CPAs & ADVISORS

experience **drive** //

STATE INTERNAL AUDIT ADVISORY BOARD – OCTOBER 27, 2015

AGENDA

// **Fraud Overview in General**

// **Fraud "War Stories"**

// **How to Mitigate Risk of Fraud**

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REPORT TO THE NATIONS
ON OCCUPATIONAL FRAUD AND ABUSE

2014 GLOBAL FRAUD STUDY

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The COST of FRAUD

ACFE
Association of Certified Fraud Examiners
Together, Reducing Fraud Worldwide

Data from the ACFE's 2014 Global Fraud Study, *Report to the Nations on Occupational Fraud and Abuse*.

Download the full Report and view interactive graphs at ACFE.com/RTTN.

Revenues the typical organization loses to fraud each year

5%

Our study analyzes
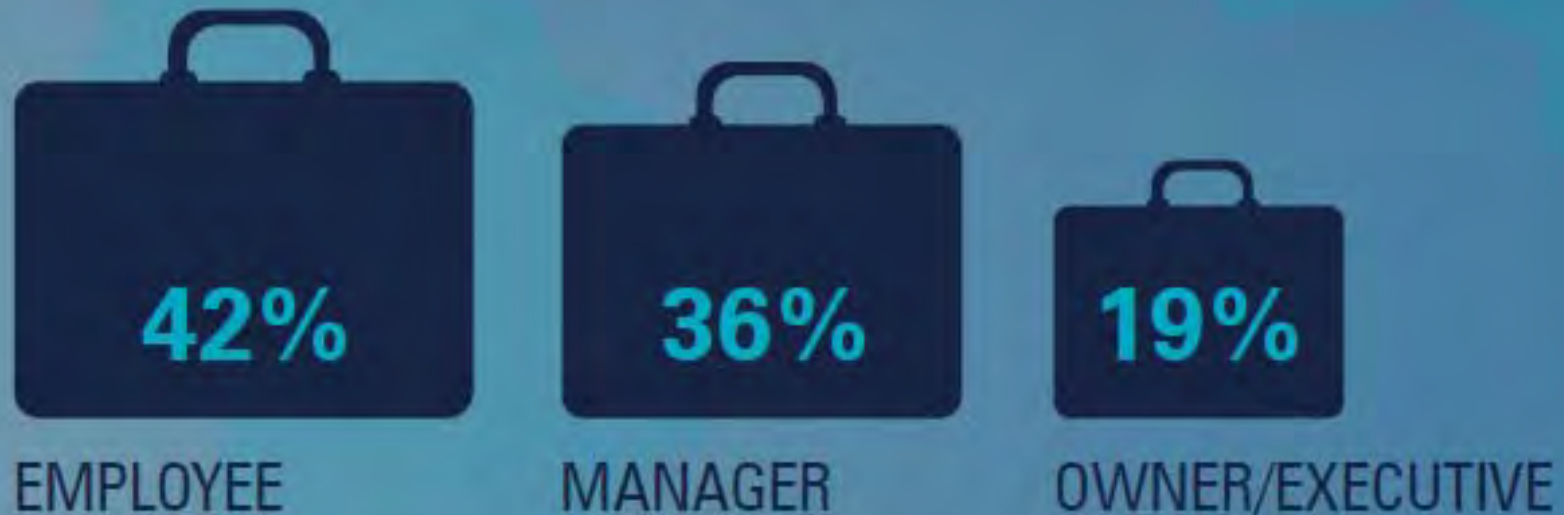**1,483 cases**
that caused in excess of
$3 billion

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MEDIAN LOSS BY POSITION
The higher the fraudster's level of authority, the greater losses tended to be.

| $75,000 | $130,000 | $500,000 |
| EMPLOYEE | MANAGER | OWNER/EXECUTIVE |

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GENDER

Male fraudsters outnumbered females two to one.

67% MALE

33% FEMALE

ACFE®
Association of Certified Fraud Examiners

MEDIAN LOSS BY GENDER

Losses attributed to males were **123%** higher than losses caused by females.

$185,000 MALE

$83,000 FEMALE

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DEPARTMENT

77% of all occupational frauds originated in one of seven organizational departments: accounting, operations, sales, executive/upper management, customer service, purchasing and finance.

SALES — 12.5%

OPERATIONS — 15.3%

EXECUTIVE/UPPER MANAGEMENT 11.8%

CUSTOMER SERVICE 7.7%

PURCHASING 7.2%

ACCOUNTING 17.4%

FINANCE 5.2%

ALL OTHER DEPARTMENTS 22.9%

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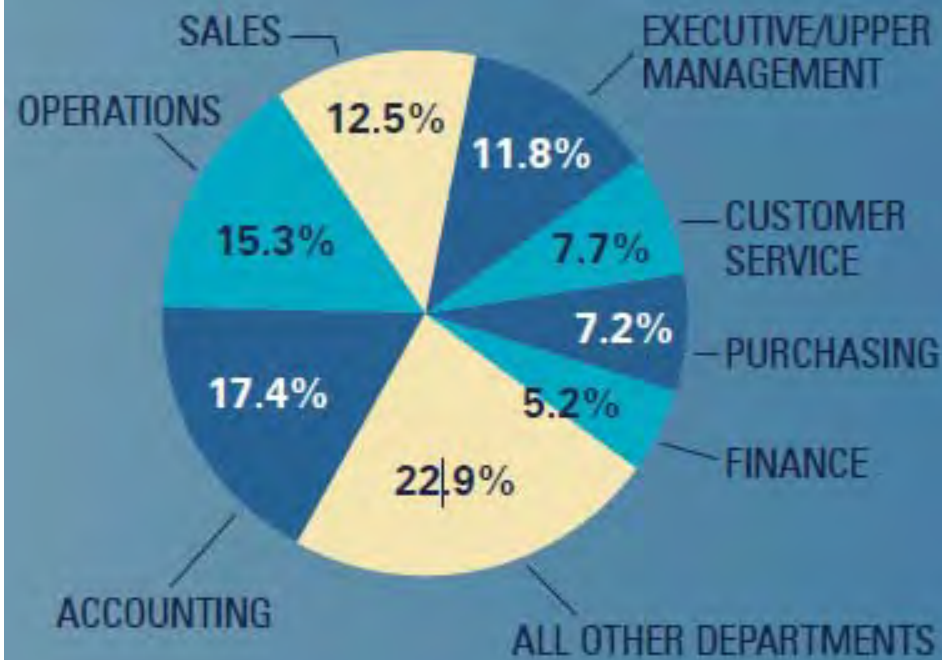
TENURE

7% of perpetrators committed fraud during their first year on the job. **53%** had been with their organizations for more than five years.

<1 YEAR
6.8%

>10 YEARS
25.2%

1-5 YEARS
40.7%

6-10 YEARS
27.3%
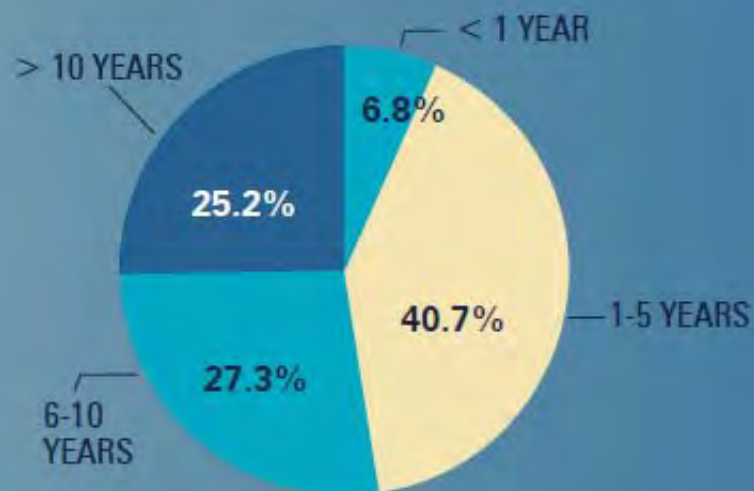
MEDIAN LOSS BY TENURE
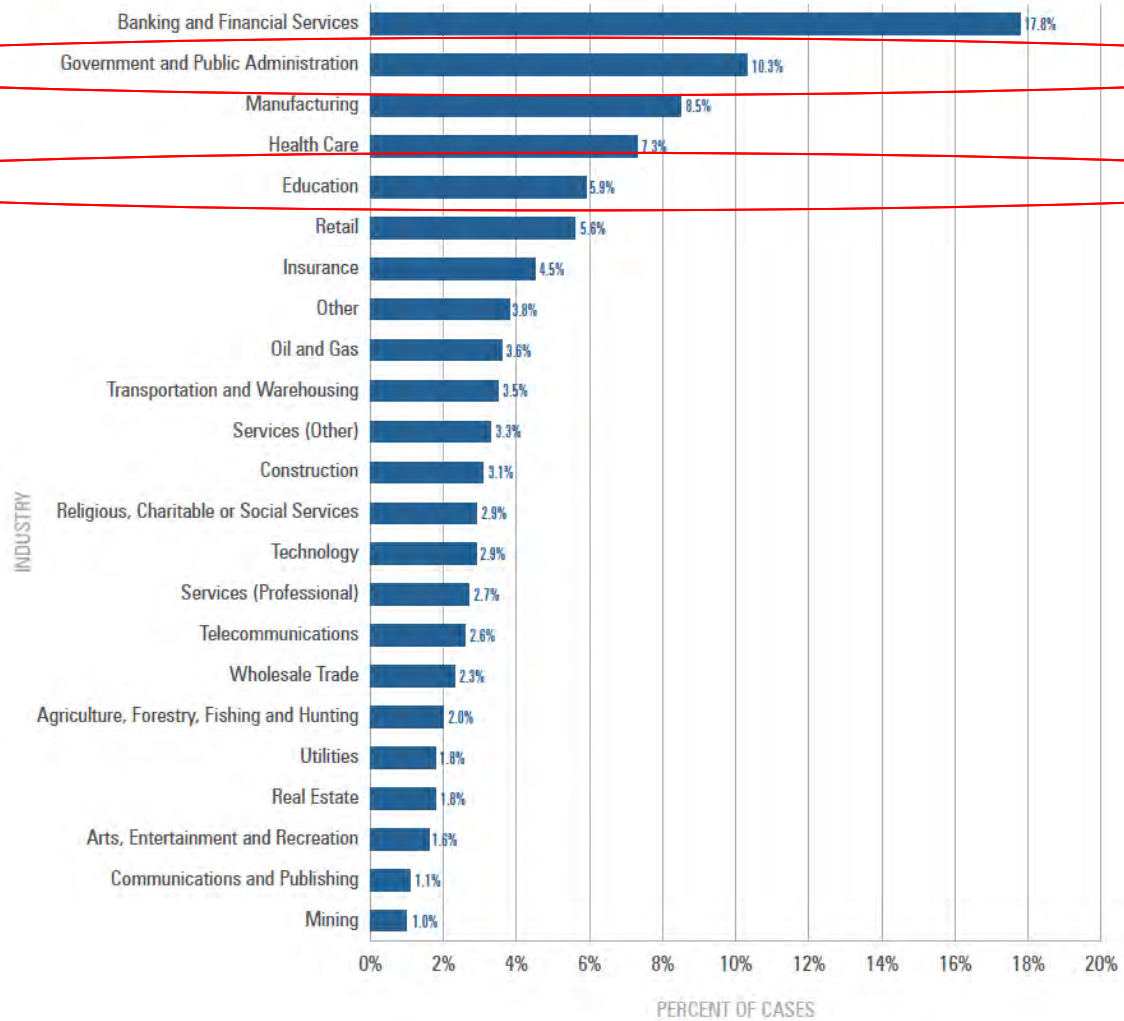
The longer a fraudster had worked for a company, the more harm he or she was likely to cause.

$51,000
<1 YEAR

$100,000
1-5 YEARS

$200,000
6-10 YEARS

$220,000
>10 YEARS

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Figure 22: Industry of Victim Organizations

Industry	Percent of Cases
Banking and Financial Services	17.8%
Government and Public Administration	10.3%
Manufacturing	8.5%
Health Care	7.3%
Education	5.9%
Retail	5.6%
Insurance	4.5%
Other	3.8%
Oil and Gas	3.6%
Transportation and Warehousing	3.5%
Services (Other)	3.3%
Construction	3.1%
Religious, Charitable or Social Services	2.9%
Technology	2.9%
Services (Professional)	2.7%
Telecommunications	2.6%
Wholesale Trade	2.3%
Agriculture, Forestry, Fishing and Hunting	2.0%
Utilities	1.8%
Real Estate	1.8%
Arts, Entertainment and Recreation	1.6%
Communications and Publishing	1.1%
Mining	1.0%

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Figure 24: Frequency of Schemes Based on Industry

Industry/ Scheme	Banking and Financial Services	Government and Public Administration	Manufacturing	Health Care	Education	Retail	Insurance	Oil and Gas	Transportation and Warehousing	Services (Other)	Construction	Religious, Charitable or Social Services
Cases	244	141	116	100	80	77	62	49	48	45	43	40
Billing	5.7%	19.1%	22.4%	29.0%	33.8%	10.4%	17.7%	24.5%	33.3%	28.9%	34.9%	32.5%
Cash Larceny	13.1%	10.6%	6.0%	12.0%	6.3%	15.6%	6.5%	2.0%	2.1%	11.1%	14.0%	7.5%
Cash on Hand	18.9%	12.1%	7.8%	16.0%	16.3%	22.1%	1.6%	2.0%	10.4%	11.1%	7.0%	12.5%
Check Tampering	5.7%	5.7%	7.8%	21.0%	10.0%	7.8%	4.8%	4.1%	20.8%	17.8%	27.9%	35.0%
Corruption	37.3%	36.2%	54.3%	37.0%	36.3%	22.1%	33.9%	57.1%	29.2%	35.6%	46.5%	30.0%
Expense Reimbursements	4.1%	12.8%	7.8%	23.0%	31.3%	3.9%	4.8%	14.3%	14.6%	17.8%	27.9%	32.5%
Financial Statement Fraud	10.2%	5.0%	13.8%	8.0%	10.0%	6.5%	3.2%	12.2%	10.4%	6.7%	11.6%	7.5%
Non-Cash	13.1%	17.7%	34.5%	12.0%	12.5%	33.8%	12.9%	16.3%	33.3%	17.8%	20.9%	15.0%
Payroll	5.3%	15.6%	8.6%	15.0%	16.3%	5.2%	8.1%	6.1%	16.7%	6.7%	18.6%	20.0%
Register Disbursements	2.5%	0.7%	2.6%	3.0%	5.0%	13.0%	0.0%	0.0%	4.2%	6.7%	2.3%	2.5%
Skimming	5.7%	11.3%	4.3%	18.0%	20.0%	18.2%	22.6%	2.0%	6.3%	33.3%	7.0%	12.5%

LESS RISK   MORE RISK

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// No prior criminal history (5%)

// Well liked by co-workers

// Likes to give gifts/compulsive shopper

// Gambling problems not unusual

// Long-term employee

// Rationalizes, starts small or "borrows"

// Lifestyle clues

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- Acted alone
- Did not have credit card in his name
- Used his supervisor's card (memorized #)
- Long-term employee
- Red flags noted
- Amount

REAL EXAMPLE – THE STAFFING AGENCY

- Manager of Staffing Agency

- Father was President of Company

- $2M taken over 4 year period

- 3 Methods:
  - Fictitious Vendors
  - Fictitious and Excess Payroll
  - ACH Payments

- Lessons Learned – Red Flags

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AP CHECK FRAUD

// Payee on actual check different than system payee

// Common fraud

// Seen in large number of recent investigations

// Common in small organizations without good segregation of duties

// Subject has total control of checks and unfettered access to accounting software

// No oversight or review ("trusted" employee)

DATA ANALYTICS BASICS

Big Data

Information of extreme size, diversity and complexity.

- Gartner, Inc.

Source: http://www.gartner.com/technology/topics/big-data.jsp

Data Analytics

*…processes and activities designed to obtain and evaluate data to extract **useful information** and **answer strategic questions**…*

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Figure 37: Median Loss Based on Presence of Anti-Fraud Controls

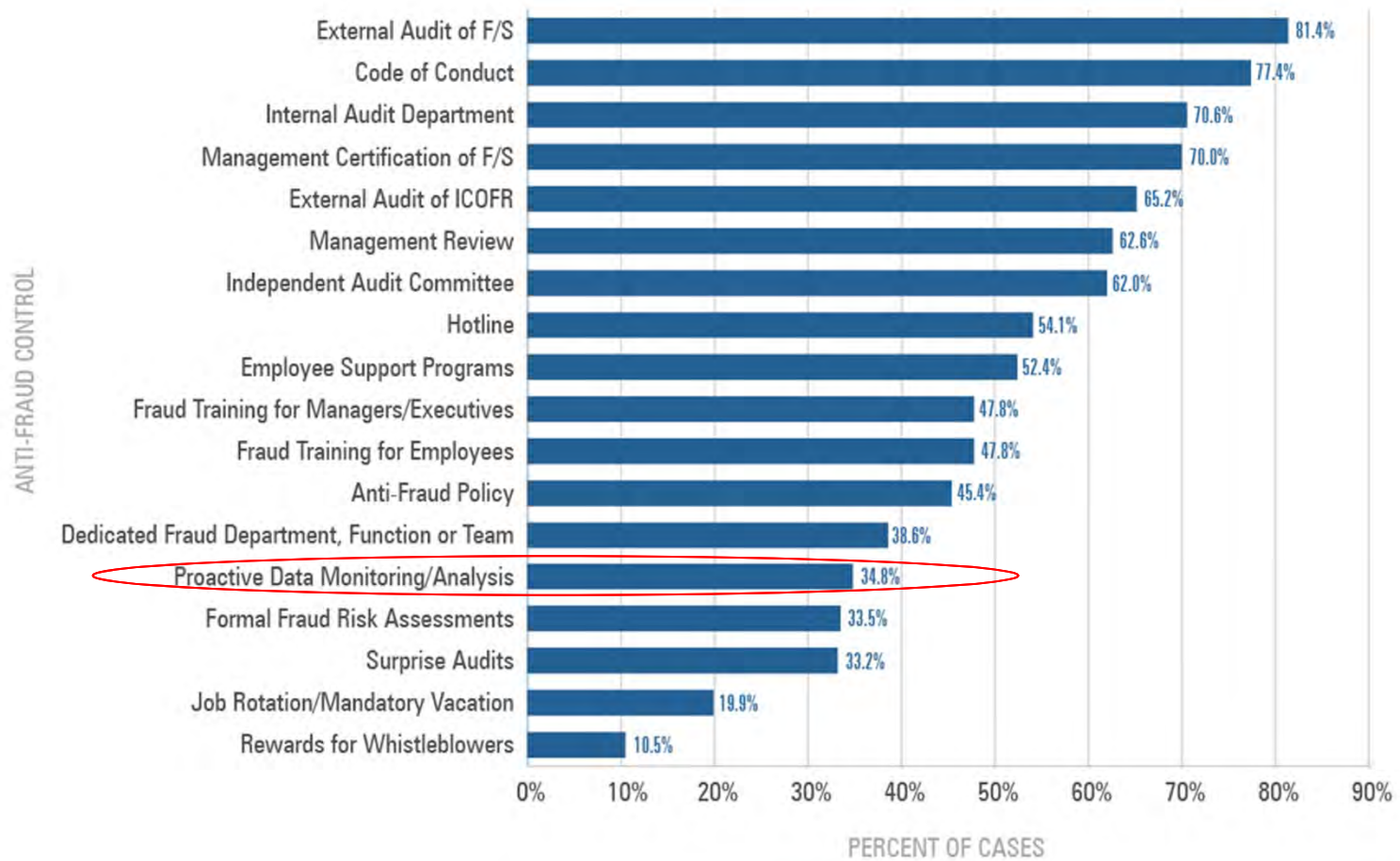| Control	Percent of Cases	Control in Place	Control Not in Place	Percent Reduction
Proactive Data Monitoring/Analysis	34.8%	$73,000	$181,000	59.7%
Employee Support Programs	52.4%	$90,000	$200,000	55.0%
Management Review	62.6%	$100,000	$208,000	51.9%
Code of Conduct	77.4%	$100,000	$200,000	50.0%
Internal Audit Department	70.6%	$100,000	$180,000	44.4%
Formal Fraud Risk Assessments	33.5%	$94,000	$168,000	44.0%
Surprise Audits	33.2%	$93,000	$164,000	43.3%
External Audit of ICOFR	65.2%	$103,000	$180,000	42.8%
Fraud Training for Managers/Executives	47.8%	$100,000	$168,000	40.5%
Hotline	54.1%	$100,000	$168,000	40.5%
Dedicated Fraud Department, Function or Team	38.6%	$100,000	$164,000	39.0%
Fraud Training for Employees	47.8%	$100,000	$164,000	39.0%
Anti-Fraud Policy	45.4%	$100,000	$155,000	35.5%
Management Certification of F/S	70.0%	$120,000	$184,000	34.8%
Job Rotation/Mandatory Vacation	19.9%	$100,000	$150,000	33.3%
External Audit of F/S	81.4%	$125,000	$186,000	32.8%
Rewards for Whistleblowers	10.5%	$100,000	$135,000	25.9%
Independent Audit Committee	62.0%	$120,000	$150,000	20.0%

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Figure 38: Median Duration of Fraud Based on Presence of Anti-Fraud Controls

Control	Percent of Cases	Control in Place	Control Not in Place	Percent Reduction
Surprise Audits	33.2%	12 months	24 months	50.0%
Proactive Data Monitoring/Analysis	34.8%	12 months	24 months	50.0%
Dedicated Fraud Department, Function or Team	38.6%	12 months	24 months	50.0%
Anti-Fraud Policy	45.4%	12 months	24 months	50.0%
Fraud Training for Employees	47.8%	12 months	24 months	50.0%
Hotline	54.1%	12 months	24 months	50.0%
Formal Fraud Risk Assessments	33.5%	12 months	23 months	47.8%
Management Review	62.6%	13 months	24 months	45.8%
Independent Audit Committee	62.0%	14 months	24 months	41.7%
Internal Audit Department	70.6%	14 months	24 months	41.7%
Job Rotation/Mandatory Vacation	19.9%	12 months	20 months	40.0%
Fraud Training for Managers/Executives	47.8%	13 months	21 months	38.1%
External Audit of ICOFR	65.2%	15 months	24 months	37.5%
Management Certification of F/S	70.0%	15 months	24 months	37.5%
Rewards for Whistleblowers	10.5%	12 months	18 months	33.3%
Code of Conduct	77.4%	16 months	24 months	33.3%
External Audit of F/S	81.4%	18 months	24 months	25.0%
Employee Support Programs	52.4%	14 months	18 months	22.2%

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Figure 26: Frequency of Anti-Fraud Controls

ANTI-FRAUD CONTROL

Control	Percent
External Audit of F/S	81.4%
Code of Conduct	77.4%
Internal Audit Department	70.6%
Management Certification of F/S	70.0%
External Audit of ICOFR	65.2%
Management Review	62.6%
Independent Audit Committee	62.0%
Hotline	54.1%
Employee Support Programs	52.4%
Fraud Training for Managers/Executives	47.8%
Fraud Training for Employees	47.8%
Anti-Fraud Policy	45.4%
Dedicated Fraud Department, Function or Team	38.6%
Proactive Data Monitoring/Analysis	34.8%
Formal Fraud Risk Assessments	33.5%
Surprise Audits	33.2%
Job Rotation/Mandatory Vacation	19.9%
Rewards for Whistleblowers	10.5%

PERCENT OF CASES

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Summary of Categories

Job	Total Transactions	Transaction Count	Categorical Hits	Holiday Transactions	Transactions with Keywords	Transactions at Merchants of Interest	Potential Split Transactions	Transactions on PTO	Round Hundred Dollar Transactions	Weekend Transactions
Sales Representative	1,239,885.17	16,131	6	52	215	178	-	81	21	1,463
Vice President Sales	564,654.06	4,112	6	15	7	62	-	13	4	459
Technical Sales Rep	524,032.93	5,504	6	19	61	34	-	40	2	587
Business Unit Manager	495,998.25	5,001	6	16	10	79	-	12	2	454
Customer Service Rep	270,665.16	3,272	6	13	3	56	-	22	1	300
Executive Vice President	263,505.40	1,724	6	14	7	31	-	2	7	189
Regional Vice President	223,448.47	1,819	6	5	59	11	-	15	2	178
VP Operations	194,824.17	1,433	6	11	1	7	-	5	1	181
Print Production Manager	190,866.42	2,310	6	9	4	19	-	10	2	185
General Manager	156,892.40	1,915	6	5	21	4	-	23	2	215
Plant Manager	101,922.90	1,324	6	2	5	6	-	15	2	141
Production Manager	87,231.55	949	6	1	12	3	-	13	5	72
n/a	406,902.25	3,704	5	10	20	75	-	-	2	316
Sales Division Manager	297,656.65	2,470	5	10	3	31	-	3	-	217
Operations Manager	106,736.03	1,221	5	4	5	20	-	7	-	106
IT Manager	100,892.16	759	5	2	5	29	-	2	-	132
Finance Manager	79,946.48	507	5	1	-	7	-	1	4	39
Chief Financial Officer	77,086.00	317	5	1	15	1	-	1	-	27
CEO & President	72,371.44	433	5	6	5	1	-	1	-	60
Business Development Mgr	64,449.41	803	5	1	3	15	-	-	1	58
Quality Control Manager	50,332.81	634	5	1	-	7	-	5	1	42

Weekend Purchases

Transaction Date	Transaction Amount	Merchant Name Original	Address	City Name	State Province	Expense Description
7/7/2013	79.08	SHERIDAN NURSERIES EST		MISSISSAUGA	ON	
10/5/2013	28.20	VALUE VILLAGE #2027		MISSISSAUGA	ON	
10/12/2013	56.44	HOMESENSE 013		ETOBICOKE	ON	
1/11/2014	124.42	CLOVERDALE HOME HARDWA		ETOBICOKE	ON	
1/11/2014	50.76	KITCHEN STUFF PLUS #7		ETOBICOKE	ON	
1/11/2014	14.63	HOME OUTFITTERS #5116		TORONTO	ON	
1/11/2014	22.59	TARGET CANADA T3715		TORONTO	ON	
1/11/2014	31.56	HOMESENSE 013		ETOBICOKE	ON	
2/2/2014	36.01	HOUSE WARMINGS INC		OAKVILLE	ON	
2/23/2014	235.04	LULULEMON 262		ETOBICOKE	ON	

Keyword Search

Transaction Date	Transaction Amount	Merchant Name Original	City Name	Expense Description
9/7/2013	48.22	ALBERTSONS #4132	DALLAS	personal expense to be reimbursed by Amy
8/11/2013	6.36	STARBUCKS #02240 WOODR	WOODRIDGE	Card used in error - will send check
12/5/2013	17.71	NOODLES CO 611	LAGRANGE	Check Included - personal mistake
11/2/2013	2,000.00	PTI MARKETING TECH	8588476613	This was billed by mistake and was credited on January 2014 statement
3/26/2014	65.04	FRONT STREET CAFE	NEW RICHMOND	Personal Expense Check Inclosed
6/29/2013	44.90	LILYDALE BP QPS	LILYDALE	gas for personal vehicle
7/3/2013	31.10	HOLIDAY STNSTORE 0336	BROOKLYN PARK	gas for personal vehicle
7/9/2013	48.05	LILYDALE BP QPS	LILYDALE	gas for personal vehicle
7/13/2013	46.36	LILYDALE BP QPS	LILYDALE	gas for personal vehicle
7/17/2013	35.92	HOLIDAY STNSTORE 0336	BROOKLYN PARK	gas for personal vehicle
7/19/2013	41.19	HOLIDAY STNSTORE 0336	BROOKLYN PARK	gas for personal vehicle
7/21/2013	35.58	LILYDALE BP QPS	LILYDALE	gas for personal vehicle

Examples of Uses in Examinations

Accounts Payable

Payroll

General Ledger

Purchasing Cards

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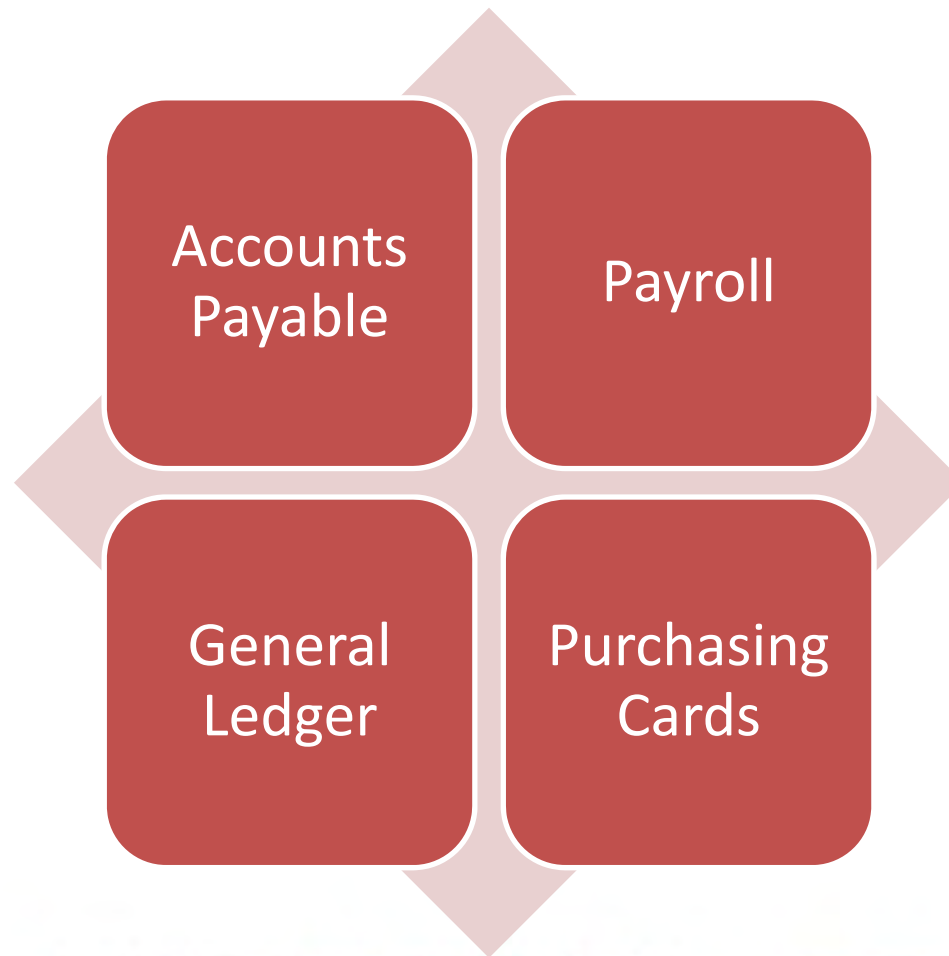
EMPLOYEE/VENDOR MATCHING

Vendor Information				Total Amount Paid from January 04 to July 2005			Employee Information	
Vendor TIN	Vendor nu	Name	City		Street	Region	NAME	ADDRESS1
227620426	454385	JPS		no activity	605 HIGHLAND AVE SW			605 Highland Ave Sw
241720797	437069	L&L LANDSCAPING		$ 3,786.00	3139 BECKS CHURCH RD			3139 Becks Church Rd.
243464534	509775	RIDGECREST INVESTMENTS LLC		$167,708.00	315 RIDGECREST DRIVE			315 Rigdecrest Dr.
250085378	434913	KELLY MARKETING		no activity	436 EAST TIERRA DR			436 E. Tierra
255398736	497638	EDGE INTERACTIVE GRAPHICS		$ 1,748.00	1247 DEE KENNEDY RD			1247 Deen Kennedy Rd
259869739	525761	SIMS JANITORIAL SERVICES		$ 70.00	1510 LITTLE RIVER DRIVE			1510 Littleriver Dr
260159762	443860	ALLGOODS LAWN CARE		$ 13,042.00	151 MONTGOMERY RD			151 Montgomery Road
265960806	445631	MORRIS PHOTOGRAPHY	EACH	$ 2,472.00	1204 FIR STREET			1204 Fir Street
292649087	496812	AJ'S LAWN CARE SERVICES		$ 225.00				P.O. Box 141
294847554	473441	DEBBIE ENGEN		no activity	825 CROSSINGS BLVD #216			680 Lake Terrace Drive
319729230	424820	SERVICE PLUS		$ 920.00	876 LIBERTY STREET			612 California Avenue

Vendor addresses match employee addresses

Mailbox Service Comparison

Name	Address	City	State	ZIP	FLAG
Syntec Corporation	1221 East Kearney	Springfield	MO	65601	MATCH

UPS Store
1221 East Kearney
Springfield, MO 65801

Latitude/Longitude Comparison

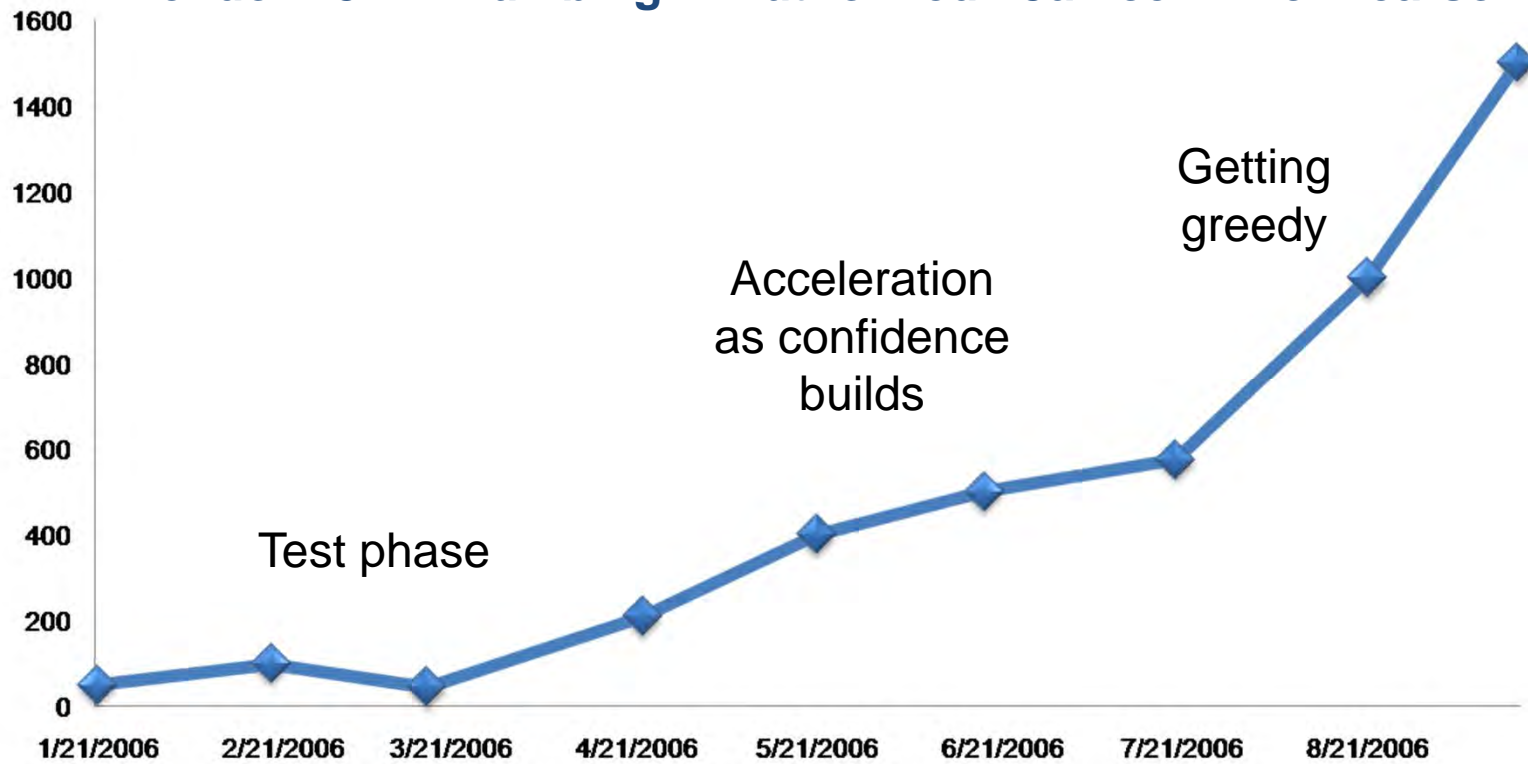| Name	Address	City	State	ZIP	LAT	LONG
AP Clerk	312 East Warwick	Springfield	MO	65807	37.320552	-93.583655
Syntec Corporation	1221 East Kearney	Springfield	MO	65807	37.320289	-93.583836

965 feet

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VENDOR TRENDING ANALYSIS

Vendor: JLM Plumbing   Authorized: Janice L. McPhearson

Getting greedy

Acceleration as confidence builds

Test phase

TEXTUAL ANALYTICS

Relationship Mapping

Tone Detection

Named Entity Extraction

Textual Analytics

Digital Forensics
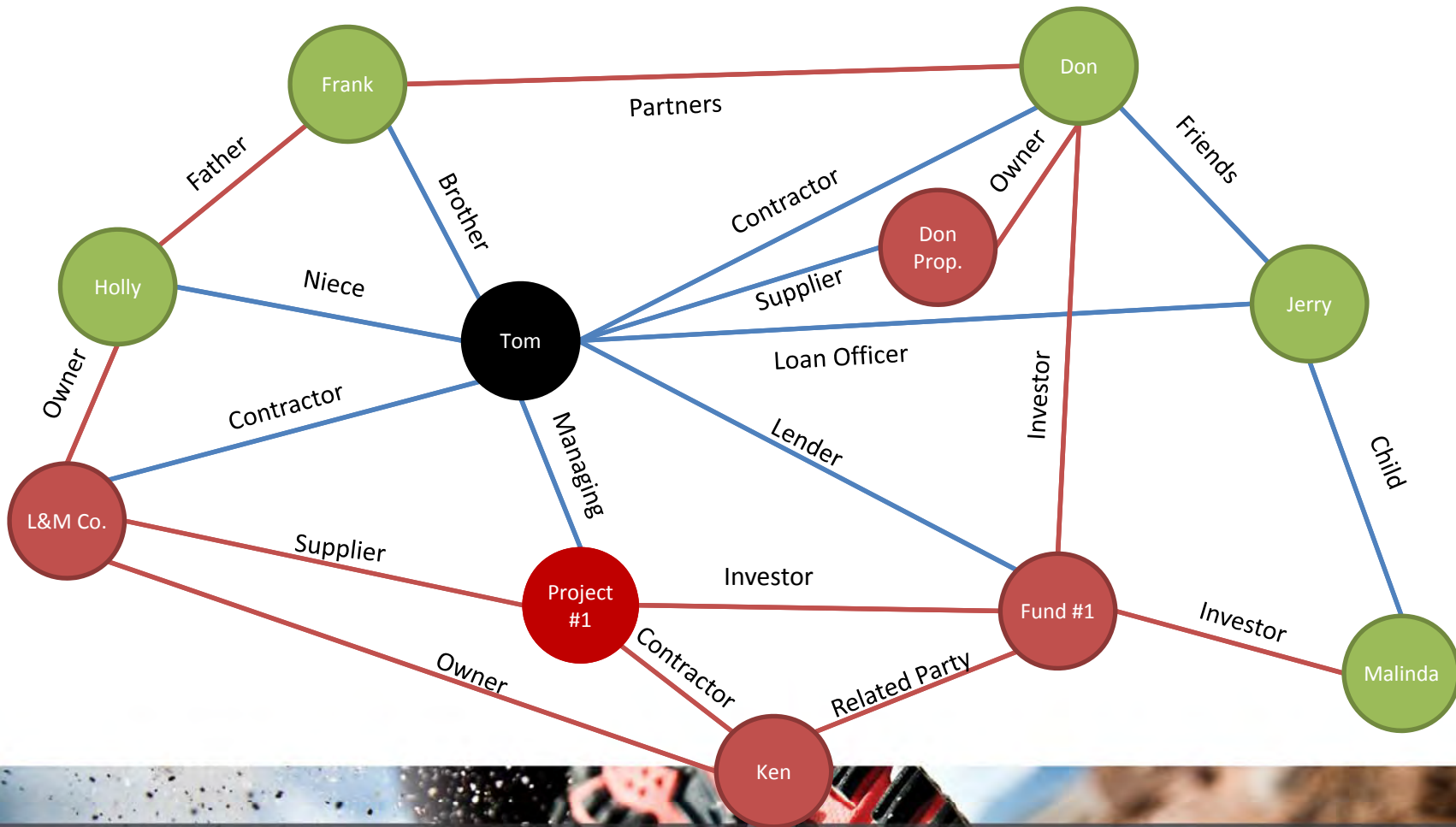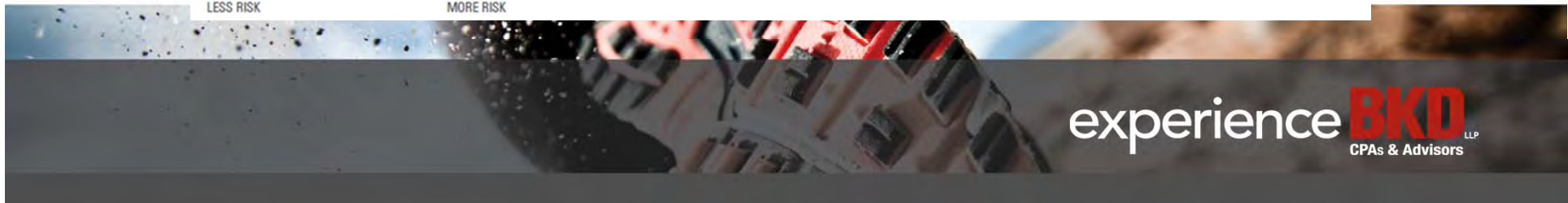
Predictive Coding

Topic Mapping
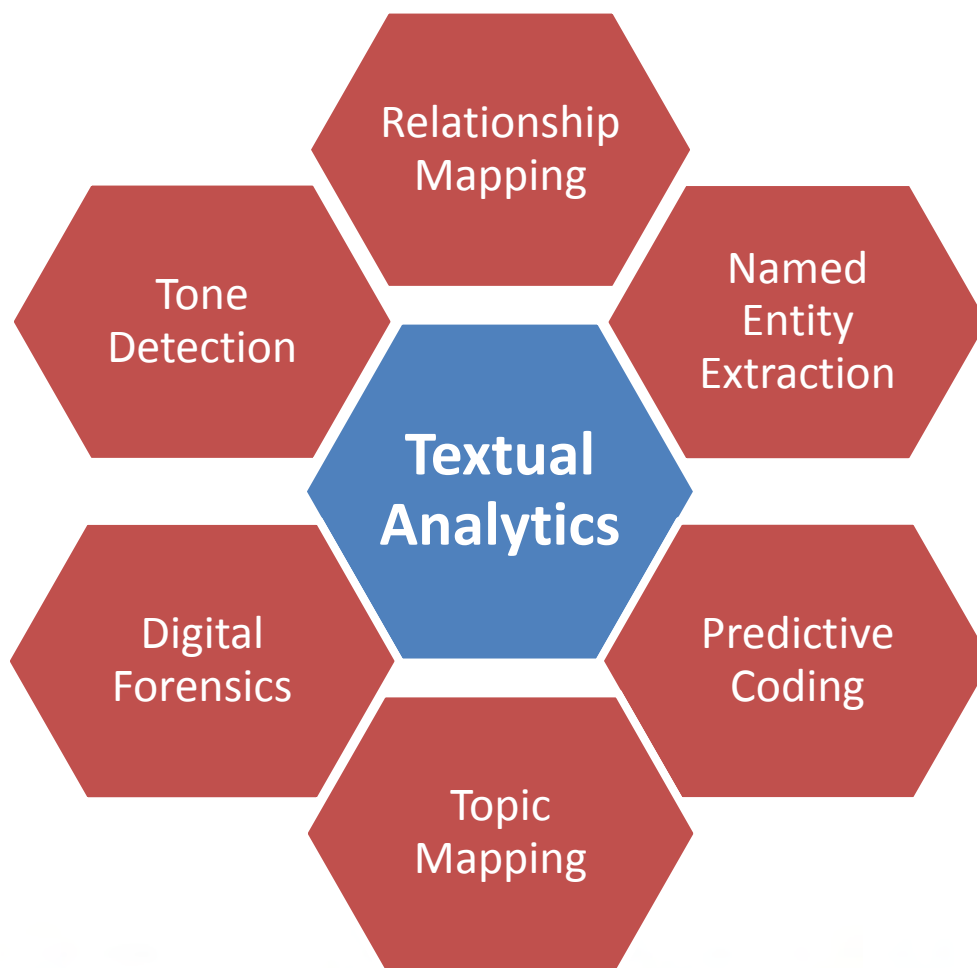
Data Types
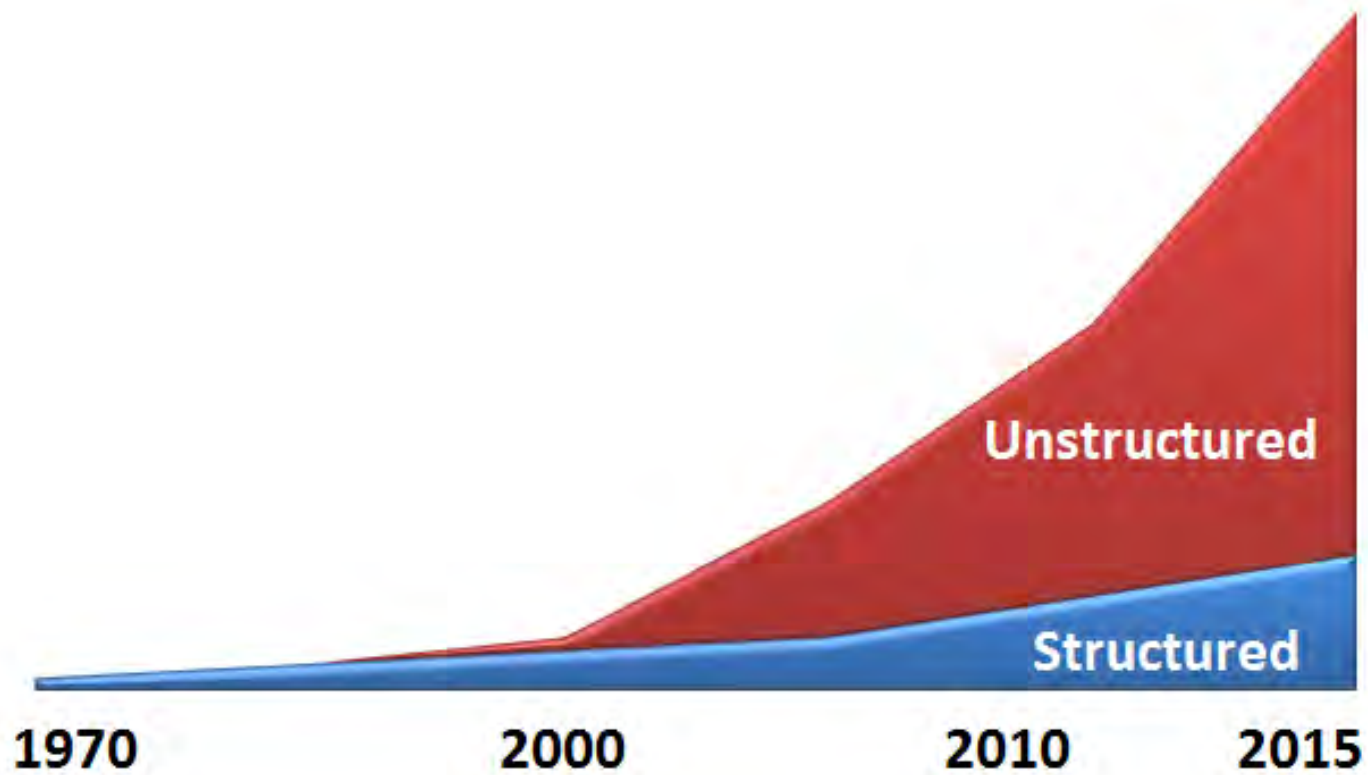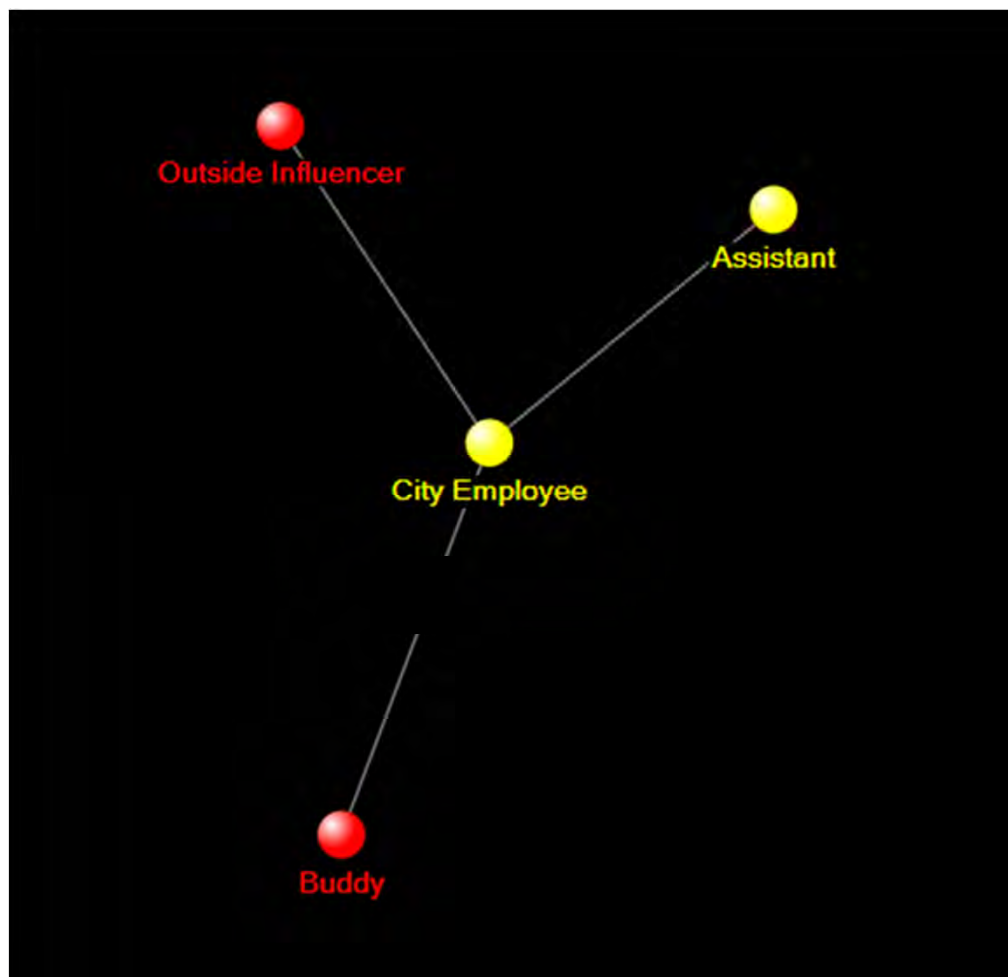
Relationship Analysis
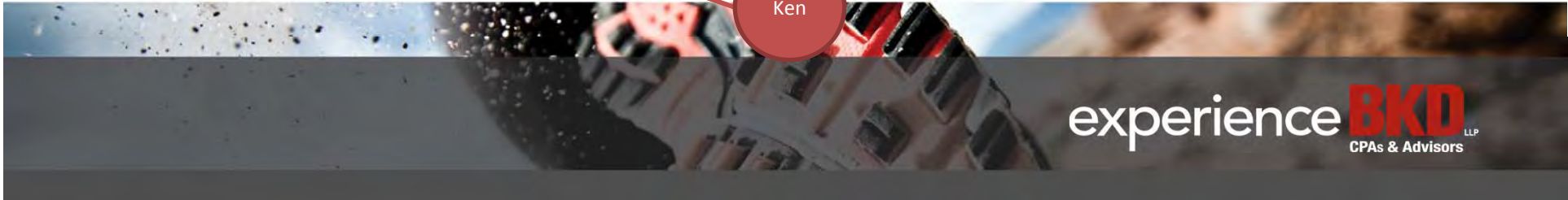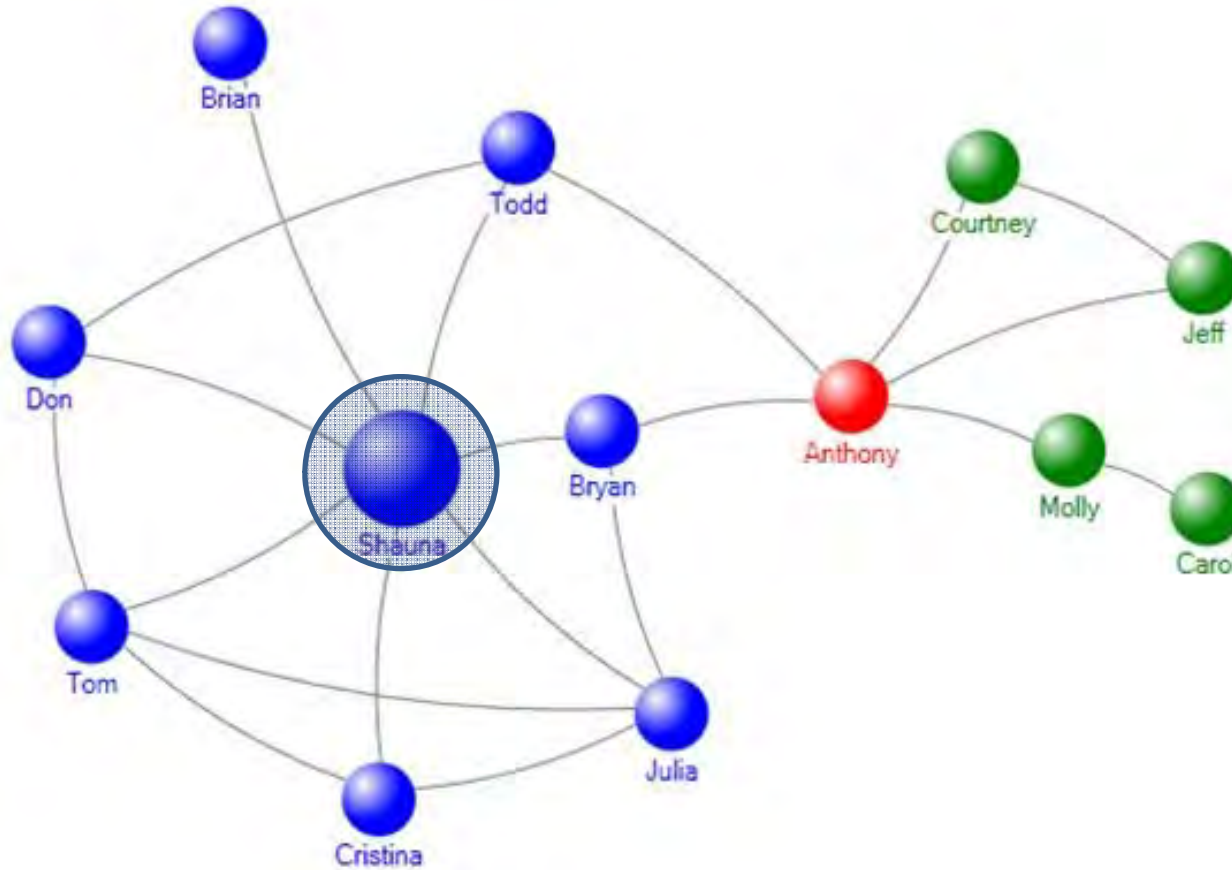
Prevalence of Corruption

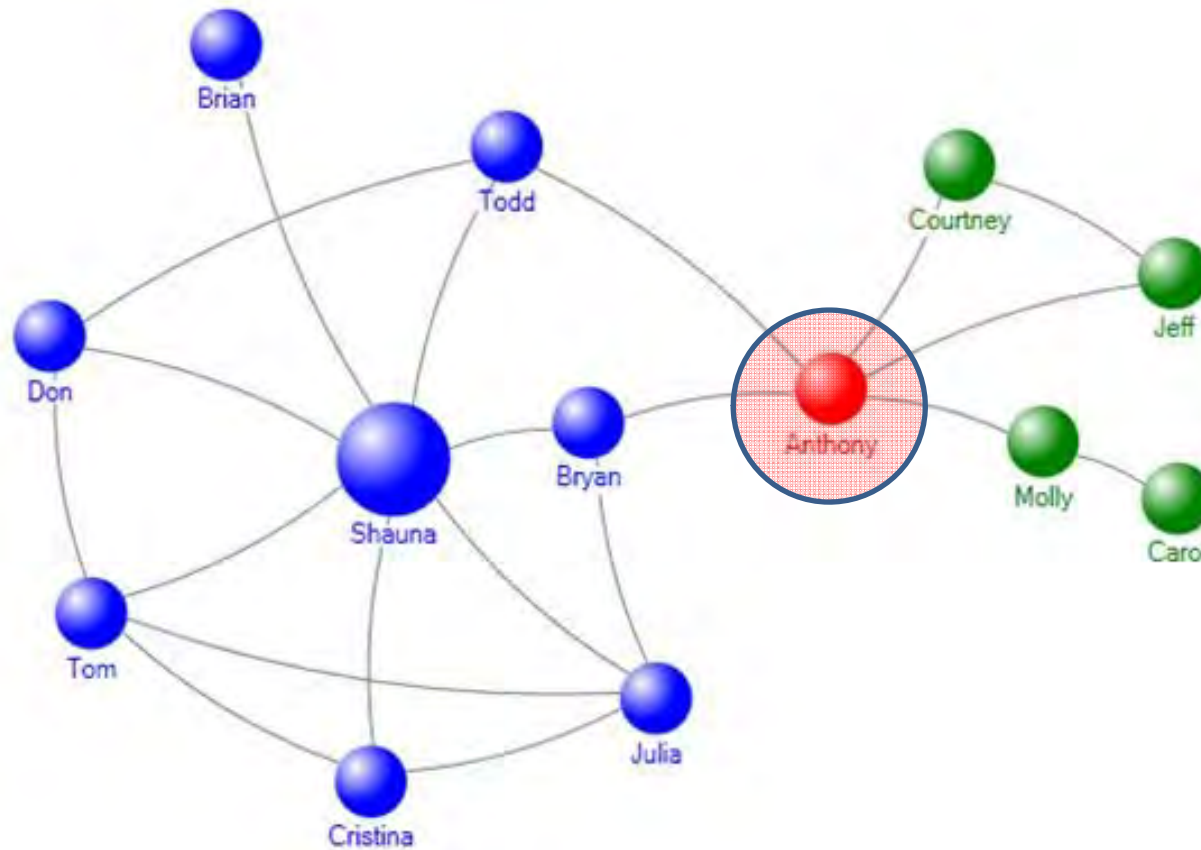**Figure 24:** Frequency of Schemes Based on Industry

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Cash Larceny	13.1%	10.6%	6.0%	12.0%	6.3%	15.6%	6.5%	2.0%	2.1%	11.1%	14.0%	7.5%
Cash on Hand	18.9%	12.1%	7.8%	16.0%	16.3%	22.1%	1.6%	2.0%	10.4%	11.1%	7.0%	12.5%
Check Tampering	5.7%	5.7%	7.8%	21.0%	10.0%	7.8%	4.8%	4.1%	20.8%	17.8%	27.9%	35.0%
Corruption	37.3%	36.2%	54.3%	37.0%	36.3%	22.1%	33.9%	57.1%	29.2%	35.6%	46.5%	30.0%
Expense Reimbursements	4.1%	12.8%	7.8%	23.0%	31.3%	3.9%	4.8%	14.3%	14.6%	17.8%	27.9%	32.5%
Financial Statement Fraud	10.2%	5.0%	13.8%	8.0%	10.0%	6.5%	3.2%	12.2%	10.4%	6.7%	11.6%	7.5%
Non-Cash	13.1%	17.7%	34.5%	12.0%	12.5%	33.8%	12.9%	16.3%	33.3%	17.8%	20.9%	15.0%
Payroll	5.3%	15.6%	8.6%	15.0%	16.3%	5.2%	8.1%	6.1%	16.7%	6.7%	18.6%	20.0%
Register Disbursements	2.5%	0.7%	2.6%	3.0%	5.0%	13.0%	0.0%	0.0%	4.2%	6.7%	2.3%	2.5%
Skimming	5.7%	11.3%	4.3%	18.0%	20.0%	18.2%	22.6%	2.0%	6.3%	33.3%	7.0%	12.5%

LESS RISK   MORE RISK

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// Fraud risk assessment

// Internal controls

// Proper environment

// External review

// Reporting mechanism

// Hire right

// Fidelity bonding

// Establish "Perception of Detection"

// Data Mining