



***AASHTO National Fraud Awareness Conference on
Transportation Infrastructure Programs***

Construction Fraud

Risk Mitigation and Fraud Identification Techniques

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Kevin Max, P.E., C.F.E.

Gordon Postle, CPA

Construction Fraud in the News

- **Three U.S. Army Reserve officers were indicted Wednesday, accused of taking part in a bid-rigging scam that steered millions of dollars for Iraq reconstruction projects to a contractor in exchange for cash, luxury cars and jewelry – (ABC News - 02/08/07)**
- **A former El Paso County commissioner, made the plea on Friday in Federal District Court to six federal charges of mail and wire fraud, after confessing to accepting cash bribes for commission votes on construction contracts, a hospital bond initiative, a lawsuit settlement and other issues – (NY Times - 07/09/07)**
- **Michigan Highway Contractor Agrees to Pay Nearly \$600,000 In Civil Settlement Involving Asphalt Pavement – (Federal DOT IG - 12/7/07)**
- **New York Industrial Supply Owner Pleads Guilty to Illegally Shipping Hazardous Materials on Aircraft – (Federal DOT IG - 5/1/08)**

Construction Fraud in the News

- A former union official pleaded guilty yesterday in federal court in Brooklyn to charges that he secretly ran a shell company that over billed the Metropolitan Transportation Authority for hundreds of thousands of dollars. It is the latest plea stemming from fraud in the construction of the authority's new headquarters in Lower Manhattan – *(NY Times - 04/04/03)*
- The state official in charge of some of the largest courthouse construction projects in the city pleaded guilty yesterday to rigging bids, accepting bribes and stealing more than \$500,000 in city funds, dealing a substantial blow to a struggling city effort to refurbish New York's cramped and antiquated courthouses – *(NY Times - 04/19/00)*
- New York Paving Company Sentenced and Ordered to Pay \$326,343 in Restitution for Bid Rigging Scheme on New York Paving Contract – *(Federal DOT IG - 10/18/07)*
- Indiana Contractor Agrees to Pay More Than \$8.2 Million to Settle Federal and State Asphalt Fraud Claims – *(Federal DOT IG - 10/12/07)*

Construction Fraud in the News

- **Massachusetts Subcontractor Manager Sentenced to 15 Months Incarceration and Ordered to Pay Nearly \$53,000 in Fines and Restitution for Conspiracy Role in False Labor Rate Charges on Central Artery Tunnel Projects – (*Federal DOT IG - 12/20/07*)**
- **Vice President of Pennsylvania Highway Engineering Firm Pleas Guilty to \$121 Million in DBE Fraud – (*Federal DOT IG - 04/15/08*)**
- **Former officials of Metropolitan Pier and Exposition Authority (MPEA), Construction Consultant and lobbying firm indicted in alleged bid fraud scheme for \$800 million project – (*United States Attorney, Northern District of Illinois - 02/10/04*)**
- **Connecticut's Ex-Governor, Rowland, gets year in prison after pleading guilty to accepting gifts from state contractors – (*L.A. Times - 03/19/05*)**

Construction Fraud in the News

- **Two high-ranking New York City Department of Transportation were arrested for taking \$450,000 in bribes in exchange for inside information on a bridge reconstruction project – (*NY Post* - 11/28/07)**
- **Four Kansas Construction Companies Agree to Pay Over \$800,000 to Settle Allegations of False Claims Under FHWA DBE Program – (*Federal DOT IG* - 01/2/08)**
- **Massachusetts Construction Contractor Pleads Guilty for Role in Falsification of Change Orders on Central Artery/Tunnel Project – (*Federal DOT IG* - 05/20/08)**
- **Kansas Asphalt Paving Company and Company Officials Agree to Pay \$950,000 for False Claims on DOT-Funded Construction Projects – (*Federal DOT IG* - 01/15/08)**
- **Three Texas Fuel Distributor Officials Plead Guilty to Multi-Million Dollar Fuel Excise Tax – (*Fraud Federal DOT IG* - 04/14/08)**

Construction Fraud in the News

- **Two veteran executives of the Metropolitan Transportation Authority were dismissed last year after they took bribes to allow building contractors to submit fake bills to the M.T.A. (*NY Times* - 04/17/03)**
- **A New York City contractor was indicted for stealing \$536,307 from the New York City Department of Citywide Administrative Services (DCAS) by padding expenses on city contracts – (*NY DA Office, Press Release* - 12/10/02)**
- **Ohio Bridge Painting Contractor Ordered to Pay \$2.2 Million in Restitution and Serve 21 Months in Prison – (*Federal DOT IG* - 10/10/07)**
- **Top executives of five New York construction companies have been indicted on charges of making illegal payoffs over more than a decade to officials of two union locals – (*NY Times* - 12/16/04)**
- **Massachusetts Road Contractor Fined \$3 Million for Falsifying Asphalt Tickets – (*Federal DOT IG* - 08/9/07)**

Construction Fraud in the News

- **Co-Owner of New York Construction Company Sentenced to 6 Months Home Confinement and Ordered to Forfeit \$990,000 to the City of New York – *(Federal DOT IG - 10/26/07)***
- **Massachusetts Contractor and President Sentenced for Conspiracy to Commit Bid Rigging on Connecticut Highway Contracts – *(Federal DOT IG - 10/2/07)***

Construction Fraud

- ◆ A construction worker dies in a fishing accident on his 40th birthday. He finds himself greeted at the Pearly Gates by a brass band.
- ◆ Saint Peter rushes over, shakes his hand and says “Congratulations!”
- ◆ “Congratulations for what?” asks the construction worker.
- ◆ Saint Peter says, “We are celebrating the fact that you lived to be 160 years old.”
- ◆ The construction worker says, “but that’s not true, I only lived to be forty.”
- ◆ “That’s impossible”, says Saint Peter ... “we added up your time-sheets!”

Agenda

1. KPMG Integrity Survey 2005-2006
2. What Other Surveys Say about Fraud
3. Deterrence of Fraud
4. Typical Construction Fraud Schemes
5. Indicators of Fraud
6. Detection of Fraud
7. Sample Internal Controls
8. Construction Contract Compliance Auditing
9. Continuous Auditing and Continuous Monitoring
10. Data Analytics
11. Instinct

KPMG Integrity Survey 2005-2006

- ◆ Blind national survey of working adults that fell into demographics spanning:
 - All levels of job responsibility
 - 16 job functions
 - 11 industry sectors
 - 4 thresholds of organizational size
- ◆ 4,056 respondents
- ◆ Confidence level 95%
- ◆ +/- 2% Margin of error
- ◆ 544 public sector respondents (local, state and federal government)

KPMG Integrity Survey 2005-2006

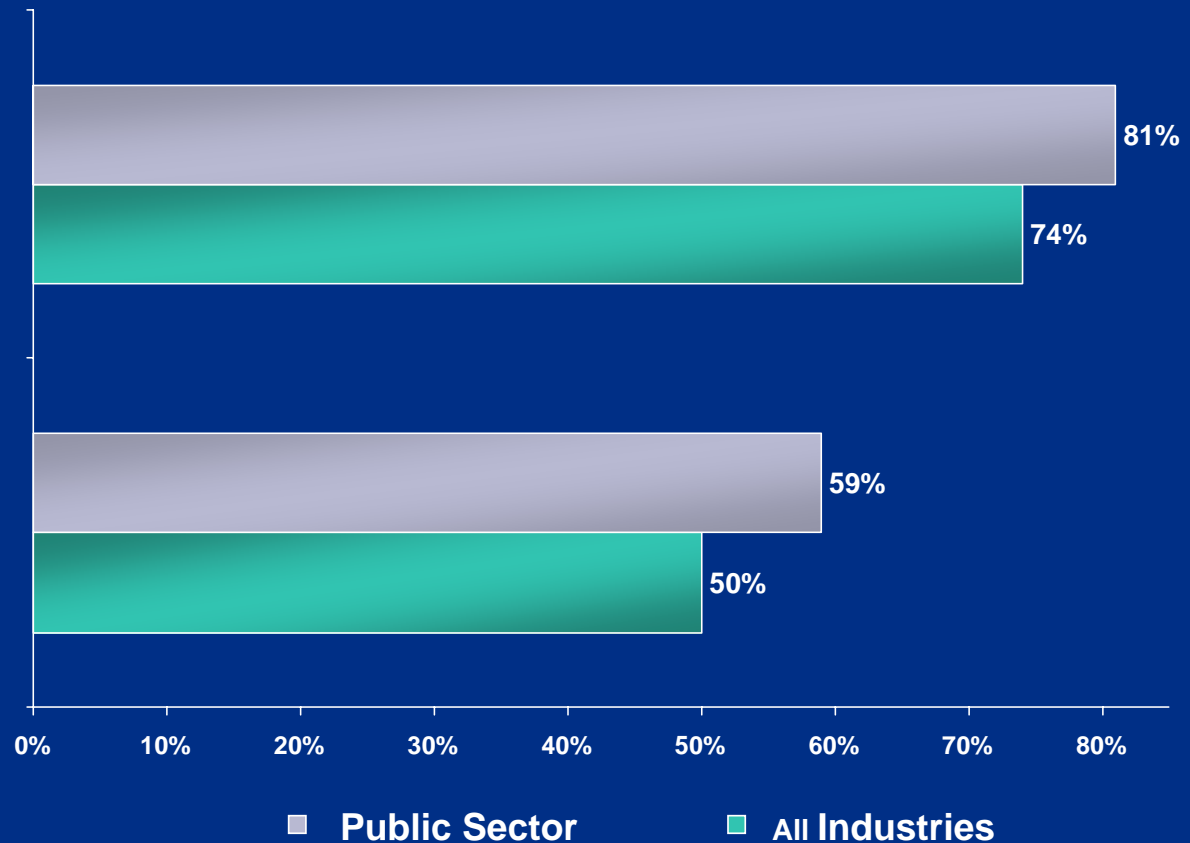
- ◆ Specific observations of violations reported by Public Sector employees:
 - Violating or circumventing suppliers selection rules
 - Accepting inappropriate gifts or kickbacks from supplier
 - Paying suppliers without accurate invoices or records
 - Wasting, mismanaging or abusing resources
 - Stealing or misappropriating assets
 - Falsifying or manipulating financial reporting information
- ◆ Employees in government agencies with comprehensive ethics and compliance programs reported more favorable results across the board than those employees at companies without such programs

KPMG Integrity Survey 2005-2006

Prevalence of Misconduct

Employees reporting that they observed misconduct in the Prior 12 Months

Employees reporting that what they observed could cause a significant loss of public trust if discovered



What Other Surveys Say about Fraud

2008 ACFE Report to the Nation on Occupational Fraud & Abuse:

- Construction ranks as the fifth highest industry in median losses per scheme, \$330,000 per scheme

KPMG's 2007 Global Construction Owners Survey

- 19% of respondents indicated evidence of fraud in connection with a recent construction project

FMI Construction Financial Management Association Survey

- 82% of respondents witnessed unethical behavior on a construction project within most recent 12 months

Transparency International

- Construction industry is the business sector most prone to bribery
- (ahead of even the arms, defense, and oil and gas business)

2008 ACFE Report to the Nation on Occupational Fraud & Abuse

Occupational Frauds Based On Industry – Sorted By Median Losses			
Industry	# Cases	% Cases	Med. Loss
Telecommunication	16	1.8%	\$800,000
Agriculture, Forestry, Fishing and Hunting	13	1.4%	\$450,000
Manufacturing	65	7.2%	\$441,000
Technology	28	3.1%	\$405,000
Construction	42	4.6%	\$330,000
Art, Entertainment, and Recreation	16	1.8%	\$270,000
Banking / Financial Services	132	14.6%	\$250,000
Transportation and Warehousing	31	3.4%	250,000
Oil and Gas	17	1.9%	\$250,000
Insurance	51	5.6%	\$216,000
Real Estate	29	3.2%	\$184,000
Services — Professional	34	3.8%	\$180,000
Retail	63	7.0%	\$153,000
Healthcare	76	8.4%	\$150,000
Wholesale Trade	17	1.9%	\$150,000
Communications / Publishing	14	1.5%	\$150,000
Religious, Charitable, or Social Services	39	4.3%	\$106,000
Services — Other	35	3.9%	\$100,000
Government and Public Administration	106	11.7%	\$93,000
Utilities	22	2.4%	\$90,000
Education	59	6.5%	\$58,000

Deterrence of Fraud

- ◆ Development of Anti-fraud Programs and Controls
- ◆ Providing Guidance to Help Prevent, Deter and Mitigate Fraud
 - Creating a Culture of Honesty and High Ethics
 - Evaluating Anti-Fraud Process and Controls
 - Whistleblower Complaint Procedures
 - Developing an Appropriate Oversight Process
 - Identifying and Measuring Fraud Risks
 - Implementing and Monitoring Appropriate Internal Controls

Typical Construction Fraud Schemes

◆ Common fraud schemes in Construction are:

- *Contract and Procurement Fraud*
- *Corruption – “Bribes, Kickbacks and conflict of Interests”*
- *Overcharging – “Double Billing”, “Unsubstantiated Costs”, etc.*
- Revenue Recognition – “Front Loading”
- Fraudulent Related Party Transactions
- Prevailing Wage Fraud
- Disadvantaged Business Enterprise Fraud

Contract & Procurement Fraud

◆ Solicitation Phase

- Determining needs – Collusion between the buyer's employee and contractors
- Rigged specifications, standards, and statements of work

◆ Contract Development

◆ Bid Phase

- Bid Rigging
- Bid Rotation
- Bid Suppression
- Complementary Bids
- Phantom Bids

◆ Procurement Office

Indicators of Contract and Procurement Fraud

Solicitation

- ◆ Only one or a few bidders respond to request for bids
- ◆ Unusual or unreasonable specifications for the type of goods or services being procured
- ◆ **Unexplained changes in contract specifications from prior requests for proposals or similar items**
- ◆ High number of non-competitive or sole source awards to one supplier
- ◆ High number competitive awards or change orders to one supplier
- ◆ **Purchaser defines request by using brand name rather than generic description**
- ◆ Fewer than required minimum number of bidders responding to request for bids
- ◆ Allowing an unreasonably short time limit to bid
- ◆ **Adopting unreasonable “pre-qualification” procedures**
- ◆ The failure to adequately publicize request for bids, or failing to publicize requests for bids
- ◆ Splitting purchases or otherwise limiting contract amounts to under competitive bidding limits

Indicators of Contract and Procurement Fraud

Contract Development

- ◆ **Omitted / modified right-to-audit clause**
- ◆ Unclear change order language
- ◆ Labor rates attached to cost-plus contract
- ◆ Omitted termination for convenience clause
- ◆ **Missing attachments**
- ◆ Weak language regarding reimbursable expenses, general conditions, overhead
- ◆ Minimal guidance on subcontracting – bidding, form of contracts

Indicators of Contract and Procurement Fraud

Bid Phase

- ◆ Winning bid is too high when compared to cost estimates, published price lists, similar jobs, or industry averages; persistent high prices.
- ◆ Rotation of winning bidders by job, type of work, or geographical area.
- ◆ Losing bidders hired as subcontractors by winning contractor
- ◆ Qualified contractors fail to bid and become sub-contractors, or low bidder withdraws and becomes subcontractor.
- ◆ **Unusual bid patterns including: Bids are too high, bids are too close, bids are too far apart, bids are in round numbers and bids are incomplete.**
- ◆ Certain companies always bid against each other, others never do.
- ◆ Losing bidders submit identical bids on different jobs
- ◆ Losing bidders submit identical line item bid amounts
- ◆ Bidders re-bid in the same rank or at the same prices
- ◆ **Joint Ventures of Firms who are typically Competitors – “Co-opetition”**

Indicators of Contract and Procurement Fraud

Procurement Office

- ◆ Poor controls on bidding procedures, e.g. failure to enforce deadlines, non public opening of bids, etc.
- ◆ Winning bid just under the next lowest bid
- ◆ Acceptance of late bids
- ◆ **Bid due dates extended unnecessarily**
- ◆ Late bidder is the winning low bidder
- ◆ A “consultant” or “middleman” is involved in the procurement process
- ◆ Suspect bid contains data based on information in contracting organizations files, but not available to the general public
- ◆ Bids are “lost”
- ◆ A qualified bidder disqualified for questionable reasons
- ◆ Job not re-bid even though less than the minimum number of bids are received
- ◆ **Low Bidder never purchased the plans???**

Indicators of Bribes, Kickbacks, & Conflicts of Interest

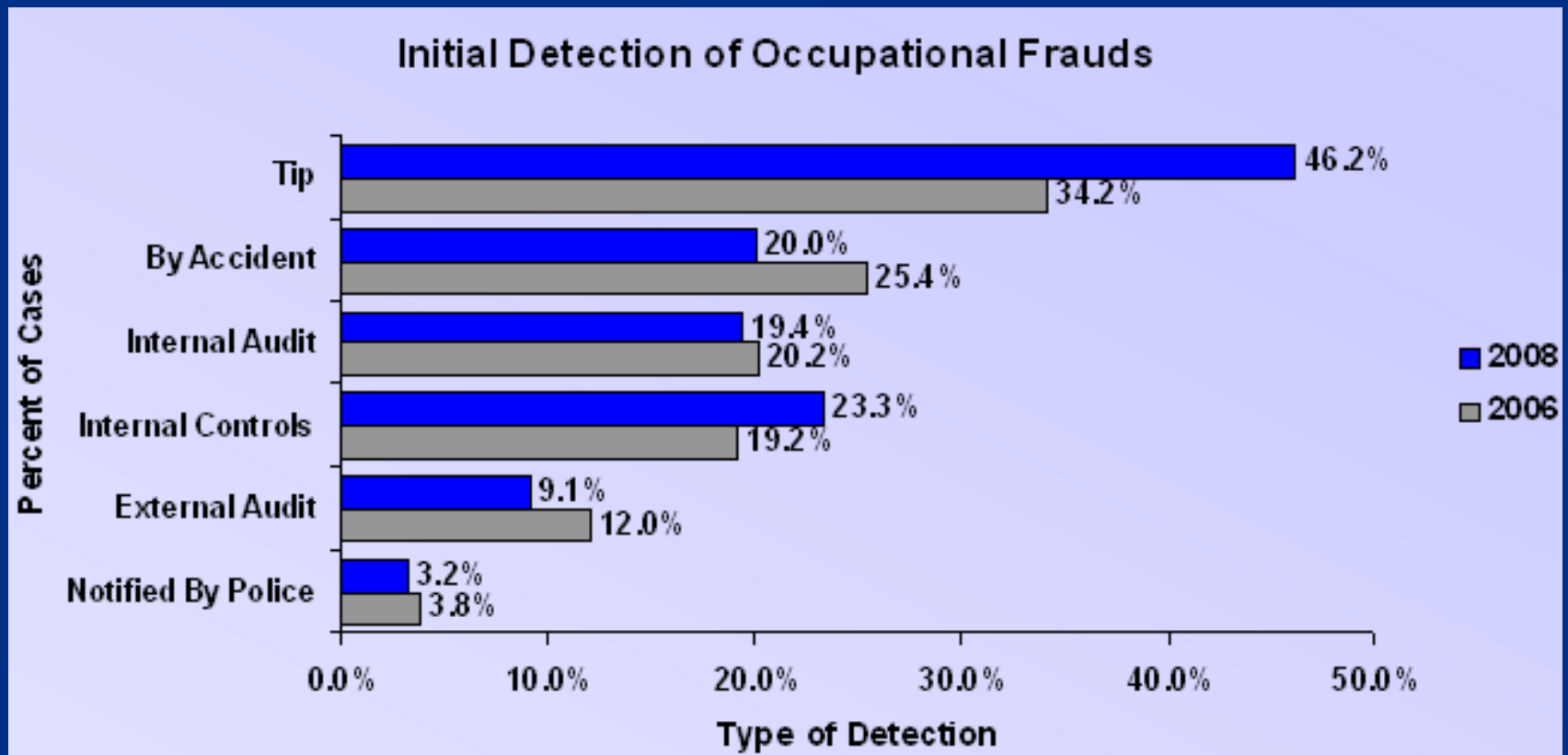
- ◆ Unexplained or unusual favoritism of a particular contractor or vendor
- ◆ Vendor EIN matches employee SSN
- ◆ Vendor address or telephone number matches an employee's, employee's relative, employees outside business address or telephone number
- ◆ **Employees socialize or appear overly familiar with vendors or bidders**
- ◆ Suspect employee suddenly is wealthy, pays down debts or is living beyond means
- ◆ Allegations and rumors of employee bending or breaking rules to favor a particular contractor
- ◆ An employee who insists that contractors use a certain subcontractor, agent, middleman or broker.
- ◆ An employee who takes an unusual keen interest in certain transactions, contractor or accounts or who assumes responsibility for matters beyond the normal scope of his or her duties.

Indicators of Overcharging

- ◆ **Frequency of “math errors” (predominantly in favor of contractor)**
- ◆ Charging Owner for costs expressly not allowed under the terms and conditions of the contract
- ◆ Charging project for costs typically classified as overhead in the contract and included in markup or fee
- ◆ Bulk discounts or rebates not passed on to the owner
- ◆ Duplicate copies of invoices for subcontracts, equipment, material, etc.
- ◆ Improper mark-up for sales tax
- ◆ Structuring and interpreting incentives clauses
- ◆ Overstaffing the project management team
- ◆ Change order pricing and negotiation
- ◆ Payroll burden, insurance and bond costs calculated incorrectly
- ◆ Improper adjustment of contract allowances
- ◆ Product substitution - using materials of a lesser quality than specified

Detection of Fraud

2008 ACFE Report to the Nation



Sample Internal Controls

- ◆ Reference checks or background checks for new hires
- ◆ Changes to payroll require an approval notification from the personnel department
- ◆ Audit trail of changes maintained
- ◆ Routine monitoring for anomalies
- ◆ Written procurement policies and procedures developed and communicated
- ◆ Conflict of interest and ethics policy
- ◆ Vendor screening/pre-qualification
- ◆ Defined processes around key control points and Quality control process
- ◆ Security over site
- ◆ Authorization process for payments, scope changes
 - clear delegation of authority
- ◆ Audit clause built into contracts and exercised
- ◆ Independent review – compliance with policies
- ◆ Routine monitoring of costs against baseline, duplicate payments, forecasted cost to complete, etc.
 - Application of earned value analysis

Construction Contract Compliance Auditing

- ◆ Key components of a contract audit include:
 - Testing the accuracy and internal controls of the contractor's cost reporting system
 - Reconciling contractor's internal accounting of job costs to applications for payments
 - Performing testing of contractor's job costs, disallowing any costs that are not billable according to the contract terms
 - Determining if change orders were properly approved, priced and invoiced
 - Verifying the final contract sum
 - Verifying that no "front loading" of billings occur
 - **Reviewing required deliverables, such as submittals, schedules, warranties etc. for compliance with contract terms**

Construction Contract Compliance Auditing

- ◆ When should to consider construction contract compliance audits?
 - **ALWAYS**
 - High risk projects (never done scope before, many subcontractors, new standards, new complexities, etc.)
 - **Fast-tracked Schedule (time incentive for contractor, 7-day work week)**
 - Possibility for Hidden, Unnecessary Charges or Cost Overruns (T & M)
 - Complex Contract Terms (legal issues, multi-phased, multi-teamed)
 - Contract Value (relative)
 - **Long-term Contracts**
 - Numerous Scope Changes

Construction Contract Compliance Auditing

Typical Audit-related Findings and Adjustments

◆ Materials and Equipment

- Poor Quality or Unused Materials
- Non-compliance with contract documents (submittals, specifications, etc.)
- Overstated haul-in or haul-out quantities (check the trip tickets!)
- Insufficient support or discrepancies from source documents
- Equipment (rental and owned) – rates used
- Major maintenance and equipment overhaul
- Non-existing or “parked” equipment
- **Related party transactions (Principal of Contracting Firm and Owner of the Supplier are one in the same)**
- Small tools, computers and furniture

◆ Labor

- Overstating base wage rates and salaries
- Payroll burden – incorrect calculation and duplication of overhead costs
- **Unauthorized overtime**

Construction Contract Compliance Auditing

Typical Audit-related Findings and Adjustments

◆ Subcontractors

- **Falsified inspection reports or certifications**
- Not really a minority or disadvantaged business enterprise or used as a pass-through by general contractor
- Corrective work (should be at contractor's expense)
- Inflated change order quotes or incorrectly calculated change order amounts
- Unpaid underpaid or not timely paid subcontractors – unreleased liens

◆ Miscellaneous

- Round amounts
- Reversals, accruals, adjusting entries
 - Accrual of estimated unprocessed invoices “from the field”
 - Reclassification of cost codes and between account numbers or jobs
 - Corrective entries that adjust apparent overcharges
- Costs incurred prior to start of or after completion of construction
- Large amounts – what are they for?
- **Payments to individuals**

Continuous Auditing and Continuous Monitoring

Overview – Objectives

<p style="text-align: center;">Continuous Auditing</p> <p style="text-align: center;"><i><u>Performed by Internal Audit</u></i></p> <p>The collection of audit evidence and indicators, by an auditor, on IT systems, processes, transactions and controls on a continuous basis throughout a period</p>	<p style="text-align: center;">Continuous Monitoring</p> <p style="text-align: center;"><i><u>Responsibility of Management</u></i></p> <p>An automated feedback mechanism, used by management, to ensure that systems and controls operate as designed and transactions are processed as prescribed</p>
<ul style="list-style-type: none"> ◆ Gain audit evidence more effectively and efficiently ◆ React more timely to business risks ◆ Leverage technology to perform more efficient internal audits ◆ Focus audits more specifically ◆ Help monitor compliance with policies, procedures, and regulations ◆ Become more valuable to the business 	<ul style="list-style-type: none"> ◆ Improved governance – aligning business / compliance risk to internal controls and remediation ◆ Improved transparency, react more timely to make better day-to-day decision making ◆ Strive to reduce cost of controls and reduce the cost of testing / monitoring ◆ Leverage technology to create efficiencies by identifying opportunities for performance improvements

Continuous Auditing and Continuous Monitoring

Greater Efficiency

- Audit by exception
- Automate components of the audit program, audit tests or review procedures
- Known control gaps and deficiencies can be continuously audited

Enhanced Controls

- Ability to audit the “monitoring” function from an Internal Audit perspective, providing an additional layer of governance
- Control gaps and deficiencies can be monitored
- ERP system and/or business process limitations and deficiencies can be addressed
- Automated fraud prevention and detection activities

Earlier Information

- Improved speed of reporting to the business
- Identification of errors earlier and when issues are fresh due to more frequent audits

Reduced Complexity

- Appropriate setting and consistency of materiality thresholds
- Reduction of complexity through global process standardization, thereby easing review



Continuous Auditing and Continuous Monitoring

- ◆ **Survey of 435 Senior Executives** indicates a significant trend toward leveraging technology to continually monitor business and operations

Risk and Control Monitoring	Implemented or planned in next 3 years	Not planned
Enterprise risk management	71.7%	28.3%
Real-time review & analysis of business information	69.5%	30.5%

Source: Economist Intelligence Unit 2007

Data Analytics

- ◆ Leveraging technology tools to analyze large data sets to identify anomalies in the data that indicate possible fraudulent or unauthorized activity
- ◆ Identify what an anomaly looks like
- ◆ Structure queries to identify anomalies or indicators of suspicious activities
- ◆ Do not look for just one flag or indicator, but multiple flags or indicators to focus activities

Data Analytics

◆ Using Data Analysis Tool

- Record of Expenditures (ROE) comes directly from Accounting on a quarterly basis that captures all costs across all projects
- Per recent engagement, handled 30,000 transactions per quarter
- ROEs are listed in an excel file – listed as consecutive line items
- Each record can be coded to determine whether it is a Direct Cost, Indirect Cost, Expense, Material & Equipment, or Labor transaction

◆ Using Manual Analysis

- Data to be manually sorted, summarized, and requires selected individual transactions
- Determine ‘focus projects’ that are isolated as areas of focus – therefore limiting selections to transactions that fell within these projects
- Attempt to intelligently select transactions – difficult to achieve with no ability to benchmark against transactions falling outside our focus area

Benefits from use of Data Analytics

- ◆ Reduces the time spent sorting transactions, thus allowing more time testing questioned costs (i.e.: sorting, summarizing, and selecting of transactions for recent engagement went from two weeks to two days)
- ◆ Better targets questionable transactions for testing
- ◆ Recovers more costs for client
- ◆ Identifies additional anomalies or trends in the transactions
- ◆ Achieves identification of failed transactions
- ◆ Analysis of 100% of transactions
- ◆ More intelligent sampling – the combination of specific construction sampling and forensic data analysis sampling techniques has led to a broader range of tests (or flags)

Instinct

- ◆ Even with all the audit tools, tests, systems and programs available, you're best weapons to detect fraudulent activity may be your **INSTINCT.**

- Meet with individuals face to face!
- Trust your gut!

Contact Information

QUESTIONS?

THANK YOU!

**Kevin Max, P.E., C.F.E.
KPMG LLP, New York, NY
(212) 872-6899**

**Gordon Postle, CPA
KPMG LLP, Washington DC
(202) 533-3968**

