Using Data Analytics to Detect Fraud

Data Analysis Tests for Detecting Payroll and Expense Reimbursement Schemes
Payroll Schemes

- Fraudsters cause their employers to issue them a compensation payment they are not entitled to:
  - Ghost employee schemes
  - False salaries and wages schemes
  - Commission schemes
Ghost Employee Schemes

- A *ghost employee* is someone who is on the payroll register but who does not actually work for the company.
Red Flags of Ghost Employee Schemes

- Employee information anomalies
- Payroll register anomalies
- Payroll check anomalies
- Bonus or pay increase anomalies
- Employee time-off trends
Discussion Scenario: Ghost Employee Schemes

▪ What types of tests would you run to identify ghost employees on the payroll?
▪ What files and documents would you need to run these tests?
▪ Aside from a ghost employee scheme, what might be some other explanations for any exceptions found?
Tests for Ghost Employee Schemes

- Tests to identify anomalies in:
  - Employee information
  - Payroll register
  - Payroll checks
  - Bonus or pay increases
  - Employee time-off trends
False Salaries and Wages Schemes

- The fraudsters manipulate compensation-related factors to increase their pay.
Red Flags of False Salaries and Wages Schemes

- Gross salary anomalies
- Pay rate anomalies
- Net pay anomalies
- Anomalies in number of hours worked
- Anomalies in number of parts produced
Discussion Scenario: False Salaries and Wages Schemes

- What types of tests would you run to identify a false salaries and wages scheme?
- What files and documents would you need to run these tests?
- Aside from a false salaries and wages scheme, what might be some other explanations for any exceptions found?
Tests for False Salaries and Wages Schemes

- Tests to identify anomalies in:
  - Gross salary
  - Pay rate
  - Net pay
  - Number of hours worked
  - Number of parts produced
Commission Schemes

- Schemes in which fraudsters alter their commission rate or falsely report the amount of sales they made:
  - Inflated sales price
  - Inflated quantity sold
  - Sales to fictitious customers
  - Sales in improper periods
Red Flags of Commission Schemes

- Accounts receivable anomalies
- Customer information anomalies
- Salesperson performance anomalies
- Sales transaction or trend anomalies
Discussion Scenario: Commission Schemes

- What types of tests would you run to determine whether Tom is involved in a commission scheme?
- What files and documents would you need to run these tests?
- Aside from a commission scheme, what might be some other explanations for any exceptions found?
Tests for Commission Schemes

- Tests to identify anomalies in:
  - Accounts receivable
  - Customer information
  - Salesperson performance
  - Sales transactions or trends
Expense Reimbursement Schemes

- A fraudster makes an improper claim for the reimbursement of expenses:
  - Mischaracterized expenses
  - Fictitious expenses
  - Overstated expenses
  - Multiple reimbursements
Red Flags of Expense Reimbursement Schemes

- Expense date and time anomalies
- Expense location anomalies
- Expense vendor anomalies
- Expense amount anomalies
- Expense claims lacking information
- Unusual trends in reimbursement levels
Discussion Scenario: Expense Reimbursement Schemes

▪ What types of tests will you run to identify mischaracterized expenses?
▪ 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 Expense Reimbursement Schemes

- Tests to identify anomalies in:
  - Expense date and times
  - Expense locations
  - Expense vendors
  - Expense amounts
  - Reimbursement levels