REPORT TO THE NATIONS
ON OCCUPATIONAL **FRAUD** AND ABUSE

2010 Global Fraud Study

ACFE
Association of Certified Fraud Examiners

Together, Reducing Fraud Worldwide

Letter from the President

When the ACFE published its first *Report to the Nation on Occupational Fraud and Abuse* in 1996, it broke new ground in anti-fraud research by providing an analysis of the costs, the methodologies and the perpetrators of fraud within U.S. organizations. The collective body of knowledge contained in the first five editions of the *Report to the Nation* — published between 1996 and 2008 — has become the most authoritative and widely quoted research publication on occupational fraud.

Now, for the first time, the data contained in the Report have been drawn from fraud cases throughout the world. As readers will see, it reflects the truly universal nature of occupational fraud. This expansion of our research is denoted in the modified title for this study, which has now become the *Report to the Nations on Occupational Fraud and Abuse*.

The information contained in this report is based on 1,843 cases of occupational fraud that were reported by the Certified Fraud Examiners (CFEs) who investigated them. These offenses occurred in more than 100 countries on six continents, and more than 43% took place outside the United States. What is perhaps most striking about the data we gathered is how consistent the patterns of fraud are around the globe. While some regional differences exist, for the most part occupational fraud seems to operate similarly whether it occurs in Europe, Asia, South America or the United States.

The *Report to the Nations* is the brainchild of the ACFE's founder and Chairman, Dr. Joseph T. Wells, CFE, CPA who throughout his career has contributed more to the study of fraud and the development of the anti-fraud profession than any other person. On behalf of the ACFE, and in honor of its founder, Dr. Wells, I am pleased to present the *2010 Report to the Nations on Occupational Fraud and Abuse* to practitioners, business and government organizations, academics, the media and the general public throughout the world. The information contained in this Report will be invaluable to those who seek to deter, detect, prevent or simply understand the global economic impact of occupational fraud.

James D. Ratley

James D. Ratley, CFE
President,
Association of Certified Fraud Examiners

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Executive Summary

Summary of Findings

- Survey participants estimated that the typical organization loses 5% of its annual revenue to fraud. Applied to the estimated 2009 Gross World Product, this figure translates to a potential total fraud loss of more than $2.9 trillion.
- The median loss caused by the occupational fraud cases in our study was $160,000. Nearly one-quarter of the frauds involved losses of at least $1 million.
- The frauds lasted a median of 18 months before being detected.
- Asset misappropriation schemes were the most common form of fraud in our study by a wide margin, representing 90% of cases — though they were also the least costly, causing a median loss of $135,000. Financial statement fraud schemes were on the opposite end of the spectrum in both regards: These cases made up less than 5% of the frauds in our study, but caused a median loss of more than $4 million — by far the most costly category. Corruption schemes fell in the middle, comprising just under one-third of cases and causing a median loss of $250,000.
- Occupational frauds are much more likely to be detected by tip than by any other means. This finding has been consistent since 2002 when we began tracking data on fraud detection methods.
- Small organizations are disproportionately victimized by occupational fraud. These organizations are typically lacking in anti-fraud controls compared to their larger counterparts, which makes them particularly vulnerable to fraud.
- The industries most commonly victimized in our study were the banking/financial services, manufacturing and government/public administration sectors.
- Anti-fraud controls appear to help reduce the cost and duration of occupational fraud schemes. We looked at the effect of 15 common controls on the median loss and duration of the frauds. Victim organizations that had these controls in place had significantly lower losses and time-to-detection than organizations without the controls.

This Report is based on data compiled from a study of 1,843 cases of occupational fraud that occurred worldwide between January 2008 and December 2009. All information was provided by the Certified Fraud Examiners (CFEs) who investigated those cases. The fraud cases in our study came from 106 nations — with more than 40% of cases occurring in countries outside the United States — providing a truly global view into the plague of occupational fraud.

One-fourth of the frauds in this Report caused at least $1 million in losses.

- High-level perpetrators cause the greatest damage to their organizations. Frauds committed by owners/executives were more than three times as costly as frauds committed by managers, and more than nine times as costly as employee frauds. Executive-level frauds also took much longer to detect.

- More than 80% of the frauds in our study were committed by individuals in one of six departments: accounting, operations, sales, executive/upper management, customer service or purchasing.

- More than 85% of fraudsters in our study had never been previously charged or convicted for a fraud-related offense. This finding is consistent with our prior studies.

- Fraud perpetrators often display warning signs that they are engaging in illicit activity. The most common behavioral red flags displayed by the perpetrators in our study were living beyond their means (43% of cases) and experiencing financial difficulties (36% of cases).

Conclusions and Recommendations

- Occupational fraud is a global problem. Though some of our findings differ slightly from region to region, most of the trends in fraud schemes, perpetrator characteristics and anti-fraud controls are similar regardless of where the fraud occurred.

- Fraud reporting mechanisms are a critical component of an effective fraud prevention and detection system. Organizations should implement hotlines to receive tips from both internal and external sources. Such reporting mechanisms should allow anonymity and confidentiality, and employees should be encouraged to report suspicious activity without fear of reprisal.

- Organizations tend to over-rely on audits. External audits were the control mechanism most widely used by the victims in our survey, but they ranked comparatively poorly in both detecting fraud and limiting losses due to fraud. Audits are clearly important and can have a strong preventative effect on fraudulent behavior, but they should not be relied upon exclusively for fraud detection.

- Employee education is the foundation of preventing and detecting occupational fraud. Staff members are an organization's top fraud detection method; employees must be trained in what constitutes fraud, how it hurts everyone in the company and how to report any questionable activity. Our data show not only that most frauds are detected by tips, but also that organizations that have anti-fraud training for employees and managers experience lower fraud losses.

- Surprise audits are an effective, yet underutilized, tool in the fight against fraud. Less than 30% of victim organizations in our study conducted surprise audits; however, those organizations tended to have lower fraud losses and to detect frauds more quickly. While surprise audits can be useful in detecting fraud, their most important benefit is in preventing fraud by creating a perception of detection. Generally speaking, occupational fraud perpetrators only commit fraud if they believe they will not be caught. The threat of surprise audits increases employees' perception that fraud will be detected and thus has a strong deterrent effect on potential fraudsters.

- Small businesses are particularly vulnerable to fraud. In general, these organizations have far fewer controls in place to protect their resources from fraud and abuse. Managers and owners of small businesses should focus their control investments on the most cost-effective mechanisms, such as hotlines and setting an ethical tone for their employees, as well as those most likely to help prevent and detect the specific fraud schemes that pose the greatest risks to their businesses.

- Internal controls alone are insufficient to fully prevent occupational fraud. Though it is important for organizations to have strategic and effective anti-fraud controls in place, internal controls will not prevent all fraud from occurring, nor will they detect most fraud once it begins.

- Fraudsters exhibit behavioral warning signs of their misdeeds. These red flags — such as living beyond one's means or exhibiting control issues — will not be identified by traditional controls. Auditors and employees alike should be trained to recognize the common behavioral signs that a fraud is occurring and encouraged not to ignore such red flags, as they might be the key to detecting or deterring a fraud.

- Given the high costs of occupational fraud, effective fraud prevention measures are critical. Organizations should implement a fraud prevention checklist similar to that on page 80 in order to help eliminate fraud before it occurs.

Introduction

A wide variety of crimes and swindles fall under the umbrella of fraud. From Ponzi schemes and identity theft to data breaches and falsified expense reports, the ways perpetrators attempt to part victims from their money are extremely diverse and continually evolving. At their core, however, all frauds involve a violation of trust.

For businesses, no trust violations have the potential to be as harmful as those committed by the very individuals who are relied upon to make the organization successful: its employees. This report focuses on the category of fraud — occupational fraud — in which an employee abuses his or her position within the organization for personal gain. More formally, occupational fraud may be defined as:

> *The use of one's occupation for personal enrichment through the deliberate misuse or misapplication of the employing organization's resources or assets.*

This definition is very broad, encompassing a wide range of misconduct by employees at every organizational level. Occupational fraud schemes can be as simple as pilferage of company supplies or manipulation of timesheets, or as complex as sophisticated financial statement frauds.

One of the ACFE's primary missions is to educate anti-fraud professionals and the general public about the serious threat occupational fraud poses. To that end, we have undertaken extensive research to provide an in-depth look at the costs and trends in occupational fraud. In 1996, the ACFE released its *Report to the Nation on Occupational Fraud and Abuse*, which was the largest known privately funded study on the subject at the time.

The stated goals of the first Report were to:

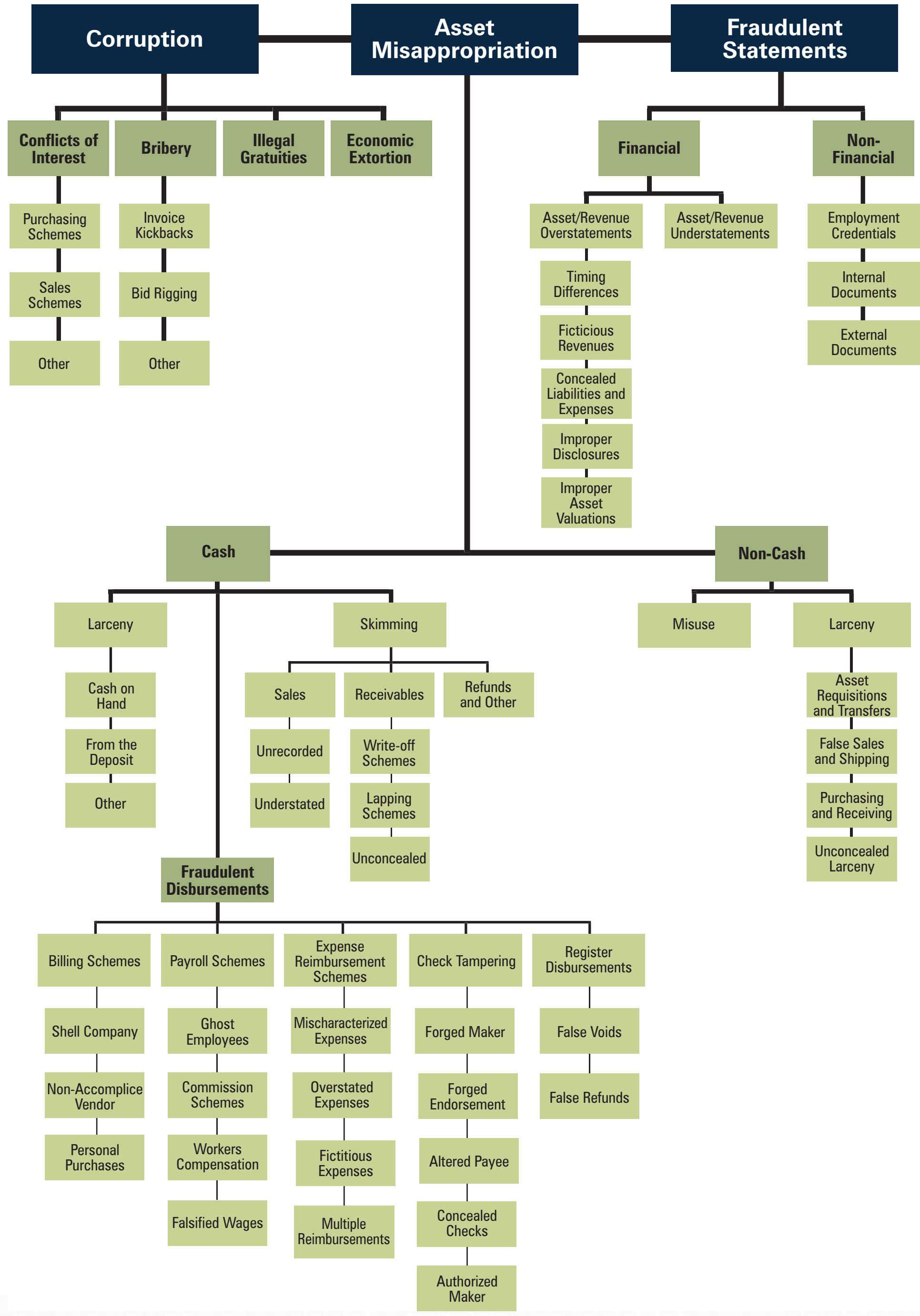
- Summarize the opinions of experts on the percentage and amount of organizational revenue lost to all forms of occupational fraud and abuse.
- Examine the characteristics of the employees who commit occupational fraud and abuse.
- Determine what kinds of organizations are victims of occupational fraud and abuse.
- Categorize the ways in which serious fraud and abuse occur.

Since the inception of the *Report to the Nation* more than a decade ago, we have released five updated editions — in 2002, 2004, 2006, 2008 and the current version in 2010. Like the first Report, each subsequent edition has been based on detailed case information provided by Certified Fraud Examiners (CFEs). With each new edition of the Report, we add to and modify the questions we ask of our survey participants in order to enhance the quality of the data we collect. This evolution of the *Report to the Nation* has enabled us to continue to draw more meaningful information from the experiences of CFEs and the frauds they encounter.

In our 2010 Report, we have, for the first time ever, widened our study to include cases from countries outside the United States. This expansion allows us to more fully explore the truly global nature of occupational fraud and provides an enhanced view into the severity and impact of these crimes. Additionally, we are able to compare the anti-fraud measures taken by organizations worldwide in order to give fraud fighters everywhere the most applicable and useful information to help them in their fraud prevention and detection efforts.

A Note to Readers: Throughout this Report, we have included several comparisons of our current findings with those from our 2008 Report. However, it is important to note that the 2010 data include reported frauds from CFEs in 106 countries, while the 2008 data pertain to frauds reported only by CFEs in the United States. Although the populations of respondents for the two studies are not entirely analogous, we have nonetheless included these prior-study comparisons, as we believe interesting and useful trends can be seen by comparing and contrasting the frauds reported in the two studies. To enhance data clarity, we have included comparisons of 2008 data with both all-case data and U.S.-only data from our 2010 research when noteworthy discrepancies in our current findings are present.

Occupational Fraud and Abuse Classification System



The Cost of Occupational Fraud

Measuring the cost of occupational fraud is an important, yet incredibly challenging, endeavor. Arguably, the true cost is incalculable. The inherently clandestine nature of fraud means that many cases will never be revealed, and, of those that are, the full amount of losses might not be uncovered, quantified or reported. Consequently, any measurement of occupational fraud costs will be, at best, an estimate. Nonetheless, determining such an approximation is critical to illustrate the pandemic and destructive nature of white-collar crime.

We asked each CFE who participated in our survey to provide his or her best estimate of the percentage of annual revenues that the typical organization loses to fraud in a given year. The median response was that the average organization annually loses 5% of its revenues to fraud. Applying this percentage to the 2009 estimated Gross World Product of $58.07 trillion[1] would result in a projected total global fraud loss of more than $2.9 trillion. Readers should note that this estimate is based solely on the opinions of 1,843 anti-fraud experts, rather than any specific data or factual observations; accordingly, it should not be interpreted as a literal representation of the worldwide cost of occupational fraud. However, because there is no way to precisely calculate the size of global fraud losses, the best estimate of anti-fraud professionals with a frontline view of the problem may be as reliable a measure as we are able to make. In any event, it is undeniable that the overall cost of occupational fraud is immense, certainly costing organizations hundreds of billions or trillions of dollars each year.

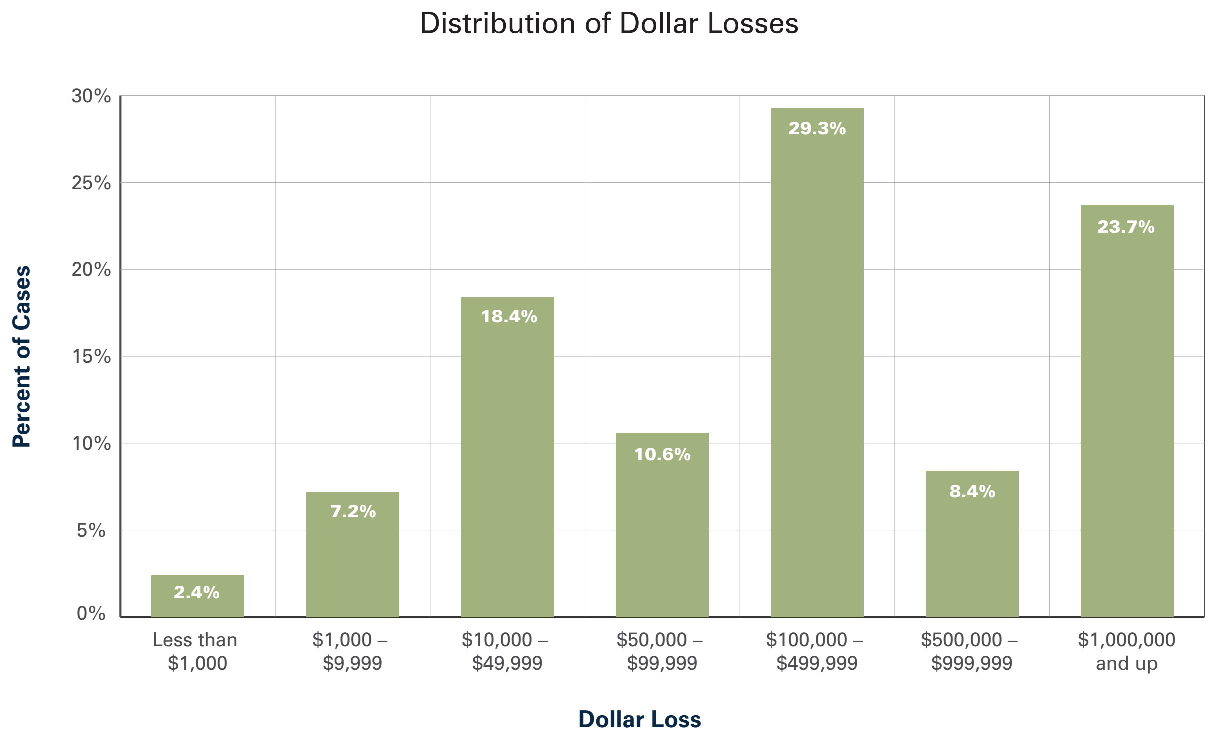
Fraud, by its very nature, does not lend itself to being scientifically observed or measured in an accurate manner. One of the primary characteristics of fraud is that it is clandestine, or hidden; almost all fraud involves the attempted concealment of the crime.

The typical organization loses 5% of its annual revenues to occupational fraud.

[1]United States Central Intelligence Agency, The World Factbook (https://www.cia.gov/library/publications/the-world-factbook/geos/xx.html)

Distribution of Losses

We received information about the total dollar loss for 1,822 of the 1,843 frauds reported to us in our study.[2] The median loss for these cases was $160,000. Nearly one-third of the fraud schemes caused a loss to the victim organization of more than $500,000, and almost one-quarter of all reported cases topped the $1 million threshold.



[2]Although this Report includes fraud cases from more than 100 nations, all monetary amounts presented throughout this Report are in U.S. dollars.

How Occupational Fraud Is Committed

Previous ACFE research has identified three primary categories of occupational fraud used by individuals to defraud their employers. *Asset misappropriations* are those schemes in which the perpetrator steals or misuses an organization's resources. These frauds include schemes such as skimming cash receipts, falsifying expense reports and forging company checks.

Corruption schemes involve the employee's use of his or her influence in business transactions in a way that violates his or her duty to the employer for the purpose of obtaining a benefit for him- or herself or someone else. Examples of corruption schemes include bribery, extortion and a conflict of interest.

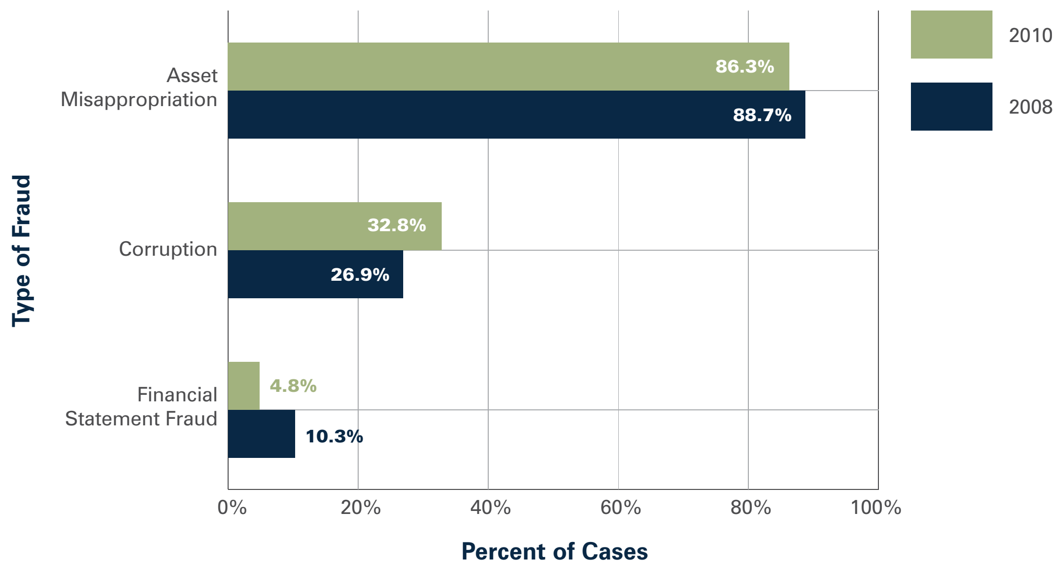
Financial statement fraud schemes are those involving the intentional misstatement or omission of material information in the organization's financial reports. Common methods of fraudulent financial statement manipulation include recording fictitious revenues, concealing liabilities or expenses and artificially inflating reported assets.

As indicated in the following charts, asset misappropriations are by far both the most frequent and the least costly form of occupational fraud. On the other end of the spectrum are cases involving financial statement fraud. These schemes were present in less than 5% of the cases reported to us, but caused a median loss of more than $4 million. Corruption schemes fell in the middle category in both respects, occurring in just under one-third of all cases involved in our study and causing a median loss of $250,000.

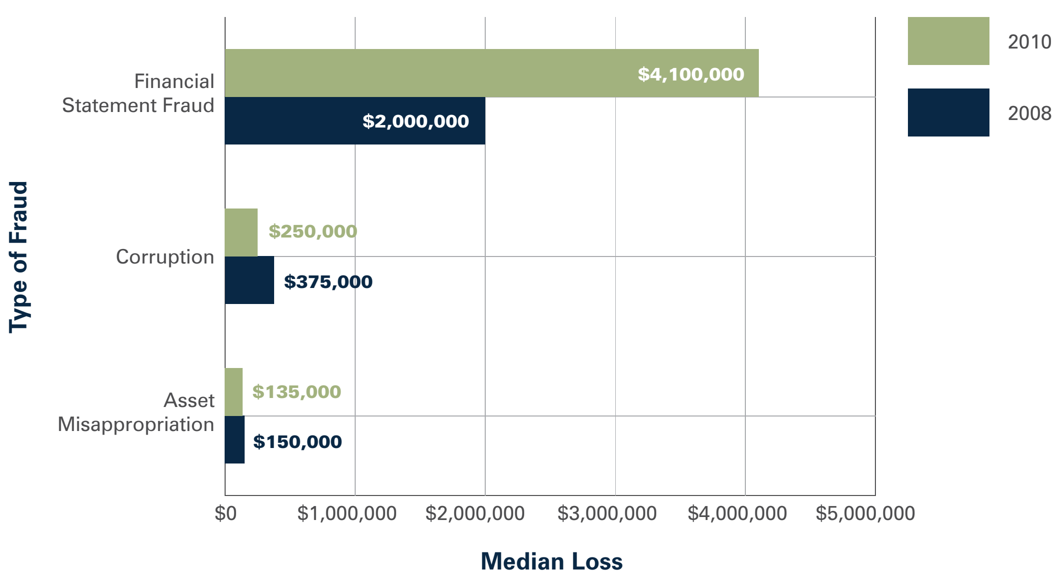
Based on previous ACFE research we have broken down the schemes reported to us into three primary categories: asset misappropriation, corruption, and financial statement fraud.

Financial statement fraud is the most costly form of occupational fraud, causing a median loss of more than $4 million.

Occupational Frauds by Category — Frequency[3]



Occupational Frauds by Category — Median Loss

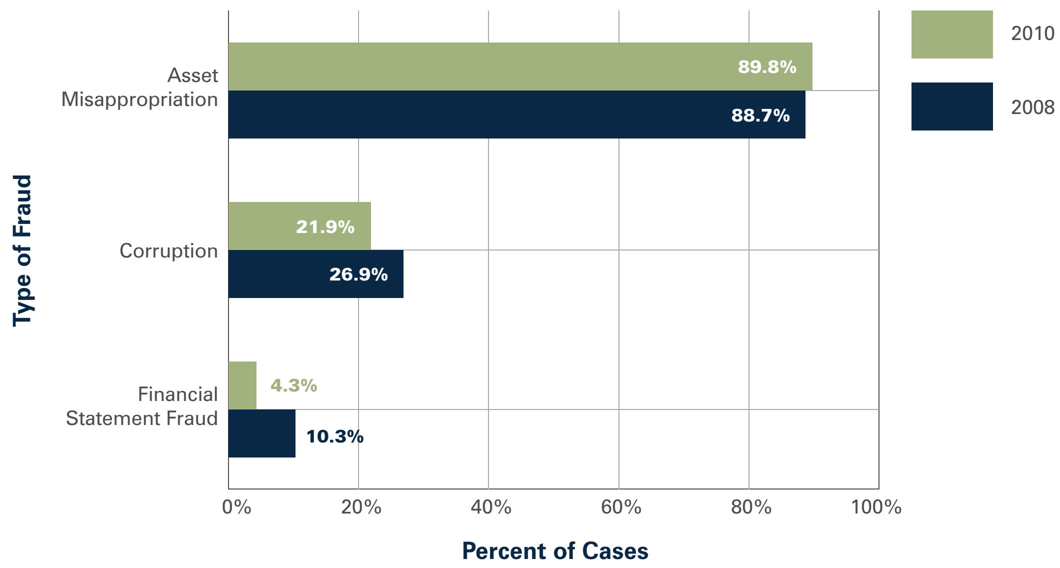


[3]The sum of percentages in this chart exceeds 100% because several cases involved schemes from more than one category.

How Occupational Fraud Is Committed

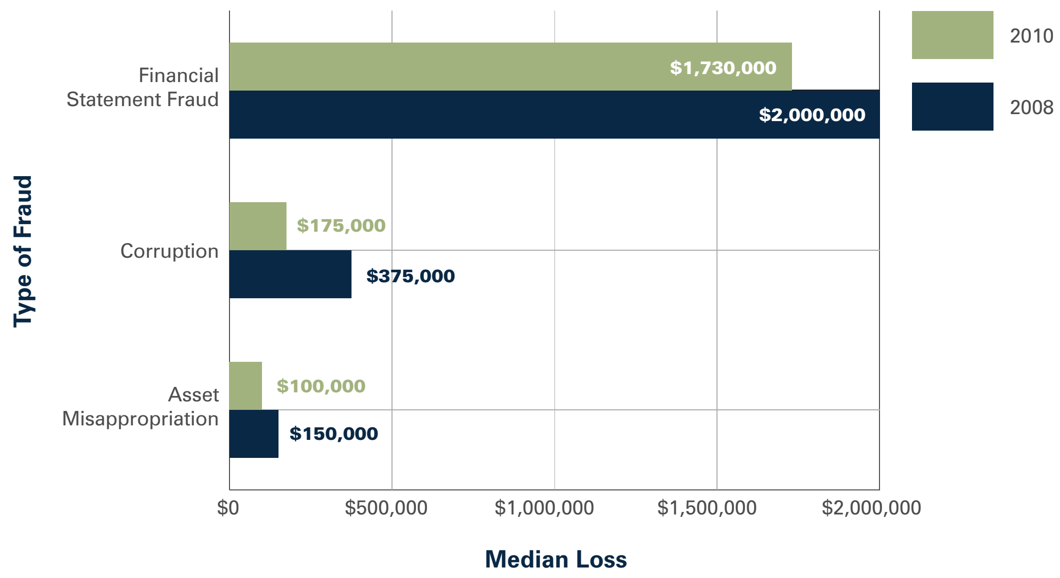
As previously mentioned, our 2010 data include fraud cases from countries throughout the world, while our 2008 data contain only U.S.-based cases. In the following charts, we isolated the U.S. cases from our current study to make a more direct comparison to our 2008 data. Interestingly, while financial statement fraud remained the least common and most costly form of fraud among U.S. cases, there was a much lower percentage of financial statement cases in this study (four percent) as compared to 2008 (ten percent). Additionally, the median losses for all three categories of fraud were notably smaller in 2010 than they were in 2008.

Occupational Frauds by Category (U.S. only) — Frequency[4]



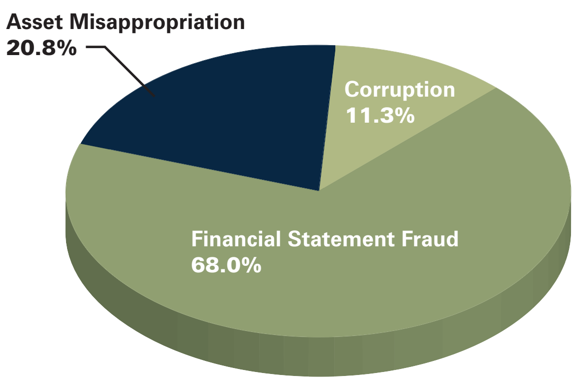
[4]The sum of percentages in this chart exceeds 100% because several cases involved schemes from more than one category.

Occupational Frauds by Category (U.S. only) — Median Loss



In addition to observing the frequency and median losses caused by the three categories of fraud, we analyzed the proportion of the total losses suffered based on scheme category. The cases in our study represented a combined total loss of more than $18 billion. As indicated in the chart to the right, of the total reported losses that were attributable to a specific scheme type, 21% were caused by asset misappropriation schemes, 11% by corruption and 68% by fraudulent financial statements.

Percent of Total Reported Dollar Losses



How Occupational Fraud Is Committed

Asset Misappropriation Sub-Schemes

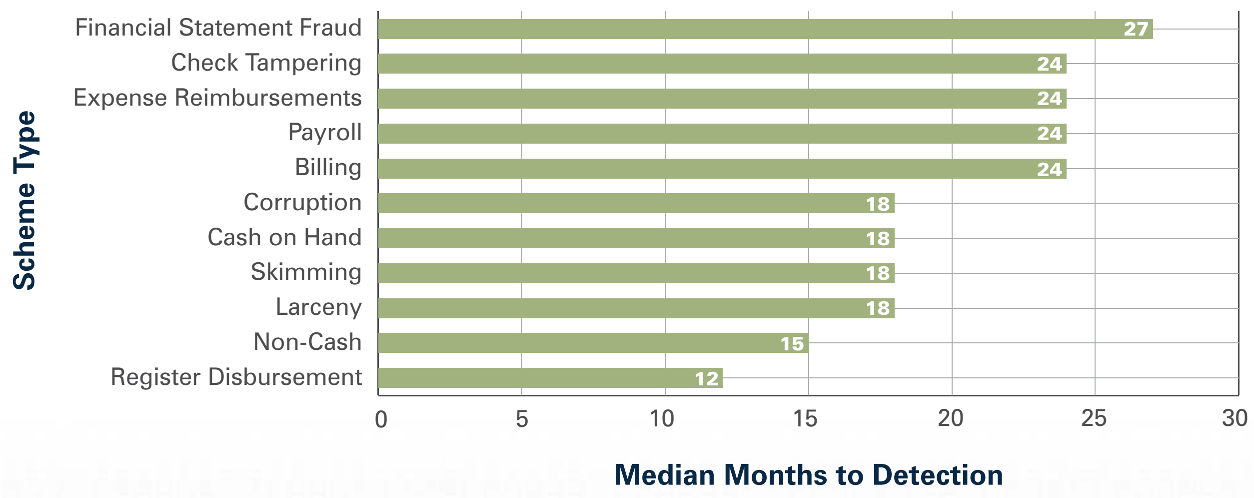
With nearly 90% of occupational frauds involving some form of asset misappropriation, it is instructional to further delineate the methods used by employees to embezzle organizational assets. We divided asset misappropriation schemes into nine sub-categories, as illustrated in the table on page 15. The first eight sub-categories represent schemes targeting cash; these frauds account for approximately 85% of all asset misappropriations.

Two of the sub-schemes — skimming and cash larceny — involve pilfering incoming cash receipts, such as sales revenues and accounts receivable collections. The next five sub-categories — billing, expense reimbursement, check tampering, payroll and fraudulent register disbursement schemes — involve fraudulent disbursements of cash. The eighth form of cash misappropriation targets cash the organization has on hand, such as petty cash funds or cash in a vault. The final sub-category of asset misappropriations covers the theft or misuse of non-cash assets, including inventory, supplies, fixed assets, investments, intellectual property and proprietary information. The table on page 15 provides the frequency and median loss associated with each asset misappropriation sub-category.

Duration of Fraud Schemes

In addition to examining the monetary cost of the fraud cases reported to us, we analyzed the length of time these schemes lasted before being detected. The median duration — the time period from when the fraud first occurred to when it was discovered — for all cases in our study was 18 months. Not surprisingly, cases involving financial statement fraud — the most costly form of fraud — lasted the longest, with a median duration of 27 months. Fraudulent register disbursements, on the other hand, were not only the least costly form of fraud in our study, but also tended to be detected the soonest.

Median Duration of Fraud Based on Scheme Type



Note: Because asset misappropriation schemes are both so common and so diverse in their methods, for the remainder of the Report, we will break down our analysis of the fraud schemes into 11 categories — corruption, financial statement fraud and the nine sub-categories of asset misappropriation — so as to provide a meaningful understanding of the full spectrum of ways in which employees defraud their employing organizations.

Asset Misappropriation Sub-Categories

Category	Description	Examples	Cases Reported	Percent of all cases[5]	Median Loss
Schemes Involving Theft of Cash Receipts					
Skimming	Any scheme in which cash is stolen from an organization *before* it is recorded on the organization's books and records	• Employee accepts payment from a customer, but does not record the sale, and instead pockets the money	267	14.5%	$60,000
Cash Larceny	Any scheme in which cash is stolen from an organization *after* it has been recorded on the organization's books and records	• Employee steals cash and checks from daily receipts before they can be deposited in the bank	181	9.8%	$100,000
Schemes Involving Fraudulent Disbursements of Cash					
Billing	Any scheme in which a person causes his employer to issue a payment by submitting invoices for fictitious goods or services, inflated invoices or invoices for personal purchases	• Employee creates a shell company and bills employer for services not actually rendered • Employee purchases personal items and submits invoice to employer for payment	479	26.0%	$128,000
Expense Reimbursements	Any scheme in which an employee makes a claim for reimbursement of fictitious or inflated business expenses	• Employee files fraudulent expense report, claiming personal travel, nonexistent meals, etc.	278	15.1%	$33,000
Check Tampering	Any scheme in which a person steals his employer's funds by intercepting, forging or altering a check drawn on one of the organization's bank accounts	• Employee steals blank company checks, makes them out to himself or an accomplice • Employee steals outgoing check to a vendor, deposits it into his own bank account	274	13.4%	$131,000
Payroll	Any scheme in which an employee causes his employer to issue a payment by making false claims for compensation	• Employee claims overtime for hours not worked • Employee adds ghost employees to the payroll	157	8.5%	$72,000
Cash Register Disbursements	Any scheme in which an employee makes false entries on a cash register to conceal the fraudulent removal of cash	• Employee fraudulently voids a sale on his cash register and steals the cash	55	3.0%	$23,000
Other Asset Misappropriation Schemes					
Cash on Hand Misappropriations	Any scheme in which the perpetrator misappropriates cash kept on hand at the victim organization's premises	• Employee steals cash from a company vault	121	12.6%	$23,000
Non-Cash Misappropriations	Any scheme in which an employee steals or misuses non-cash assets of the victim organization	• Employee steals inventory from a warehouse or storeroom • Employee steals or misuses confidential customer financial information	156	16.3%	$90,000

[5]The sum of percentages in this table exceeds 100% because several cases involved asset misappropriation schemes from more than one category.

Detection of Fraud Schemes

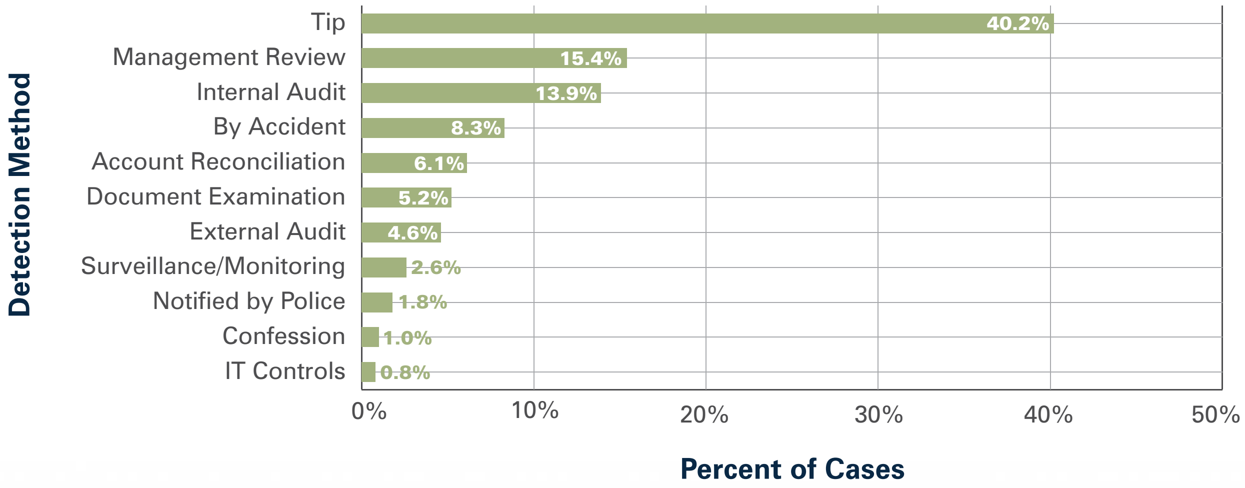
One of the principal goals of our research is to identify how past frauds were detected so that organizations can apply that knowledge to their future anti-fraud efforts. Tips were by far the most common detection method in our study, catching nearly three times as many frauds as any other form of detection. This is consistent with the findings in our prior reports. Tips have been far and away the most common means of detection in every study since 2002, when we began tracking the data.

Management review and internal audit were the second and third most common forms of detection, uncovering 15% and 14% of frauds, respectively. It is also noteworthy that 11% of frauds were detected through channels that lie completely outside of the traditional anti-fraud control structure: accident, police notification and confession. In other words, 11% of the time, the victim organization either had to stumble onto the fraud or be notified of it by a third party in order to detect it.

Respondents to our survey were asked to identify how the frauds were first discovered. Three times as many frauds in our study were uncovered by a tip as by any other method.

Frauds are much more likely to be detected by tips than by any other method.

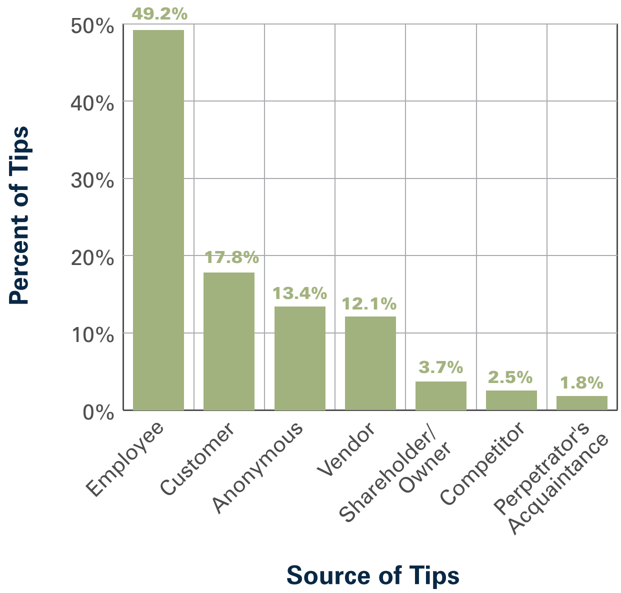
Initial Detection of Occupational Frauds



Source of Tips

Not surprisingly, employees were the most common source of fraud tips. However, customers, vendors, competitors and acquaintances (i.e., non-company sources) provided at least 34% of fraud tips, which suggests that fraud reporting policies and programs should be publicized not only to employees, but also to customers, vendors and other external stakeholders.

Source of Tips



Impact of Anonymous Reporting Mechanisms (Hotlines)

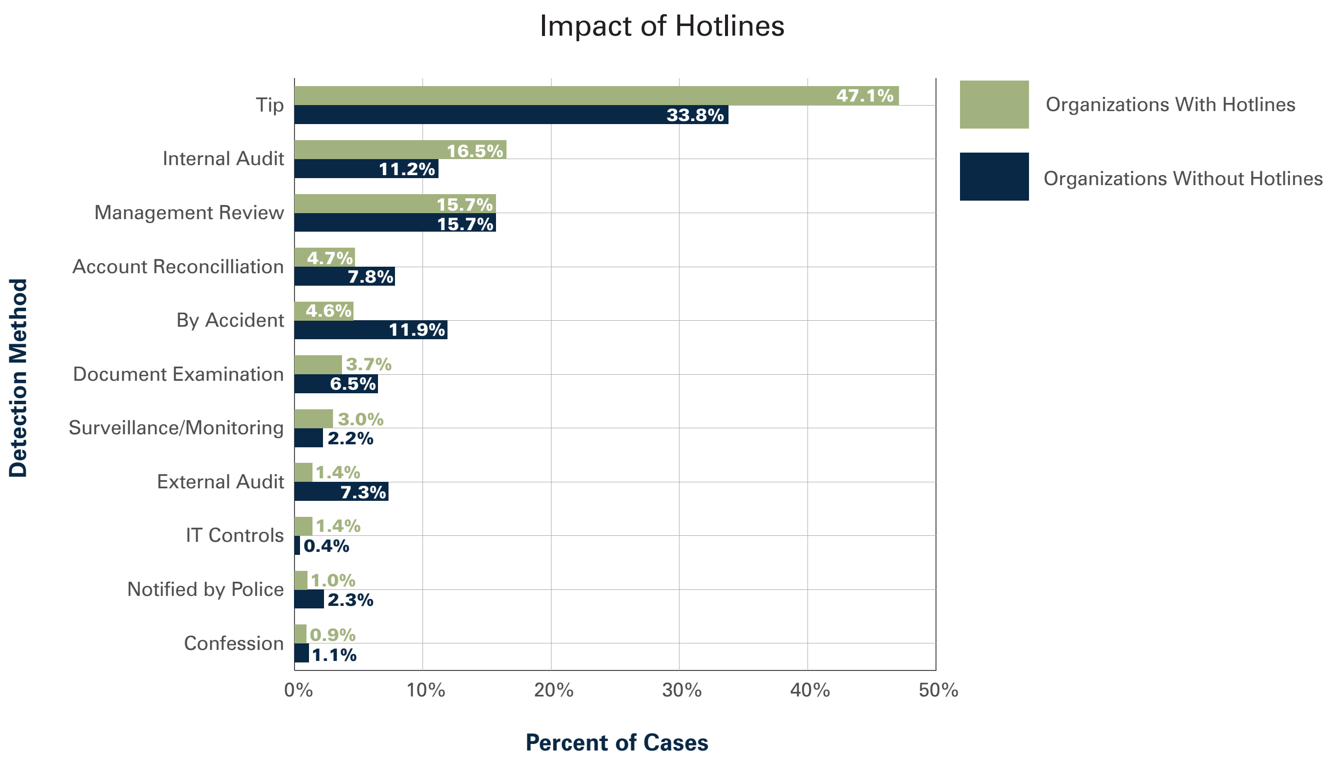
While tips have consistently been the most common way to detect fraud, the impact of tips is, if anything, understated by the fact that so many organizations fail to implement fraud reporting systems. Such systems enable employees to anonymously report fraud or misconduct by phone or through a web-based portal.[6] The ability to report fraud anonymously is key because employees often fear making reports due to the threat of retaliation from superiors or negative reactions from their peers. Also, most third-party hotline systems offer programs to raise awareness about how to report misconduct. Consequently, one would expect that the presence of a fraud hotline would enhance fraud detection efforts and foster more tips.

This turns out to be true. As seen on page 18, the presence of fraud hotlines correlated with an increase in the number of cases detected by a tip. In organizations that had hotlines, 47% of frauds were detected by tips, while in organizations without hotlines, only 34% of cases were detected by tips. This is important because tips have repeatedly been shown to be the most effective way to catch fraud. The better an organization is at collecting and responding to fraud tips, the better it should be at detecting fraud and limiting losses.

In 67% of the cases where there was an anonymous tip, that tip was reported through an organization's fraud hotline. This strongly suggests that hotlines are an effective way to encourage tips from employees who might otherwise not report misconduct. Perhaps most important, as noted on page 43, organizations that had fraud hotlines suffered much smaller fraud losses than organizations without hotlines. Those organizations also tended to detect frauds seven months earlier than their counterparts.

[6]For simplicity's sake, we will refer to all reporting mechanisms as hotlines in this study.

Detection of Fraud Schemes



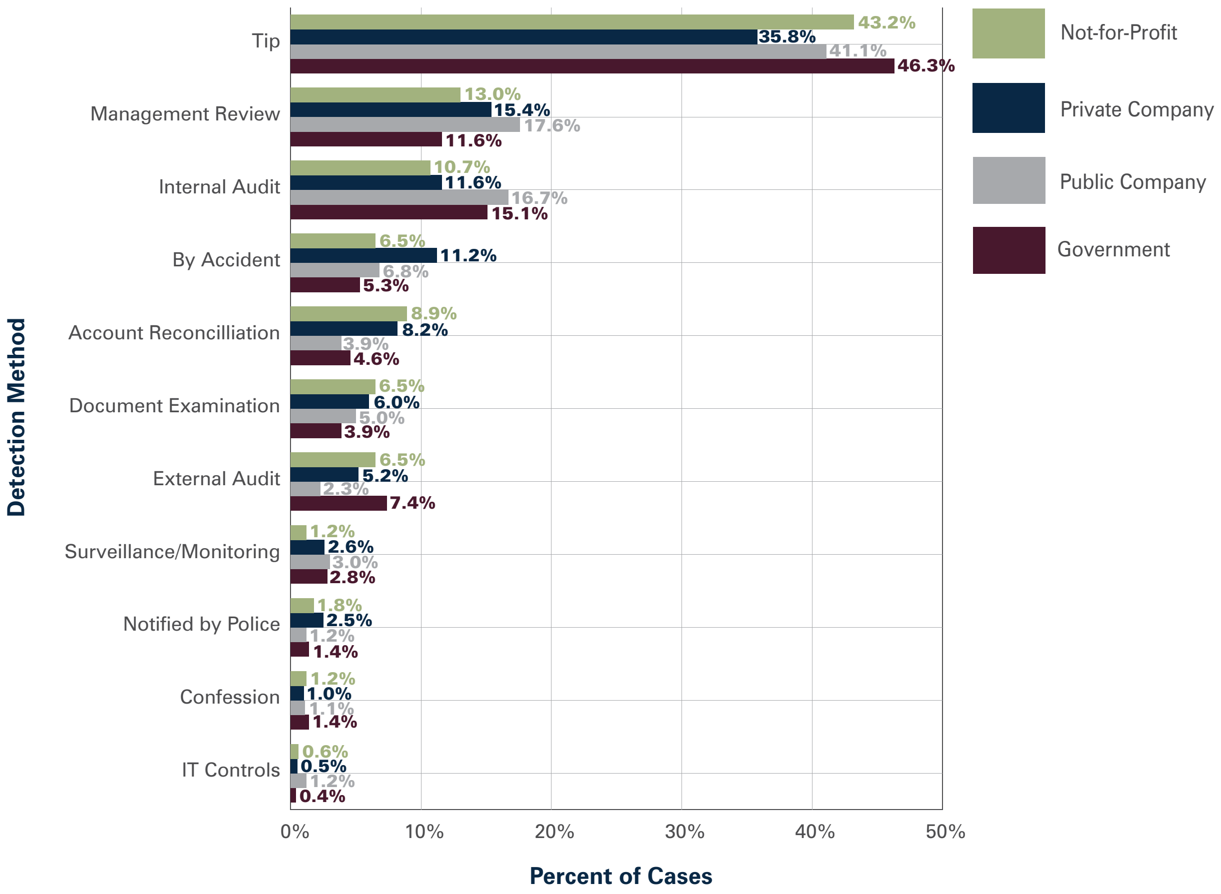
Detection Methods Based on Organization Type

The chart on page 19 shows how frauds were detected based on the victim's organization type. We see that privately owned companies tended to have the fewest frauds detected by tip and the most frauds caught by accident, both of which were also true in our 2008 study. Publicly held companies tended to detect more frauds by management review and internal audit than their counterparts. Government agencies had the highest rate of detection by tips and had a proportionately high rate of frauds caught through external audit.

Detecting Fraud in Small Businesses

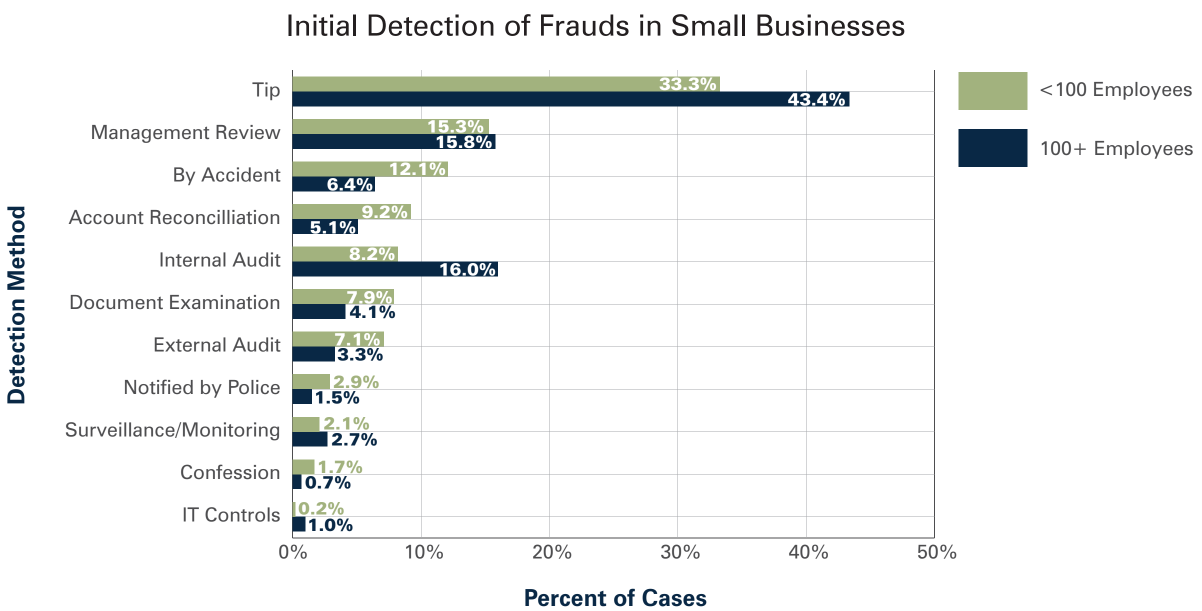
Small businesses historically tend to suffer disproportionately high occupational fraud losses, according to our previous reports. The trend was not as pronounced in this study as in past years, but we still saw that 31% of all occupational frauds were committed against small businesses (the highest rate of any category) and the median loss in those schemes was $155,000 (see page 29). One reason that small businesses are particularly good targets for occupational fraud is that they tend to have far fewer anti-fraud controls than larger organizations (see page 39).

Initial Detection Method by Organization Type



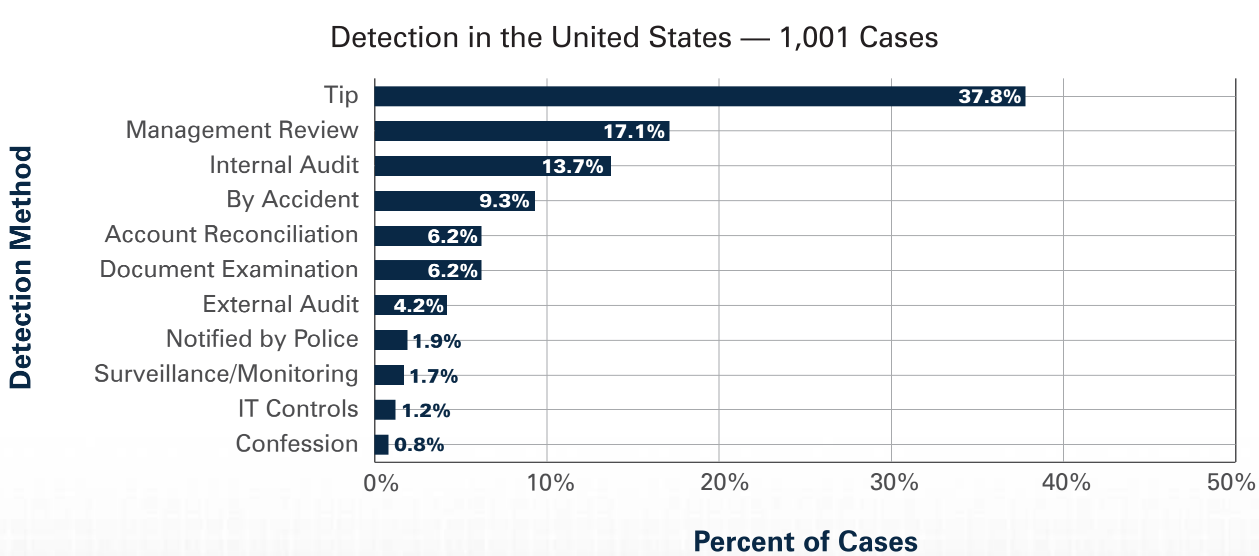
When we look at how small businesses detect frauds, it is apparent that they catch a much lower proportion of schemes through tips or internal audits than larger organizations. According to the chart on page 20, only 33% of small business frauds are detected by a tip, and only 8% are detected by an internal audit. Additionally, a relatively large percentage of frauds are caught by accident at small companies — nearly twice as many as at larger organizations. Many of these discrepancies are likely due to the low rates of control implementation at small businesses.

Detection of Fraud Schemes

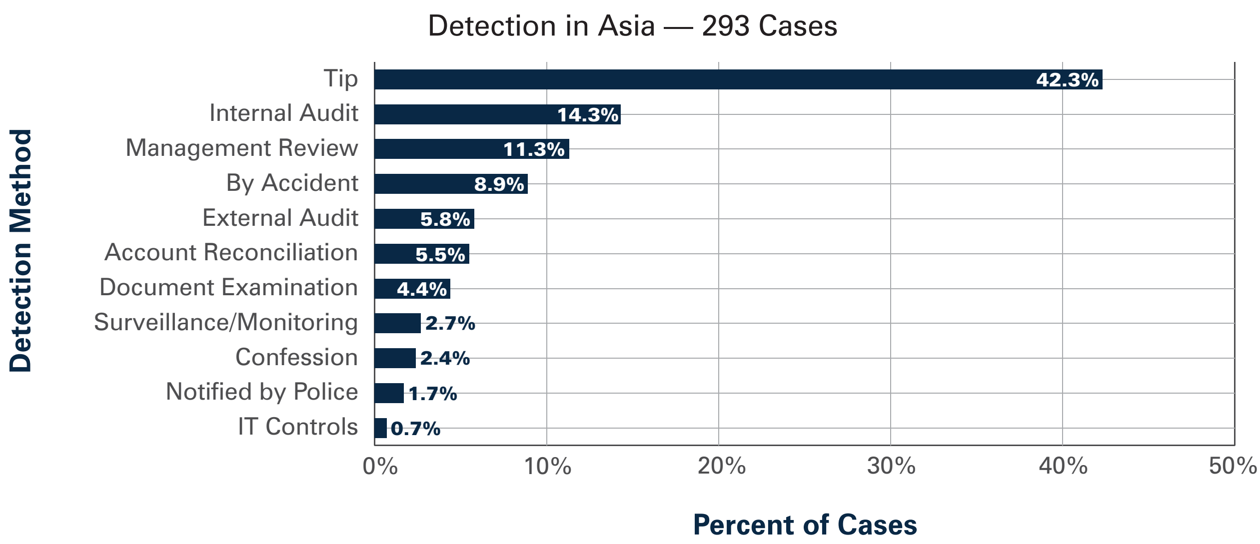


Detection of Occupational Fraud Based on Region

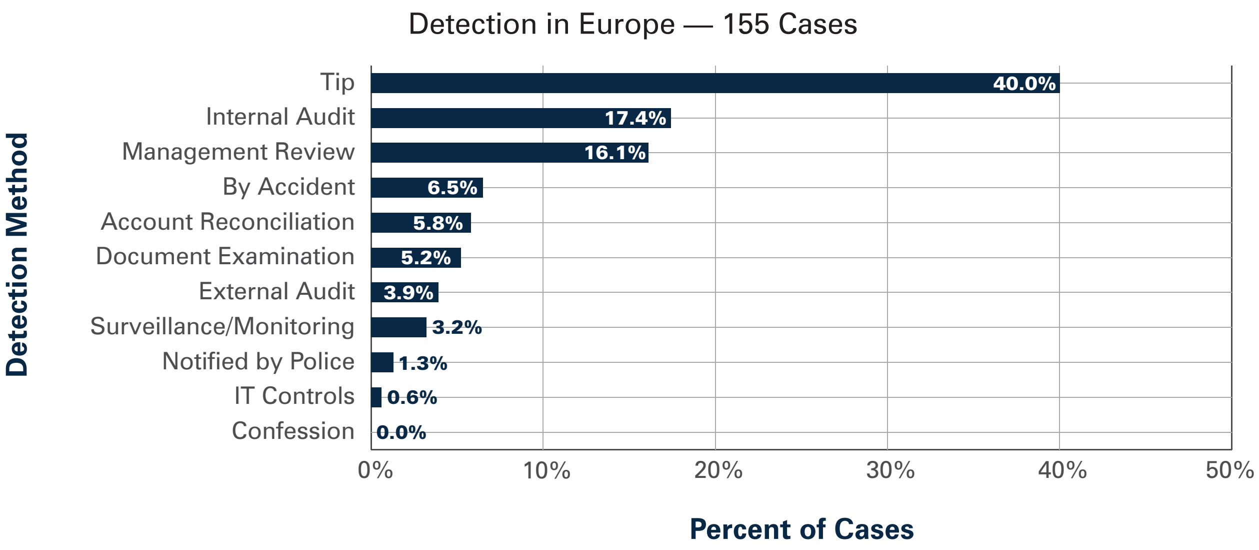
The following charts show how frauds were detected based on the region in which they occurred.[7] In every region, tips were responsible for detecting the most occupational frauds by a wide margin. The percentage of cases detected by tips ranged from a high of 50% (in Africa) to a low of 38% (in the United States). In all but two regions, management review and internal audit were the second and third most common means of detection, following tips.



[7]See Appendix for a listing of countries included in each region.

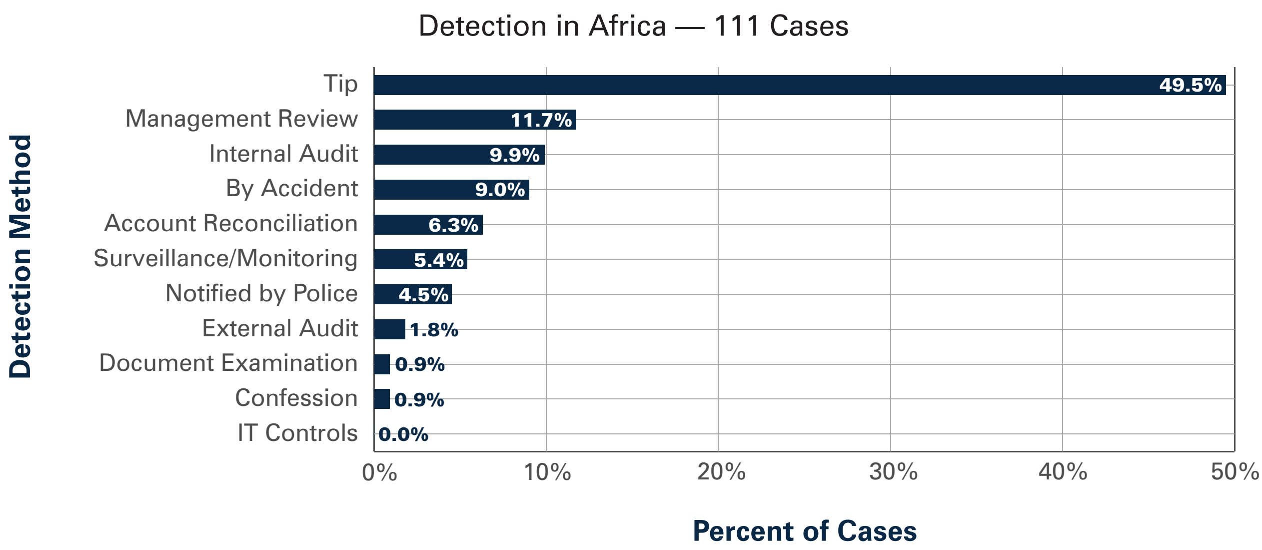


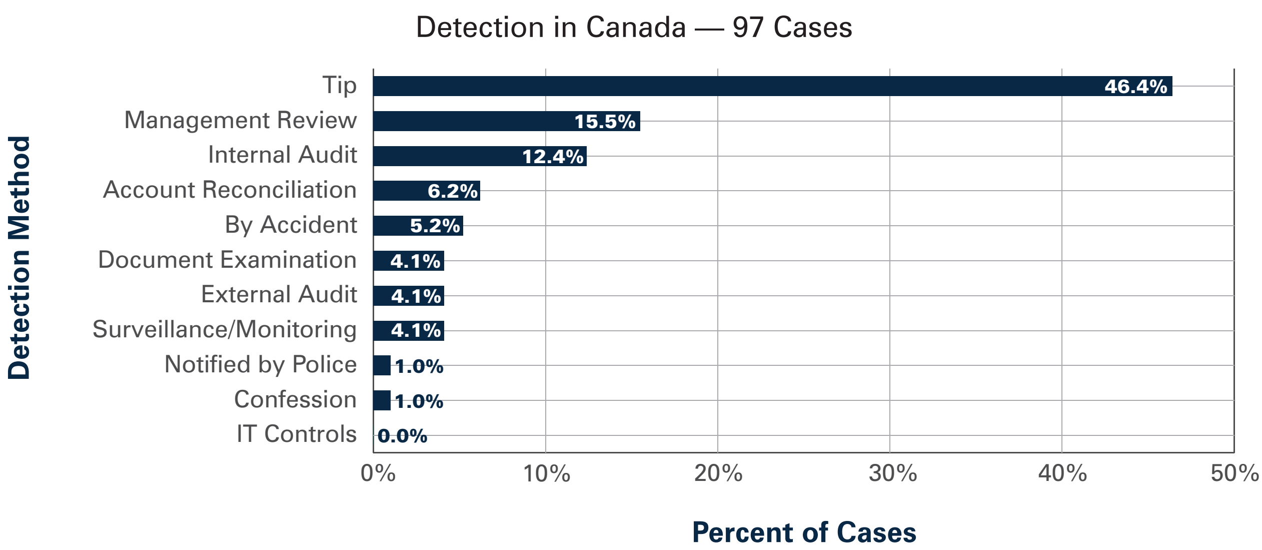
Detection in Asia — 293 Cases
Detection Method
Tip
Internal Audit
Management Review
By Accident
External Audit
Account Reconciliation
Document Examination
Surveillance/Monitoring
Confession
Notified by Police
IT Controls
42.3%
14.3%
11.3%
8.9%
5.8%
5.5%
4.4%
2.7%
2.4%
1.7%
0.7%
0%
10%
20%
30%
40%
50%
Percent of Cases



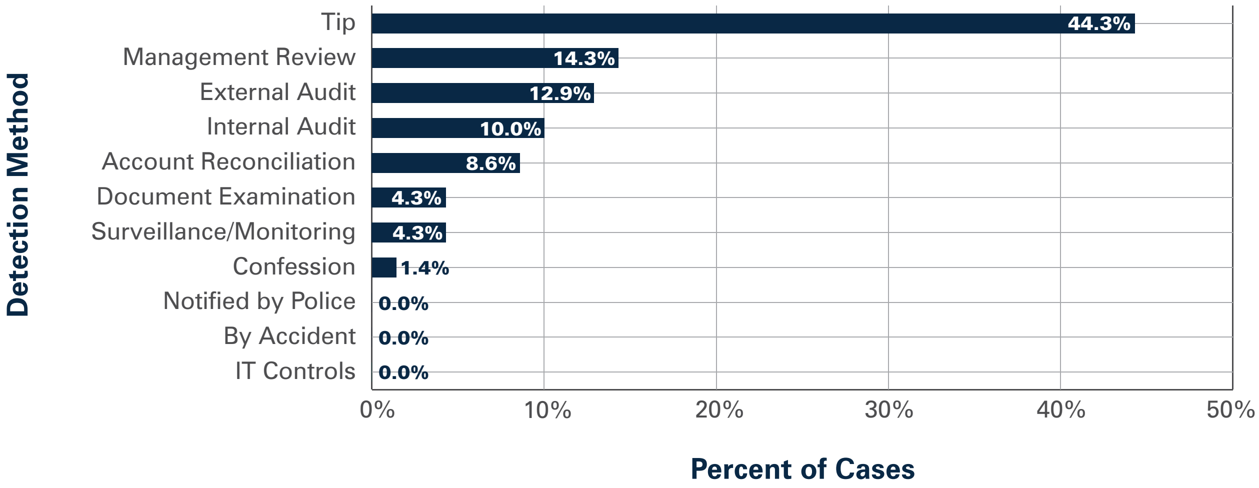
Detection in Europe — 155 Cases
Detection Method
Tip
Internal Audit
Management Review
By Accident
Account Reconciliation
Document Examination
External Audit
Surveillance/Monitoring
Notified by Police
IT Controls
Confession
40.0%
17.4%
16.1%
6.5%
5.8%
5.2%
3.9%
3.2%
1.3%
0.6%
0.0%
0%
10%
20%
30%
40%
50%
Percent of Cases

Detection of Fraud Schemes

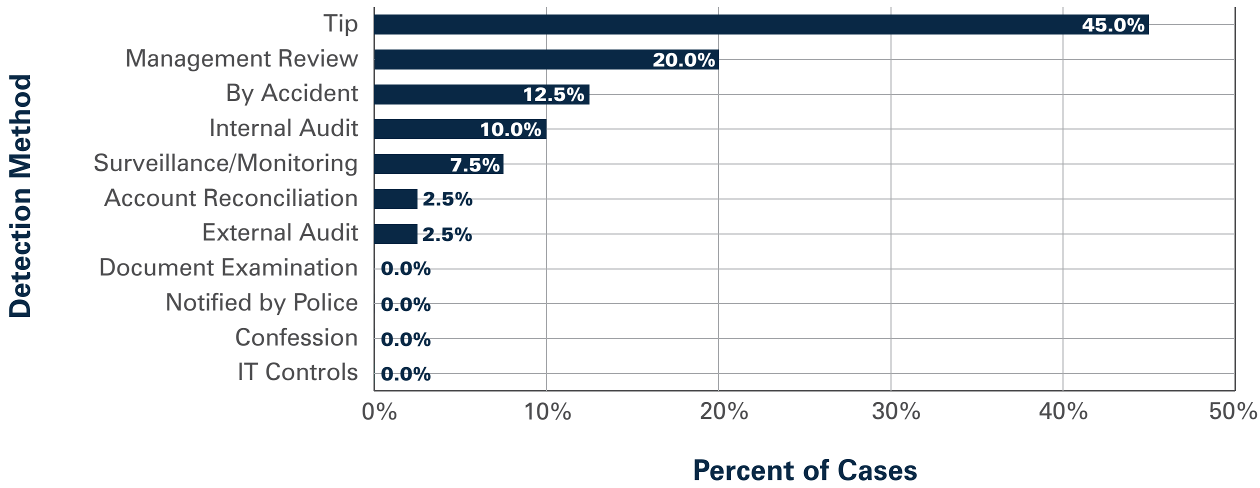




Detection in Central/South America and the Caribbean — 70 Cases



Detection in Oceania — 40 Cases



Victim Organizations

Geographical Location of Organizations

As mentioned previously, for the first time in the history of our research on occupational fraud, we opened up our study to include fraud cases investigated by CFEs outside the United States. As a result, the cases discussed in this Report represent frauds perpetrated in 106 countries around the world. We received information on the location of 1,797 of the cases that were reported to us. Of these, 43% occurred outside the United States, providing us with a true insight into the global plague of occupational fraud.

As part of our survey, we asked each respondent to provide demographic information about the organization that was defrauded.

Small organizations are particularly vulnerable to fraud.

The chart below shows the number and median loss of the cases reported to us, broken down by region. For victim organizations with locations in more than one country, we asked survey participants to choose the location where the primary perpetrator was located. For example, a fraud perpetrated at a European arm of a Japanese company would be classified as occurring in Europe. Similarly, a case involving fraud perpetrated at the Canadian office of a South American company would be considered a fraud that occurred in Canada. The regional breakdowns on case data throughout this Report should consequently be read within this framework. Additionally, due to the large number of U.S. cases reported, we separated North America into the United States and Canada, and grouped the remaining countries by continent.

Geographical Location of Victim Organizations[8]

Region	Number of Cases	Percent of Cases	Median Loss (in U.S. dollars)
United States	1,021	56.8%	$105,000
Asia	298	16.6%	$274,000
Europe	157	8.7%	$600,000
Africa	112	6.2%	$205,000
Canada	99	5.5%	$125,000
Central/South America and the Caribbean	70	3.9%	$186,000
Oceania	40	2.2%	$338,000

[8]See Appendix for a listing of countries included in each region.

The following tables illustrate the frequency of the 11 occupational fraud schemes — financial statement fraud, corruption and the nine asset misappropriation sub-schemes — for each region.[9]

United States — 1,021 Cases		
Scheme	**Number of Cases**	**Percent of Cases**
Billing	282	27.6%
Corruption	224	21.9%
Check Tampering	173	16.9%
Skimming	165	16.2%
Non-Cash	160	15.7%
Expense Reimbursements	154	15.1%
Cash on Hand	117	11.5%
Payroll	108	10.6%
Cash Larceny	98	9.6%
Financial Statement Fraud	44	4.3%
Register Disbursements	25	2.4%

Asia — 298 Cases		
Scheme	**Number of Cases**	**Percent of Cases**
Corruption	152	51.0%
Billing	56	18.8%
Non-Cash	55	18.5%
Expense Reimbursements	43	14.4%
Skimming	38	12.8%
Cash on Hand	34	11.4%
Cash Larceny	26	8.7%
Financial Statement Fraud	21	7.0%
Check Tampering	21	7.0%
Payroll	12	4.0%
Register Disbursements	6	2.0%

Europe — 157 Cases		
Scheme	**Number of Cases**	**Percent of Cases**
Corruption	79	50.3%
Billing	41	26.1%
Non-Cash	31	19.7%
Expense Reimbursements	24	15.3%
Cash on Hand	23	14.6%
Skimming	17	10.8%
Cash Larceny	12	7.6%
Financial Statement Fraud	10	6.4%
Payroll	10	6.4%
Register Disbursements	7	4.5%
Check Tampering	5	3.2%

Africa — 112 Cases		
Scheme	**Number of Cases**	**Percent of Cases**
Corruption	55	49.1%
Billing	38	33.9%
Non-Cash	24	21.4%
Expense Reimbursements	19	17.0%
Cash on Hand	16	14.3%
Cash Larceny	15	13.4%
Skimming	13	11.6%
Check Tampering	11	9.8%
Payroll	6	5.4%
Register Disbursements	3	2.7%
Financial Statement Fraud	2	1.8%

[9]The sum of percentages in these tables exceeds 100% because several cases involved schemes from more than one category.

Victim Organizations

Canada — 99 Cases		
Scheme	**Number of Cases**	**Percent of Cases**
Billing	21	21.2%
Corruption	21	21.2%
Expense Reimbursements	20	20.2%
Check Tampering	17	17.2%
Non-Cash	15	15.2%
Payroll	12	12.1%
Skimming	12	12.1%
Cash Larceny	10	10.1%
Cash on Hand	9	9.1%
Register Disbursements	8	8.1%
Financial Statement Fraud	2	2.0%

Oceania — 40 Cases		
Scheme	**Number of Cases**	**Percent of Cases**
Corruption	16	40.0%
Non-Cash	12	30.0%
Billing	11	27.5%
Check Tampering	7	17.5%
Skimming	5	12.5%
Cash on Hand	4	10.0%
Expense Reimbursements	4	10.0%
Cash Larceny	3	7.5%
Payroll	2	5.0%
Register Disbursements	1	2.5%
Financial Statement Fraud	1	2.5%

Central/South America and the Caribbean — 70 Cases		
Scheme	**Number of Cases**	**Percent of Cases**
Corruption	33	47.1%
Billing	20	28.6%
Non-Cash	13	18.6%
Cash Larceny	10	14.3%
Skimming	9	12.9%
Cash on Hand	8	11.4%
Expense Reimbursements	8	11.4%
Financial Statement Fraud	7	10.0%
Check Tampering	6	8.6%
Payroll	3	4.3%
Register Disbursements	1	1.4%

Corruption Cases by Region

We compared the proportion and cost of cases involving corruption among the regional categories in our study. The results are presented in the following table.

Readers should keep in mind that this data does not necessarily reflect overall corruption levels within each region; it only reflects the specific fraud cases that were investigated and reported to us by the CFEs who took part in our study.

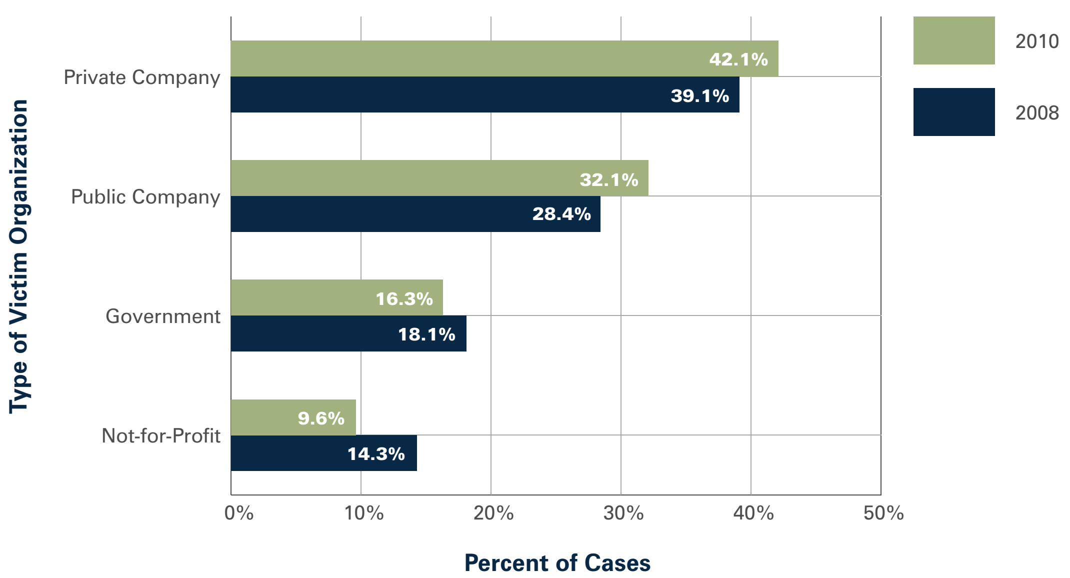
Corruption Cases by Region			
Region	**Number of Corruption Cases**	**Percent of all Cases in Region**	**Median Loss**
Asia	152	51.0%	$330,000
Europe	79	50.3%	$1,000,000
Africa	55	49.1%	$208,000
Central/South America and the Caribbean	33	47.1%	$250,000
Oceania	16	40.0%	$800,000
United States	224	21.9%	$175,000
Canada	21	21.2%	$163,000

Type of Organizations

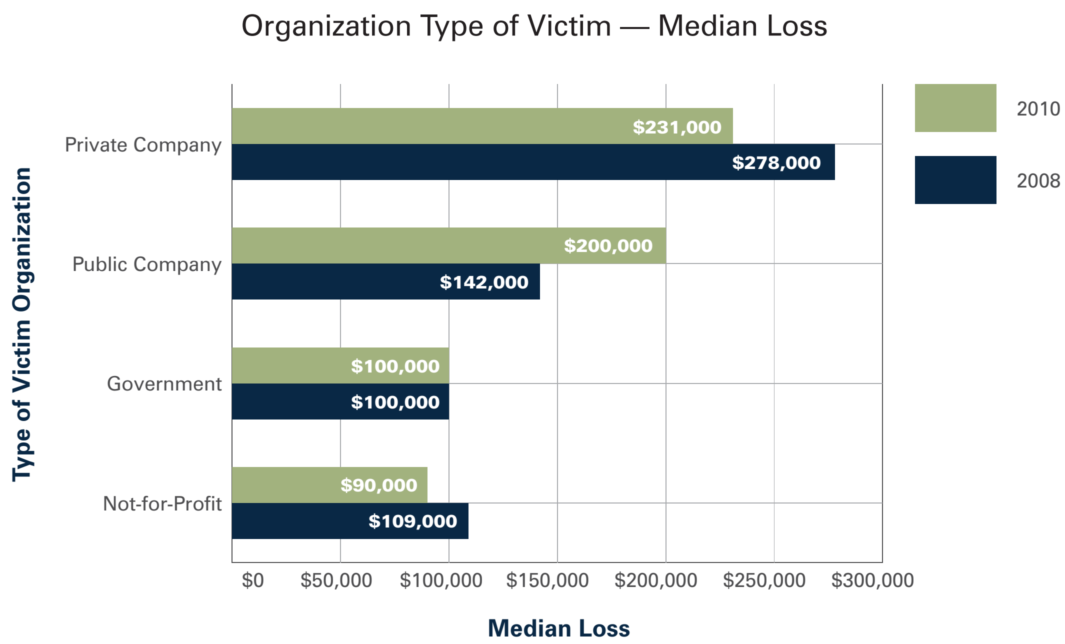
More than 40% of victim organizations in our study were privately owned businesses, and nearly one-third were publicly traded companies, meaning that almost three-quarters of the victims represented in our study came from for-profit enterprises. Sixteen percent of the frauds reported to us occurred at government agencies. Not-for-profit organizations were the least represented category, with less than 10% of frauds taking place at these entities.

In addition to experiencing the most frauds, private and public companies were also victim to the costliest schemes in our study; the median loss for the cases at these businesses was $231,000 and $200,000, respectively (see page 28). In contrast, the losses experienced by government agencies and not-for-profit organizations were about half as much. Government agencies had a median loss of $100,000, while not-for-profits lost a median of $90,000.

Organization Type of Victim — Frequency



Victim Organizations

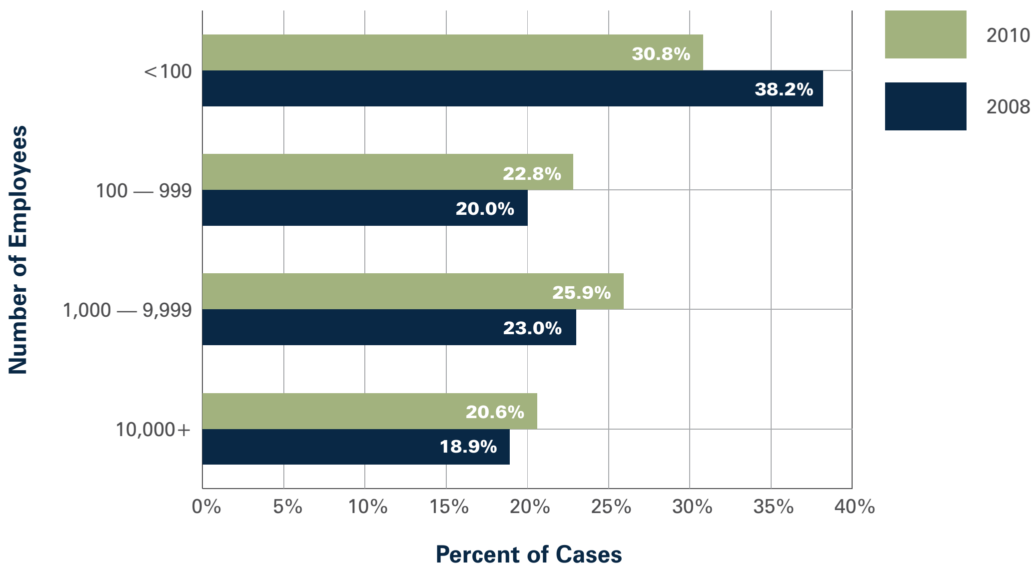


Size of Organizations

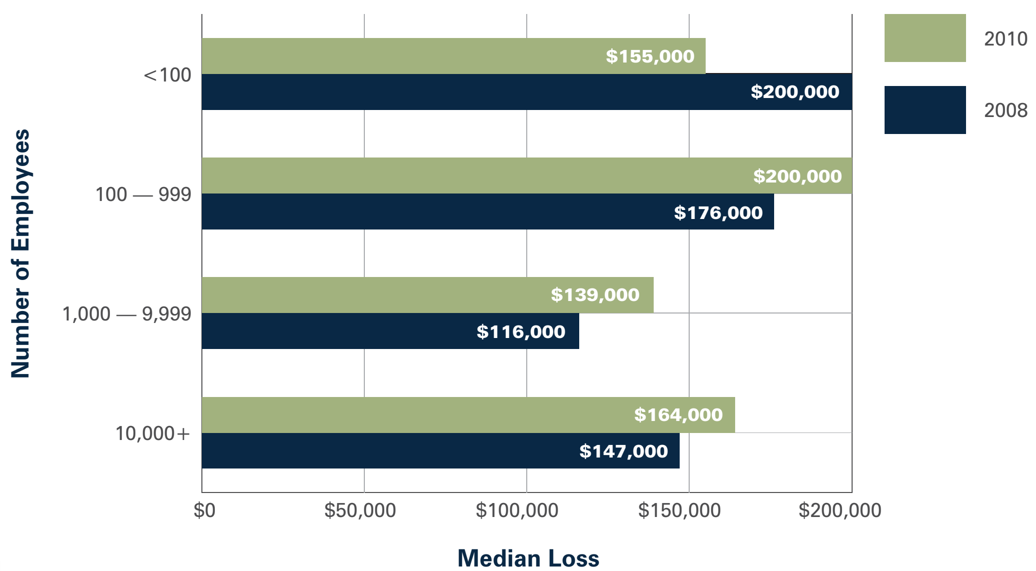
Continuing the trend observed in our prior studies, small organizations — those with fewer than 100 employees — suffered the greatest percentage of the frauds in our 2010 study, accounting for more than 30% of the victim organizations. However, the variation between size categories is relatively small, with 23% of victims having between 100 and 999 employees, 26% having 1,000 to 9,999 employees and 21% having more than 10,000 employees. This relatively small disparity contrasts with our previous studies, in which small organizations were involved in a much higher percent of frauds than any other category.

Additionally, our research has historically shown that smaller organizations suffer disproportionately large losses due to occupational fraud. Organizations with fewer than 100 employees experienced the greatest median loss of all categories of victim organizations in our 2008 study. The same was true in our 2006 study. However, that was not the case when we looked at the full body of data from our current survey. Consequently, we undertook additional analyses to see what effect, if any, the inclusion of cases from countries outside the United States had on these findings.

Size of Victim Organization — Frequency



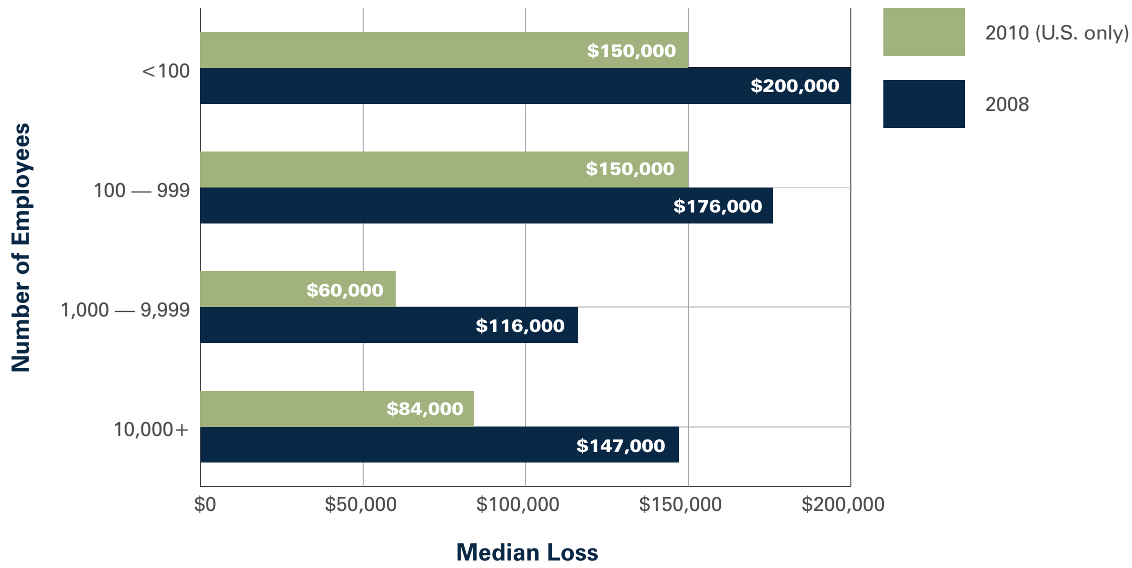
Size of Victim Organization — Median Loss



Victim Organizations

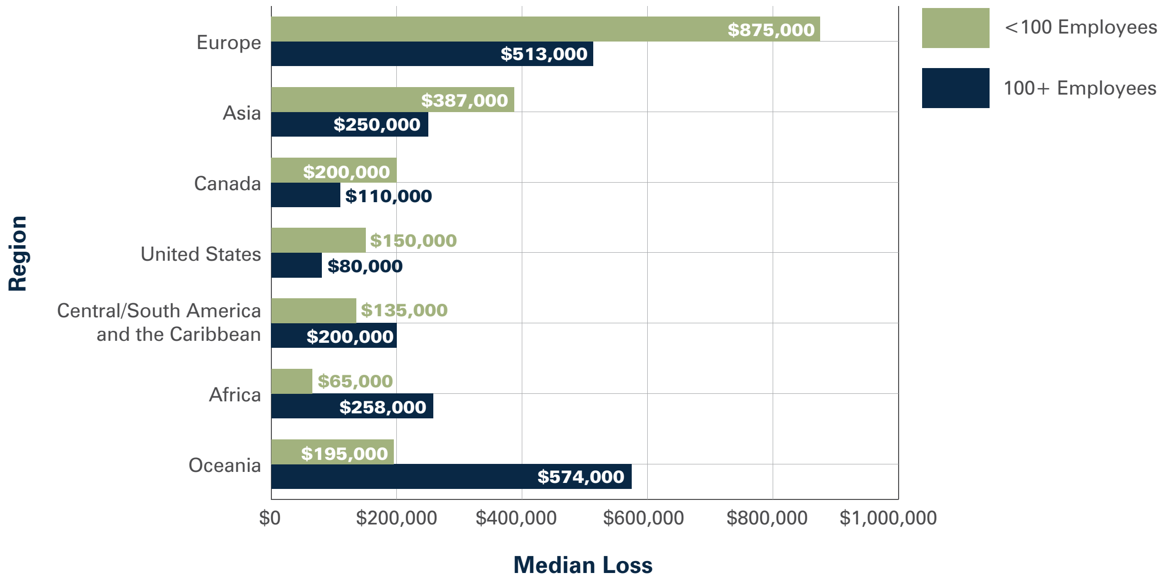
If we make a direct comparison of the U.S. cases from our current study to the data from 2008, we can see that, though the median loss in each category is smaller absolutely, the median losses suffered by the smallest organizations are greater than those suffered by larger organizations. This finding is similar to our observations in previous studies and suggests that small companies in the United States are indeed disproportionately harmed by occupational fraud.

Size of Victim Organization (U.S. cases only) — Median Loss



An analysis of the nature of losses at small businesses becomes more interesting when we expand our examination to each region represented. For the frauds perpetrated in Europe, Asia, Canada and the United States, the median losses were significantly greater at small organizations than at those with more than 100 employees. Conversely, the median losses experienced by small organizations in Central/South America and the Caribbean, Africa and Oceania were notably less than those experienced by their larger counterparts.

Size of Victim Organizations — Median Loss by Region



Methods of Fraud in Small Businesses

Because the challenges faced by small businesses in combating occupational fraud are numerous and unique, it is helpful to know the types of frauds that are most prevalent within these organizations. Such observations may help small businesses target their limited resources to those areas that pose the greatest risk.

Of course, the specific risks faced by any organization are largely dependent on its particular industry, operating environment, processes, culture and many other factors. Nonetheless, examining which fraud schemes are most commonly perpetrated at small companies can aid us in better understanding the fraud issues faced by these businesses.

Small Businesses (<100 Employees) — 537 Cases

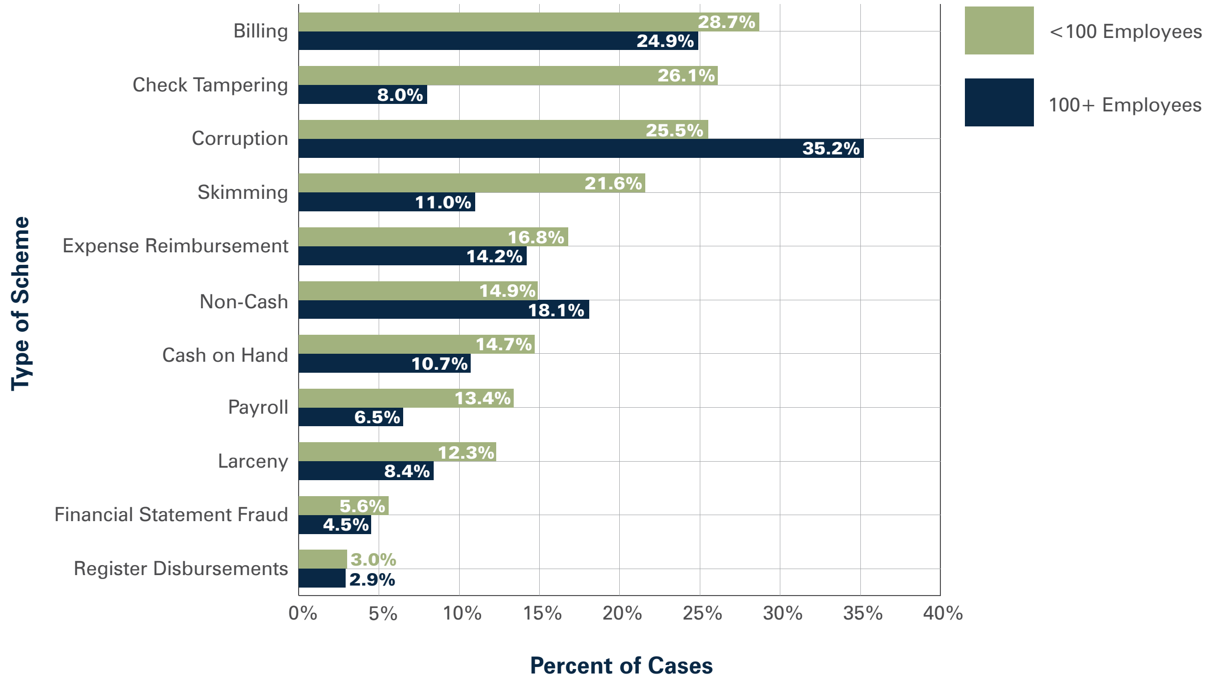
Scheme	Number of Cases	Percent of Cases[10]
Billing	154	28.7%
Check Tampering	140	26.1%
Corruption	137	25.5%
Skimming	116	21.6%
Expense Reimbursements	90	16.8%
Non-Cash	80	14.9%
Cash on Hand	79	14.7%
Payroll	72	13.4%
Larceny	66	12.3%
Financial Statement Fraud	30	5.6%

[10]The sum of percentages in this table exceeds 100% because several cases involved schemes from more than one category.

Victim Organizations

As the chart below illustrates, check tampering schemes were much more common at small organizations than at all other entities. Skimming and payroll frauds were also more common in small organizations. These trends stand to reason, as the functions affected by such schemes — the check writing, cash collection and payroll functions, respectively — are more likely to be performed by a single individual, such as a bookkeeper, and are often subject to less oversight within a small organization than in a large company where duties are more segregated and authorization of transactions is more formalized. In contrast, although corruption schemes were the third most common fraud scheme faced by small businesses, they were less frequent within small companies than in bigger organizations.

Methods of Fraud by Size of Victim Organization



Industry of Organizations

We looked at the industry classification of the organizations victimized by the fraud cases in our study. It is important to view this data as a representation of the companies that had CFEs investigate internal fraud cases within the last two years, rather than as an indication of which industries are more or less likely to be victimized by fraud. However, the following tables do draw attention to some differences in the frequency and cost associated with occupational frauds among different sectors. For example, the banking and financial services industry had the most cases, accounting for more than 16% of the frauds reported to us. The period of time covered by our survey — calendar years 2008 and 2009 — was filled with news stories of fraud in the banking sector, so this finding is not unexpected. In contrast, the mining industry experienced the fewest frauds in our study, but those cases caused a median loss of $1 million — by far the largest of any of the industries we examined.[11]

Industry of Victim Organizations (sorted by Frequency)

Industry	Number of Cases	Percent of Cases	Median Loss
Banking/Financial Services	298	16.6%	$175,000
Manufacturing	193	10.7%	$300,000
Government and Public Administration	176	9.8%	$81,000
Retail	119	6.6%	$85,000
Healthcare	107	5.9%	$150,000
Insurance	91	5.1%	$197,000
Education	90	5.0%	$71,000
Services (other)	88	4.9%	$109,000
Construction	77	4.3%	$200,000
Technology	65	3.6%	$250,000
Transportation and Warehousing	62	3.4%	$300,000
Oil and Gas	57	3.2%	$478,000
Real Estate	57	3.2%	$475,000
Services (professional)	51	2.8%	$110,000
Arts, Entertainment and Recreation	49	2.7%	$180,000
Utilities	45	2.5%	$120,000
Wholesale Trade	42	2.3%	$513,000
Religious, Charitable or Social Services	41	2.3%	$75,000
Telecommunications	37	2.1%	$131,000
Agriculture, Forestry, Fishing and Hunting	27	1.5%	$320,000
Communications/Publishing	16	0.9%	$110,000
Mining	12	0.7%	$1,000,000

Industry of Victim Organizations (sorted by Median Loss)

Industry	Number of Cases	Percent of Cases	Median Loss
Mining	12	0.7%	$1,000,000
Wholesale Trade	42	2.3%	$513,000
Oil and Gas	57	3.2%	$478,000
Real Estate	57	3.2%	$475,000
Agriculture, Forestry, Fishing and Hunting	27	1.5%	$320,000
Manufacturing	193	10.7%	$300,000
Transportation and Warehousing	62	3.4%	$300,000
Technology	65	3.6%	$250,000
Construction	77	4.3%	$200,000
Insurance	91	5.1%	$197,000
Arts, Entertainment and Recreation	49	2.7%	$180,000
Banking/Financial Services	298	16.6%	$175,000
Healthcare	107	5.9%	$150,000
Telecommunications	37	2.1%	$131,000
Utilities	45	2.5%	$120,000
Services (professional)	51	2.8%	$110,000
Communications/Publishing	16	0.9%	$110,000
Services (other)	88	4.9%	$109,000
Retail	119	6.6%	$85,000
Government and Public Administration	176	9.8%	$81,000
Religious, Charitable or Social Services	41	2.3%	$75,000
Education	90	5.0%	$71,000

[11]There was a small sample of only 12 cases in this industry, which may impact the reliability of the median loss data.

Victim Organizations

In the following tables, we have presented the distribution of fraud schemes for all industries in which there were more than 50 reported cases.[12] Many of the findings are not surprising. For example, theft of cash on hand — which includes the theft of cash from a bank vault — accounted for just 12% of all cases combined, but occurred in 22% of the cases involving the banking and financial services industry. Similarly, both theft of non-cash assets and fraudulent register disbursements were much more common in the retail industry than in other sectors. This makes sense, as retail establishments tend to have more inventory- and cash-register-based transactions than entities in other industries. Examining the variation in schemes among industries underscores the need for organizations to consider the specific fraud risks they face when determining which processes and functions merit additional resources devoted to fraud prevention and detection.

Banking/Financial Services — 298 Cases

Scheme	Number of Cases	Percent of Cases
Corruption	101	33.9%
Cash on Hand	64	21.5%
Billing	37	12.4%
Check Tampering	35	11.7%
Non-Cash	33	11.1%
Skimming	32	10.7%
Larceny	29	9.7%
Expense Reimbursements	20	6.7%
Financial Statement Fraud	16	5.4%
Payroll	9	3.0%
Register Disbursements	8	2.7%

Manufacturing — 193 Cases

Scheme	Number of Cases	Percent of Cases
Corruption	75	38.9%
Billing	73	37.8%
Non-Cash	45	23.3%
Expense Reimbursements	43	22.3%
Check Tampering	22	11.4%
Skimming	20	10.4%
Payroll	20	10.4%
Cash on Hand	15	7.8%
Larceny	14	7.3%
Financial Statement Fraud	14	7.3%
Register Disbursements	2	1.0%

Government and Public Administration — 176 Cases

Scheme	Number of Cases	Percent of Cases
Corruption	57	32.4%
Billing	43	24.4%
Expense Reimbursements	32	18.2%
Non-Cash	30	17.0%
Larceny	25	14.2%
Check Tampering	24	13.6%
Skimming	23	13.1%
Cash on Hand	21	11.9%
Payroll	20	11.4%
Financial Statement Fraud	5	2.8%
Register Disbursements	5	2.8%

Retail — 119 Cases

Scheme	Number of Cases	Percent of Cases
Non-Cash	39	32.8%
Corruption	26	21.8%
Skimming	19	16.0%
Larceny	17	14.3%
Billing	16	13.4%
Cash on Hand	16	13.4%
Register Disbursements	14	11.8%
Check Tampering	10	8.4%
Expense Reimbursements	8	6.7%
Financial Statement Fraud	7	5.9%
Payroll	3	2.5%

[12]The sum of percentages in these tables exceeds 100% because several cases involved schemes from more than one category.

Healthcare — 107 Cases		
Scheme	**Number of Cases**	**Percent of Cases**
Corruption	31	29.0%
Skimming	24	22.4%
Billing	23	21.5%
Non-Cash	21	19.6%
Check Tampering	13	12.1%
Expense Reimbursements	12	11.2%
Payroll	10	9.3%
Cash on Hand	9	8.4%
Larceny	8	7.5%
Financial Statement Fraud	4	3.7%
Register Disbursements	1	0.9%

Insurance — 91 Cases		
Scheme	**Number of Cases**	**Percent of Cases**
Corruption	30	33.0%
Billing	19	20.9%
Check Tampering	15	16.5%
Skimming	13	14.3%
Non-Cash	9	9.9%
Cash on Hand	9	9.9%
Larceny	8	8.8%
Expense Reimbursements	7	7.7%
Payroll	6	6.6%
Financial Statement Fraud	3	3.3%
Register Disbursements	3	3.3%

Education — 90 Cases		
Scheme	**Number of Cases**	**Percent of Cases**
Billing	38	42.2%
Corruption	22	24.4%
Skimming	19	21.1%
Expense Reimbursements	15	16.7%
Non-Cash	11	12.2%
Larceny	11	12.2%
Payroll	9	10.0%
Check Tampering	7	7.8%
Cash on Hand	7	7.8%
Financial Statement Fraud	1	1.1%
Register Disbursements	0	0.0%

Services (other) — 88 Cases		
Scheme	**Number of Cases**	**Percent of Cases**
Corruption	25	28.4%
Skimming	22	25.0%
Billing	22	25.0%
Check Tampering	14	15.9%
Payroll	13	14.8%
Expense Reimbursements	12	13.6%
Non-Cash	11	12.5%
Larceny	9	10.2%
Cash on Hand	8	9.1%
Financial Statement Fraud	7	8.0%
Register Disbursements	5	5.7%

Construction — 77 Cases		
Scheme	**Number of Cases**	**Percent of Cases**
Corruption	35	45.5%
Billing	23	29.9%
Check Tampering	14	18.2%
Skimming	12	15.6%
Non-Cash	12	15.6%
Expense Reimbursements	10	13.0%
Payroll	7	9.1%
Larceny	7	9.1%
Financial Statement Fraud	4	5.2%
Cash on Hand	3	3.9%
Register Disbursements	0	0.0%

Technology — 65 Cases		
Scheme	**Number of Cases**	**Percent of Cases**
Corruption	28	43.1%
Billing	19	29.2%
Expense Reimbursements	17	26.2%
Non-Cash	16	24.6%
Check Tampering	10	15.4%
Financial Statement Fraud	10	15.4%
Skimming	6	9.2%
Cash on Hand	5	7.7%
Payroll	4	6.2%
Larceny	4	6.2%
Register Disbursements	2	3.1%

Victim Organizations

Transportation and Warehousing — 62 Cases		
Scheme	**Number of Cases**	**Percent of Cases**
Corruption	22	35.5%
Billing	20	32.3%
Non-Cash	16	25.8%
Payroll	9	14.5%
Skimming	8	12.9%
Larceny	7	11.3%
Financial Statement Fraud	5	8.1%
Check Tampering	5	8.1%
Expense Reimbursements	5	8.1%
Cash on Hand	4	6.5%
Register Disbursements	0	0.0%

Oil and Gas — 57 Cases		
Scheme	**Number of Cases**	**Percent of Cases**
Corruption	31	54.4%
Billing	18	31.6%
Expense Reimbursements	9	15.8%
Non-Cash	8	14.0%
Check Tampering	6	10.5%
Skimming	4	7.0%
Cash on Hand	4	7.0%
Larceny	3	5.3%
Financial Statement Fraud	2	3.5%
Payroll	2	3.5%
Register Disbursements	0	0.0%

Real Estate — 57 Cases		
Scheme	**Number of Cases**	**Percent of Cases**
Billing	19	33.3%
Check Tampering	18	31.6%
Corruption	12	21.1%
Expense Reiumbursements	12	21.1%
Skimming	11	19.3%
Larceny	9	15.8%
Payroll	8	14.0%
Cash on Hand	8	14.0%
Non-Cash	7	12.3%
Financial Statement Fraud	2	3.5%
Register Disbursements	0	0.0%

Services (professional) — 51 Cases		
Scheme	**Number of Cases**	**Percent of Cases**
Billing	15	29.4%
Expense Reiumbursements	14	27.5%
Check Tampering	12	23.5%
Skimming	9	17.6%
Corruption	6	11.8%
Payroll	5	9.8%
Cash on Hand	5	9.8%
Larceny	5	9.8%
Financial Statement Fraud	4	7.8%
Non-Cash	2	3.9%
Register Disbursements	0	0.0%

Corruption Cases by Industry

Just as corruption is often observed to be particularly prominent in specific regions, certain industries are frequently thought to be more susceptible to corrupt business practices than others. For example, the mining, oil and gas, and construction industries all appear in the top five sectors for both bribery and state capture (two types of corrupt practices) in Transparency International's *2008 Bribe Payers Index*.[13] These three industries had three of the four highest rates of corruption cases in our study. More than 45% of the frauds that occurred in these industries, along with those in the wholesale trade sector, involved some form of corruption.

Corruption Cases by Industry			
Industry	**Number of Cases**	**Number of Corruption Cases**	**Percent of Corruption Cases**
Mining	12	7	58.3%
Oil and Gas	57	31	54.4%
Wholesale Trade	42	20	47.6%
Construction	77	35	45.5%
Technology	65	28	43.1%
Manufacturing	193	75	38.9%
Agriculture, Forestry, Fishing and Hunting	27	10	37.0%
Utilities	45	16	35.6%
Transportation and Warehousing	62	22	35.5%
Banking/Financial Services	298	101	33.9%
Insurance	91	30	33.0%
Government and Public Administration	176	57	32.4%
Communications/Publishing	16	5	31.3%
Healthcare	107	31	29.0%
Services (other)	88	25	28.4%
Arts, Entertainment and Recreation	49	13	26.5%
Education	90	22	24.4%
Retail	119	26	21.8%
Telecommunications	37	8	21.6%
Real Estate	27	12	21.1%
Religious, Charitable or Social Services	41	6	14.6%
Services (professional)	51	6	11.8%

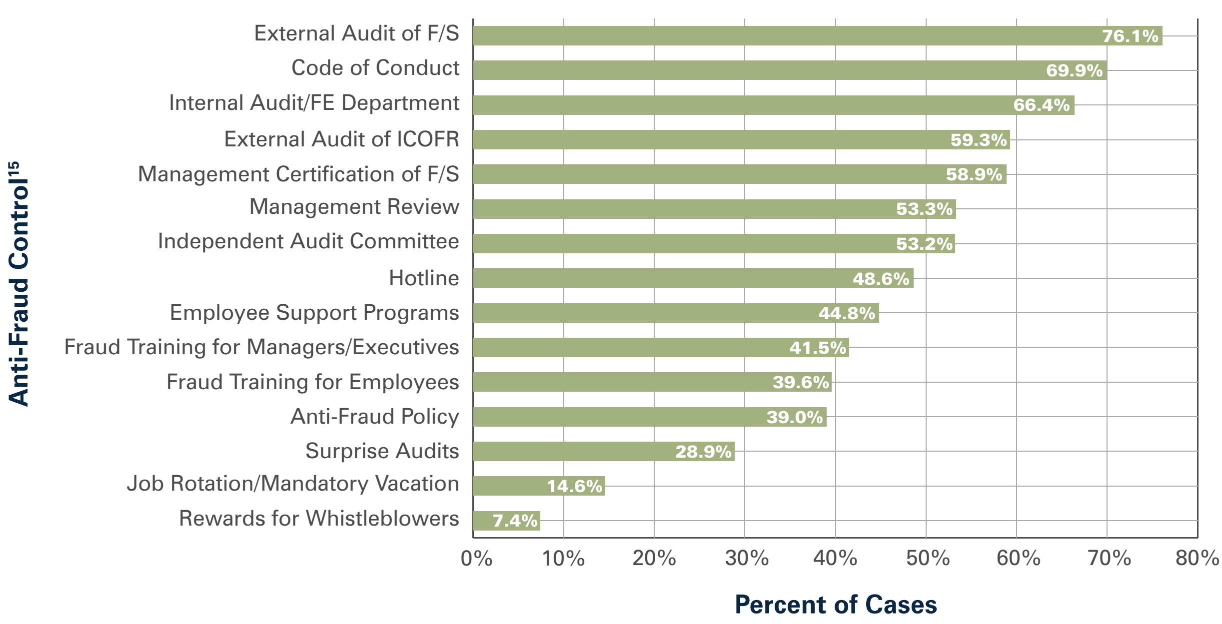
[13]Transparency International, 2008 Bribe Payers Index (Berlin: Transparency International, 2008). http://www.transparency.org/content/download/39275/622457

Anti-Fraud Controls at Victim Organizations

We asked survey participants which of several common anti-fraud controls were in place at the victim organization during the perpetration of the fraud. A distinction should be made between the following data and the prior discussion on fraud detection methods. The following analysis covers the mere presence of each control — not necessarily its role in detecting the fraud once it started. More than three-quarters of the victim organizations in our study had their financial statements audited by external auditors, while two-thirds had dedicated internal audit or fraud examination departments, and almost 60% had independent audits of their internal controls over financial reporting. Additionally, nearly 70% of the organizations had a formal code of conduct in place at the time of the fraud, though only 39% extended that to include a formal anti-fraud policy.

As mentioned in our discussion on fraud detection methods (see page 16), tips are the number one means by which fraud is detected. However, less than half of the victim organizations in our study had a hotline in place at the time the fraud occurred. There is evidence that the presence of a hotline improves organizations' ability to detect fraud and limit fraud losses (see page 43), which should cause more organizations to implement fraud hotlines.

Frequency of Anti-Fraud Controls[14]



[14]The sum of percentages in this chart exceeds 100% because many victim organizations had more than one anti-fraud control in place at the time of the fraud.

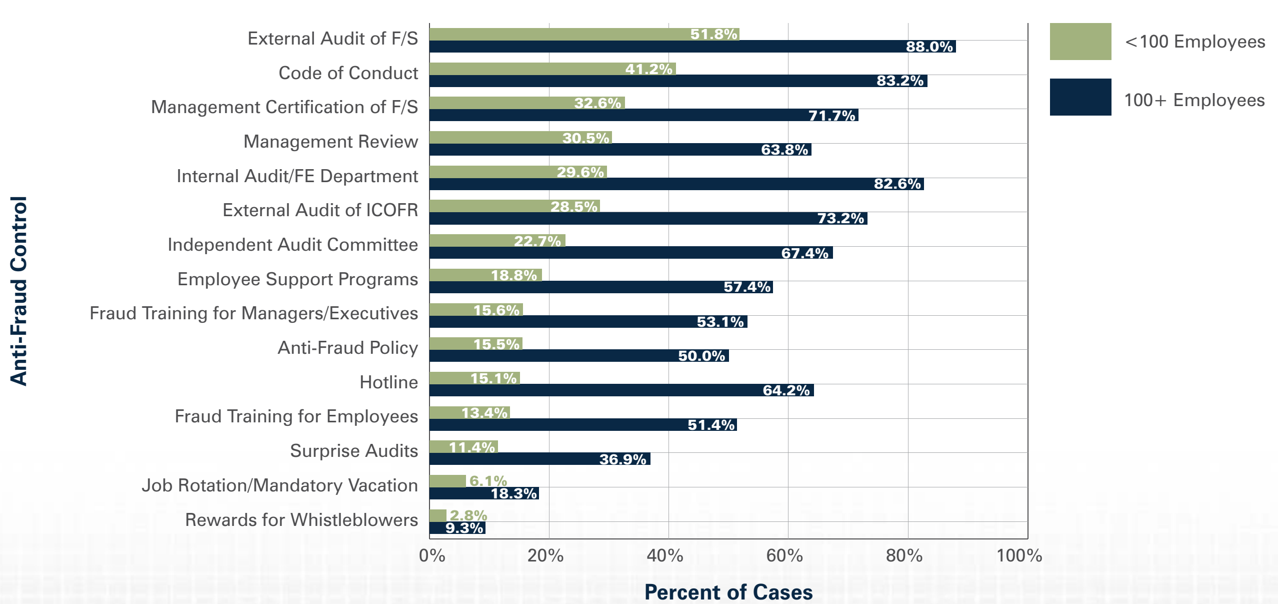
[15]**KEY:**
- External Audit of F/S = Independent external audits of the organization's financial statements
- Internal Audit / FE Department = Internal audit department or fraud examination department
- External Audit of ICOFR = Independent audits of the organization's internal controls over financial reporting
- Management Certification of F/S = Management certification of the organization's financial statements

Anti-Fraud Controls at Small Businesses

We have long hypothesized that many small companies are particularly susceptible to fraud at least partially due to the limited resources they devote to anti-fraud controls. To test this theory, we compared the presence of anti-fraud controls at those companies with fewer than 100 employees to the controls at companies with more than 100 employees. Our findings confirm what we suspected: The small companies in our study did indeed have fewer controls in place than the larger organizations, a factor that may contribute to the disproportionate impact of fraud on these companies. While discrepancies in levels of certain controls are somewhat expected given the associated costs or resources required to enact them, the gap between controls in small businesses as opposed to larger organizations is striking. For example, it would be expected that small businesses would have a lower rate of external audits and that fewer small companies would have a formal internal audit or fraud examination function. But even less expensive controls were often absent in small businesses. While 64% of large companies had some sort of management review of controls, processes, accounts or transactions, less than half as many small businesses had the same type of monitoring in place. Likewise, formal codes of conduct and anti-fraud policies cost very little to implement, but serve as an effective way to make a clear and explicit statement against fraudulent and unethical conduct within an organization. Yet only 41% and 16% of small businesses had these policies (respectively) in place when the fraud occurred — numbers dwarfed by the 83% and 50% rates of larger organizations.

Perhaps most concerning is that only 15% of small businesses had a hotline in place, compared to 64% of larger organizations. As previously discussed, our research shows that hotlines are consistently the most effective fraud detection method. Further, as discussed on page 43, the median loss for frauds at companies with hotlines was 59% smaller than the median loss for frauds at organizations without such a mechanism. Arguably, enacting hotlines would go a long way in helping small-business owners protect their assets from dishonest employees.

Frequency of Anti-Fraud Controls by Size of Victim Organization



Victim Organizations

Anti-Fraud Controls by Region

To examine how organizations in different regions approached the fight against fraud, we analyzed the presence of controls in victim organizations based on where they were located. The following tables illustrate the percentage of organizations within each region that had the corresponding control in place at the time of the fraud.

It is interesting to note the variations in use of controls by region. Specifically, for some anti-fraud controls, the proportion of victim organizations utilizing the control was markedly greater in regions containing developing countries than in those regions primarily made up of developed nations. For example, the organizations in Central/South America and the Caribbean had the highest rate of external audits of both financial statements and internal controls over financial reporting, as well as of hotlines. Similarly, codes of conduct, internal audit or fraud examination departments, management certification of financial statements, independent audit committees, anti-fraud policies and rewards for whistleblowers were all most common among the African organizations in our study, and management review, surprise audits and job rotation or mandatory vacation policies were most often implemented by Asian organizations. On the opposite end of the spectrum, the United States had the lowest rate of presence for several of these controls.

External Audit of Financial Statements

Region	Percent of Cases
Central/South America and the Caribbean	87.1%
Europe	86.0%
Africa	85.7%
Asia	83.9%
Canada	80.8%
Oceania	75.0%
United States	70.4%

Code of Conduct

Region	Percent of Cases
Africa	80.4%
Central/South America and the Caribbean	74.3%
Europe	73.9%
Canada	73.7%
Oceania	72.5%
Asia	68.5%
United States	68.0%

Internal Audit/Fraud Examination Department

Region	Percent of Cases
Africa	84.8%
Europe	76.4%
Asia	73.2%
Central/South America and the Caribbean	72.9%
Canada	61.6%
United States	60.9%
Oceania	50.0%

External Audit of ICOFR[16]

Region	Percent of Cases
Central/South America and the Caribbean	65.7%
Asia	64.4%
Africa	64.3%
United States	58.2%
Canada	57.6%
Europe	56.7%
Oceania	52.5%

[16]External Audit of ICOFR = Independent audits of the organization's internal controls over financial reporting.

Management Certification of Financial Statements

Region	Percent of Cases
Africa	68.8%
Canada	65.7%
Oceania	65.0%
Asia	62.8%
Europe	62.4%
United States	56.0%
Central/South America and Caribbean	51.4%

Independent Audit Committee

Region	Percent of Cases
Africa	63.4%
Canada	59.6%
Oceania	57.5%
Asia	54.7%
Central/South America and Caribbean	54.3%
Europe	54.1%
United States	50.8%

Employee Support Programs

Region	Percent of Cases
Canada	57.6%
United States	54.8%
Oceania	45.0%
Africa	38.4%
Central/South America and Caribbean	30.0%
Europe	28.0%
Asia	22.5%

Fraud Training for Employees

Region	Percent of Cases
United States	42.7%
Africa	39.3%
Europe	37.6%
Asia	37.2%
Central/South America and Caribbean	32.9%
Canada	29.3%
Oceania	22.5%

Management Review

Region	Percent of Cases
Asia	59.4%
Europe	54.8%
Canada	53.5%
Africa	52.7%
Oceania	52.5%
United States	51.6%
Central/South America and Caribbean	50.0%

Hotline

Region	Percent of Cases
Central/South America and Caribbean	52.9%
United States	52.0%
Africa	47.3%
Europe	45.9%
Asia	43.3%
Canada	41.4%
Oceania	25.0%

Fraud Training for Managers/Executives

Region	Percent of Cases
United States	44.5%
Africa	41.1%
Asia	40.9%
Europe	37.6%
Central/South America and Caribbean	37.1%
Canada	30.3%
Oceania	25.0%

Anti-Fraud Policy

Region	Percent of Cases
Africa	49.1%
United States	38.7%
Central/South America and Caribbean	38.6%
Canada	38.4%
Asia	36.6%
Europe	36.3%
Oceania	32.5%

Victim Organizations

Surprise Audits	
Region	**Percent of Cases**
Asia	39.3%
Africa	30.4%
Canada	28.3%
United States	27.2%
Europe	24.8%
Central/South America and Caribbean	24.3%
Oceania	15.0%

Job Rotation/Mandatory Vacation	
Region	**Percent of Cases**
Asia	21.8%
Africa	20.5%
Europe	14.0%
Canada	13.1%
United States	12.6%
Central/South America and Caribbean	11.4%
Oceania	5.0%

Rewards for Whistleblowers	
Region	**Percent of Cases**
Africa	9.8%
Asia	9.4%
United States	7.4%
Central/South America and Caribbean	5.7%
Canada	4.0%
Europe	3.8%
Oceania	2.5%

Effectiveness of Controls

We compared the median loss experienced by those organizations that had a particular anti-fraud control against the median loss for those organizations without that control at the time of the fraud. Hotlines were the control with the greatest associated reduction in median loss, reinforcing their value as an effective anti-fraud measure. Employee support programs, surprise audits and fraud training for staff members at all levels were also associated with median loss reductions of more than 50%. Interestingly, financial statement audits — the most commonly implemented control — was among the controls with the smallest associated reduction in median loss.

Median Loss Based on Presence of Anti-Fraud Controls

Control[17]	Percent of Cases Implemented	Control in Place	Control Not in Place	Percent Reduction
Hotline	48.6%	$100,000	$245,000	59.2%
Employee Support Programs	44.8%	$100,000	$244,000	59.0%
Surprise Audits	28.9%	$97,000	$200,000	51.5%
Fraud Training for Employees	39.6%	$100,000	$200,000	50.0%
Fraud Training for Managers/Execs	41.5%	$100,000	$200,000	50.0%
Job Rotation/Mandatory Vacation	14.6%	$100,000	$188,000	46.8%
Code of Conduct	69.9%	$140,000	$262,000	46.6%
Anti-Fraud Policy	39.0%	$120,000	$200,000	40.0%
Management Review	53.3%	$120,000	$200,000	40.0%
External Audit of ICOFR	59.3%	$140,000	$215,000	34.9%
Internal Audit/FE Department	66.4%	$145,000	$209,000	30.6%
Independent Audit Committee	53.2%	$140,000	$200,000	30.0%
Management Certification of F/S	58.9%	$150,000	$200,000	25.0%
External Audit of F/S	76.1%	$150,000	$200,000	25.0%
Rewards for Whistleblowers	7.4%	$119,000	$155,000	23.2%

Similarly, we compared the duration of fraud schemes at organizations with and without anti-fraud controls. As reflected in the table below, the presence of each control correlated with a reduction in the duration of fraud. We found it interesting that the controls associated with the greatest reduction in scheme lengths are not the same as the ones that had the most impact on median loss.

Duration Based on Presence of Anti-Fraud Controls

Control[17]	Percent of Cases Implemented	Control in Place	Control Not in Place	Percent Reduction
Management Review	53.3%	12 months	24 months	50.0%
Internal Audit/FE Department	66.4%	14 months	24 months	41.7%
External Audit of ICOFR	59.3%	15 months	24 months	37.5%
Code of Conduct	69.9%	15 months	24 months	37.5%
Surprise Audits	28.9%	12 months	19 months	36.8%
Hotline	48.6%	13 months	20 months	35.0%
Management Certification of F/S	58.9%	15 months	23 months	34.8%
Rewards for Whistleblowers	7.4%	12 months	18 months	33.3%
Job Rotation/Mandatory Vacation	14.6%	12 months	18 months	33.3%
External Audit of F/S	76.1%	16 months	24 months	33.3%
Anti-Fraud Policy	39.0%	13 months	18 months	27.8%
Fraud Training for Employees	39.6%	13 months	18 months	27.8%
Fraud Training for Managers/Execs	41.5%	13 months	18 months	27.8%
Independent Audit Committee	53.2%	15 months	20 months	25.0%
Employee Support Programs	44.8%	15 months	18 months	16.7%

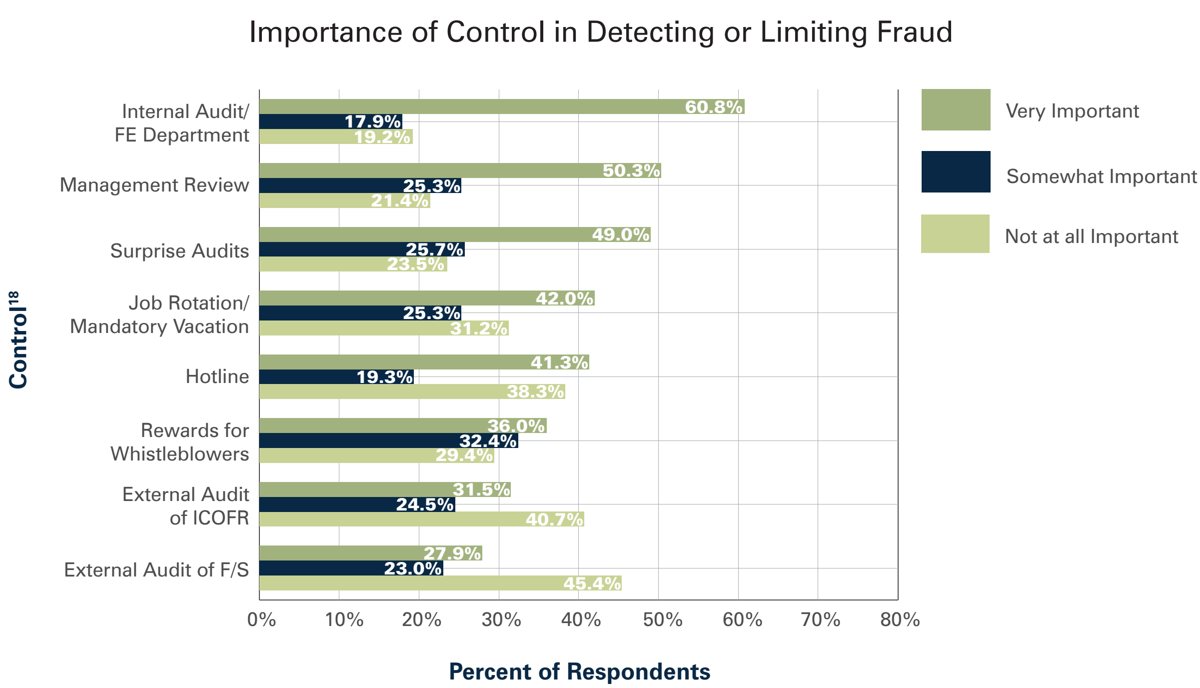
[17]**KEY:**
- External Audit of F/S = Independent external audits of the organization's financial statements
- Internal Audit / FE Department = Internal audit department or fraud examination department
- External Audit of ICOFR = Independent audits of the organization's internal controls over financial reporting
- Management Certification of F/S = Management certification of the organization's financial statements

Victim Organizations

Importance of Controls in Detecting or Limiting Fraud

Not all controls are effective against all frauds. Most control mechanisms are more likely to detect or deter some fraud schemes than others. Likewise, some perpetrators are more adept than others at circumventing particular controls, and some controls are more susceptible to being overridden than others.

We thought it useful to examine which controls had the greatest effect on the frauds reported in our study. We asked the CFEs who took part in our survey to rank the importance of several anti-fraud controls in detecting or limiting the fraud. The following chart shows the respondents' opinions regarding each control's usefulness.

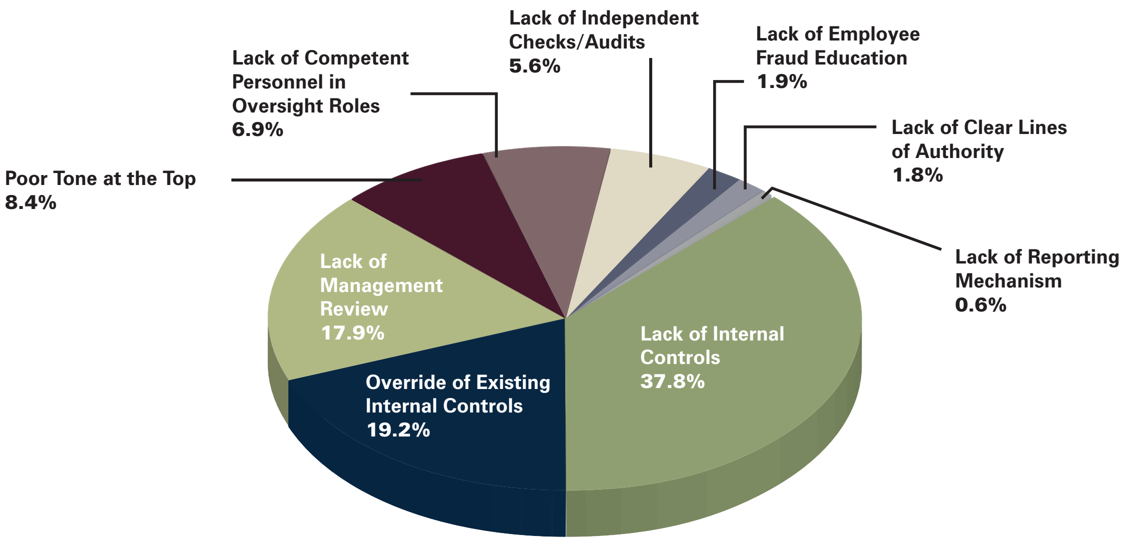


[18]KEY:
- External Audit of F/S = Independent external audits of the organization's financial statements
- Internal Audit / FE Department = Internal audit department or fraud examination department
- External Audit of ICOFR = Independent audits of the organization's internal controls over financial reporting
- Management Certification of F/S = Management certification of the organization's financial statements

Control Weaknesses That Contributed to Fraud

We also asked survey respondents to identify which of several common issues they considered to be the primary factor that allowed the fraud to occur. A lack of internal controls, such as segregation of duties, was cited as the biggest deficiency in 38% of the cases. In more than 19% of the cases, internal controls were in place but were overridden by the perpetrator or perpetrators in order to commit and conceal the fraud. Interestingly, even though hotlines are consistently the most effective detective control mechanism, and even though less than half of the victim organizations had a hotline in place at the time of the fraud, a lack of reporting mechanism was the control deficiency least commonly cited by the CFEs who participated in our study.

Primary Internal Control Weakness Observed by CFEs

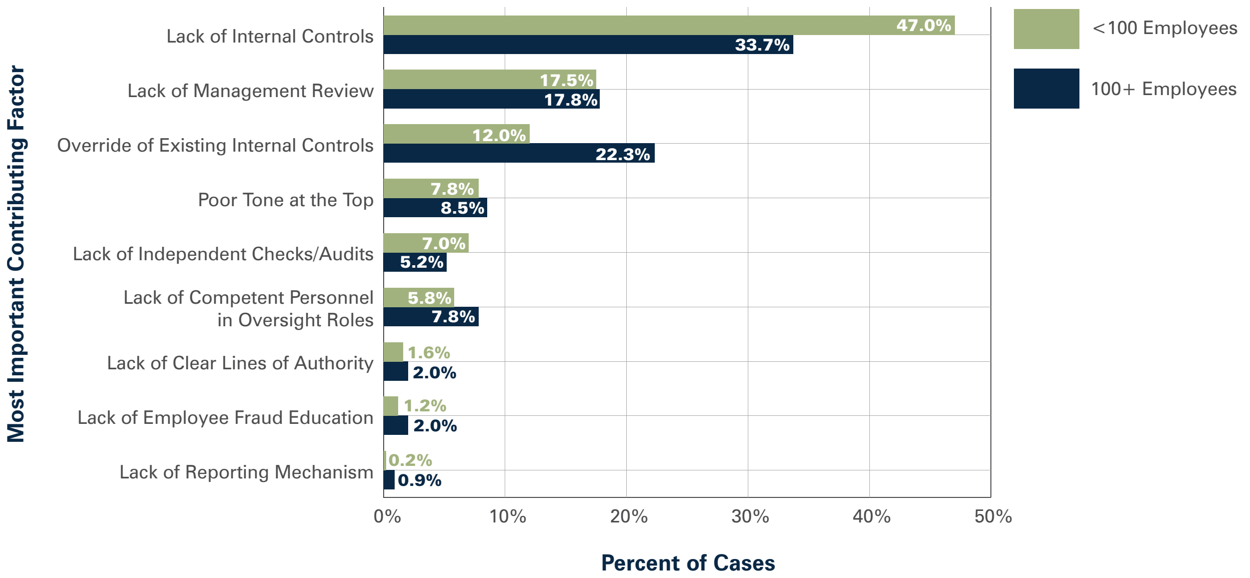


To further examine the unique challenges faced by small businesses, we compared internal control weaknesses at organizations with fewer than 100 employees to those at larger organizations. As shown in the chart at the top of page 46, the small organizations had a noted deficiency in internal controls that allowed fraud to occur. In nearly half of the cases at small companies, a lack of internal controls was cited as the factor that most contributed to the occurrence of the fraud. Control overrides were markedly less common at small companies than at their larger counterparts, most likely because the lack of controls in so many small organizations meant there was nothing to override.

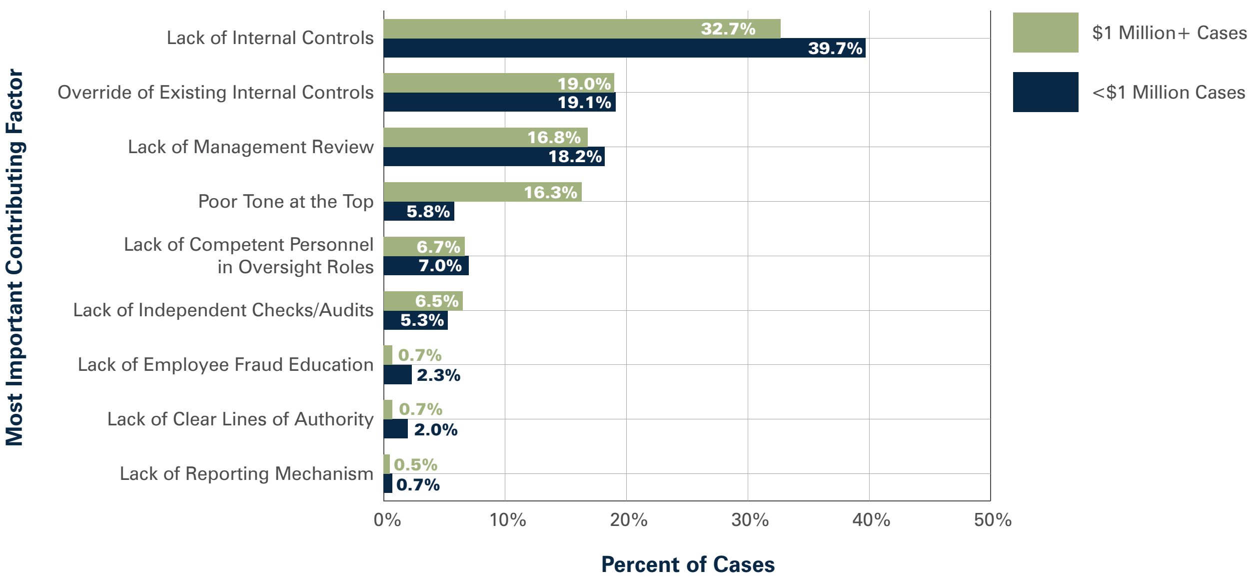
We were also interested to see what factors led to the success of the largest frauds in our study — those causing losses of more than $1 million. Clearly, one deficiency is much more common in the million-dollar frauds than in smaller frauds: a poor tone at the top. This weakness was cited nearly three times as often in million-dollar cases as in cases with smaller losses.

Victim Organizations

Primary Internal Control Weakness by Size of Victim Organization



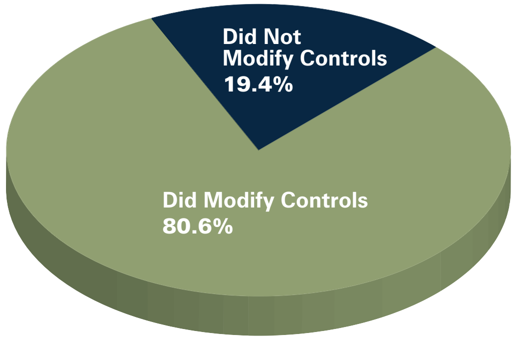
Primary Internal Control Weakness in Largest Cases



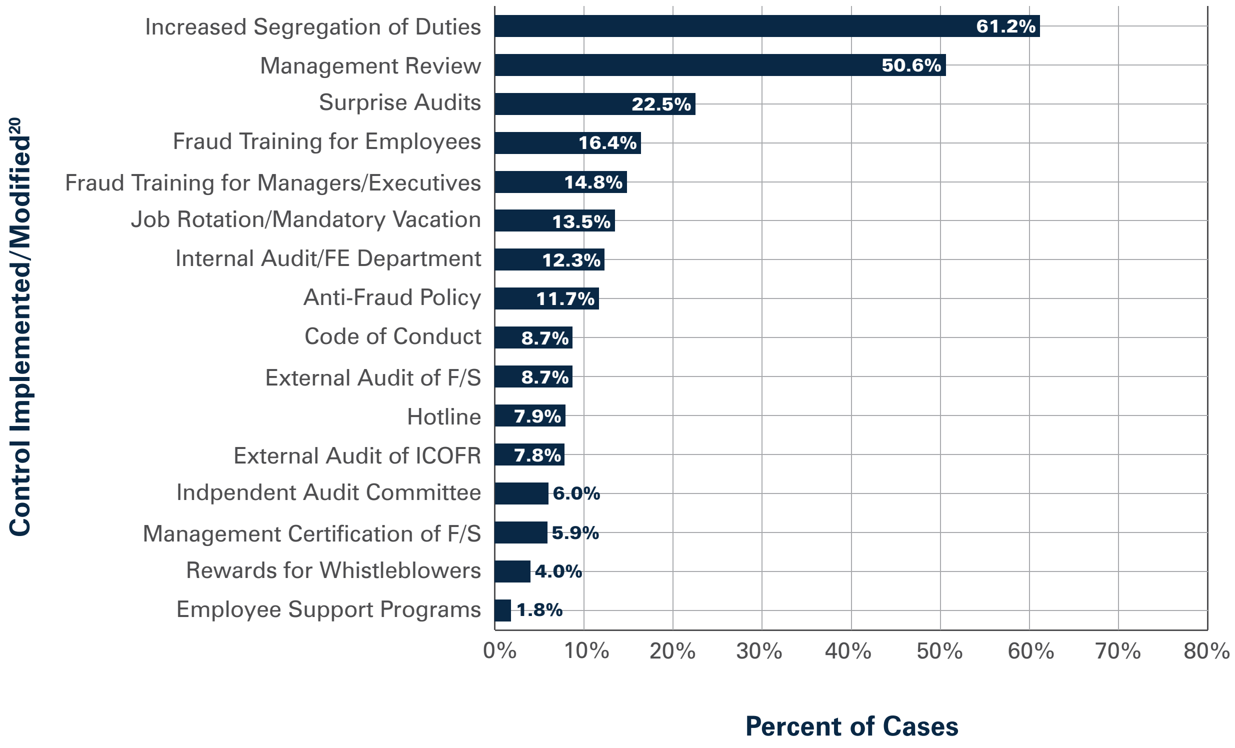
Modification of Controls

In response to the discovery of the fraud, more than 80% of the victim organizations in our study implemented or modified internal controls. While this percentage is quite high, it indicates that nearly one out of five victims retained the same control system — or lack thereof — that was ineffective in preventing the reported fraud schemes. Of those organizations that did implement or modify their internal controls in response to the fraud, more than 60% increased segregation of duties, more than half added formal review of internal controls by management and 23% implemented surprise audits.

Victim Organizations That Modified Controls After Discovery of Fraud



Internal Controls Modified or Implemented in Response to Fraud[19]



[19]The sum of percentages in this chart exceeds 100% because many victim organizations modified more than one anti-fraud control in response to the fraud.

[20]**KEY:**
- External Audit of F/S = Independent external audits of the organization's financial statements
- Internal Audit / FE Department = Internal audit department or fraud examination department
- External Audit of ICOFR = Independent audits of the organization's internal controls over financial reporting
- Management Certification of F/S = Management certification of the organization's financial statements

Perpetrators

We asked respondents to provide information about the fraud perpetrators in their cases so we could better understand how occupational fraud levels and losses are related to demographic information such as age, job type, gender, education and position of authority. In cases where there were multiple offenders, the responses relate to the principal perpetrator — the person identified by the CFE as the primary culprit in the case. The following is a summary of the data we received.

We collected information about the individuals responsible for occupational fraud in order to better understand the characteristics of those who commit fraud.

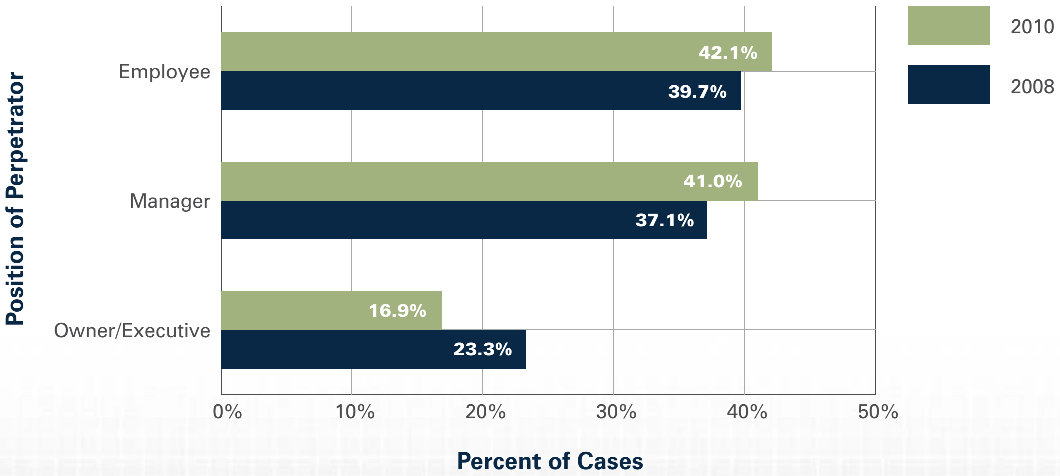
More than 80% of the frauds in our study were committed by individuals in six departments: accounting, operations, sales, executive/upper management, customer service and purchasing.

Perpetrator's Position

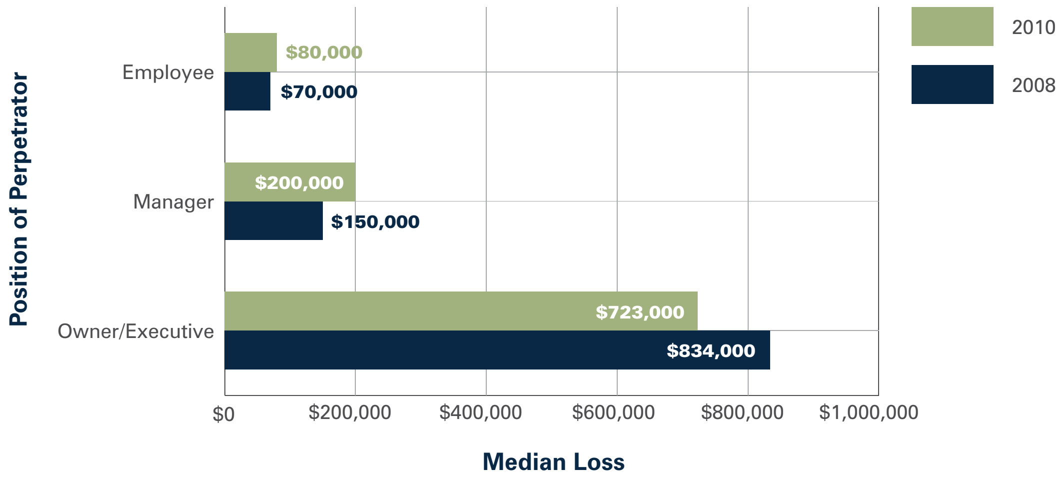
We asked survey respondents whether the perpetrator was an employee, a manager or an owner/executive. Below we see that the distribution of cases based on the perpetrator's position was fairly similar to what we found in our 2008 study, although the 2010 distribution was slightly more skewed toward employees and managers.

Not surprisingly, there was a strong correlation between the perpetrator's position of authority and the losses caused by fraud. The median loss in owner/executive frauds was more than three times the loss caused by managers, and more than nine times higher than losses in employee fraud cases.

Position of Perpetrator — Frequency



Position of Perpetrator — Median Loss



As the following table illustrates, frauds committed by higher-level perpetrators also took longer to detect. Cases perpetrated by owners and executives typically lasted for two years before they were detected — nearly twice as long as employee frauds.

Months to Detection Based on Position

Position	Median Months to Detect
Employee	13
Manager	18
Owner/Executive	24

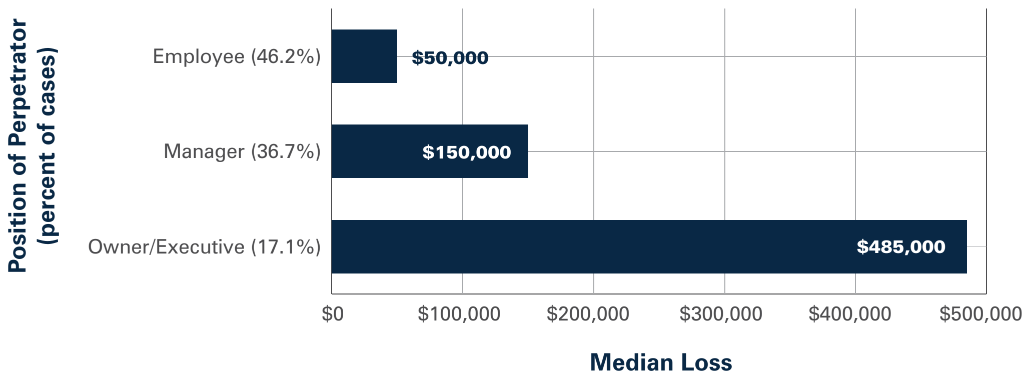
Position of Perpetrators by Region

The charts on pages 50-52 present the distribution of perpetrators by level of authority for each region. In every region, owners/executives accounted for between 12% and 18% of reported frauds, and the losses caused by owners/executives were significantly higher than those caused by managers or employees.

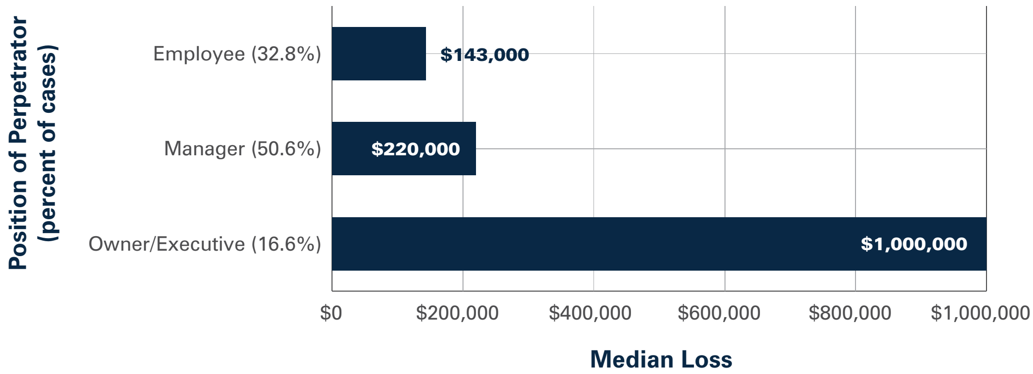
In the United States and Canada, employees were the largest block of fraud perpetrators (46% in each country). In Europe, Asia and Central/South America, however, managers accounted for 50% or more of the reported occupational frauds. In Africa and Oceania, the number of frauds committed by managers and employees were roughly equal.

Perpetrators

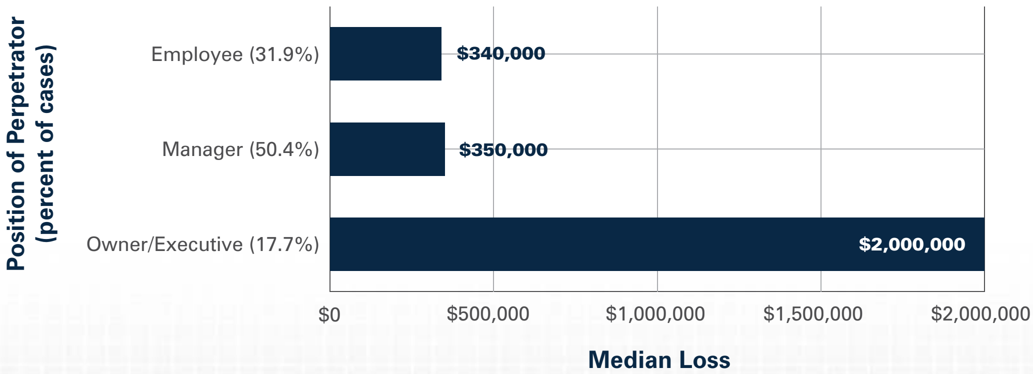
Position of Perpetrator in the United States — 968 Cases



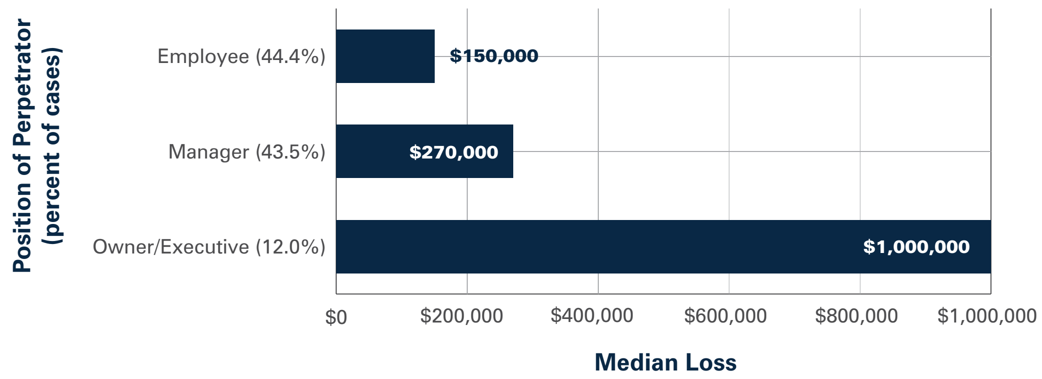
Position of Perpetrator in Asia — 259 Cases



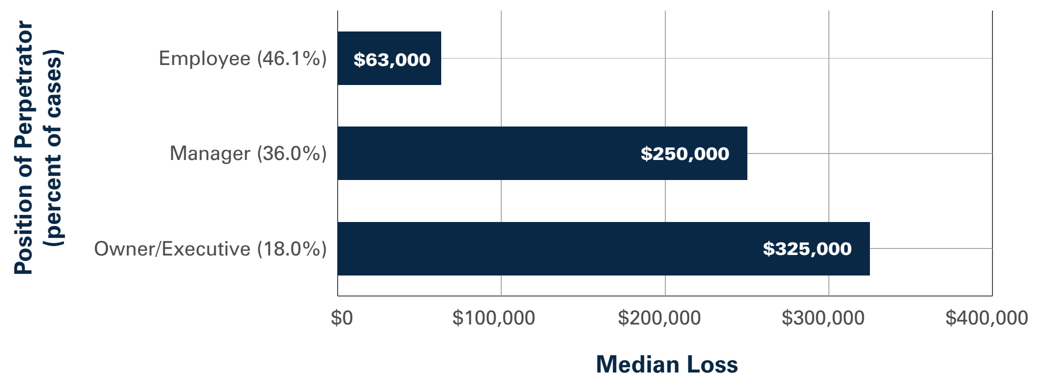
Position of Perpetrator in Europe — 141 Cases



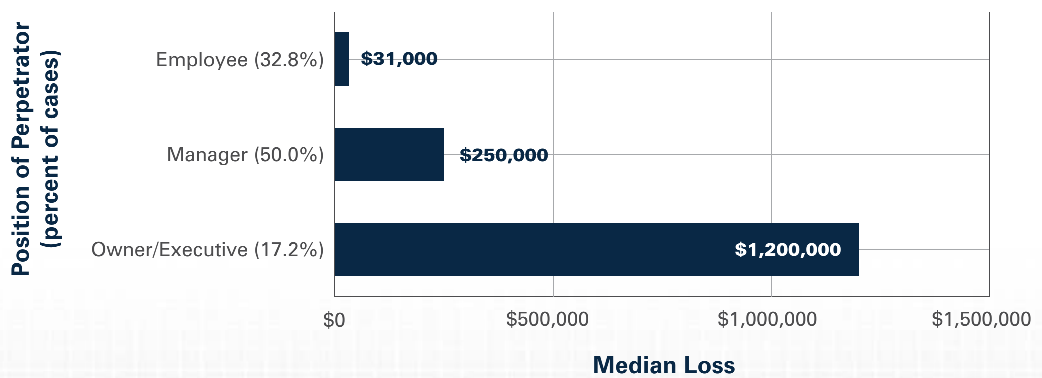
Position of Perpetrator in Africa — 108 Cases



Position of Perpetrator in Canada — 89 Cases

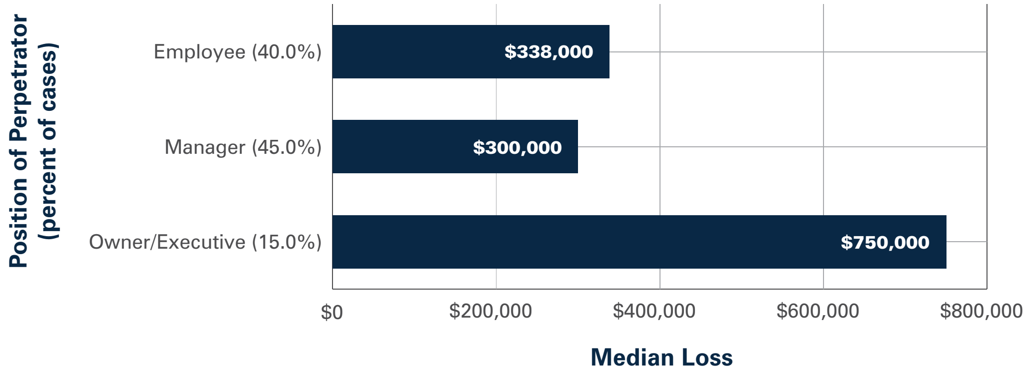


Position of Perpetrator in Central/South America and the Caribbean — 64 Cases



Perpetrators

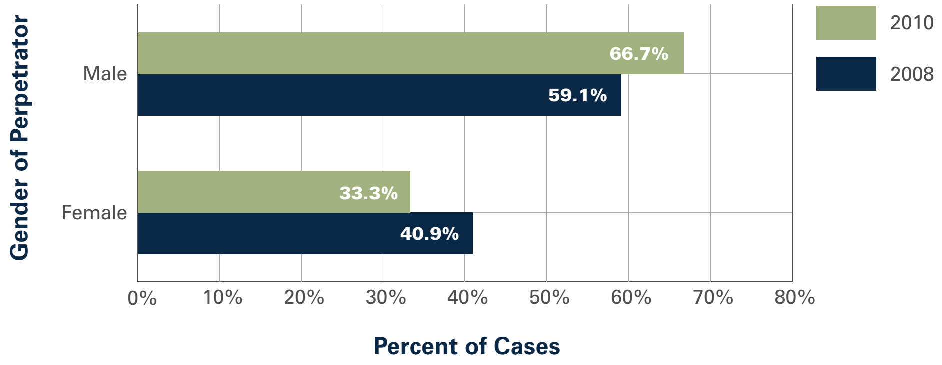
Position of Perpetrator in Oceania — 40 Cases



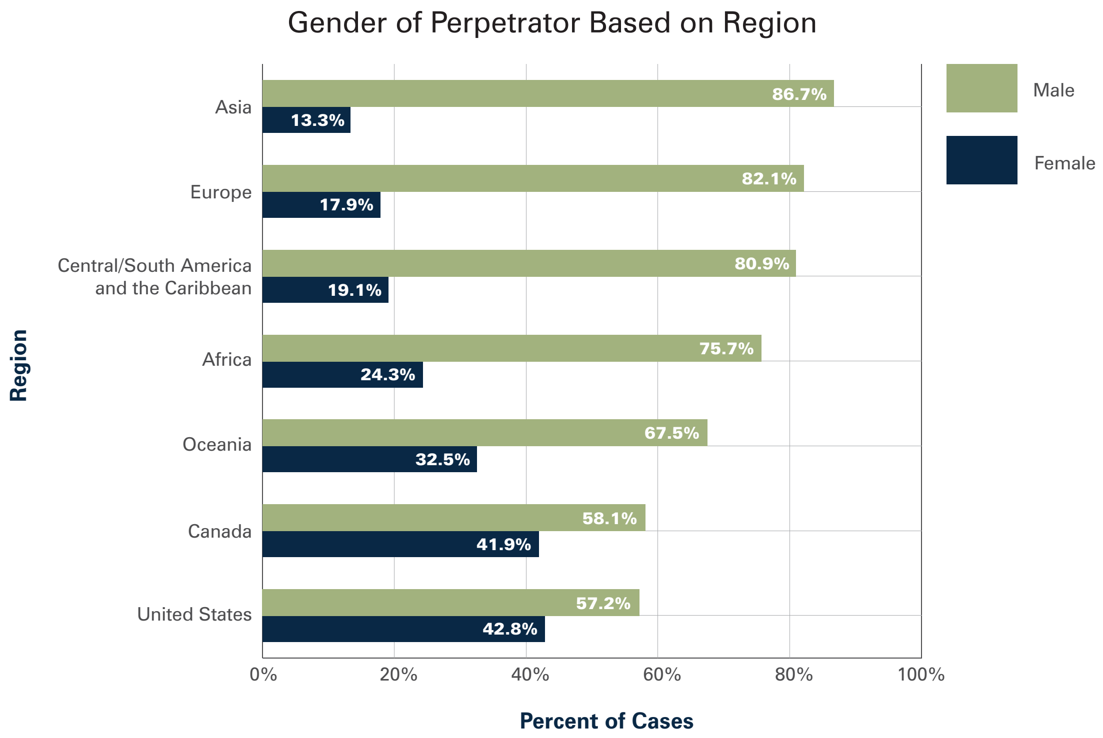
Perpetrator's Gender

Two-thirds of the frauds in our study were committed by males, which is a higher percentage than we encountered in 2008, but consistent with the overall trend noted in prior reports that most occupational frauds are committed by men.

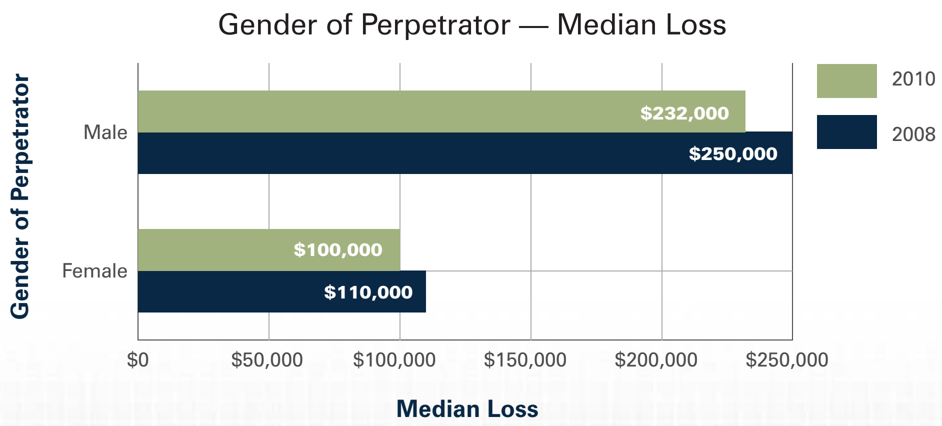
Gender of Perpetrator — Frequency



The following chart shows the gender of perpetrators based on the region in which frauds occurred. Asia had the highest ratio of male perpetrators (87%), while the United States had the lowest (57%).



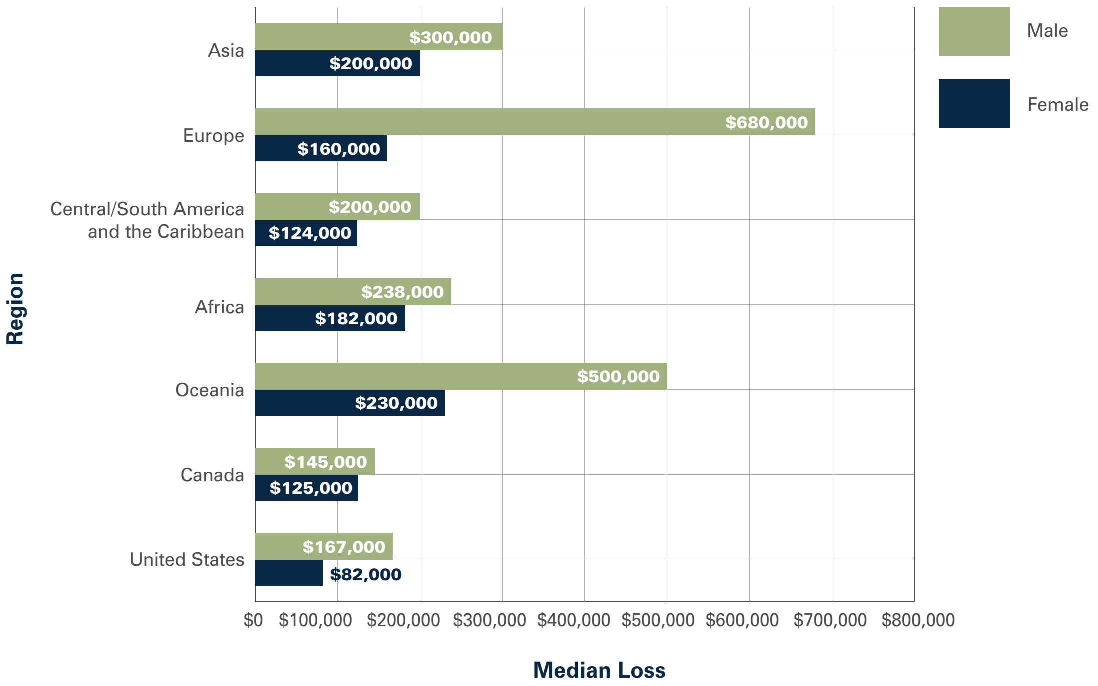
Males accounted for significantly higher median fraud losses than females, which is also consistent with our previous studies. The median loss caused by a male perpetrator was more than twice as high as the median loss caused by a female.



Perpetrators

When broken down by region, we see that fraud losses caused by male perpetrators were higher than females in every region. The gap was particularly large in Europe and Oceania.[21]

Median Loss Based on Gender and Region of Perpetrator



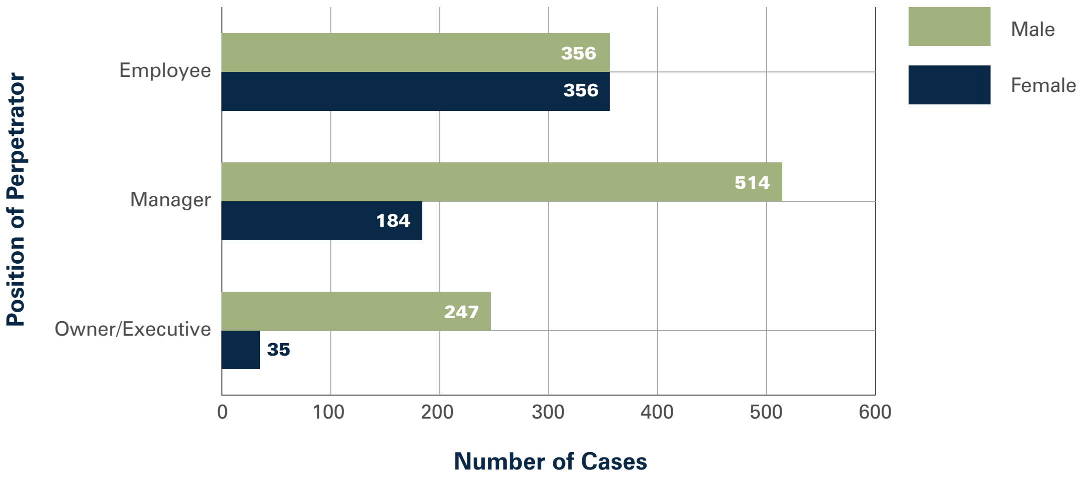
To some extent, the higher losses caused by males are attributable to the fact that they tended to occupy higher positions of authority within the victim organizations. There were an equal number of male and female fraudsters at the employee level, but the manager and owner/executive levels — which tend to cause higher losses — were dominated by males. Seventy-four percent of all managers and 88% of all owners/executives in the study were male.

Surprisingly, though, even when we compared median losses within each position group, male fraud losses tended to be higher. At the employee level, losses caused by males were 36% higher than those caused by females; at the manager level, they were 67% higher, and at the owner/executive level, they were 325% higher.[22]

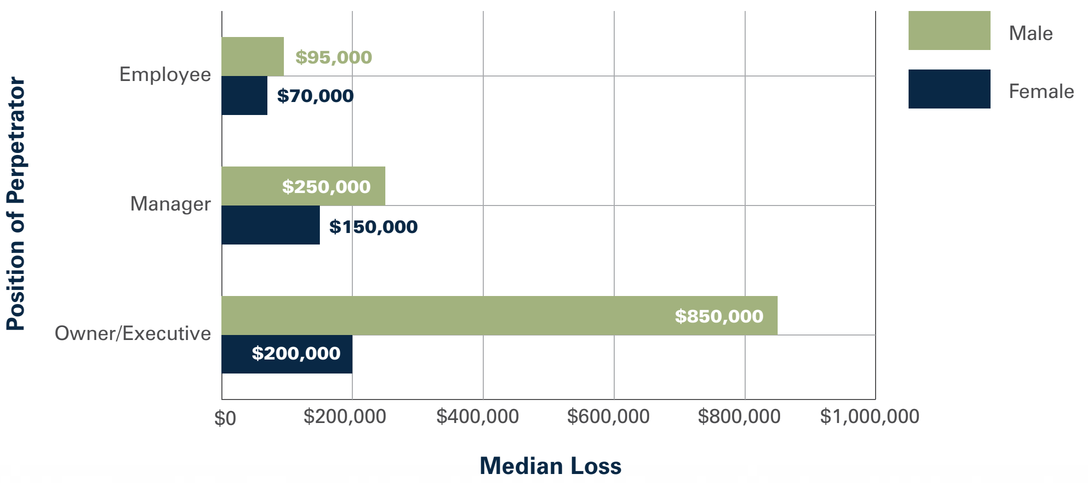
[21]There was a small sample of only 40 cases in Oceania, which may impact the reliability of the findings from that region.
[22]There was a small sample of only 35 frauds committed by female owners and executives, which may impact the reliability of that data.

It is unclear exactly why this trend appears in our data, but one possible explanation is that even within each position group, there tend to be bands of authority — meaning some managers or executives have more authority than others. We could be seeing the effect of higher male authority within each position.

Position of Perpetrator Based on Gender



Position of Perpetrator — Median Loss Based on Gender

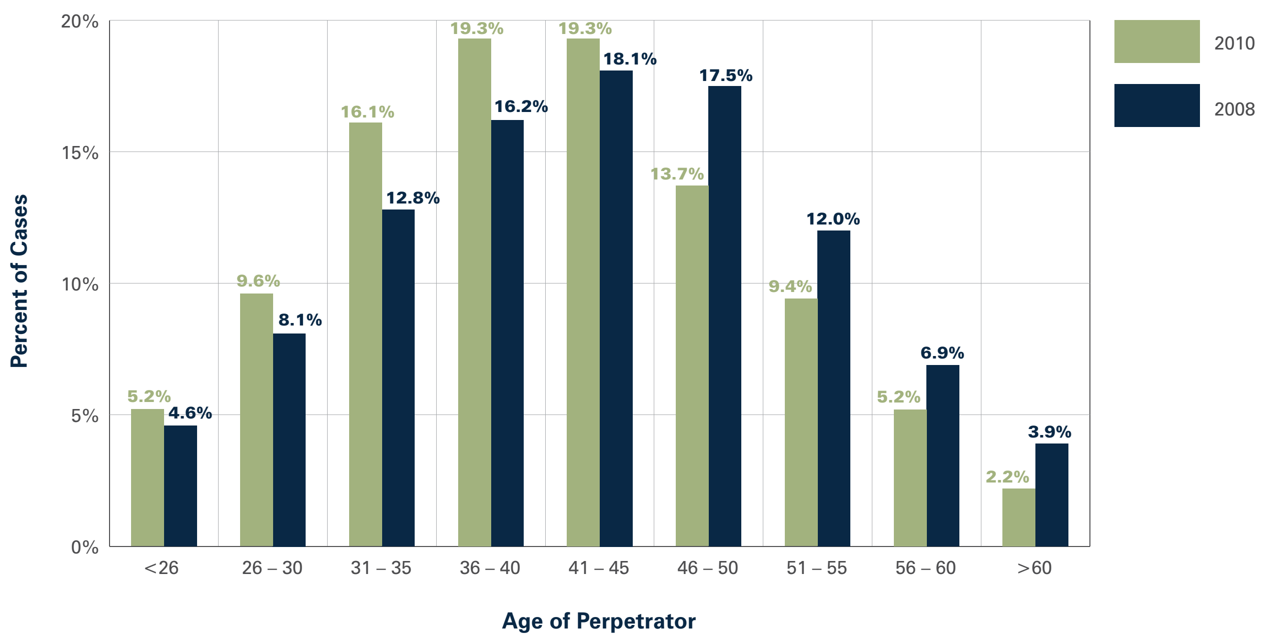


Perpetrators

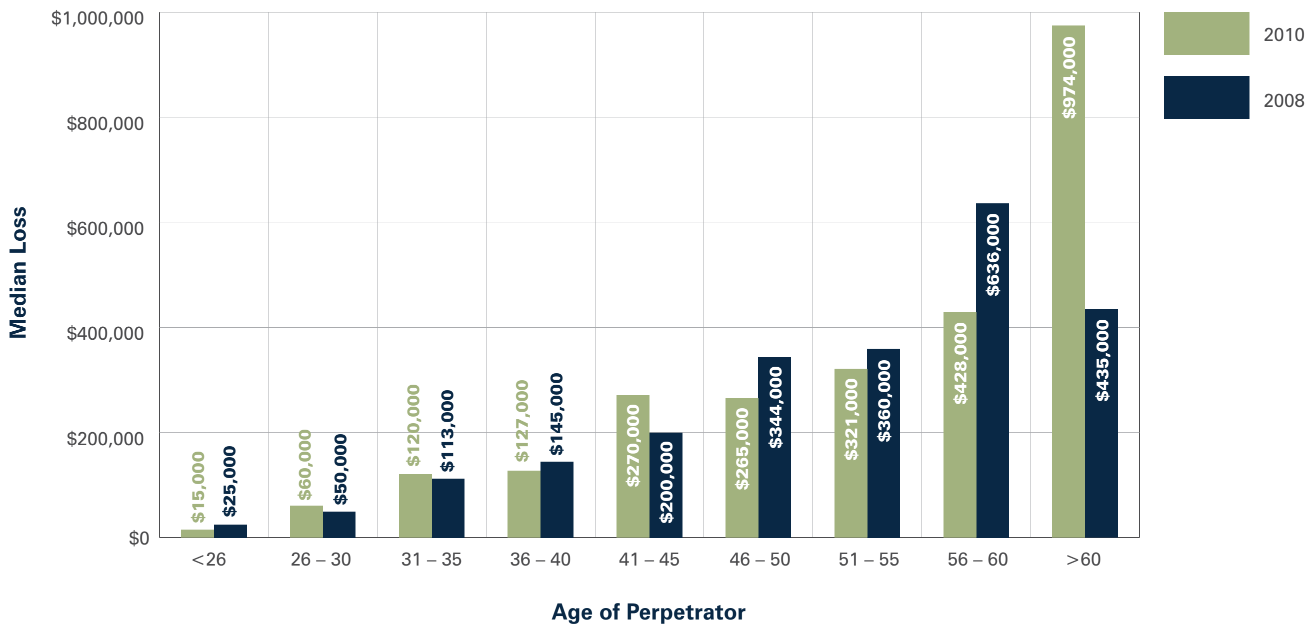
Perpetrator's Age

The distribution of perpetrators based on their age was similar to our 2008 study, but the 2010 perpetrators tended to be slightly younger. Our past reports have generally shown the highest levels of fraud to occur in the 36–50 age range, but this year we found more than half of all cases were committed by individuals between the ages of 31 and 45. Generally speaking, median losses tended to rise with the age of the perpetrator, which is consistent with our prior research. The most notable difference between 2008 and 2010 is the losses caused by perpetrators older than 60. In each study, however, we were dealing with fewer than 40 cases in that category. Given the small sample size, we believe this is more likely to be an anomaly than an indication of any particular trend.

Age of Perpetrator — Frequency



Age of Perpetrator — Median Loss



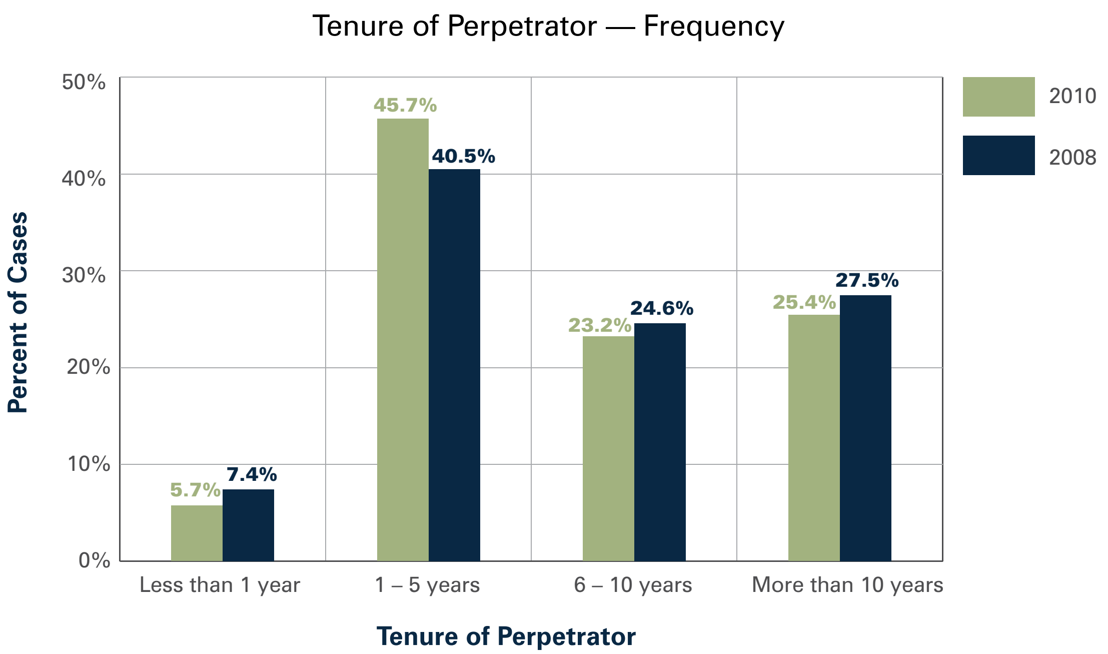
Perpetrator's Tenure

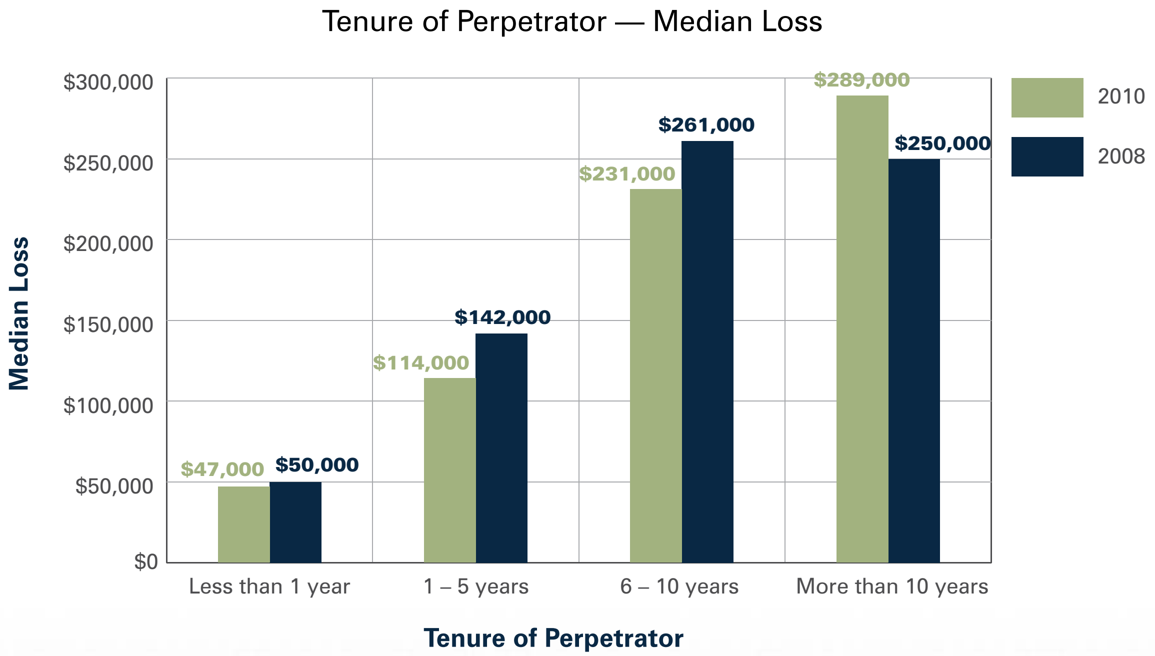
Tenure may have an effect on occupational fraud rates and losses because individuals who work for an organization for a longer period of time tend to engender more trust from their co-workers and superiors. They also may acquire higher levels of authority, and they tend to develop a better understanding of the organization's internal practices and procedures, which can help them design frauds that will evade internal controls.

The distribution of fraudsters based on their tenure in this study was very similar to what we found in 2008. More than 40% of perpetrators had between one and five years of experience at the victim organization when they committed the fraud, while a very small percentage had been with the victim organization for less than a year. About half of all fraudsters had been with the victim for more than five years (see page 58).

As would be expected, losses tended to rise as the perpetrators' tenure increased. Employees who had more than five years of tenure with the victim organization caused median losses of more than $200,000. Those who had been with the victim for five years or less caused much lower losses.

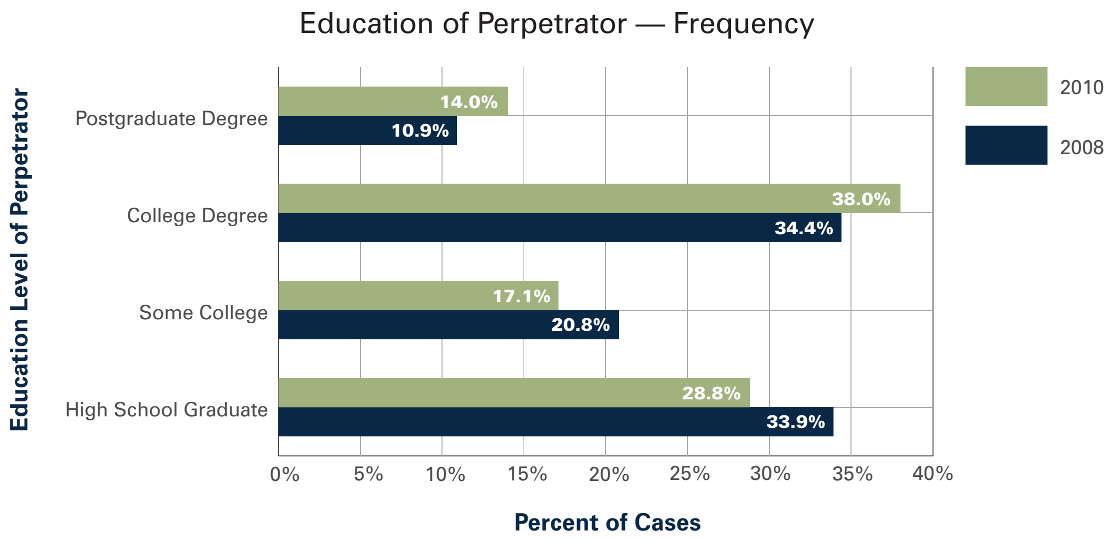
Perpetrators

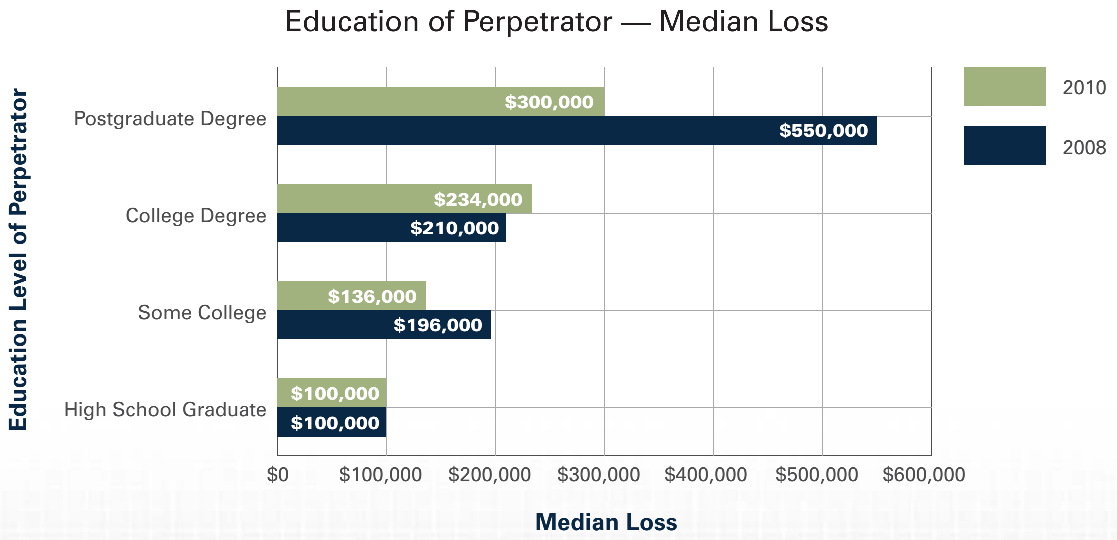




Perpetrator's Education Level

Education level may also affect fraud rates and losses, because more highly educated individuals tend to have greater levels of responsibility and perhaps greater technical ability to design sophisticated fraud schemes. The following chart shows the distribution of perpetrators in this study based on their education level. Fifty-two percent of all perpetrators had a college or postgraduate degree, which was up slightly from our 2008 findings. As would be expected, median losses rose in correlation with increased education levels, but losses caused by individuals with a postgraduate degree were much lower in 2010 than in our 2008 study.





Perpetrators

Perpetrator's Department

The table below left shows how frauds were distributed across various departments within the victim organizations. Interestingly, 80% of all frauds in this study were committed by employees in six departments: accounting, operations, sales, executive/upper management, customer service and purchasing. In our 2008 study, these six departments accounted for 83% of all cases. Additionally, the frauds in these six departments also accounted for 95% of all losses in our 2010 study, and 99% in 2008.

The table below right presents the same data on frauds by department, but is sorted based on median losses. Among the six highest-frequency departments we see that upper management ($829,000) and purchasing ($500,000) caused the highest median losses. Frauds committed in the sales ($95,000) and customer service ($46,000) departments tended to result in much lower losses.

Number of Cases Based on Perpetrator's Department

Department	Number of Cases	Percentage	Median Loss
Accounting	367	22.0%	$180,000
Operations	299	18.0%	$105,000
Sales	225	13.5%	$95,000
Executive/Upper Management	224	13.5%	$829,000
Customer Service	120	7.2%	$46,000
Purchasing	103	6.2%	$500,000
Warehousing/Inventory	78	4.7%	$239,000
Finance	70	4.2%	$450,000
Information Technology	47	2.8%	$71,400
Marketing/Public Relations	34	2.0%	$248,000
Manufacturing and Production	28	1.7%	$150,000
Board of Directors	24	1.4%	$800,000
Human Resources	22	1.3%	$200,000
Research and Development	13	0.8%	$100,000
Legal	8	0.5%	$566,000
Internal Audit	3	0.2%	$13,000

Median Loss Based on Perpetrator's Department

Department	Number of Cases	Percentage	Median Loss
Executive/Upper Management	224	13.5%	$829,000
Board of Directors	24	1.4%	$800,000
Legal	8	0.5%	$566,000
Purchasing	103	6.2%	$500,000
Finance	70	4.2%	$450,000
Marketing/Public Relations	34	2.0%	$248,000
Warehousing/Inventory	78	4.7%	$239,000
Human Resources	22	1.3%	$200,000
Accounting	367	22.0%	$180,000
Manufacturing and Production	28	1.7%	$150,000
Operations	299	18.0%	$105,000
Research and Development	13	0.8%	$100,000
Sales	225	13.5%	$95,000
Information Technology	47	2.8%	$71,400
Customer Service	120	7.2%	$46,000
Internal Audit	3	0.2%	$13,000

Perpetrator's Department Based on Region

The following tables show the distribution of perpetrators based on their department for each region. In every region but Asia, accounting departments were associated with the greatest number of frauds. Overall, the distribution of cases was very similar regardless of region. The six highest-frequency departments (accounting, operations, sales, executive/upper management, customer service and purchasing) accounted for between 70% and 85% of the cases in every region.

United States — 913 Cases

Department	Number of Cases	Percent of Cases
Accounting	222	24.3%
Operations	189	20.7%
Executive/Upper Management	127	13.9%
Sales	120	13.1%
Customer Service	77	8.4%
Purchasing	39	4.3%
Warehousing/Inventory	36	3.9%
Finance	28	3.1%
Information Technology	26	2.8%
Manufacturing and Production	11	1.2%
Marketing/Public Relations	11	1.2%
Legal	7	0.8%
Board of Directors	6	0.7%
Human Resources	6	0.7%
Research and Development	6	0.7%
Internal Audit	2	0.2%

Europe — 146 Cases

Department	Number of Cases	Percent of Cases
Accounting	26	17.8%
Executive/Upper Management	23	15.8%
Operations	21	14.4%
Purchasing	13	8.9%
Sales	13	8.9%
Finance	11	7.5%
Customer Service	8	5.5%
Warehousing/Inventory	8	5.5%
Board of Directors	6	4.1%
Information Technology	6	4.1%
Marketing/Public Relations	5	3.4%
Research and Development	4	2.7%
Human Resources	1	0.7%
Manufacturing and Production	1	0.7%

Asia — 272 Cases

Department	Number of Cases	Percent of Cases
Sales	57	21.0%
Operations	42	15.4%
Accounting	41	15.1%
Executive/Upper Management	38	14.0%
Purchasing	29	10.7%
Finance	11	4.0%
Warehousing/Inventory	11	4.0%
Customer Service	9	3.3%
Board of Directors	8	2.9%
Marketing/Public Relations	8	2.9%
Human Resources	6	2.2%
Manufacturing and Production	6	2.2%
Information Technology	4	1.5%
Internal Audit	1	0.4%
Research and Development	1	0.4%

Africa — 105 Cases

Department	Number of Cases	Percent of Cases
Accounting	31	29.5%
Operations	13	12.4%
Finance	11	10.5%
Customer Service	9	8.6%
Executive/Upper Management	9	8.6%
Purchasing	7	6.7%
Warehousing/Inventory	6	5.7%
Human Resources	5	4.8%
Sales	5	4.8%
Information Technology	3	2.9%
Manufacturing and Production	3	2.9%
Board of Directors	1	1.0%
Legal	1	1.0%
Marketing/Public Relations	1	1.0%

Perpetrators

Canada — 89 Cases		
Department	**Number of Cases**	**Percent of Cases**
Accounting	22	24.7%
Operations	18	20.2%
Executive/Upper Management	12	13.5%
Customer Service	9	10.1%
Sales	9	10.1%
Warehousing/Inventory	7	7.9%
Information Technology	4	4.5%
Finance	2	2.2%
Human Resources	2	2.2%
Purchasing	2	2.2%
Board of Directors	1	1.1%
Marketing/Public Relations	1	1.1%

Oceania — 38 Cases		
Department	**Number of Cases**	**Percent of Cases**
Accounting	12	31.6%
Operations	5	13.2%
Sales	5	13.2%
Warehousing/Inventory	4	10.5%
Executive/Upper Management	3	7.9%
Information Technology	2	5.3%
Purchasing	2	5.3%
Research and Development	2	5.3%
Customer Service	1	2.6%
Finance	1	2.6%
Marketing/Public Relations	1	2.6%

Central/South America and the Caribbean — 66 Cases		
Department	**Number of Cases**	**Percent of Cases**
Accounting	10	15.2%
Executive/Upper Management	9	13.6%
Sales	8	12.1%
Purchasing	7	10.6%
Customer Service	6	9.1%
Operations	6	9.1%
Finance	5	7.6%
Marketing/Public Relations	5	7.6%
Manufacturing and Production	4	6.1%
Warehousing/Inventory	3	4.5%
Board of Directors	1	1.5%
Human Resources	1	1.5%
Information Technology	1	1.5%

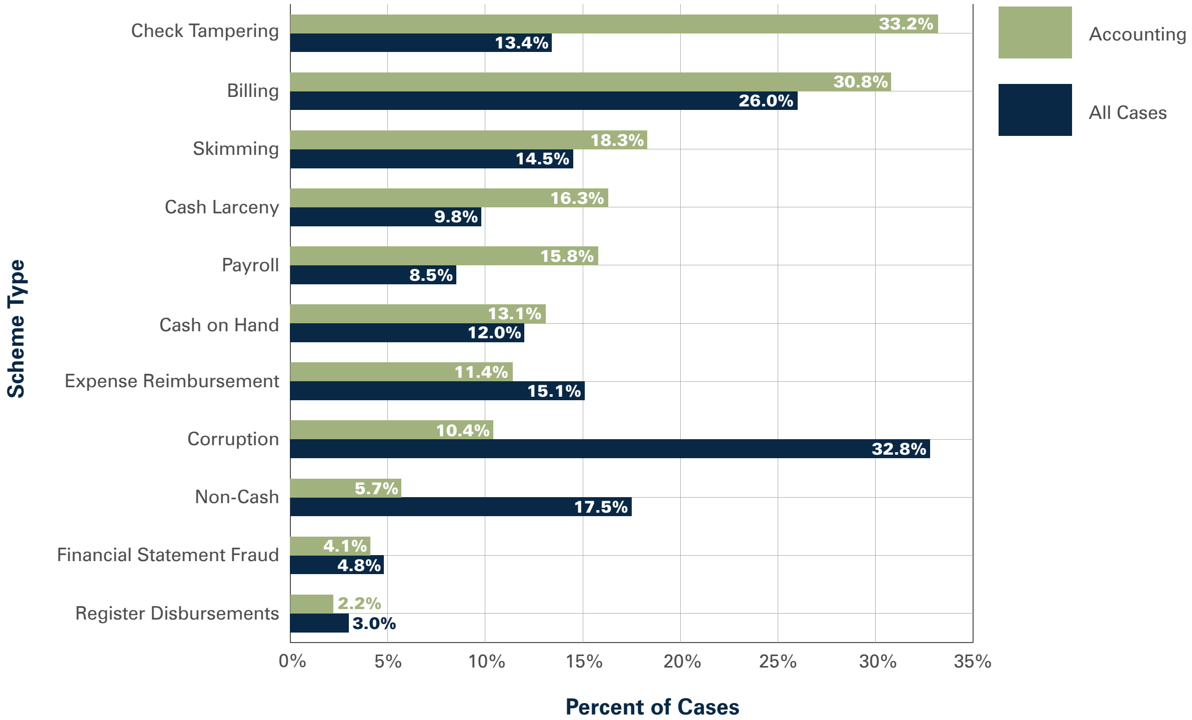
Schemes Based on Perpetrator's Department

We broke down the distribution of fraud schemes based on the perpetrator's department to see how methods of fraud varied depending on where the perpetrator worked within an organization. We limited our inquiry to the six highest-frequency departments: accounting, operations, sales, executive/upper management, customer service and purchasing. As noted earlier, those six departments accounted for 80% of all cases.

Accounting Department

The most common schemes committed by fraudsters in the accounting department were check tampering and billing fraud, each of which occurred in over 30% of cases. When compared to the overall distribution, we see that accounting personnel are much more likely than other employees to commit check tampering and payroll fraud, but less likely to engage in corruption or steal non-cash assets. This distribution was similar to what we encountered in 2008.

Schemes Committed by Perpetrators in the Accounting Department — 367 Cases[23]



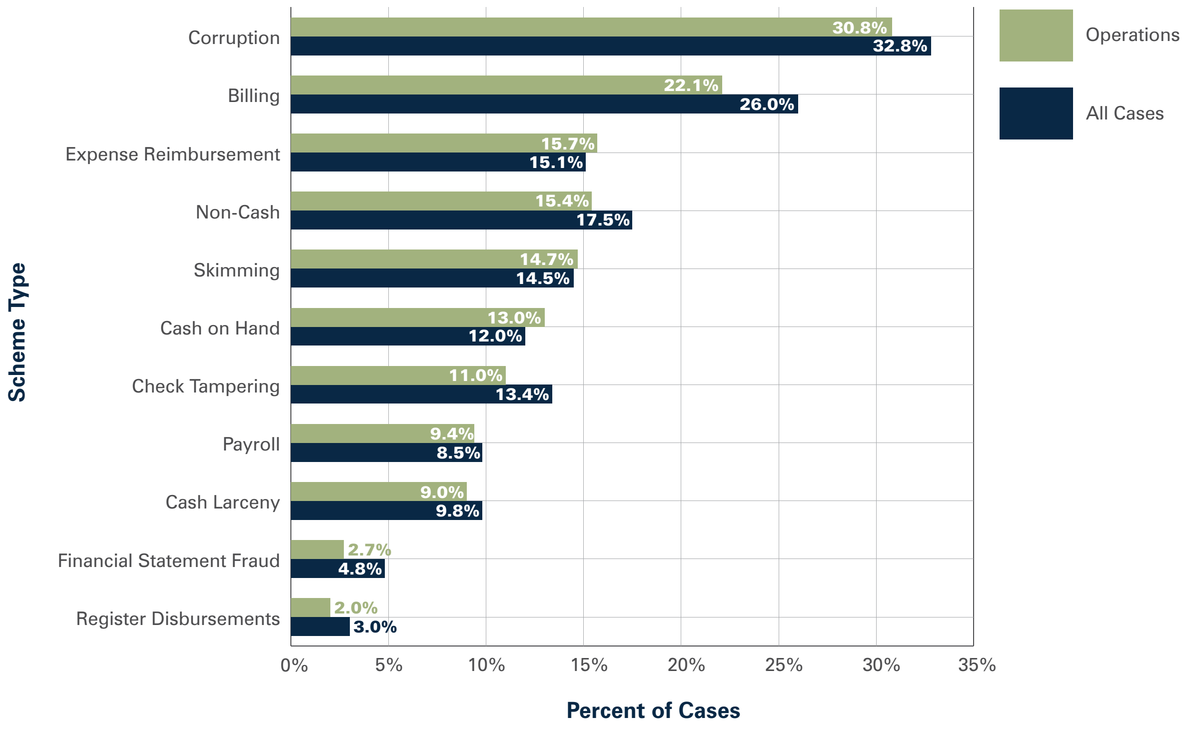
[23]The sum of percentages in this chart exceeds 100% because several cases involved schemes from more than one category.

Perpetrators

Primary Operations

Fraudsters who worked in the primary operations of the victim organization most often engaged in corruption (31% of cases) and billing fraud (22%). The distribution of frauds by operations staff was consistent with the overall distribution of frauds.

Schemes Committed by Perpetrators in the Primary Operations of the Victim Organization — 299 Cases[24]

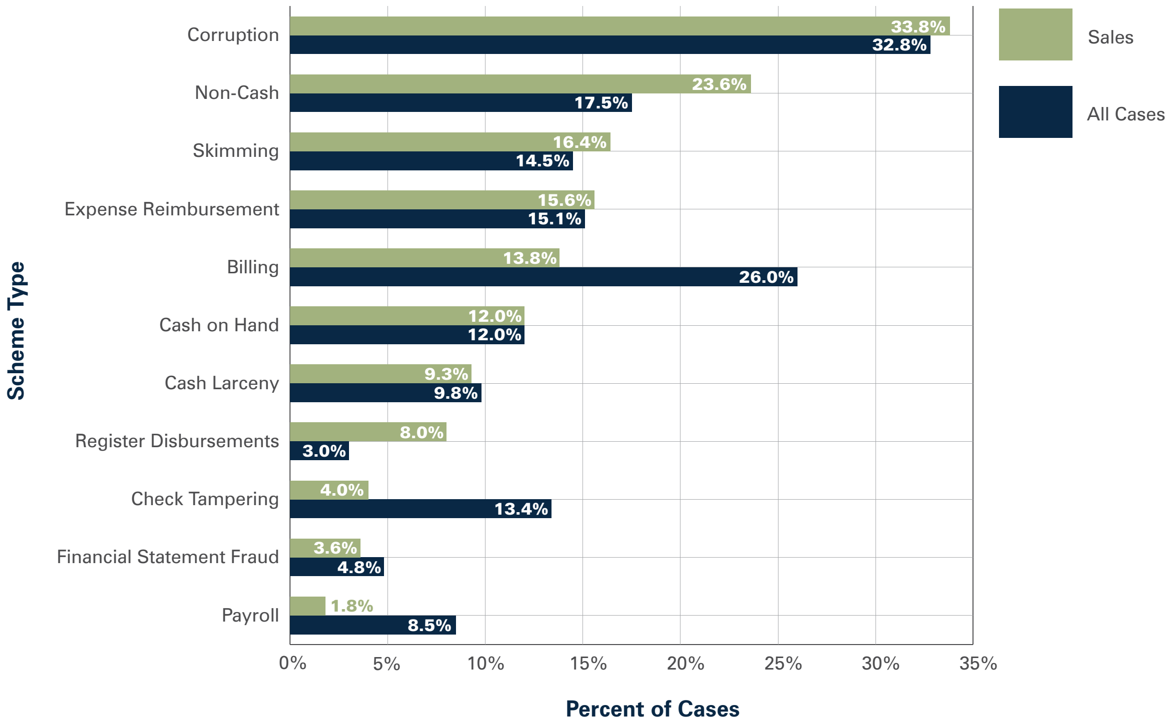


[24]The sum of percentages in this chart exceeds 100% because several cases involved schemes from more than one category.

Sales Department

The most common frauds in the sales department were corruption (34% of cases) and theft of non-cash assets (24%). Fraudsters in the sales department were somewhat more likely than others to steal non-cash assets. Conversely, they were much less likely to engage in billing schemes, check tampering or payroll fraud.

Schemes Committed by Perpetrators in the Sales Department — 225 Cases[25]



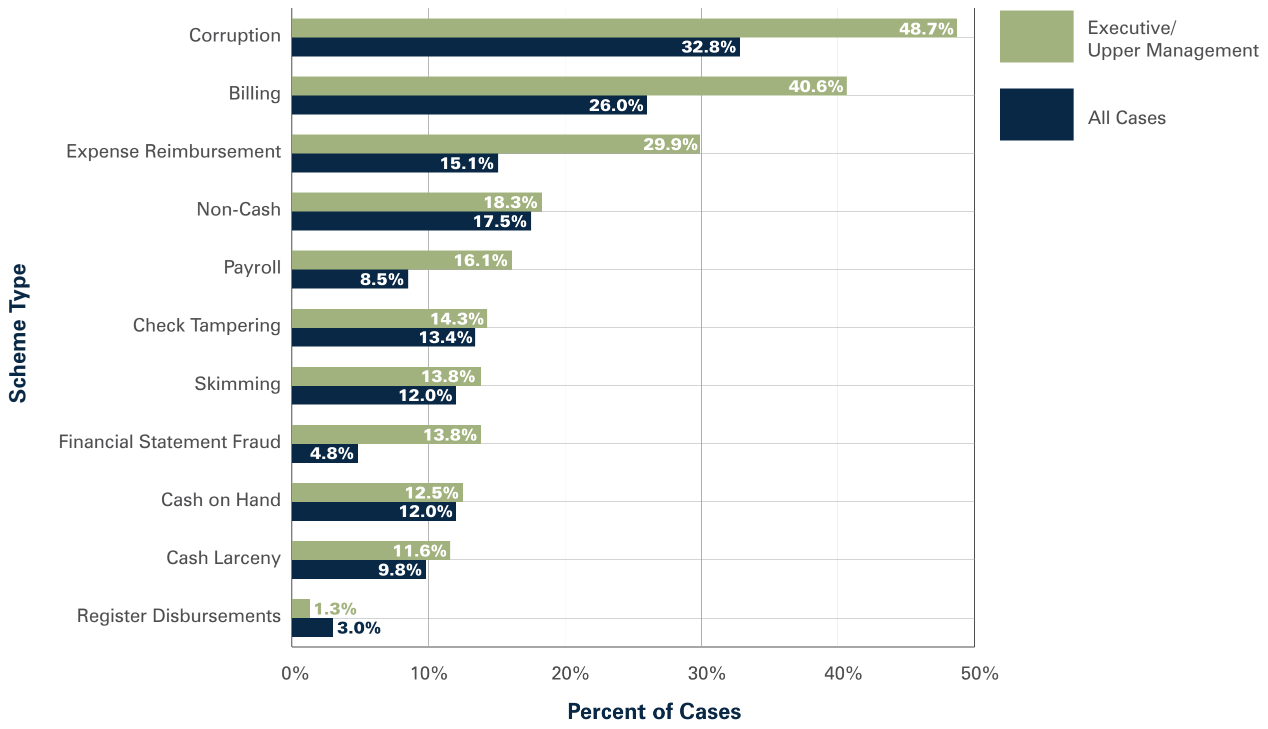
[25]The sum of percentages in this chart exceeds 100% because several cases involved schemes from more than one category.

Perpetrators

Executive or Upper Management

When fraud occurred in the executive suite, nearly half of the cases involved corruption. Billing fraud (41%) and expense reimbursement schemes (30%) were also very common. All three of these schemes occurred with much more frequency among executives than other employees. Financial statement fraud schemes were also much more common among executives and upper management.

Schemes Committed by Perpetrators in Executive/ Upper Management Positions — 224 Cases[26]

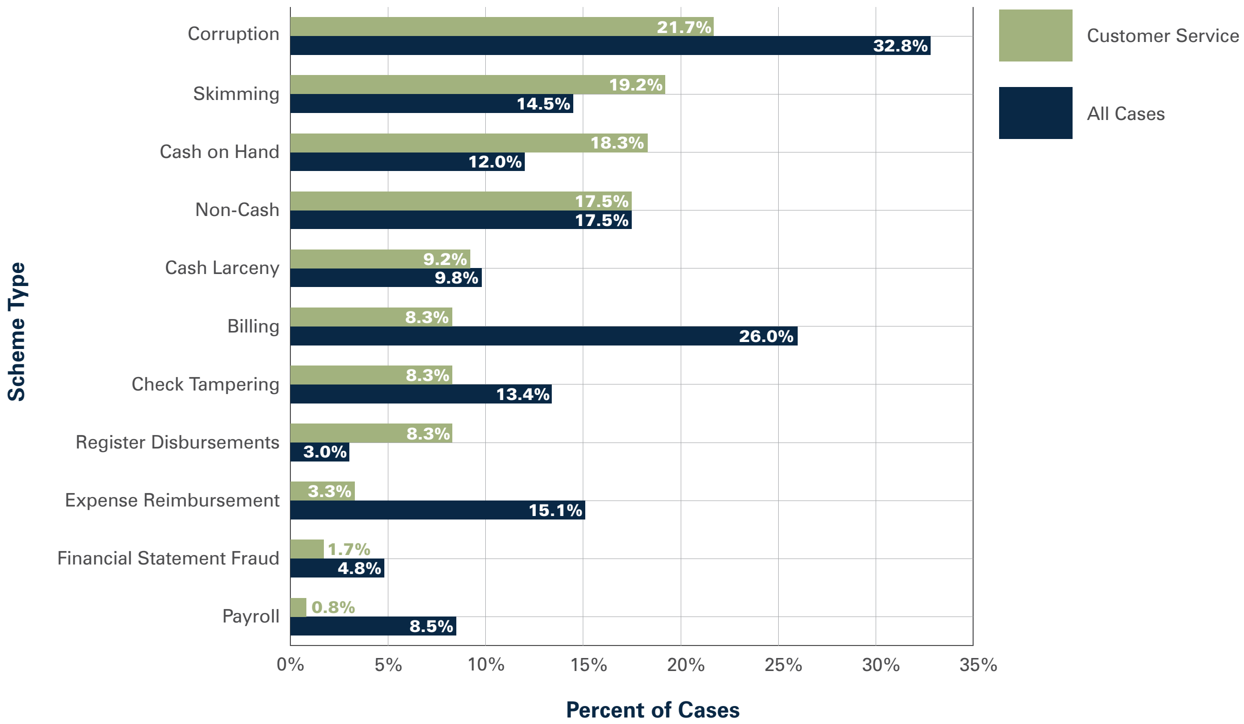


[26]The sum of percentages in this chart exceeds 100% because several cases involved schemes from more than one category.

Customer Service Department

Corruption was the most common form of fraud among customer service employees (22% of cases), but compared to the distribution for all cases, we see that corruption was actually much less likely to occur in customer service than elsewhere. Conversely, skimming, theft of cash on hand and fraudulent register disbursements were more likely to occur in customer service than in other areas of the organization.

Schemes Committed by Perpetrators in the Customer Service Department — 120 Cases[27]

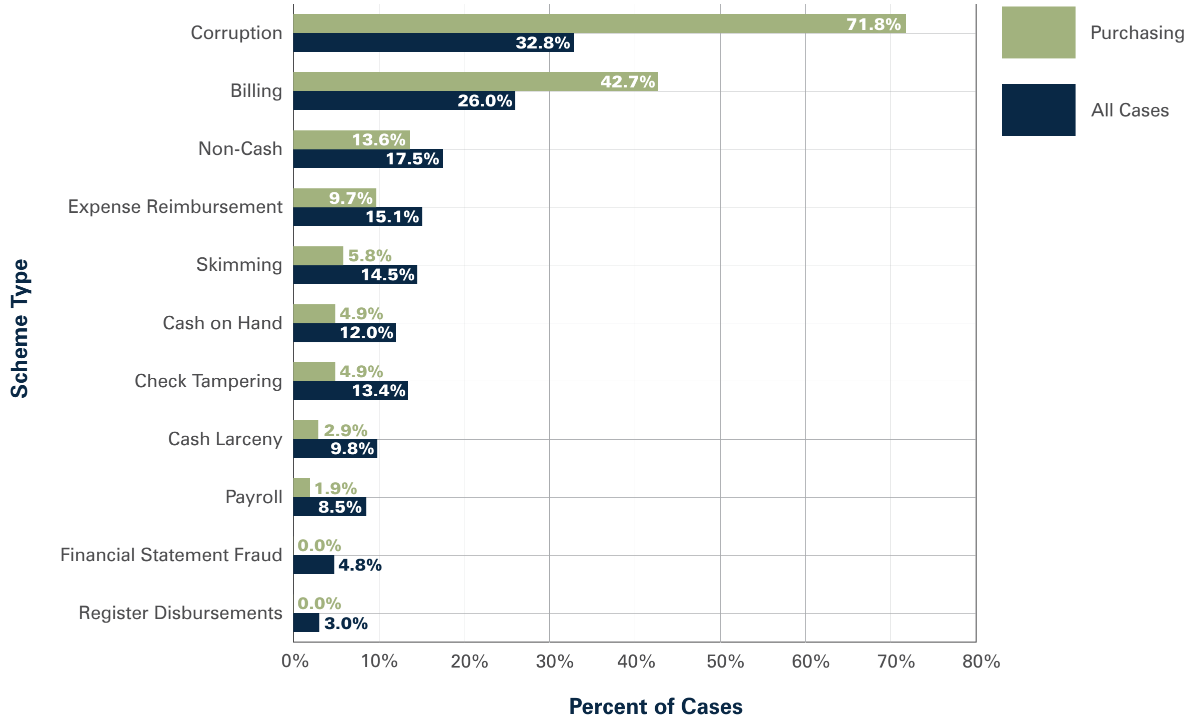


[27]The sum of percentages in this chart exceeds 100% because several cases involved schemes from more than one category.

Purchasing Department

The vast majority of frauds in the purchasing department involved corruption (72% of cases), and billing schemes also occurred at a very high rate (43%). Both of these schemes were more likely to occur in the purchasing department than in any other area of the organization, which is not surprising because the purchasing function often lends itself to bribery, overbilling and bid rigging schemes, which are among the most costly forms of occupational fraud.

Schemes Committed by Perpetrators in the Purchasing Department — 103 Cases[28]



[28]The sum of percentages in this chart exceeds 100% because several cases involved schemes from more than one category.

Perpetrator's Criminal and Employment History

Perpetrator's Criminal Background

Only 7% of the fraud perpetrators in our study had been previously convicted of a fraud-related offense, which was virtually identical to our finding in 2008. Eighty-six percent had never been charged with or convicted of a prior offense. The low rate of prior convictions suggests that criminal background checks may have some effect in preventing fraud, but the effect is probably limited.

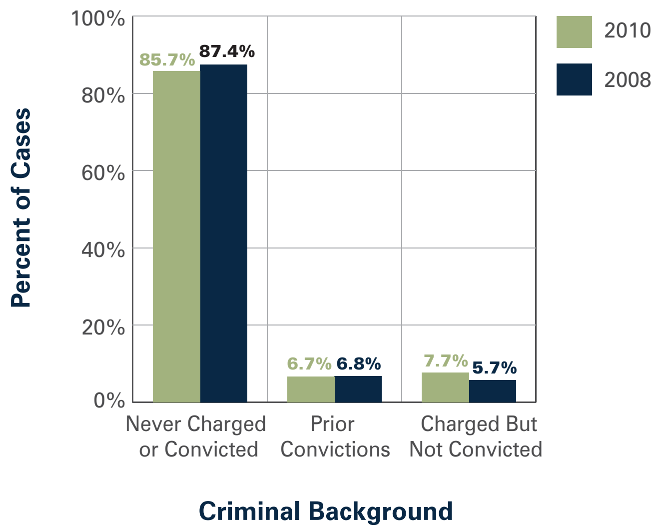
Perpetrator's Employment Background

In addition to criminal history, past employment issues may indicate that an employee is more likely to engage in fraudulent conduct in the future. Of the respondents in our survey, 791 were able to provide information about the perpetrator's prior employment history. Among those cases, about 8% of perpetrators had been previously punished and 10% had been previously terminated for fraud-related conduct.

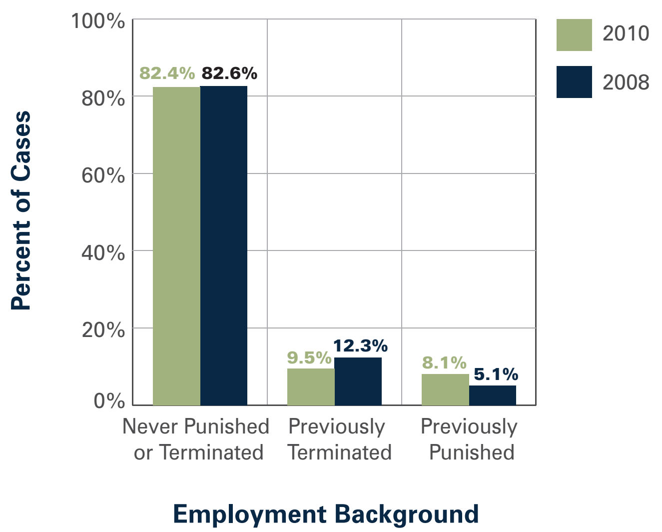
Behavioral Red Flags Displayed by Perpetrators

While a fraud is ongoing, the perpetrator often displays certain behaviors or characteristics that might indicate he or she has a heightened risk of committing fraud. On their own, these behavioral red flags do not prove an individual is engaged in a fraud, but they should raise warning signals to the individual's co-workers and managers, as well as the organization's anti-fraud staff. When these red flags exist alongside other indicators of misconduct, this can be a strong clue that something is wrong. As discussed earlier in this report, occupational frauds often last for months or years before they are caught, so the ability to detect frauds as early as possible can have a big effect in limiting losses.

Perpetrator's Criminal Background



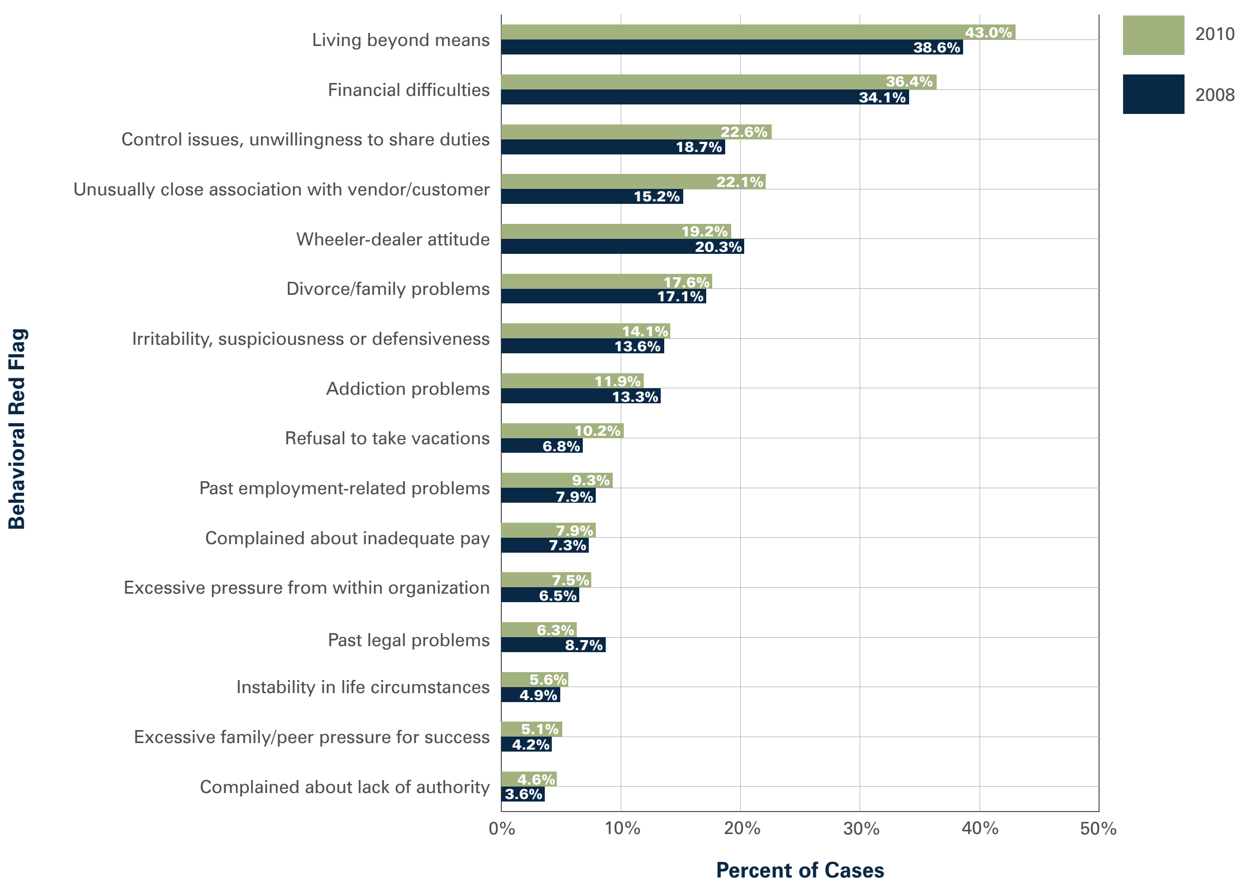
Perpetrator's Employment Background



Perpetrators

We presented survey respondents with a list of common behavioral red flags and asked them to identify which of these warning signs had been displayed by the perpetrator prior to detection of the fraud. As shown in the chart below, the most common red flags displayed by perpetrators were living beyond financial means (43% of cases), experiencing financial difficulties (36%), excessive control issues with regard to their jobs (23%) and an unusually close association with vendors or customers (22%). This distribution is very similar to what we found in our 2008 study. As we continue to track this data in future studies, we hope to be able to identify consistent relationships between behavioral warning signs and the occurrence of occupational fraud. Ideally, this data will help organizations build better fraud-detection programs that incorporate behavioral data in addition to more standard anti-fraud controls.

Behavioral Red Flags of Perpetrators[29]

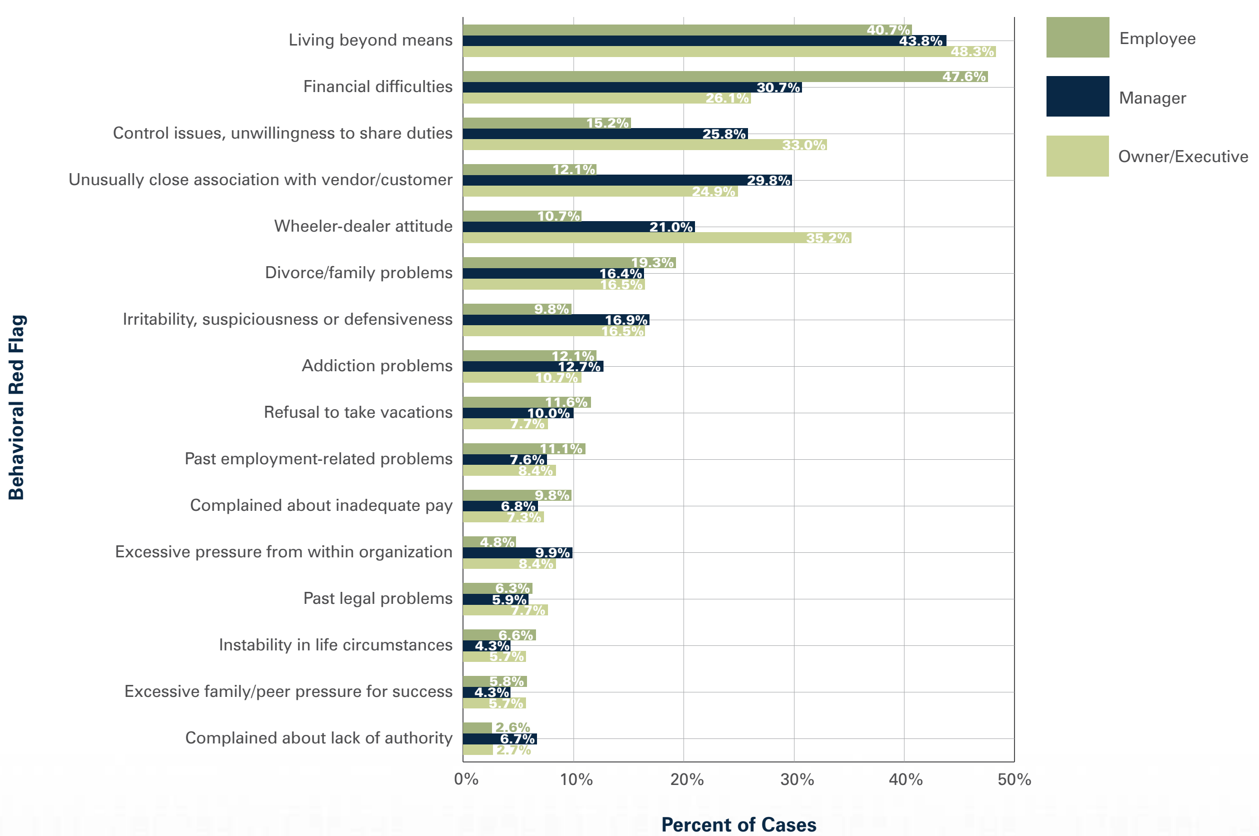


[29]The sum of percentages in this chart exceeds 100% because in many cases perpetrators displayed more than one behavioral red flag.

Red Flags Based on Perpetrator's Position

The behavioral indicators that a fraud perpetrator displays can vary depending on a number of factors. The following chart shows the distribution of red flags based on the perpetrator's level of authority. Among employee-level fraudsters, the most common behavioral red flag was financial difficulties, which was present in nearly half of all employee fraud cases. Because employee-level fraudsters generally have lower incomes than managers or owners/executives, we would expect their motivation for committing fraud to more often be based on an immediate, pressing financial need, which explains why this red flag shows up so often. While financial difficulty was still frequently cited in cases involving managers and owners/executives, it occurred much less often. Conversely, owners/executives and managers were much more likely than employees to display control issues, to have unusually close associations with vendors or customers or to exhibit a "wheeler-dealer" attitude. Each of these red flags tends to reflect the authority level of owners/executives and managers, who are in a better position than employees to influence organizational decision-making, arrange deals with outside parties and exert their control over the direction or tone of the organization.

Behavioral Red Flags of Perpetrators Based on Position[30]

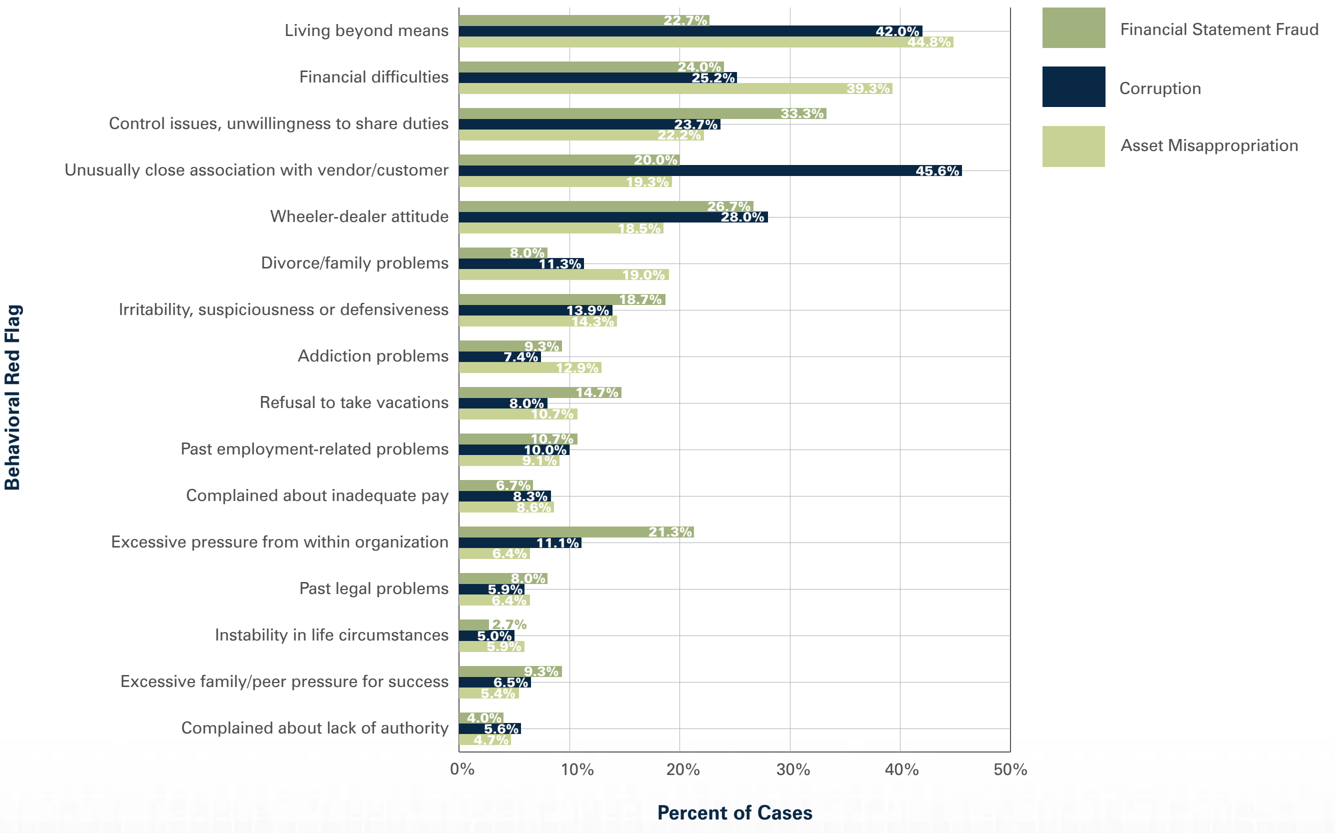


[30]The sum of percentages in this chart exceeds 100% because in many cases perpetrators displayed more than one behavioral red flag.

Red Flags Based on Scheme Type

We also broke down the distribution of red flags based on the type of fraud. Different forms of occupational fraud result from different factors and circumstances, which we would expect to show up in the fraudsters' behavior. As the chart below illustrates, individuals who engaged in financial statement frauds were much more likely than other perpetrators to exhibit control issues or to be under excessive pressure to perform within their organization. Meanwhile, living beyond one's means and experiencing financial difficulties were not as common among financial statement fraudsters as others. This makes sense, because while asset misappropriations and corruption schemes are almost always committed to enrich the fraudster, in many financial statement schemes, other factors — such as meeting earnings forecasts or hitting budget targets — may be as much of a motivator as personal financial gain. An unusually close association with a vendor or customer was noted as a red flag in 45% of corruption cases, which is not surprising given that most corruption frauds involve bribery or some kind of illicit benefit. A "wheeler-dealer" attitude was also more common in corruption cases than in other forms of fraud, and 42% of all corruption perpetrators were identified as living beyond their means. Among those who misappropriated assets, living beyond one's means and financial difficulties were the two most common red flags.

Behavioral Red Flags of Perpetrators Based on Scheme Type[31]



[31]The sum of percentages in this chart exceeds 100% because in many cases perpetrators displayed more than one behavioral red flag.

Red Flags Based on Region

The following tables present the distribution of behavioral red flags based on the region in which the fraud occurred.[32] In every region, financial difficulties or living beyond one's means was cited as the most common red flag. We also noted that unusually close associations with vendors or customers was among the three most common red flags in every region except the United States and Canada, where it ranked 6th and 9th, respectively.

United States — 876 Cases

Behavioral Red Flag	Number of Cases	Percent of Cases
Financial difficulties	392	44.7%
Living beyond means	391	44.6%
Control issues, unwillingness to share duties	205	23.4%
Divorce/family problems	201	22.9%
Wheeler-dealer attitude	173	19.7%
Unusually close association with vendor	141	16.1%
Irritability, suspiciousness or defensiveness	127	14.5%
Addiction problems	124	14.2%
Past employment-related problems	85	9.7%
Past legal problems	75	8.6%
Refusal to take vacations	74	8.4%
Complaining about inadequate pay	64	7.3%
Instability in life circumstances	54	6.2%
Excessive pressure from within organization	51	5.8%
Excessive family/peer pressure	39	4.5%
Complaining about lack of authority	37	4.2%

[32]The sum of percentages in these tables exceeds 100% because in many cases perpetrators displayed more than one behavioral red flag.

Asia — 271 Cases

Behavioral Red Flag	Number of Cases	Percent of Cases
Living beyond means	96	35.4%
Unusually close association with vendor	94	34.7%
Financial difficulties	62	22.9%
Control issues, unwillingness to share duties	46	17.0%
Excessive pressure from within organization	41	15.1%
Wheeler-dealer attitude	39	14.4%
Refusal to take vacations	31	11.4%
Irritability, suspiciousness or defensiveness	27	10.0%
Complaining about inadequate pay	25	9.2%
Complaining about lack of authority	19	7.0%
Addiction problems	18	6.6%
Past employment-related problems	15	5.5%
Divorce/family problems	14	5.2%
Excessive family/peer pressure	13	4.8%
Instability in life circumstances	8	3.0%
Past legal problems	6	2.2%

Europe — 129 Cases

Behavioral Red Flag	Number of Cases	Percent of Cases
Living beyond means	54	41.9%
Unusually close association with vendor	36	27.9%
Control issues, unwillingness to share duties	33	25.6%
Financial difficulties	32	24.8%
Wheeler-dealer attitude	29	22.5%
Irritability, suspiciousness or defensiveness	22	17.1%
Divorce/family problems	21	16.3%
Past employment-related problems	17	13.2%
Refusal to take vacations	16	12.4%
Addiction problems	10	7.8%
Past legal problems	10	7.8%
Excessive pressure from within organization	10	7.8%
Instability in life circumstances	9	7.0%
Complaining about inadequate pay	8	6.2%
Complaining about lack of authority	7	5.4%
Excessive family/peer pressure	6	4.7%

Perpetrators

Africa — 102 Cases		
Behavioral Red Flag	**Number of Cases**	**Percent of Cases**
Living beyond means	62	60.8%
Unusually close association with vendor	33	32.4%
Financial difficulties	26	25.5%
Control issues, unwillingness to share duties	25	24.5%
Wheeler-dealer attitude	20	19.6%
Refusal to take vacations	17	16.7%
Irritability, suspiciousness or defensiveness	15	14.7%
Complaining about inadequate pay	12	11.8%
Divorce/family problems	11	10.8%
Excessive pressure from within organization	11	10.8%
Excessive family/peer pressure	10	9.8%
Addiction problems	7	6.9%
Past employment-related problems	5	4.9%
Complaining about lack of authority	4	3.9%
Instability in life circumstances	4	3.9%
Past legal problems	2	2.0%

Canada — 84 Cases		
Behavioral Red Flag	**Number of Cases**	**Percent of Cases**
Financial difficulties	29	34.5%
Control issues, unwillingness to share duties	29	34.5%
Living beyond means	28	33.3%
Wheeler-dealer attitude	22	26.2%
Irritability, suspiciousness or defensiveness	18	21.4%
Addiction problems	17	20.2%
Divorce/family problems	14	16.7%
Refusal to take vacations	12	14.3%
Unusually close association with vendor	11	13.1%
Complaining about inadequate pay	10	11.9%
Past employment-related problems	10	11.9%
Instability in life circumstances	7	8.3%
Complaining about lack of authority	3	3.6%
Excessive family/peer pressure	3	3.6%
Past legal problems	1	1.2%
Excessive pressure from within organization	1	1.2%

Central/South America and the Caribbean — 60 Cases		
Behavioral Red Flag	**Number of Cases**	**Percent of Cases**
Financial difficulties	24	40.0%
Living beyond means	19	31.7%
Unusually close association with vendor	16	26.7%
Divorce/family problems	10	16.7%
Irritability, suspiciousness or defensiveness	10	16.7%
Control issues, unwillingness to share duties	10	16.7%
Wheeler-dealer attitude	9	15.0%
Past employment-related problems	6	10.0%
Excessive family/peer pressure	5	8.3%
Refusal to take vacations	5	8.3%
Addiction problems	4	6.7%
Complaining about inadequate pay	3	5.0%
Complaining about lack of authority	3	5.0%
Instability in life circumstances	3	5.0%
Past legal problems	2	3.3%
Excessive pressure from within organization	1	1.7%

Oceania — 37 Cases		
Behavioral Red Flag	**Number of Cases**	**Percent of Cases**
Living beyond means	20	54.1%
Wheeler-dealer attitude	13	35.1%
Unusually close association with vendor	11	29.7%
Addiction problems	9	24.3%
Divorce/family problems	9	24.3%
Financial difficulties	8	21.6%
Control issues, unwillingness to share duties	8	21.6%
Past employment-related problems	6	16.2%
Refusal to take vacations	5	13.5%
Irritability, suspiciousness or defensiveness	4	10.8%
Excessive family/peer pressure	4	10.8%
Past legal problems	2	5.4%
Excessive pressure from within organization	2	5.4%
Instability in life circumstances	1	2.7%

Methodology

The *2010 Report to the Nations on Occupational Fraud and Abuse* is based on the results of an online survey distributed to 22,927 Certified Fraud Examiners (CFEs) in October 2009. As part of the survey, respondents were asked to provide a detailed narrative of the single largest fraud case they had investigated that met four explicit criteria:

1. The case must have involved occupational fraud (defined as internal fraud, or fraud committed by a person against the organization for which he or she works).
2. The investigation must have occurred between January 2008 and the time of survey participation.
3. The investigation must have been completed.
4. The CFE must have been reasonably sure the perpetrator(s) was/were identified.

Respondents were also presented with 87 questions to answer. These questions covered particular details of the scheme, including information about the perpetrator, the victim organization and the methods of fraud employed, as well as fraud trends in general. Overall, we received 1,939 responses to the survey, 1,843 of which were usable for purposes of this Report. The data contained herein is based solely on the information provided in these 1,843 cases.

The *2010 Report to the Nations on Occupational Fraud and Abuse* is based on the results of an online survey distributed to 22,927 Certified Fraud Examiners (CFEs) in late 2009.

The data in this study is based on 1,843 cases of occupational fraud that were reported by CFEs.

Who Provided the Data?

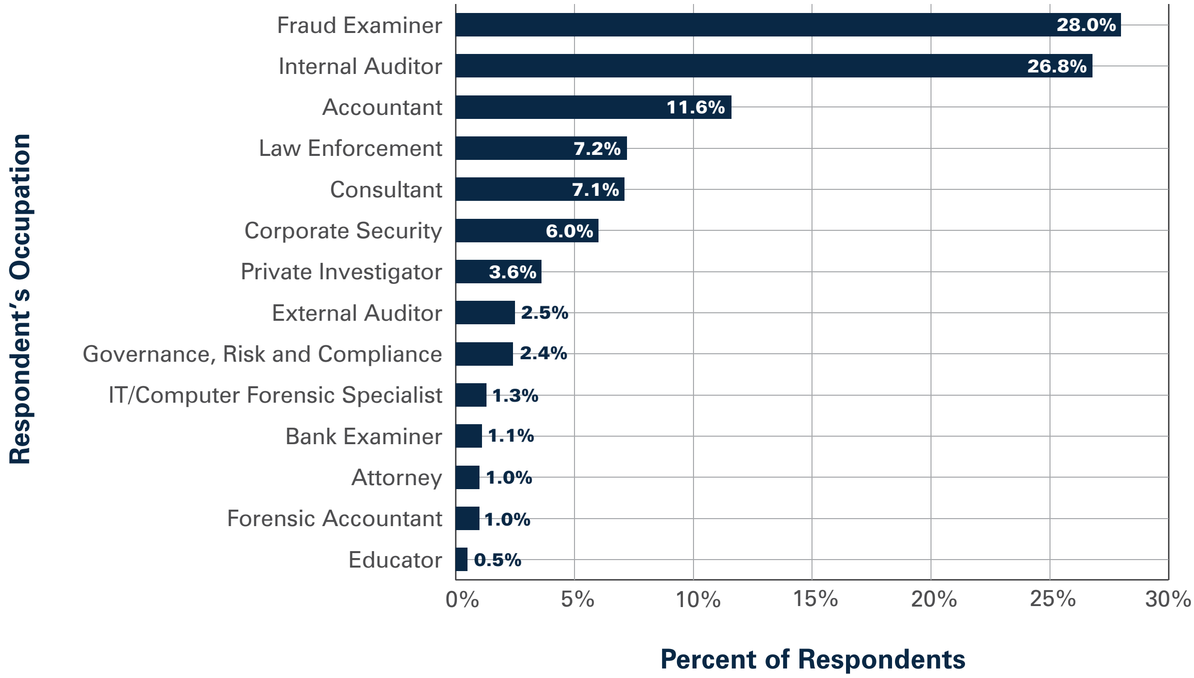
We sent the survey to all CFEs in good standing at the time of the survey launch. We asked respondents to provide certain information about their professional experience and qualifications so that we could gather a fuller understanding of who was involved in investigating the frauds reported to us as part of our research.

Primary Occupation

More than half of the CFEs who participated in our study identified themselves as either fraud examiners or internal auditors. Another 12% stated that they are accountants, and just over 7% indicated they work as law enforcement officers.

Methodology

Primary Occupations of Survey Participants



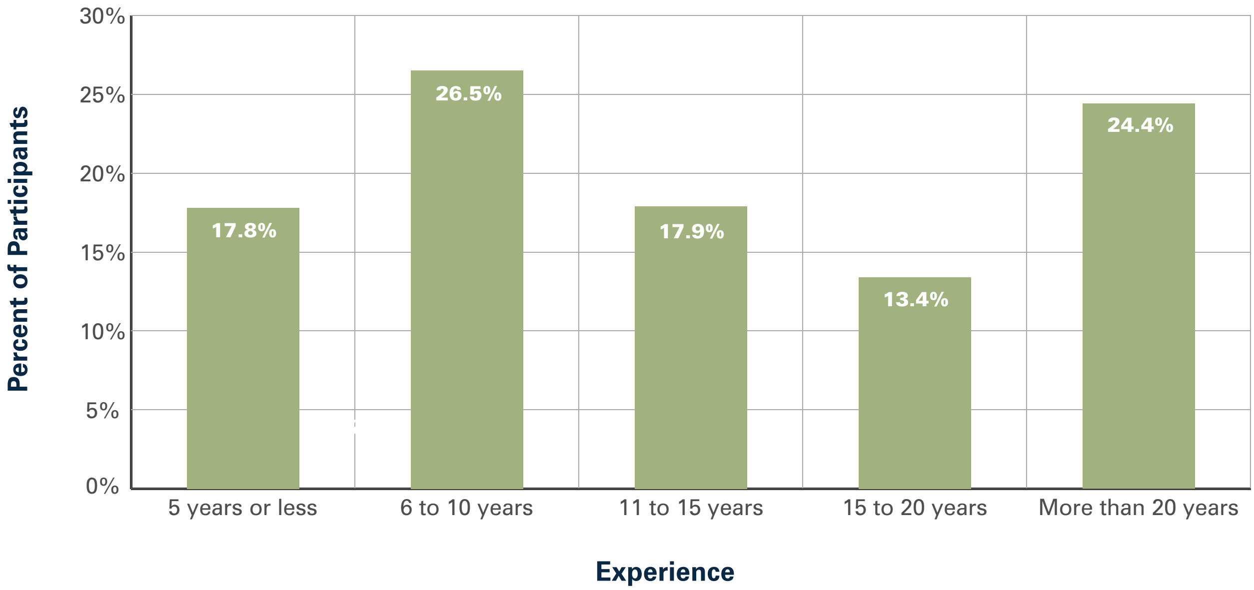
Experience

The professionals who took part in our study had a median of 12 years of experience in the fraud examination field. Over 80 percent of respondents had more than five years of anti-fraud experience, and nearly one-quarter of the participants have worked in fraud examination for more than 20 years.

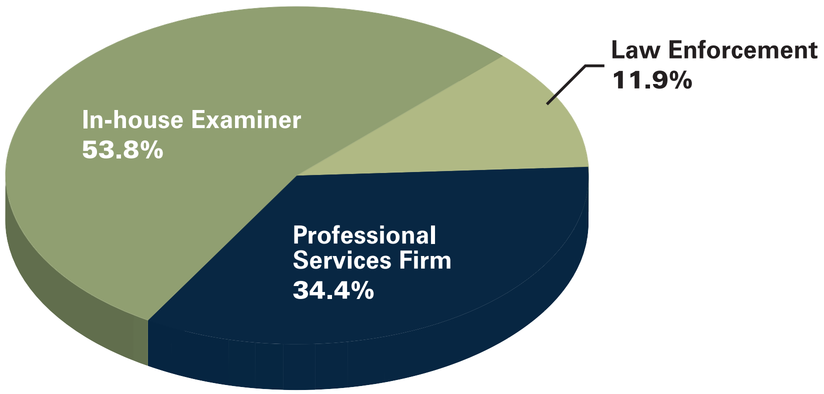
Nature of Fraud Examinations

Fifty-four percent of the respondents to our survey stated that they work in-house at an organization for which they conduct internal fraud examinations. This category typically includes professionals such as internal auditors and fraud examiners. Thirty-four percent of the survey participants identified themselves as working for a professional services firm that conducts fraud examinations on behalf of other companies or agencies, and 12% of respondents work for a law enforcement agency.

Experience of Survey Participants



Nature of Survey Participants' Fraud Examination Work



Appendix

Breakdown of Geographic Regions by Country

Africa — 112 Cases	
Country	**Number of Cases**
Cameroon	1
Democratic Republic of the Congo	1
Egypt	5
Ethiopia	1
Ghana	4
Guinea	1
Kenya	7
Liberia	1
Malawi	1
Mauritius	2
Mozambique	2
Nigeria	21
Republic of the Congo	1
Senegal	1
South Africa	47
Sudan	1
Tanzania	4
Tunisia	1
Uganda	5
Zambia	2
Zimbabwe	3

Asia — 298 Cases	
Country	**Number of Cases**
Afghanistan	1
Bahrain	1
Cambodia	2
China	62
Cyprus	3
India	37
Indonesia	27
Iran	1
Iraq	1
Japan	16
Jordan	4
Kuwait	3
Kyrgyzstan	1
Lebanon	4
Malaysia	22
Oman	4
Pakistan	8
Philippines	16
Qatar	5
Saudi Arabia	9
Singapore	7
South Korea	5
Sri Lanka	2
Taiwan	4
Tajikistan	1
Thailand	2
Turkey	20
Turkmenistan	2
United Arab Emirates	27
Vietnam	1

Central/South America and the Caribbean — 70 Cases	
Country	**Number of Cases**
Argentina	7
Bahamas	1
Barbados	1
Belize	1
Bolivia	1
Brazil	12
Chile	1
Colombia	3
Costa Rica	1
Dominican Republic	2
Grenada	1
Honduras	1
Jamaica	4
Mexico	20
Nicaragua	2
Panama	1
Peru	3
Saint Lucia	1
Saint Vincent and the Grenadines	2
Trinidad and Tobago	4
Venezuela	1

Oceania — 40 Cases	
Country	**Number of Cases**
Australia	29
Fiji	2
Micronesia	1
New Zealand	8

Europe — 157 Cases	
Country	**Number of Cases**
Austria	3
Belgium	9
Bulgaria	3
Czech Republic	5
Estonia	1
Finland	3
France	1
Germany	19
Greece	6
Hungary	3
Ireland	1
Italy	7
Kosovo	1
Liechtenstein	1
Luxembourg	1
Montenegro	1
Netherlands	14
Poland	9
Portugal	2
Romania	5
Russia	18
Serbia	1
Slovakia	1
Slovenia	1
Spain	8
Switzerland	4
Ukraine	1
United Kingdom	28

Fraud Prevention Checklist

The most cost-effective way to limit fraud losses is to prevent fraud from occurring. This checklist is designed to help organizations test the effectiveness of their fraud prevention measures.

1. **Is ongoing anti-fraud training provided to all employees of the organization?**
    - ❑ Do employees understand what constitutes fraud?
    - ❑ Have the costs of fraud to the company and everyone in it — including lost profits, adverse publicity, job loss and decreased morale and productivity — been made clear to employees?
    - ❑ Do employees know where to seek advice when faced with uncertain ethical decisions, and do they believe that they can speak freely?
    - ❑ Has a policy of zero-tolerance for fraud been communicated to employees through words and actions?
2. **Is an effective fraud reporting mechanism in place?**
    - ❑ Have employees been taught how to communicate concerns about known or potential wrongdoing?
    - ❑ Is there an anonymous reporting channel available to employees, such as a third-party hotline?
    - ❑ Do employees trust that they can report suspicious activity anonymously and/or confidentially and without fear of reprisal?
    - ❑ Has it been made clear to employees that reports of suspicious activity will be promptly and thoroughly evaluated?
3. **To increase employees' perception of detection, are the following proactive measures taken and publicized to employees?**
    - ❑ Is possible fraudulent conduct aggressively sought out, rather than dealt with passively?
    - ❑ Does the organization send the message that it actively seeks out fraudulent conduct through fraud assessment questioning by auditors?
    - ❑ Are surprise fraud audits performed in addition to regularly scheduled fraud audits?
    - ❑ Is continuous auditing software used to detect fraud and, if so, has the use of such software been made known throughout the organization?
4. **Is the management climate/tone at the top one of honesty and integrity?**
    - ❑ Are employees surveyed to determine the extent to which they believe management acts with honesty and integrity?
    - ❑ Are performance goals realistic?
    - ❑ Have fraud prevention goals been incorporated into the performance measures against which managers are evaluated and which are used to determine performance-related compensation?
    - ❑ Has the organization established, implemented and tested a process for oversight of fraud risks by the board of directors or others charged with governance (e.g., the audit committee)?

5. **Are fraud risk assessments performed to proactively identify and mitigate the company's vulnerabilities to internal and external fraud?**

6. **Are strong anti-fraud controls in place and operating effectively, including the following?**

   - ❑ Proper separation of duties
   - ❑ Use of authorizations
   - ❑ Physical safeguards
   - ❑ Job rotations
   - ❑ Mandatory vacations

7. **Does the internal audit department, if one exists, have adequate resources and authority to operate effectively and without undue influence from senior management?**

8. **Does the hiring policy include the following (where permitted by law)?**

   - ❑ Past employment verification
   - ❑ Criminal and civil background checks
   - ❑ Credit checks
   - ❑ Drug screening
   - ❑ Education verification
   - ❑ References check

9. **Are employee support programs in place to assist employees struggling with addictions, mental/emotional health, family or financial problems?**

10. **Is an open-door policy in place that allows employees to speak freely about pressures, providing management the opportunity to alleviate such pressures before they become acute?**

11. **Are anonymous surveys conducted to assess employee morale?**

About the ACFE

The ACFE is the world's largest anti-fraud organization and premier provider of anti-fraud training and education. Together with more than 50,000 members in more than 140 countries, the ACFE is reducing business fraud worldwide and providing the training and resources needed to fight fraud more effectively.

Founded in 1988 by Dr. Joseph T. Wells, CFE, CPA, the ACFE provides educational tools and practical solutions for anti-fraud professionals through initiatives including:

- Global conferences and seminars led by anti-fraud experts
- Instructor-led, interactive professional training
- Comprehensive resources for fighting fraud, including books, self-study courses and articles
- Leading anti-fraud periodicals including *Fraud Magazine®*, *The Fraud Examiner* and *FraudInfo*
- Local networking and support through ACFE chapters worldwide
- Anti-fraud curriculum and educational tools for colleges and universities

The positive effects of anti-fraud training are far-reaching. Clearly, the only way to combat fraud is to educate anyone engaged in fighting fraud on how to effectively prevent, detect and investigate it. By educating, uniting and supporting the global anti-fraud community with the tools to fight fraud more effectively, the ACFE is reducing business fraud worldwide and inspiring public confidence in the integrity and objectivity within the profession.

The Association of Certified Fraud Examiners serves more than 50,000 members in 140 countries worldwide.

For more information about the ACFE, visit ACFE.com.

The ACFE offers its members the opportunity for professional certification. The CFE credential is preferred by businesses and government entities around the world and indicates expertise in fraud prevention and detection.

Certified Fraud Examiners

CFEs are anti-fraud experts who have demonstrated knowledge in four critical areas: Fraudulent Financial Transactions, Fraud Investigation, Legal Elements of Fraud, and Fraud Prevention and Deterrence. In support of CFEs and the CFE credential, the ACFE:

- Provides bona fide qualifications for CFEs through administration of the Uniform CFE Examination
- Requires CFEs to adhere to a strict code of professional conduct and ethics
- Serves as the global representative for CFEs to business, government and academic institutions
- Provides leadership to inspire public confidence in the integrity, objectivity, and professionalism of CFEs

Membership

Immediate access to world-class anti-fraud knowledge and tools is a necessity in the fight against fraud. Members of the ACFE include accountants, internal auditors, fraud investigators, law enforcement personnel, lawyers, business leaders, risk/compliance professionals and educators, all of whom have access to expert training, educational tools and resources.

Members all over the world have come to depend on the ACFE for solutions to the challenges they face in their professions. Whether their career is focused exclusively on preventing and detecting fraudulent activities or they just want to learn more about fraud, the ACFE provides the essential tools and resources necessary for anti-fraud professionals to accomplish their objectives.

To learn more, visit **ACFE.com** or call (800) 245-3321 / +1 (512) 478-9000.

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Association of Certified Fraud Examiners

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