

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