Using Data Analytics to Detect Fraud

Data Analysis Tests for Detecting Billing and Check Tampering Schemes
Introduction to Scheme-Specific Data Analysis Tests

- The key to successfully using data analysis tests is in designing them to highlight the red flags typically associated with a particular scheme.
Billing Schemes

- The fraudster creates false support for a fraudulent purchase, causing the victim organization to pay for goods or services that are nonexistent, overpriced, or unnecessary.
Billing Schemes

- Invoicing via a shell company
- Invoicing via an existing vendor:
  - False invoicing for non-accomplice vendors
  - Pay and return schemes
- Personal purchases with company funds
Red Flags of Billing Schemes

- Vendor anomalies
- Payment anomalies
- Purchasing anomalies
  - Accounts payable invoices
  - Credit card or p-card purchases
Discussion Scenario 1: Shell Company Schemes

- What types of tests will you run to identify a shell company scheme?
- What files and documents will you need to run these tests?
- Aside from fraud, what might be some other explanations for any exceptions found?
Discussion Scenario 2: Pay and Return Schemes

▪ What types of tests will you run to identify a pay and return scheme?
▪ What files and documents will you need to run these tests?
▪ Aside from fraud, what might be some other explanations for any exceptions found?
Tests for Billing Schemes

- Tests to identify anomalies in:
  - Vendors
  - Accounts payable transactions
  - Credit card or p-card purchases
Check Tampering Schemes

- A fraudster prepares a fraudulent check for their own benefit.
- A fraudster intercepts a check intended for a third party and converts the check for their own benefit.
Check Tampering Schemes

- Forged maker schemes
- Forged endorsement schemes
- Altered payee schemes
- Authorized maker schemes
- Concealed check schemes
Red Flags of Check Tampering Schemes

- Check numbering anomalies
- Payee anomalies
- Payment amount anomalies
- Unusual manual or voided checks
- Journal entry or adjustment anomalies
Discussion Scenario: Check Tampering Schemes

- What additional tests should you run to identify a check tampering scheme?
- What files and documents would you need to run these tests?
- Aside from a check tampering scheme, what might be some other explanations for any exceptions found?
Tests for Check Tampering Schemes

Tests to identify anomalies in:

- Check numbering
- Payees
- Payment amounts
- Manual checks
- Voided checks
- Journal entries or adjustments