Quick Survey

- Who are you?
- What tools do you use?
- Do you know your data?
Key Statistics

- A typical organization loses 5% of its revenues to fraud each year
- Applied to the 2011 Gross World Product, this figure translates to a potential projected annual fraud loss of more than $3.5 trillion
- Median loss caused by Fraud: $140,000
  - 20% of cases resulted in losses of at least $1M
- Frauds lasted an average of 18 months prior to detection
- 49% of victims do not recover any of their fraud related losses
- The median loss among frauds committed by owner/executives was $573,000, the median loss caused by managers was $180,000 and the median loss caused by employees was $60,000

Source: “Report to the Nations: 2012 Global Fraud Study” ACFE
**Initial Detection of Occupational Frauds**

- **Tip**: 43.3% (2012), 40.2% (2010)
- **Management Review**: 14.6% (2012), 15.4% (2010)
- **Internal Audit**: 14.4% (2012), 13.9% (2010)
- **By Accident**: 7.0% (2012), 8.3% (2010)
- **Account Reconciliation**: 4.8% (2012), 5.1% (2010)
- **Document Examination**: 4.1% (2012), 5.2% (2010)
- **External Audit**: 3.3% (2012), 4.6% (2010)
- **Notified by Police**: 3.0% (2012), 1.8% (2010)
- **Surveillance/Monitoring**: 1.9% (2012), 2.6% (2010)
- **Confession**: 1.5% (2012), 1.0% (2010)
- **IT Controls**: 1.1% (2012), 0.8% (2010)
- **Other****: 1.1% (2012)

*Percent of Cases*

**Source:** “Report to the Nations: 2012 Global Fraud Study” ACFE

**Other** category was not included in the 2010 Report.
Key Statistics Cont.

Source: “Report to the Nations: 2012 Global Fraud Study” ACFE
What’s our Problem?
How Do We Find The Needle

- Develop Your Game Plan
The Game Plan

1. Build a Profile of Potential Risks
2. Understand Your Data
3. Test Data for Indicators and Review Results
4. Expand the Scope and Repeat
5. Communicate
6. Report
7. Automate and Monitor
Fraud risks should be developed as part of an overall risk assessment and be updated annually.
- Typically parallels the annual risk assessment process (IA or ERM)
  - Include the business
  - Type of risk
  - Associated business process and controls
  - Quantify the risk

Know Your Data
- The most common challenge in analytics is access to data
  - What data is required
  - Where is data stored
  - Who owns the data
  - Establish a direct connection or automated feed
Fraud Risk Areas

Source: “Report to the Nations: 2012 Global Fraud Study” ACFE
Putting the Plan into Action

- Common Analytics for Detecting Fraud
  - Keyword Search
  - Primary Key Match *
  - Fuzzy Match
  - Sequence Analysis
  - Split Transactions *
  - Regression Analysis
  - Trend Analysis *
  - Ratio Analysis
  - Reasonableness Tests
  - Scoring Models *
Targeted Analytics - Record Matching

- **Vendor / Employee Conflict of Interest Testing**
  - Inputs:
    - Vendor Master
    - Employee Master
    - Other Potential Listings (OFAC - SDN List, Death Index, PEP List, etc.)
  - Results:
    - SS# and Tax ID
    - Employee Name and OFAC Name
Targeted Analytics - Split Transactions

- Split Purchases
  - Inputs:
    - P-Card Detail
    - Corporate Card Detail
    - Employee Master
  - Results:
    - P-Card Split Purchase Identified

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<< End of File >>
Statistical Test - Trend Analysis

- **SAP FI Trending**
  - Inputs:
    - SAP FI Module - Multiple Tables imported through ACL Direct Link
  - Results:
    - Dashboard
Statistical Test - Trend Analysis

- Results:
  - Trending

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Statistical Test - Scoring Analysis

- **AP Review**
  - **Inputs:**
    - Vendor Master File
    - AP Detail File
  - **Results:**
    - Plotter Chart
Finding the Needle
Employee_Vendor_COI_Review
Questions
Resources

- ACL
  - http://www.acl.com

- 2012 Report to the Nations - ACFE

- Global Technology Audit Guide (GTAG) 16: Data Analysis Technologies - The IIA
  - https://na.theiia.org/Pages/IIAHome.aspx

- Data Analytics – A Practical Approach
  - https://www.isaca.org/Pages/default.aspx