Fraud & Embezzlement: Lessons From the Trenches

Presented by
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Perp Poetry

On 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!
Cost of Fraud & Abuse

- $2.9 trillion worldwide
- 5% of revenues
- Almost half recover nothing after fraud is discovered
**Position of Perpetrator — Frequency**

- **Employee**: 41.6% (2012), 39.7% (2010), 42.4% (2008)
- **Manager**: 37.6% (2012), 41.0% (2010), 37.1% (2008)
- **Owner/Executive**: 17.6% (2012), 16.0% (2010), 23.3% (2008)
- **Other**: 3.2%

**Percent of Cases**

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**Position of Perpetrator — Median Loss**

- **Employee**: $60,000 (2012), $80,000 (2010), $70,000 (2008)
- **Manager**: $182,000 (2012), $200,000 (2010), $150,000 (2008)
- **Owner/Executive**: $573,000 (2012), $723,000 (2010), $834,000 (2008)
- **Other**: $100,000

**Median Loss**

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*“Other” category was not included in the prior years’ reports.*
Damages to Victims Go Beyond Dollars & Cents

- Reputation
- Loss of public confidence
- Detrimental to attracting new potential donors & volunteers
- Damage to relationships
- Sagging staff morale
- Distraction from the mission

Profile of the Typical Fraud Perpetrator
The Fraud Triangle

Perceived pressure facing individual

Perceived opportunity to commit fraud

Exacerbated in economic downturn

Person’s rationalization or integrity

The Typical Perpetrator

- White male
- College-educated
- Intelligent
- Married
- Most loyal employee
Profile of Fraud Perpetrator

- Male or female
- No prior criminal history (<8%)
- Well liked by co-workers
- Likes to give gifts/compulsive shopper
- Gambling problems not unusual
- Long-term employee
- Rationalizes: Starts small or “borrows”
- Lifestyle clues
Cash Schemes

- Stealing cash funds processed or on hand
- Not recording & stealing the cash receipts
- Underringing & stealing the difference in cash receipts
- Altering bank deposits
Memorial Hospital

- CFO – falsified credentials
- Forensic procedures
- Bank reconciliation didn’t balance
- Cash receipts didn’t match deposits

Accounts Receivable Schemes

- Lapping
- Forging checks received
- Altering credit card receipts
- Granting bogus credits
- Bogus bad debt write-offs or account adjustments
Regional Medical Center

- Bookkeeper terminated year before fraud discovered
- A/R Clean-up
- Customer complains $200 account previously paid

A Recent Example

Digital Forensics Makes the Case
The Latest in Health Care Embezzlement

- Manipulation of payer electronic deposits
- Change routing number and bank account number with one or more payers
- If this person can make adjustments, losses can be large
- Need to re-think internal controls?

Accounts Payable & Purchasing

- Personal bills
- Fictitious suppliers
- Kickbacks
- Ordering personal items
- Petty cash funds
- Employee expense accounts
- Credit cards
Forensic Data Mining

Common Data Mining Areas

- Employees and Payroll
- Vendors and Accounts Payable
- Expense Reimbursement
- Loans (for financial institutions only)
- Sales
- Inventory
Vendor Trending Analysis

Time Series Analysis: Acceleration

Vendor: JLM Plumbing  Authorized: Janice L. McPhearson

Acceleration as confidence builds
Getting Greedy

Test phase

Name Mining - Anagrams

ANAGRAM ANALYSIS RESULTS
Possible Anagram Matches: 1

<table>
<thead>
<tr>
<th>Name</th>
<th>Sort</th>
<th>Match</th>
</tr>
</thead>
<tbody>
<tr>
<td>CASHDAVID</td>
<td>MATCH</td>
<td></td>
</tr>
<tr>
<td>DAVISCHAD</td>
<td>MATCH</td>
<td></td>
</tr>
</tbody>
</table>
Address Mining - Maildrops

Fictitious Vendor with UPS Store Address

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
Check Sequence 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

Payroll Schemes

- Ghost employees
- Manipulated time records
- Unclaimed payroll checks
- Writing extra payroll or bonus checks
- Leave time manipulation
- Withholding fraud
- W-2 fraud
Protect Your Organization

- Fraud risk assessment
- Internal controls
- Proper environment
- External review
- Reporting mechanism
- Hire right
- Fidelity bonding
- Establish “Perception of Detection”

Initial Detection of Occupational Frauds

<table>
<thead>
<tr>
<th>Detection Method</th>
<th>2012</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tip</td>
<td>43.3%</td>
<td>39.4%</td>
</tr>
<tr>
<td>Management Review</td>
<td>14.6%</td>
<td>15.4%</td>
</tr>
<tr>
<td>Internal Audit</td>
<td>14.6%</td>
<td>13.8%</td>
</tr>
<tr>
<td>By Accident</td>
<td>7.0%</td>
<td>8.3%</td>
</tr>
<tr>
<td>Account Reconciliation</td>
<td>4.6%</td>
<td>5.1%</td>
</tr>
<tr>
<td>Document Examination</td>
<td>3.3%</td>
<td>4.1%</td>
</tr>
<tr>
<td>External Audit</td>
<td>4.6%</td>
<td>4.1%</td>
</tr>
<tr>
<td>Notified by Police</td>
<td>3.3%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Surveillance/Monitoring</td>
<td>1.9%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Confession</td>
<td>1.5%</td>
<td>1.6%</td>
</tr>
<tr>
<td>IT Controls</td>
<td>1.1%</td>
<td>1.1%</td>
</tr>
<tr>
<td>Other</td>
<td>1.1%</td>
<td>1.1%</td>
</tr>
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Resources

- Managing the Business Risk of Fraud: A Practical Guide (AICPA & IIA)
- Management Anti-Fraud Programs & Controls (exhibit to SAS 99)
- ACFE Fraud Prevention Check-Up
- ACFE Best Practices in Ethics Hotlines
- ACFE Sample Code of Conduct
- ACFE Sample Ethics Policy
Questions?