❖ “I didn’t want to cause trouble”
- ❖ “We just wanted to keep our jobs & not make waves”

**Tip:** Set up avenues for confidential reporting & encourage employees to come forward



# *Even Enron had a 60 page “Code of Ethics” !!*

## Foreword

As officers and employees of Enron Corp., its subsidiaries, and its affiliated companies, we are responsible for conducting the business affairs of the companies in accordance with all applicable laws and in a moral and honest manner.

# | Code | of Ethics



July, 2000

# Summary Anti-Fraud Checklist

- P**repare policies to address common problems
- R**eview fidelity bond/crime insurance coverage
- E**stablish a hotline or other method of reporting tips
- V**erify bank transactions
- E**ducate employees to identify signs of fraud
- N**ever allow one person to have too much control
- T**ake time to carefully review data and reports

# Resources

- Managing the Business Risk of Fraud: A Practical Guide (AICPA & IIA)
- ACFE Fraud Prevention Checklist ([www.acfe.com](http://www.acfe.com))
- New Blog! **BKDForensics.com**
-  **@BKDForensics**

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## Questions?

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