
Fraud & Risk Management in Higher Education

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Goals

- Get you thinking about areas of potential risk within your organizations
- Share with you some ideas and possible tools

Why Should You Care

- Financial risk
- Reputational risk
- Compliance risk

Recent Fraud Statistics

- The typical organization loses 5% of annual revenue to fraud
 - ❖ This figure translates to a potential global fraud loss of more than \$2.9 trillion
- The median loss caused by fraud was \$160,000
 - ❖ Nearly one-quarter of the frauds involved losses of at least \$1 million
- Frauds lasted a median of 18 months before being detected
 - ❖ Frauds are much more likely to be detected by tip than by any other means

Source: Association of Certified Fraud Examiners 2010 Report to the Nation on Occupational Fraud and Abuse

Tuesday, October 16, 2011

NEWS

Fraud at Colleges and Universities

Federal Charges Filed Against Five Former Athletics Officials Accused of Stealing Tickets

A federal judge sentenced four former Athletics employees – Ben Kirtland, Rodney Jones, Charlette Blubaugh and Kassie Liebsch – and one department consultant, Tom Blubaugh, to federal prison after their guilty pleas in the \$2 million cash-for-tickets scam that took place from 2005 to 2010. Two other former employees were given probation for their participation in the investigation.

The participants took or were given basketball and football tickets as “additional compensation” which in some cases were then sold through ticket brokers for cash which never made its way back to the university. The tickets were complimentary tickets which were not appropriately tracked within Athletics’ ticketing system, allowing the scheme to go undetected for years.

Woman Admits Stealing \$173,000

A Westlake woman has admitted stealing \$173,000 from a university by creating and processing requests for cash from traveling athletic teams.

Gayle Schmitz, 46, plead guilty to one count of theft in office. She faces up to five years in prison and restitution.

Schmitz, who was hired as a cashier in 2007, began taking money in July 2008 when she oversaw athletic accounts in the treasurer’s office. One of her duties was to give cash to coaches after they submitted a request for travel expenses.

Schmitz began forging requests, taking the cash and signing off for the team.

In 2010, a co-worker grew suspicious and reported it.

Ex- College Employee Charged

Heather Miller, 37, was arraigned on felony theft charges for stealing more than \$30,000 in cash from student activities and the college.

Police filed charges alleging the former administrative assistant in the Office of Student Life skimmed cash and used her P-Card to take vacations and buy gifts for her family.

Polling Question

How would you characterize your institution's concern with regard to fraud in general?

- Extremely concerned
- Finding fraud and/or making sure we have appropriate internal controls in place is handled by our external auditors
- We don't think our institution is significantly impacted by fraud

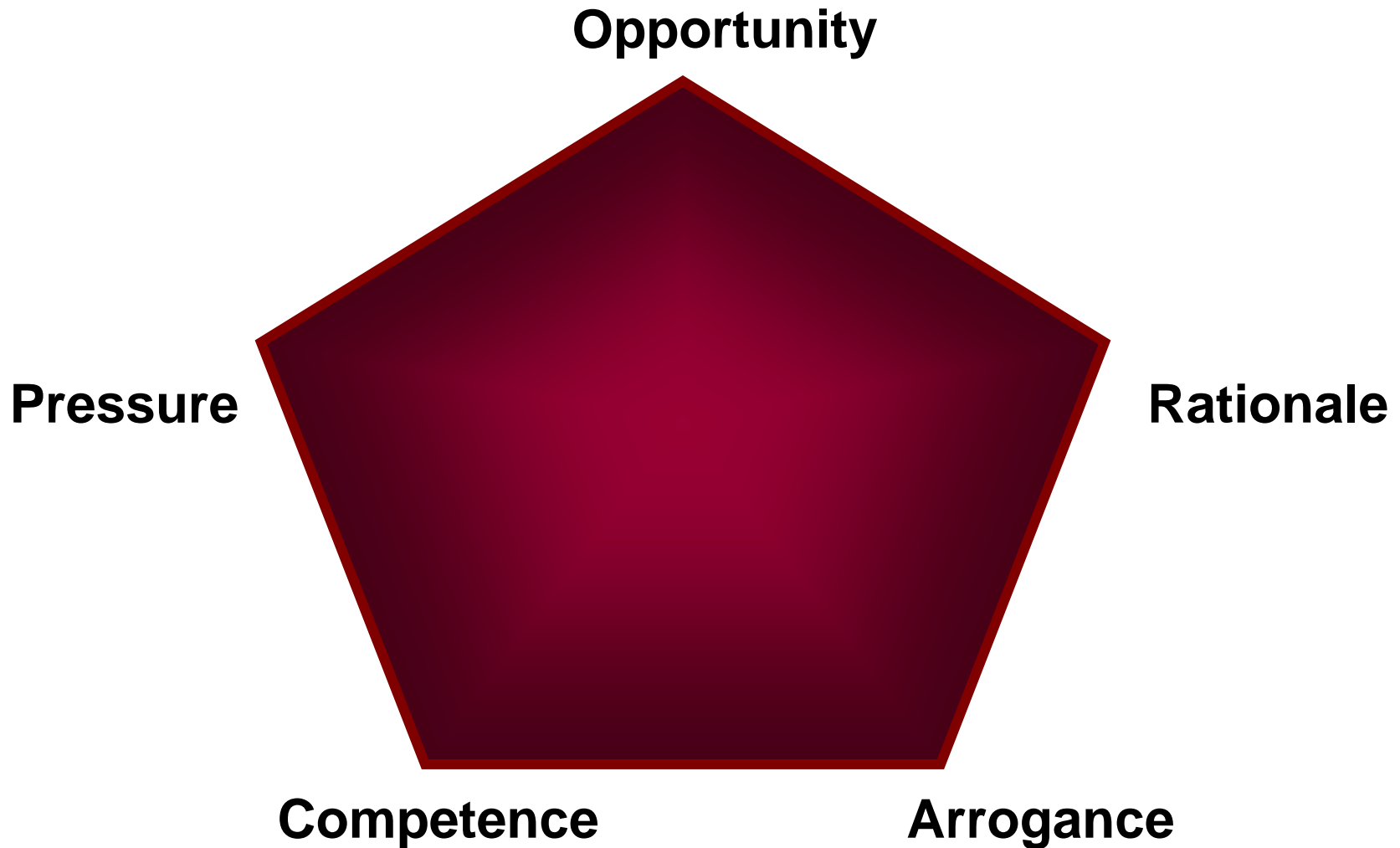
Fraud Triangle

**Perceived
pressure
facing
individual**

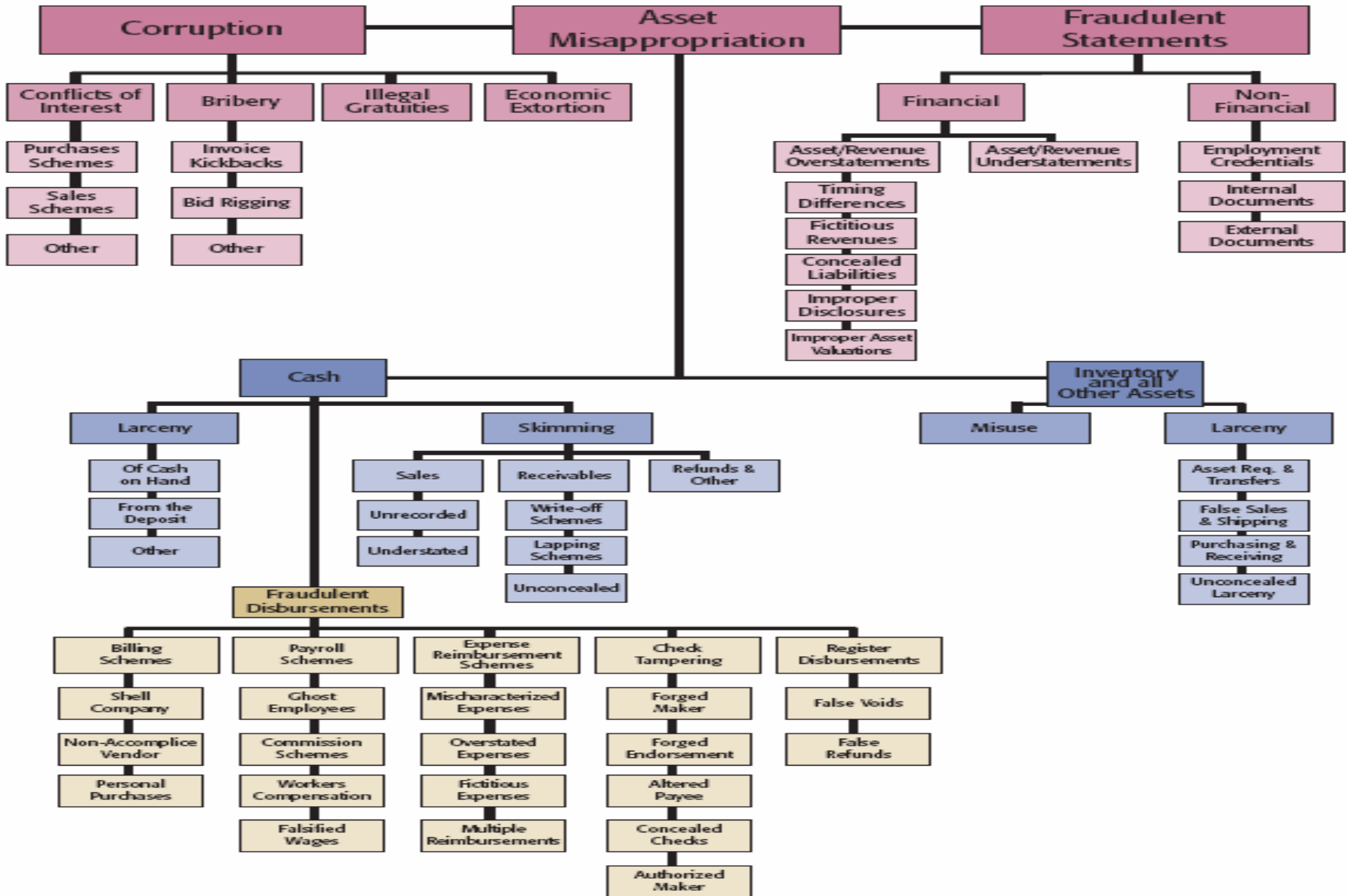
**Perceived
opportunity
to commit
fraud**

**Person's rationalization
or integrity**

Fraud Pentagon



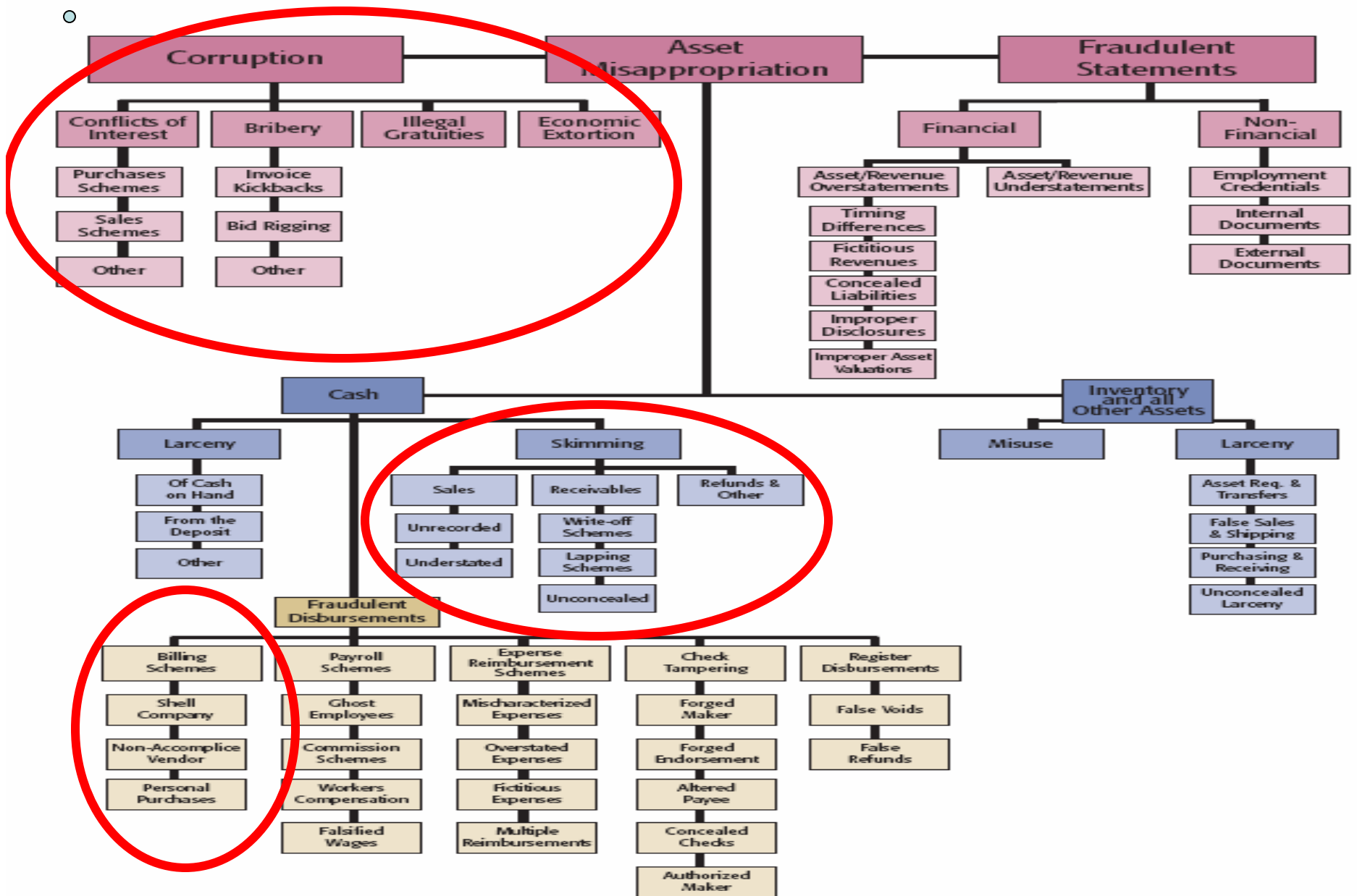
Uniform Occupational Fraud Classification System



Common Risk Areas in the Education Sector

- | | | | |
|--------------|-------|-----------------|-------|
| ■ Billing | 42.2% | ■ Larceny | 12.2% |
| ■ Corruption | 24.4% | ■ Payroll | 10% |
| ■ Skimming | 21.1% | ■ Chk Tampering | 7.8% |
| ■ Exp. Reim. | 16.7% | ■ Cash | 7.8% |
| ■ Non Cash | 12.2% | ■ Fin. Stmt. | 1.1% |

Uniform Occupational Fraud Classification System



Athletics Department Risks

Recent poll of college & university internal auditors with regard to common risks in a generic athletic department

- Game fixing
- Recruiting violations
- Pay for family travel with C&U \$
- Booster impropriety
- Ticket fraud
- Academic cheating
- Selling equip. for personal gain
- Big donors choose coaches
- Corruption
- Corruption
- Misappropriation
- Corruption
- Misappropriation
- Corruption
- Misappropriation
- Corruption

What Do Red Flags Look Like

Ticket fraud (combination of several investigations)

Pressure

- Financial hardship
- Gambling
- Keeping up with the Jones
- Interfacing with monied donors on a regular basis

Opportunity

- Lax segregation of duties
- Minimal monitoring
- Lack of an appropriate tone at the top

What Do Red Flags Look Like

Ticket fraud (combination of several investigations)

Rationale

- Ticketing personnel salaries are moderate while the revenue line for the Athletic Department is impressive (they'll never miss it)
- Upper management takes all sorts of perks- why can't I
- It happens at other colleges and universities

What Do Red Flags Look Like

Ticket fraud (combination of several investigations)

Arrogance –

- Celebrity status within the local area – “BMOC”
- Perception by perpetrators and/or others that the perpetrators are untouchable
- Existence of a cast system within the department
- Rule breaker mentality

What Do Red Flags Look Like

Ticket fraud (combination of several investigations)

Competence –

- Perpetrator knows the systems, and how to circumvent them
 - ❖ accounting
 - ❖ ticketing
 - ❖ auditing
- May have administrative rights
- Has Administration or AD's trust so that no actual monitoring is seen as necessary

What Can You Do About It

- Tone at the Top
- Segregation of duties
- Limit/define access to your ticketing system
- Appropriate internal controls
- Timely and effective monitoring

Timely and Effective Monitoring

- Electronic data mining
- Continuous auditing

Electronic data mining

- Proactive anomaly detection
- Predictive modeling
- Segment & clustering
- External name, address & business association
- Name & address matching



Electronic Data Mining

“Advanced data analysis used to identify activity patterns in financial and customer data not discernible through a manual review process.”

“Data mining is the business of finding answers to questions that you haven’t even thought to ask.”

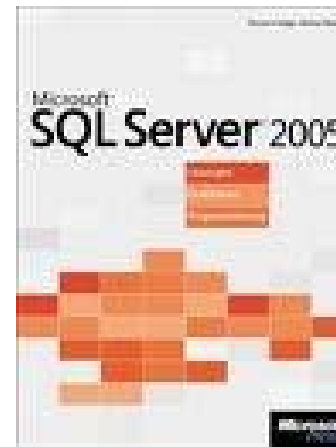
Data Mining – Most Common Uses

- Fictitious (ghost) employees - **billing scheme**
- Fake vendors and shell companies - **billing scheme**
- Embezzlement schemes - **skimming/billing schemes**
- Financial statement fraud
- Conflicts of Interest – **corruption scheme**
- Employee Expense Account Padding / Fraud – **expense reimbursement scheme**
- Others...

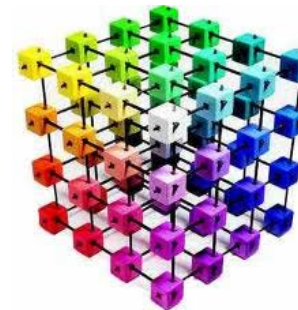
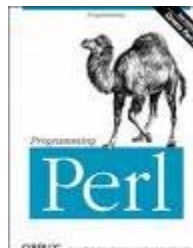
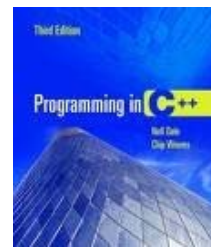
Data Analysis and Mining Tools

Data Analysis
Lower Cost
Less Sophistication

Data Mining
Higher Cost
More Sophistication



Programming Languages (Cheap, Powerful)



Vendor/Billing Schemes

- Name similarity (phonetics, etc.)
- Acceleration (systematic spending increases)
- Employee address matches customer/vendor address
- Customer Tax ID matches another customer Tax ID
- Customer/vendor phone number matches employee phone
- Duplicate invoices or slightly altered attributes
- Sudden spike in invoice volume or activity
- Missing contact information (address, phone, names)
- High volume of transactions ending in 0 or 5
- Unusual activity compared to similar vendors or customers
- Weekend or holiday transaction dates
- Transactions processed at unusual hours
- Address is PO Box, maildrop, prison or high-risk ZIP code
- “Dormant” account suddenly active

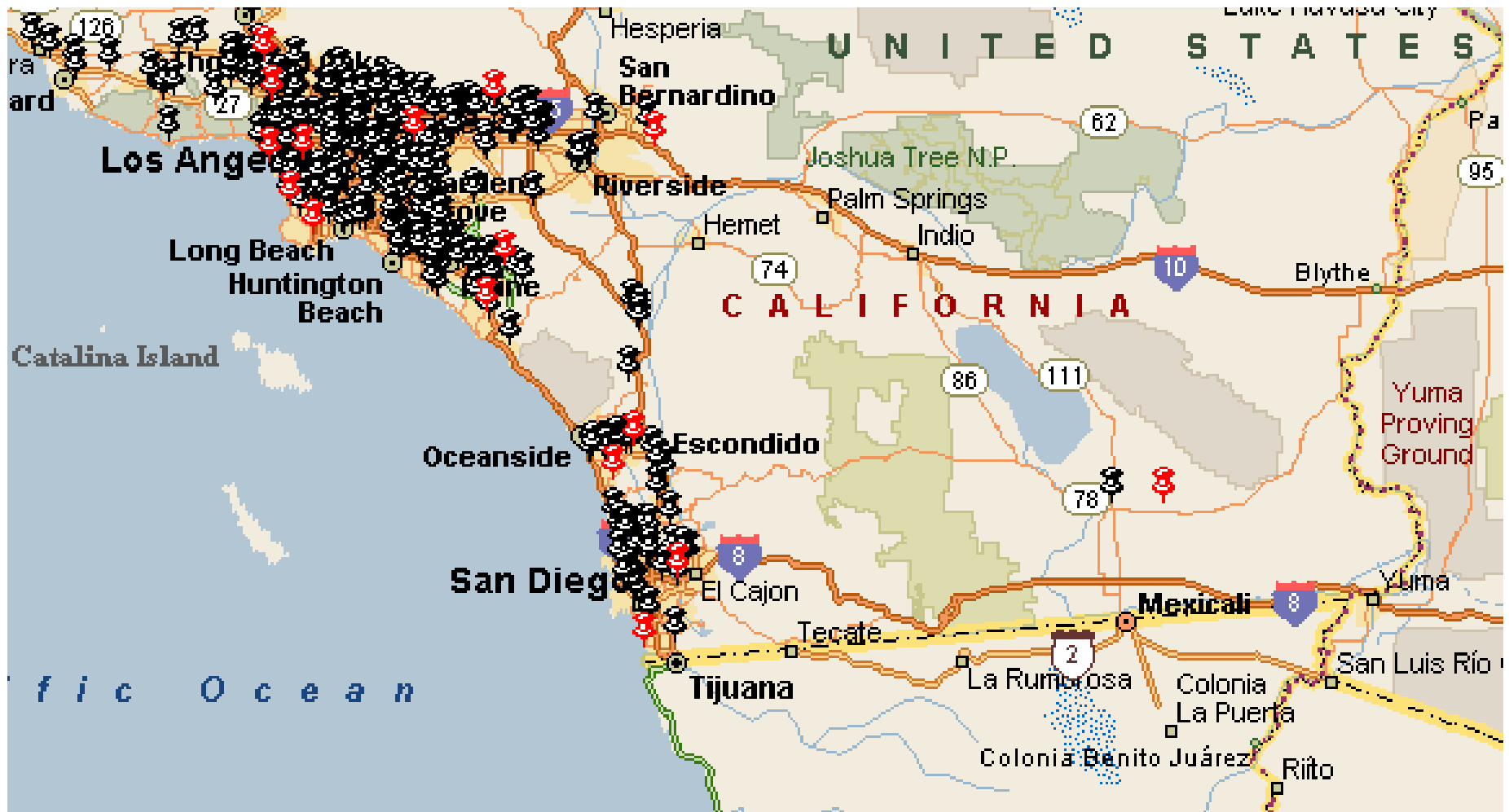
Address Tips and Tricks

- Direct matching fails easily – consider geocoding
 - ❖ *(works fine in Excel and Google Earth Pro)*
- Use address number / ZIP code concatenation
 - ❖ *(i.e. 502 Maple, 64649 becomes 50264649)*
- Maildrop addresses are very common, lists of addresses can be purchased
- Close proximity of vendors, employees, customers, and students sometimes not coincidental
- Cleanse and validate your data before beginning
- Use Google Earth or similar to view area around address

Geocoding



Visual Analysis

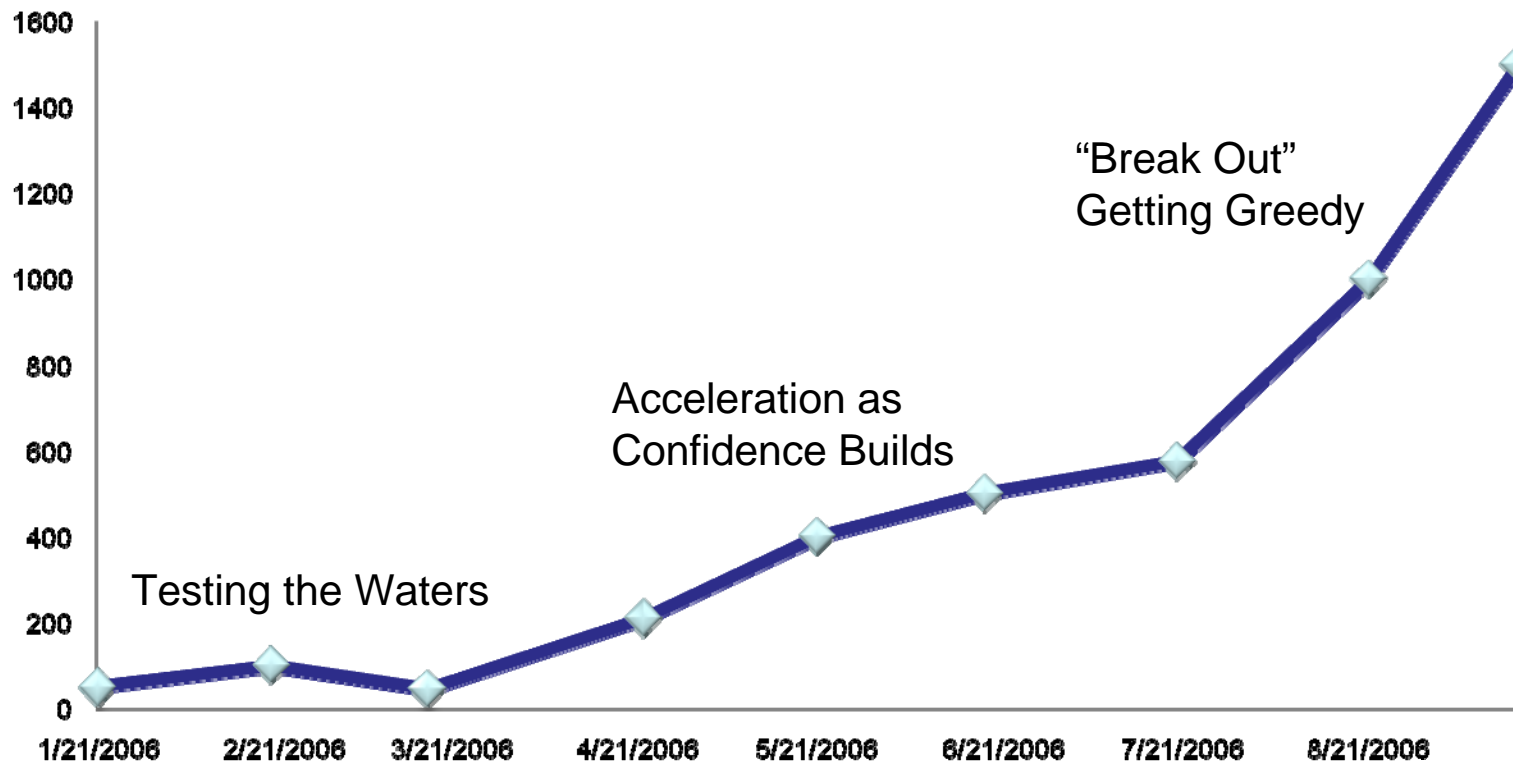


Time Series Analysis

- Anomalies in the pattern of transactions
- Transactions are “too regular” compared to others
- Same processor, same days of week, times of month
- Frequently “just below” key thresholds
- Always before/after month end, quarter ends, etc.
- Unusual dates (weekends, holidays) and times (after 6)
- Exhibits unusual “trends”

Time Series Analysis

Vendor: JLM Plumbing Processor: Janice McPhearson

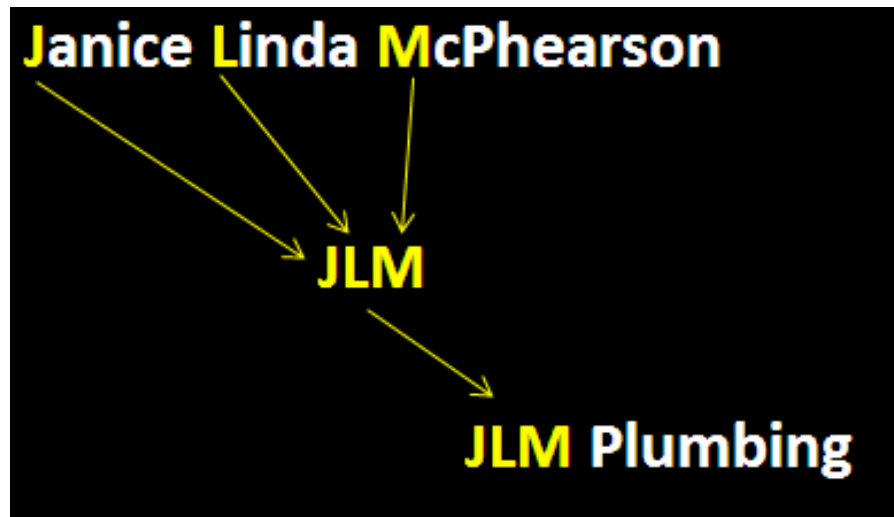


Time Series Tips and Tricks

- Identify recurring monthly payments, validate and flag them as “normal”
- Most common patterns involve thresholds, duplicate payments, and frequently rounded amounts
- Don't evaluate in a vacuum – look for other red flags
- Most frauds involved <52 transactions/year and were less than \$1000 each

Data Manipulation

1. Acronym / Initials



2. Others

- Substitution
 - Insertion or Omission
 - Transposition
 - Numb3r
- Subst1tut10n

Classic Real Duplicates

VENID_AP	VENNAME_AP	INVNUM	INVAMT	INVDATE	CHKNUM	CHKAMT	CHKDATE
10632	KSS	I0013384	\$ 500.00	31-Dec-07	13586	\$ 500.00	17-Jan-08
10632	KSS	I0013384	\$ 500.00	31-Dec-07	13805	\$ 500.00	08-Feb-08

VENID_AP	VENNAME_AP	INVNUM	INVAMT	INVDATE	CHKNUM	CHKAMT	CHKDATE
11090	Anderson Systems	10071	\$ 1,800.00	31-Jan-08	13939	\$ 1,800.00	21-Feb-08
11090	Andersen Systems	10071A	\$ 1,810.00	30-Jan-08	38232	\$ 1,810.00	21-Feb-08

VENID_AP	VENNAME_AP	INVNUM	INVAMT	INVDATE	CHKNUM	CHKAMT	CHKDATE
1380	Tina Murray	07062008	\$ 2,500.00	06-Jul-08	15243	\$ 2,500.00	10-Jul-08
1380	Tim Murry	070608	\$ 2,550.00	07-Jul-08	15356	\$ 2,550.00	24-Jul-08

VENID_AP	VENNAME_AP	INVNUM	INVAMT	INVDATE	CHKNUM	CHKAMT	CHKDATE
16900	Poketon Industries Inc	J408701	\$15,340.00	15-Dec-08	1205	\$15,340.00	02-Apr-09
16900	Pokemon Industries Inc	J408711	\$15,340.00	18-Dec-08	1218	\$77,925.58	21-Apr-09

Other Great Sources of Data

- Personnel files (addresses, phone numbers, names...)
- Office and cell phone call records (cross-reference)
- Public records searches (Intellius, others)
- Email (consult with legal and IT first)
- Web-based sources such as S of S websites
- Lunch buddies from other departments
- The Grape Vine

Continuous Auditing

- Using Excel, ACL or IDEA
- Management can data mine on an on-going basis
- Great deterrent affect

Questions?

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