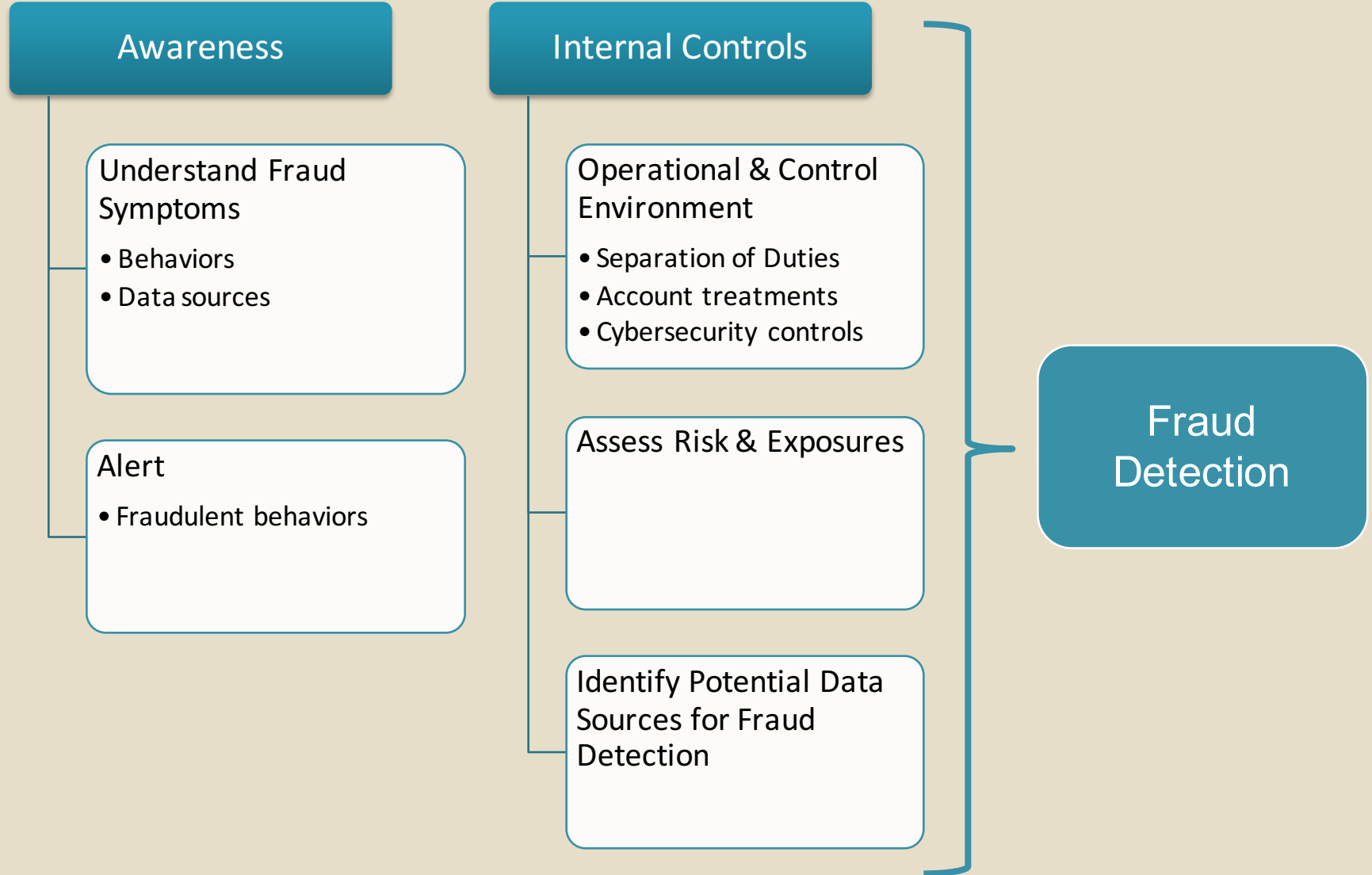


MIS 5208 – Week 2 Fraud Detection & Prevention

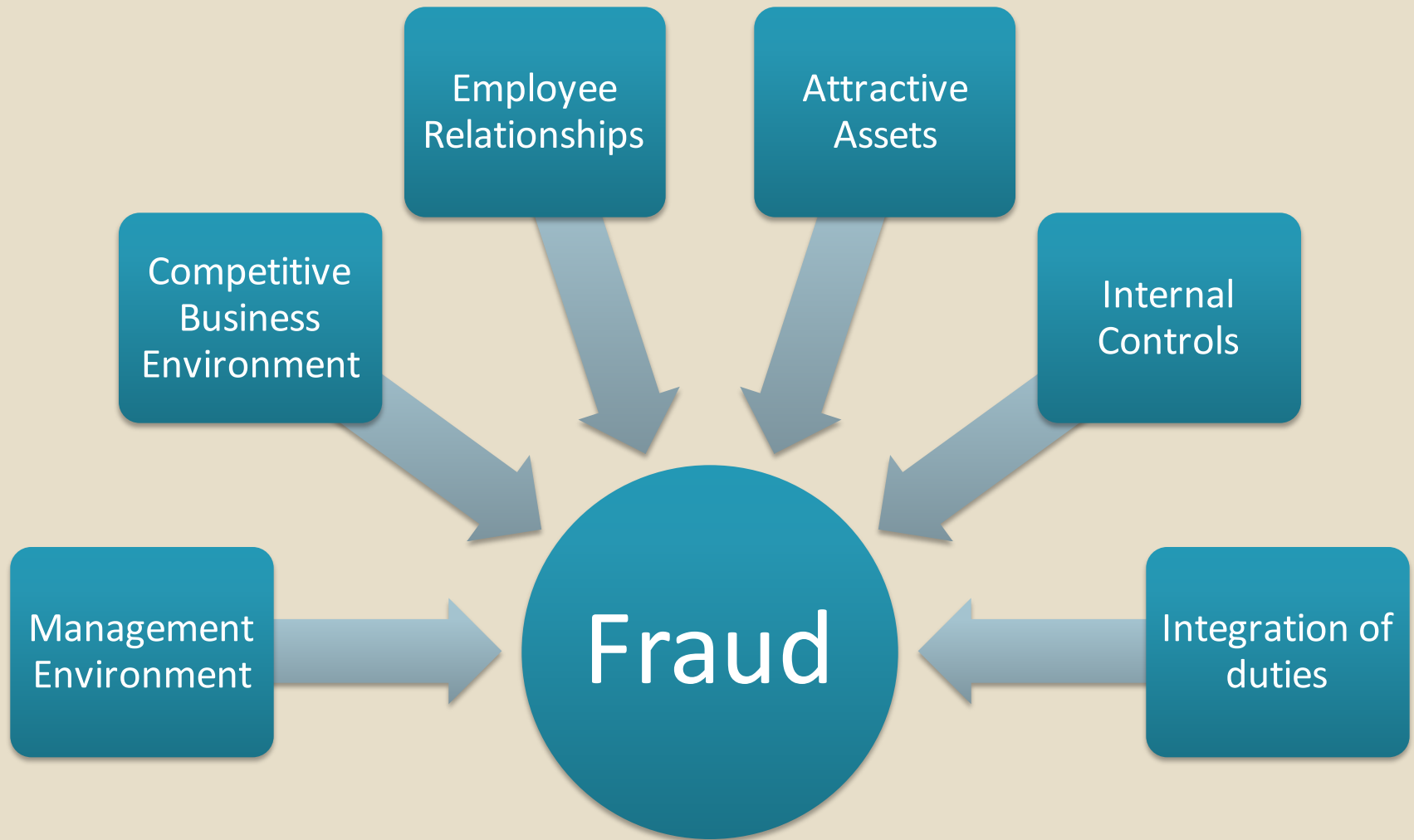
Introductions, Course Outline, and Other Administration Issues

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Fraud Awareness & Internal Controls



Risk Factors For Fraud



Fraud Exposure

Fraud Risk Assessment

- Risk assessment is a sometimes and controversial issue
- We will have an entire section on risk assessment
- Examine the risks and exposures to identify process and system weakness

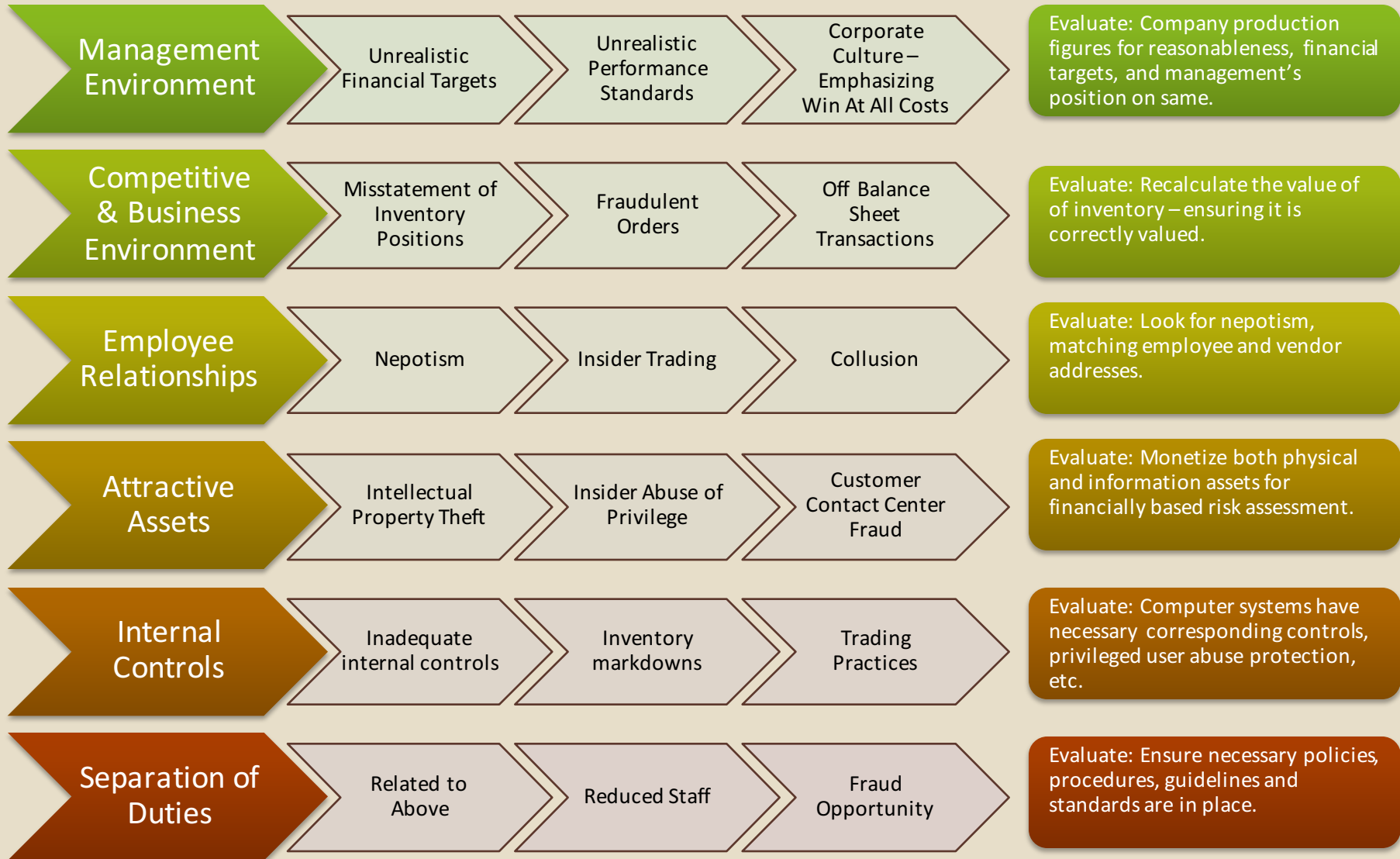
Develop Categories of Risk

- External environment
- Legal
- Regulatory
- Governance
- Strategy
- Operational
- Information
- Human resources
- Financial
- Technology

Determining Fraud Exposure

- Sources of risk
- Review existing risk assessments
- Review risk assessment process
- Business Impact Analysts
- Types and sources of fraud
 - External environment
 - Governance
 - Legal
 - Regulatory
 - Operational
 - Strategy

Risk Factors for Fraud



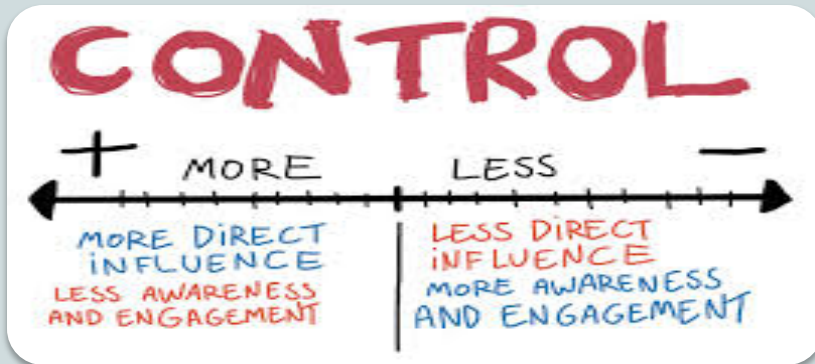
Fraud Schemes – A Data Driven Approach

Control Weaknesses Approach

- Examine key controls
- Determine vulnerabilities
 - System
 - Process

Key Fields

- Focus on data entry
- Which data can be changed?
- What is the impact?



Control Weakness

- Internal / External parties
- Example: Received quantity less than ordered quantity – but payment made for full amount

Key Fields

- Data manipulation
- Privileged user abuse
- Example: Create fictitious vendors, changing address and bank account.

Case Study - Sunbeam

The New York Times

S.E.C. Accuses Former Sunbeam Official of Fraud

By FLOYD NORRIS
Published: May 16, 2001

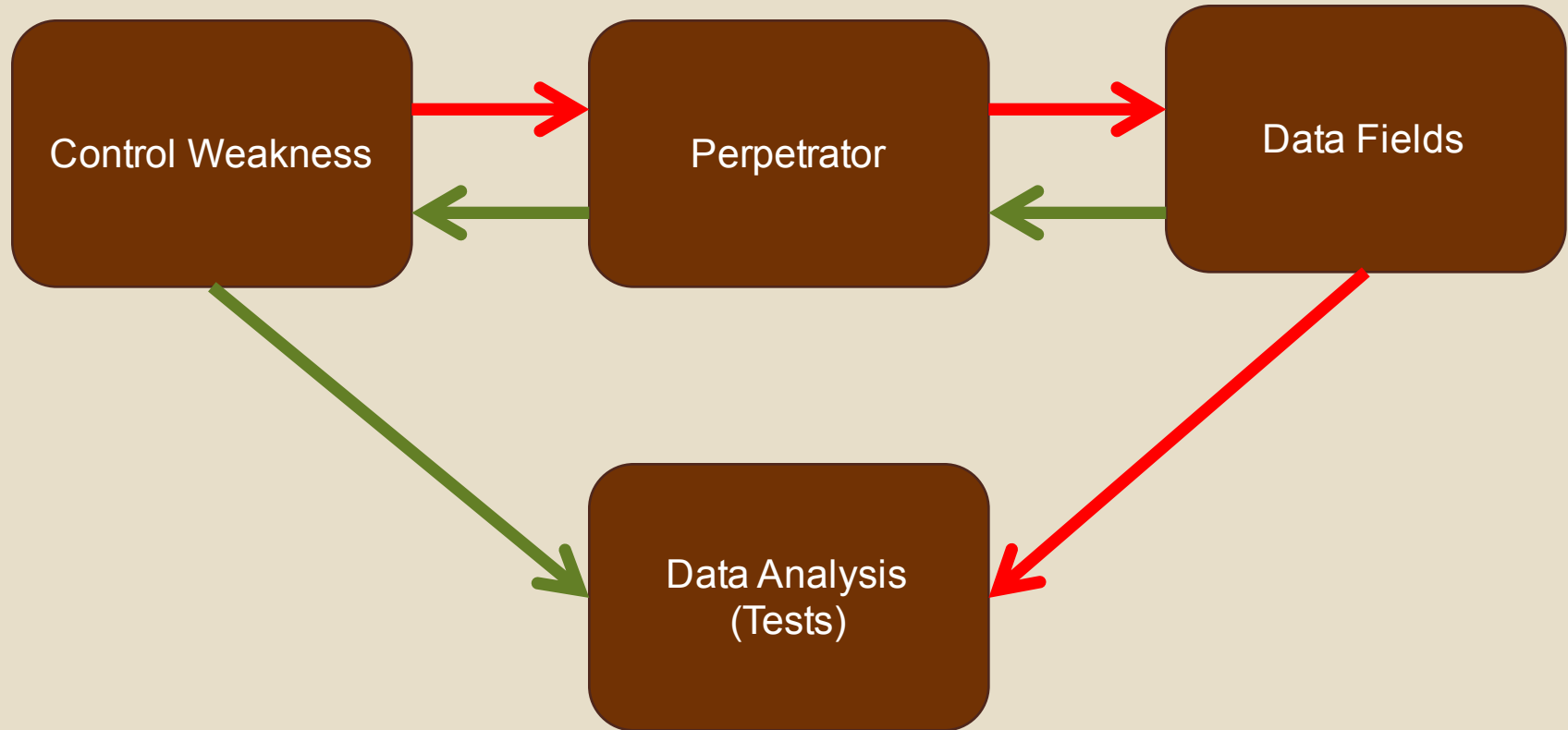
Albert J. Dunlap directed a huge accounting fraud as chief executive of the Sunbeam Corporation and was aided by a partner of Arthur Andersen, the firm that audited Sunbeam's books, the Securities and Exchange Commission contends in a civil case filed yesterday.

Mr. Dunlap, who embraced the nickname Chainsaw Al, became a corporate star in the 1990's, making tens of millions for himself as he laid off thousands of employees in the name of efficiency. Sunbeam's stock leaped nearly 50 percent the day he was hired to run the company in 1996, and his memoirs became a best seller. But the S.E.C. suit, filed in federal court in Miami, said the Sunbeam turnaround directed by Mr. Dunlap was a sham.


The executives "orchestrated a fraudulent scheme to create the illusion of a successful restructuring of Sunbeam and facilitate the sale of the company at an inflated price," the S.E.C. said.

"This case is the latest in our ongoing fight against fraudulent earnings-management practices" that have cost investors billions of dollars, said Richard H. Walker, the commission's director of enforcement.

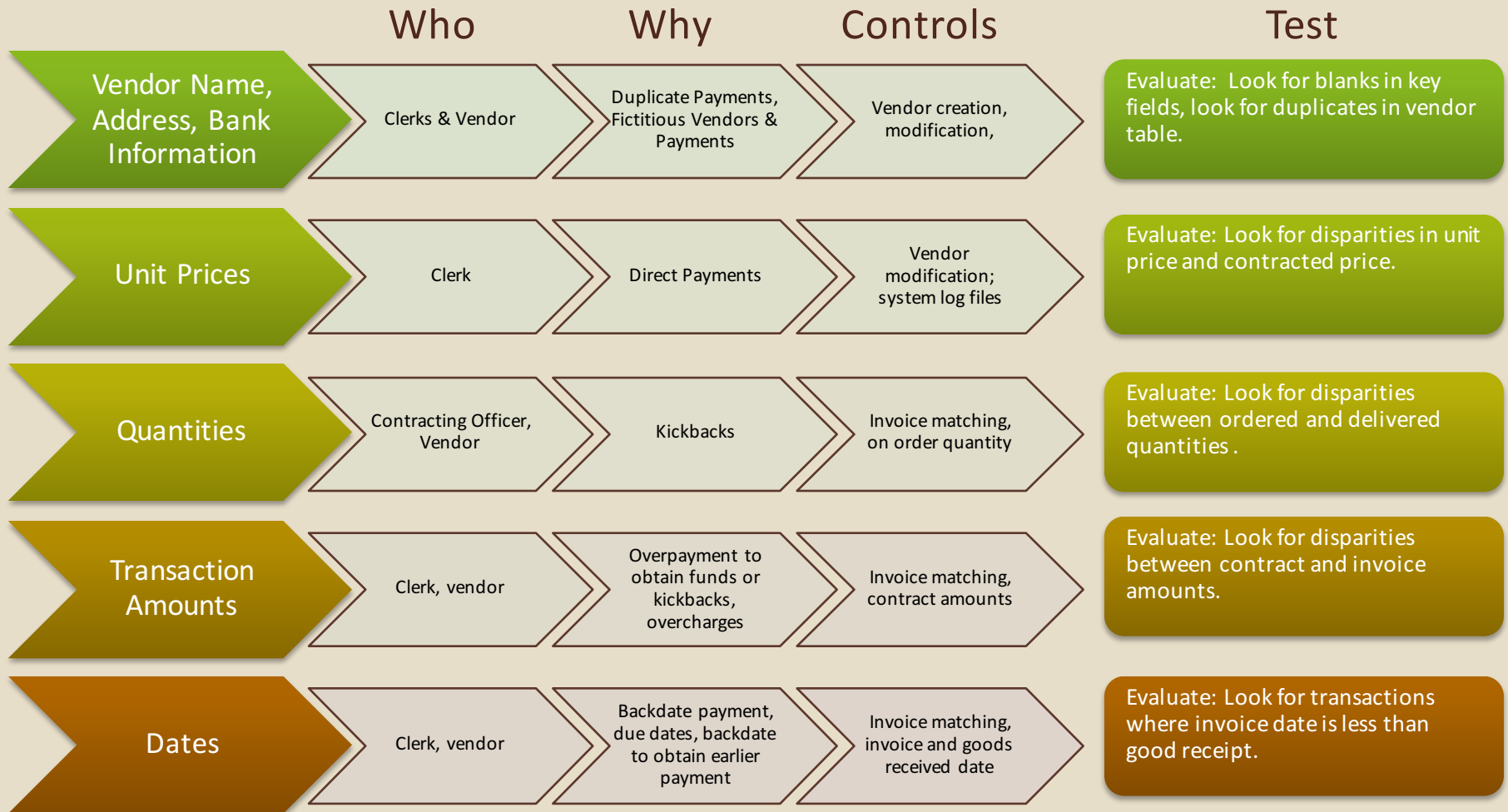
Fraud Exposure Identification



 Control Weakness

 Data of Interest

Key Data



Case Study – Conde Nast

TAXES 4/03/2011 @ 3:27PM | 223,040 views

Conde Nast Paid \$8 Million To Scammer Who Sent One Email

The account holding the larger sum was in the name of Quad Graph. If that seems vaguely familiar, it's maybe because it's very similar to [Quad/Graphics Inc.](#), a publicly traded company that prints famous magazines like the Condé Nast titles and, for that matter, Forbes. The account with the smaller sum was in the name of one Andy Surface, whose picture also adorns this post. You'll learn a little more about him; the feds say both accounts were in his *Portfolio*.

The really scary part is that this deal went down as easily as a stroll through the *Golf World*. We can't summarize it any better than the lawsuit:

“ In early November, Condé Nast received an “Electronic Payment Authorization” form by email at its offices in ... New York. The form appeared to have been sent by Quad/Graphics. The form requested that Condé Nast direct payments for Quad Graphics to the Quad Graph Account, and provided account information. Condé Nast filled out the form and returned it by facsimile from its offices in ... New York to the facsimile number provided in the form. Following Condé Nast's receipt of the “Electronic Payment Authorization” form, Condé Nast started making payments for Quad/Graphics bills by ACH transfer from a Condé Nast account with [JPMorgan Chase Bank](#) in New York to the Quad Graph Account.



Andy Surface

<http://www.forbes.com/sites/williamparrett/2011/04/03/conde-nast-paid-8-million-to-scammer-who-sent-one-email/print/>

Fraud Standards

Investigating Fraud

Which of these is true?

An audit will:

Detect all material errors and irregularities in the financial statements



Discover all illegal acts committed by the client



Ensure the financial health of the entity

Auditors Responsibilities

- **Errors - Unintentional misstatements**

- Mistakes in gathering or processing accounting data
- Incorrect accounting estimates
- Mistakes in the application of accounting principles

- **Irregularities - Intentional misstatements, manipulation, falsification, or alteration of accounting records & supporting documents**

- Misrepresentation or intentional omission of events, transactions, or other significant information
- Intentional misapplication of accounting principles

Software Accounting Standards

SAS 1 and 22

- Plan and perform the audit to provide reasonable assurance that financial statements are free of material misstatements caused by error or fraud.

SAS 47

- Audit risk, materiality and misstatements in financial statements

SAS 54

- Detection of illegal acts (AU Section 317)

Section 301 of the Private Securities Litigation Reform Act

- Private Securities Litigation Reform Act of 1995

Section 10(a) of the Exchange Act

- Requires the inclusion of certain procedures in accordance with generally accepted accounting standards (GAAS).
- Audit procedures provide reasonable assurance of detecting illegal acts
- Audit procedures will identify related party transactions material to financial statements
- Evaluate if there is substantial doubt about the ability of the company to stay in business.

SAS 82

- Auditor's responsibility related to fraud in a financial statement
- Provides guidance on what auditors should do to meet these responsibilities
- Describes:
 - Fraudulent Financial Reporting
 - Misappropriation of Assets

SAS 82 Requirements

- **Consider the presence of fraud risk factors.** - SAS No. 82 provides examples (detailed below) of risk factors an auditor may consider for fraud related to a) fraudulent financial reporting, and b) misappropriation of assets misstatements. An auditor should become familiar with these risk factors and be alert for their presence at the client's.
- **Assess the risk of material misstatement of the financial statements due to fraud.** SAS No. 82 requires an assessment as to the risk of material misstatement due to fraud. This assessment is separate from but may be performed in conjunction with other risk assessments (for example, control or inherent risk) made during the audit. SAS No. 82 also requires reevaluation of assessments if other conditions are identified during fieldwork.
- **Develop a response.** Based on assessments of risk, SAS No. 82 requires development of appropriate audit response. In some circumstances, an auditor's response may be that existing audit procedures are sufficient to obtain reasonable assurance that the financial statements are free of material misstatement due to fraud. In other circumstances, auditors may decide to extend planned audit procedures.
- **Document certain items in work papers.** SAS No. 82 requires auditors to document evidence of the performance of their assessment of risk of material misstatement due to fraud. Documentation should include risk factors identified as being present as well as the auditor's response to these risk factors.
- **Communicate to management.** If it is determined that there is evidence that a fraud may exist, an auditor should apprise the appropriate level of management, even if the matter may be considered inconsequential. SAS No. 82 also requires an auditor to communicate directly with the audit committee (or equivalent) if the matter involves fraud that would materially misstate the financial statements or fraud committed by senior management

Fraud Investigation

Fraud Types

- Billing-
- Cash Larceny
- Cash on Hand
- Check Tampering
- Corruption
- Financial Statement Fraud
- Non-Cash
- Payroll
- Register Disbursements
- Skimming

Fraud Analysis: Useful Information

- Issues
 - Conflicts of interest
 - Unknown relationships
 - Abnormal patterns of activity
 - Errors in key processes
 - Control weaknesses
 - Hindsight, insight, foresight
- Business Operations and Expense Areas
 - Accounts payable
 - Claims
 - Damaged Goods
 - Healthcare
 - Insurance
 - Loss
 - Expense reimbursement
 - General Ledger
 - Travel and Entertainment

Vendor Attribute Capture

- Total number of vendors
- Vendors without:
 - Addresses
 - TAX ID
 - Are they receiving payment?
 - Electronic transfers
 - Paper checks

Vendor Activity Assessment

- Number of Vendors
- Frequency of Use
- Number of Active Users Compared Against Total Vendors
- Unused Vendors can be source of internal abuse
- Vendor Identity Abuse

Name Mining

- Looking for Fictitious Vendors
 - Fictitious Names
 - Use their initials in the name of a vendor
 - Anagrams
 - Others
 - Substitution
 - Insertion and Omission
 - Transposition
 - Number Substitution

Employee Vendor Relationships

- Employee and Vendor Name are Different
 - Common Addresses
 - Addresses that are different but are at the same geographic location:
 - 201 College Avenue
 - 669 West Chestnut Street
 - Phone Number
 - TAX ID
 - Zip Codes



Proximity Analysis

- Mailbox Services
- Anonymous
- These mail drop have the appearance of a physical address
- Proximity location of vendor to actual employees
 - Employee Addresses
 - Vendor Addresses
- Proximity Analysis

MailLink
848 N. Rainbow Blvd.
Las Vegas, NV 89107
Phone: 702-258-2968
Fax: 702-258-3357

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Vendor Trending Analysis

- Accounts Payable
- Claims Payable
- Fraud Payment Acceleration
 - Small initial amounts of fraud
 - Amounts and frequency increases
 - Test Phase
 - Confidence Phase
 - Greed Phase
- Trend Payments to Vendors
- Valley and Spike Payment Patterns
 - Long periods of inactivity between periods of very high activity
 - Unusually high periods of activity

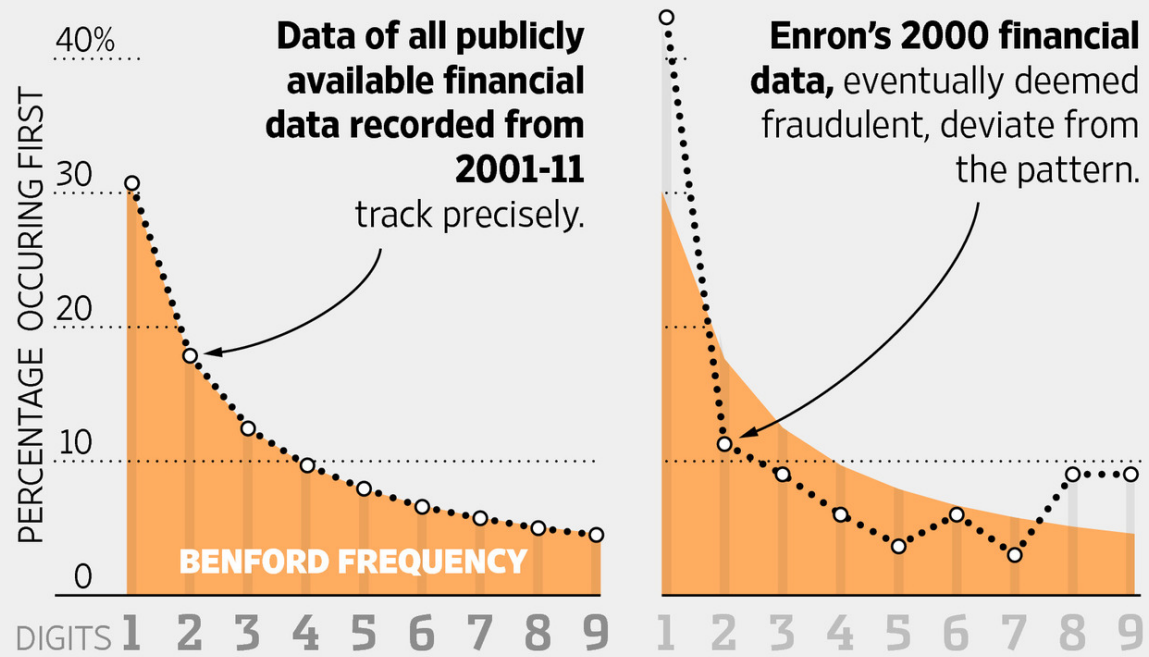
Payment Trend Analysis

- Calendar
 - By Day of Week
 - By Day of Month
 - By Month
 - Checks created on weekends (Saturdays and Sundays)
 - Date created
 - Date posted
- Benford's Law
 - The first digit should be a 1... (30% of the time)

Benford's Law

Who's No. 1?

Benford's Law expects 30.1% of numbers in a list of financial transactions to begin with '1.' Each successive digit should represent a progressively smaller proportion. Below, orange indicates the expected Benford frequencies. When digits stray from the pattern, fraud may be to blame.



Source: Dan Amiram, Columbia University

The Wall Street Journal

Check Sequence Analysis

- G/L
- Cash Receipts
- Identify Gaps in Check Sequences

Expense, Payroll, and Vacation Controls

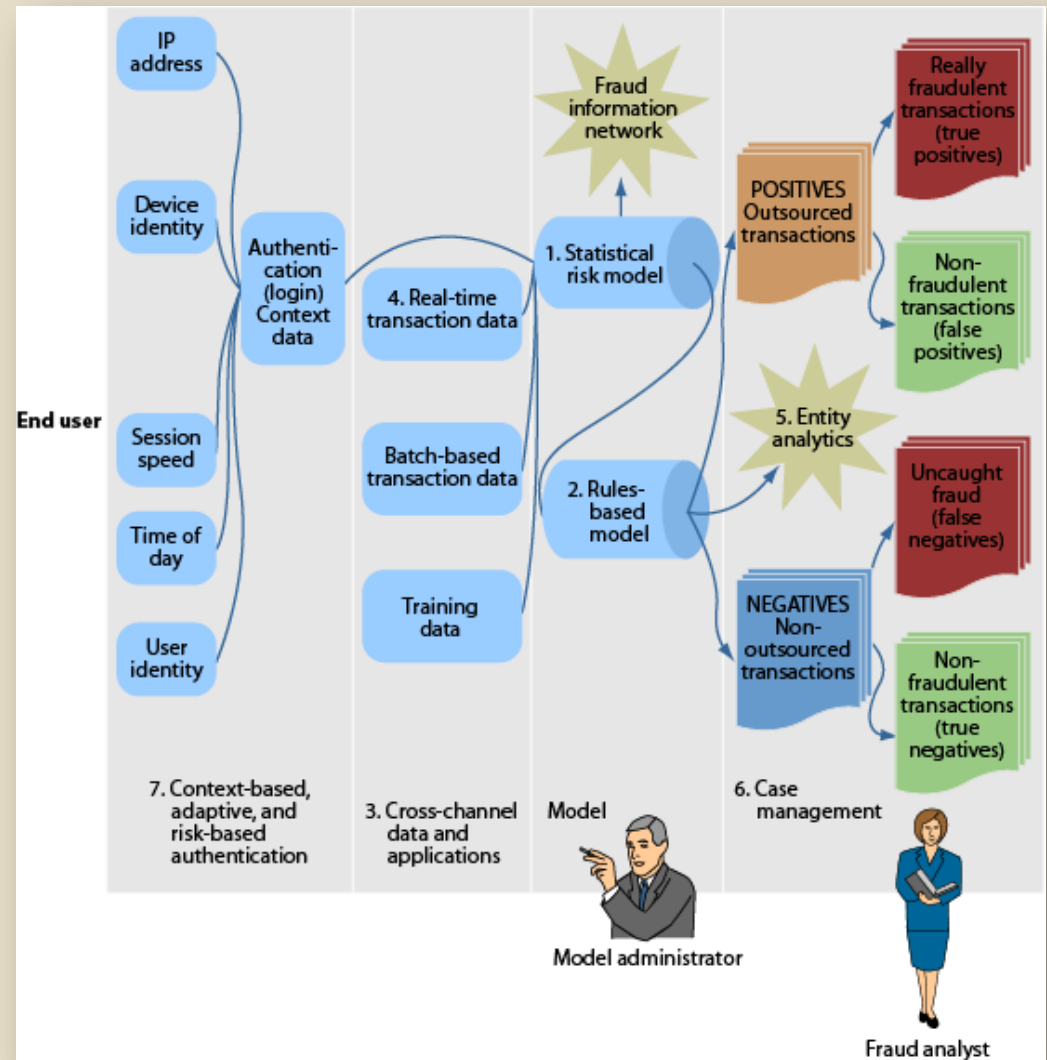
- Analysis of Overtime Hours
 - Reasonableness
 - Consistent with role
- Holiday Hours
 - Reasonableness
 - Consistent with role
- Purchasing Cards
 - Spending over approval limits
 - Split transactions to avoid limit
 - Collusion between subordinate and supervisor to avoid approval scrutiny
- Vacation Hours
 - Reasonableness
 - Consistent with role
 - Large amounts of vacation outside of guidelines

Other Analysis Areas

- System Access Logs
- Maintenance Files
- Social Media
 - The Price is Right Fraud
- Physical Investigations
 - Surveillance

Continuous Auditing

- Programmatic Auditing
- System Based



Thank you.