

REPORT TO THE NATIONS

ON OCCUPATIONAL **FRAUD** AND **ABUSE**

2014 GLOBAL FRAUD STUDY



ACFE[®]

Association of Certified Fraud Examiners

*Together, Reducing
Fraud Worldwide*

Letter from the President & CEO

In 1988, Dr. Joseph T. Wells founded the ACFE with a stated mission to reduce the incidence of fraud and white-collar crime and to assist members in its detection and deterrence. Not long thereafter, Dr. Wells directed an innovative research study into the costs, schemes, perpetrators and victims of occupational fraud. Thus, the ACFE *Report to the Nations on Occupational Fraud and Abuse* was born. The first Report, released in 1996, and each of its seven successors have reinforced the original mission of the ACFE by expanding the knowledge and understanding of the ways in which occupational fraud occurs and the financial impact this threat has on organizations around the world. The combined results of our research provide the most comprehensive and authoritative body of research on occupational fraud to date.

The 2014 edition of the Report is based on 1,483 cases of occupational fraud, as reported by the Certified Fraud Examiners (CFEs) who investigated them. The analysis of these cases provides valuable lessons about how fraud is committed, how it is detected and how organizations can reduce their vulnerability to this risk.

On behalf of the ACFE and in honor of its founder, Dr. Wells, I am proud to present the 2014 *Report to the Nations on Occupational Fraud and Abuse* to all businesses, government agencies, anti-fraud practitioners, academicians, the media and the general public. We hope that the information contained in this Report is of great interest and provides an invaluable tool for those who seek to deter, detect or simply understand the impact of occupational fraud.



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



The 2014 edition of the Report is based on **1,483 cases of occupational fraud**, as reported by the Certified Fraud Examiners (CFEs) who investigated them. The analysis of these cases provides valuable lessons about how fraud is committed, how it is detected and how organizations can reduce their vulnerability to this risk.

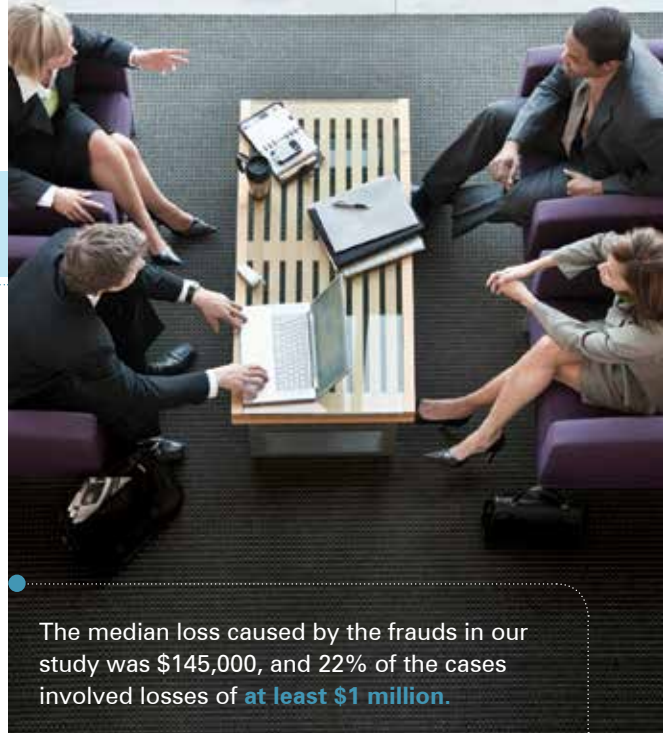
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Executive Summary

Summary of Findings

- Survey participants estimated that the typical organization loses 5% of revenues each year to fraud. If applied to the 2013 estimated Gross World Product, this translates to a potential projected global fraud loss of nearly \$3.7 trillion.
- The median loss caused by the frauds in our study was \$145,000. Additionally, 22% of the cases involved losses of at least \$1 million.
- The median duration — the amount of time from when the fraud commenced until it was detected — for the fraud cases reported to us was 18 months.
- Occupational frauds can be classified into three primary categories: asset misappropriations, corruption and financial statement fraud. Of these, asset misappropriations are the most common, occurring in 85% of the cases in our study, as well as the least costly, causing a median loss of \$130,000. In contrast, only 9% of cases involved financial statement fraud, but those cases had the greatest financial impact, with a median loss of \$1 million. Corruption schemes fell in the middle in terms of both frequency (37% of cases) and median loss (\$200,000).
- Many cases involve more than one category of occupational fraud. Approximately 30% of the schemes in our study included two or more of the three primary forms of occupational fraud.
- Tips are consistently and by far the most common detection method. Over 40% of all cases were detected by a tip — more than twice the rate of any other detection method. Employees accounted for nearly half of all tips that led to the discovery of fraud.
- Organizations with hotlines were much more likely to catch fraud by a tip, which our data shows is the most effective way to detect fraud. These organizations also experienced frauds that were 41% less costly, and they detected frauds 50% more quickly.
- The smallest organizations tend to suffer disproportionately large losses due to occupational fraud. Additionally, the specific fraud risks faced by small businesses differ from those faced by larger organizations, with certain categories of fraud being



The median loss caused by the frauds in our study was \$145,000, and 22% of the cases involved losses of **at least \$1 million**.

much more prominent at small entities than at their larger counterparts.

- The banking and financial services, government and public administration, and manufacturing industries continue to have the greatest number of cases reported in our research, while the mining, real estate, and oil and gas industries had the largest reported median losses.
- The presence of anti-fraud controls is associated with reduced fraud losses and shorter fraud duration. Fraud schemes that occurred at victim organizations that had implemented any of several common anti-fraud controls were significantly less costly and were detected much more quickly than frauds at organizations lacking these controls.
- The higher the perpetrator's level of authority, the greater fraud losses tend to be. Owners/executives only accounted for 19% of all cases, but they caused a median loss of \$500,000. Employees, conversely, committed 42% of occupational frauds but only caused a median loss of \$75,000. Managers ranked in the middle, committing 36% of frauds with a median loss of \$130,000.
- Collusion helps employees evade independent checks and other anti-fraud controls, enabling them to steal larger amounts. The median loss in a fraud committed by a single person was \$80,000, but as the number of perpetrators increased, losses rose dramatically. In cases with two perpetrators the median loss was \$200,000, for three perpetrators it was \$355,000 and when four or more perpetrators were involved the median loss exceeded \$500,000.

- Approximately 77% of the frauds in our study were committed by individuals working in one of seven departments: accounting, operations, sales, executive/upper management, customer service, purchasing and finance.
- It takes time and effort to recover the money stolen by perpetrators, and many organizations are never able to fully do so. At the time of our survey, 58% of the victim organizations had not recovered any of their losses due to fraud, and only 14% had made a full recovery.

Conclusions and Recommendations

- Occupational fraud is a universal problem for businesses around the globe. Although some slight regional variations were noted in methods used both by fraudsters to commit their crimes and by organizations to prevent and detect fraud schemes, the overall trends in our data are quite consistent, both across borders and over time. This consistency underscores the nature and pervasiveness of fraud's threat to all organizations.
- The longer frauds last, the more financial damage they cause. Passive detection methods (confession, notification by law enforcement, external audit and by accident) tend to take longer to bring fraud to management's attention, which allows the related loss to grow. Consequently, proactive detection measures — such as hotlines, management review procedures, internal audits and employee monitoring mechanisms — are vital in catching frauds early and limiting their losses.
- Small businesses are both disproportionately victimized by fraud and notably under-protected by anti-fraud controls, a combination that makes them significantly vulnerable to this threat. While resources available for fraud prevention and detection measures are limited in many small companies, several anti-fraud controls — such as an anti-fraud policy, formal management review procedures and anti-fraud training for staff members — can be enacted with little direct financial outlay and thus provide a cost-effective investment for protecting these organizations from fraud.
- External audits are implemented by a large number of organizations, but they are among the least effective controls in combating occupational fraud. Such audits were the primary detection method in just 3% of the fraud cases reported to us, compared to the 7% of cases that were detected by accident. Further, although the use of independent financial statement audits was associated with reduced median losses and durations of fraud schemes, these reductions were among the smallest of all of the anti-fraud controls analyzed in our study. Consequently, while independent audits serve a vital role in organizational governance, our data indicates that they should not be relied upon as organizations' primary anti-fraud mechanism.
- Many of the most effective anti-fraud controls are being overlooked by a significant portion of organizations. For example, proactive data monitoring and analysis was used by only 35% of the victim organizations in our study, but the presence of this control was correlated with frauds that were 60% less costly and 50% shorter in duration. Other less common controls — including surprise audits, a dedicated fraud department or team and formal fraud risk assessments — showed similar associations with reductions in one or both of these measures of fraud damage. When determining how to invest anti-fraud dollars, management should consider the observed effectiveness of specific control activities and how those controls will enhance potential fraudsters' perception of detection.
- The vast majority of occupational fraudsters are first-time offenders; only 5% had been convicted of a fraud-related offense prior to committing the crimes in our study. Furthermore, 82% of fraudsters had never previously been punished or terminated by an employer for fraud-related conduct. While background checks can be useful in screening out some bad applicants, they might not do a good job of predicting fraudulent behavior. Most fraudsters work for their employers for years before they begin to steal, so ongoing employee monitoring and an understanding of the risk factors and warning signs of fraud are much more likely to identify fraud than pre-employment screening.
- Most occupational fraudsters exhibit certain behavioral traits that can be warning signs of their crimes, such as living beyond their means or having unusually close associations with vendors or customers. In 92% of the cases we reviewed, at least one common behavioral red flag was identified before the fraud was detected. Managers, employees, auditors and others should be trained to recognize these warning signs that, when combined with other factors, might indicate fraud.

Introduction

Fraud is ubiquitous; it does not discriminate in its occurrence. And while anti-fraud controls can effectively reduce the likelihood and potential impact of fraud, the truth is that no entity is immune to this threat. Unfortunately, however, many organizations still suffer from an “it can’t happen here” mindset. To help combat this misconception, to raise public awareness about the cost and universal nature of fraud and to support anti-fraud professionals around the globe, we have undertaken extensive research into the costs and trends related to fraud. The results of our initial research efforts were contained in the inaugural *Report to the Nation on Occupational Fraud and Abuse*, which was released in 1996; since then we have continued and expanded our research, with subsequent reports released biennially since 2002.

Although the types of fraud that affect organizations vary widely, the research contained in this Report and its predecessors focuses on a particularly pervasive form: *occupational fraud*, which is 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

Put more simply, occupational frauds are those schemes in which a person defrauds his or her employing organization. By its very nature, this form of fraud is a threat to all organizations that employ individuals to perform their business functions.

To explore and illuminate this risk, each of our Reports has been based on detailed information about specific cases of occupational fraud that were investigated by Certified Fraud Examiners (CFEs), and we undertook all Reports with the same goals:

- To summarize the opinions of experts on the percentage of organizational revenue lost to fraud each year
- To categorize the ways in which occupational fraud and abuse occur
- To analyze the characteristics of the individuals who commit occupational fraud and abuse
- To examine the characteristics of the organizations that are victimized by occupational fraud and abuse



Fraud is ubiquitous; it does not discriminate in its occurrence. And while anti-fraud controls can effectively reduce the likelihood and potential impact of fraud, the truth is that no entity is immune to this threat.

In furtherance of these goals, the 2014 Report contains an analysis of 1,483 cases of occupational fraud that occurred in more than 100 countries. Figure 1 illustrates the regional breakdown of those cases for which the location of the victim organization was identified, as well as the corresponding median losses for the cases in each region.¹

Figure 1: Geographical Location of Victim Organizations

Region	Number of Cases	Percent of Cases	Median Loss (in U.S. dollars)
United States	646	48.0%	\$100,000
Sub-Saharan Africa	173	12.8%	\$120,000
Asia-Pacific	129	9.6%	\$240,000
Western Europe	98	7.3%	\$200,000
Eastern Europe and Western/Central Asia	78	5.8%	\$383,000
Canada	58	4.3%	\$250,000
Latin America and the Caribbean	57	4.2%	\$200,000
Southern Asia	55	4.1%	\$56,000
Middle East and North Africa	53	3.9%	\$248,000

Throughout this Report, we note several regional variances in the characteristics of occupational fraud schemes. Nonetheless, the overall uniformity of our findings over time continues to be striking. We have found that there are consistent patterns in how these crimes are committed, how they are detected, who commits them and who suffers from them. These observations underscore the value of our research and reinforce our mission to continue educating anti-fraud professionals, business leaders and the general public on the costs and trends of occupational fraud, as well as the importance of proactive measures to protect against this threat.

¹ A list of the countries included in each multi-country region is contained in the Appendix on page 72.

The Cost of Occupational Fraud

Understandably, there is considerable attention paid to determining the overall cost of fraud. Executives want to know how significant the risk of fraud is to their companies, anti-fraud professionals need to justify budgets and satisfy performance metrics and the media and general public are curious about just how much money white-collar criminals are taking us for.

Unfortunately, the nature of fraud means that much of its cost is hidden. Because concealment is an intrinsic component of most fraud schemes, some frauds are never uncovered; further, of the cases that are detected, many are never measured or reported. In addition, most frauds carry substantial indirect costs, including lost productivity, reputational damage and the related loss of business, as well as the costs associated with investigation and remediation of the issues that allowed them to occur. The result is the equivalent of a financial iceberg; some of the direct losses are plainly visible, but there is a huge mass of hidden harm that we cannot see.

Despite the inherent challenges in doing so, determining an estimate for the cost of fraud is an important endeavor. As part of our research, we asked the CFEs who participated in our survey what percentage of annual revenues they believe the typical organization loses to all types of fraud; their responses provided a median estimate of 5%. To illustrate the staggering effect of this finding, applying the percentage to the 2013 estimated Gross World Product of \$73.87 trillion results in a projected potential total global fraud loss of nearly \$3.7 trillion.²

It is important to note that this estimate is based on the collective opinion of the more than 1,400 anti-fraud experts who participated in our study, rather than on any specific data or factual observations. As such, it provides an important measure that can be used as a benchmark, but it should not be interpreted as a precise representation of the cost of fraud. Regardless of whether the true cost is 5% or some other portion of the global economy, the total financial impact of fraud surely amounts to hundreds of billions, if not trillions, of dollars each year — an enormous sum lost to an expense that provides absolutely no business or societal benefit.



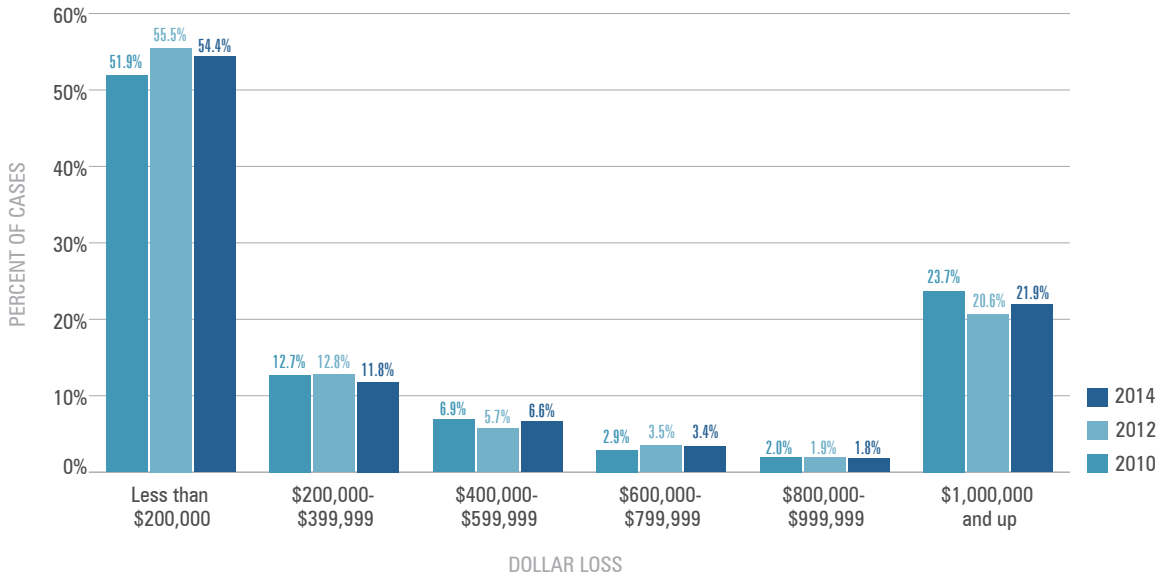
The cost of fraud is the equivalent of a financial iceberg; some of the direct losses are plainly visible, but there is a huge mass of **hidden harm that we cannot see.**

² United States Central Intelligence Agency, *The World Factbook* (www.cia.gov/library/publications/the-world-factbook/geos/xx.html).

Distribution of Losses

One metric that can be effectively measured and used to analyze the cost of fraud is the amount of financial damage caused by individual instances of known fraud. Of the 1,483 cases in our study, 1,445 included information about the total dollar amount lost to fraud; for those, the median loss caused by the scheme was \$145,000. Additionally, over our last three studies, the dollar losses of the cases analyzed have followed a relatively distinct pattern, with just over half causing losses under \$200,000 and more than one-fifth involving losses of at least \$1 million.

Figure 2: Distribution of Dollar Losses



How Occupational Fraud is Committed

Technological advancements and the continual evolution of the global business environment provide both enhanced tools and additional challenges for perpetration and concealment — as well as the prevention, detection and investigation — of fraud. Even in light of such changes, however, our research into occupational fraud has revealed consistent and clear patterns about the form fraud schemes take and the relative cost of each scheme type.

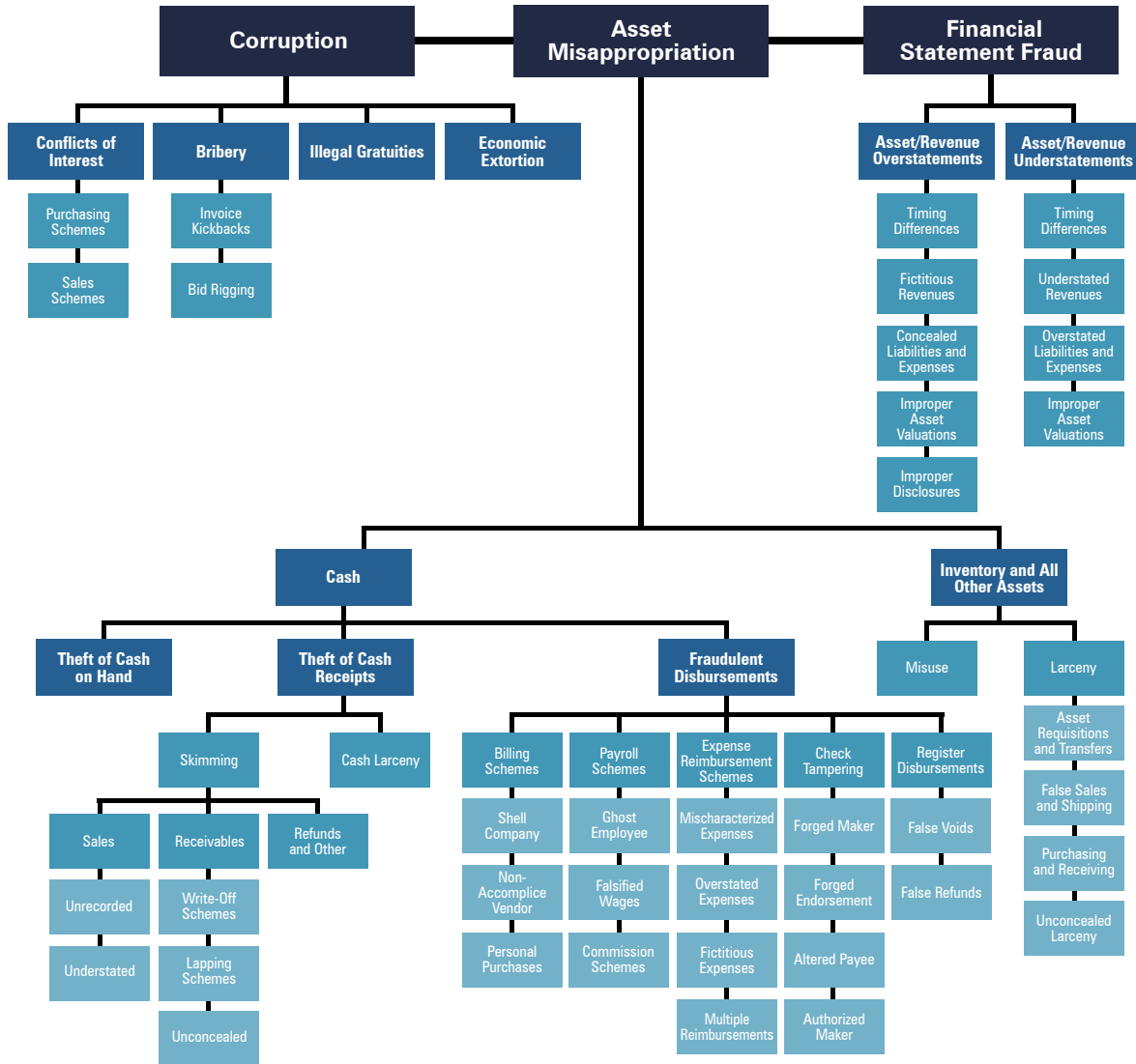
Specifically, occupational frauds can be classified into three primary categories: asset misappropriation, corruption and financial statement fraud, with each category further broken down into several subcategories as shown in the Occupational Fraud and Abuse Classification System, also known as the Fraud Tree (see Figure 3).³ The thousands of occupational fraud cases analyzed over our last two decades of research have all fallen into one or more of the categories delineated by this graphic.

³ For definitions of each of these scheme types, please see the Glossary of Terminology on page 71.



Our research into occupational fraud has revealed **consistent and clear patterns** about the form fraud schemes take and the relative cost of each scheme type.

Figure 3: Occupational Fraud and Abuse Classification System (Fraud Tree)



Of the three primary categories of occupational fraud, asset misappropriation is by far the most common, occurring in more than 85% of cases analyzed for this Report; however, it is also typically the least costly of the three types, causing a median loss of \$130,000. In contrast, financial statement fraud occurs much less frequently, accounting for 9% of the cases in our latest survey, but it causes the greatest financial impact of the three categories by far, with a median loss of \$1 million. Corruption tends to fall in the middle in terms of both frequency and median loss.

Figure 4: Occupational Frauds by Category — Frequency

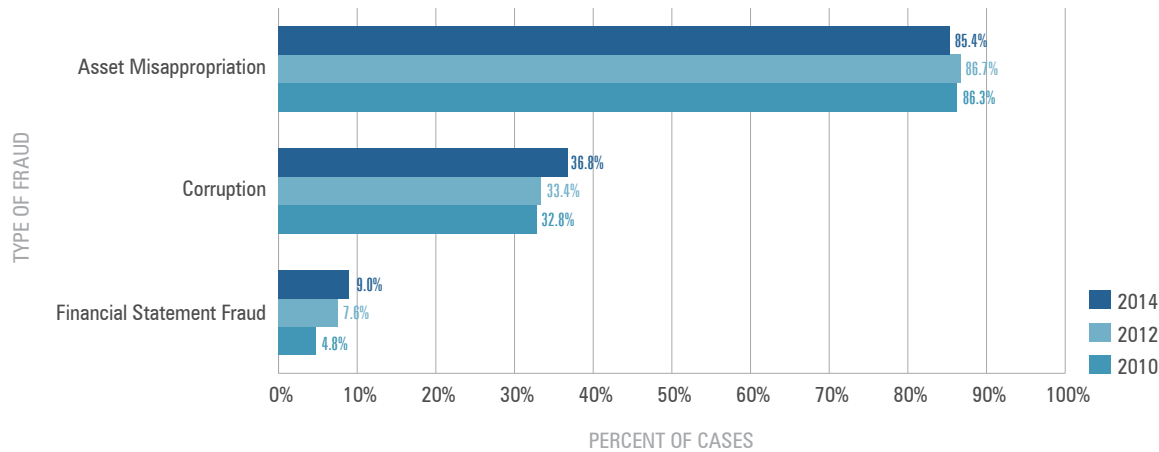
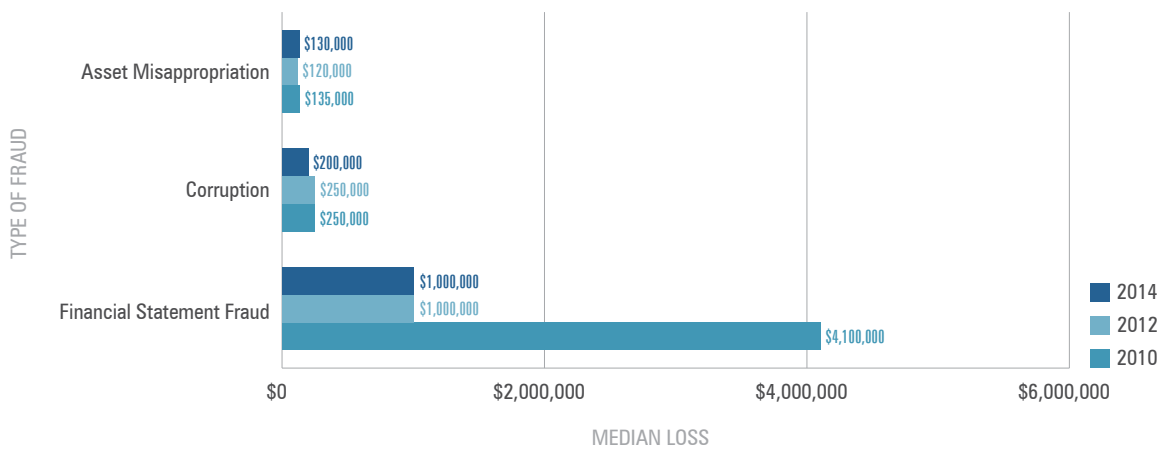


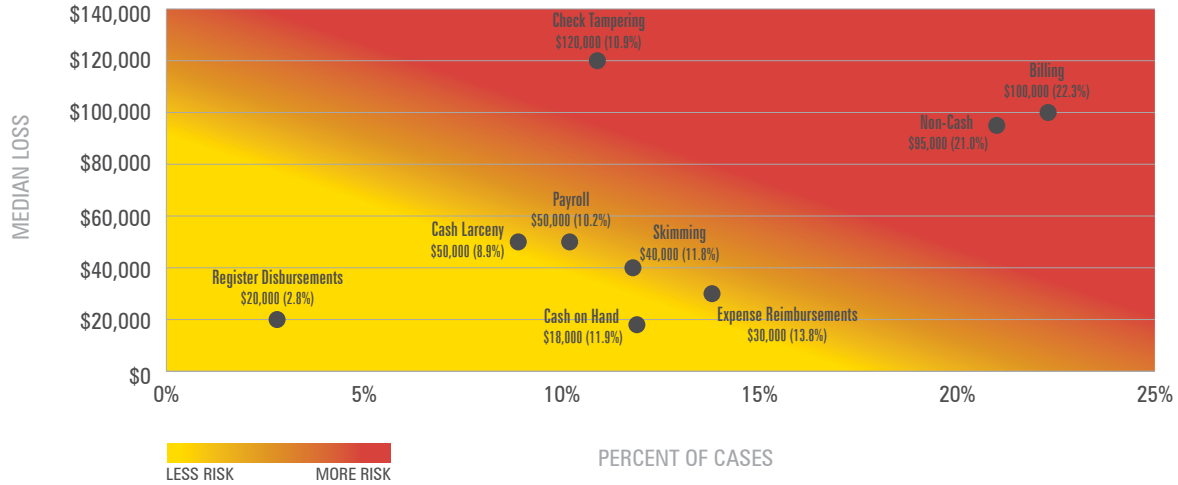
Figure 5: Occupational Frauds by Category — Median Loss



Asset Misappropriation Sub-Schemes

In addition to the three primary categories of occupational fraud, we have identified nine sub-categories of asset misappropriation schemes, each representing a specific way that employees misappropriate organizational resources.⁴ Figure 6 shows the relative frequency and median loss for each of these scheme types. As illustrated in that figure, schemes involving check tampering, billing and non-cash misappropriations tend to represent the greatest risk in terms of combined likelihood and cost.

Figure 6: Frequency and Median Loss of Asset Misappropriation Sub-Schemes

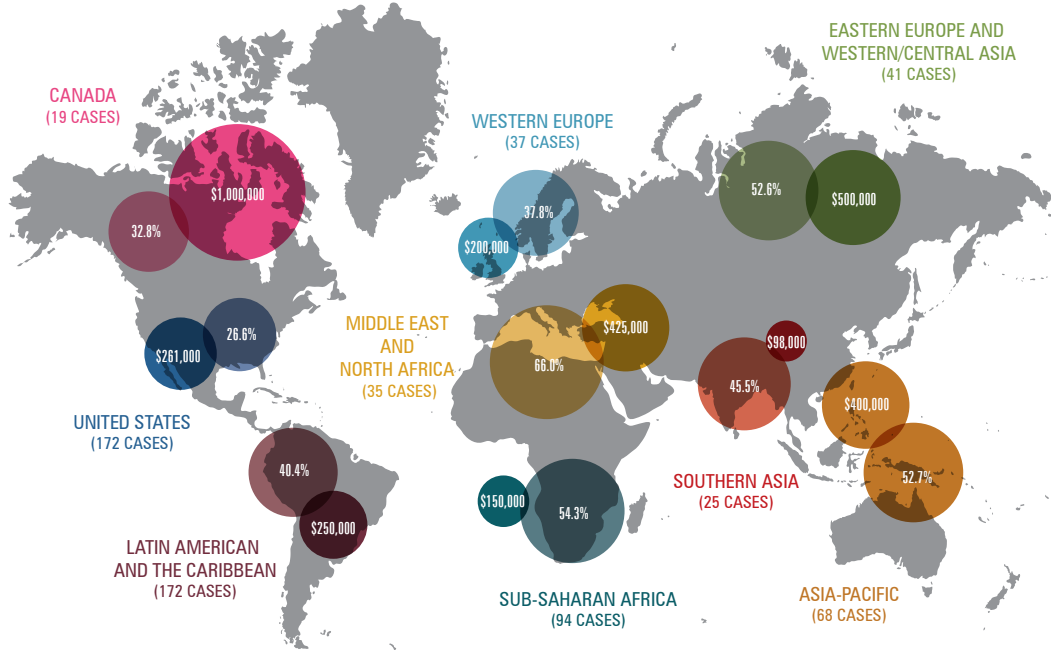


⁴ For definitions of each of these sub-scheme types, please see the Glossary of Terminology on page 71.

Corruption Cases by Region

Figure 7 illustrates the breakdown of corruption cases by region, along with the respective median losses of those cases. The Middle East and North Africa had the largest percentage of reported corruption cases in our study, followed by Sub-Saharan Africa. This analysis only represents the cases reported to us by the CFEs who investigated those cases, and therefore it does not necessarily reflect overall levels of corruption in each region. But it is worth noting that Transparency International's 2013 *Corruption Perceptions Index* found these two regions to have among the highest perceived levels of corruption in the world.⁵

Figure 7: Frequency and Median Loss of Corruption Cases by Region



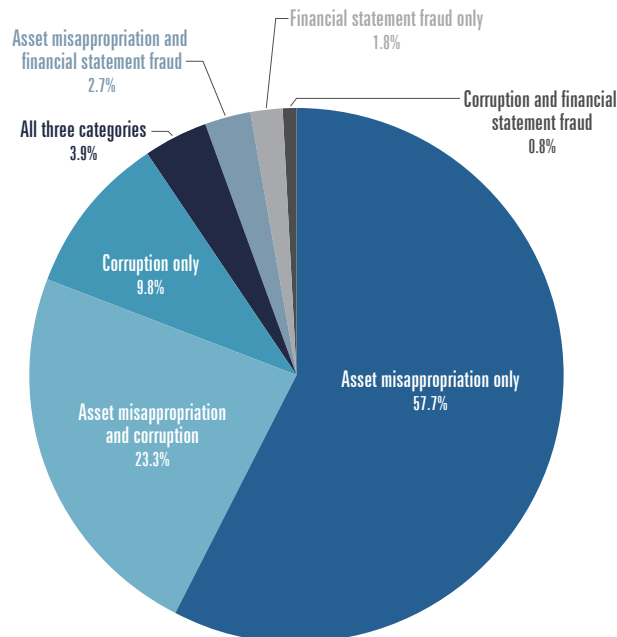
⁵ Transparency International, 2013 *Corruption Perceptions Index* (cpi.transparency.org/cpi2013/results).

Overlap of Fraud Schemes

Although we have identified several distinct occupational fraud categories, fraudsters often commit frauds that involve more than one of these schemes. Of the 1,483 cases analyzed for this Report, 444 — or approximately 30% — involved two or more of the three primary forms of occupational fraud (see Figure 8). Some scheme types appear to be conducted together much more frequently than others. The following are among the most notable of these findings:

- In 53.2% of cases involving expense reimbursements and in 40.7% of check tampering cases, the perpetrator was also engaged in a billing scheme.
- In 80.2% of cash-on-hand misappropriations, 75.9% of financial statement frauds and 75.6% of expense reimbursement schemes, the perpetrator was also undertaking at least one other form of occupational fraud.
- Corruption seems to be the most compatible with other scheme types, occurring contemporaneously with 23.5% of check tampering schemes on the low end and with 51.1% of financial statement fraud schemes on the high end.

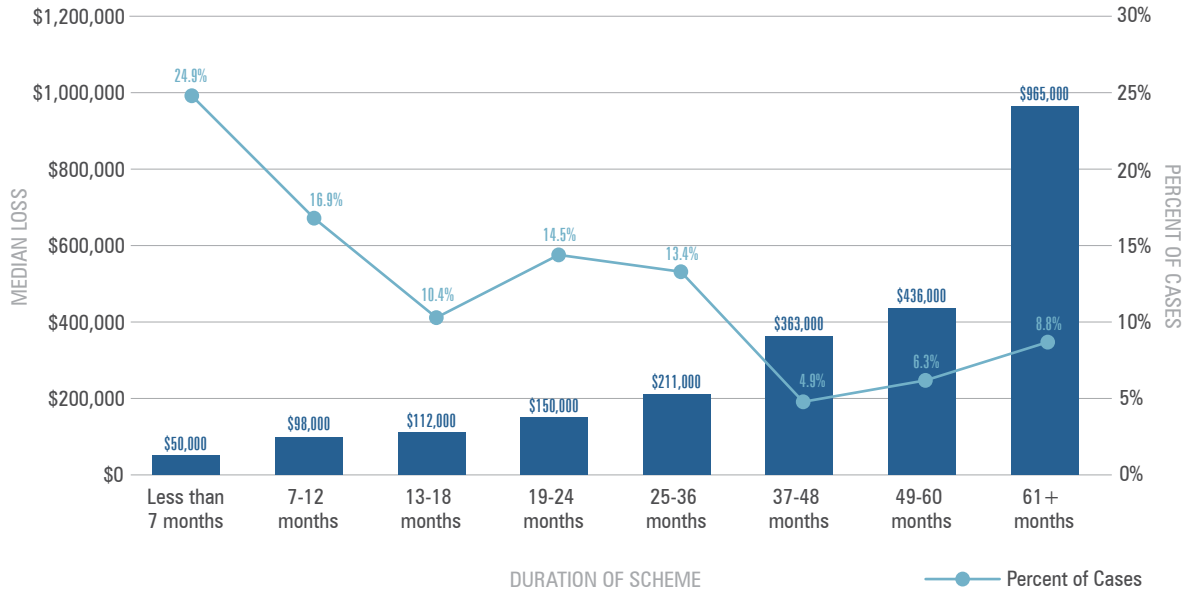
Figure 8: Overlap of Fraud Schemes



Duration of Fraud Schemes

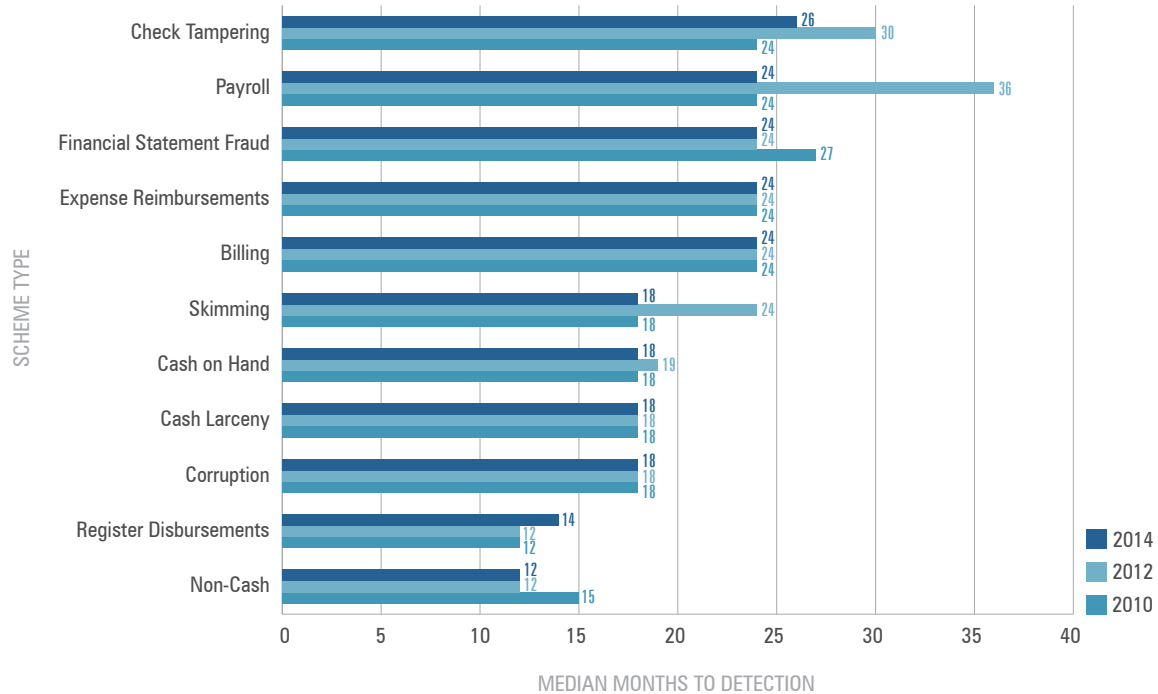
The correlation between how long fraud schemes last and the amount of financial damage they cause might seem self-evident. However, Figure 9 provides a clear illustration of the importance of early detection. It is encouraging to note that one-quarter of the frauds in our study were detected in the first six months of their occurrence; for those cases, the median loss was limited to \$50,000. In contrast, the longer frauds were able to go undetected, the more costly they became.

Figure 9: Frequency and Median Loss Based on Duration of Fraud



The median duration — the amount of time from when the fraud commenced until it was detected — for all schemes in our study was 18 months. In Figure 10, we have presented the median duration for each category of occupational fraud. This helps us see where organizational controls can be particularly helpful in identifying frauds earlier and thus limiting losses. The median duration of schemes ranged from 12 months for non-cash misappropriations to 26 months for check tampering. Interestingly, although non-cash misappropriations were detected the most quickly of all categories, they also had one of the highest median losses of the asset misappropriation categories (see Figure 6), indicating that these schemes can cause a large amount of financial damage rather quickly.

Figure 10: Median Duration of Fraud Based on Scheme Type



Detection of Fraud Schemes

According to the fraud triangle theory — that those who commit occupational fraud tend to have a perceived financial need, opportunity and rationalization — the threat of likely detection is one of the most powerful factors in fraud prevention because it all but eliminates the fraudster's perceived opportunity. In this Report and past versions, we asked respondents to provide information on how their occupational fraud schemes were first detected. One of the recurring trends we see is that some detection methods are more effective than others. When comparing the initial detection method to other information, such as the fraud's duration and the financial damage caused, we found substantial differences among the various ways frauds were uncovered. Detection method, therefore, is directly related to both fraud prevention and loss mitigation.

Additionally, the manner by which frauds are detected is not purely incidental. Our data suggests that the likelihood of discovering fraud in particular ways can be shaped by the procedures and controls that an organization has in place. This information can help organizations detect frauds more efficiently.

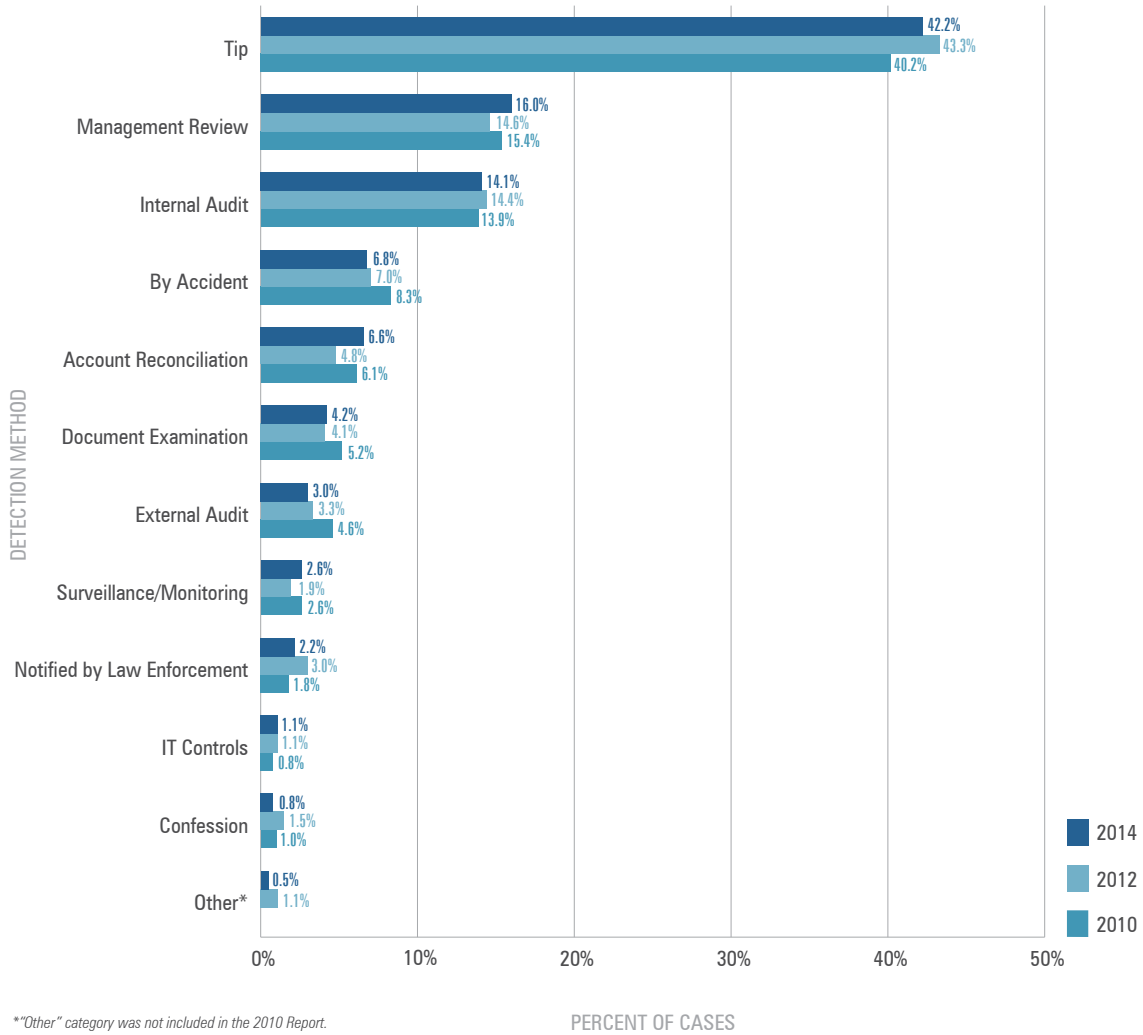


Tips are consistently the most common detection method for cases of occupational fraud by a **significant margin**.

Initial Detection of Occupational Frauds

As Figure 11 demonstrates, tips are consistently the most common detection method for cases of occupational fraud by a significant margin, which has been an observed trend since we first began tracking this data in 2002. Management review and internal audit follow tips, which was also true for the 2010 and 2012 Reports.

Figure 11: Initial Detection of Occupational Frauds



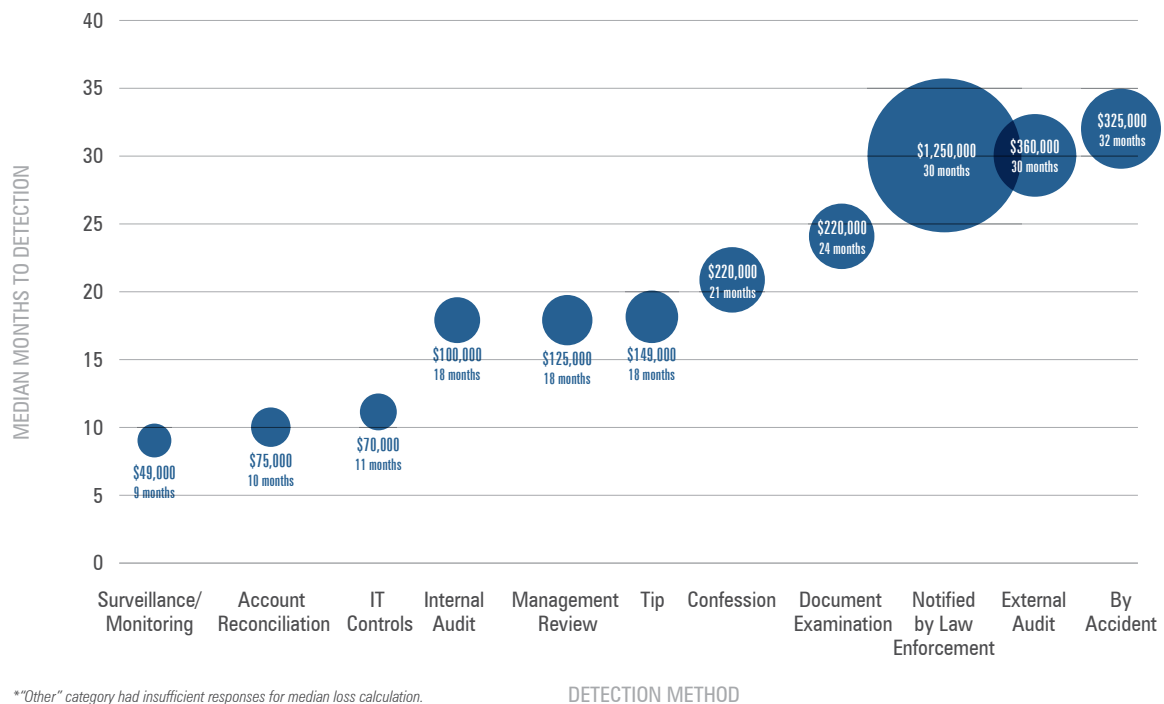
Median Loss and Median Duration by Detection Method

Figure 12 illustrates the relationship between the detection method, median loss and median duration of occupational frauds. The larger circles represent a higher median loss, and the detection methods are organized left-to-right in order of median duration. Frauds that were discovered by accident tended to last the longest, with a median duration of 32 months, and had a median loss of \$325,000. Schemes that were first detected by notification from law enforcement caused the highest median loss at \$1,250,000 and had a median duration of 30 months.

The data highlights how the results of fraud cases tend to differ based on the initial detection method. One of the most visible distinctions is that the five detection methods with both the shortest duration and lowest loss — surveillance/monitoring, account reconciliation, IT controls, internal audit and management review — involved *proactive* efforts to discover fraud. In contrast, detection methods that are *not* the result of efforts within the organization to detect fraud — confession, notification by law enforcement, external audit and by accident — tended to last longer and cost more. In other words, having adequate controls that seek out fraud, rather than relying on external or passive detection methods, can dramatically reduce the cost and duration of such schemes.

Other factors that might be affecting this data include the possibility that some schemes that are commonly detected through a particular method tend to involve lower amounts of assets. Additionally, some schemes generally will not be detected by certain methods (e.g., IT controls).

Figure 12: Median Loss and Median Duration by Detection Method

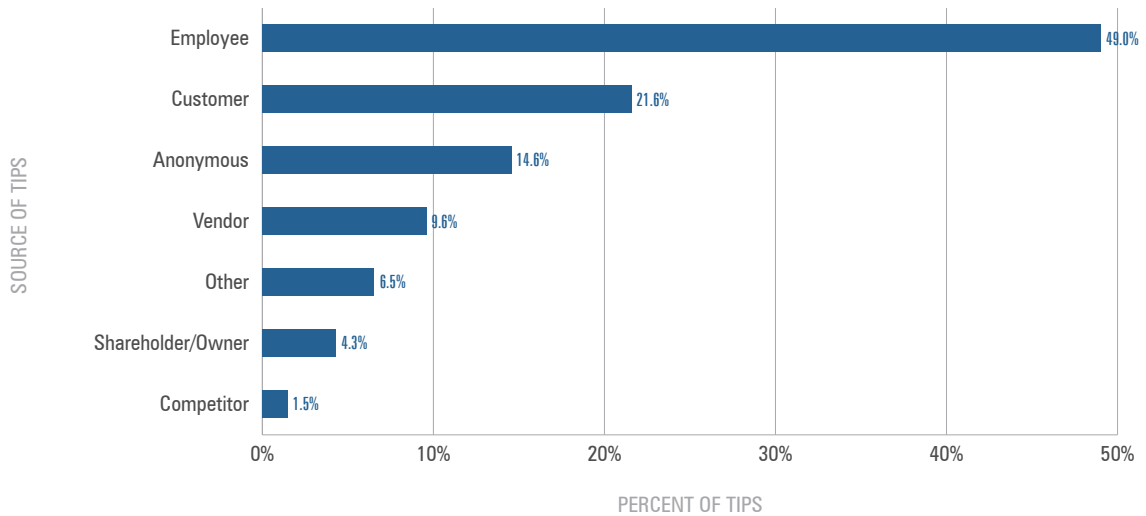


Source of Tips

It is well known that employees are a valuable source of information for discovering potential fraud, and Figure 13 shows that employees were the source of almost half of all tips that led to the detection of fraud. Occupational fraud has a negative impact on an organization, including those who work for it, which might explain why employees so often step forward. At the same time, there is often a risk of backlash for whistleblowers, which might explain why a substantial amount of tips came from anonymous parties (14.6%).

The fact that more than half of all tips involved parties other than confirmed employees emphasizes the importance of cultivating tips from various sources. For example, many employers circulate a whistleblower policy or fraud hotline information to employees only, but our data indicates that it is also advantageous to educate vendors, customers and owners/shareholders on how to report suspicions of fraud.

Figure 13: Source of Tips

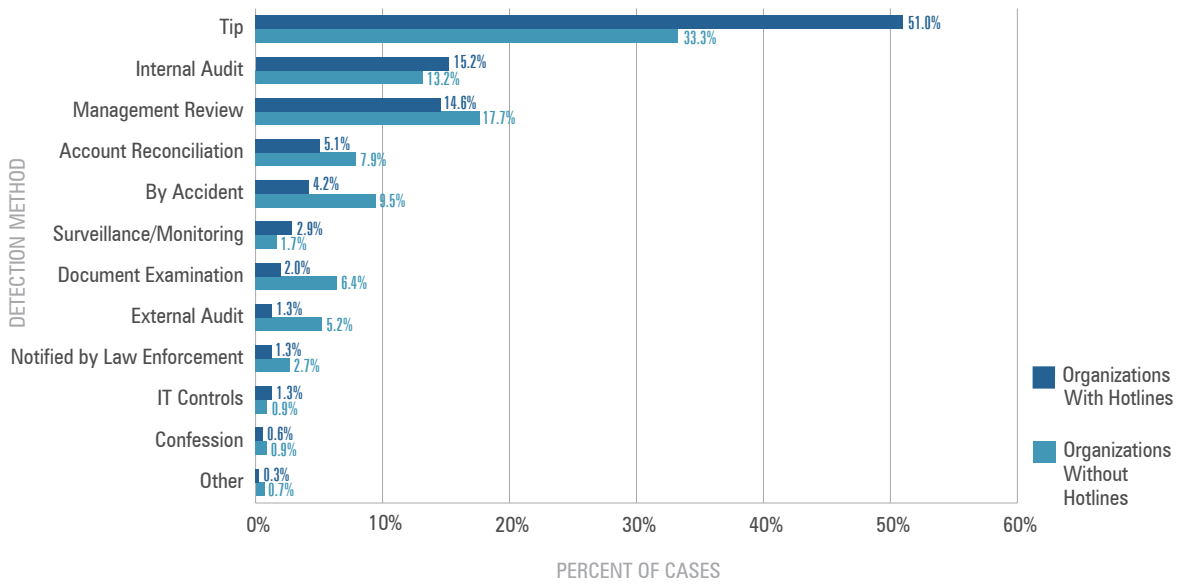


Impact of Hotlines

The presence of a reporting hotline had a substantial impact on the initial fraud detection method in the cases we analyzed. Tips were the most common detection method for organizations with and without hotlines, but the benefit was much more pronounced in organizations with them (see Figure 14).

For organizations without hotlines, the reduced detection through tips resulted in other forms of detection being more prominent. As seen in Figure 12, several detection methods tend to be associated with higher median losses and increased median duration. Some of these less-effective means of detection — by accident, notification by law enforcement and external audit — were more than twice as common in organizations without hotlines.

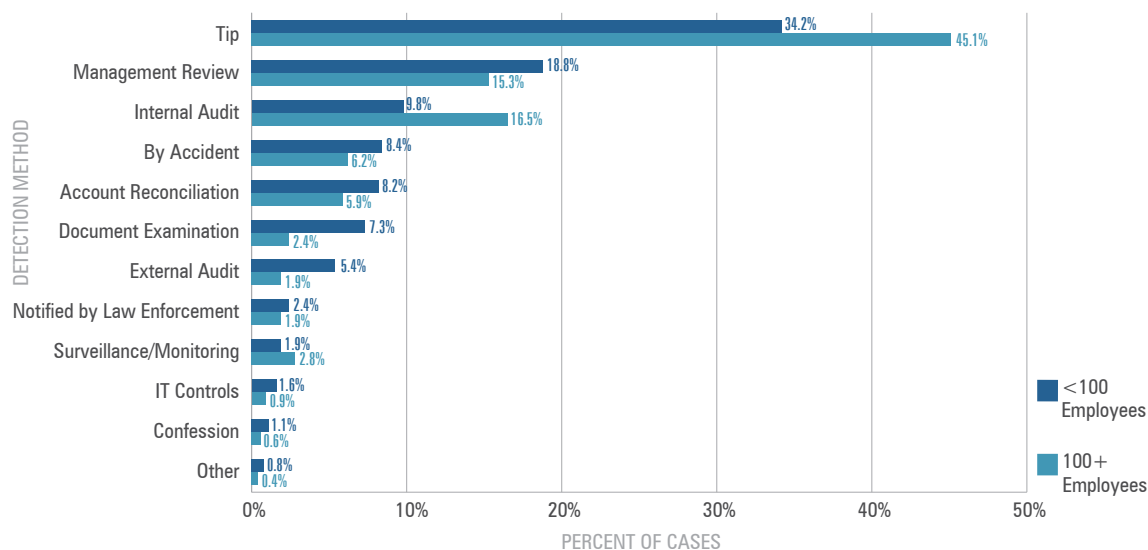
Figure 14: Impact of Hotlines



Initial Detection of Frauds in Small Businesses

Large and small organizations often allocate resources differently for anti-fraud measures (see Figure 27 on page 32), and the distribution of detection methods at these two types of organizations also varies. Small organizations (those with fewer than 100 employees) differed most from large organizations in the percentage of cases detected by tip (34.2% and 45.1%, respectively) and internal audit (9.8% and 16.5%); these findings are not surprising, given that small organizations are much less likely to have hotlines or internal audit departments (see Figure 27).

Figure 15: Detection Method by Size of Victim Organization



Detection Method by Region

Figure 16 shows how frauds were detected based on the region in which they occurred. With the exception of Canada, the top three detection methods in each region were tip, management review and internal audit. Latin America and the Caribbean and the Middle East and North Africa were much more likely to have frauds discovered by internal audit than other regions, while also having few or no reported cases discovered by external audit. Western Europe had the highest number of cases detected by notification from law enforcement (6.1%) and by accident (10.2%).

Figure 16: Detection Method by Region

	United States	Sub-Saharan Africa	Asia-Pacific	Western Europe	Eastern Europe and Western/Central Asia	Canada	Latin America and the Caribbean	Southern Asia	Middle East and North Africa
Tip	38.4%	42.4%	53.9%	39.8%	53.8%	43.9%	36.8%	54.5%	35.3%
Management Review	18.4%	15.1%	11.7%	16.3%	10.3%	19.3%	14.0%	12.7%	15.7%
Internal Audit	13.1%	16.3%	10.9%	12.2%	16.7%	3.5%	22.8%	14.5%	33.3%
By Accident	8.2%	3.5%	3.1%	10.2%	5.1%	8.8%	7.0%	1.8%	5.9%
Account Reconciliation	5.3%	13.4%	6.3%	7.1%	3.8%	8.8%	7.0%	7.3%	3.9%
Document Examination	5.9%	2.9%	1.6%	2.0%	1.3%	5.3%	3.5%	1.8%	0.0%
External Audit	4.0%	1.2%	3.1%	2.0%	2.6%	3.5%	1.8%	1.8%	0.0%
Surveillance/Monitoring	2.5%	2.9%	2.3%	3.1%	1.3%	5.3%	1.8%	0.0%	2.0%
Notified by Law Enforcement	2.0%	0.6%	2.3%	6.1%	2.6%	1.8%	3.5%	1.8%	0.0%
IT Controls	1.1%	0.6%	1.6%	0.0%	1.3%	0.0%	0.0%	1.8%	3.9%
Confession	0.6%	1.2%	1.6%	1.0%	1.3%	0.0%	1.8%	0.0%	0.0%
Other	0.5%	0.0%	1.6%	0.0%	0.0%	0.0%	0.0%	1.8%	0.0%

Victim Organizations

Type of Organization

As in our previous studies, privately owned and publicly traded organizations accounted for approximately two-thirds of the victims in the cases reported to us. These for-profit organizations also suffered the greatest median losses, which is consistent with our previous Reports. In contrast, government entities and not-for-profits made up 15.1% and 10.8%, respectively, of the cases analyzed and reported much lower median losses than their for-profit counterparts.



Small businesses were victimized in the greatest percentage of cases reported to us, and they suffered disproportionately large losses due to fraud.

Figure 17: Type of Victim Organization — Frequency

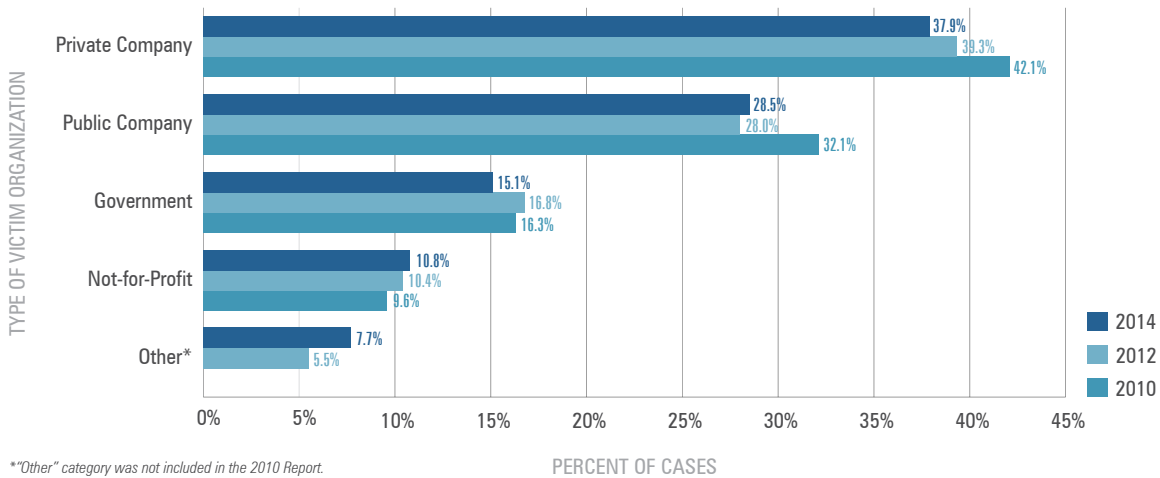
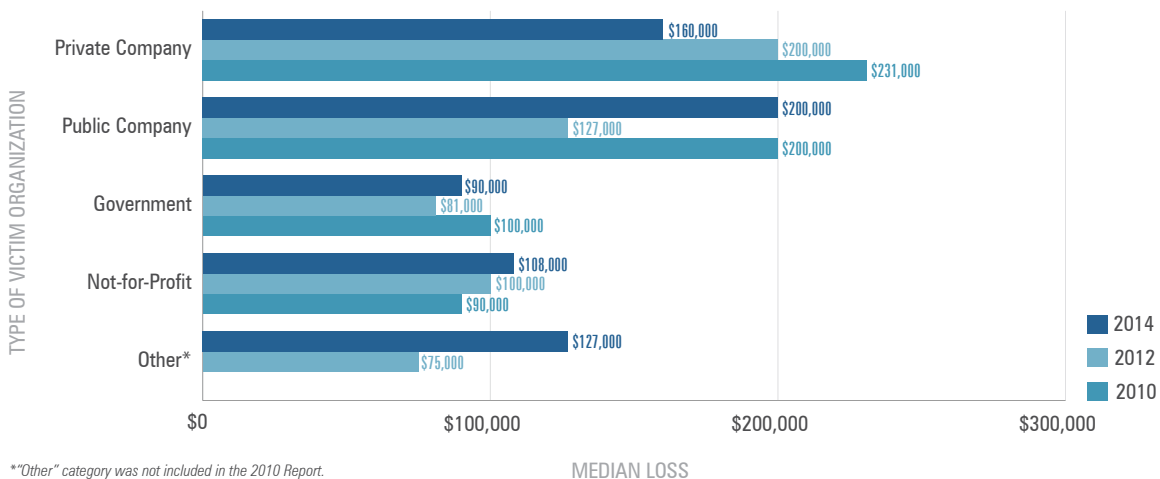


Figure 18: Type of Victim Organization — Median Loss



Size of Organization

Small businesses (defined as those with fewer than 100 employees) were victimized in the greatest percentage of cases reported to us, which is consistent with previous Reports. In addition, the median losses for small businesses and the largest entities (those with more than 10,000 employees) were the highest, at \$154,000 and \$160,000, respectively. While the absolute median loss for the largest entities is slightly higher than that for small businesses, it is important to note that the overall impact of a \$154,000 loss for many small businesses is much greater than the relative impact of a \$160,000 loss at an organization with more than 10,000 employees.

Figure 19: Size of Victim Organization — Frequency

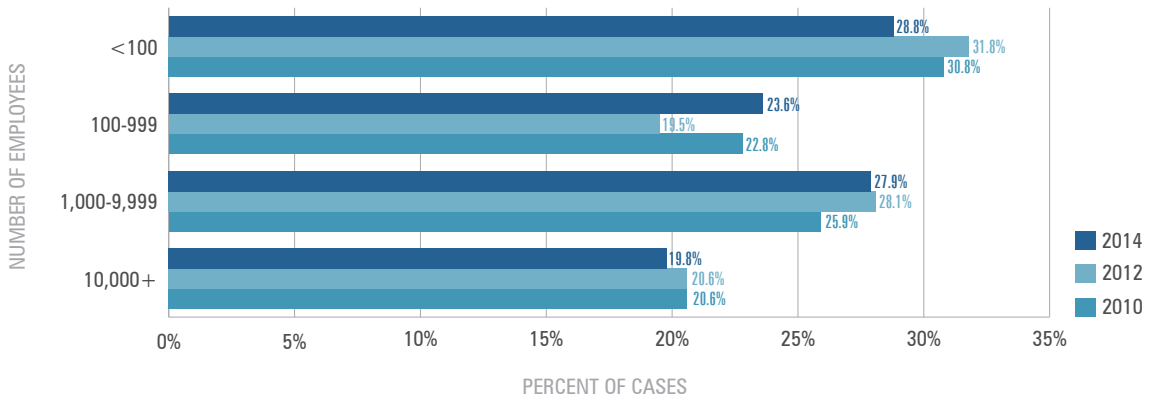
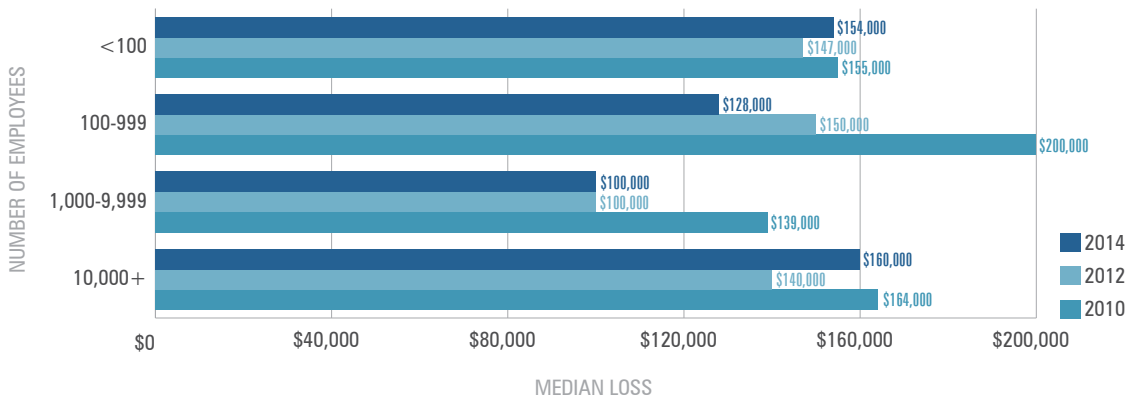


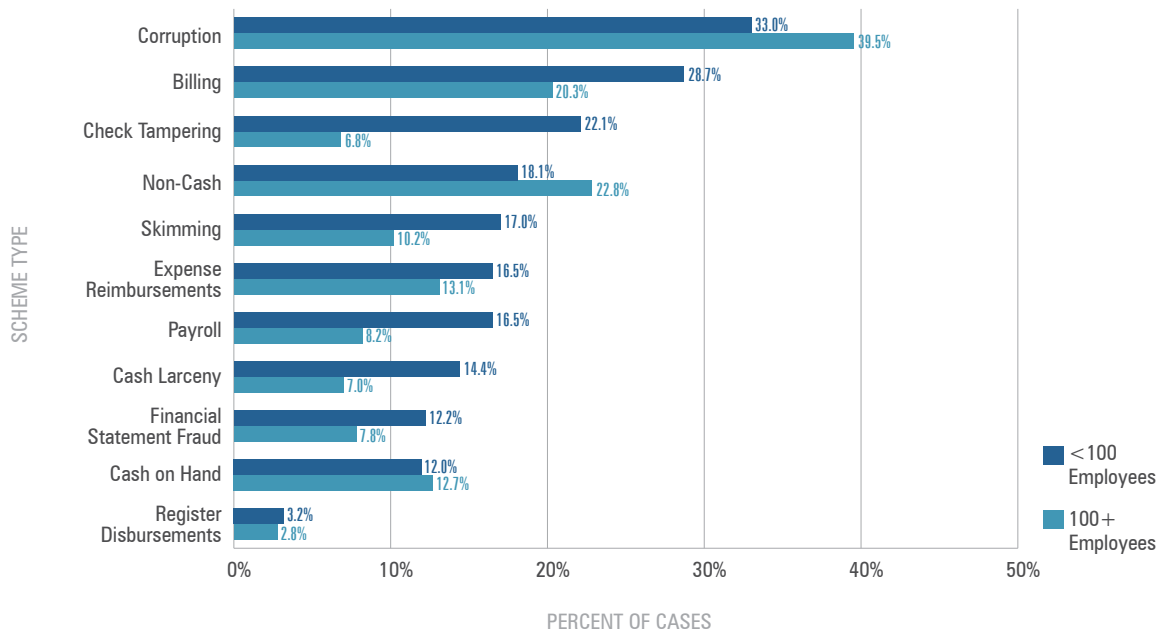
Figure 20: Size of Victim Organization — Median Loss



Methods of Fraud in Small Businesses

Figure 21 demonstrates that organizations with fewer than 100 employees face different fraud risks than larger organizations. For example, check tampering schemes occurred in 22% of small business cases, but only 7% of cases in larger organizations. In addition, payroll and cash larceny schemes were found to occur twice as often in small businesses as in larger businesses. Our findings also show that corruption remains a significant threat to larger organizations, occurring in nearly 40% of reported cases; in contrast, 33% of the incidents at small businesses involved corruption.

Figure 21: Scheme Type by Size of Victim Organization



Industry of Organization

Figure 22 categorizes the cases reported to us by industry of the victim organization. Similar to the findings in our previous Reports, banking and financial services, government and public administration, and manufacturing were the most represented sectors among the fraud cases analyzed. On the other end of the spectrum, the industries with the lowest frequency of fraud cases were mining; communications and publishing; and arts, entertainment and recreation. While this data shows the distribution of cases in our study, it does not necessarily mean that certain industries are more at risk of fraud than others. Our study focuses on cases investigated by CFEs, so Figure 22 primarily reflects the industries in which CFEs work. The fact that CFEs tend to be hired more in some industries than others could indicate those industries are at greater risk of fraud, but it could also be a sign that they are more proactive in dealing with anti-fraud issues.

Figure 22: Industry of Victim Organizations

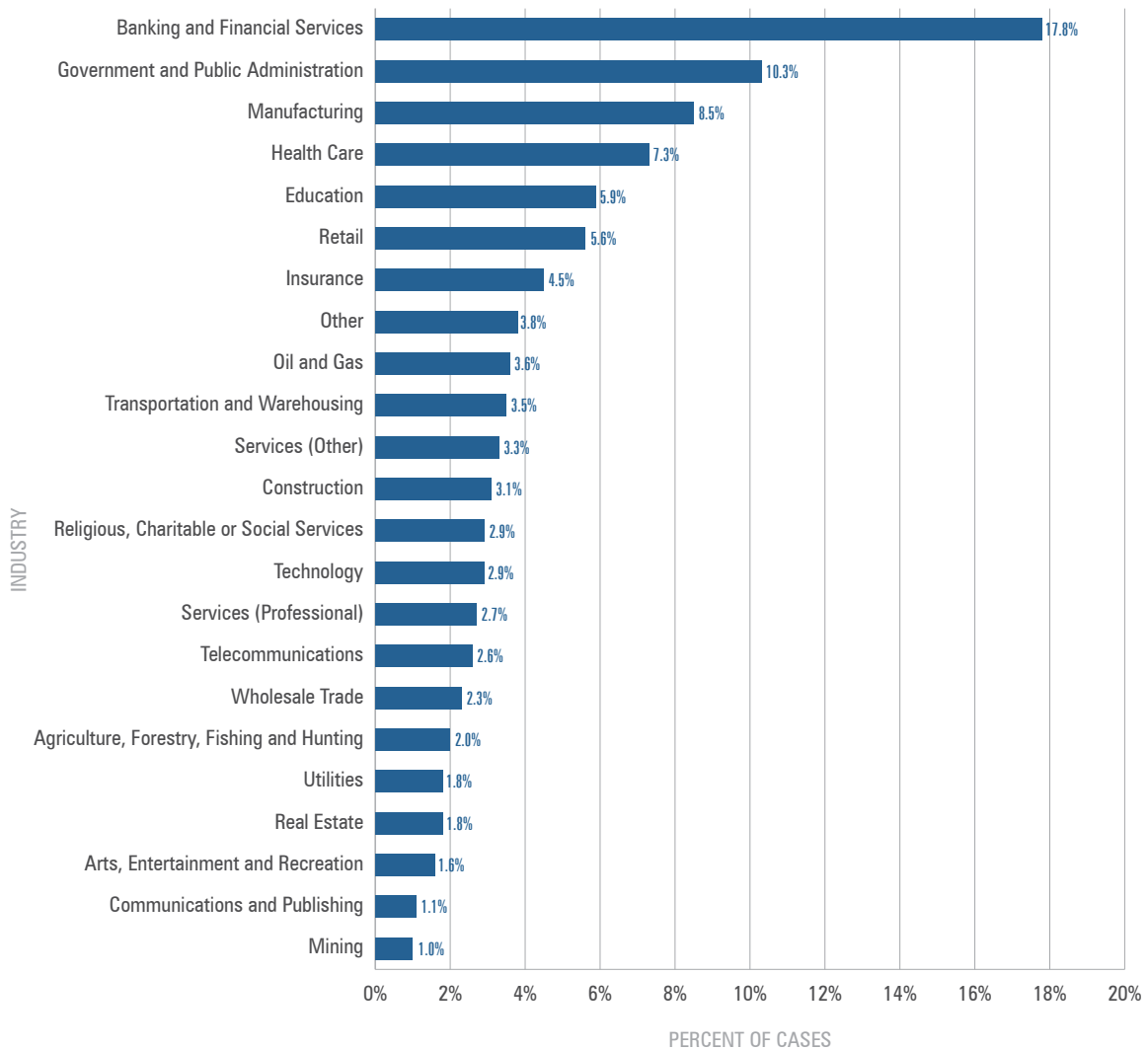


Figure 23 sorts the various industries by median loss. Although the mining industry had the fewest number of cases, it suffered the greatest median loss of \$900,000. Cases in the real estate, oil and gas, and wholesale trade industries also caused notably large median losses. In contrast, the government and public administration sector had the second largest number of reported cases of fraud, but those cases caused a median loss of only \$64,000. Banking and financial services, manufacturing and health care were also among the most represented industries in our study; however, the median losses incurred by these organizations were in the middle of the spectrum with median losses of \$200,000, \$250,000 and \$175,000, respectively.

Figure 23: Industry of Victim Organizations (Sorted by Median Loss)

Industry	Number of Cases	Percent of Cases	Median Loss
Mining	13	1.0%	\$900,000
Real Estate	24	1.8%	\$555,000
Oil and Gas	49	3.6%	\$450,000
Wholesale Trade	31	2.3%	\$375,000
Technology	39	2.9%	\$250,000
Manufacturing	116	8.5%	\$250,000
Construction	43	3.1%	\$245,000
Agriculture, Forestry, Fishing and Hunting	28	2.0%	\$242,000
Transportation and Warehousing	48	3.5%	\$202,000
Banking and Financial Services	244	17.8%	\$200,000
Services (Professional)	37	2.7%	\$180,000
Health Care	100	7.3%	\$175,000
Arts, Entertainment and Recreation	22	1.6%	\$168,000
Other	52	3.8%	\$130,000
Services (Other)	45	3.3%	\$125,000
Telecommunications	36	2.6%	\$120,000
Utilities	25	1.8%	\$100,000
Insurance	62	4.5%	\$93,000
Religious, Charitable or Social Services	40	2.9%	\$80,000
Government and Public Administration	141	10.3%	\$64,000
Education	80	5.9%	\$58,000
Retail	77	5.6%	\$54,000
Communications and Publishing	15	1.1%	\$50,000

Schemes by Industry

Figure 24 is a heat map showing the most frequent types of fraud schemes within each industry (we limited this analysis to industries with at least 40 reported cases). The most common schemes within each industry are shaded red, the next-most common are orange and the least common are yellow. Some types of fraud are high-risk in almost any type of organization; billing and corruption schemes ranked among the three most common forms of fraud in nearly every industry. In contrast, certain schemes tend to be high-risk only for particular industries, some logical (e.g., cash-on-hand misappropriations at financial institutions and theft of non-cash assets in manufacturing companies), and others less expected (e.g., theft of non-cash assets in the government and public administration sector, and expense reimbursement schemes in the health care industry).

Figure 24: Frequency of Schemes Based on Industry

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



Corruption Cases by Industry

Figure 25 shows the number of cases in each industry along with the percentage of those cases that involved corruption. Although mining only had a total of 13 cases reported, nine of those cases involved corruption. Other industries with relatively high proportions of corruption schemes included the oil and gas, manufacturing and construction sectors.

Figure 25: Corruption Cases by Industry

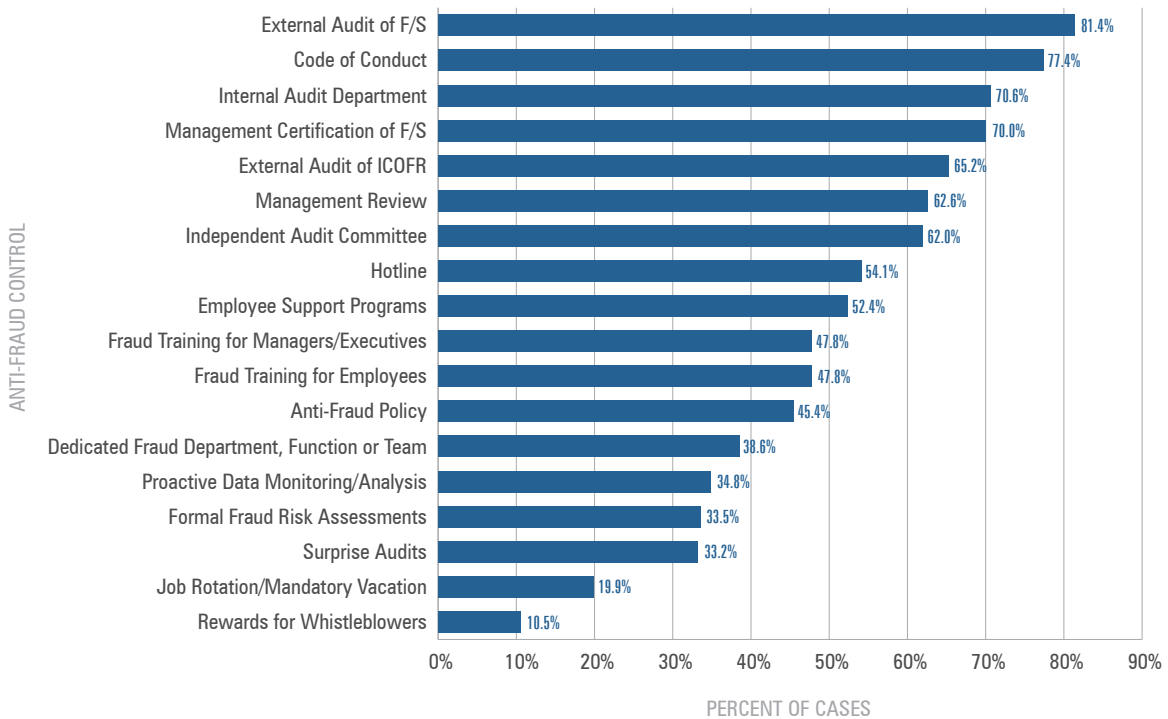
Industry	Total Number of Cases	Number of Corruption Cases	Percent of Cases Involving Corruption
Mining	13	9	69.2%
Oil and Gas	49	28	57.1%
Manufacturing	116	63	54.3%
Construction	43	20	46.5%
Other	52	24	46.2%
Telecommunications	36	15	41.7%
Real Estate	24	10	41.7%
Wholesale Trade	31	12	38.7%
Banking and Financial Services	244	91	37.3%
Health Care	100	37	37.0%
Education	80	29	36.3%
Government and Public Administration	141	51	36.2%
Utilities	25	9	36.0%
Services (Other)	45	16	35.6%
Insurance	62	21	33.9%
Communications and Publishing	15	5	33.3%
Technology	39	13	33.3%
Religious, Charitable or Social Services	40	12	30.0%
Services (Professional)	37	11	29.7%
Transportation and Warehousing	48	14	29.2%
Arts, Entertainment and Recreation	22	6	27.3%
Retail	77	17	22.1%
Agriculture, Forestry, Fishing and Hunting	28	5	17.9%

Anti-Fraud Controls at the Victim Organization

Proactive fraud prevention and detection controls are a vital part in managing the risk of fraud, but are all anti-fraud controls created equal? As part of our survey, we asked participants to identify which of 18 common anti-fraud controls were present at the victim organization at the time the fraud occurred. The responses are reflected in Figure 26, which shows that external audits were the most common control enacted by the victim organizations, as they were present in more than 80% of the cases reported to us. But as noted in Figure 11 on page 19, external audits accounted for the detection of just 3% of the cases in our study. While external audits serve many important functions, this suggests they should not be strongly relied upon as a fraud detection tool.

With more than 42% of frauds being detected by tips (see Figure 11), hotlines ought to play a critical role in organizations' anti-fraud programs. But of the organizations victimized by the frauds in our study, only 54% had a hotline mechanism in place, and less than 11% provided rewards for whistleblowers. These rates indicate that many organizations have room for improvement in encouraging the tips that so effectively help uncover fraudulent conduct.

Figure 26: Frequency of Anti-Fraud Controls



The following key applies to Figures 26, 27, 37 and 38 (pages 31, 32 and 38):

External Audit of F/S = Independent external audits of the organization's financial statements

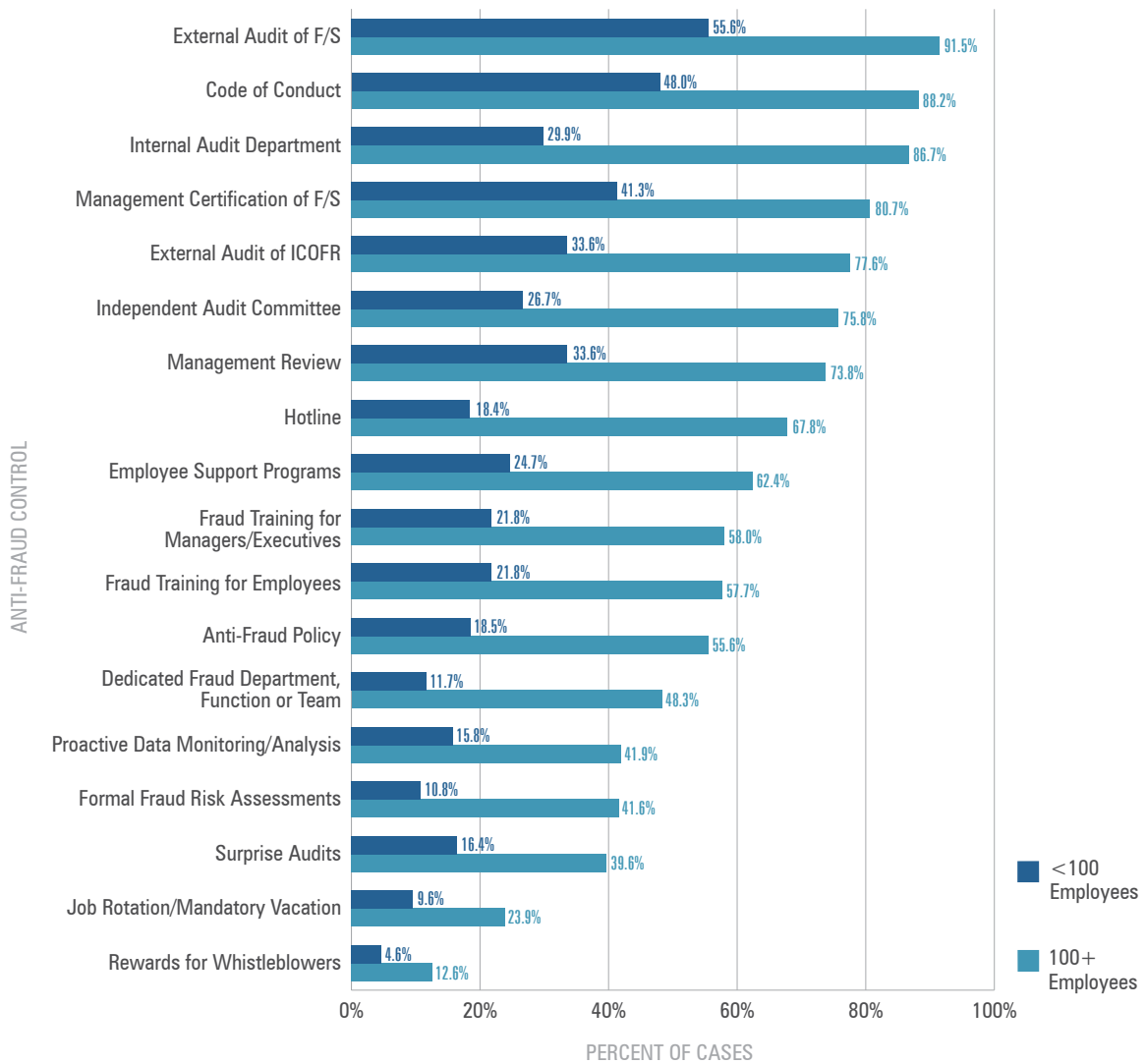
External Audit of ICOFR = Independent audits of the organization's internal controls over financial reporting

Management Certification of F/S = Management certification of the organization's financial statements

Anti-Fraud Controls at Small Businesses

The limited financial and human resources at most small organizations make them uniquely susceptible to fraud; they often lack the means to enact sophisticated anti-fraud controls, and they can be particularly devastated by the fallout from any fraud that does occur. As noted in Figure 20 on page 25, the median loss per fraud scheme at small businesses is \$154,000 — an amount that represents a significant portion of many small businesses’ budgets. In Figure 27, we compared the frequency of anti-fraud controls at entities with fewer than 100 employees to the frequency of those controls at their larger counterparts. Across the board, the larger organizations had a substantially greater implementation rate than did the small businesses. Although some of the controls analyzed require a significant investment and likely are not feasible for many small businesses to implement, many of the controls — such as a code of conduct, an anti-fraud policy, management review procedures and anti-fraud training programs — can be enacted with relatively little cost and could greatly enhance small businesses’ ability to protect their resources from fraud.

Figure 27: Frequency of Anti-Fraud Controls by Size of Victim Organization



Anti-Fraud Controls by Region

We also examined the frequency with which the 18 anti-fraud controls were implemented based on the region of the victim organizations. This revealed a few interesting regional variations and trends in organizations' approaches to fighting fraud. For example, internal audit departments tend to be less common in the United States and Canada than in all other regions. In contrast, employee support programs are much more common in the United States and Canada than in all other regions, and the percentage of victim organizations in Eastern Europe and Western/Central Asia that had employee support programs in place was remarkably low. Fewer victim organizations in Western Europe had job rotation and mandatory vacation policies than their counterparts in other regions. In addition, the proportion of victim organizations in Southern Asia that had formal management review processes, surprise audits and management certification of financial statements was notably greater than in other regions, and nearly half the organizations in Sub-Saharan Africa had a dedicated fraud department, function or team.

Figure 28: Frequency of Anti-Fraud Controls — United States

Control	Percent of Cases
Code of Conduct	72.8%
External Audit of Financial Statements	72.5%
Employee Support Programs	65.6%
Management Certification of Financial Statements	63.4%
External Audit of Internal Controls over Financial Reporting	59.2%
Internal Audit Department	58.8%
Management Review	55.5%
Independent Audit Committee	53.3%
Hotline	51.5%
Fraud Training for Managers/Executives	50.3%
Fraud Training for Employees	48.4%
Anti-Fraud Policy	42.0%
Proactive Data Monitoring/Analysis	36.1%
Dedicated Fraud Department, Function or Team	34.8%
Formal Fraud Risk Assessments	34.5%
Surprise Audits	28.7%
Job Rotation/Mandatory Vacation	17.8%
Rewards for Whistleblowers	12.0%

Figure 29: Frequency of Anti-Fraud Controls — Sub-Saharan Africa

Control	Percent of Cases
External Audit of Financial Statements	88.6%
Internal Audit Department	80.1%
Code of Conduct	78.8%
Management Certification of Financial Statements	73.2%
Independent Audit Committee	67.7%
External Audit of Internal Controls over Financial Reporting	66.0%
Management Review	65.6%
Hotline	57.5%
Dedicated Fraud Department, Function or Team	49.1%
Anti-Fraud Policy	48.5%
Fraud Training for Employees	47.2%
Fraud Training for Managers/Executives	45.3%
Proactive Data Monitoring/Analysis	39.5%
Surprise Audits	38.5%
Employee Support Programs	37.7%
Formal Fraud Risk Assessments	35.3%
Job Rotation/Mandatory Vacation	20.5%
Rewards for Whistleblowers	16.5%

Figure 30: Frequency of Anti-Fraud Controls — Asia-Pacific

Control	Percent of Cases
External Audit of Financial Statements	90.0%
Code of Conduct	89.4%
Internal Audit Department	85.1%
Management Certification of Financial Statements	79.0%
Independent Audit Committee	78.1%
External Audit of Internal Controls over Financial Reporting	73.9%
Management Review	72.2%
Hotline	62.7%
Anti-Fraud Policy	57.9%
Fraud Training for Employees	55.5%
Fraud Training for Managers/Executives	50.9%
Employee Support Programs	47.8%
Dedicated Fraud Department, Function or Team	44.2%
Surprise Audits	40.6%
Formal Fraud Risk Assessments	32.3%
Proactive Data Monitoring/Analysis	30.0%
Job Rotation/Mandatory Vacation	22.2%
Rewards for Whistleblowers	6.9%

Figure 31: Frequency of Anti-Fraud Controls — Western Europe

Control	Percent of Cases
External Audit of Financial Statements	88.0%
Management Certification of Financial Statements	80.5%
Code of Conduct	78.7%
Internal Audit Department	78.5%
External Audit of Internal Controls over Financial Reporting	76.4%
Management Review	72.7%
Independent Audit Committee	66.7%
Hotline	56.7%
Anti-Fraud Policy	48.2%
Fraud Training for Employees	45.8%
Employee Support Programs	45.7%
Fraud Training for Managers/Executives	42.9%
Dedicated Fraud Department, Function or Team	41.9%
Proactive Data Monitoring/Analysis	36.0%
Formal Fraud Risk Assessments	35.6%
Surprise Audits	29.5%
Job Rotation/Mandatory Vacation	13.8%
Rewards for Whistleblowers	5.0%

Figure 32: Frequency of Anti-Fraud Controls — Eastern Europe and Western/Central Asia

Control	Percent of Cases
External Audit of Financial Statements	92.1%
Code of Conduct	88.6%
Internal Audit Department	83.1%
Management Certification of Financial Statements	74.6%
Independent Audit Committee	66.7%
External Audit of Internal Controls over Financial Reporting	65.2%
Management Review	63.8%
Hotline	50.0%
Anti-Fraud Policy	47.9%
Fraud Training for Employees	47.1%
Fraud Training for Managers/Executives	46.5%
Dedicated Fraud Department, Function or Team	43.2%
Surprise Audits	34.7%
Proactive Data Monitoring/Analysis	32.4%
Formal Fraud Risk Assessments	30.1%
Job Rotation/Mandatory Vacation	25.4%
Employee Support Programs	14.1%
Rewards for Whistleblowers	7.0%

Figure 33: Frequency of Anti-Fraud Controls — Canada

Control	Percent of Cases
External Audit of Financial Statements	76.4%
Code of Conduct	73.6%
Employee Support Programs	72.5%
Management Certification of Financial Statements	72.3%
Independent Audit Committee	72.2%
Internal Audit Department	68.4%
External Audit of Internal Controls over Financial Reporting	66.7%
Management Review	60.0%
Hotline	56.1%
Fraud Training for Managers/Executives	50.0%
Anti-Fraud Policy	46.0%
Fraud Training for Employees	42.9%
Dedicated Fraud Department, Function or Team	38.9%
Formal Fraud Risk Assessments	38.8%
Proactive Data Monitoring/Analysis	36.7%
Surprise Audits	29.4%
Job Rotation/Mandatory Vacation	22.0%
Rewards for Whistleblowers	4.4%

Figure 34: Frequency of Anti-Fraud Controls — Latin America and the Caribbean

Control	Percent of Cases
External Audit of Financial Statements	90.7%
Internal Audit Department	85.7%
Code of Conduct	83.3%
External Audit of Internal Controls over Financial Reporting	81.1%
Management Certification of Financial Statements	78.4%
Management Review	70.0%
Independent Audit Committee	67.3%
Hotline	60.0%
Employee Support Programs	50.0%
Fraud Training for Employees	49.0%
Anti-Fraud Policy	47.2%
Fraud Training for Managers/Executives	46.9%
Dedicated Fraud Department, Function or Team	32.7%
Formal Fraud Risk Assessments	28.3%
Surprise Audits	26.0%
Proactive Data Monitoring/Analysis	22.4%
Job Rotation/Mandatory Vacation	20.8%
Rewards for Whistleblowers	6.1%

Figure 35: Frequency of Anti-Fraud Controls — Southern Asia

Control	Percent of Cases
External Audit of Financial Statements	93.9%
Internal Audit Department	90.6%
Management Certification of Financial Statements	86.0%
Management Review	83.3%
Code of Conduct	80.4%
Independent Audit Committee	73.5%
External Audit of Internal Controls over Financial Reporting	68.2%
Hotline	53.2%
Surprise Audits	52.3%
Fraud Training for Employees	49.0%
Anti-Fraud Policy	44.4%
Dedicated Fraud Department, Function or Team	42.6%
Fraud Training for Managers/Executives	42.2%
Proactive Data Monitoring/Analysis	37.2%
Employee Support Programs	35.7%
Formal Fraud Risk Assessments	31.7%
Job Rotation/Mandatory Vacation	30.4%
Rewards for Whistleblowers	11.1%

Figure 36: Frequency of Anti-Fraud Controls — Middle East and North Africa

Control	Percent of Cases
External Audit of Financial Statements	84.6%
Internal Audit Department	80.8%
Code of Conduct	74.0%
Management Review	68.9%
Management Certification of Financial Statements	66.0%
External Audit of Internal Controls over Financial Reporting	60.0%
Independent Audit Committee	58.0%
Surprise Audits	46.7%
Hotline	44.9%
Anti-Fraud Policy	37.5%
Fraud Training for Managers/Executives	36.2%
Fraud Training for Employees	35.4%
Dedicated Fraud Department, Function or Team	27.1%
Proactive Data Monitoring/Analysis	25.5%
Formal Fraud Risk Assessments	24.5%
Job Rotation/Mandatory Vacation	23.4%
Employee Support Programs	22.0%
Rewards for Whistleblowers	6.5%

Effectiveness of Controls

We compared the median loss and median duration of fraud schemes based on whether the victim organization had particular controls in place at the time the fraud occurred. As shown in Figures 37 and 38, every control was associated with reductions in both the cost and duration of fraud. Of the controls analyzed, proactive data monitoring and analysis appears to be the most effective at limiting the duration and cost of fraud schemes; victim organizations that implemented this control experienced losses 60% smaller and schemes 50% shorter than organizations that did not.

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

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

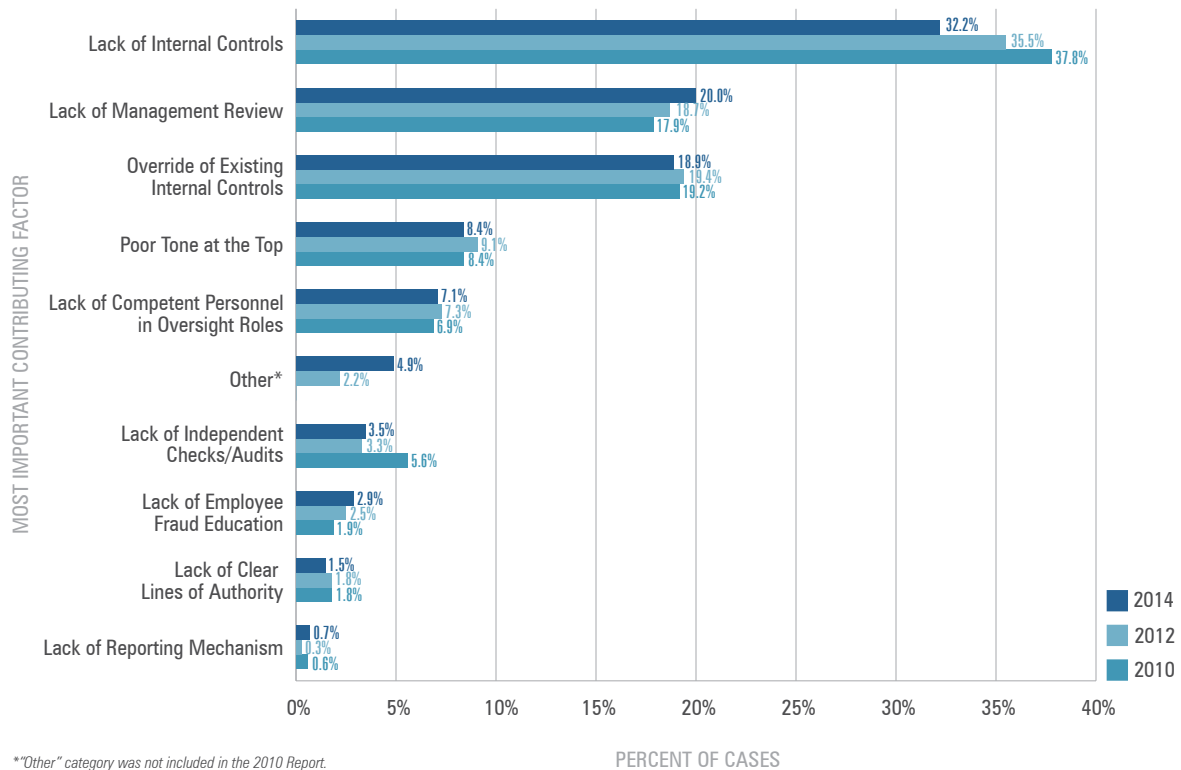
Figure 38: Median Duration of Fraud Based on Presence of Anti-Fraud Controls

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

Control Weaknesses That Contributed to Fraud

We asked survey respondents what they thought were the primary internal control weaknesses that contributed to the frauds they had investigated. As noted in Figure 39, in nearly one-third of the cases, the victim organization lacked the appropriate internal controls to prevent the fraud, which reinforces the importance of targeted anti-fraud controls. A lack of controls played an even bigger role in those cases affecting small businesses; this was attributed as the primary weakness at more than 41% of cases at organizations with fewer than 100 employees. Additionally, according to the CFEs who participated in our study, one-fifth of the reported cases could have been prevented if managers had done a sufficient job of reviewing transactions, accounts or processes.

Figure 39: Primary Internal Control Weakness Observed by CFE



Perpetrators

As part of our survey, we asked respondents to supply detailed information about the perpetrators of the frauds they had investigated. This includes data on level of authority, age, gender, tenure with the victim organization, education level, department, criminal and employment history, and red flags that the fraudster exhibited before the scheme was detected. The value of this information is that it helps us identify and quantify where fraud risk might lie within a particular organization: What departments tend to be associated with which types of frauds? What demographic factors seem to impact the frequency or severity of occupational frauds? What behavioral clues might have led the victim organizations to identify these crimes earlier? Also, because this data has been gathered over several years' worth of reports, we are able to show how consistent the patterns of fraud and abuse tend to be over time.



We asked respondents to supply detailed information about the perpetrators of the fraud cases. The value of this information is that it helps us identify and quantify where fraud risk might lie within a particular organization.

Perpetrator's Position

Figure 40 shows the distribution of fraud perpetrators based on their level of authority. Forty-two percent of occupational frauds were committed by employee-level perpetrators, 36% were committed by managers and approximately 19% were committed by owners/executives. The distribution of these categories has remained remarkably consistent from year to year.

Figure 40: Position of Perpetrator — Frequency

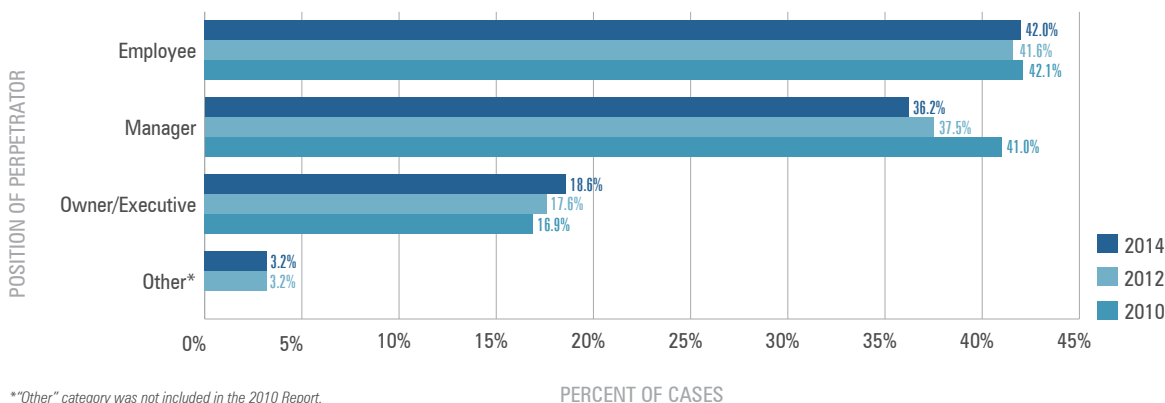
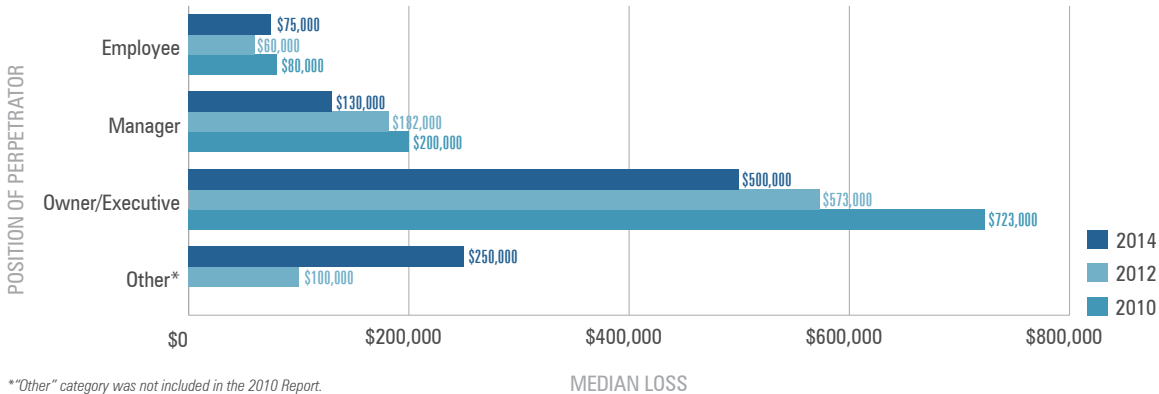


Figure 41 shows the strong correlation between a fraudster’s level of authority and the financial impact of the fraud. In our 2014 data, owners/executives accounted for less than one-fifth of all frauds, but the median loss in owner/executive cases was \$500,000, approximately four times higher than the median loss caused by managers and nearly seven times that of employees. Authority tends to be strongly correlated with loss because high-level fraudsters generally have greater access to organizational assets and are better able to evade or override controls than lower-level employees.

Figure 41: Position of Perpetrator — Median Loss



Additionally, because higher-level fraudsters are typically in a better position to circumvent controls, it generally takes longer for victim organizations to detect these schemes. Figure 42 shows that the typical fraud committed by an employee lasts one year before it is detected. In contrast, frauds committed by managers have a median duration of 18 months, and frauds involving owners/executives last a median two years before the perpetrators are caught.

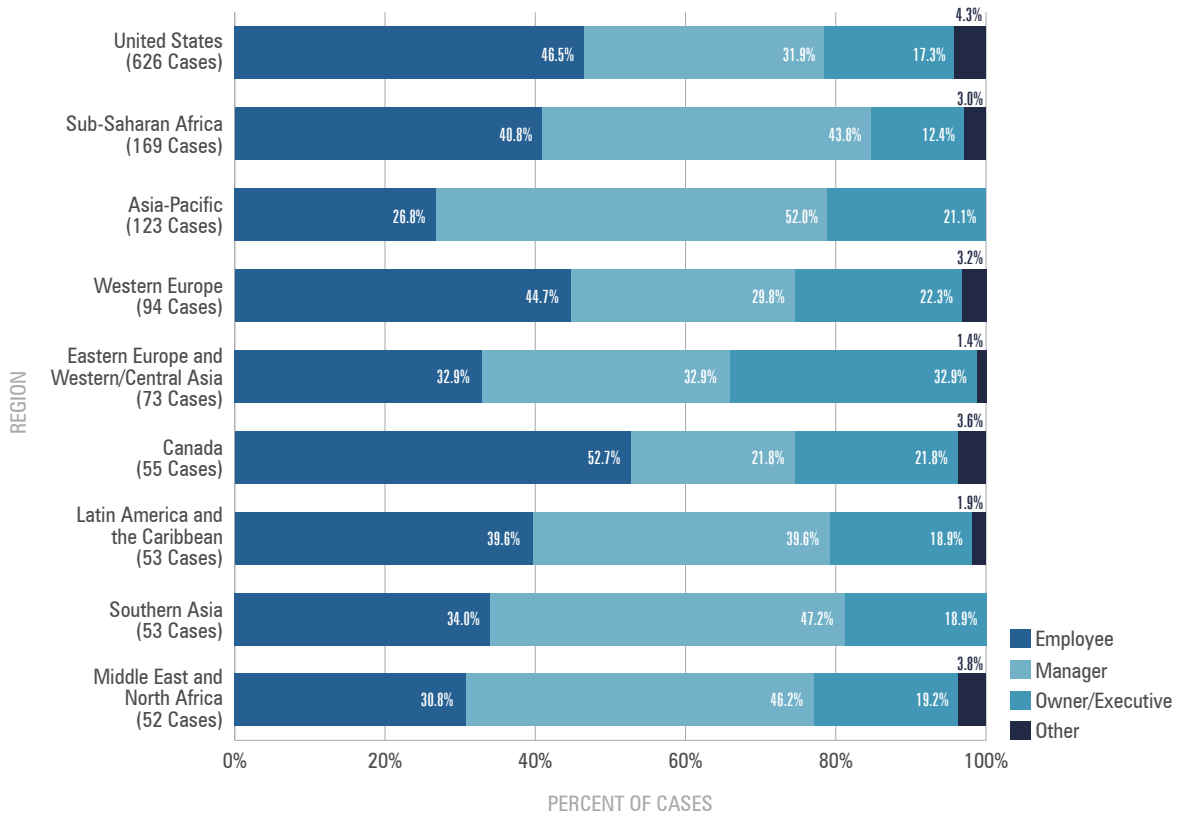
Figure 42: Median Duration of Fraud Based on Position

Position	Median Months to Detect
Employee	12
Manager	18
Owner/Executive	24
Other	16

Position of Perpetrator Based on Region

Figure 43 shows the distribution of fraudsters based on their level of authority and sorted by geographical region. These distributions most likely do not represent any regional fraud trends; they simply reflect the particular cases that were reported by our members in each region. Consequently, this should not be interpreted to mean, for example, that an Eastern European organization is more likely to be victimized by an owner/executive than a similarly situated company in another region, or that a company in the Asia-Pacific region faces a higher risk of fraud by a manager than companies in other regions. But the data does give context to the other regional data in this report — helping us understand more about the makeup of the perpetrators in each set of cases.

Figure 43: Position of Perpetrator Based on Region



Figures 44-52 show the median loss of cases in each region based on the fraudster’s position. For the most part, we found that higher losses were associated with higher levels of authority. In a few regions there was some variation to this trend (for example, in Canada, frauds committed by managers were more costly than frauds committed by owners/executives), but those discrepancies occurred in regions that had a small sample size of cases, meaning the data is less reliable for extrapolating true trends. Overall, position still exhibits a strong correlation with fraud cost.

Figure 44: Median Loss Based on Position of Perpetrator — United States (626 Cases)

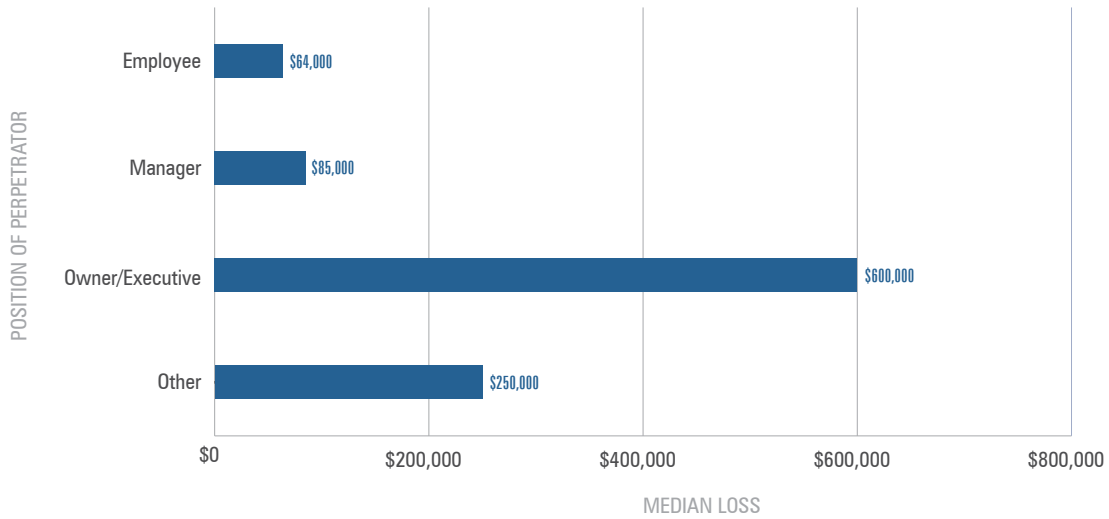


Figure 45: Median Loss Based on Position of Perpetrator — Sub-Saharan Africa (169 Cases)

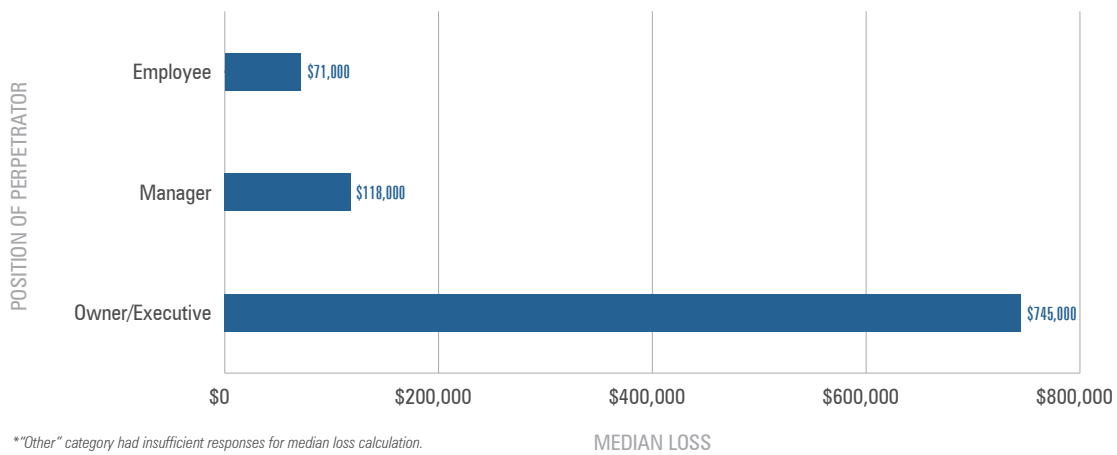


Figure 46: Median Loss Based on Position of Perpetrator — Asia-Pacific (123 Cases)

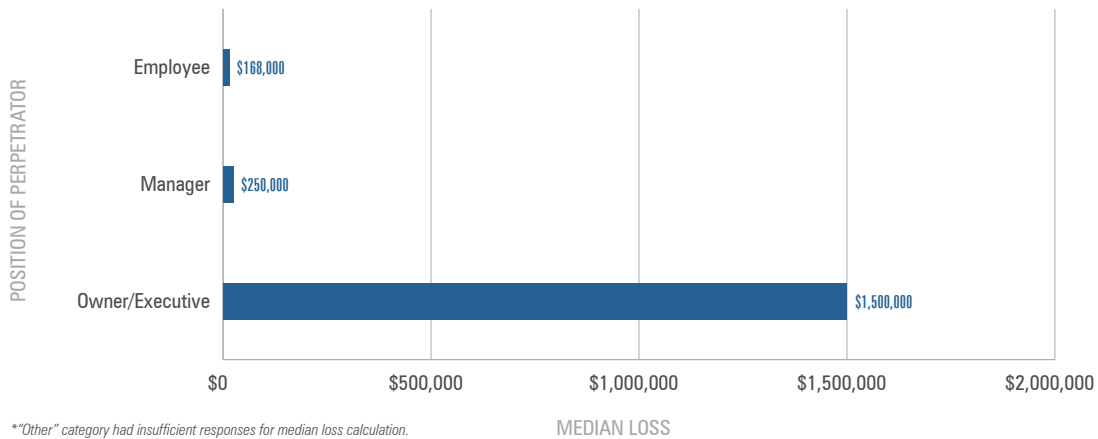


Figure 47: Median Loss Based on Position of Perpetrator — Western Europe (94 Cases)

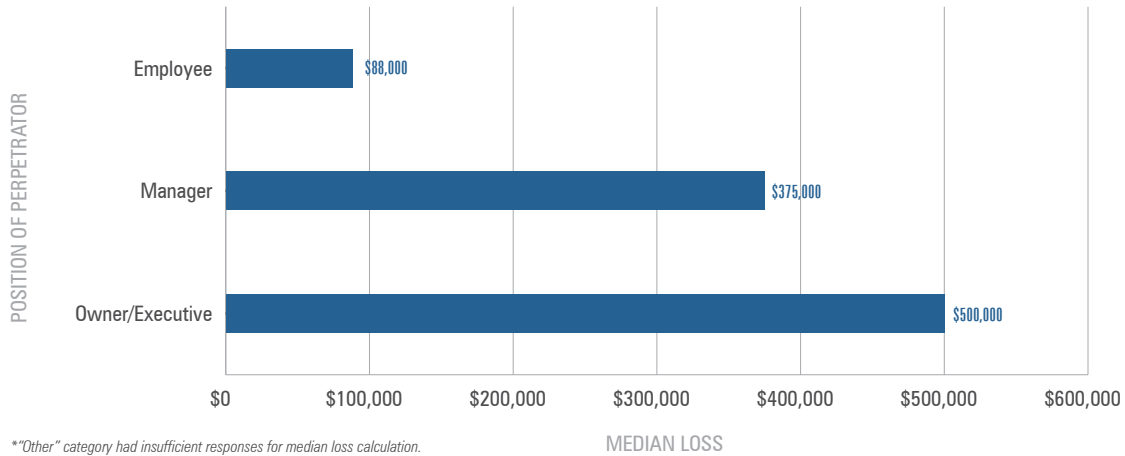


Figure 48: Median Loss Based on Position of Perpetrator — Eastern Europe and Western/Central Asia (73 Cases)

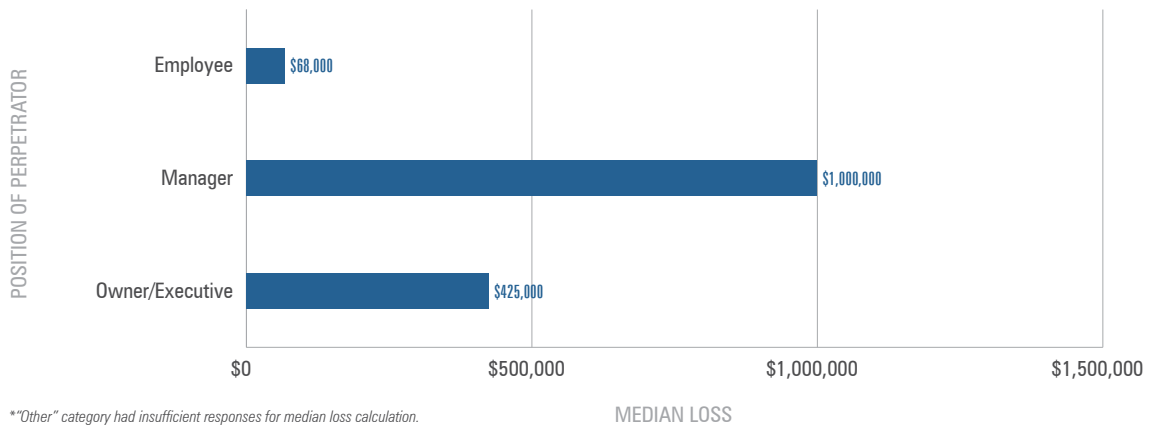


Figure 49: Median Loss Based on Position of Perpetrator — Canada (55 Cases)

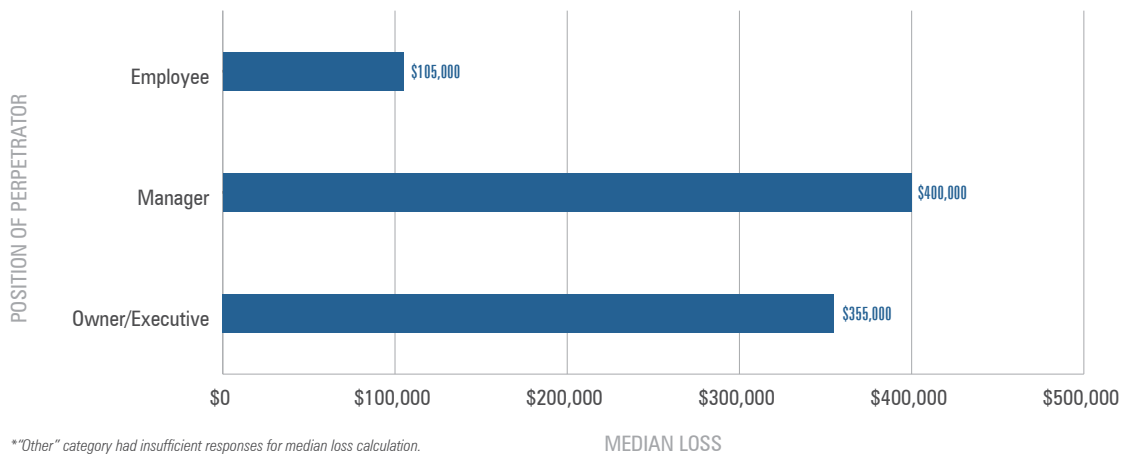


Figure 50: Median Loss Based on Position of Perpetrator — Latin America and the Caribbean (53 Cases)

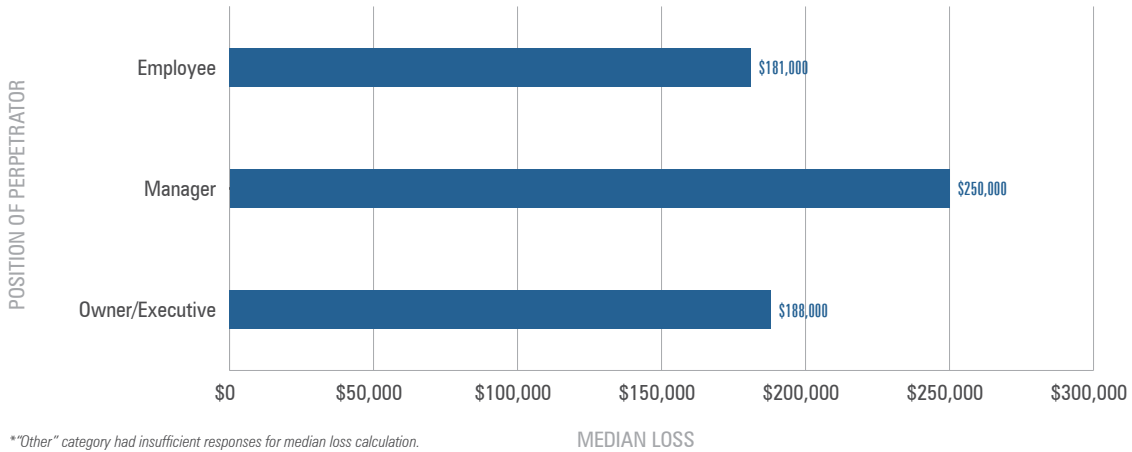


Figure 51: Median Loss Based on Position of Perpetrator — Southern Asia (53 Cases)

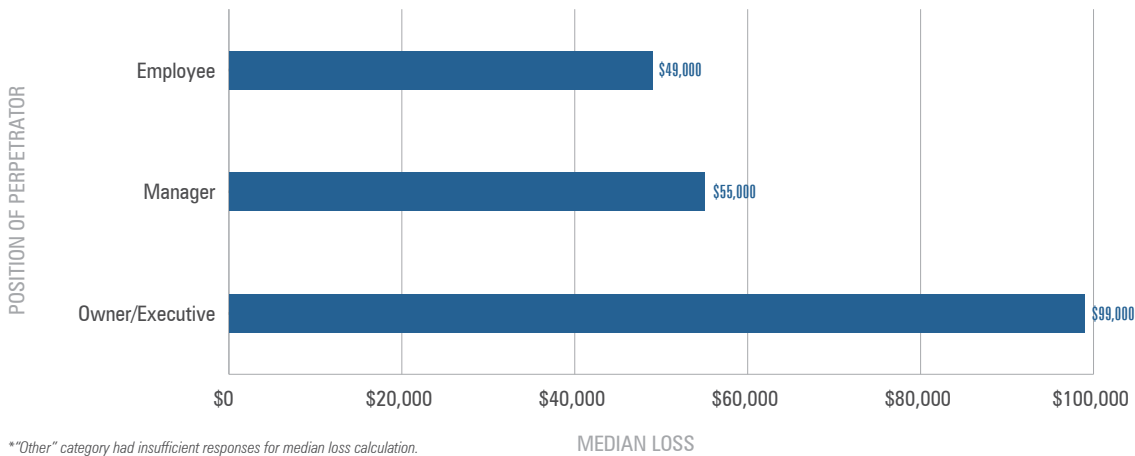
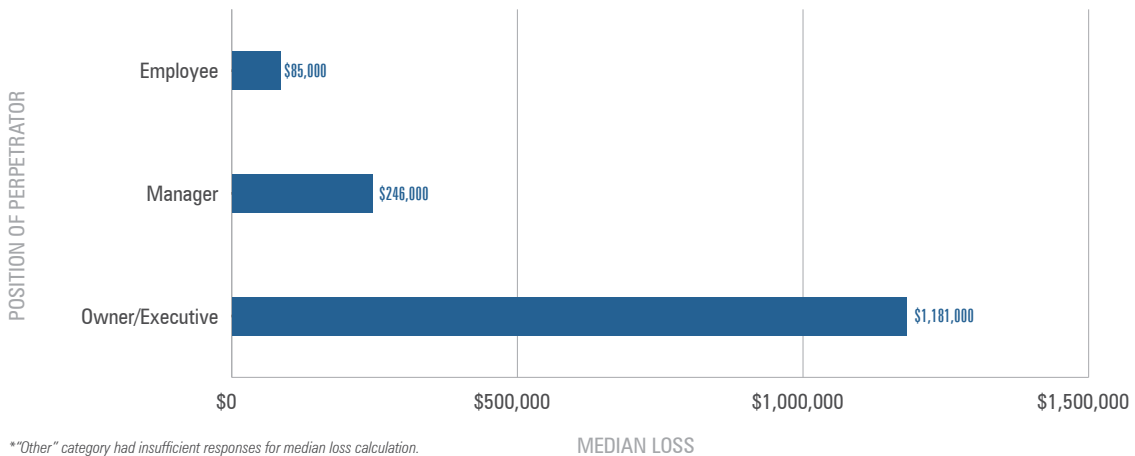


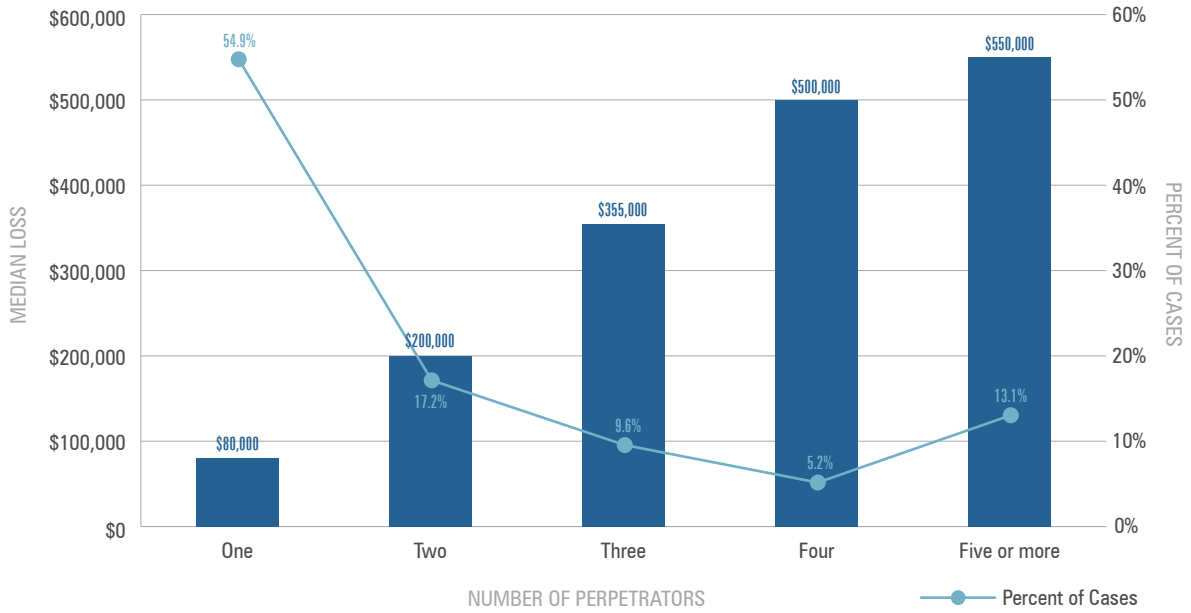
Figure 52: Median Loss Based on Position of Perpetrator — Middle East and North Africa (52 Cases)



The Impact of Collusion

More than half of the frauds in our study were committed by a single perpetrator, but when two or more individuals conspired to commit an occupational fraud, losses rose dramatically (see Figure 53). When employees collude in a fraud scheme, they can subvert the system of independent checks that might otherwise catch a fraudulent transaction, thus enabling them to steal larger amounts. Furthermore, in a scheme involving multiple perpetrators, there are more individuals expecting a payout, which might also help explain why multiple-perpetrator frauds tend to involve greater losses. Interestingly, we found no correlation between the number of perpetrators and the duration of schemes; frauds with multiple perpetrators did not tend to last any longer than single-perpetrator frauds, even though they caused much larger losses.

Figure 53: Number of Perpetrators — Frequency and Median Loss

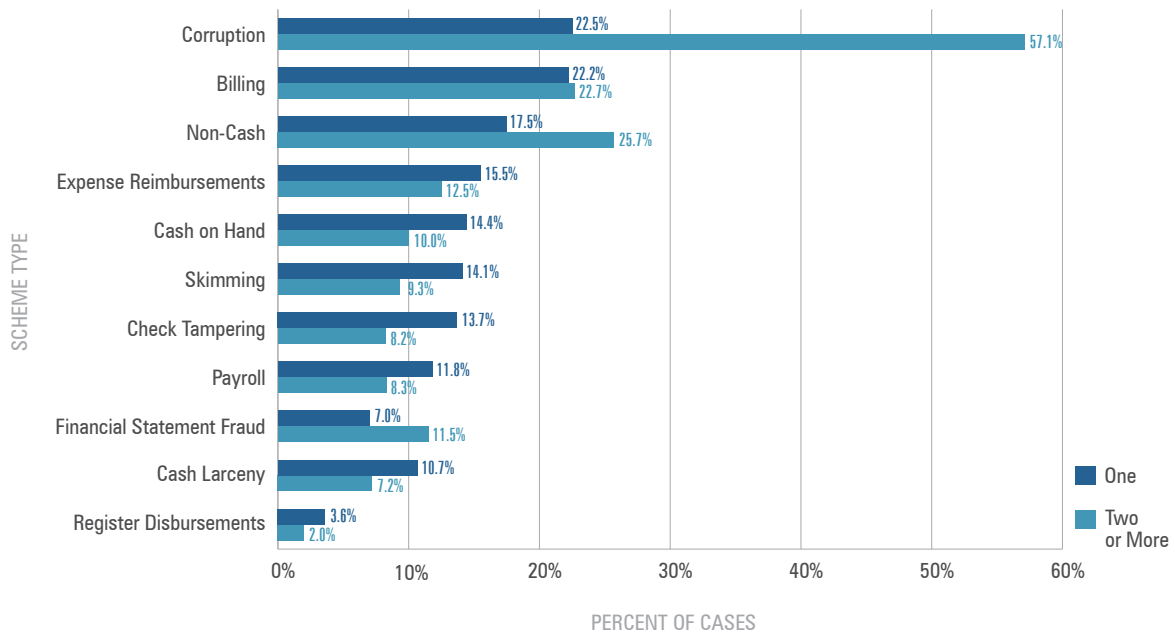


Methods of Fraud Based on Number of Perpetrators

We also compared the types of schemes committed by a single fraudster versus those committed by groups (see Figure 54). For purposes of this analysis, we combined all multiple-fraudster classifications (i.e., any scheme involving more than one perpetrator) into one group to simplify the findings.

Not surprisingly, the biggest distinction involved corruption schemes. Less than one-quarter of solo-fraudsters engaged in corruption, but when multiple perpetrators were involved, the frequency of corruption schemes jumped to 57%. Also, the misappropriation of non-cash assets was much more common in collusion schemes than in single-perpetrator frauds. Conversely, expense reimbursement schemes, skimming, check tampering, payroll fraud and cash larceny were all more common among perpetrators who acted alone.

Figure 54: Scheme Type Based on Number of Perpetrators



Perpetrator's Age

The age distribution of the fraudsters in our study is shown in Figure 55. This distribution is very similar to those of our previous studies, with approximately 52% of perpetrators between the ages of 31 and 45.

While the age distribution of fraudsters fits a bell curve model, the median loss of frauds tends to rise with the age of the perpetrator, as seen in Figure 56. In our 2014 data, the rise was fairly gradual and consistent as ages increased. In 2010 and 2012, we saw certain outlier categories where median losses jumped significantly (in the >60 age range for 2010 and in the 51-55 age range for 2012). Overall, however, the data seem to show that older fraudsters tend to generate larger losses. This is probably an indirect reflection of the fact that high-level personnel within an organization tend to be older than lower-level employees. For example, 36% of the fraudsters in our study who were over 50 years of age were owners/executives, while only 15% of those who were 50 or younger were owners/executives.

Figure 55: Age of Perpetrator — Frequency

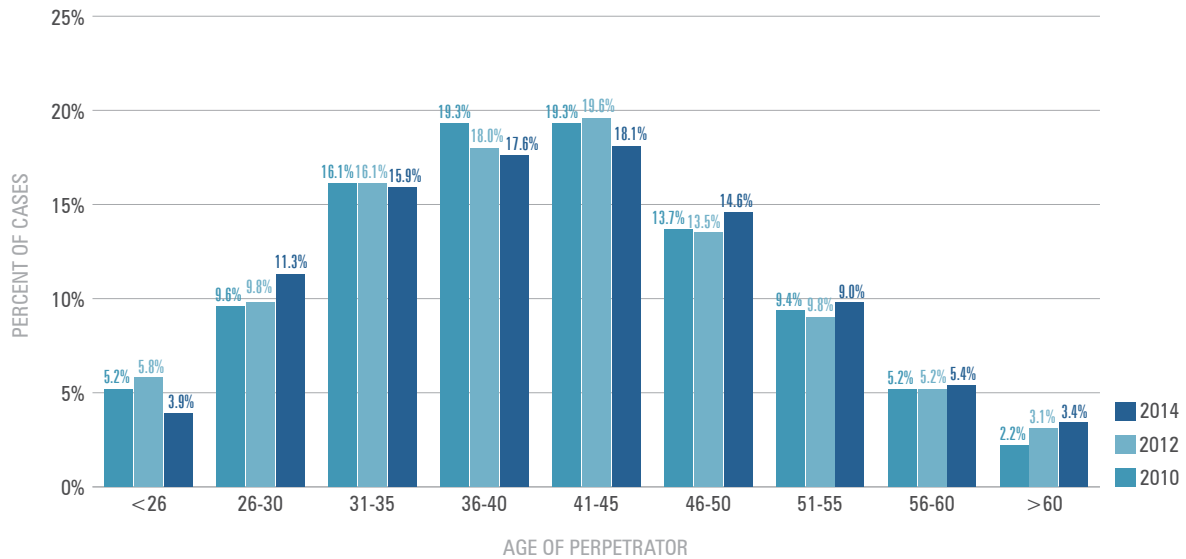
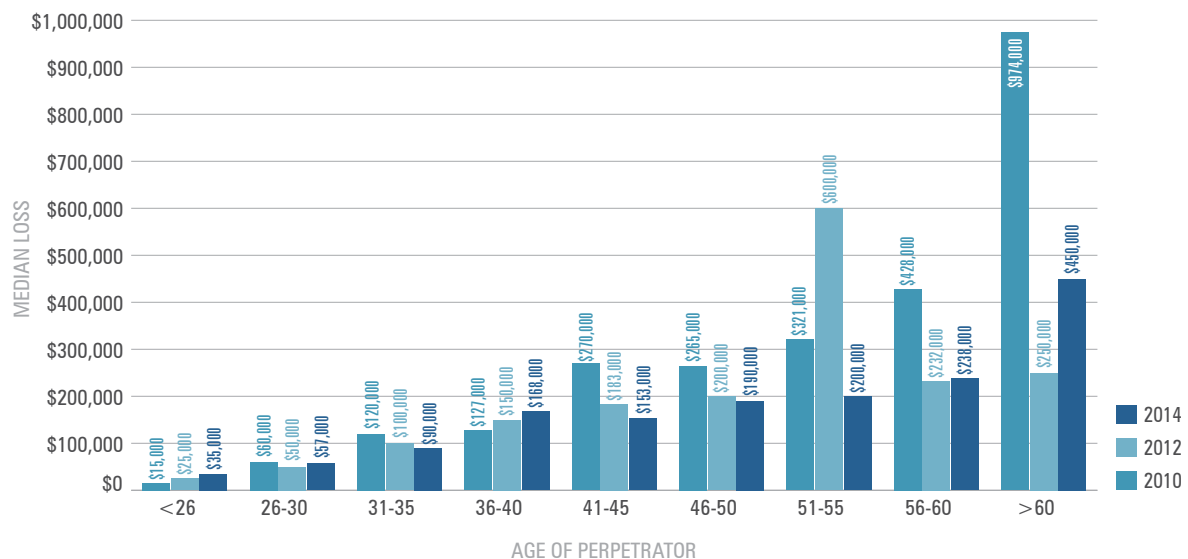


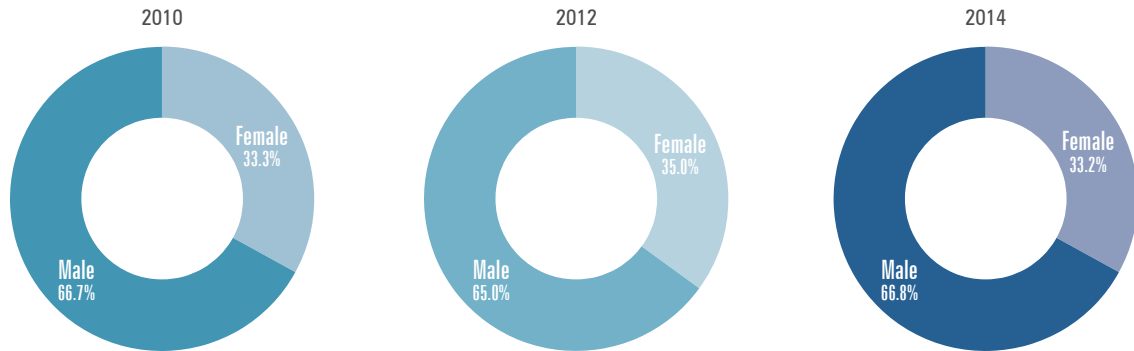
Figure 56: Age of Perpetrator — Median Loss



Perpetrator's Gender

Figure 57 shows that approximately two-thirds of the fraudsters identified in our study were male, which is consistent with past findings.

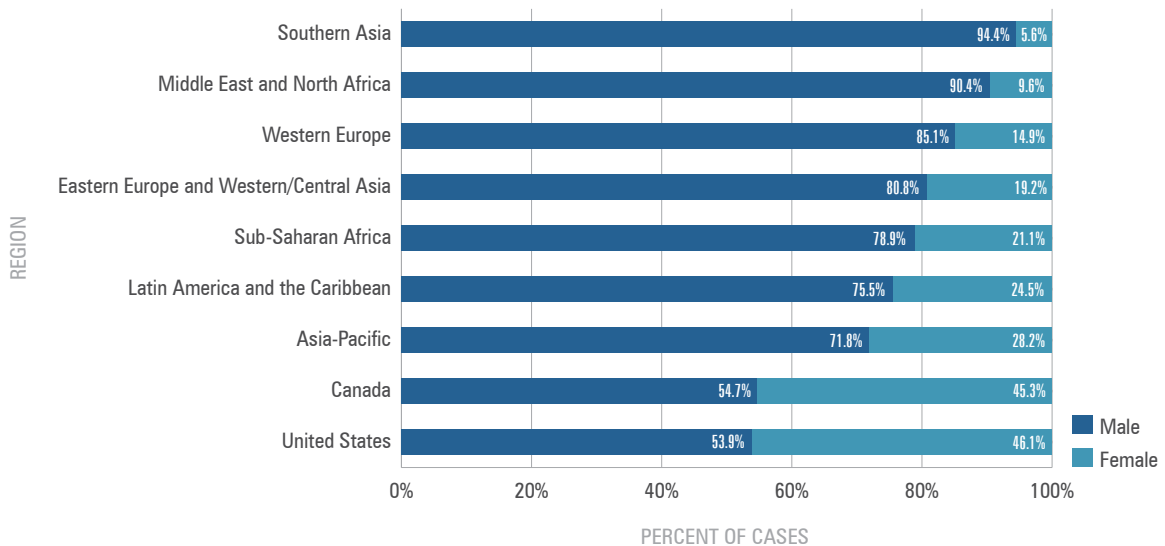
Figure 57: Gender of Perpetrator — Frequency



Perpetrator's Gender Based on Region

The percentage of male and female fraudsters varied substantially based on the region in which the fraud occurred, as illustrated in Figure 58. While the United States and Canada had relatively even distributions of male versus female fraudsters, in Southern Asia and the Middle East and North Africa, more than 90% of fraud perpetrators were male.

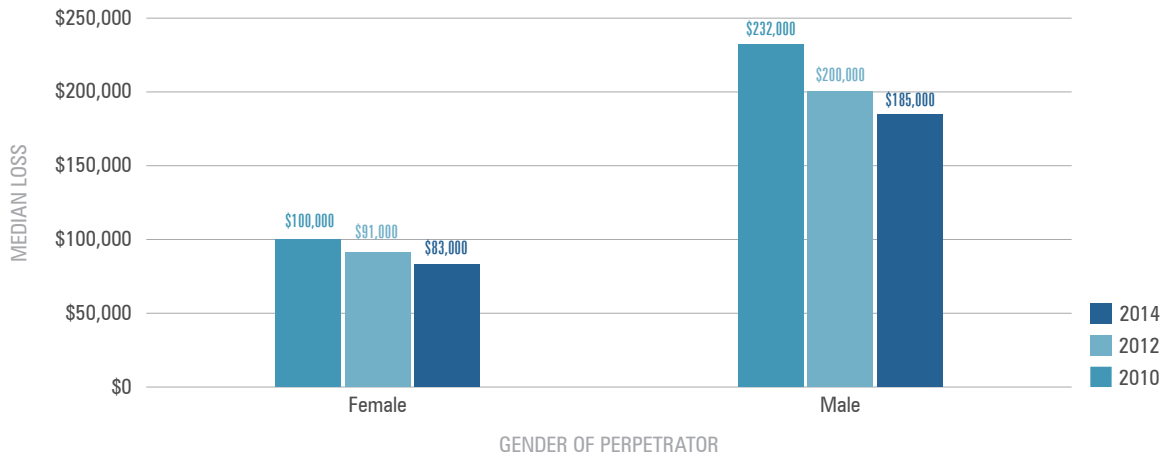
Figure 58: Gender of Perpetrator Based on Region



Median Losses Based on Gender

As in our past studies, we found that males tend to cause much higher fraud losses than females (see Figure 59). In our 2014 study, the median male loss was \$185,000, which was 123% higher than the median female loss. This relationship has remained extremely consistent over time. In our last three studies, the median loss caused by males has ranged between 120% and 132% higher than the female median loss. Interestingly, the ratio in the size of losses caused by each gender did not significantly change, even though our dataset changed from U.S.-only cases (in 2010) to global cases (2012 and 2014), which have a much higher proportion of male fraudsters (see Figure 58).

Figure 59: Gender of Perpetrator — Median Loss



Position of Perpetrator Based on Gender

Figure 60 shows the distribution of male and female fraudsters based on their positions of authority. The proportion of males rises as authority levels increase — from 56% of employee-fraudsters to 83% of owner/executive-fraudsters. This could explain some of the differences in median losses between males and females. We know fraudsters with higher authority levels tend to cause larger losses, so the fact that there are more male fraudsters with high levels of authority would cause us to expect male fraud losses to be higher than female losses.

However, when we compare males and females at each authority level, we see that males consistently cause larger losses, even when they occupy similar positions as females (see Figure 61). In our 2014 study, male employees caused losses 85% higher than female employees, losses caused by male managers were 50% higher and losses caused by male owner/executives were 140% higher. We found similar results in our three previous studies.

Figure 60: Position of Perpetrator Based on Gender

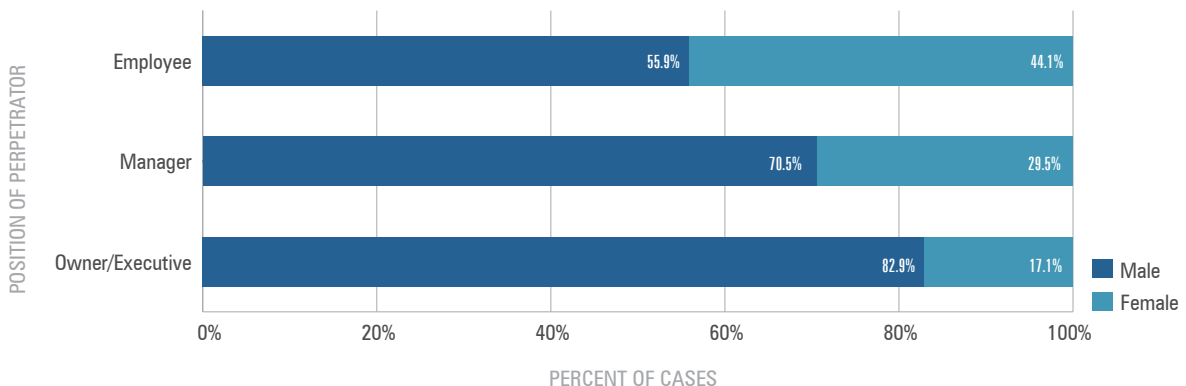
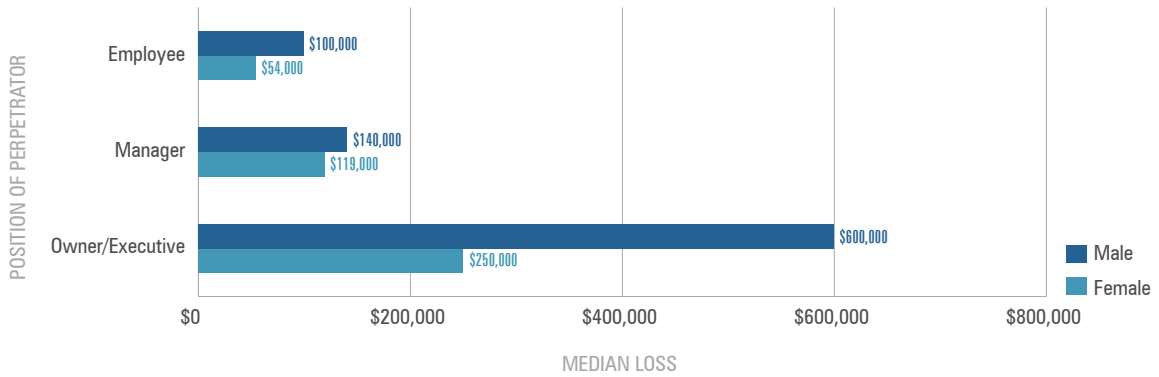
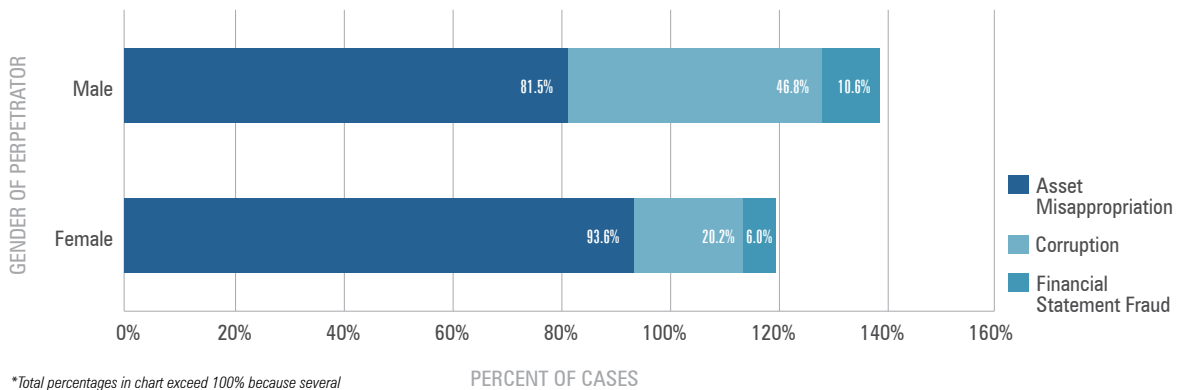


Figure 61: Position of Perpetrator — Median Loss Based on Gender



One possible reason for the discrepancy in median losses is that males tend to commit corruption and financial statement fraud schemes at a much higher rate than females. In Figure 62, we see that nearly half of all frauds committed by men involve corruption and 11% involve financial statement fraud. Women, conversely, only committed corruption in 20% of cases and financial statement fraud in 6%. Because corruption and financial statement fraud tend to cause larger losses than asset misappropriation, this might help explain the discrepancy in male and female median loss. However, it is not clear why men seem more likely than women to engage in corruption and financial statement fraud.

Figure 62: Frequency of Fraud Schemes Based on Gender

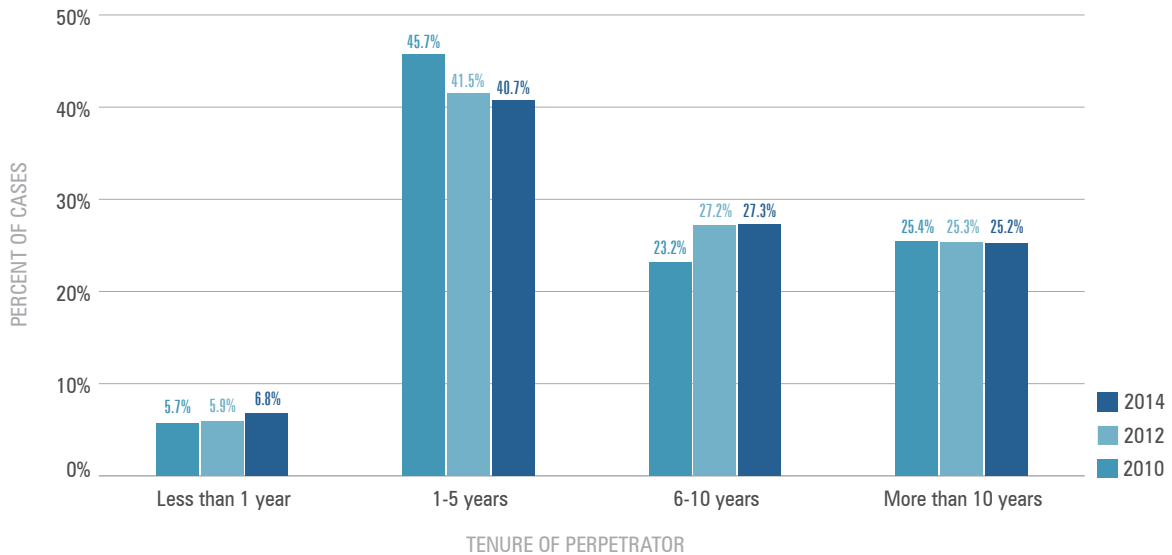


*Total percentages in chart exceed 100% because several cases fell into more than one scheme category.

Perpetrator's Tenure

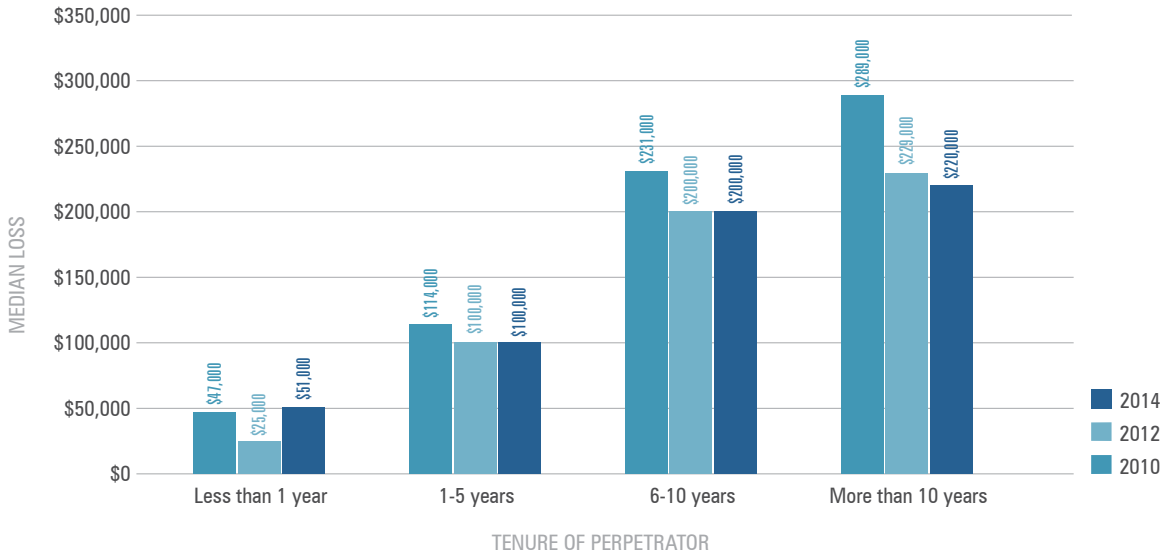
The distribution of fraudsters in our study based on their tenure with the victim organization is shown in Figure 63, and we can see that it has remained consistent with our 2010 and 2012 data. The largest group of fraud perpetrators (41%) had been employed by their targets between one and five years before committing their crimes. Less than 7% committed fraud within the first year of employment with the victim. However, fraudsters in the first-year group were more than three times as likely to have a prior fraud-related conviction (15% of all first-year fraudsters had prior convictions, as opposed to only 4% of those with at least one year of tenure), and they were twice as likely to have been previously charged but not convicted of a fraud (14% for first-year fraudsters versus 7% for those with at least one year of tenure). This seems to suggest that first-year fraudsters are more likely to be “predatory employees” — those who take a job with the intent of defrauding their employer. However, as shown in Figure 64, this group caused far lower median losses than those who had longer tenure.

Figure 63: Tenure of Perpetrator — Frequency



A fraudster’s tenure with his or her employer tends to have a strong correlation with the size of the fraud. Figure 64 shows a steady increase in median loss as the perpetrator’s tenure increases. There are several reasons why tenure might affect fraud losses. Individuals who have worked for an organization for a long time might engender trust from their coworkers or supervisors, which can mean their work is not reviewed as closely as it should be. Long-term employees might also be more familiar with an organization’s anti-fraud controls — and the gaps in those controls. And, of course, long-tenured employees might rise to higher levels of authority within their companies.

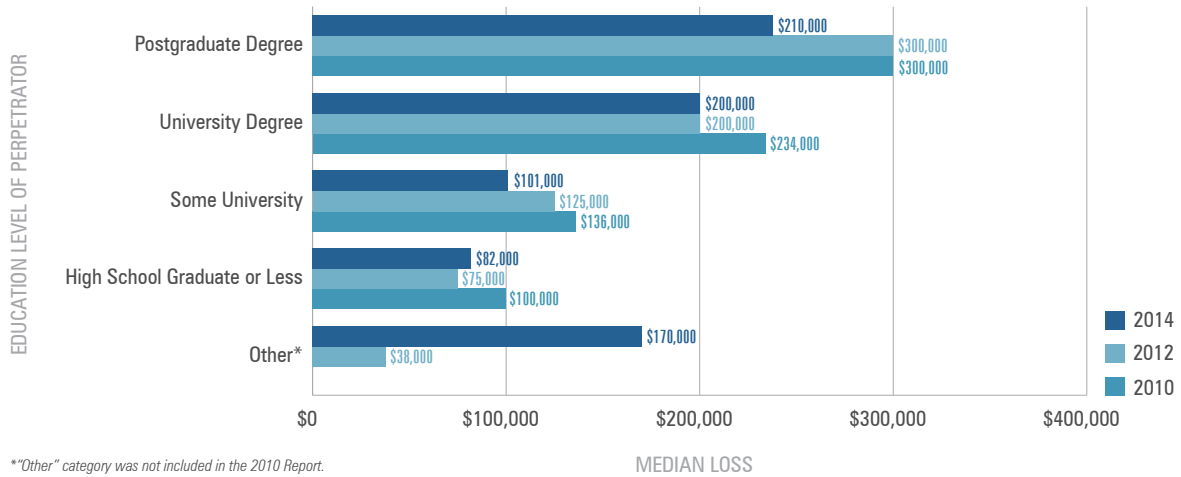
Figure 64: Tenure of Perpetrator — Median Loss



Perpetrator's Education Level

As shown in Figure 65, perpetrators with a university degree caused median losses that were twice as high as those with only some university education, and two-and-a-half times higher than those with high school degrees or less. We believe that education is a secondary factor in predicting loss. High-level staff members tend to be more highly educated, and it is their authority within their organizations, not their degrees, that probably explains why their schemes tend to cost more. For example, 66% of owner/executive-fraudsters in our study had either a university degree or a postgraduate degree. Among managers that number was 51%, and among employees the rate dropped to 26%. However, it's also possible that more highly educated fraudsters possess greater technical knowledge and skills that help them be more successful in their fraud schemes.

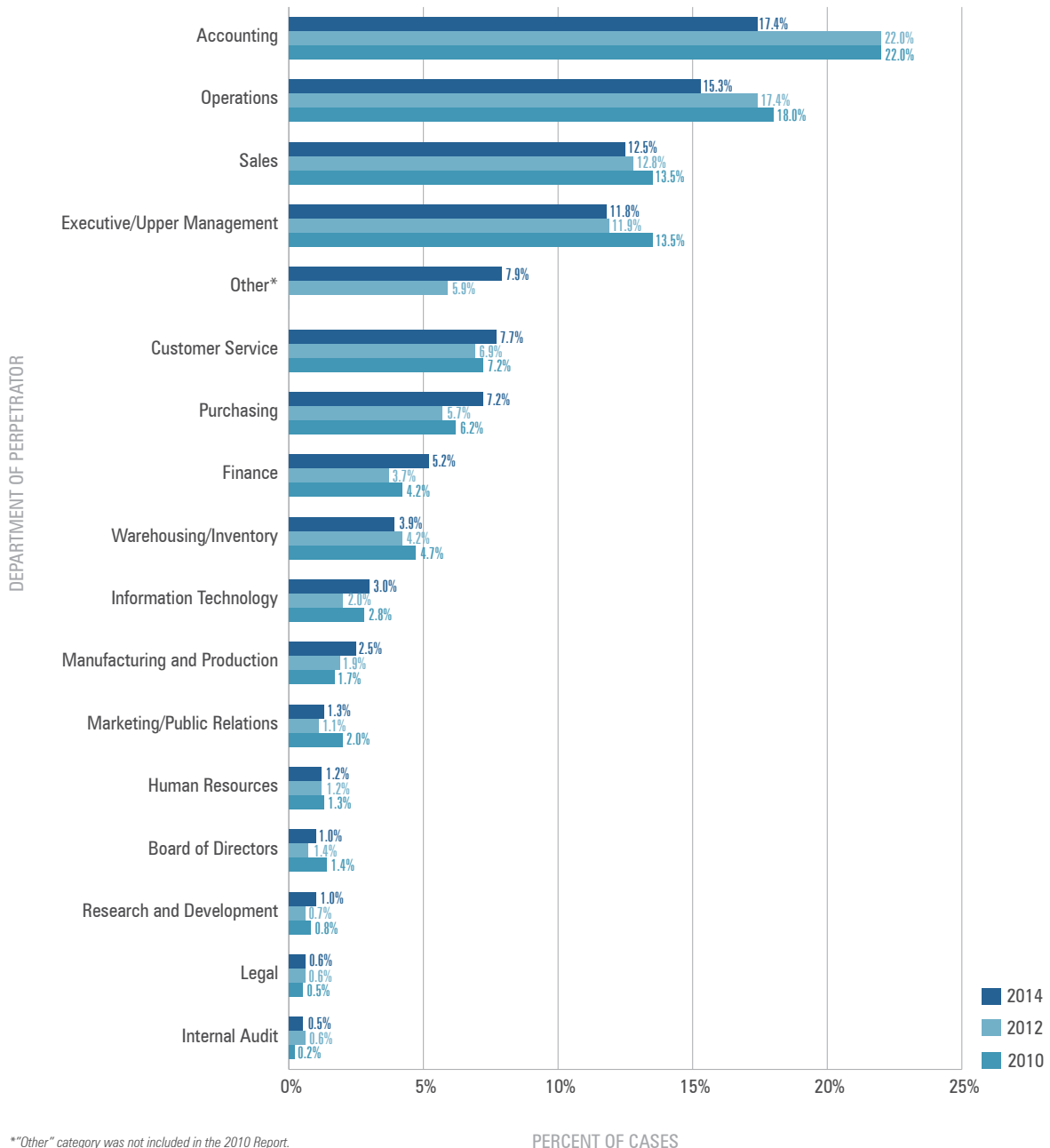
Figure 65: Education Level of Perpetrator — Median Loss



Perpetrator's Department

Figure 66 shows the departments that the fraud perpetrators worked in. There were seven departments that each accounted for 5% or more of all cases: accounting, operations, sales, executive/upper management, customer service, purchasing and finance. Collectively, these seven departments were responsible for approximately 77% of all frauds in our study. The department with the greatest incidence of fraud was accounting, but the level of frauds perpetrated by accounting personnel in our 2014 study (17%) was much lower than what we found in our two previous Reports. However, this was the first study we've conducted in which frauds in the finance department accounted for at least 5% of all cases.

Figure 66: Department of Perpetrator — Frequency



*"Other" category was not included in the 2010 Report.

Sorting departments based on median loss shows that the largest frauds are committed by executives and upper management (see Figure 67). This is not surprising because this group tends to have the highest authority within an organization. Among the seven departments that each accounted for at least 5% of cases, the finance department caused the second-highest median loss, followed by purchasing, accounting, operations, sales and customer service.

Figure 67: Department of Perpetrator (Sorted by Median Loss)

Department	Number of Cases	Percentage	Median Loss
Executive/Upper Management	156	11.8%	\$680,000
Board of Directors	13	1.0%	\$500,000
Finance	69	5.2%	\$500,000
Warehousing/Inventory	52	3.9%	\$245,000
Purchasing	95	7.2%	\$166,000
Marketing/Public Relations	17	1.3%	\$160,000
Manufacturing and Production	33	2.5%	\$150,000
Accounting	230	17.4%	\$150,000
Other	105	7.9%	\$100,000
Operations	203	15.3%	\$100,000
Human Resources	16	1.2%	\$94,000
Sales	166	12.5%	\$80,000
Customer Service	102	7.7%	\$54,000
Research and Development	13	1.0%	\$50,000
Information Technology	40	3.0%	\$50,000
Legal	8	0.6%	\$44,000
Internal Audit	7	0.5%	\$25,000

Schemes Based on Perpetrator's Department

Figure 68 is a heat map that shows the most common fraud schemes in each department that accounted for at least 5% of reported cases. The highest-risk schemes for each department are shaded red, followed by moderate-risk schemes in orange and relatively low-risk schemes in yellow. Note that corruption schemes are a high risk for every department, but are a particularly high risk in purchasing (74% of cases) and executive/upper management (52% of cases).

Figure 68: Frequency of Schemes Based on Perpetrator's Department

Department/ Scheme	Accounting	Operations	Sales	Executive/ Upper Management	Customer Service	Purchasing	Finance
Cases	230	203	166	156	102	95	69
Billing	31.3%	22.2%	9.6%	35.9%	10.8%	25.3%	26.1%
Cash Larceny	19.1%	8.4%	3.6%	7.7%	17.6%	1.1%	10.1%
Cash on Hand	18.7%	15.8%	10.2%	9.0%	24.5%	4.2%	14.5%
Register Disbursements	3.0%	3.9%	4.2%	2.6%	4.9%	1.1%	2.9%
Check Tampering	35.7%	4.4%	3.0%	10.9%	3.9%	3.2%	24.6%
Corruption	22.2%	37.9%	29.5%	51.9%	24.5%	73.7%	31.9%
Expense Reimbursements	15.7%	14.8%	10.2%	26.9%	7.8%	6.3%	13.0%
Financial Statement Fraud	8.3%	4.9%	9.6%	26.3%	1.0%	4.2%	17.4%
Non-Cash	7.8%	19.7%	24.1%	21.2%	20.6%	21.1%	17.4%
Payroll	18.7%	3.9%	6.0%	15.4%	6.9%	2.1%	11.6%
Skimming	18.3%	13.3%	15.7%	10.9%	15.7%	2.1%	5.8%



Perpetrator's Criminal and Employment History

Perpetrator's Criminal Background

Only 5% of the fraudsters in our study had been convicted of a fraud-related offense prior to committing the crimes in our study (see Figure 69). This is consistent with our previous data, which show that generally fewer than 8% of fraud perpetrators have a prior conviction. Interestingly, when we compared perpetrators with prior convictions to those without, we found no significant difference in the size of their frauds. The median loss caused by those with prior convictions was \$154,000, while the median loss caused by those who had never been charged or convicted was \$153,000.

Perpetrator's Employment History

In addition to collecting data about prior convictions, we asked respondents to tell us whether the fraudsters had ever been punished or fired for fraud-related conduct prior to the crimes reported in our study. Only 710 respondents were able to answer this question, but from those who did, we found that just over 9% of fraudsters had been previously terminated and 8% had been previously punished for fraud-related conduct. Those who had previously been punished or terminated actually caused significantly lower losses than those with no record of employer discipline. The median loss for those who had been previously terminated was \$125,000, and the median loss for those who had been previously punished was \$109,000; in contrast, the median loss caused by individuals who had never been punished or terminated was \$200,000.

Figure 69: Criminal Background of Perpetrator

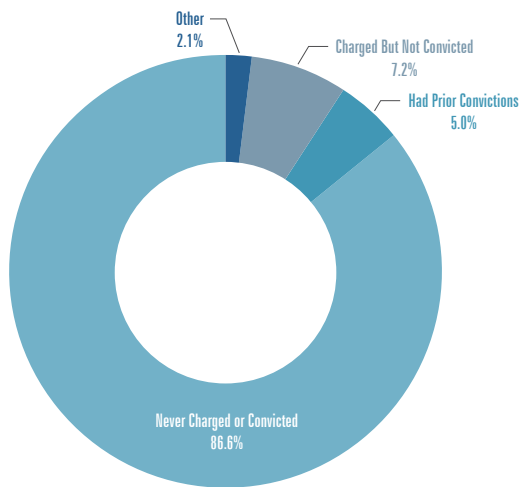
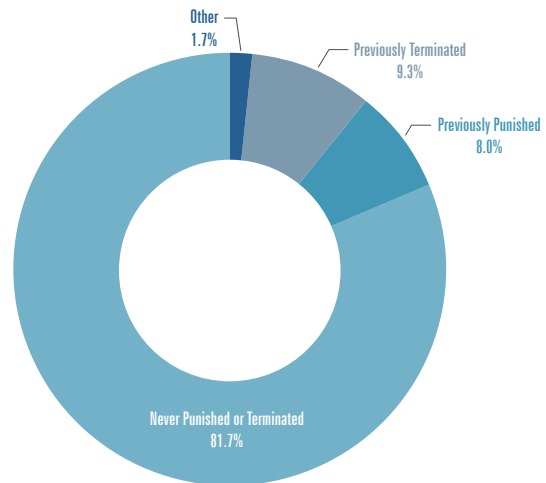


Figure 70: Employment Background of Perpetrator



Behavioral Red Flags Displayed by Perpetrators

Our survey respondents were asked to identify which, if any, common behavioral indicators were exhibited by the perpetrators before their frauds were detected. Overall, at least one red flag was identified in 92% of cases, and, in 64% of cases, the fraudster displayed two or more behavioral red flags. Figure 71 shows the distribution of those red flags. Approximately 44% of fraud perpetrators were living beyond their means while the fraud was ongoing, and 33% were experiencing known financial difficulties. Other common red flags were an unusually close association with a vendor or customer (22%), displaying control issues or an unwillingness to share duties (21%), a general “wheeler-dealer” attitude involving shrewd or unscrupulous behavior (18%), and recent divorce or family problems (17%). These six red flags were also the most common behavioral indicators in each of our last three studies. In general, the distribution of behavioral red flags from year to year has followed a remarkably consistent curve despite the fact that each of our studies contains entirely distinct cases of fraud and perpetrators.

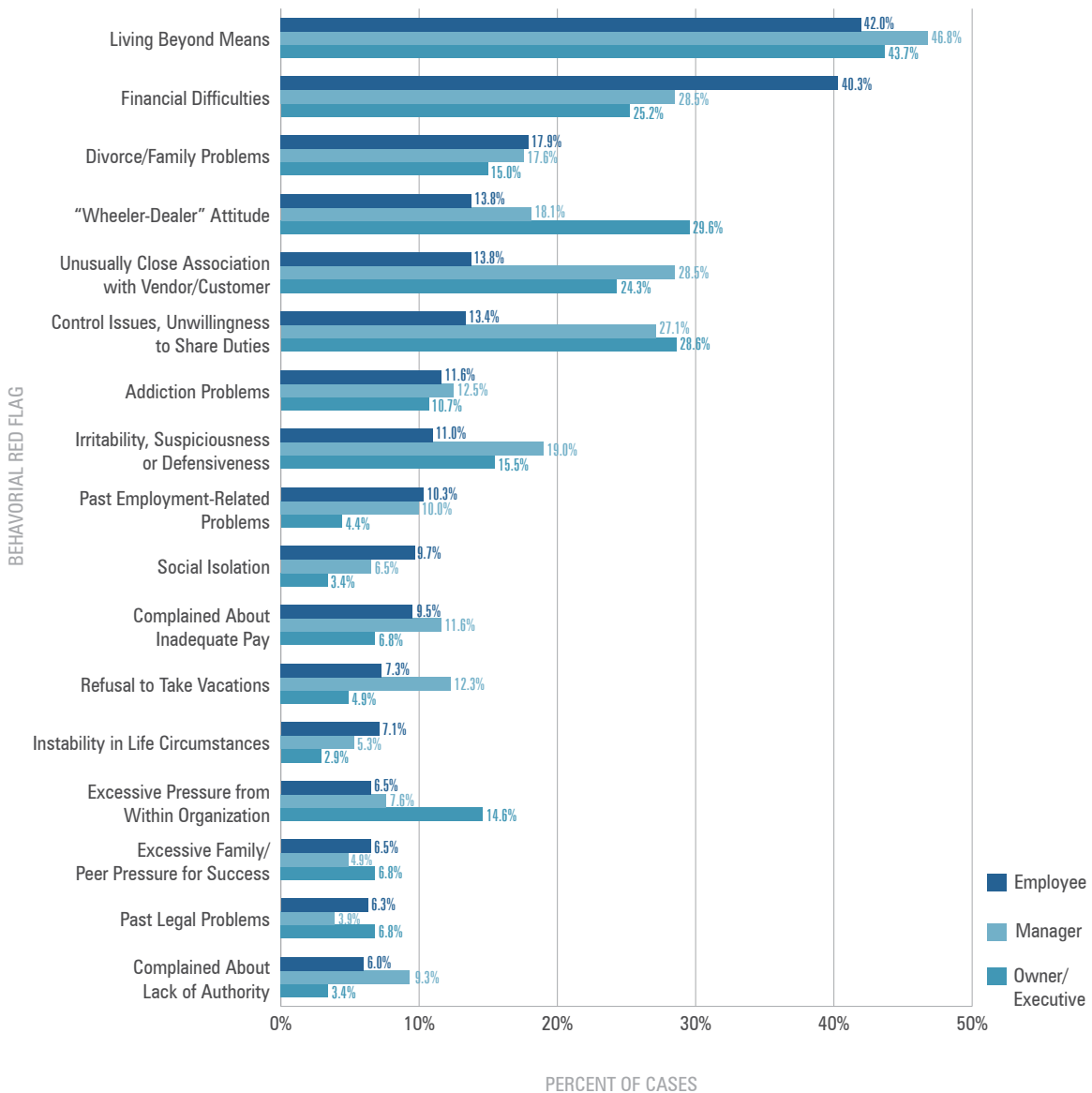
Figure 71: Behavioral Red Flags Displayed by Perpetrators



Behavioral Red Flags Based on Perpetrator's Position

Figure 72 shows how behavioral red flags were distributed based on the fraudster's position at the victim organization. This analysis provides some insight into how the pressures and motivations that lead to occupational fraud might vary depending on the fraudster's level of authority. For instance, employee-level fraudsters are much more likely than their counterparts to show signs of financial difficulties while a fraud is ongoing. Meanwhile, owners/executives and managers are more likely than employees to exhibit "wheeler-dealer" attitudes, to have unusually close associations with vendors or customers and to display control issues. We also see a much higher rate of owner/executive fraudsters who were under excessive pressure to perform within their organizations.

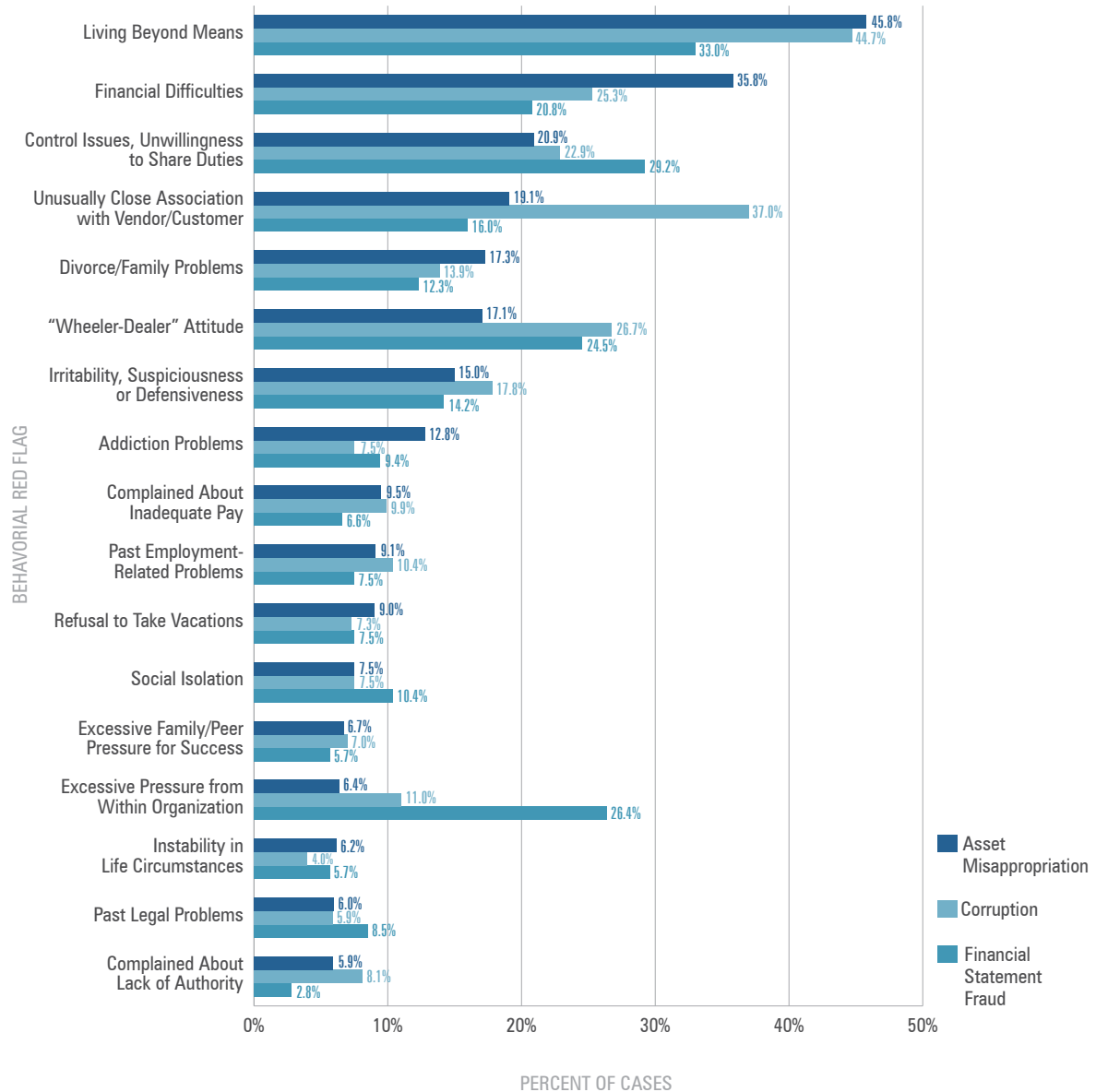
Figure 72: Behavioral Red Flags Based on Position



Behavioral Red Flags Based on Scheme Type

Figure 73 provides an analysis of behavioral red flags based on the type of fraud that was committed. Individuals who committed financial statement fraud were much more likely to be under excessive organizational pressure compared to those who engaged in corruption or asset misappropriation. In contrast, fraudsters engaging in corruption were, not surprisingly, much more likely to have exhibited an unusually close association with a vendor or customer.

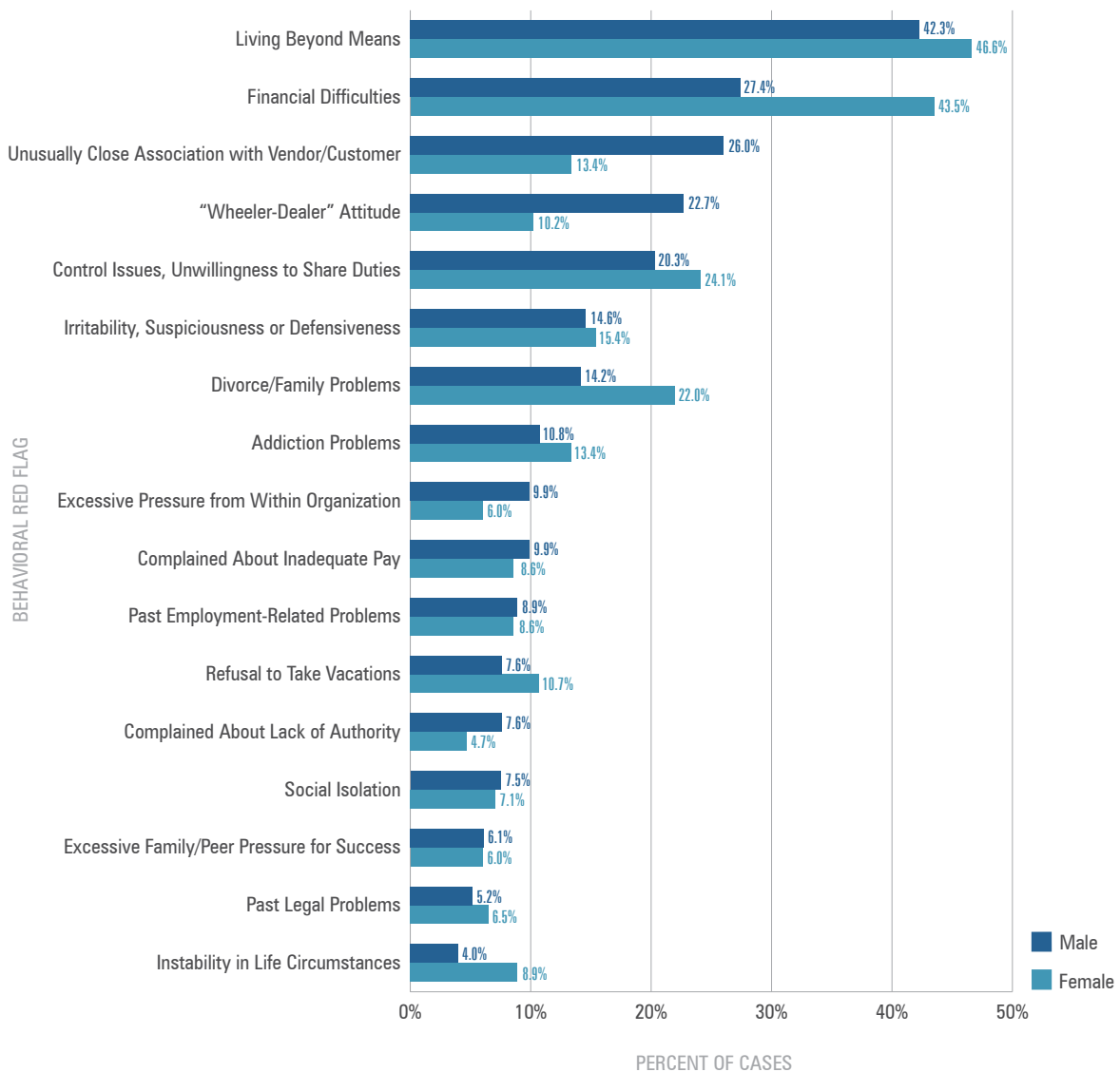
Figure 73: Behavioral Red Flags Based on Scheme Type



Behavioral Red Flags Based on Gender

As noted in Figure 61 on page 51, males cause much higher fraud losses than females, even when the two groups have similar levels of authority. Because of that discrepancy, we wondered if male and female fraudsters might commit fraud for different reasons or exhibit different behavioral clues during their schemes. Figure 74 shows the distribution of behavioral red flags based on the gender of the perpetrator. This data indicates that women are much more likely than men to commit fraud while undergoing financial difficulties, experiencing divorce or other family problems or showing signs of instability in their life circumstances (such as frequent job changes, residence changes, etc.). In contrast, male fraudsters more commonly engaged in an unusually close association with an outsider or displayed “wheeler-dealer” tendencies. These red flags tend to be more common in corruption and financial statement schemes than asset misappropriation schemes, and, as shown in Figure 62 on page 51, males tend to commit both corruption and financial statement fraud at a much higher rate than females.

Figure 74: Behavioral Red Flags Based on Gender



Non-Fraud-Related Misconduct

In addition to behavioral red flags, we asked respondents if the fraudsters they investigated had engaged in any non-fraud-related workplace misconduct before or during their crimes. We wanted to see if there was a relationship between occupational fraud and other types of inappropriate workplace behavior. We received 908 responses to this question, and in 38% of those cases the perpetrator had engaged in at least one of the misbehaviors shown in Figure 75. The most common type of non-fraud misconduct was bullying or intimidation, which was displayed by one-sixth of the fraud perpetrators in our study. Another 14% of cases involved individuals who were excessively absent from work. Fewer than 5% of cases involved fraudsters who had engaged in sexual harassment or who had a history of visiting inappropriate websites (such as pornography or illegal gambling) at the office.

Human-Resources-Related Red Flags

We also asked survey respondents if the perpetrators had experienced any of several human-resources-related events, such as fear of job loss, cuts in pay or demotions. These circumstances could potentially cause an individual to experience financial pressure that might lead to an occupational fraud, or they could provide the means for a perpetrator to rationalize his or her conduct. We received just over 1,000 responses to this question, and in 25% of those cases the perpetrator had experienced an HR-related event immediately before or during the commission of the fraud. As illustrated in Figure 76, the most common HR-related red flag was a poor performance evaluation, which occurred in 11% of all cases. Seven percent of occupational fraudsters also experienced a fear of job loss due to downsizing or restructuring in their company.

Figure 75: Non-Fraud-Related Misconduct

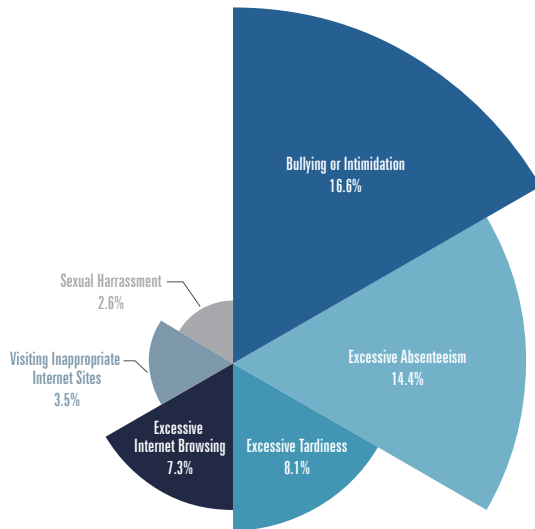
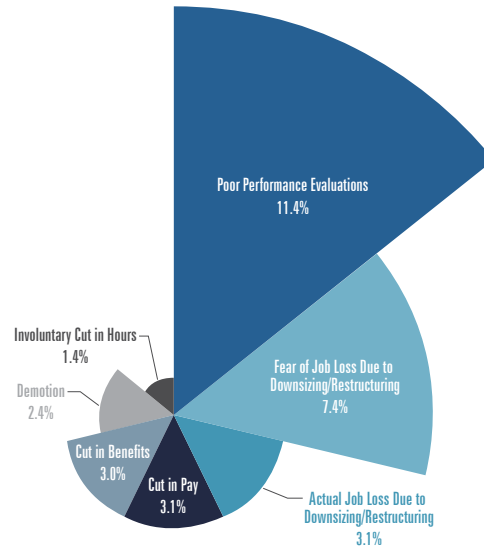


Figure 76: HR-Related Red Flags

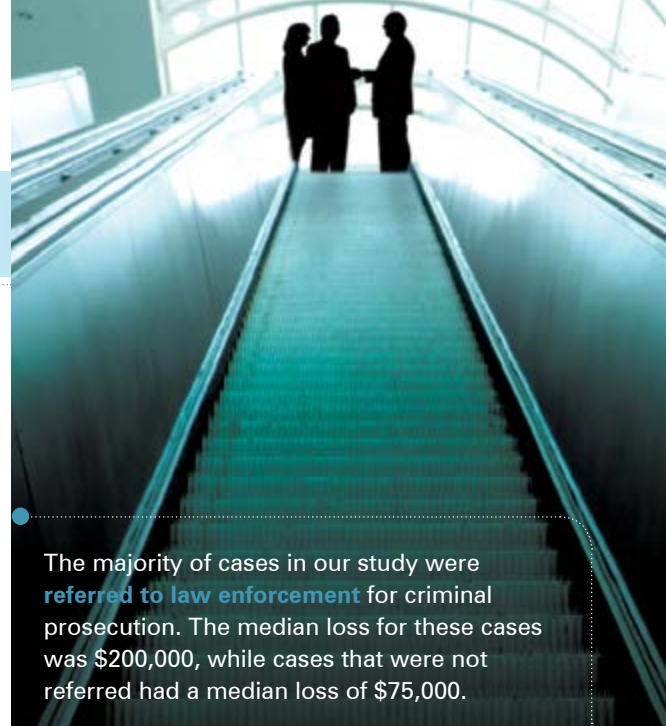


Case Results

We asked respondents to describe the results of the fraud examination, including referrals of cases to law enforcement, subsequent civil litigation and recovery of losses.

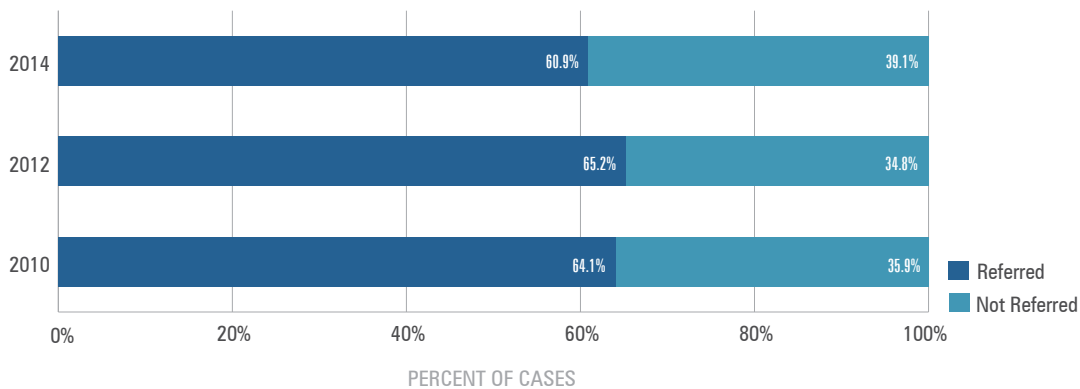
Criminal Prosecutions

The majority of cases reported (61%) were referred to law enforcement for criminal prosecution, down about 4% from 2012. The median loss for cases referred for criminal prosecution was \$200,000, while cases that were not referred had a median loss of \$75,000. These findings are almost identical to the 2012 data (\$200,000 and \$76,000, respectively).



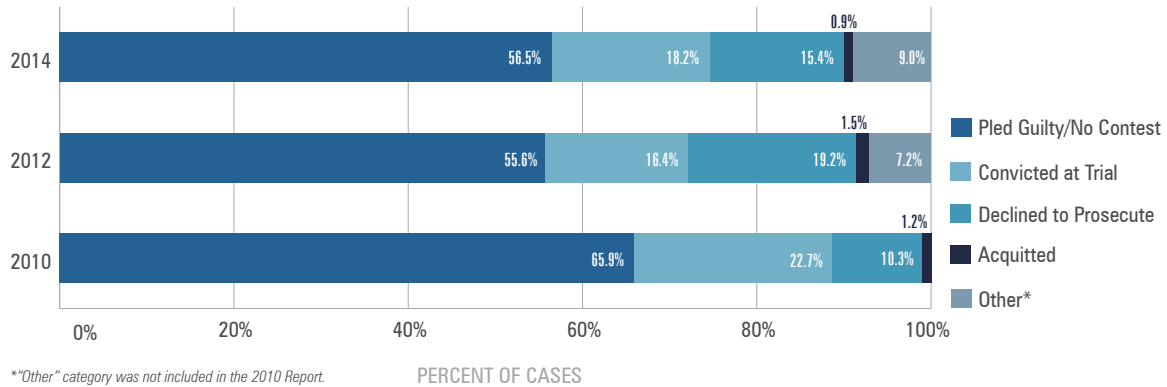
The majority of cases in our study were referred to law enforcement for criminal prosecution. The median loss for these cases was \$200,000, while cases that were not referred had a median loss of \$75,000.

Figure 77: Cases Referred to Law Enforcement



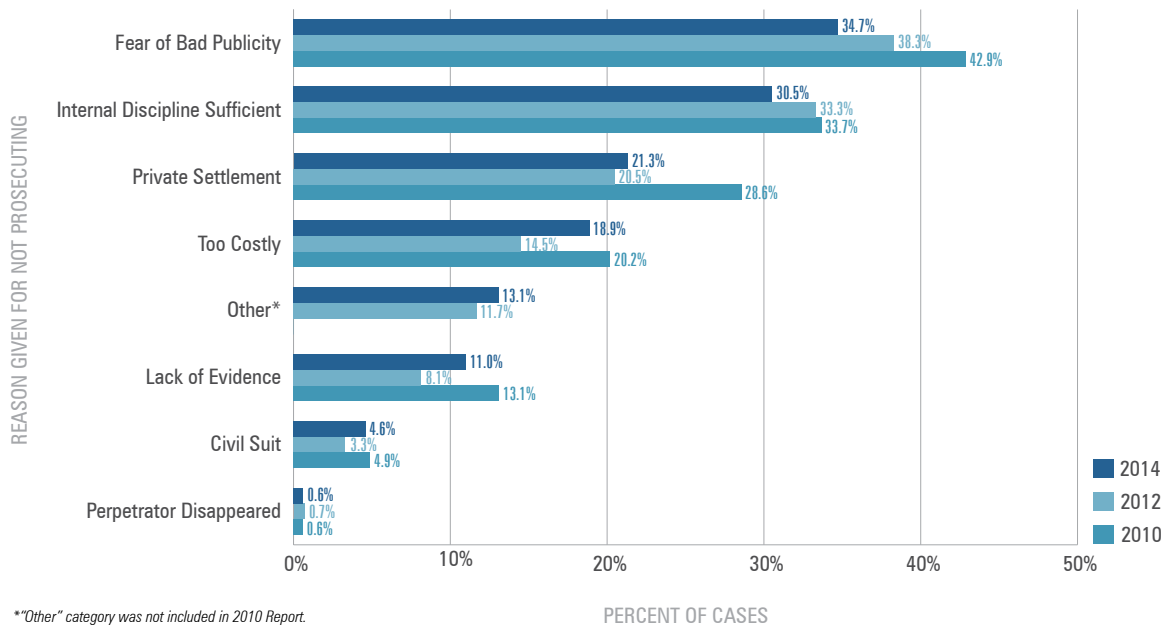
Many of the cases referred to law enforcement were still pending at the time of our research, but we analyzed the results of the 324 cases for which respondents reported a particular outcome. Combining pled guilty/no contest responses with convictions at trial, 75% of respondents in our current study said their case resulted in perpetrators being found guilty. Only 1% of reported prosecutions ended in acquittal.

Figure 78: Result of Cases Referred to Law Enforcement



There are many reasons why an organization might decline to refer occupational fraud cases to law enforcement. In our past three Reports, the most common reasons for deciding not to refer cases have been: fear of bad publicity, internal punishment deemed sufficient, private settlement reached with the fraudster and criminal action deemed too costly to pursue. However, the top two reasons — fear of bad publicity and sufficient internal punishment — have declined steadily in the past three Reports (from 43% to 35%, and 34% to 31%, respectively).

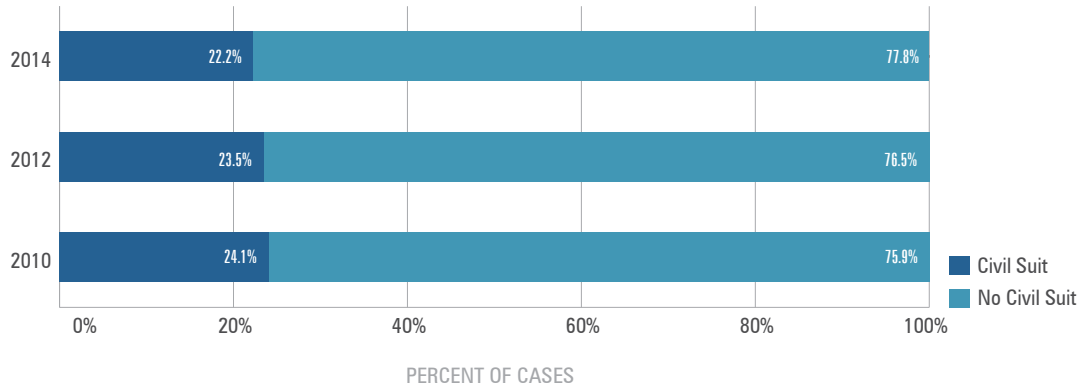
Figure 79: Reason(s) Case Not Referred to Law Enforcement



Civil Suits

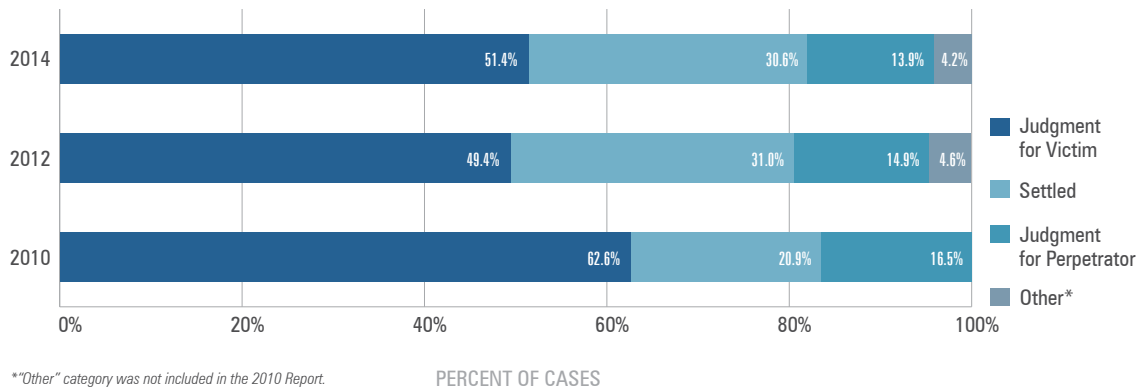
Figure 80 demonstrates the percentage of cases in which a civil suit was filed against the fraudster. The data have remained consistent over our last three studies: less than one-fourth of victim organizations have filed suit against the perpetrators who defrauded them.

Figure 80: Cases Resulting in Civil Suits



For those cases in which a civil suit was filed, we asked respondents to report on the results of the civil litigation. While many cases were still pending at the time of our study, the 72 cases for which results were provided are displayed in Figure 81. A little over half of the victims who filed a civil suit won a judgment in their favor, and another 31% settled with the defendant. Only 14% of the accused perpetrators obtained a favorable judgment.

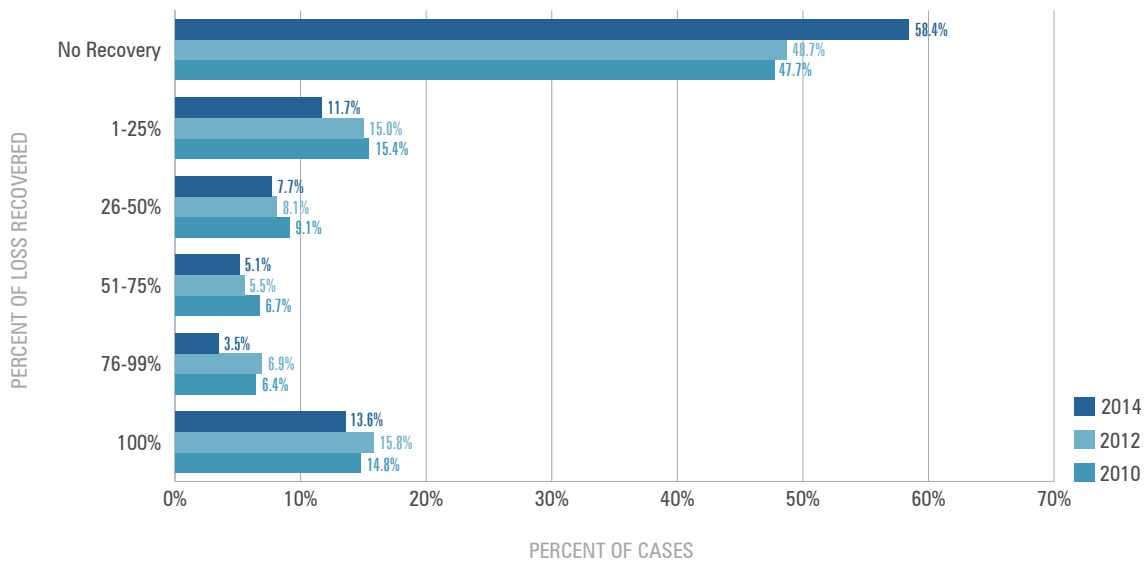
Figure 81: Result of Civil Suits



Recovery of Losses

Although the process of recovering the losses from a fraud can go on for years after a fraud examination is complete, we asked respondents to provide the percentage of the loss that the victim organization had recovered at the time of the survey. “No recovery” has been the most common response in past surveys, and this year we saw a substantial increase in this number. In 58% of cases reported in 2014, the victim organizations have seen no losses recovered, compared to 49% in 2012. At the time of our survey, only 14% of victim organizations had made a full recovery.

Figure 82: Recovery of Victim Organization’s Losses



Methodology

The 2014 *Report to the Nations on Occupational Fraud and Abuse* is based on the results of an online survey opened to 34,615 Certified Fraud Examiners (CFEs) from October 2013 to December 2013. As part of the survey, respondents were asked to provide a detailed narrative of the single largest fraud case they had investigated. Additionally, for the first time in the Report's history, we allowed respondents to submit information about a second case that they investigated; of the cases included in the Report, 68 were secondary cases. Each case submitted met the following four 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 2012 and the time of survey participation.
3. The investigation must have been complete at the time of survey participation.
4. The CFE must have been reasonably sure the perpetrator(s) was (were) identified.

Respondents were then presented with 84 questions to answer regarding the particular details of the fraud case, including information about the perpetrator, the victim organization and the methods of fraud employed, as well as fraud trends in general. We received 1,713 total responses to the survey, 1,483 of which were usable for purposes of this Report. The data contained herein is based solely on the information provided in these 1,483 survey responses.

Analysis Methodology

In calculating the percentages discussed throughout this Report, we used the total number of complete and relevant responses for the question(s) being analyzed. Specifically, we excluded any blank responses or instances where the participant indicated that he or she did not know the answer to a question. Consequently, the total number of cases included in each analysis varies.

Several survey questions allowed participants to select more than one answer. Therefore, the sum of percentages in many figures throughout the Report exceeds 100%.

All loss amounts discussed throughout the Report are calculated using median loss rather than mean, or average, loss. Average losses were heavily skewed by a limited number of very high-dollar frauds. Using median loss provides a more conservative — and we believe more accurate — picture of the typical impact of occupational fraud schemes. Additionally, we excluded median loss calculations for categories for which there were fewer than 10 responses.



We received 1,713 total responses to our survey, 1,483 of which were usable for purposes of this Report. The data contained herein is based solely on the information provided in these 1,483 survey responses.

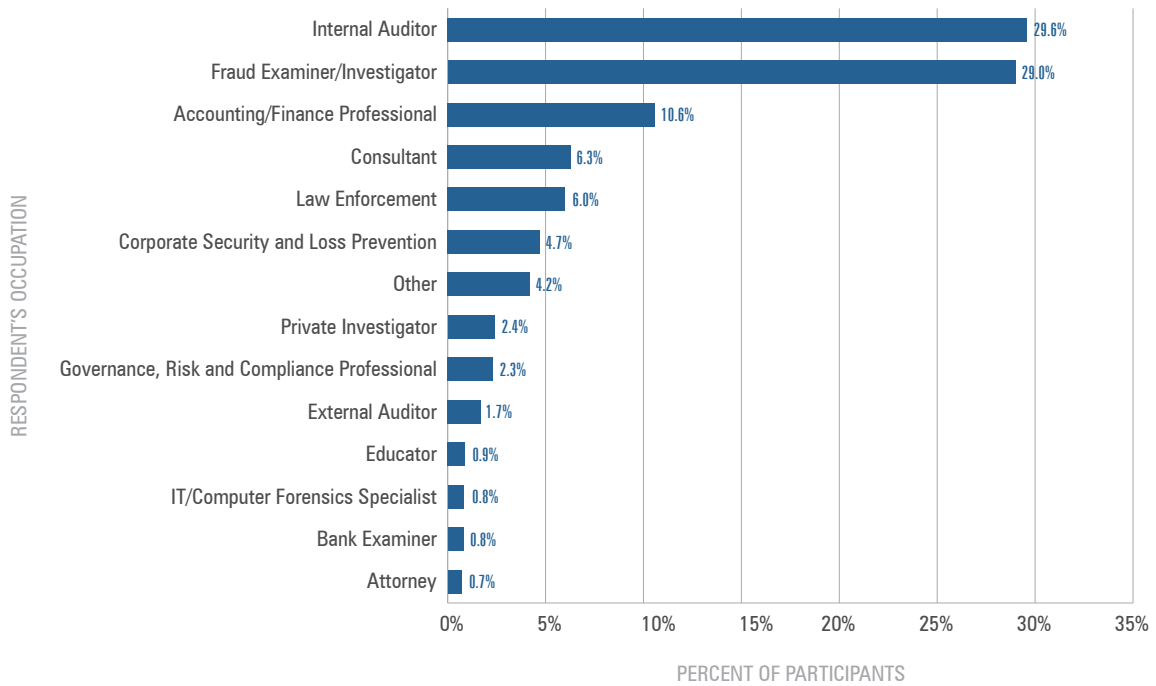
Who Provided the Data?

We asked survey 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.

Primary Occupation

The top three occupations of contributors to this Report were internal auditors, fraud examiners/investigators and accounting/finance professionals; combined, these three categories represent 69% of all survey respondents.

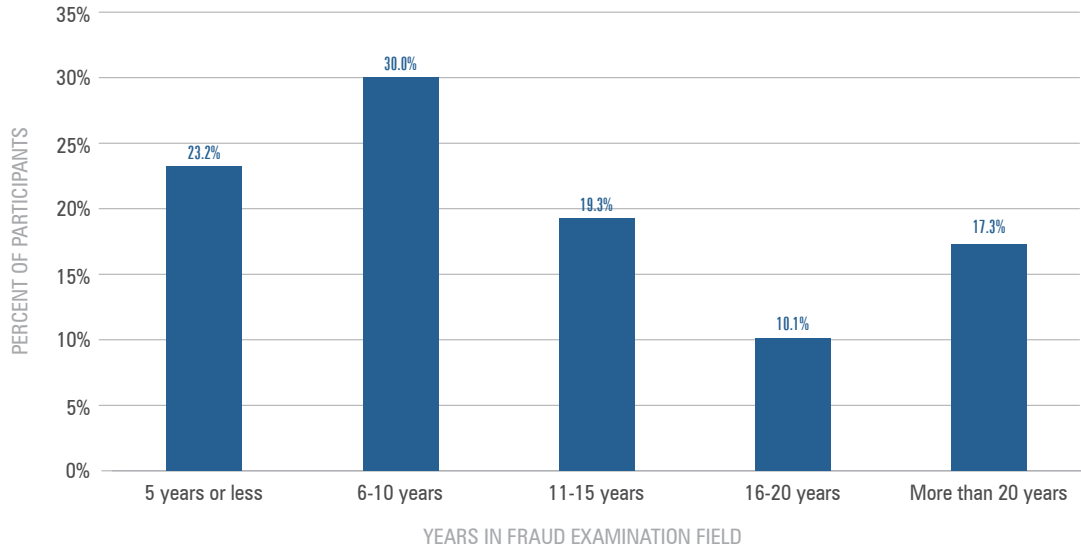
Figure 83: Primary Occupation of Survey Participants



Experience

Survey participants had a median of 10 years of experience in the anti-fraud profession. Of those participants who reported their tenure, 77% had at least five years of fraud examination experience, and 17% of participants have been in the anti-fraud field for more than 20 years.

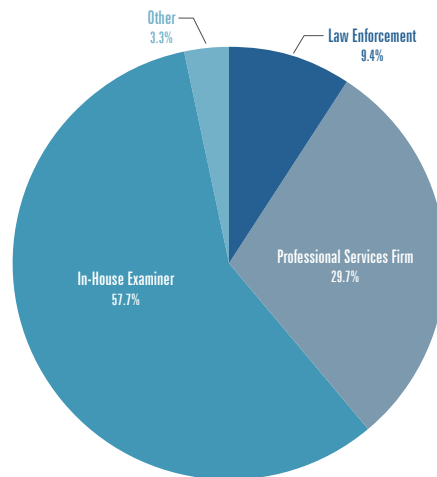
Figure 84: Experience of Survey Participants



Nature of Fraud Examinations Conducted

Of the participants who provided information on the nature of fraud examinations they conduct, the majority (58%) work as in-house fraud examiners, while nearly 30% work for professional services firms that conduct anti-fraud engagements for other organizations and 9% work in a law enforcement capacity.

Figure 85: Nature of Survey Participants' Fraud Examination Work



Glossary of Terminology

Asset misappropriation: A fraud scheme in which an employee steals or misuses the employing organization's resources (e.g., theft of company cash, false billing schemes or inflated expense reports)

Billing: A fraudulent disbursement scheme in which a person causes his or her employer to issue a payment by submitting invoices for fictitious goods or services, inflated invoices or invoices for personal purchases (e.g., employee creates a shell company and bills employer for services not actually rendered; employee purchases personal items and submits an invoice to employer for payment)

Cash larceny: A scheme in which an incoming payment is stolen from an organization after it has been recorded on the organization's books and records (e.g., employee steals cash and checks from daily receipts before they can be deposited in the bank)

Cash-on-hand misappropriation: Any scheme in which the perpetrator misappropriates cash kept on hand at the victim organization's premises (e.g., employee steals cash from a company vault)

Cash register disbursements: A fraudulent disbursement scheme in which an employee makes false entries on a cash register to conceal the fraudulent removal of cash (e.g., employee fraudulently voids a sale on his or her cash register and steals the cash)

Check tampering: A fraudulent disbursement scheme in which a person steals his or her employer's funds by intercepting, forging or altering a check drawn on one of the organization's bank accounts (e.g., employee steals blank company checks and makes them out to himself or an accomplice; employee steals an outgoing check to a vendor and deposits it into his or her own bank account)

Corruption: A fraud scheme in which an employee misuses his or her influence in a business transaction in a way that violates his or her duty to the employer in order to gain a direct or indirect benefit (e.g., schemes involving bribery or conflicts of interest)

Employee support programs: Programs that provide support and assistance to employees dealing with personal issues or challenges, such as drug, family or financial counseling services

Expense reimbursements: A fraudulent disbursement scheme in which an employee makes a claim for reimbursement of fictitious or inflated business expenses (e.g., employee files a fraudulent expense report, claiming personal travel, nonexistent meals, etc.)

Financial statement fraud: A scheme in which an employee intentionally causes a misstatement or omission of material information in the organization's financial reports (e.g., recording fictitious revenues, understating reported expenses or artificially inflating reported assets)

Hotline: A mechanism for reporting fraud or other violations, whether managed internally or by an external party

Management review: The process of management reviewing organizational controls, processes, accounts or transactions for adherence to company policies and expectations

Non-cash misappropriations: Any scheme in which an employee steals or misuses non-cash assets of the victim organization (e.g., employee steals inventory from a warehouse or storeroom; employee steals or misuses confidential customer financial information)

Occupational fraud: The use of one's occupation for personal enrichment through the deliberate misuse or misapplication of the employing organization's resources or assets

Payroll: A fraudulent disbursement scheme in which an employee causes his or her employer to issue a payment by making false claims for compensation (e.g., employee claims overtime for hours not worked; employee adds ghost employees to the payroll)

Primary perpetrator: The person who worked for the victim organization and was reasonably confirmed as the primary culprit in the case

Skimming: A scheme in which an incoming payment is stolen from an organization before it is recorded on the organization's books and records (e.g., employee accepts payment from a customer but does not record the sale and instead pockets the money)

Appendix

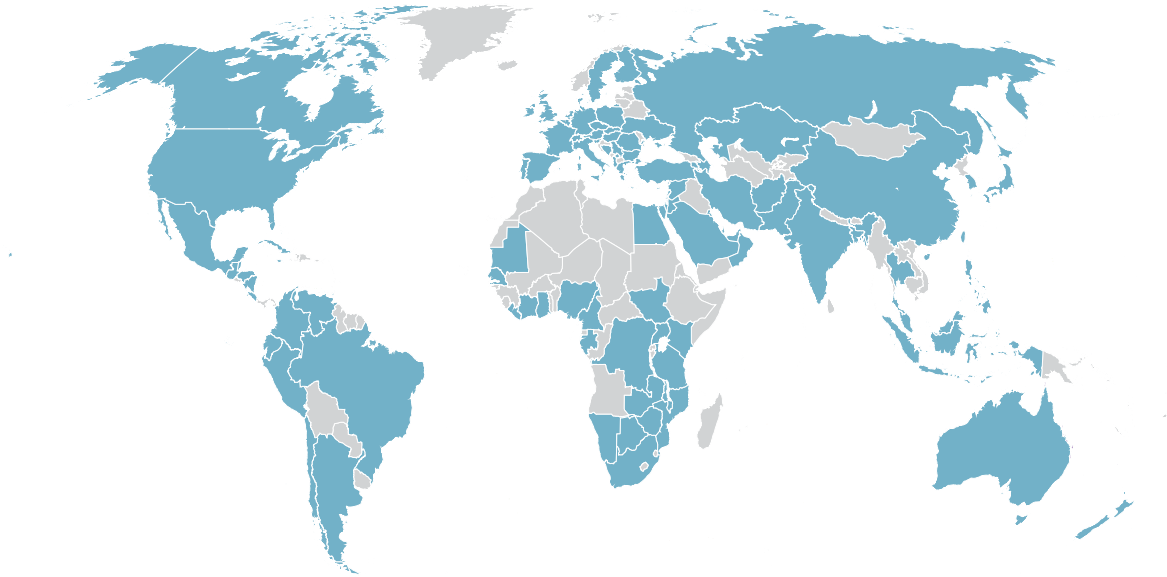
Figure 86: Breakdown of Geographic Regions by Country

Asia-Pacific (129 Cases)		Latin America and the Caribbean (57 Cases)	
Country	Number of Cases	Country	Number of Cases
Australia	12	Antigua and Barbuda	2
China	39	Argentina	3
East Timor	2	Bahamas	2
Indonesia	19	Barbados	1
Japan	3	Belize	2
Korea, South	5	Brazil	8
Malaysia	10	Chile	2
Micronesia	1	Colombia	4
New Zealand	5	Costa Rica	1
Philippines	18	Cuba	1
Singapore	8	Ecuador	2
Taiwan	3	Grenada	1
Thailand	4	Guatemala	1
Eastern Europe and Western/Central Asia (78 Cases)		Honduras	2
Albania	1	Jamaica	5
Armenia	1	Mexico	11
Azerbaijan	2	Nicaragua	1
Bosnia and Herzegovina	1	Peru	2
Bulgaria	8	Trinidad and Tobago	5
Czech Republic	6	Venezuela	1
Hungary	4	Middle East and North Africa (53 Cases)	
Kazakhstan	4	Bahrain	1
Kosovo	1	Cyprus	1
Poland	12	Egypt	2
Romania	4	Iran	1
Russia	11	Israel	3
Serbia	3	Jordan	3
Slovakia	2	Lebanon	2
Slovenia	1	Oman	2
Turkey	13	Qatar	11
Ukraine	4	Saudi Arabia	5
		Syria	1
		United Arab Emirates	21
		Southern Asia (55 Cases)	
		Afghanistan	1
		Bangladesh	1
		India	41
		Pakistan	12

Sub-Saharan Africa 173 Cases	
Country	Number of Cases
Botswana	2
Cameroon	5
Cote d'Ivoire (Ivory Coast)	2
Congo, Democratic Republic of the	2
Gabon	1
Ghana	6
Kenya	18
Liberia	9
Malawi	3
Mauritius	1
Mauritania	1
Mozambique	1
Namibia	2
Nigeria	36
Senegal	3
South Africa	57
South Sudan	1
Tanzania	1
Uganda	3
Zambia	6
Zimbabwe	13

Western Europe 98 Cases	
Country	Number of Cases
Austria	2
Belgium	5
Denmark	1
Finland	1
France	9
Germany	14
Greece	7
Ireland	1
Italy	6
Luxembourg	1
Netherlands	4
Portugal	4
Spain	3
Sweden	1
Switzerland	10
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Figure 87: Countries with Reported Cases



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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, such as a third-party hotline, available to employees?
- 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?
- Do reporting policies and mechanisms extend to vendors, customers and other outside parties?

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 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 that 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 checks
- 9. Are employee support programs in place to assist employees struggling with addiction, 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

Founded in 1988 by Dr. Joseph T. Wells, CFE, CPA, the ACFE is celebrating its 25th anniversary as the world's largest anti-fraud organization and premier provider of anti-fraud training and education. Together with more than 70,000 members in more than 150 countries, the ACFE is reducing business fraud worldwide and providing the training and resources needed to fight fraud more effectively.

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 best 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 of the profession.

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.



The ACFE serves more than 70,000 members in more than 150 countries worldwide. For more information, visit [ACFE.com](https://www.acfe.com).

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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 officers, lawyers, business leaders, risk/compliance professionals and educators, all of whom have access to expert training, educational tools and resources.

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- 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
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