



**SAWYER**

FORENSIC EXPERTS • INVESTIGATIONS

# Forensic Accounting and Fraud Investigation

IIA Atlanta Chapter / Governmental & Not-for-Profit  
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# Course Overview and Objectives

## Background / Overview / Context

- Skill Sets and Background for Fraud Investigation and Forensic Accounting
- Financial / Operational Processes
- Fraud Schemes
- Investigation Methodology



# Course Overview and Objectives

## Theoretical Concepts and Framework

- Forensic Data Preservation and Collection
- Types of Data for Analysis: Qualitative and Quantitative
- Data Analysis Tools and Sources
- Data Analysis Queries



# Course Overview and Objectives

## Practical Applications and Case Examples

- Payments to Suspicious Vendors
- Payroll Fraud and Abuse
- Top Current Red Flags (from a recent case): Capital Projects / Construction, Contracts and Procurement



# Skill Sets and Background for Fraud Investigation & Forensic Accounting

# The Forensic Accountant: Skill Sets

Knowledge and Experience in:

- Financial Statements and Audit
- Internal Controls and Operational Processes
- Fraud Schemes
- Investigation and Legal Elements of Fraud
- Psychology of the White-Collar Criminal



# Financial / Operational Processes



# Typical Financial / Operational Processes

Financial Reporting, General Ledger, Analysis, Reconciliation

Capital  
Projects,  
Fixed Assets

Payroll,  
Human  
Resources

Purchasing,  
Receiving,  
Payables

Production,  
Inventory

Revenue,  
Shipping,  
Receivables



# Fraud Schemes

# External Fraud

## External / Non-Occupational Fraud

Theft of Data, Intellectual Property

Identity Theft

Financial Institution Fraud

Payment Fraud

Insurance Fraud

Healthcare Fraud

Consumer Fraud

Cyber Fraud / Cybercrime

Contract and Procurement Fraud

Bankruptcy / Insolvency Fraud

Securities Fraud

Money Laundering

Tax Fraud



# Internal Fraud

**Internal /  
Occupational  
Fraud**

Fraudulent Statements

Asset Misappropriation

Corruption



# Internal Fraud

## Internal / Occupational Fraud

Fraudulent  
Statements

Financial

Non-Financial

Asset  
Misappropriation

Cash

Inventory & All Other Assets

Corruption

Conflicts of Interest

Bribery / Kickbacks

Illegal Gratuities

Economic Extortion



# 'Traffic Signals'



- Perpetration, Schemes and Risks



- Detection, Symptoms and Red Flags



- Prevention, Controls and Countermeasures



# Investigation Methodology: From Investigation to Prosecution

# Investigative Phases





# Rocks, Puzzles and Skeletons

Rocks

The Skeleton

The Puzzle

- Pieces
- Pictures on Boxes

Bones = Data Analysis

Muscles = Documentation

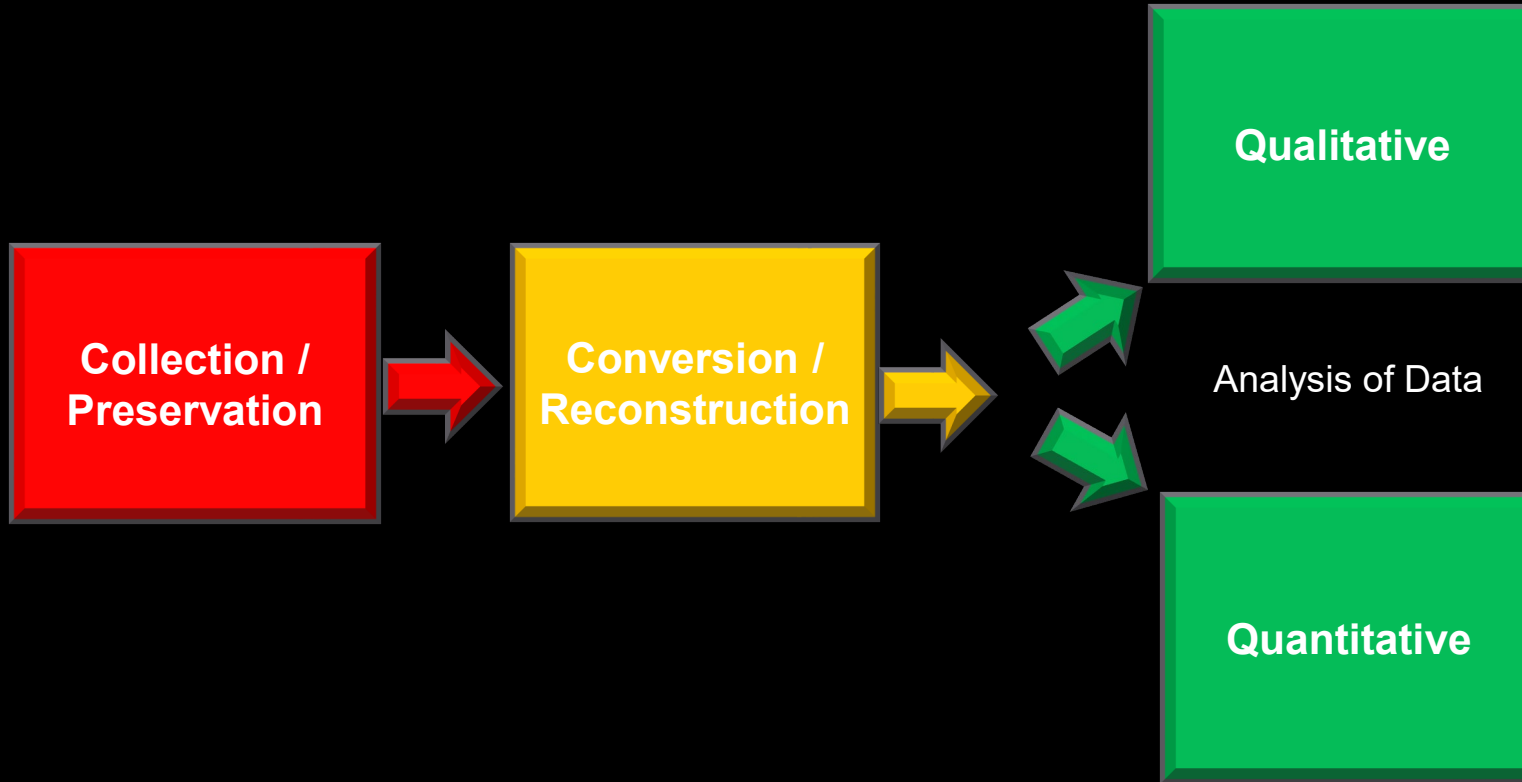
Organs, Cardiovascular =  
Witnesses, Interviews

Skin = Reporting



# Forensic Data Analysis: The Skeleton

# The Process of Data Forensics and Analysis



# Types of Data for Analysis: Qualitative and Quantitative

# Quantitative Data: Financial Analysis

## Data Files and Fields

- Vendor / Supplier Master File
- Employee Master File
- Invoice Listing
- Check / Payment Listing (Payables, Payroll)
- Expense Reimbursement Reports



# Data Analysis Tools and Sources

# Sources of Data: Financial

## Quantitative / Financial

- Bank Statements
- Tax Returns
- Utility Bills
- Credit Reports
- Credit Card Statements
- Mortgage Statements
- IRA, 401(k) Accounts
- Brokerage Accounts

## Qualitative / Lifestyle

- Real Estate Tax
- Property Tax
- Assessments
- Liens, Judgments



# Qualitative Data: Background Checks

- Employers
- Criminal Records
- Addresses
- Driver's License
- Professional Licenses / Affiliations
- Bankruptcy Records
- Liens / Judgments
- Property Deeds
- Foreclosures
- Assessments
- Evictions
- Vehicle Information
- Global Watch Lists
- U.S. Business / Corporate Affiliations
- UCC Filings
- Aircraft Records
- Pilot Licenses
- Voter Registrations
- Hunting Permits
- Weapon Permits
- Relatives
- Neighbors





# Data Analysis Aggregators and Software (Tools)

## Quantitative / Query

- ACL
- IDEA
- ActiveData
- ScanWriter
- MS Access
- MS Excel

## Qualitative / Background

- TLOxp
- Tracers
- DelvePoint
- CLEAR



# Putting Theory into Practice: Case Examples and Applications

# Suspicious Vendors

# Payment Stratification

>\$500K: 10 Vendors, 1,000 invoices, \$20 million

\$100K - \$500K: 50 Vendors, 2,000 invoices, \$10 million

\$5K - \$100K: 500 Vendors, 10,000 invoices, \$10 million

< \$5K: 2,000 Vendors, 8,000 invoices, \$2 million



# Suspicious Vendors

## Vendor A (1 invoice, \$35,000)

- Only documentation is proposal for motivational speaking
- No evidence of services provided
- Ties to known criminal activity

## Vendor B (9 invoices, \$154,192)

- 7 of 9 voucher packages missing from files



# Suspicious Vendors

## Vendor C (14 invoices, \$627,942)

- FY03 Contracts totaled only \$206K

## Vendor D (2 invoices, \$73,066)

- Building rent paid one year in advance
- Rent amount appears excessive

## Vendor E (28 invoices, \$437,192)

- No contract listed
- Checks hand delivered to employees

### **NOTE:**

*Vendors C, D and E located at same physical address.*



# Suspicious Vendors

## Vendor F (24 invoices, \$219,575)

- Inadequate or altered documentation
- No invoice number or missing invoice number
- Invoices generated from 4 different addresses
- Unusual / complex billing & payment process
- Invoices prepared & approved by same person



# Payroll Fraud



# Payroll Fraud: Perpetration, Schemes and Risks

- Ghost Employees (or keeping former employees on the payroll)
- Overpayment Schemes (by Inflated Rates and / or Hours)
- Diverting Wages or Payroll Taxes (Theft of Withholding Taxes)
- Stealing Paychecks / Fraudulent Endorsement



# Data Analysis: Payroll Statistics

In 2,110 different SSN's paid in One Year (\$45.8MM):

- 4 employees, 86.8 hrs Avg. / Wk (\$225K)
- 5 employees, 75.0 hrs Avg. / Wk (\$232K)
- 322 employees, 60.7 hrs Avg. / Wk (\$11.2MM)
- 38 employees, 55.0 hrs Avg. / Wk (\$1.5MM)
- 912 employees, 41.2 hrs Avg. / Wk (\$28.6MM)
- 829 employees, 8.8 hrs Avg. / Wk (\$3.9MM)
- 83 employees, 0.0 Total Hours Worked (\$239K)



# Payroll Case Example

- Same SSN, but Different Employee Number & Pay Rate

## Example: Employee A

Hours Worked: 4,123 in FY1, 4,078 in FY2

Pay Rates: \$9.50 and \$20.15 (FY1) / 22.27 (FY2)

At higher pay rate, 80 hours in every pay period

Total Annual Comp: \$63K (FY1), \$67K (FY2)



# In a Single Month...

## By County A:

- Paid 94 hours Regular Time (Not Comp Time)
- Also paid for 98 hours Compensatory Time

## By County B:

- Paid \$10,000 at a rate of \$500 per day
- Equates to 20 days or 160 hours

254 hours > 248 hours

(31 x 8, including weekends and one holiday)



# In a Two-Week Period...

## By County A:

- Paid 62.5 hours Regular Time (not Comp Time)
- Paid 17.5 hours Clock Time (not Comp Time)

## By Vendor:

- Paid \$7,500 for work during same week
- Documented by e-mail
- Not disclosed to County Commissioners



# Analysis to Identify Red Flags

# Data Queries and Analysis Concepts

- Pre-defined queries designed to identify symptoms and indicators of possible fraud ('Red Flags')
- Trend / Fluctuation (Vertical / Horizontal) Analysis
- Payment Stratification
- Inconsistent Dates
- Payroll – Hours, Rates, Pay Types
- Consulting Services, P.O. Boxes, Initials
- Reconstruction of Bid Packages
- Reconstruction of Payment Request / Payment Application Packages
- Benford's Law



# Typical Queries for Identification of Red Flags

1. Vendors: New, Inactive, Cancelled
2. Employees: New, Inactive, Cancelled
3. Vendor / Employee Address Match
4. Invoice: Same Invoice / Same Amount / Same Vendor
5. Invoice: Same Invoice / Same Amount / Different Vendor
6. Expense Reimbursements
7. Rounded Dollar Amounts
8. Payments made on Holidays
9. Payments made on Weekends





# Top Current Red Flags (from one recent case)

1. Changes in ratings of bidders
2. Slow payment → Fewer bidders → Same bidders → Higher Prices
3. Contractors meeting with government leaders (e.g., commissioners)
4. Work performed, but not in contract (Out of Scope)
5. Work in contract, but not performed ('Padding' or 'Cushion')
6. Vendor evaluations that are consistently below average (Poor quality work)
  - 19 Evaluations: 5.89 (Sep 2014 – Dec 2020)
  - 21 Evaluations: 3.00 (Oct 2016 – Jul 2021)
  - 16 Evaluations: 4.75 (Dec 2015 – Jul 2021)
7. General, repetitive, minimal descriptions of work performed



# Top Current Red Flags (from one recent case)

8. Culture: Lack of in-house expertise / 'Not my job' / 'Turn a blind eye / deaf ear'
9. Contractors functioning as Full-Time Employees (FTE / 40 hrs. / week for months and years, at 4x pay multiple)
10. Change Orders prepared after work performed
11. Change Orders more than 50% of the original contract
12. No line-item reconciliation of actual spending to budget / contract
13. Chronic over-spending of budgets and contracts
14. Chronic, Extended Missed Deadlines and Requirements
15. Ineffective work, in achieving objectives





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# Red Flags Identified by Data Analysis

1. Award to other than lowest (or best rated) bidder
2. Different specifications than prescribed in RFP
3. Unusual matches (Vendors at same address, multiple SSN's, etc.)
4. Failed tests or inspections
5. Too few bidders
6. High / excessive prices, compare with market, P.O. or other vendors
7. High volume purchases, compared with history or need
8. Improper change orders
9. Late delivery / missed deadlines
10. Low bid award → change order



# Red Flags Identified by Data Analysis

11. Low quality products or services
12. Bidder data (late bidder is winning bidder, winning bid is just lower than 2<sup>nd</sup> lowest)
13. Pattern or qualified or previous bidders not bidding, same bidder wins large majority of contracts
14. Missing inventory (received, but not used; invoiced but not received; returns with no related credits)
15. Multiple payments in same / similar amounts
16. Multiple purchases under bid limits
17. No purchase order or contract
19. No receiving report
20. Payment without invoice



# Red Flags Identified by Data Analysis

21. Price discrepancies
22. Qualified contractors fail to bid
23. Questionable invoices
24. Questionable purchases
25. Purchases of consumer items (identified with SIC codes)
26. Questionable sole-source awards / contracts
27. Sequential invoices
28. Small initial purchase, followed by much larger purchase(s)
29. Unknown bidder(s) or vendor(s)
30. Unusual approval pattern(s)
31. Unusual bid pattern(s)
32. Line-item bids too low

