

**OCCUPATIONAL FRAUD 2024:  
A REPORT TO  
THE NATIONS<sup>®</sup>**

# FOREWORD

On behalf of the ACFE, I am proud to present *Occupational Fraud 2024: A Report to the Nations*. This report marks the 13<sup>th</sup> edition of what we believe to be the largest and most comprehensive study ever conducted on the costs and effects of occupational fraud. Dating back to the first edition published in 1996, we have collectively analyzed and reported on well over 20,000 cases of occupational fraud throughout the years. What we have learned is that occupational fraud is very likely the largest and most costly form of financial crime in the world, with estimated annual costs in the trillions of dollars.

These crimes are a threat to every type of organization in all industries in every region throughout the world. The fact that occupational fraud remains so common and so costly is a stark reminder that the work we do as CFEs is vitally important. We are the ones tasked with preventing, detecting, and investigating these crimes that cause so much harm to so many people and organizations.

In order to do our work well, we need to understand everything we can about occupational fraud: how much it costs, how it is committed, who commits it, and how it can be prevented and detected. This was the inspiration of Dr. Joseph T. Wells, CFE, CPA, founder and Chairman of the ACFE, when he published the first edition of the report in 1996. All these years later, we still take Dr. Wells' lesson to heart. That's why we continue to expand our study every two years, with new insights and information designed to help educate the public and to give CFEs the best and most complete picture of how occupational fraud impacts organizations.

This report is made possible by the generosity of CFEs throughout the world, who take time from their busy schedules to provide us with detailed information on fraud cases they have personally investigated. We want to acknowledge those who contributed cases to this edition and to thank them sincerely for their support. The type of knowledge-sharing reflected in these pages represents the best of what a global anti-fraud association should aspire to achieve.

We offer this report to business leaders, government officials, anti-fraud professionals, and the general public in hopes that the data presented herein will help improve our collective ability to protect organizations from the harm caused by occupational fraud.



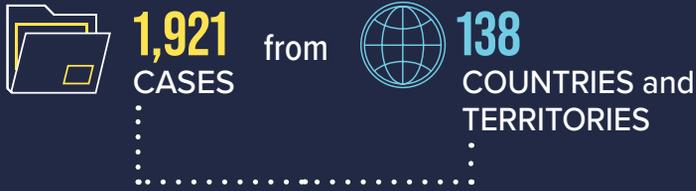
John Warren, J.D., CFE  
CEO, Association of Certified Fraud Examiners

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# KEY FINDINGS

## OUR STUDY COVERED



Causing total losses of more than **\$3.1 BILLION**

CFEs estimate that organizations **LOSE**



## SCHEMES

**ASSET MISAPPROPRIATION SCHEMES** are the most common but least costly



**FINANCIAL STATEMENT FRAUDS** are the least common but most costly



### HIGHEST RISK ASSET MISAPPROPRIATION SCHEMES

MOST COMMON

Billing schemes  
**22%** OF CASES

Theft of noncash assets  
**22%** OF CASES

MOST COSTLY

Check and payment tampering  
**\$155,000** MEDIAN LOSS

Billing schemes  
**\$100,000** MEDIAN LOSS



A TYPICAL FRAUD CASE lasts **12 MONTHS** before detection

## DETECTION



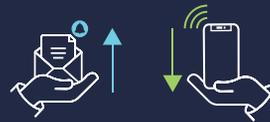
**43%** of frauds were detected by tips, which is more than **3x** as many cases as the next most common method



and nearly **ONE-THIRD** come from vendors and customers

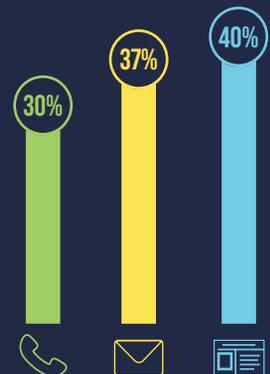


The most **COMMON MECHANISMS** used to report fraud tips:



Email and web-based reports **BOTH** surpassed telephone hotlines

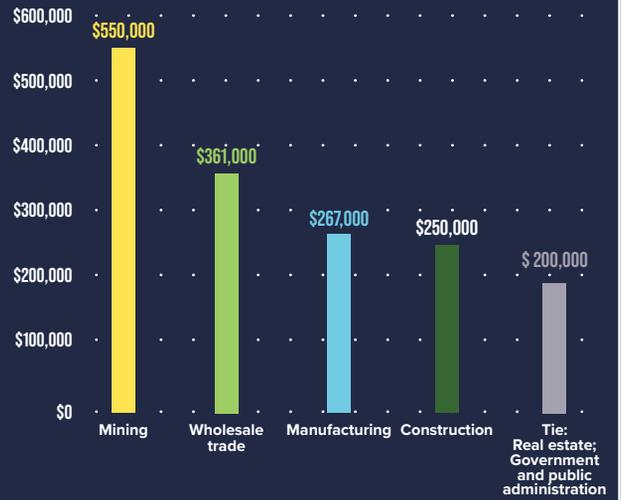
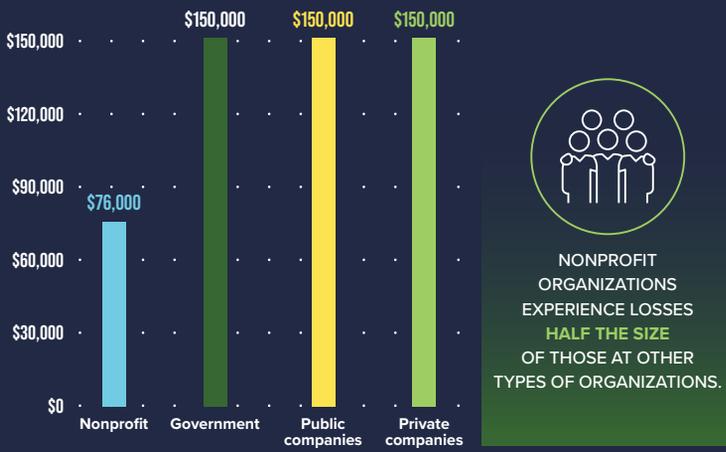
Telephone ●  
Email ●  
Web-based ●



# KEY FINDINGS

## VICTIM ORGANIZATIONS

### TOP 5 MEDIAN LOSSES BY INDUSTRY



## PERPETRATORS

Median losses for frauds by owners/executives were more than **7X GREATER** than those carried out by employees.



Frauds carried out by **THREE OR MORE** perpetrators caused median losses more than **4X GREATER** than those carried out by a single perpetrator.



**84%** of fraudsters displayed at least **ONE BEHAVIORAL RED FLAG**



**MORE THAN HALF** of all cases came from these five departments:



**THE LONGER** a fraudster has worked for an organization, **THE MORE COSTLY** their fraud.



## ANTI-FRAUD CONTROLS

The presence of anti-fraud controls is associated with

**LOWER** fraud losses **AND** **QUICKER** fraud detection

**82%** of victim organizations **MODIFIED** their anti-fraud controls following the fraud.

**27%** of these modifications are expected to be **EXTREMELY EFFECTIVE** in preventing similar frauds in the future.

More **THAN HALF** of occupational frauds occur due to a lack of internal controls or an override of existing internal controls.



## CASE RESULTS

**68%** of perpetrators were terminated by their employers

**57%** of cases referred to **LAW ENFORCEMENT**

**72%** of those referrals resulted in a **CONVICTION**

Of organizations that did not refer to law enforcement:

**49%** cited **INTERNAL DISCIPLINE** as the reason

**34%** cited fear of **BAD PUBLICITY** as the reason

# MAKE AN IMPACT: HOW TO USE THE REPORT

**Occupational Fraud 2024: A Report to the Nations** analyzes 1,921 real cases of occupational fraud that were investigated between January 2022 and September 2023. The findings presented in this report can be used by anti-fraud professionals, organizational management, and others to improve their fraud prevention, detection, and response efforts.

## INFORM YOUR FRAUD RISK ASSESSMENTS.

Use heat maps to understand the frequency and significance of occupational fraud risks.

- **PAGE 13:** Which Asset Misappropriation Schemes Present the Greatest Risk?
- **PAGE 36:** What Are the Most Common Occupational Fraud Schemes in Various Industries?
- **PAGE 56:** What Are the Most Common Occupational Fraud Schemes in High-Risk Departments?

Less risk

More risk

## BENCHMARK YOUR ANTI-FRAUD PROGRAM.

Compare the components of your anti-fraud program against other organizations.

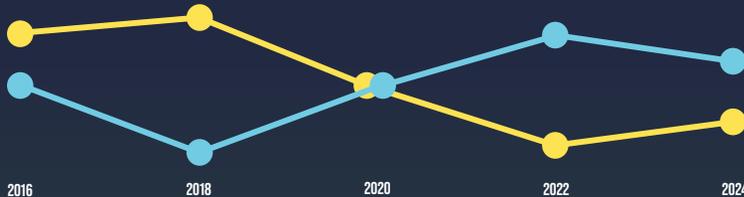
- **PAGE 38:** What Anti-Fraud Controls Are Most Common?
- **PAGE 44:** How Do Anti-Fraud Controls Vary by Size of Victim Organization?
- **PAGES 82-97:** What Anti-Fraud Controls Are the Most Common in the Region?



## IMPROVE YOUR FRAUD PREVENTION AND DETECTION EFFORTS.

Recognize how frauds are most commonly and most quickly detected. Implement the controls that are most effective at preventing and detecting fraud.

- **PAGE 24:** How Is Occupational Fraud Initially Detected?
- **PAGE 24:** Who Reports Occupational Fraud?
- **PAGE 25:** How Does Detection Method Relate to Fraud Loss and Duration?
- **PAGE 26:** What Formal Reporting Mechanisms Did Whistleblowers Use?
- **PAGE 40:** How Does the Presence of Anti-Fraud Controls Relate to Median Loss?
- **PAGE 41:** How Does the Presence of Anti-Fraud Controls Relate to the Duration of Fraud?



## SELL FRAUD PREVENTION TO MANAGEMENT AND CLIENTS.

Demonstrate the risk of occupational fraud to your organization and show the ROI on anti-fraud investments.

- **PAGE 9:** The Global Cost of Fraud
- **PAGE 40:** How Does the Presence of Anti-Fraud Controls Relate to Median Loss?
- **PAGES 42-43:** The Importance of Providing Fraud Awareness Training

MEDIAN LOSS PER CASE:

**\$145,000**

AVERAGE LOSS PER CASE:

**\$1,662,000**

## UNDERSTAND WHO PUTS YOUR ORGANIZATION AT THE GREATEST RISK.

Identify what groups are associated with more frequent or more costly incidents of fraud. Recognize the most common behavioral red flags of fraud to identify high-risk individuals.

- **PAGE 55:** What Departments Pose the Greatest Risk for Occupational Fraud?
- **PAGE 57:** Profile of a Fraudster
- **PAGES 68-69:** Behavioral Red Flags of Fraud



**84%** of all fraudsters displayed at least one **BEHAVIORAL RED FLAG**



## EDUCATE OTHERS ABOUT OCCUPATIONAL FRAUD AND WAYS TO EFFECTIVELY COMBAT IT.

Download and share with management, clients, or your anti-fraud team. Use charts, graphs, and findings from the report in your own internal or external presentations. Include customized points in discussions with management or clients, or as part of fraud awareness training programs.

- **PAGES 4-5:** Key Findings
- Full report at [ACFE.com/RTTN](https://www.acfe.com/RTTN)
- Charts and slides at [ACFE.com/RTTN](https://www.acfe.com/RTTN)



# INTRODUCTION

This study represents the most comprehensive examination available of the costs, methods, victims, and perpetrators of occupational fraud.

The Association of Certified Fraud Examiners (ACFE) has been committed to the mission of combating *occupational fraud*—fraud committed by individuals against the organizations that employ them<sup>1</sup>—since its founding in 1988. Occupational fraud represents a significant risk to the operations of every organization, regardless of size, industry, or region, with wide-ranging impacts for organizations victimized by this prevalent form of financial crime.

Due to the nature of occupational fraud, each of the estimated 3.55 billion members of the global workforce<sup>2</sup> has the potential to engage in this crime, as their employers entrust them with organizational cash and assets in the ordinary course of business. Although only a small fraction of the workforce will ever commit occupational fraud, myriad factors provide the pressures, opportunities, and rationalizations that motivate and enable perpetrators to carry out their fraud schemes. These circumstances create the conditions for global fraud losses to reach trillions of dollars annually.

While the true scope of fraud on a global scale is ultimately unknowable, the data contained in this report—gathered from real-world cases investigated by Certified Fraud Examiners (CFEs)—provides critical information that anti-fraud professionals can use to understand the

risks posed by occupational fraud so that they can better prevent, detect, and investigate it. Each edition of this study has embodied that objective.

The cases in this study were submitted by CFEs throughout the world who each responded to the ACFE's 2023 *Global Fraud Survey*, answering a detailed questionnaire with 86 questions about one fraud case they investigated between January 2022 and September 2023. Drawing from 1,921 occupational fraud cases investigated by CFEs, this 13<sup>th</sup> edition of our study presents statistical analyses related to the methods used to commit, detect, and prevent occupational fraud, as well as the fraud perpetrators, the organizations they victimized, the losses those organizations suffered, and their responses to the frauds.

Survey respondents submitted fraud cases from 138 different countries and territories that affected private, public, government, and nonprofit organizations in 22 different industry categories, providing a truly global and expansive scope of coverage. Although these cases represent only a miniscule percentage of all occupational fraud committed, we believe that our findings constitute the most comprehensive study available concerning occupational fraud.

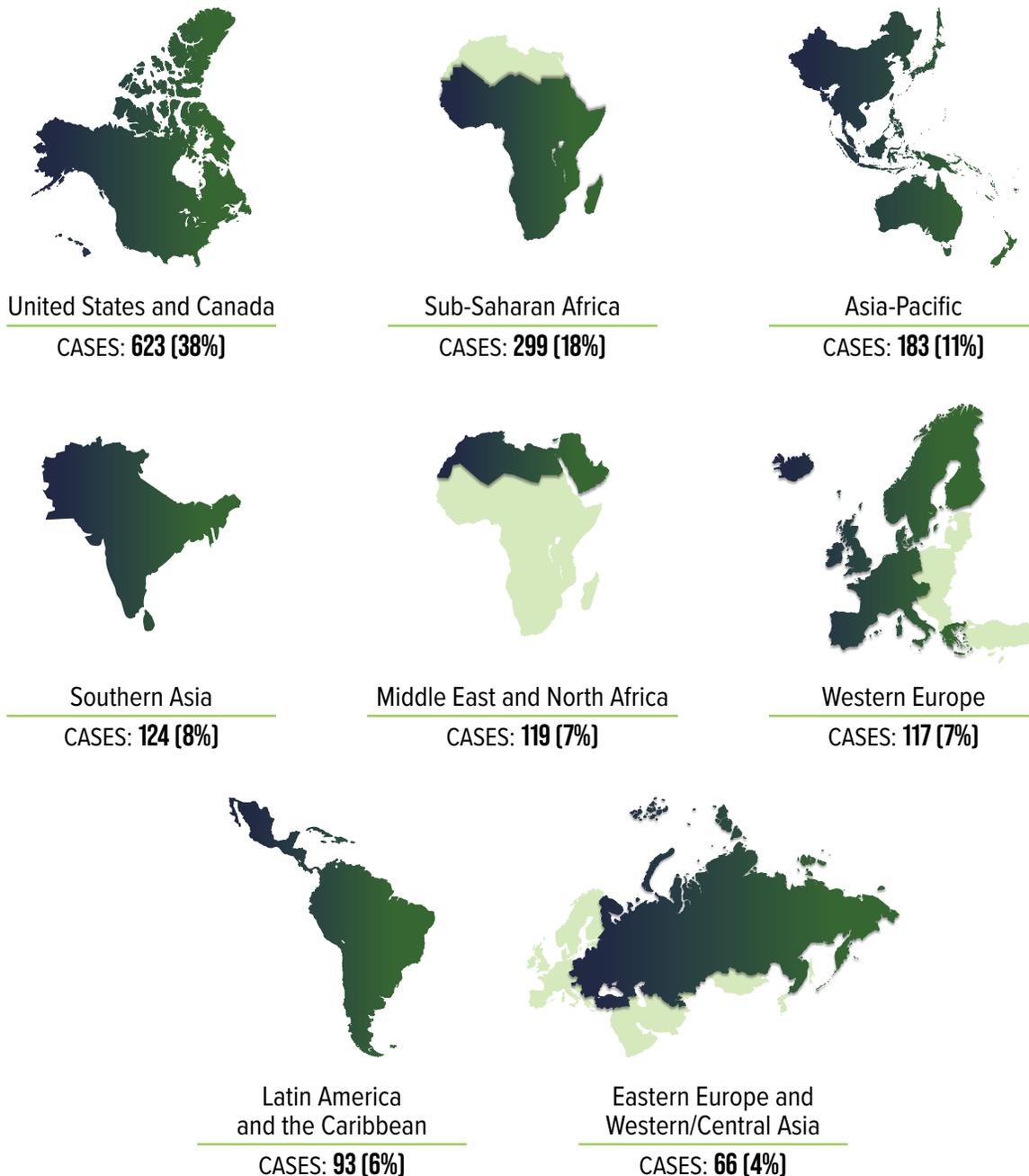
<sup>1</sup> *Occupational fraud* is formally defined as the use of one's occupation for personal enrichment through the deliberate misuse or misapplication of the employing organization's resources or assets.

<sup>2</sup> The World Bank DataBank, "Labor Force, Total (1991–2022)," <https://data.worldbank.org/indicator/SL.TLFTOTL.IN>.

The goal of *Occupational Fraud 2024: A Report to the Nations* is to compile detailed information about occupational fraud cases in six critical areas:

- The methods by which occupational fraud is committed
- The financial harm caused by occupational fraud
- The means by which occupational frauds are detected
- The characteristics of the organizations victimized by occupational fraud
- The characteristics of the people who commit occupational fraud
- The results of the cases after the frauds have been detected and the perpetrators identified

**FIG. 1 REPORTED CASES BY REGION**



# THE GLOBAL COST OF FRAUD

Fraud is a truly global problem, affecting organizations in every region and in every industry worldwide. Measuring the true extent of the damage caused by occupational fraud can be challenging due to the inherent nature of concealment and deception involved in most schemes. However, our study provides some valuable insight into the scope of this issue and how it affects organizations everywhere.

## OUR STUDY COVERED



**1,921**  
CASES

from



**138**  
COUNTRIES and  
TERRITORIES

Causing total losses of more than

**\$31 BILLION**



**\$1,662,000**

Average loss per case



**22%** of cases had losses of \$1 million+

CFEs estimate that organizations **LOSE**



**5%** of revenue to **FRAUD** each year

Projected against 2022 GWP\*  
**(\$101 TRILLION)**

that's more than  
**\$5 TRILLION**  
LOST TO FRAUD  
GLOBALLY

\*<https://databank.worldbank.org/data/download/GDP.pdf>

## LOSS PER CASE



## LOSS PER REGION



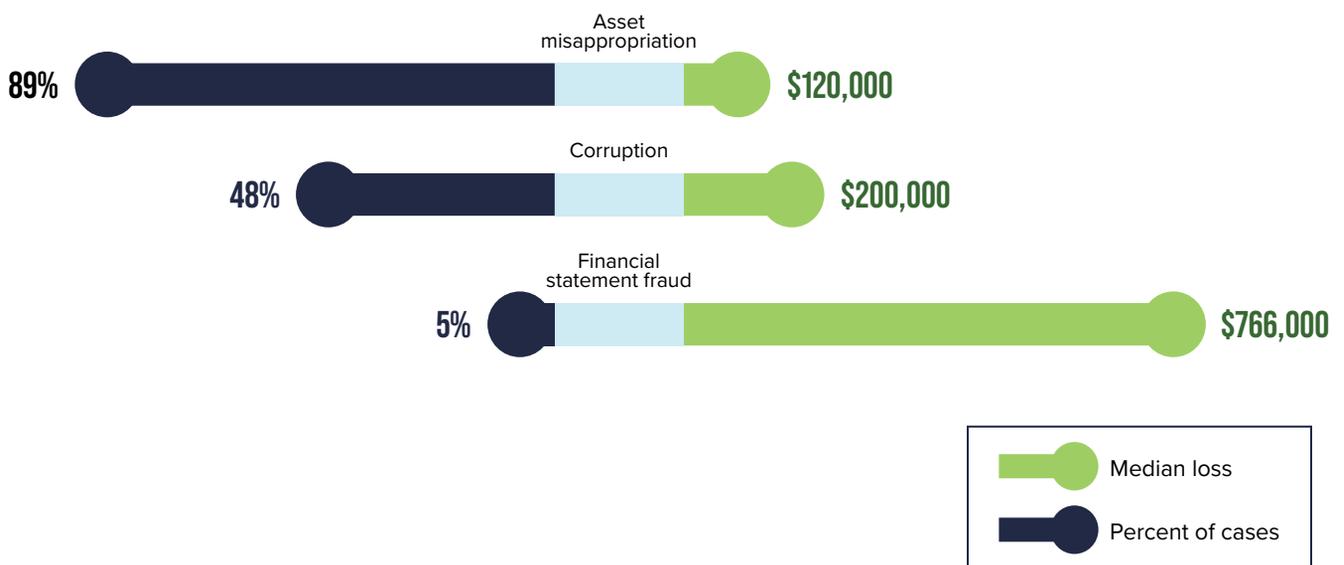
# HOW IS OCCUPATIONAL FRAUD COMMITTED?

Collectively, in the 13 editions of the *Report to the Nations*, we have analyzed more than 20,000 cases of occupational fraud. Our research shows that there are clear categories and patterns in the way that fraudsters perpetrate their schemes. To illustrate the organization of these categories and patterns, Figure 3 provides a taxonomy of occupational fraud schemes. This *Occupational Fraud and Abuse Classification System* (commonly referred to as the *Fraud Tree*) helps provide a better understanding of how these frauds are committed and, in turn, can help organizations focus their prevention and detection efforts to address the greatest risks.

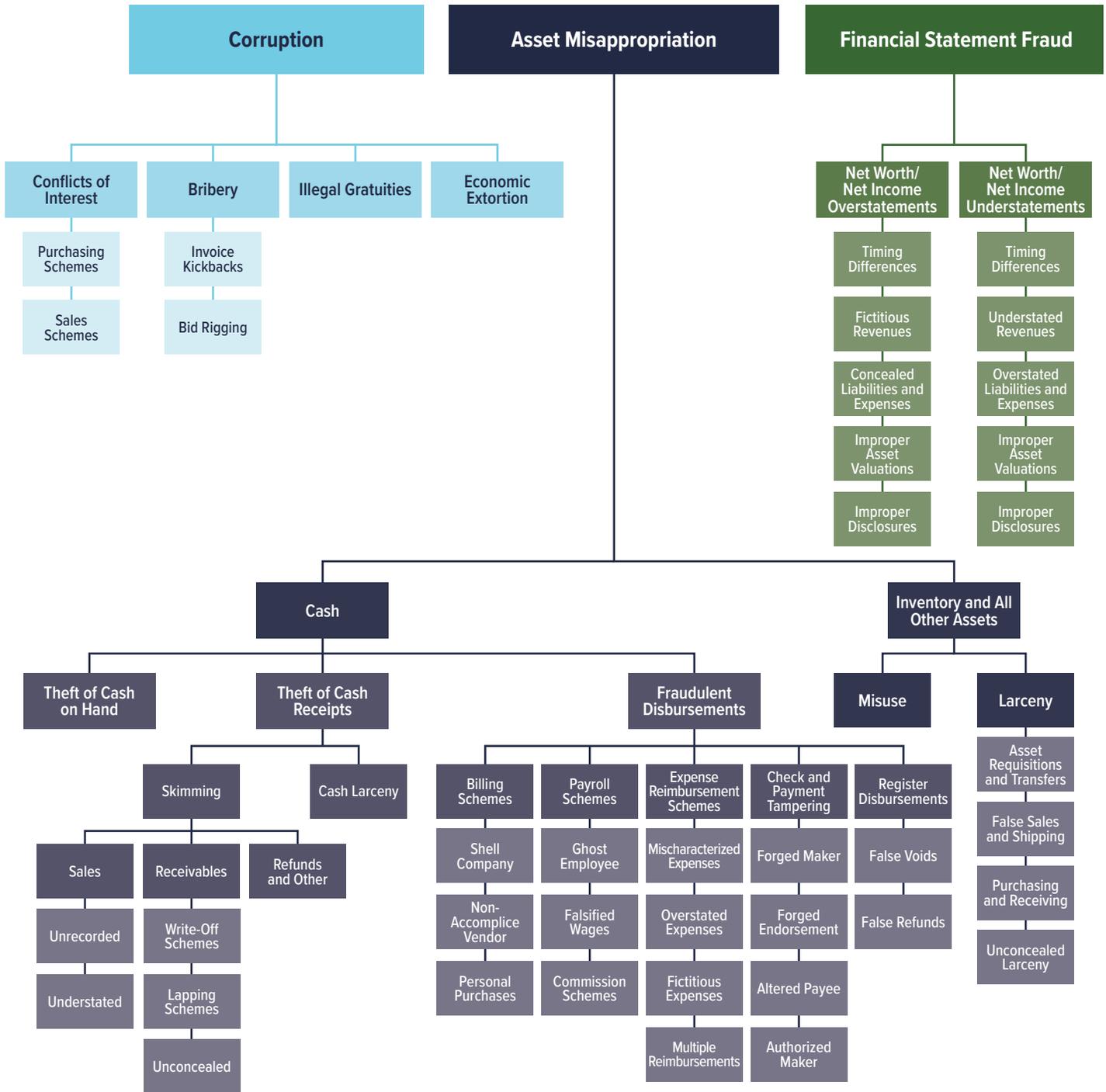
## CATEGORIES OF OCCUPATIONAL FRAUD

Occupational fraud schemes fall into three primary categories: asset misappropriation, corruption, and financial statement fraud. Figure 2 shows the frequency and median losses for each of these categories. Asset misappropriation cases involve an employee stealing or misusing the employing organization's resources. This is by far the most common category of occupational fraud, occurring in 89% of the cases in our study. These cases also tend to cause the lowest median loss, at USD 120,000 per case. Nearly half the cases in our study (48%) involved some form of corruption. These cases caused a median loss of USD 200,000 per case. Financial statement frauds, in which the perpetrator intentionally caused a material misstatement or omission in the organization's financial statements, were the least common category (5% of schemes) but also caused the greatest median loss (USD 766,000 per case).

FIG. 2 HOW IS OCCUPATIONAL FRAUD COMMITTED?



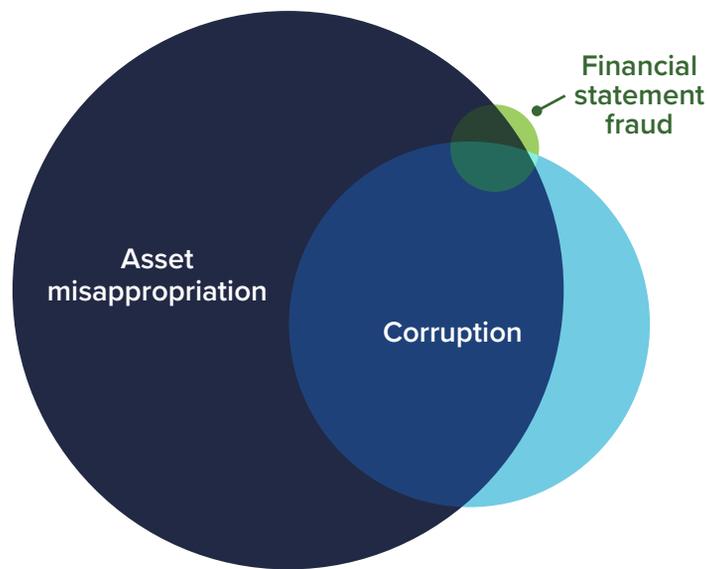
**FIG. 3 OCCUPATIONAL FRAUD AND ABUSE CLASSIFICATION SYSTEM (THE FRAUD TREE)<sup>3</sup>**



<sup>3</sup> The definitions for many of the categories of fraud schemes in the Fraud Tree are found in the Glossary of Terminology on page 104.

While occupational frauds can be divided into three distinct categories, perpetrators do not always limit their schemes to just one category. As shown in Figure 4, 38% of the cases in our study involved two or more types of occupational fraud, with the most common overlap occurring between asset misappropriation and corruption (35% of cases). Interestingly, only 1% of cases in our study involved financial statement fraud alone. This indicates that when a person has been caught committing financial statement fraud, it is very likely they have been committing other types of fraud as well.

**FIG. 4 HOW OFTEN DO FRAUDSTERS COMMIT MORE THAN ONE TYPE OF OCCUPATIONAL FRAUD?**

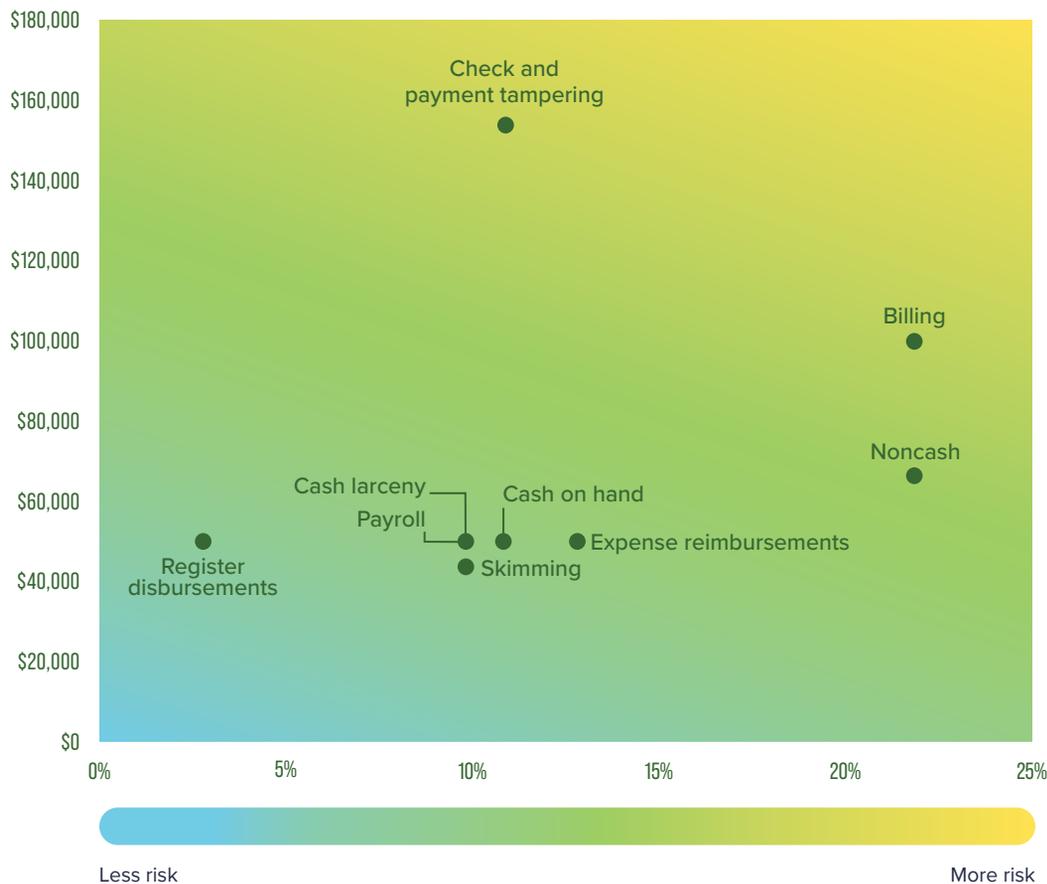


Asset misappropriation only	●	51%
Asset misappropriation and corruption	● ●	35%
Corruption only	●	10%
Corruption, asset misappropriation, and financial statement fraud	● ● ●	2%
Asset misappropriation and financial statement fraud	● ●	1%
Financial statement fraud only	●	1%
Corruption and financial statement fraud	● ●	<1%

## ASSET MISAPPROPRIATION SUB-SCHEMES

Asset misappropriation schemes can take different forms, often dependent on the access or opportunity the perpetrator has within the victim organization. In the Fraud Tree taxonomy, we divide asset misappropriations into nine distinct sub-schemes based on how the crime was committed. (See the Glossary on [page 104](#) for definitions of each sub-scheme.) Understanding which of these sub-schemes presents the greatest risk to organizations can help with risk assessment and minimizing fraud losses. Figure 5 is a heat map displaying the median loss and frequency of each sub-scheme. The sub-schemes closest to the yellow portion of the heat map—check and payment tampering, billing, and theft of noncash assets—present the greatest overall risk to organizations, based on the combination of frequency and potential loss.

**FIG. 5 WHICH ASSET MISAPPROPRIATION SUB-SCHEMES PRESENT THE GREATEST RISK?**

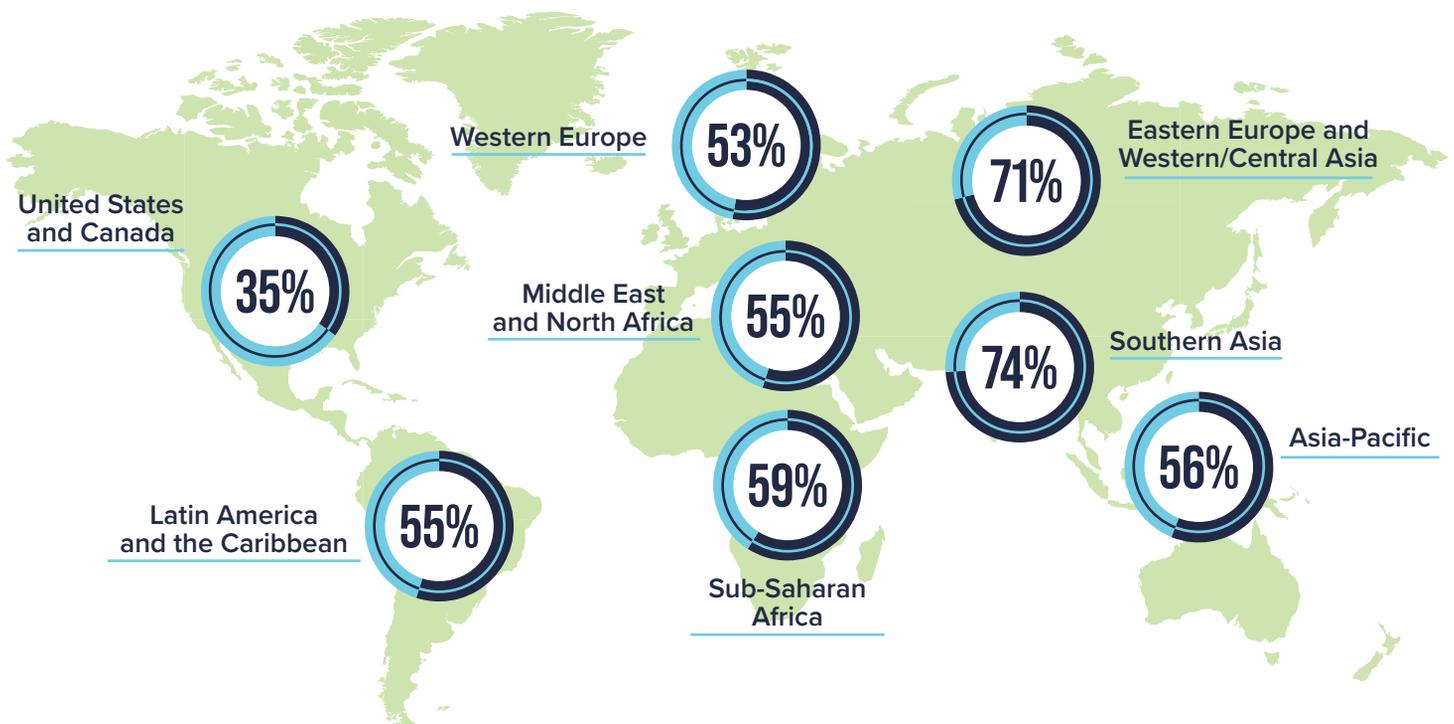


Category	Number of cases	Percent of all cases	Median loss
Noncash	426	22%	\$66,000
Billing	424	22%	\$100,000
Expense reimbursements	248	13%	\$50,000
Check and payment tampering	217	11%	\$155,000
Cash on hand	205	11%	\$50,000
Skimming	200	10%	\$43,000
Cash larceny	192	10%	\$50,000
Payroll	190	10%	\$50,000
Register disbursements	52	3%	\$50,000

## CORRUPTION CASES BY REGION

Among the eight geographical regions we examined, Southern Asia had the highest percentage of corruption cases (74%), while the United States and Canada had the smallest percentage of cases involving corruption (35%) (see Figure 6). These findings could reflect factors such as the cultural norms regarding permitting or prohibiting corruption, the presence and effectiveness of anti-corruption legislation, or the focus of enforcement within each region.

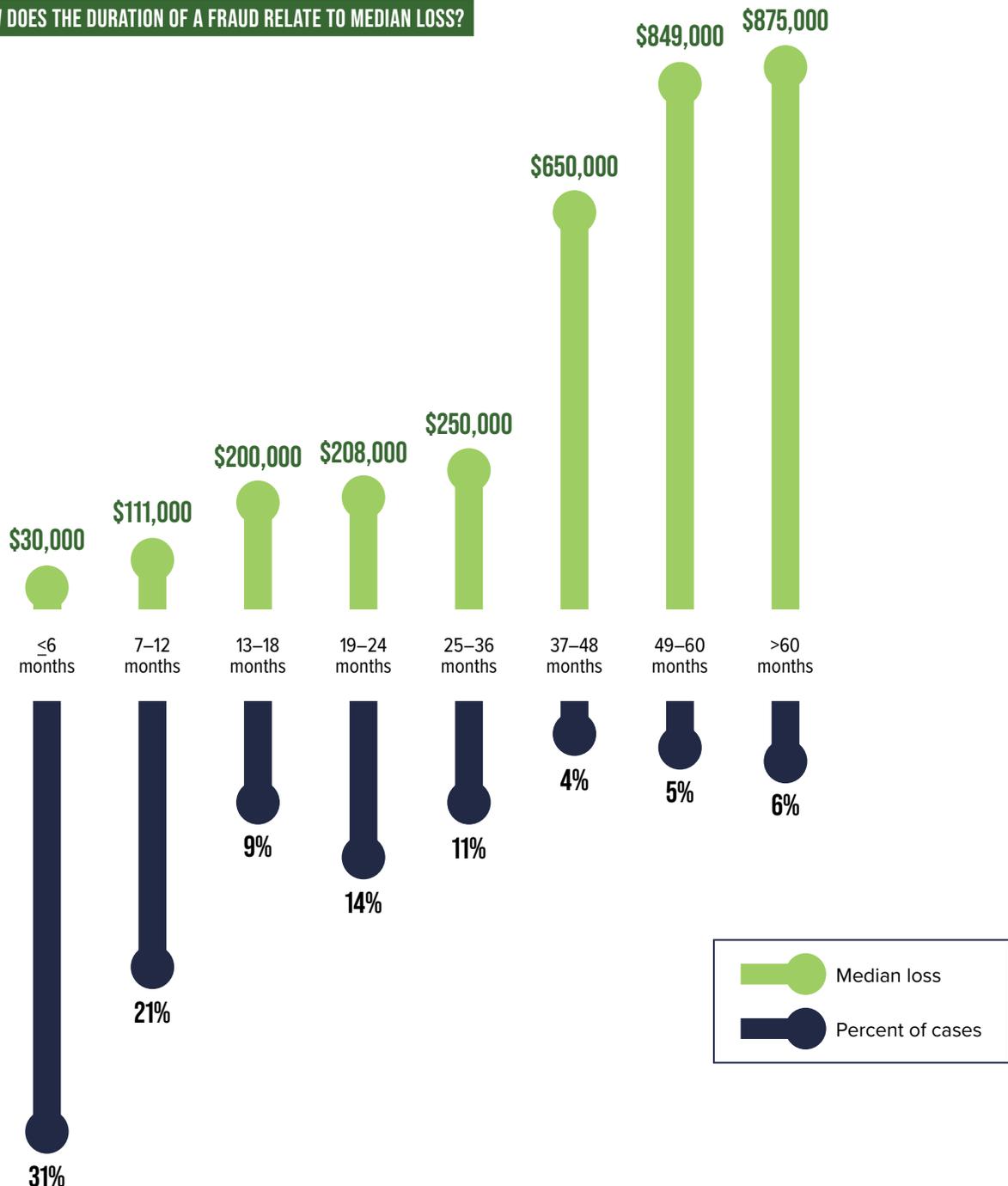
**FIG. 6 HOW DOES CORRUPTION RISK VARY BY REGION?**



## DURATION OF FRAUD SCHEMES

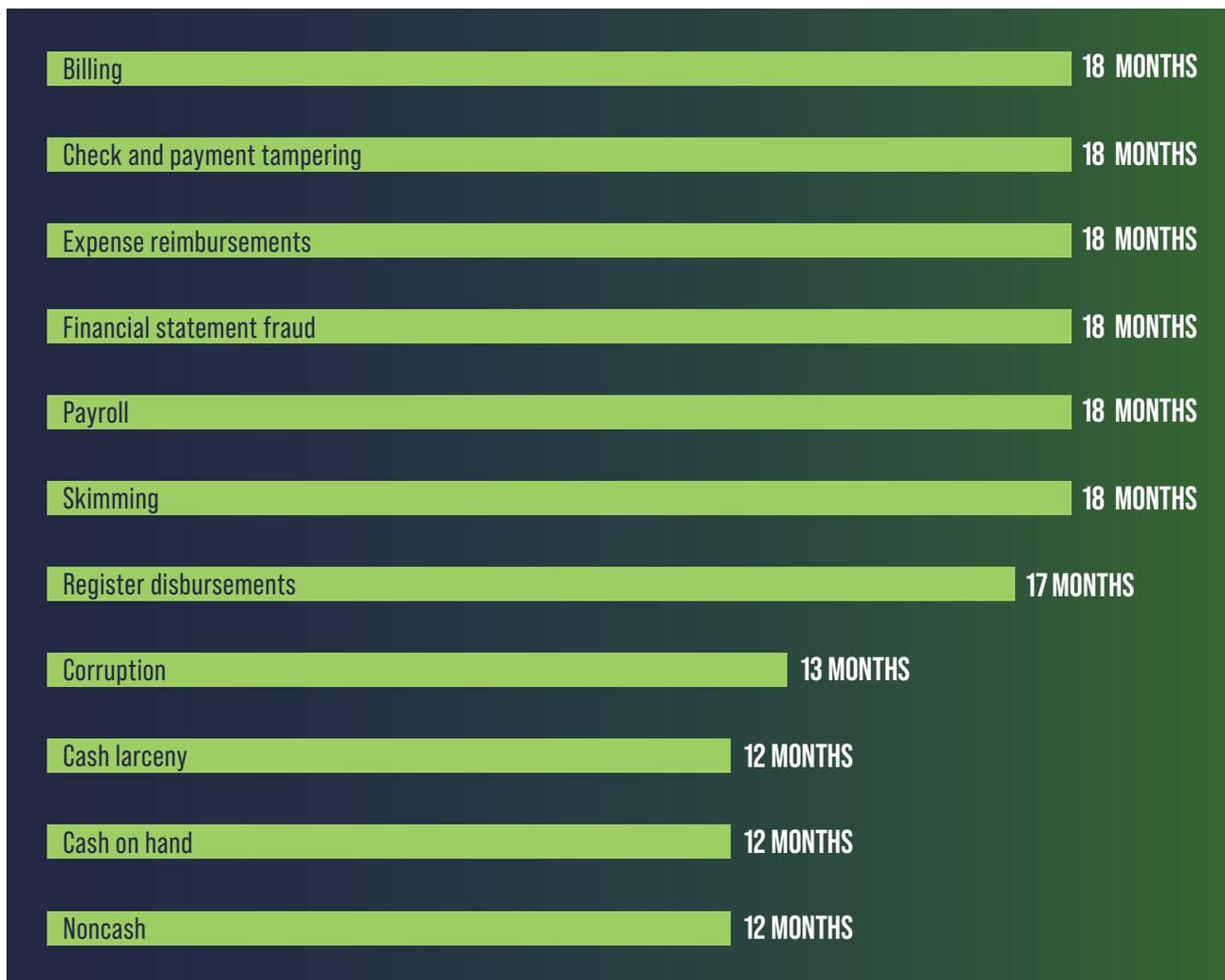
Early detection of frauds is critical to limiting the amount of damage they cause the victim organization. The median duration of the occupational frauds in our study was 12 months—meaning the typical perpetrator was able to commit their scheme for a full year before being detected. But as Figure 7 shows, the longer a fraud continues, the more it costs the victim. Frauds caught within the first six months had a median loss of USD 30,000, compared to USD 250,000 for frauds that lasted between two and three years. Cases that went undetected for five or more years caused a median loss of USD 875,000.

**FIG. 7 HOW DOES THE DURATION OF A FRAUD RELATE TO MEDIAN LOSS?**



We further measured the duration of the frauds in our study based on the scheme type(s) involved in the cases (see Figure 8). Billing, check and payment tampering, expense reimbursement schemes, financial statement fraud, payroll, and skimming schemes all typically lasted 18 months before detection, while schemes involving the theft of noncash assets, cash on hand, and cash larceny had the shortest median duration (12 months).

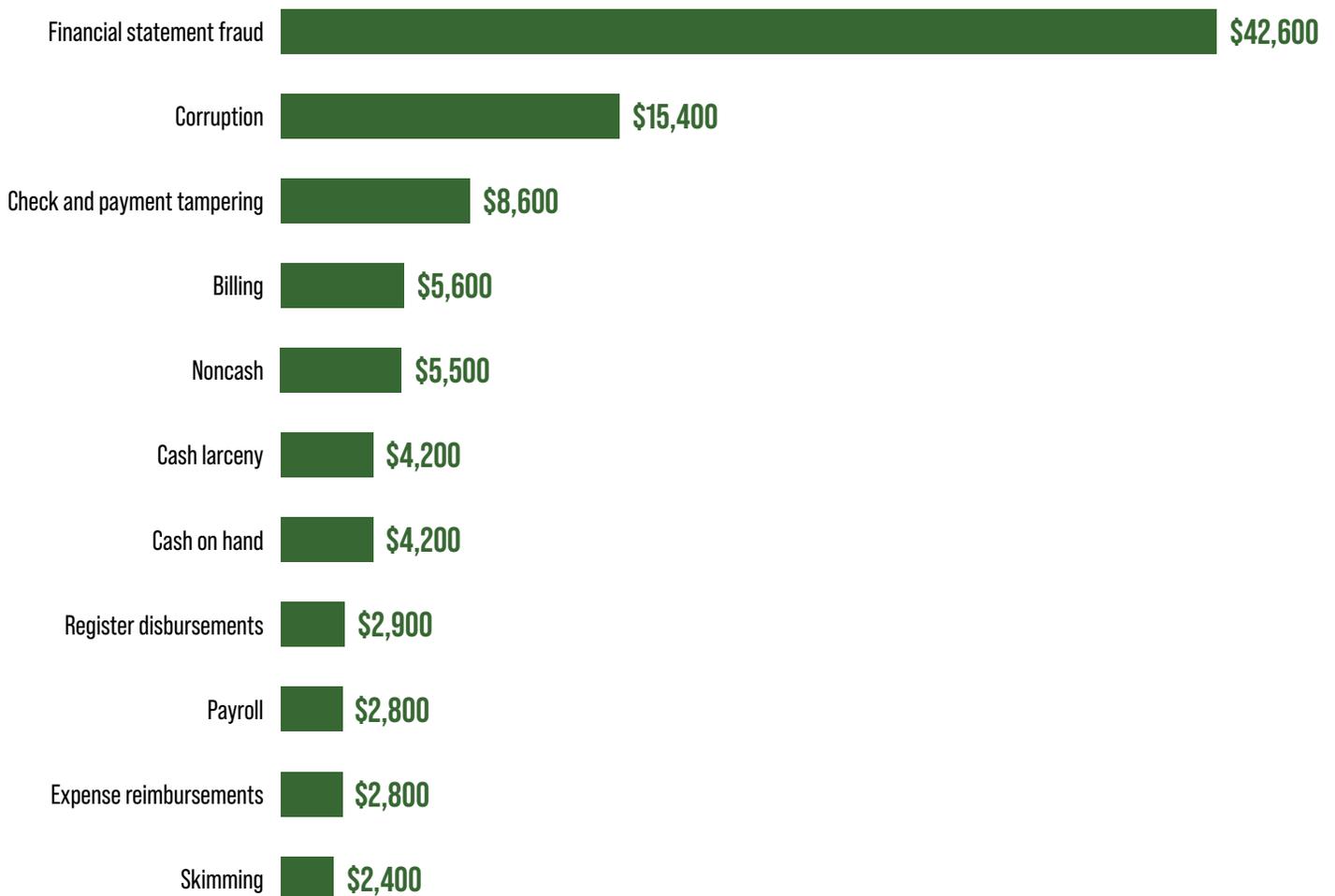
**FIG. 8 HOW LONG DO DIFFERENT OCCUPATIONAL FRAUD SCHEMES LAST?**



## VELOCITY OF FRAUD SCHEMES

We calculated the *velocity* of the cases reported to us (i.e., the total loss divided by the number of months the scheme lasted) to measure the impact of different types of fraud over similar time periods. The overall velocity, or amount lost per month, of all cases was USD 9,900. Figure 9 shows that certain scheme types compound much more quickly than others, with financial statement fraud and corruption schemes having the greatest velocities. Similarly, cases involving collusion between two or more perpetrators and cases perpetrated by individuals at higher levels of authority also have higher velocities and inflict financial damage to the victim more quickly.

**FIG. 9 WHAT IS THE TYPICAL VELOCITY (MEDIAN LOSS PER MONTH) OF DIFFERENT OCCUPATIONAL FRAUD SCHEMES?**



	Median loss	Median duration	Velocity (loss per month)
One perpetrator	\$75,000	12 months	\$6,300
Two perpetrators	\$135,000	12 months	\$11,300
Three or more perpetrators	\$329,000	14 months	\$23,500
Employee	\$60,000	8 months	\$7,500
Manager	\$184,000	18 months	\$10,200
Owner/executive	\$500,000	24 months	\$20,800

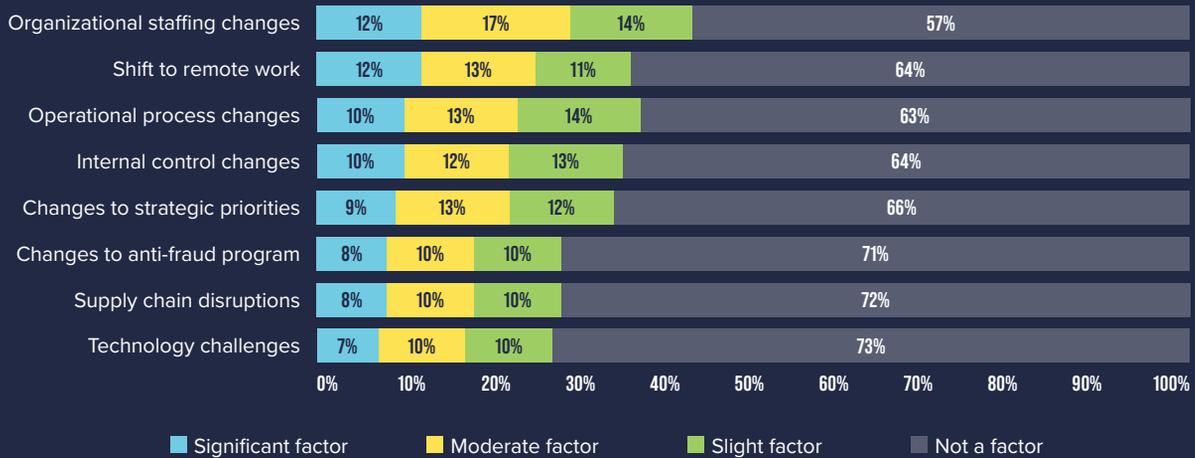
# OCCUPATIONAL FRAUD TRENDS AND THE IMPACT OF COVID

Our 2024 report includes cases that were investigated between January 2022 and September 2023. As the typical case of occupational fraud lasts 12 months before being detected, the majority of the cases in our study likely occurred during the height of the COVID-19 pandemic. Looking at trends in occupational fraud over the last decade through this lens reveals some interesting shifts in how these frauds occur and how organizations are fighting back.



**53% OF CASES** in our 2024 report had at least one pandemic-related factor contribute to the occurrence of the fraud.

## TO WHAT EXTENT DID PANDEMIC-RELATED FACTORS CONTRIBUTE TO OCCUPATIONAL FRAUDS?



After seeing a decline in fraud losses over several studies, the median loss of frauds that occurred during the pandemic increased notably, even while the time to detection did not change.



**MEDIAN LOSS UP 24%**  
from 2022–2024

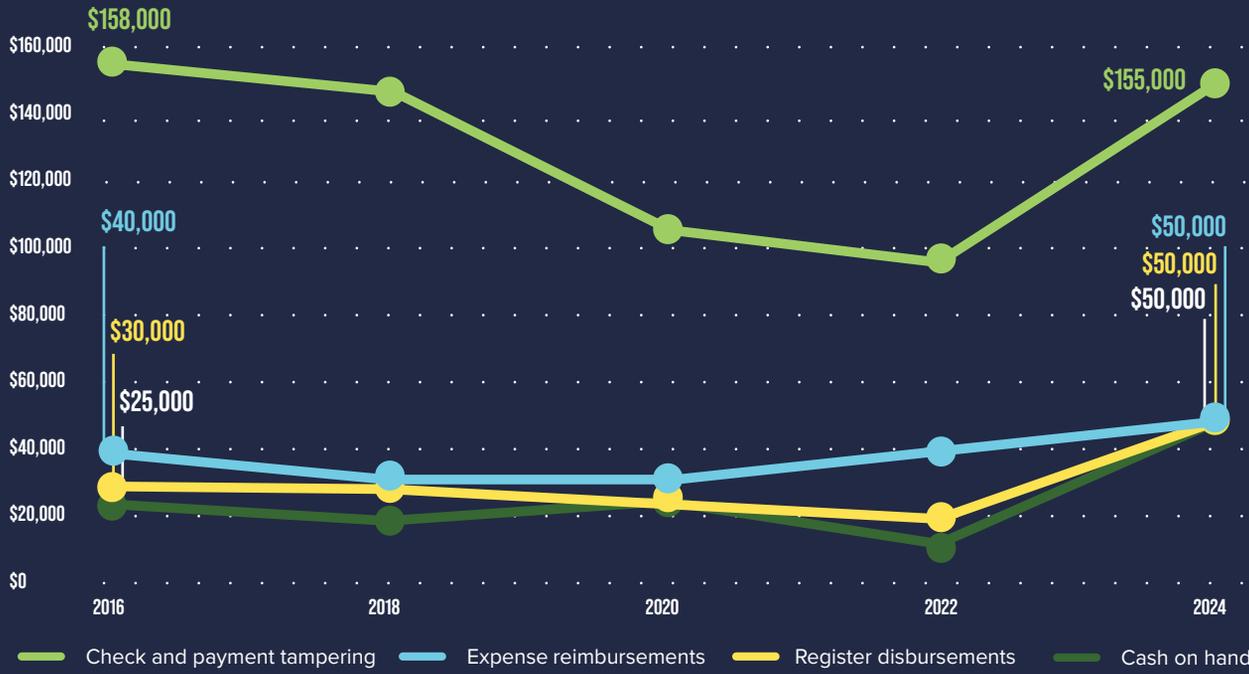


## MEDIAN LOSSES FOR ALL THREE PRIMARY CATEGORIES OF OCCUPATIONAL FRAUD INCREASED FROM 2022–2024

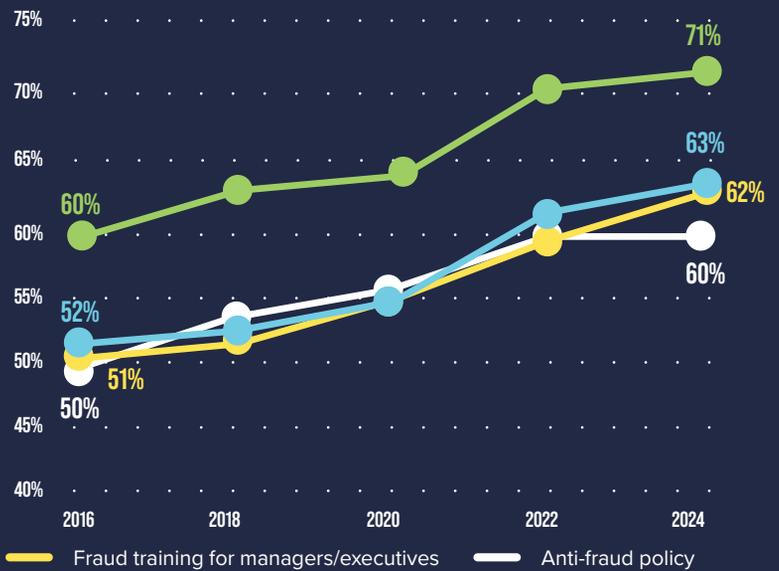
	2022	2024	CHANGE
Financial statement fraud	\$593,000	\$766,000	↑ 29%
Corruption	\$150,000	\$200,000	↑ 33%
Asset misappropriation	\$100,000	\$120,000	↑ 20%



Several sub-schemes of asset misappropriation **CAUSED LARGER LOSSES DURING THE PANDEMIC** than in prior years.



Over the last decade, an **INCREASING PERCENTAGE OF ORGANIZATIONS** have **IMPLEMENTED MEASURES** that demonstrate a commitment to **FRAUD PREVENTION AND DETECTION.**



**CASES INVOLVING MORE THAN 1 PERPETRATOR**

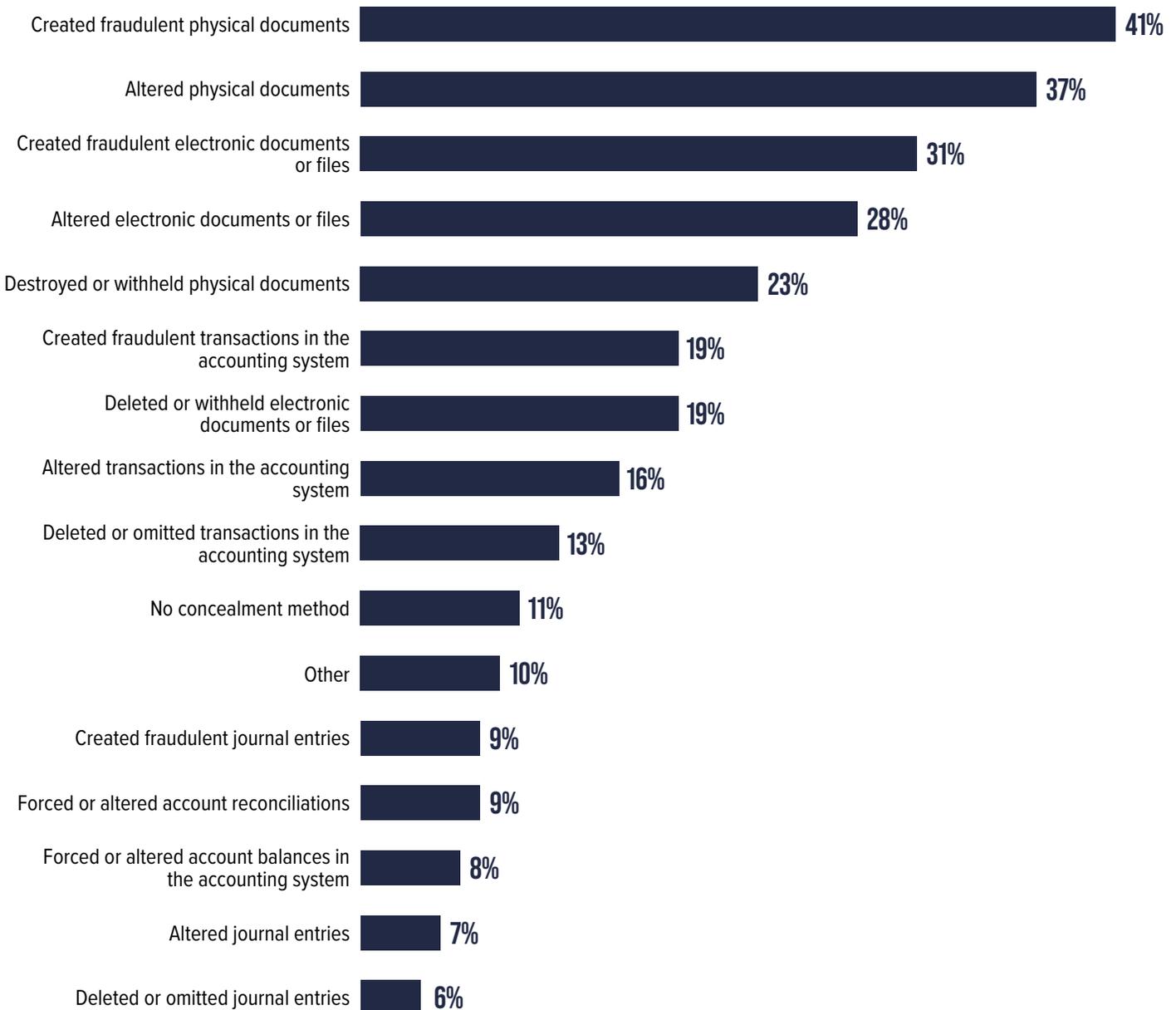


The trend of **INCREASING COLLUSION** among perpetrators **SLIGHTLY REVERSED** during the pandemic.

## CONCEALMENT OF OCCUPATIONAL FRAUD

After fraud perpetrators commit their schemes, they typically take steps to conceal the evidence of their crimes. Understanding the most common methods fraudsters use to conceal their crimes can help organizations improve their prevention and detection efforts. As shown in Figure 10, 11% of cases did not involve any concealment method. Of the 89% of cases that did include some proactive concealment, the most common methods were creating fraudulent physical documents (41% of cases) or altering physical documents (37% of cases). These results indicate that even as many transactions have moved to digital formats, physical evidence is still an important part of fraud prevention, detection, and investigation.

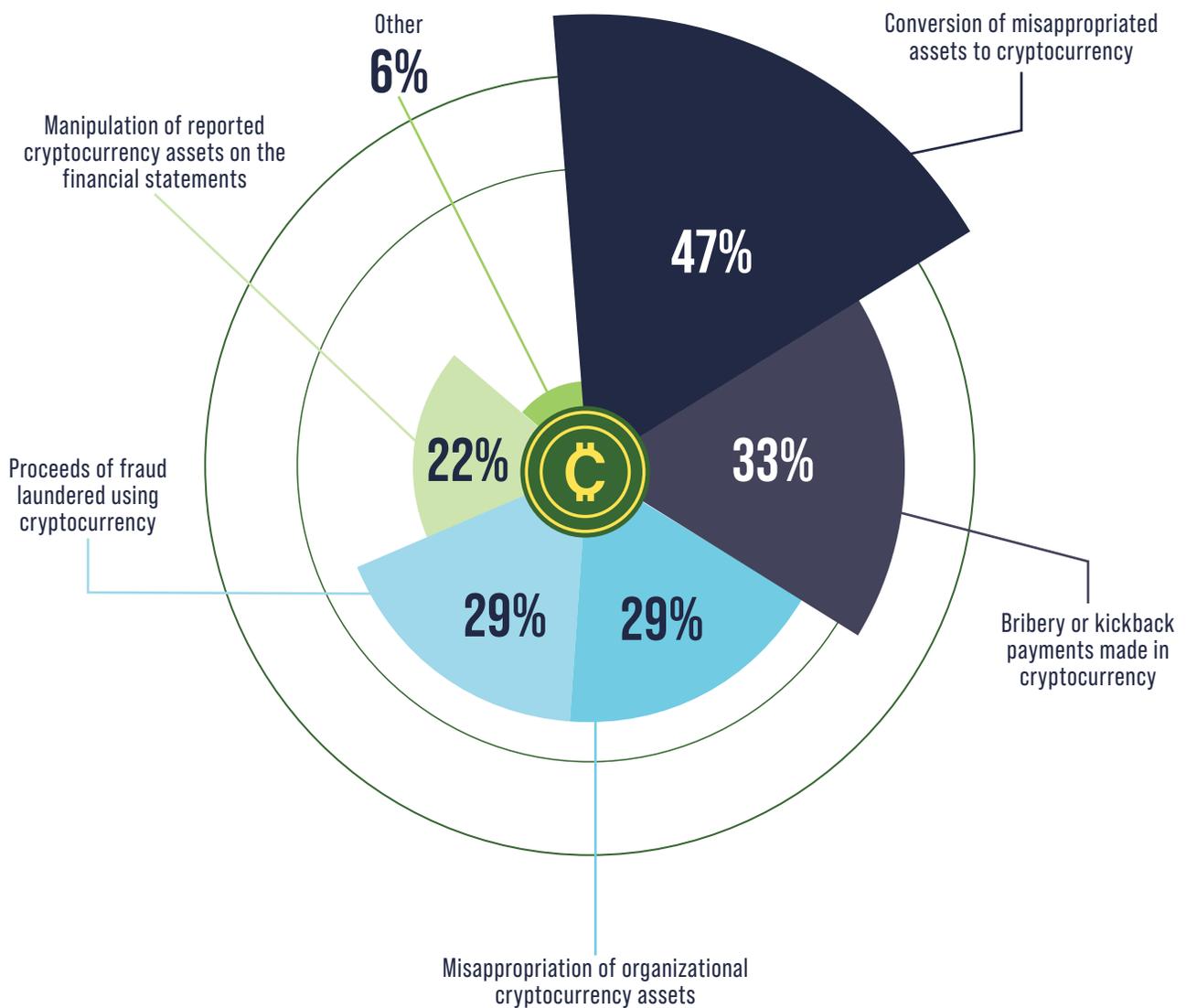
**FIG. 10 HOW DO OCCUPATIONAL FRAUDSTERS CONCEAL THEIR SCHEMES?**



## CRYPTOCURRENCY SCHEMES

With the advent and increased adoption of cryptocurrencies in the financial landscape, organizations and anti-fraud professionals must be aware of how these assets might affect occupational fraud risks. Only 4% of the cases in our study involved cryptocurrency; nearly half of those cases (47%) included the perpetrator converting their stolen assets into cryptocurrency, and one-third (33%) involved bribery or kickback payments made to a co-conspirator in cryptocurrency (see Figure 11).

**FIG. 11** AMONG FRAUDS INVOLVING CRYPTOCURRENCY, HOW WAS IT USED?



## SCHEMES STATISTICAL ANALYSIS

Most loss amounts presented in this report are median losses, which we use as a proxy for the cost of a “typical” fraud. Figure 12 provides a more holistic view of the costs associated with different fraud categories, showing quartile and mean loss amounts, as well.

**FIG. 12 SCHEMES STATISTICAL ANALYSIS TABLE**

SCHEMES					
Category	Cases	25 <sup>th</sup> percentile	Median (50 <sup>th</sup> percentile)	75 <sup>th</sup> percentile	Mean*
Asset misappropriation	1,309	\$22,000	\$120,000	\$500,000	\$1,116,000
Noncash	246	\$10,000	\$66,000	\$250,000	\$537,000
Billing	207	\$25,000	\$100,000	\$448,000	\$624,000
Cash on hand	143	\$10,000	\$50,000	\$200,000	\$357,000
Skimming	130	\$10,000	\$43,000	\$200,000	\$205,000
Expense reimbursements	127	\$5,000	\$50,000	\$150,000	\$251,000
Check and payment tampering	109	\$26,000	\$155,000	\$510,000	\$787,000
Cash larceny	95	\$10,000	\$50,000	\$300,000	\$561,000
Payroll	74	\$10,000	\$50,000	\$250,000	\$383,000
Register disbursements	21	\$4,000	\$50,000	\$94,000	\$95,000
Corruption	662	\$50,000	\$200,000	\$1,000,000	\$2,738,000
Financial statement fraud	61	\$100,000	\$766,000	\$4,815,000	\$6,045,000

*\*Mean amounts were calculated using loss data that was winsorized at 5% (i.e., assigned all cases in the top 2.5% and bottom 2.5% the same value as the 97.5<sup>th</sup> percentile and 2.5<sup>th</sup> percentile, respectively).*

# DETECTION

Understanding the methods by which occupational frauds are most commonly detected is critical for efficiently identifying and interrupting schemes, thus reducing their impact and duration. Our study explores how fraud is initially detected, when it is detected, and who reports it, all of which can help fraud examiners improve the effectiveness of fraud detection and prevention efforts at their organizations.

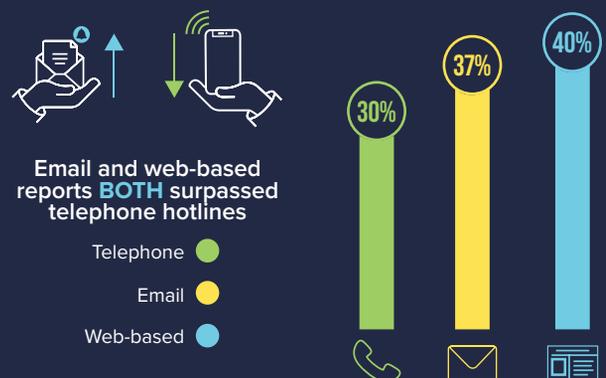
## INITIAL DETECTION OF OCCUPATIONAL FRAUD

As shown in Figure 13, tips were the most common way frauds came to light, with 43% of cases being uncovered due to a tip from a whistleblower. This is more than three times as many cases as any other detection mechanism. This finding is consistent with our prior studies, all of which have shown tips to be by far the most common way fraud is detected. Other common detection methods included internal audit (14%) and management review (13%). Collectively, these three detection methods accounted for 70% of the cases in our data.

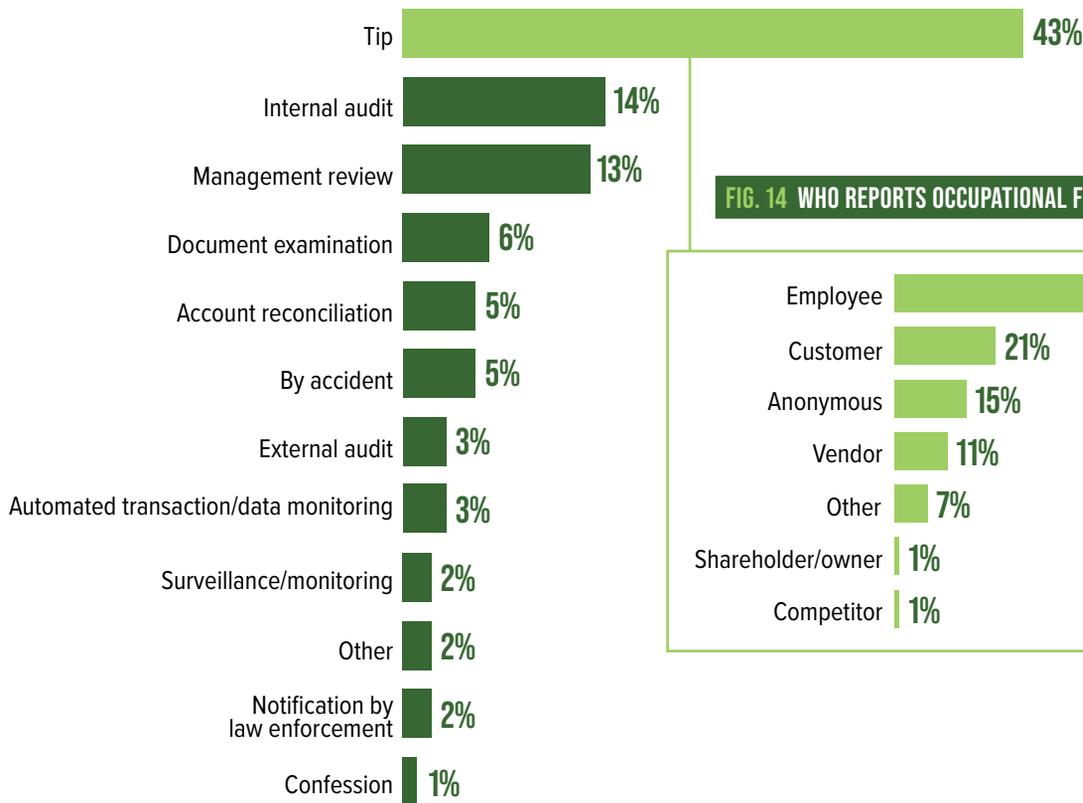
Since tips are the most common form of detection, it is beneficial to understand who submits those tips, and how. Figure 14 shows that over half of all tips in our study (52%) came from employees within the organization. External sources, such as customers, vendors, and competitors, accounted for approximately one-third of all tips. This finding reinforces the importance of providing and communicating about reporting mechanisms to both internal and external parties. In addition, our study found that organizations with hotlines were nearly twice as likely to detect fraud via tip as organizations without hotlines, illustrating the crucial role hotlines play in a comprehensive fraud detection program.



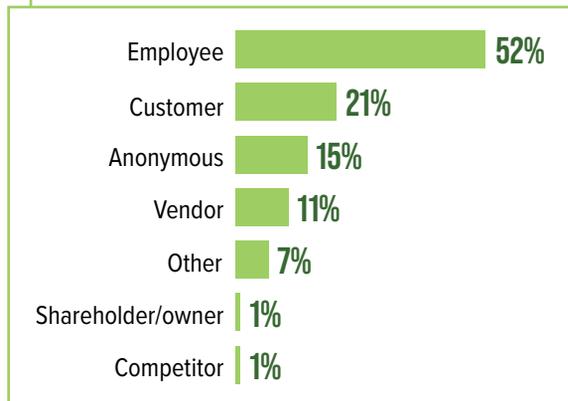
The most **COMMON MECHANISMS** used to report fraud tips:



**FIG. 13 HOW IS OCCUPATIONAL FRAUD INITIALLY DETECTED?**



**FIG. 14 WHO REPORTS OCCUPATIONAL FRAUD?**

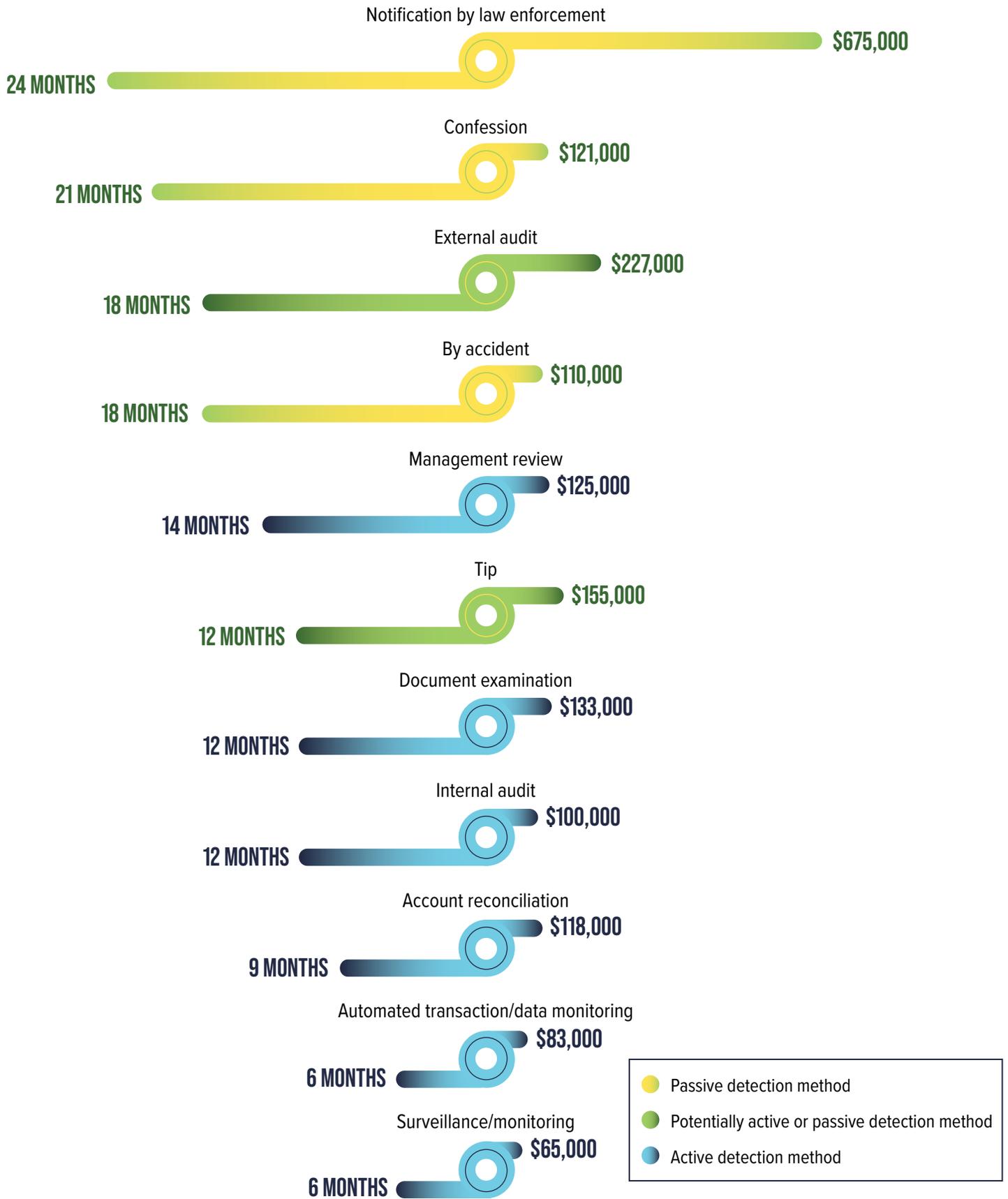


### MEDIAN LOSS AND DURATION BY DETECTION METHOD

We analyzed the median loss and duration of fraud schemes based on how they were uncovered. Our data indicates a relationship between the severity of the fraud and the detection method of the fraud schemes. In other words, some fraud detection methods are more effective than others at exposing frauds quickly and limiting the size of the loss. In Figure 15, the yellow bars indicate schemes that were detected by passive methods, meaning the fraud was uncovered without proactive effort of the organization (e.g., notification by police, by accident, or by a fraudster’s confession). Most of the passively detected schemes lasted longer and were associated with higher median losses relative to all other detection methods. The blue bars indicate active detection methods, meaning those that involved a process or effort designed to proactively detect fraud (e.g., document examination or surveillance/monitoring). Predictably, schemes discovered through an active method had shorter durations and lower median losses than those detected passively. Finally, the green bars indicate detection methods that could potentially be passive or active (e.g., tips and external audit); these mechanisms generally fell in the middle in terms of median duration and loss.

Our findings emphasize that proactive fraud detection efforts are essential to protecting against fraud risk. In general, active detection methods are associated with much faster detection than passive detection methods, which means that organizations can dramatically reduce the impact of fraud by implementing internal controls and policies that actively detect fraud, such as thorough management review, account reconciliation, and surveillance/monitoring. Organizations that do not actively seek out fraud are likely to experience schemes that continue for much longer and at a higher cost.

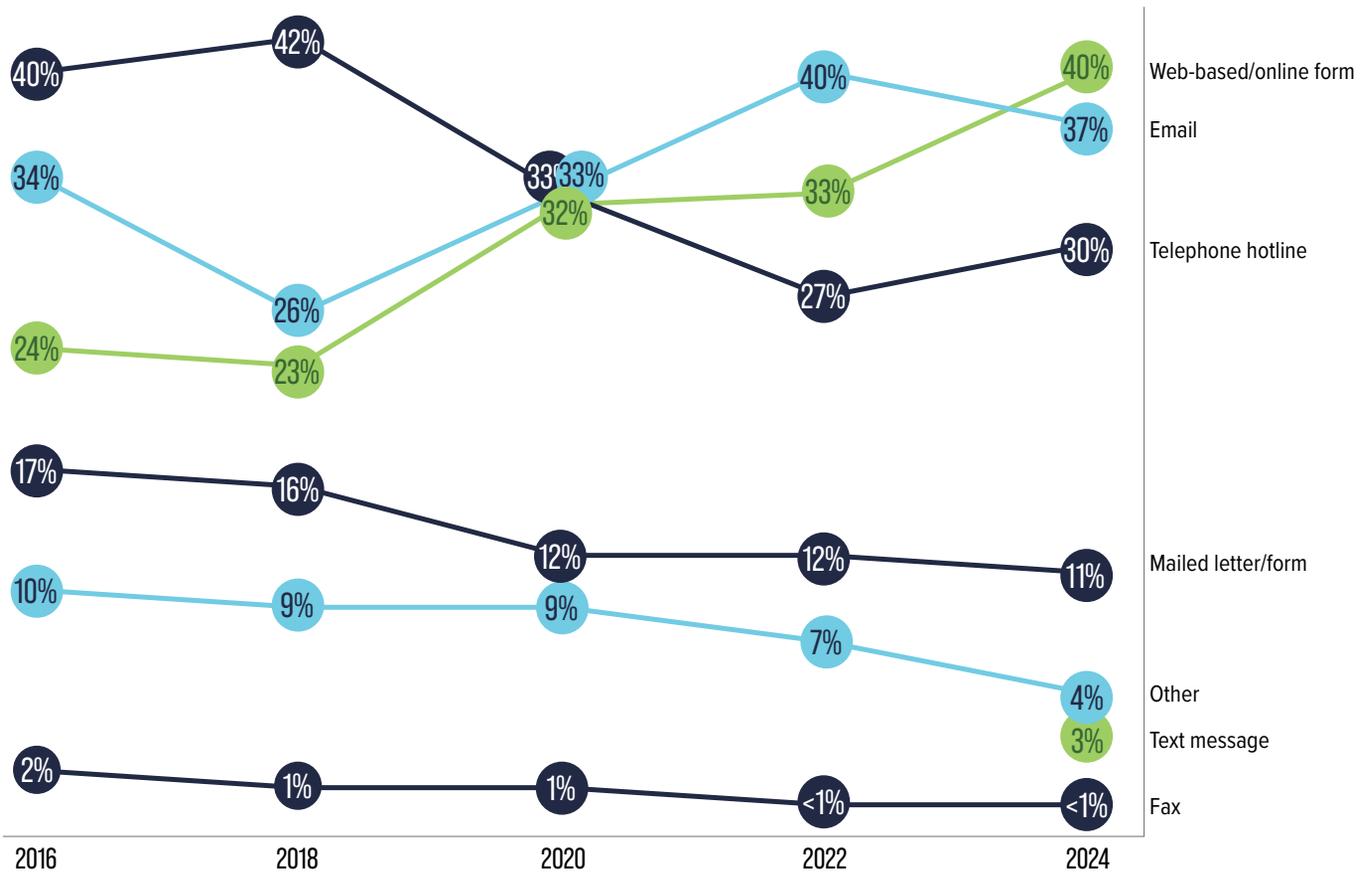
**FIG. 15 HOW DOES DETECTION METHOD RELATE TO FRAUD LOSS AND DURATION?**



## REPORTING MECHANISMS

In cases uncovered by a tip, we asked respondents for additional information about how the tip was reported. More than half of the tips in our study (53%) were provided through a formal reporting mechanism, such as a hotline. Figure 16 reflects the specific types of these formal reporting mechanisms used by fraud whistleblowers over the course of our last five studies. While telephone hotlines have historically been one of the most common mechanisms used by whistleblowers, the percentage of tips reported via telephone has been decreasing. Since 2018, email and online reporting forms have both overtaken telephone hotlines as a reporting mechanism. Additionally, our current study includes a new reporting method—text message—which accounted for 3% of reported tips received. This data suggests that whistleblowers' preferred methods of reporting fraud are diverse and evolving, particularly regarding online and electronic forms.

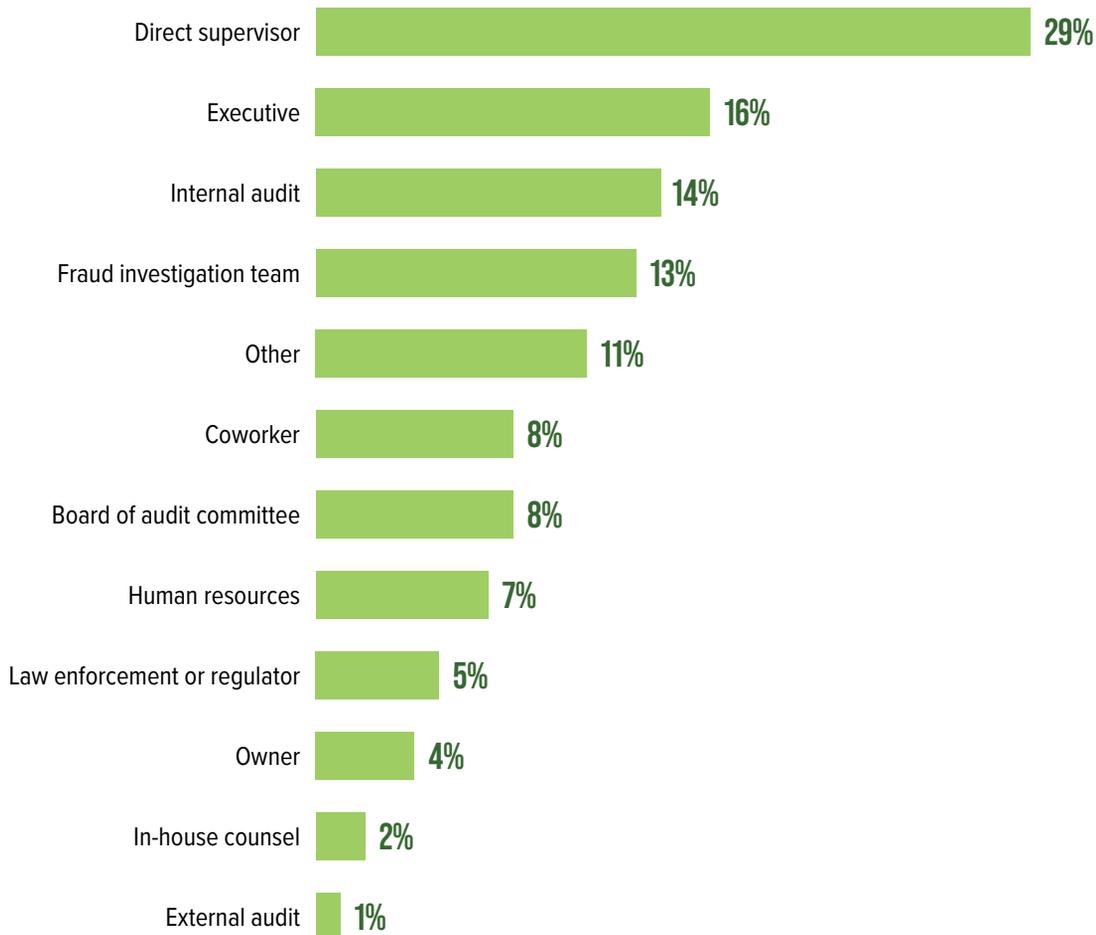
**FIG. 16 WHAT FORMAL REPORTING MECHANISMS DID WHISTLEBLOWERS USE?**



## **PARTIES TO WHOM WHISTLEBLOWERS REPORT**

Some reports are submitted informally to individuals within the organization rather than through a formal reporting mechanism. As shown in Figure 17, direct supervisors (29%) were the party most whistleblowers reported to if a hotline mechanism was not used. The chart also demonstrates how whistleblowers may reach out to many different groups with information about potential fraud, such as executives, internal audit, and fraud investigation teams. It is important to provide all staff with guidance on how fraud allegations should be handled within the organization. It is also particularly important to educate those who are likely to receive informal complaints as to the proper protocol for dealing with reports about suspected fraud.

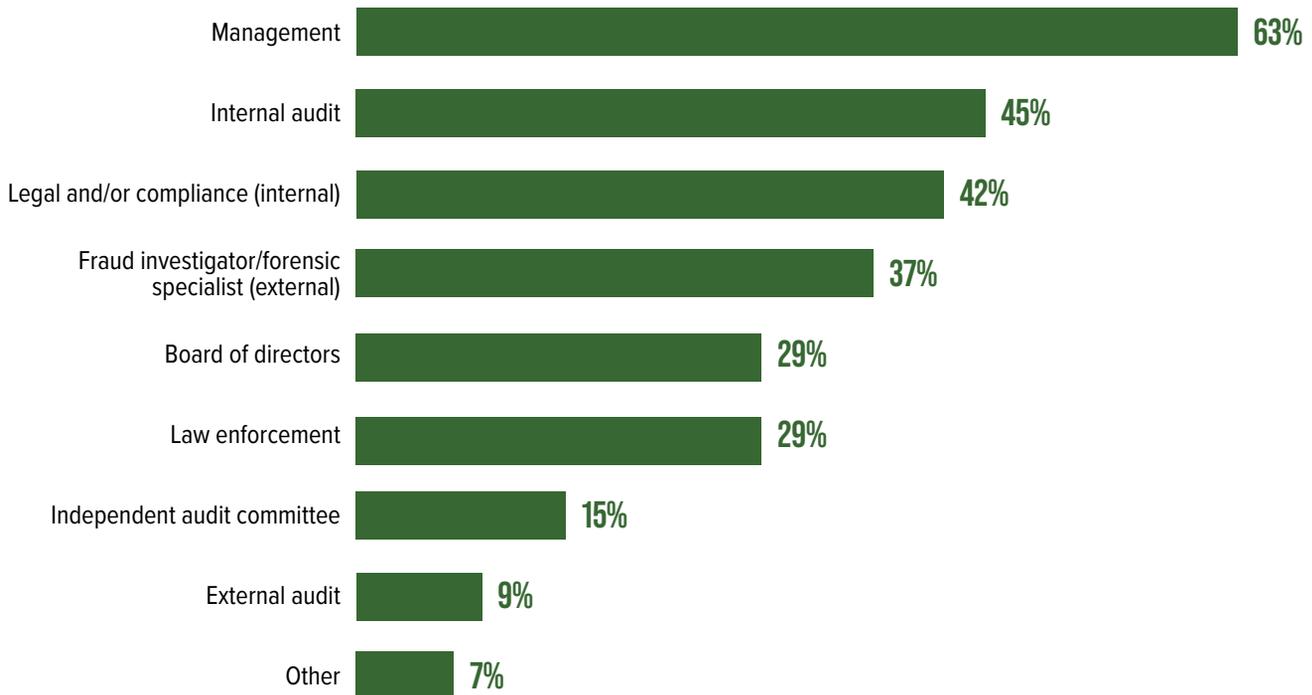
**FIG. 17 TO WHOM DID WHISTLEBLOWERS INITIALLY REPORT?**



## PARTIES ALERTED TO THE FRAUD

We also explored which parties were alerted to the fraud after it was discovered. This differs from the data on who whistleblowers *initially* reported to (shown in Figure 17), as multiple parties may be informed about a suspected fraud after it has been identified, regardless of how the initial detection occurred. As shown in Figure 18, once the fraud scheme was uncovered, management was the most common party alerted (63%), followed by internal audit (45%) and the internal legal or compliance team (42%).

**FIG. 18 WHICH PARTIES WERE ALERTED TO THE FRAUD AFTER IT WAS DISCOVERED?**



## DETECTION STATISTICAL ANALYSIS

Most loss amounts presented in this report are median losses, which we use as a proxy for the cost of a “typical” fraud. Figure 19 provides a more holistic view of the costs associated with frauds uncovered via different detection methods, showing quartile and mean loss amounts, as well.

**FIG. 19 DETECTION STATISTICAL ANALYSIS TABLE**

Category	DETECTION METHOD				
	Cases	25 <sup>th</sup> percentile	Median (50 <sup>th</sup> percentile)	75 <sup>th</sup> percentile	Mean*
Tip	716	\$28,000	\$155,000	\$693,000	\$1,518,000
Internal audit	238	\$17,000	\$100,000	\$500,000	\$1,267,000
Management review	224	\$28,000	\$125,000	\$700,000	\$1,569,000
Document examination	103	\$25,000	\$133,000	\$766,000	\$1,510,000
Account reconciliation	90	\$13,000	\$118,000	\$1,000,000	\$1,257,000
By accident	83	\$31,000	\$110,000	\$1,000,000	\$1,646,000
External audit	52	\$53,000	\$227,000	\$1,179,000	\$2,157,000
Automated transaction/data monitoring	46	\$13,000	\$83,000	\$325,000	\$873,000
Surveillance/monitoring	35	\$16,000	\$65,000	\$800,000	\$2,826,000
Notification by law enforcement	30	\$62,000	\$675,000	\$6,115,000	\$6,109,000
Confession	25	\$15,000	\$121,000	\$833,000	\$2,292,000

\*Mean amounts were calculated using loss data that was winsorized at 5% (i.e., assigned all cases in the top 2.5% and bottom 2.5% the same value as the 97.5<sup>th</sup> percentile and 2.5<sup>th</sup> percentile, respectively).

# VICTIM ORGANIZATIONS

No organization is immune from the risk of occupational fraud. Our study encompassed victim organizations of every size and type, in every industry and region. Because our study methodology involves surveying CFEs about the frauds they investigated, rather than surveying organizations about the amount of fraud they experienced, some of our findings likely reflect how common it is that various organizations hire CFEs, rather than the true incidence of fraud within different organizational categories. Nonetheless, examining the characteristics of victim organizations can be helpful to identify the circumstances under which occupational fraud is most likely to occur, so organizations can accurately direct resources to decrease fraud likelihood and losses.

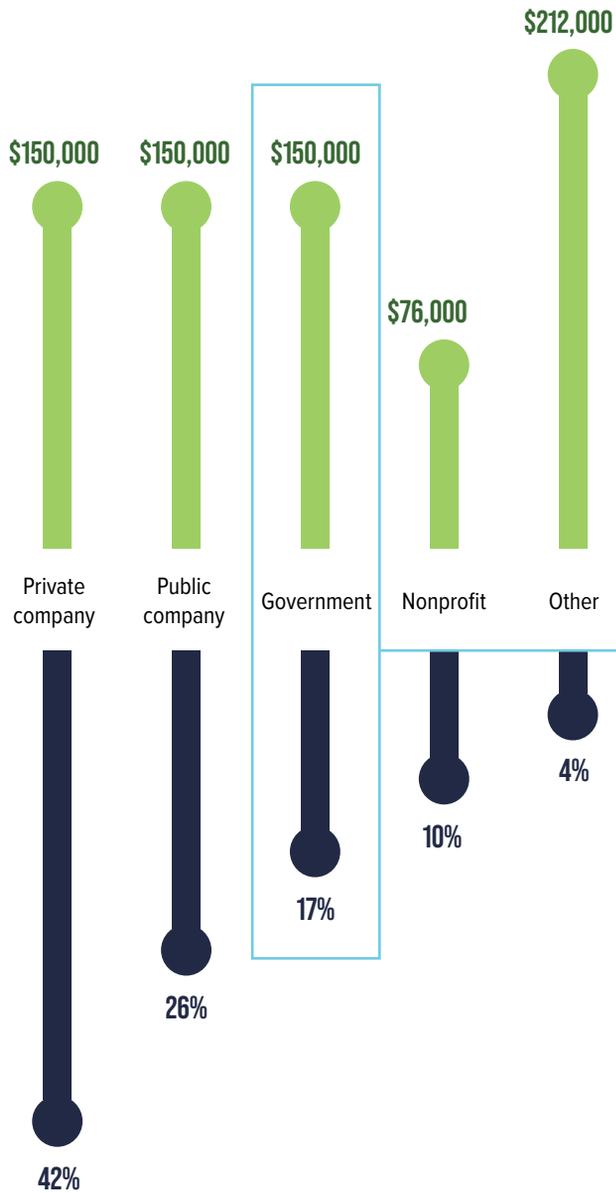
## TYPE OF ORGANIZATION

As Figure 20 shows, privately held companies were the victims in 42% of the cases in our study and incurred a median loss of USD 150,000. Publicly traded companies (26% of cases) and government agencies (17%) also had a median loss of USD 150,000. Nonprofit organizations, including non-governmental organizations (NGOs), represented the smallest percentage of cases in our study (10%) and had the lowest median loss of USD 76,000.

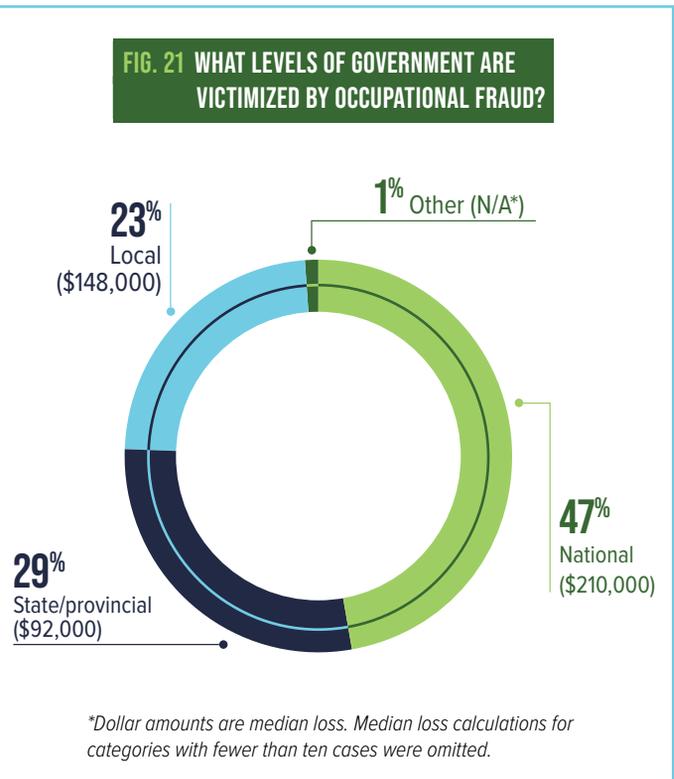
## LEVELS OF GOVERNMENT

Of the cases in which a government organization was victimized, just under half (47%) occurred at a national-level government agency (see Figure 21). The median loss to national government organizations was USD 210,000, the highest of all levels of government. National governments tend to be larger in size, more complex, and receive more funding than other levels of government, which can create more opportunities for fraud perpetrators and higher potential losses. State/provincial government organizations represented 29% of the government cases and had a median loss of USD 92,000, while local governments made up the smallest percentage of cases at 23% and had a median loss of USD 148,000.

**FIG. 20 WHAT TYPES OF ORGANIZATIONS ARE VICTIMIZED BY OCCUPATIONAL FRAUD?**



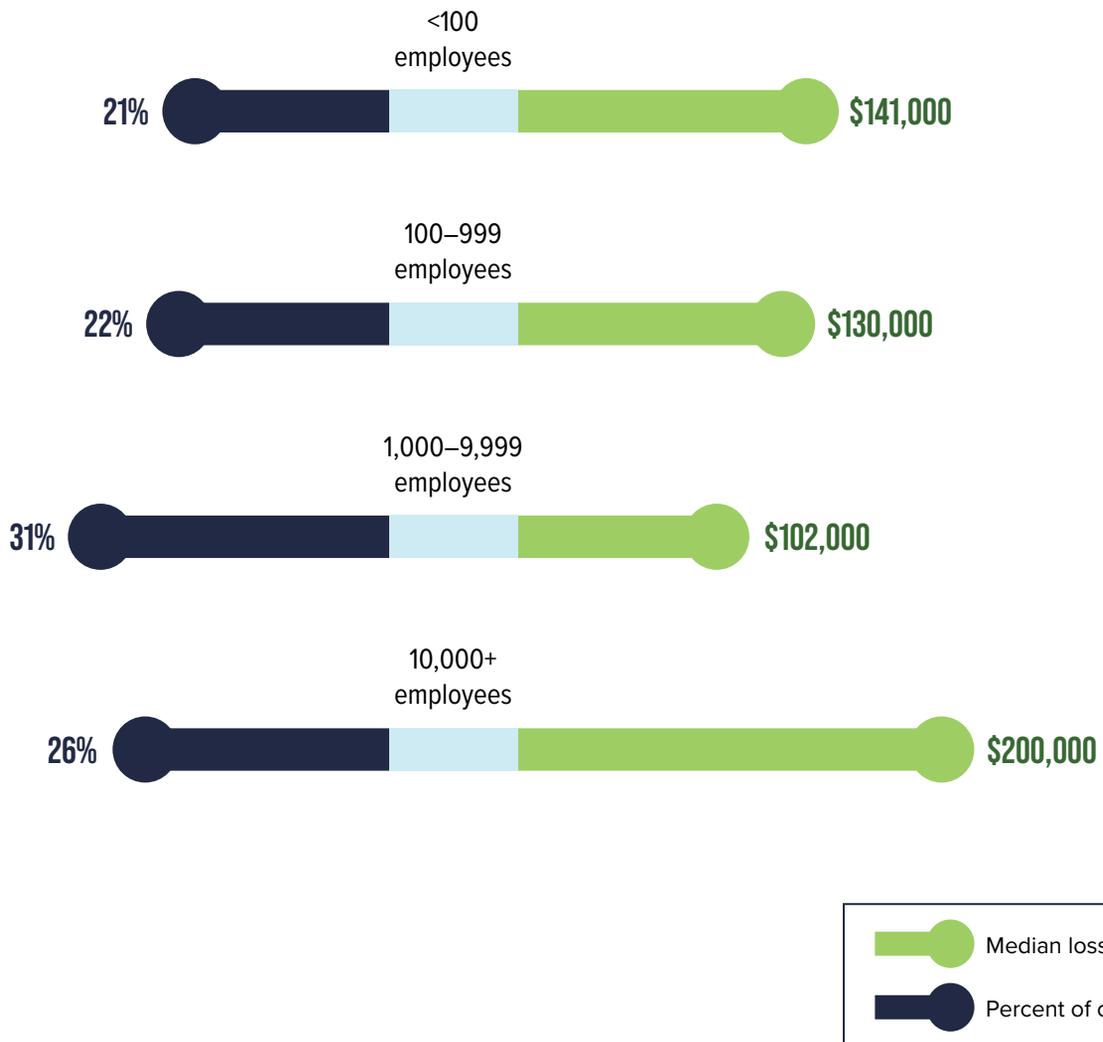
**FIG. 21 WHAT LEVELS OF GOVERNMENT ARE VICTIMIZED BY OCCUPATIONAL FRAUD?**



## SIZE OF ORGANIZATION

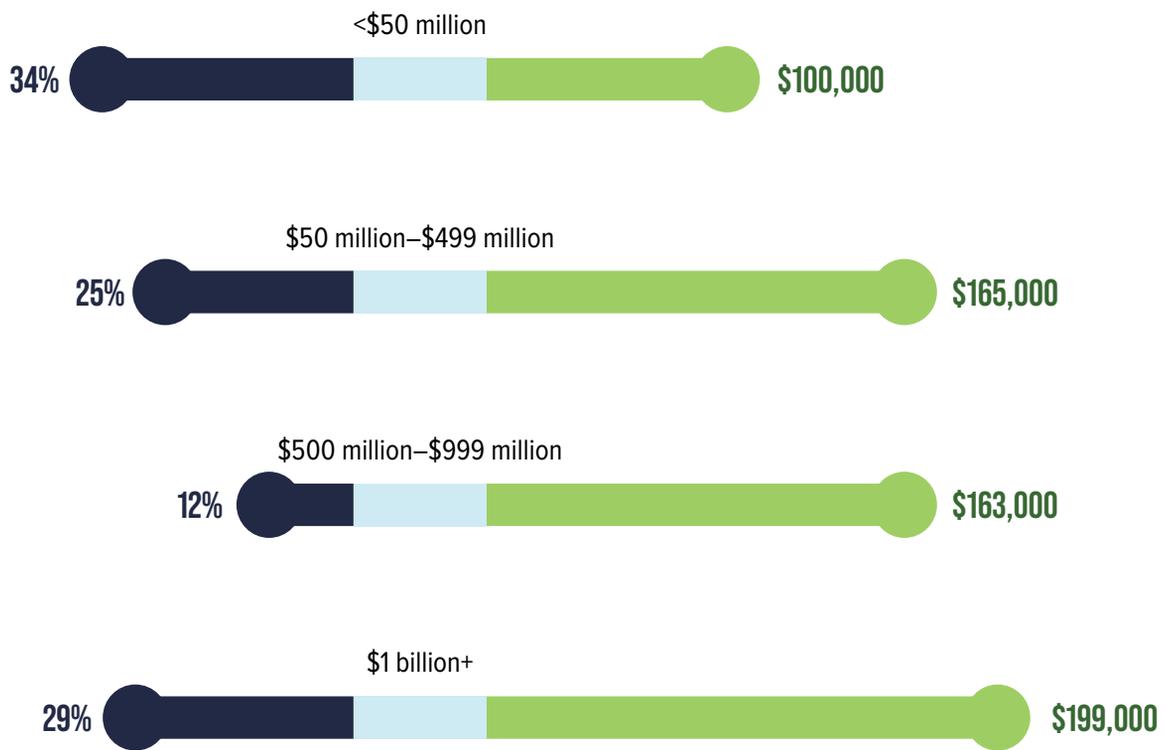
The cases in our study were distributed relatively evenly across organizations of different sizes (see Figure 22), with the greatest percentage (31%) occurring at organizations with 1,000 to 9,999 employees. The largest organizations (i.e., those with 10,000 or more employees) experienced the greatest median loss of USD 200,000. However, frauds at small companies (i.e., those with fewer than 100 employees) caused a median loss of USD 141,000, which was the second-largest loss among organizational size categories. Because small organizations tend to have smaller budgets and revenue, such a loss can impact these organizations more acutely compared to larger organizations.

FIG. 22 HOW DOES AN ORGANIZATION'S SIZE RELATE TO ITS OCCUPATIONAL FRAUD RISK?



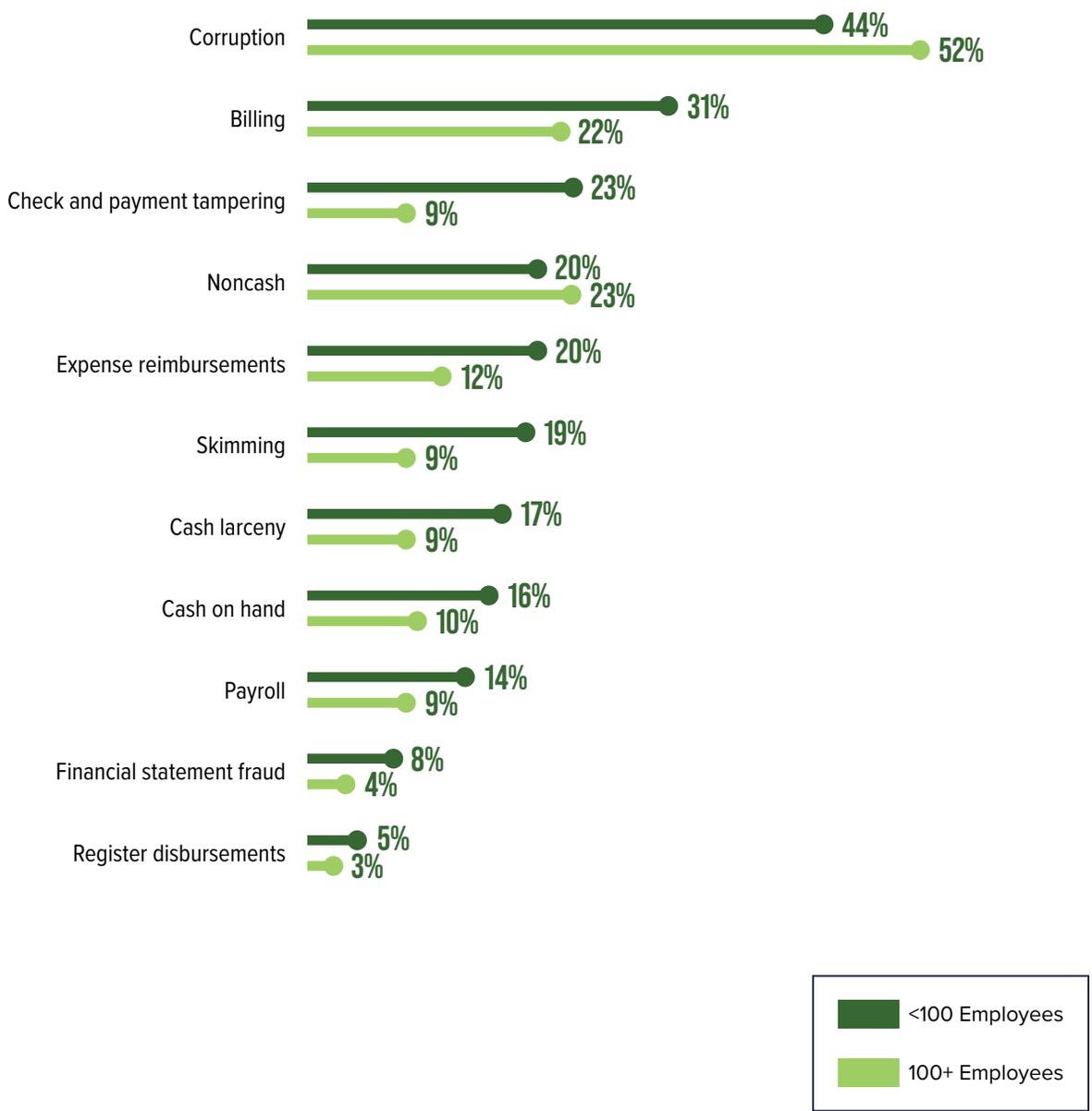
We also examined victim organizations based on their annual revenue. As shown in Figure 23, organizations with the smallest revenue (USD <50 million) had the smallest median loss (USD 100,000). Conversely, those with the greatest revenue (USD 1 billion+) had the greatest median loss (USD 199,000).

**FIG. 23** HOW DOES AN ORGANIZATION'S GROSS ANNUAL REVENUE RELATE TO ITS OCCUPATIONAL FRAUD RISK?



In addition to being disproportionately affected by median losses (see Figure 23), our study shows that the specific types of frauds that occur at small organizations vary from those at larger organizations. As shown in Figure 24, both corruption and the theft of noncash assets occurred more frequently at large organizations than small ones. In contrast, cases at small businesses were more likely to involve all other categories of occupational fraud, with check and payment tampering and skimming reflecting the greatest difference in frequency between the two groups.

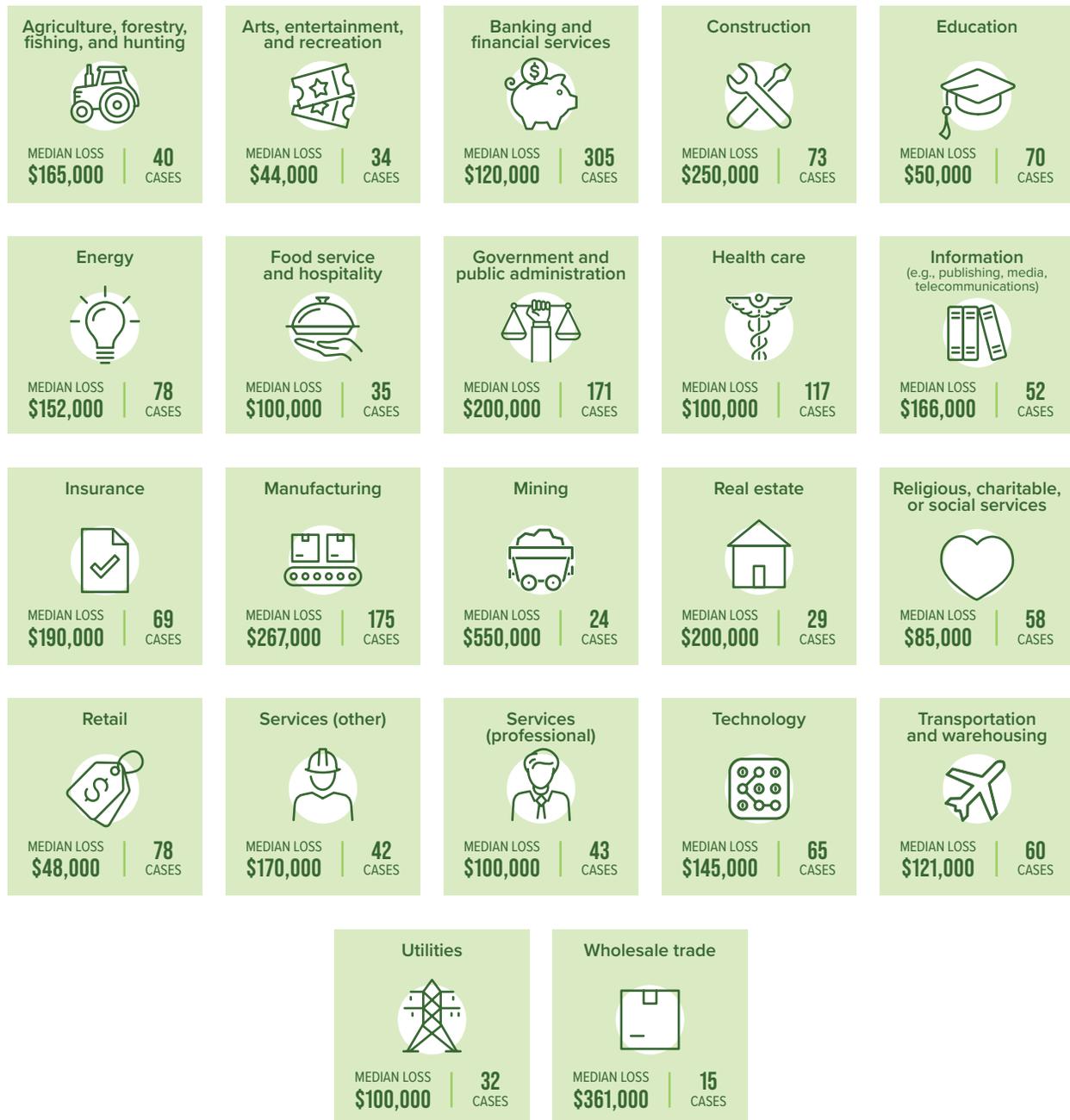
**FIG. 24 HOW DO FRAUD SCHEMES VARY BY ORGANIZATION SIZE?**



## INDUSTRY OF ORGANIZATION

Figure 25 reflects the breakdown of cases in our study based on the industry of the victim organization. Banking and financial services, along with manufacturing, were the most common industries represented. Additionally, the industries with the greatest median losses were mining (USD 550,000), wholesale trade (USD 361,000), and manufacturing (USD 267,000).

**FIG. 25 HOW DOES OCCUPATIONAL FRAUD AFFECT ORGANIZATIONS IN DIFFERENT INDUSTRIES?**



## MOST COMMON SCHEMES BY INDUSTRY

The heat map in Figure 26 depicts the frequency of occupational fraud scheme types in industries with more than 50 cases in our study. Across all industries presented, corruption was the most prevalent scheme, highlighting the significance of corruption risk across sectors. Understanding which scheme types are more common in specific industries can help management and anti-fraud professionals assess their relevant fraud risks and effectively guide prevention and detection efforts. For example, organizations in the manufacturing industry should be particularly aware of risks related to corruption, theft of noncash assets, and billing schemes. Likewise, insurance companies should note the potential for corruption, check and payment tampering, and billing schemes to be high-risk areas for their organizations.

**FIG. 26 WHAT ARE THE MOST COMMON OCCUPATIONAL FRAUD SCHEMES IN VARIOUS INDUSTRIES?**

Industry	Cases	Billing	Cash larceny	Cash on hand	Check and payment tampering	Corruption	Expense reimbursements	Financial statement fraud	Noncash	Payroll	Register disbursements	Skimming
Banking and financial services	305	12%	12%	18%	14%	44%	6%	5%	16%	4%	4%	8%
Manufacturing	175	27%	6%	4%	7%	55%	17%	6%	29%	10%	1%	9%
Government and public administration	170	24%	15%	8%	14%	52%	15%	4%	15%	18%	4%	11%
Health care	117	38%	9%	8%	12%	47%	21%	1%	22%	16%	2%	9%
Energy	78	19%	8%	9%	8%	60%	13%	4%	29%	10%	3%	6%
Retail	78	17%	10%	13%	5%	40%	6%	0%	32%	3%	9%	14%
Construction	73	38%	12%	7%	19%	52%	25%	10%	25%	23%	4%	23%
Education	70	36%	9%	13%	10%	43%	17%	0%	16%	7%	6%	19%
Insurance	69	19%	6%	6%	20%	49%	12%	9%	16%	10%	6%	9%
Technology	65	28%	9%	2%	9%	65%	11%	3%	32%	14%	0%	5%
Transportation and warehousing	60	18%	10%	18%	7%	52%	12%	2%	33%	10%	3%	7%
Religious, charitable, or social services	58	36%	17%	24%	17%	45%	29%	3%	10%	7%	2%	16%
Information	52	15%	10%	10%	0%	62%	10%	2%	27%	6%	0%	10%

Less risk

More risk

# FRAUD IN GOVERNMENT ORGANIZATIONS

Examining the characteristics of occupational fraud that occurs at governmental organizations can help illuminate some of the issues and risks specific to these entities at all levels.

## OUR STUDY INCLUDED



**296 CASES**

of occupational fraud that occurred at government organizations

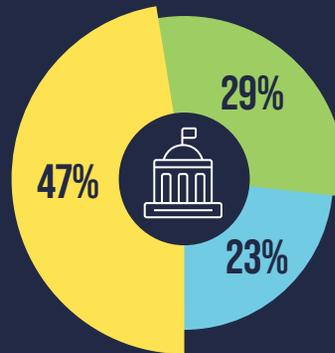


**MEDIAN LOSS \$150,000**

**AVERAGE LOSS \$2,306,000**



**MEDIAN DURATION 12 MONTHS**



■ National ■ State/provincial ■ Local

Median losses were largest at the **NATIONAL LEVEL OF GOVERNMENT**



## WHO COMMITS OCCUPATIONAL FRAUD IN GOVERNMENT ORGANIZATIONS?

Executive



**\$313,000**  
MEDIAN LOSS



Manager



**\$224,000**  
MEDIAN LOSS



Employee

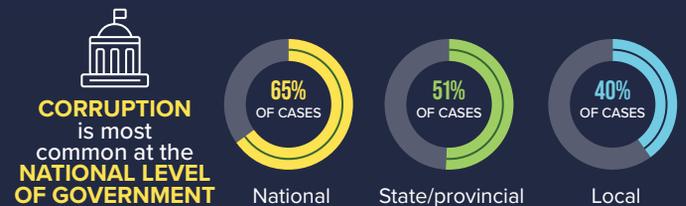


**\$50,000**  
MEDIAN LOSS



**ONLY 19%** of perpetrators in government organizations were at the executive level, but **FRAUDSTERS AT THE TOP CAUSED THE LARGEST LOSSES.**

## OCCUPATIONAL FRAUD SCHEMES IN GOVERNMENT ORGANIZATIONS

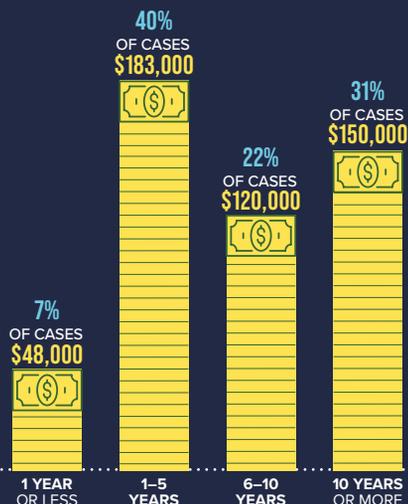


**TOP 3 WAYS FRAUD IS DETECTED** in government organizations:



**MORE THAN HALF** of perpetrators had worked for the victim organization for **SIX YEARS OR LONGER.**

But perpetrators with a tenure of 1–5 years **CAUSED THE HIGHEST MEDIAN LOSS.**



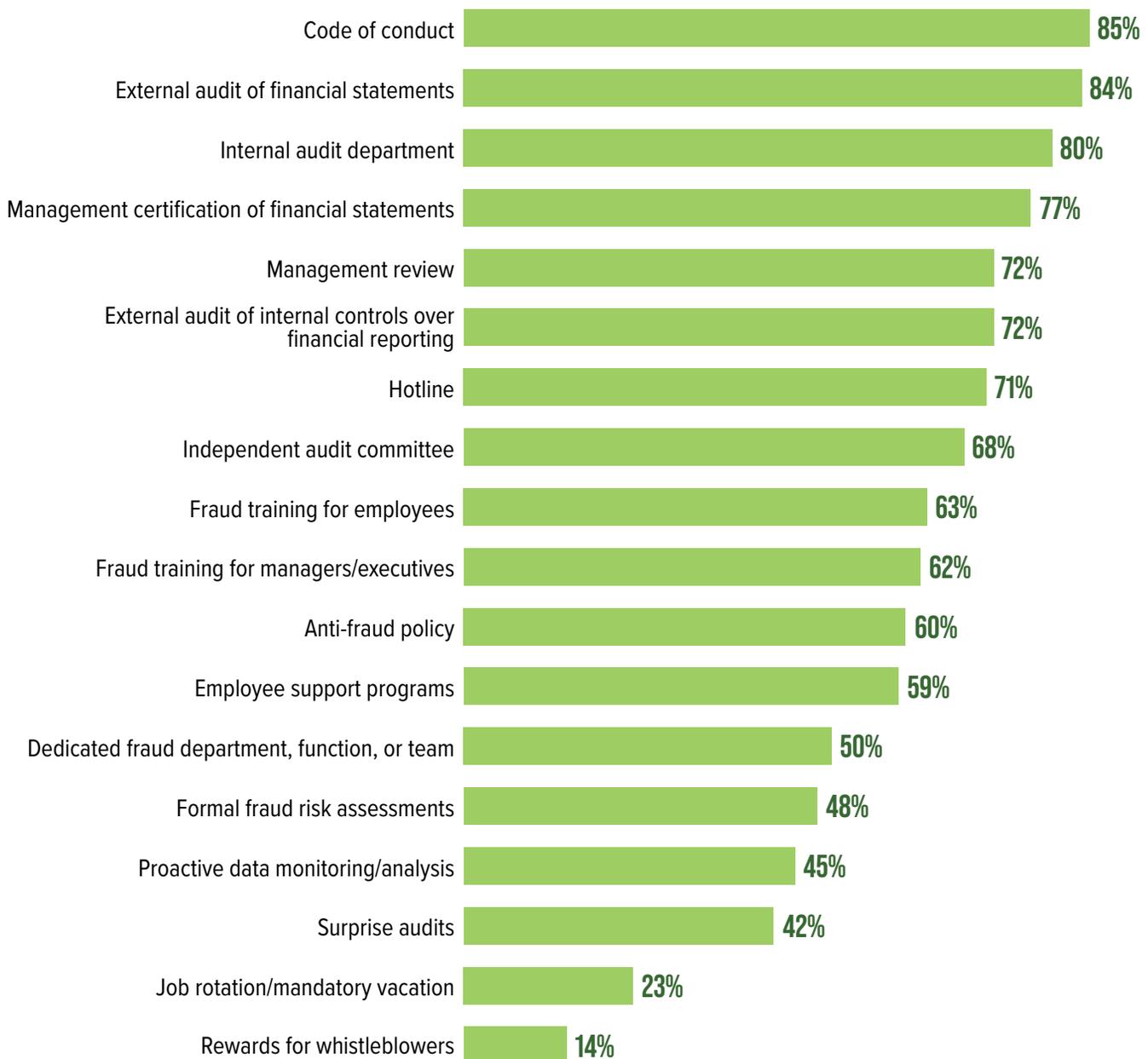
Government organizations are **MUCH MORE LIKELY TO REFER CASES TO LAW ENFORCEMENT** for criminal prosecution than other organization types.



## ANTI-FRAUD CONTROLS AT VICTIM ORGANIZATIONS

As noted in the COSO/ACFE *Fraud Risk Management Guide*, a well-designed and effectively implemented system of anti-fraud controls is one of the foundational principles of a holistic fraud risk management program. But the presence of any specific control or combination of controls does not guarantee that fraud will not occur. In fact, as shown in Figure 27, many anti-fraud controls were in place at the victim organizations in our study at the time the frauds occurred. The most common anti-fraud controls were a code of conduct (85% of victim organizations), external audits of the financial statements (84% of victim organizations), and internal audit departments (80% of victim organizations).

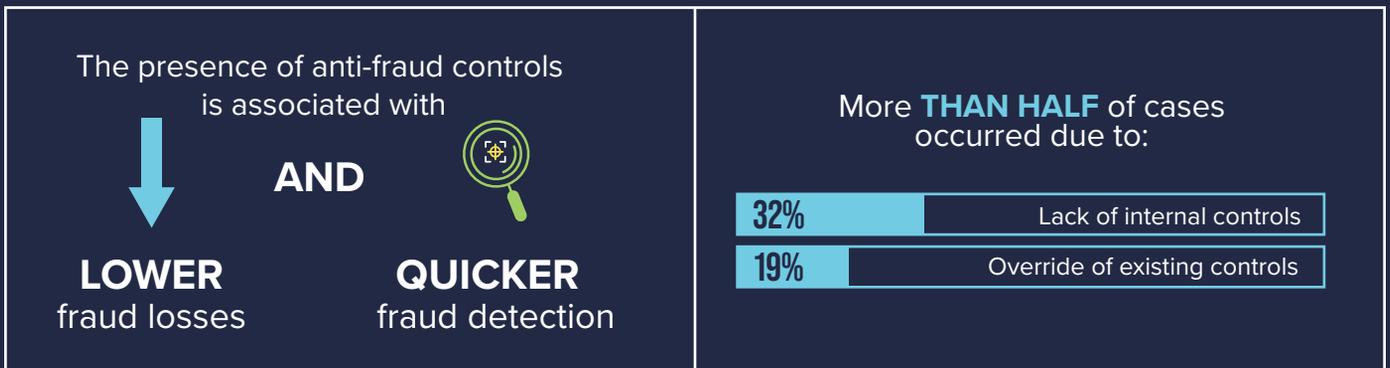
**FIG. 27 WHAT ANTI-FRAUD CONTROLS ARE MOST COMMON?**



## EFFECTIVENESS OF ANTI-FRAUD CONTROLS

While knowing the prevalence of various anti-fraud controls can be helpful for benchmarking organizational anti-fraud programs, it can be even more beneficial to understand how effective different controls are at combating fraud. For each of the 18 anti-fraud controls in our study, we compared the median loss and median duration of the frauds that occurred at organizations that had the controls in place against those at organizations that lacked the controls. The findings are reflected in Figures 28 and 29.

The presence of each of the 18 controls was associated with both faster detection and lower losses. Additionally, four controls—surprise audits, financial statement audits, hotlines, and proactive data analysis—were associated with at least a 50% reduction in both fraud loss and duration. Surprise audits and proactive data analysis were among the least commonly implemented anti-fraud controls in our study (see Figure 27), which shows some opportunity for many organizations to reinforce their anti-fraud efforts by considering the addition of these controls.

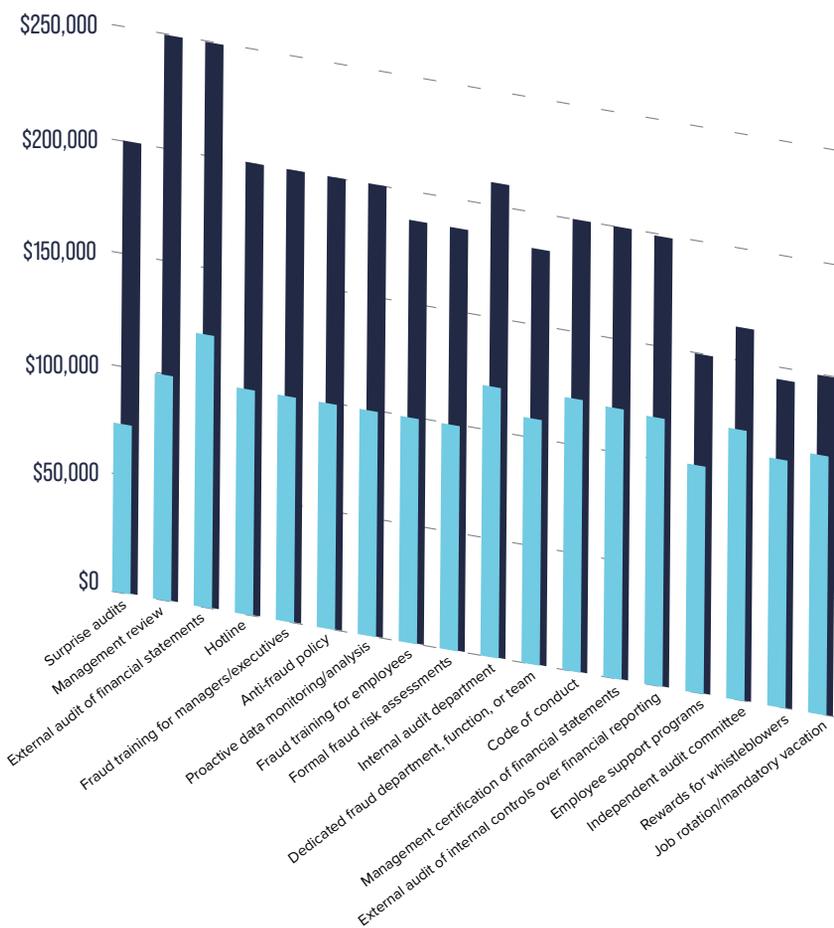


**82%** of organizations **MODIFIED** their anti-fraud controls following the fraud.



95% of the modifications were expected to be effective at preventing future frauds.

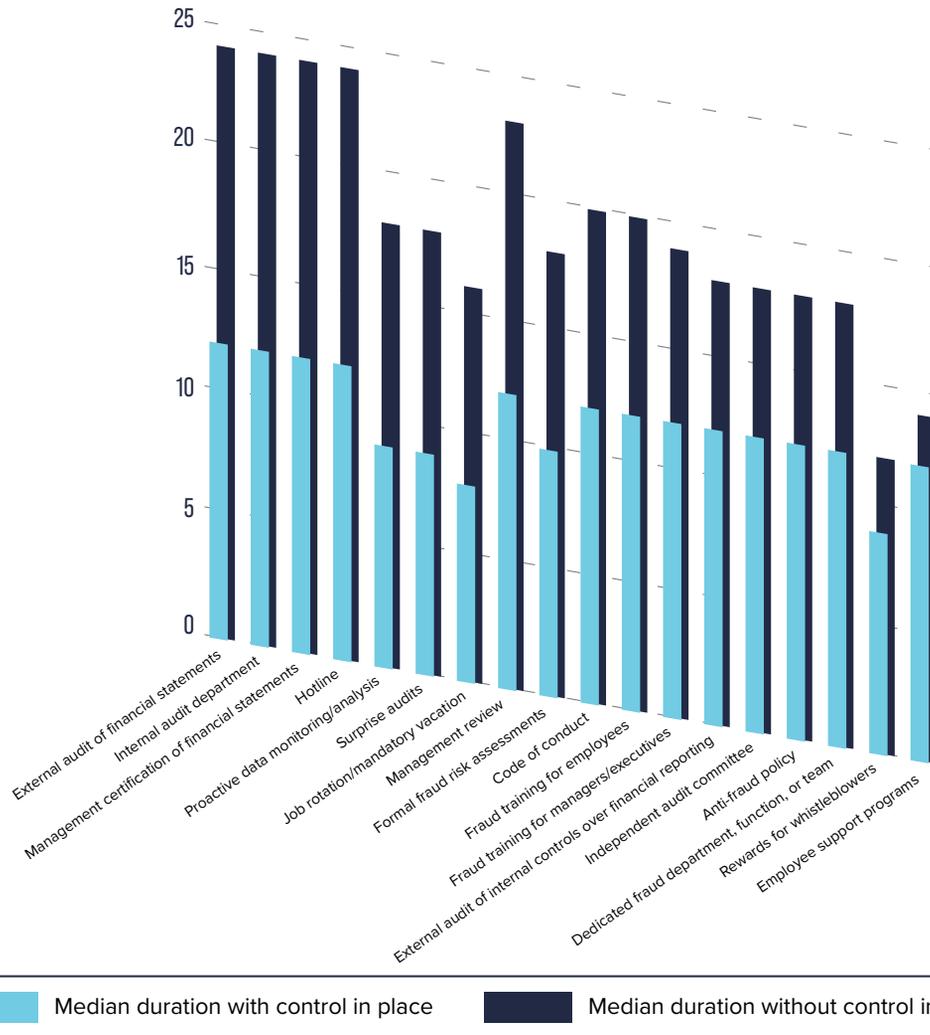
**FIG. 28 HOW DOES THE PRESENCE OF ANTI-FRAUD CONTROLS RELATE TO MEDIAN LOSS?**



Median loss with control in place
  Median loss without control in place

Control	Percent of cases	Control in place	Control not in place	Percent reduction
Surprise audits	42%	\$75,000	\$200,000	63%
Management review	72%	\$100,000	\$250,000	60%
External audit of financial statements	84%	\$121,000	\$250,000	52%
Hotline	71%	\$100,000	\$200,000	50%
Fraud training for managers/executives	62%	\$100,000	\$200,000	50%
Anti-fraud policy	60%	\$100,000	\$200,000	50%
Proactive data monitoring/analysis	45%	\$100,000	\$200,000	50%
Fraud training for employees	63%	\$100,000	\$187,000	47%
Formal fraud risk assessments	48%	\$100,000	\$187,000	47%
Internal audit department	80%	\$120,000	\$210,000	43%
Dedicated fraud department, function, or team	50%	\$109,000	\$184,000	41%
Code of conduct	85%	\$121,000	\$200,000	40%
Management certification of financial statements	77%	\$120,000	\$200,000	40%
External audit of internal controls over financial reporting	72%	\$119,000	\$199,000	40%
Employee support programs	59%	\$101,000	\$150,000	33%
Independent audit committee	68%	\$120,000	\$165,000	27%
Rewards for whistleblowers	14%	\$110,000	\$145,000	24%
Job rotation/mandatory vacation	23%	\$115,000	\$150,000	23%

**FIG. 29 HOW DOES THE PRESENCE OF ANTI-FRAUD CONTROLS RELATE TO THE DURATION OF FRAUD?**



Control	Percent of cases	Control in place	Control not in place	Percent reduction
External audit of financial statements	84%	12 months	24 months	50%
Internal audit department	80%	12 months	24 months	50%
Management certification of financial statements	77%	12 months	24 months	50%
Hotline	71%	12 months	24 months	50%
Proactive data monitoring/analysis	45%	9 months	18 months	50%
Surprise audits	42%	9 months	18 months	50%
Job rotation/mandatory vacation	23%	8 months	16 months	50%
Management review	72%	12 months	23 months	48%
Formal fraud risk assessments	48%	10 months	18 months	44%
Code of conduct	85%	12 months	20 months	40%
Fraud training for employees	63%	12 months	20 months	40%
Fraud training for managers/executives	62%	12 months	19 months	37%
External audit of internal controls over financial reporting	72%	12 months	18 months	33%
Independent audit committee	68%	12 months	18 months	33%
Anti-fraud policy	60%	12 months	18 months	33%
Dedicated fraud department, function, or team	50%	12 months	18 months	33%
Rewards for whistleblowers	14%	9 months	12 months	25%
Employee support programs	59%	12 months	14 months	14%

# THE IMPORTANCE OF PROVIDING FRAUD AWARENESS TRAINING

Providing fraud awareness training to staff at all levels of an organization is a vital part of a comprehensive anti-fraud program. Our study shows that training employees, managers, and executives about the risks and costs of fraud can help reduce fraud losses and ensure frauds are caught more quickly.

## A GROWING PERCENTAGE OF ORGANIZATIONS ARE PROVIDING FRAUD AWARENESS TRAINING FOR THEIR STAFF



Organizations that **DID NOT PROVIDE** fraud awareness training lost nearly **2X MORE**.

**TRAINING BOTH** employees and managers/executives



**TRAINING NEITHER** employees nor managers/executives



**33%**

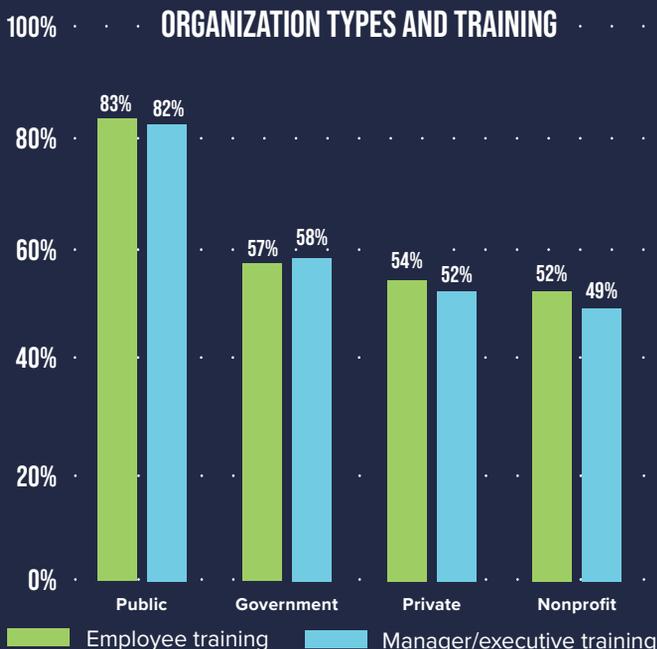
of employee whistleblowers **DID NOT HAVE** fraud awareness training



**67%** of employee whistleblowers **HAD** fraud awareness training

**TIPS ARE TWICE** as likely to come from employees who received fraud awareness training as from employees who did not.

## NONPROFIT ORGANIZATIONS HAVE THE LOWEST IMPLEMENTATION RATE OF FRAUD AWARENESS TRAINING

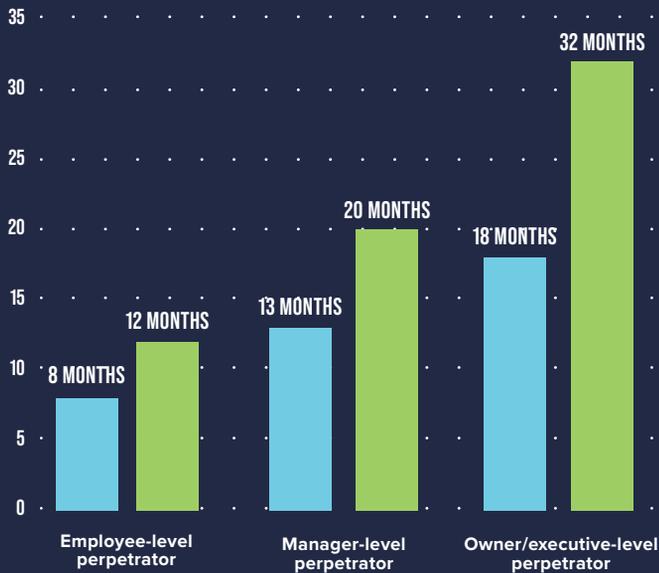


Nonprofit organizations that **PROVIDED** fraud awareness training uncovered frauds more than **2.5X TIMES** faster than organizations that did not.

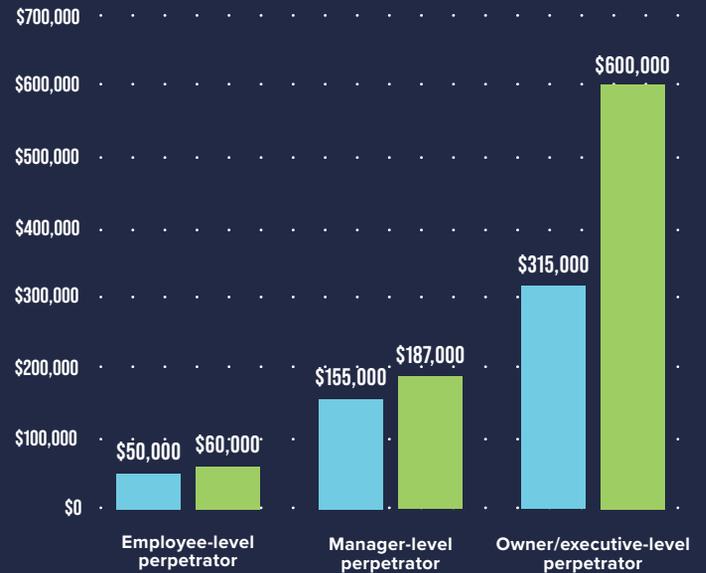


Fraud awareness training for managers and executives is associated with **FASTER DETECTION AND LOWER LOSSES** in general, but the benefit is most seen when the perpetrator is at the owner/executive level

**DURATION OF FRAUD WITH AND WITHOUT FRAUD AWARENESS TRAINING FOR MANAGERS/EXECUTIVES**



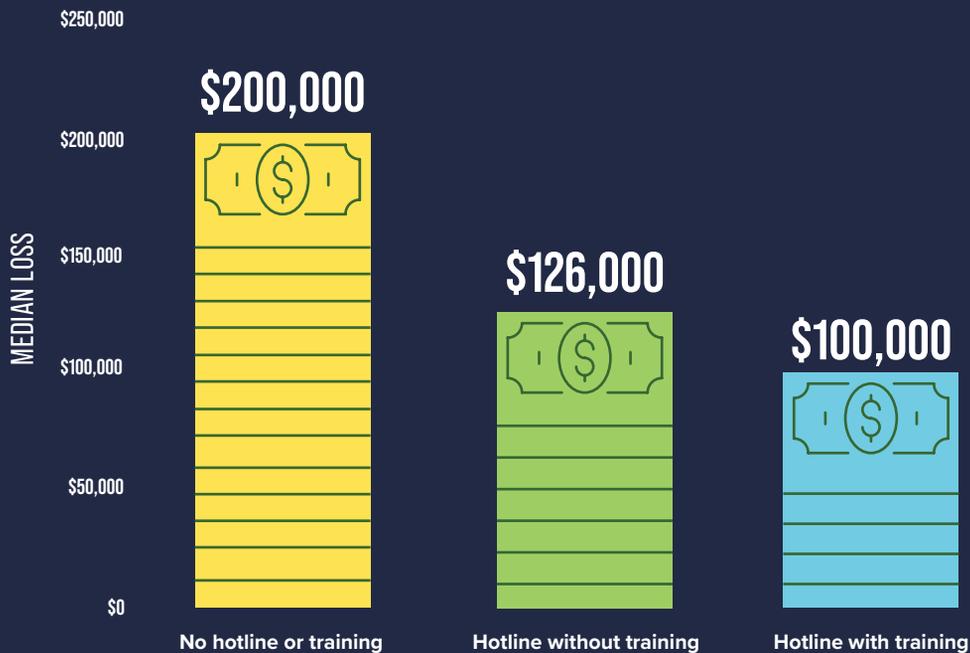
**MEDIAN LOSS WITH AND WITHOUT FRAUD AWARENESS TRAINING FOR MANAGERS/EXECUTIVES**



■ Training provided ■ No training provided

**HOTLINE & TRAINING**

While the presence of a **HOTLINE** is associated with reduced fraud losses, the impact is even greater when the hotline is accompanied by **FRAUD AWARENESS TRAINING**

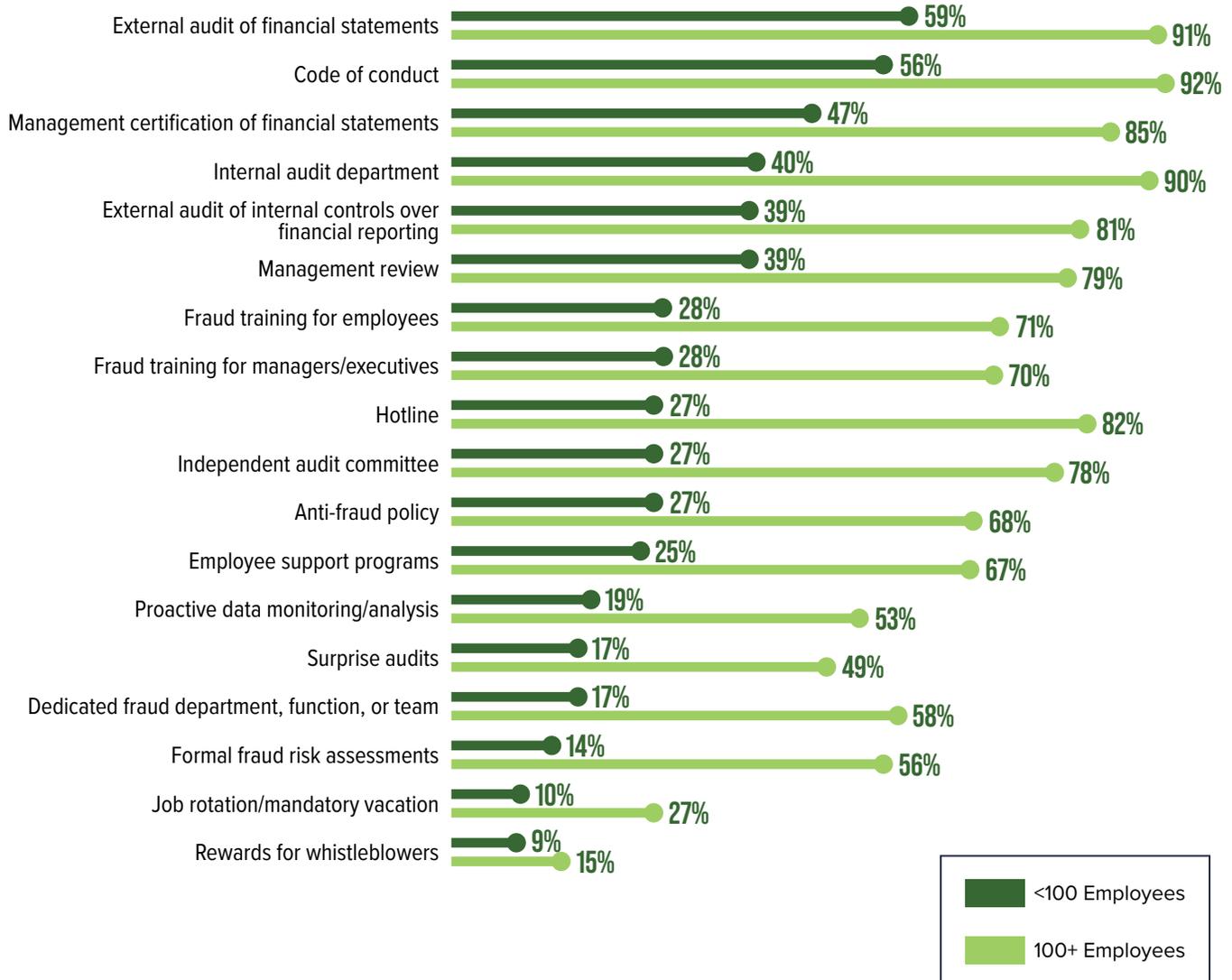


## ANTI-FRAUD CONTROLS IN SMALL BUSINESSES

In addition to having different fraud risks than larger organizations (see Figure 24), small organizations typically have limited resources to invest in their anti-fraud programs. As shown in Figure 30, small organizations (those with fewer than 100 employees) are much less likely to have various anti-fraud controls in place than their larger counterparts. This leaves these organizations particularly vulnerable to fraud, as the smaller staff size typically means there are fewer checks and balances and less segregation of duties in place.

In particular, the implementation rate of hotlines at small organizations is well below that of larger companies. With tips being the most common way that occupational frauds are detected (see Figure 13), a hotline is a particularly important component of an anti-fraud program. And because online forms and emails are the top reporting mechanisms used by whistleblowers (see Figure 16), small organizations should consider these cost-efficient options to improve their fraud detection capabilities.

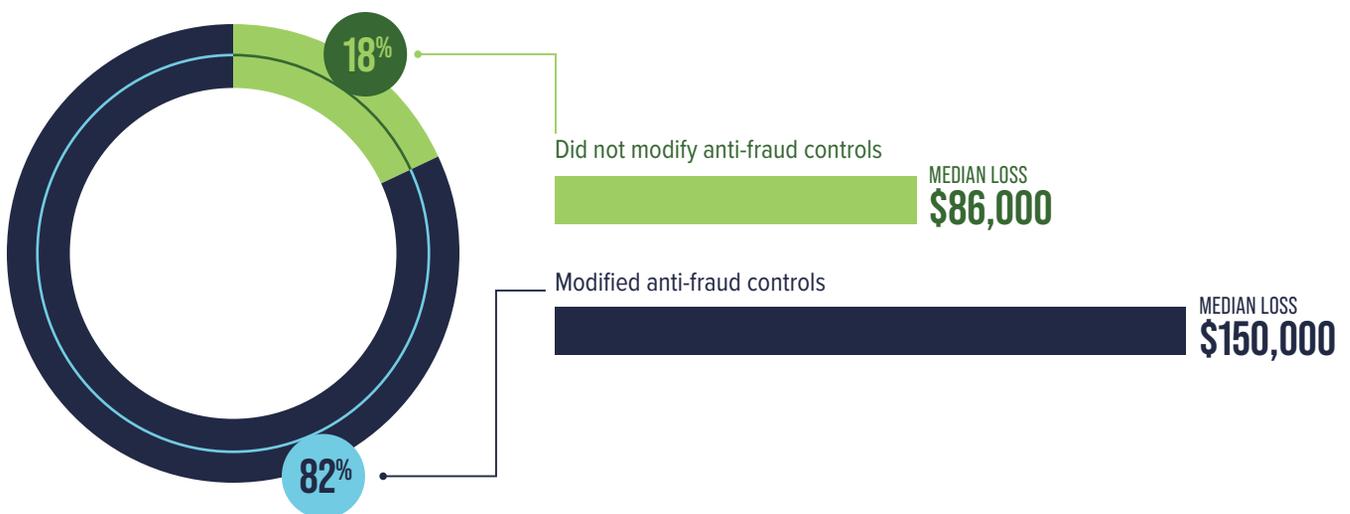
**FIG. 30 HOW DO ANTI-FRAUD CONTROLS VARY BY SIZE OF VICTIM ORGANIZATION?**



## MODIFYING ANTI-FRAUD CONTROLS FOLLOWING THE FRAUD

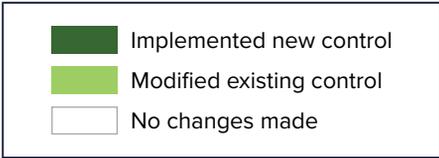
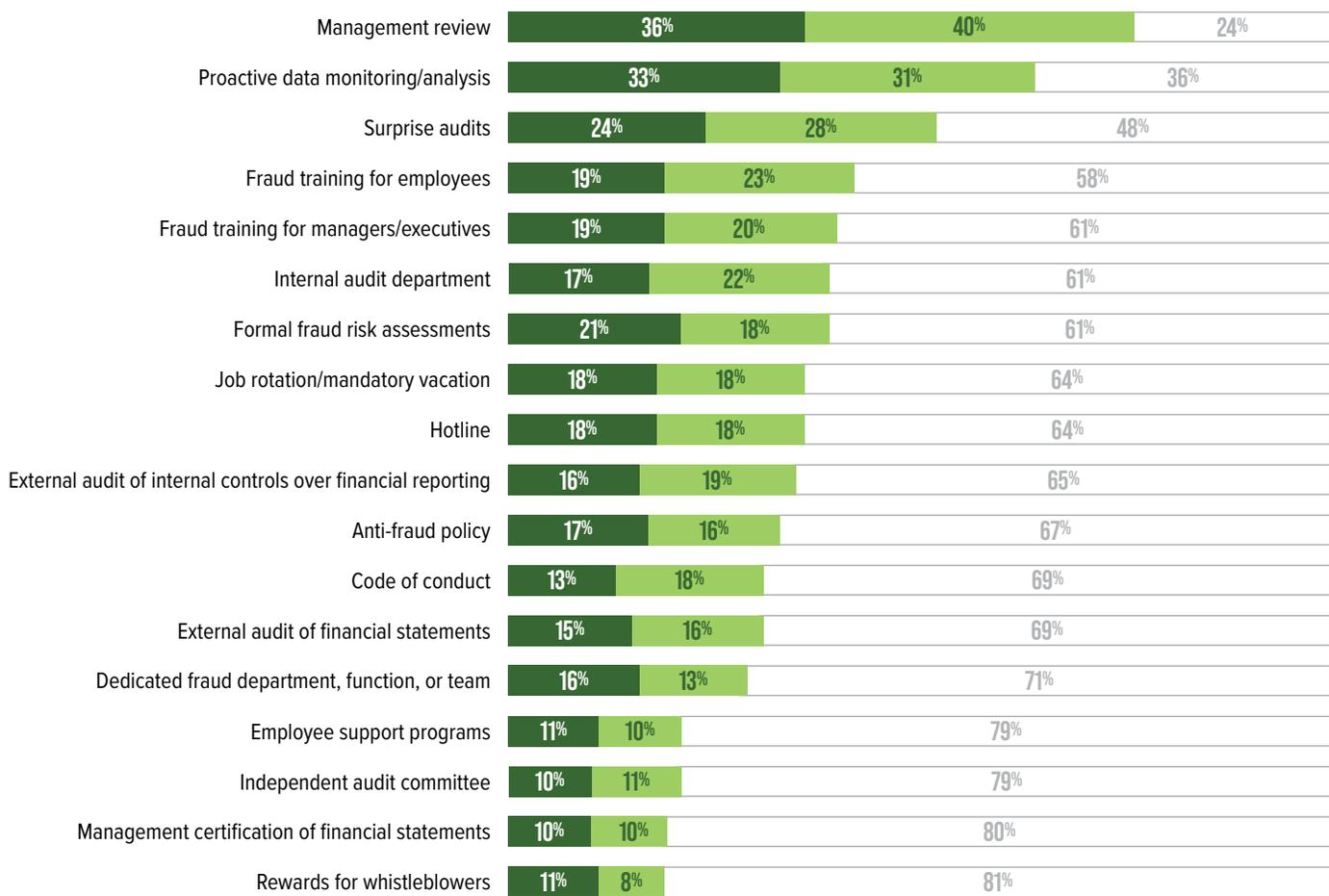
An important part of fraud risk management involves remediation after a fraud occurs; this typically involves assessing the factors that led to the fraud and implementing changes to prevent similar incidents from occurring in the future. We asked survey respondents whether the victim organizations made any modifications to their anti-fraud controls following the discovery of the fraud. Figure 31 shows that 82% did update their controls to better protect against future frauds. Not surprisingly, these organizations also experienced a larger median loss (USD 150,000) than the organizations that did not modify their anti-fraud controls after the fraud (USD 86,000).

**FIG. 31 DID VICTIM ORGANIZATIONS MODIFY THEIR ANTI-FRAUD CONTROLS FOLLOWING THE FRAUD?**



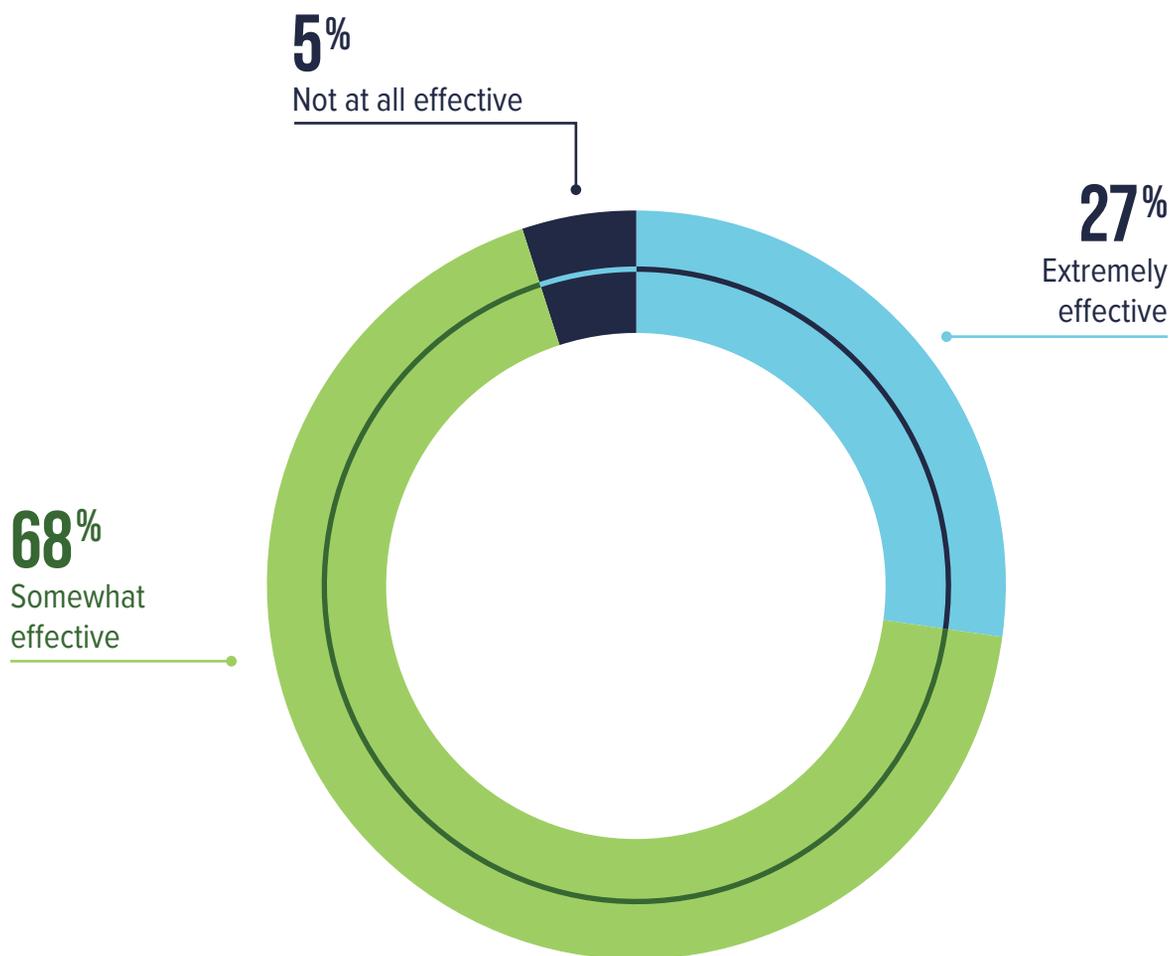
The most common anti-fraud control that was modified following a fraud was management review (see Figure 32); 76% of victim organizations either implemented new management review procedures or modified their existing management review approach in response to the fraud. Similarly, 64% of victim organizations adjusted their use of proactive data monitoring and analysis, and 52% implemented or modified surprise audits as part of their anti-fraud program. All three of these controls involve proactively monitoring for the red flags of fraud, highlighting the importance of implementing procedures that both help detect fraud quickly and increase the perception of detection to deter potential future perpetrators.

**FIG. 32 WHAT ANTI-FRAUD CONTROLS DID THE VICTIM ORGANIZATION MODIFY IN RESPONSE TO THE FRAUD?**



We also asked survey respondents how effective they believed the resulting control modifications would be in preventing future frauds at the victim organization. As shown in Figure 33, 27% of respondents expected the updated controls to be extremely effective, and 68% expected them to be somewhat effective in providing improved protection against fraud. Only 5% of respondents believed the modifications would not be at all effective at preventing future frauds from occurring.

**FIG. 33** HOW EFFECTIVE ARE THE MODIFICATIONS IN ANTI-FRAUD CONTROLS EXPECTED TO BE IN PREVENTING FUTURE FRAUDS?

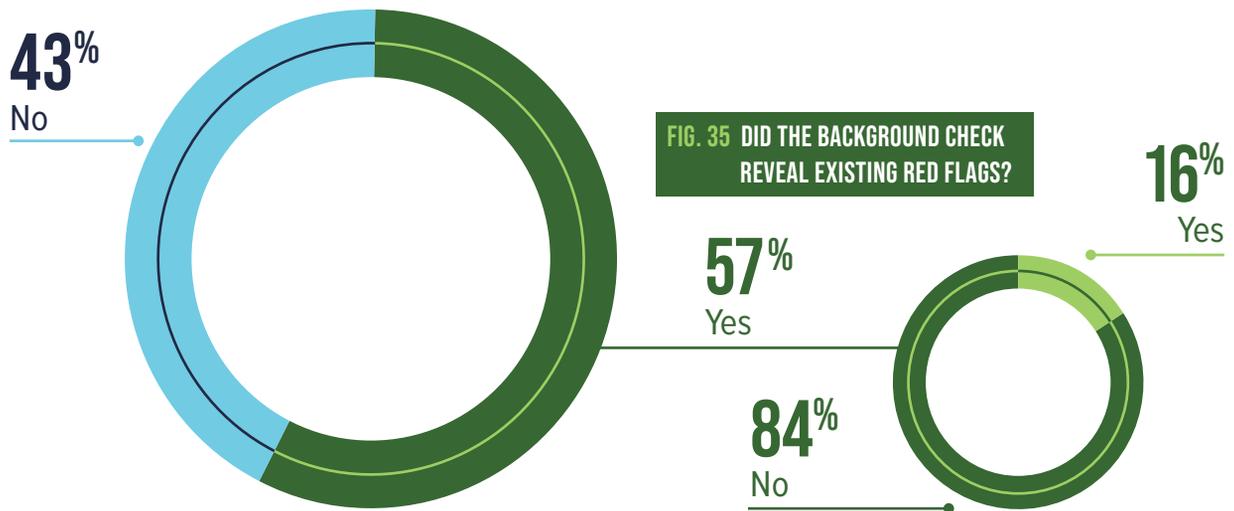


## BACKGROUND CHECKS

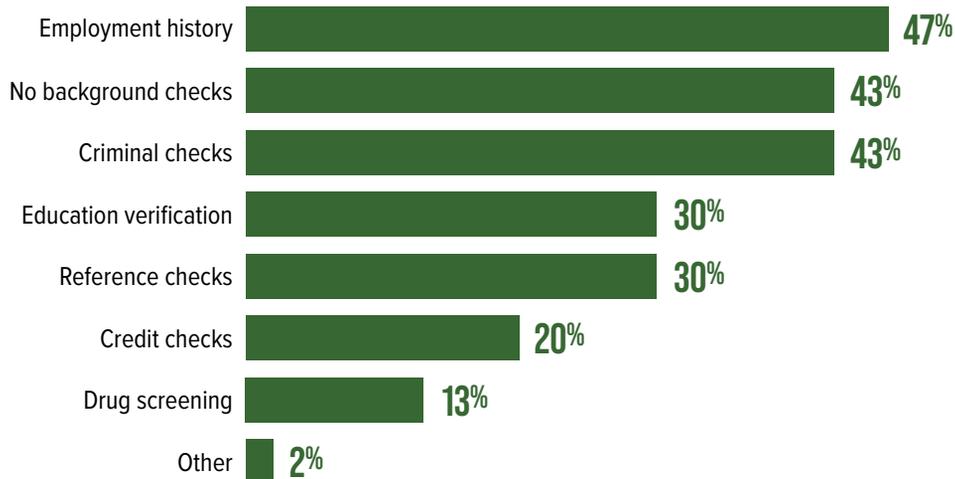
Running background checks on potential employees as part of the hiring process can serve as an important fraud prevention mechanism. As noted in Figure 34, 57% of the victim organizations in our study ran background checks on the perpetrators before hiring them. The most common forms of background checks conducted were employment history checks (47%) and criminal background checks (43%).

In 84% of the cases in which a background check was run, the check did not reveal any existing red flags; this reinforces our findings that the majority of occupational fraud perpetrators do not have a documented fraud-related criminal or employment history (see Figures 51 and 52). However, in 16% of cases, the perpetrator had some prior activity that was revealed as part of the background check that could have served as a warning sign against hiring the individual, but the organization hired them anyway (see Figure 35). This highlights how background checks are only effective in protecting against fraud if the results are used to screen out candidates with existing red flags.

**FIG. 34 WAS A BACKGROUND CHECK RUN ON THE PERPETRATOR PRIOR TO HIRING?**



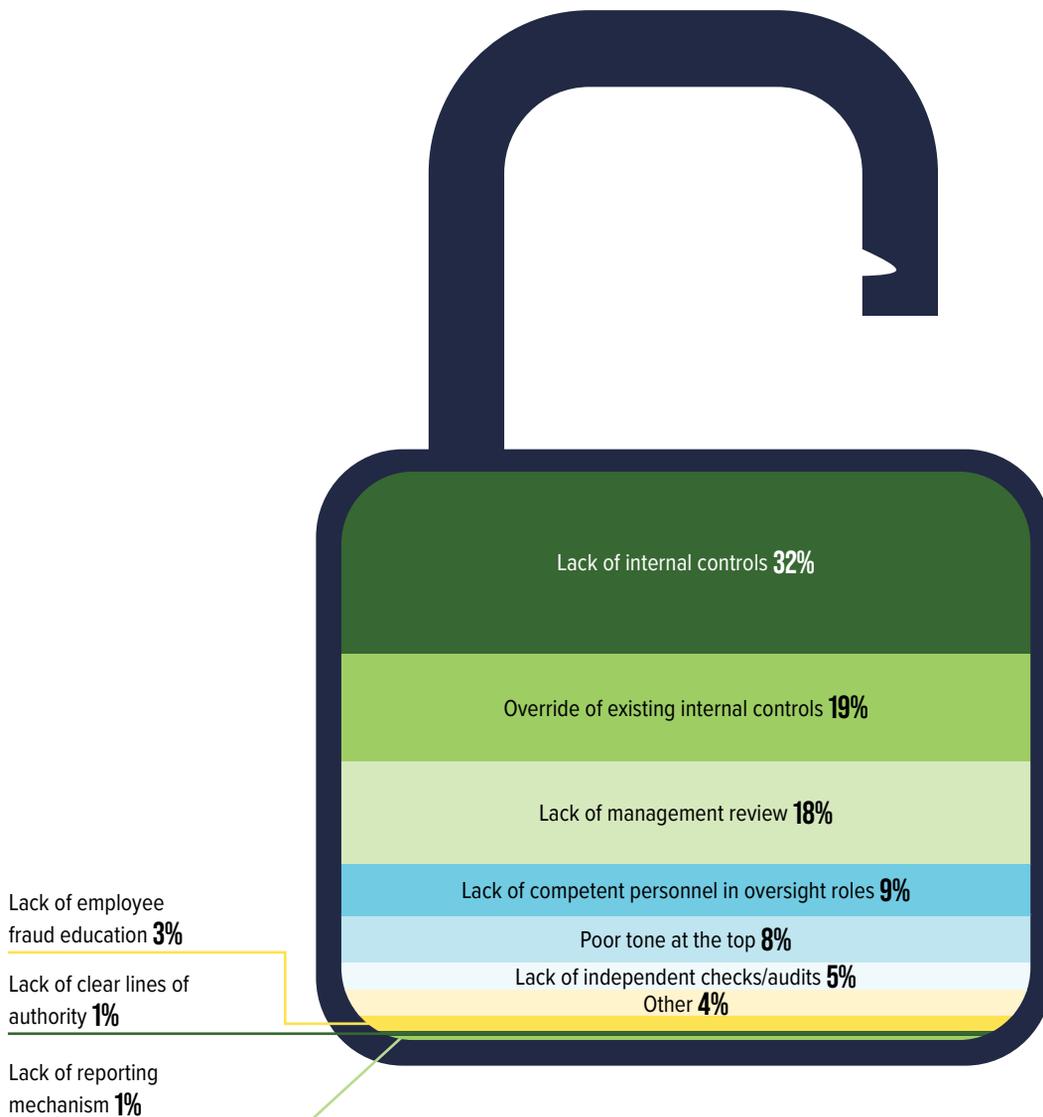
**FIG. 36 WHAT TYPES OF BACKGROUND CHECKS WERE RUN ON THE PERPETRATOR PRIOR TO HIRING?**



## INTERNAL CONTROL WEAKNESSES THAT CONTRIBUTED TO THE FRAUD

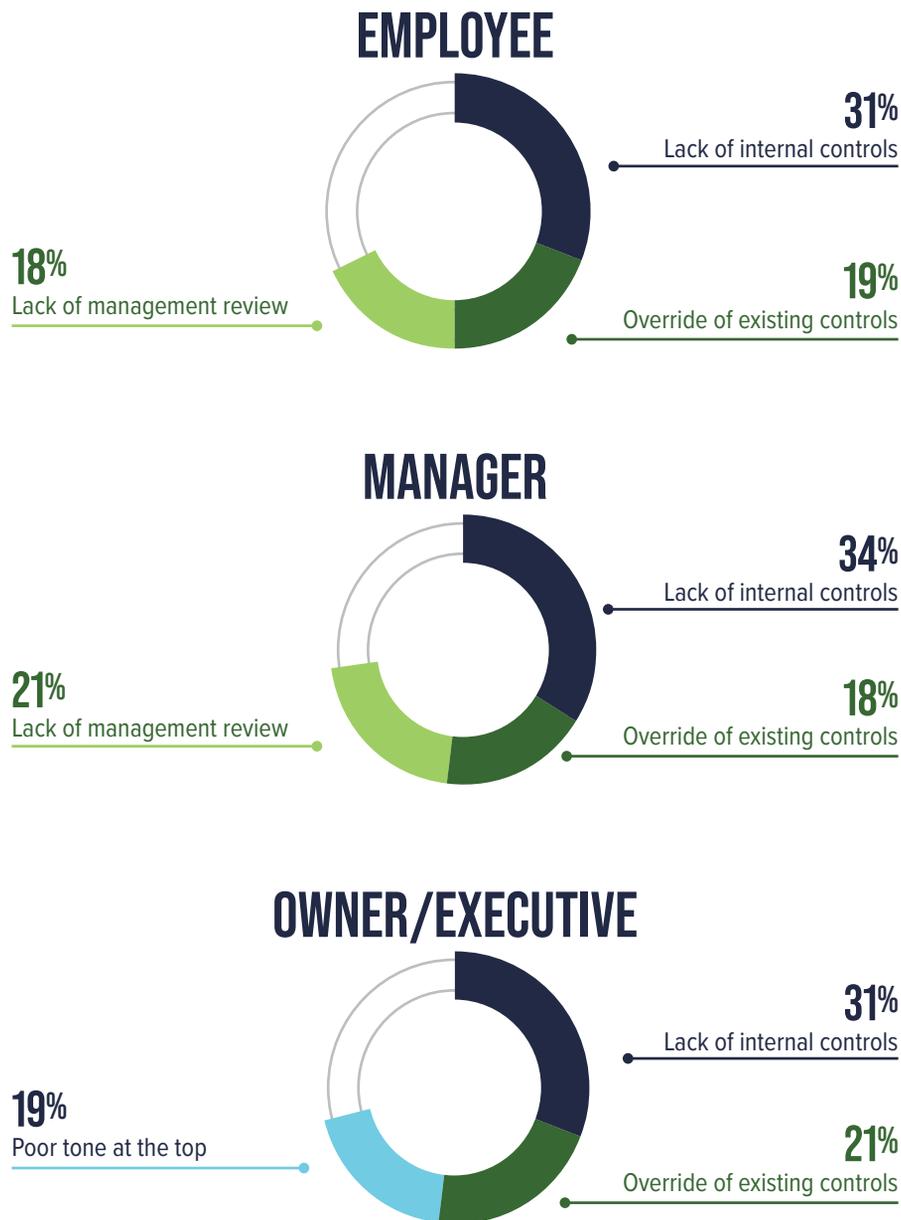
Understanding the factors that led to a fraud's occurrence can assist organizations in strengthening their anti-fraud program to protect against future frauds. Figure 37 shows that the most common contributor to the frauds in our study was a lack of internal controls (32%), followed by an override of existing internal controls (19%). Taken together, this means that more than half of the cases occurred due to an insufficient system of internal controls.

**FIG. 37** WHAT ARE THE PRIMARY INTERNAL CONTROL WEAKNESSES THAT CONTRIBUTE TO OCCUPATIONAL FRAUD?



Individuals at different levels of the organization experience different pressures and opportunities to engage in fraud. This is illustrated in Figure 38, which shows how the specific factors underlying frauds vary based on the position level of the perpetrator. While a straightforward lack of internal controls was the top contributor for frauds committed by perpetrators at all levels, frauds committed by owner/executives were much more likely to involve a poor tone at the top, while those perpetrated by mid-level managers and employees were more likely to occur due to a lack of management review.

**FIG. 38 TOP THREE INTERNAL CONTROL WEAKNESSES BASED ON THE PERPETRATOR'S POSITION**



## VICTIM ORGANIZATION STATISTICAL ANALYSIS

Most loss amounts presented in this report are median losses, which we use as a proxy for the cost of a “typical” fraud. Figure 39 provides a more holistic view of the costs associated with frauds affecting different categories of victim organizations, showing quartile and mean loss amounts, as well.

**FIG. 39 VICTIM ORGANIZATION STATISTICAL ANALYSIS TABLE**

VICTIM ORGANIZATION					
Category	Cases	25 <sup>th</sup> percentile	Median (50 <sup>th</sup> percentile)	75 <sup>th</sup> percentile	Mean*
<b>Region:</b>					
Asia-Pacific	179	\$50,000	\$200,000	\$1,200,000	\$2,684,000
Eastern Europe and Western/Central Asia	64	\$62,000	\$200,000	\$575,000	\$976,000
Latin America and the Caribbean	93	\$37,000	\$250,000	\$878,000	\$1,710,000
Middle East and North Africa	116	\$25,000	\$163,000	\$750,000	\$1,412,000
Southern Asia	123	\$20,000	\$100,000	\$500,000	\$1,696,000
Sub-Saharan Africa	295	\$20,000	\$128,000	\$696,000	\$1,758,000
United States and Canada	613	\$24,000	\$120,000	\$500,000	\$1,249,000
Western Europe	114	\$50,000	\$181,000	\$1,000,000	\$2,100,000
<b>Organization type:</b>					
Private company	708	\$25,000	\$150,000	\$700,000	\$1,380,000
Public company	442	\$28,000	\$150,000	\$800,000	\$1,729,000
Nonprofit	164	\$21,000	\$76,000	\$273,000	\$611,000
Government	289	\$30,000	\$150,000	\$868,000	\$2,306,000
National	129	\$46,000	\$210,000	\$1,352,000	\$3,078,000
State/provincial	81	\$15,000	\$92,000	\$358,000	\$949,000
Local	66	\$27,000	\$148,000	\$505,000	\$2,451,000
<b>Organization size:</b>					
<100 employees	340	\$30,000	\$141,000	\$700,000	\$1,348,000
100–999 employees	365	\$20,000	\$130,000	\$693,000	\$1,615,000
1,000–9,999 employees	520	\$22,000	\$102,000	\$500,000	\$1,606,000
10,000+ employees	435	\$37,000	\$200,000	\$1,000,000	\$1,833,000
<b>Organization revenue:</b>					
<\$50 million	557	\$22,000	\$100,000	\$495,000	\$863,000
\$50 million–\$499 million	414	\$30,000	\$165,000	\$1,000,000	\$2,214,000
\$500 million–\$999 million	204	\$40,000	\$163,000	\$788,000	\$1,705,000
\$1 billion+	472	\$25,000	\$199,000	\$1,000,000	\$1,960,000
<b>Industry:</b>					
Banking and financial services	299	\$16,000	\$120,000	\$686,000	\$1,627,000
Government and public administration	168	\$43,000	\$200,000	\$1,000,000	\$2,451,000
Manufacturing	174	\$69,000	\$267,000	\$1,200,000	\$1,816,000
Health care	112	\$25,000	\$100,000	\$488,000	\$721,000
Retail	78	\$15,000	\$48,000	\$250,000	\$1,361,000
Energy	75	\$20,000	\$152,000	\$1,100,000	\$2,603,000
Construction	71	\$81,000	\$250,000	\$1,000,000	\$1,499,000
Education	68	\$14,000	\$50,000	\$330,000	\$1,037,000
Insurance	68	\$29,000	\$190,000	\$771,000	\$2,135,000
Technology	64	\$29,000	\$145,000	\$1,200,000	\$1,610,000
Religious, charitable, or social services	57	\$20,000	\$85,000	\$268,000	\$718,000
Transportation and warehousing	55	\$50,000	\$121,000	\$750,000	\$1,583,000
Information (e.g., publishing, media, telecommunications)	50	\$25,000	\$166,000	\$1,000,000	\$1,170,000
Agriculture, forestry, fishing, and hunting	40	\$42,000	\$165,000	\$890,000	\$1,027,000
Services (other)	40	\$44,000	\$170,000	\$1,188,000	\$1,735,000
Services (professional)	39	\$28,000	\$100,000	\$750,000	\$1,008,000
Food service and hospitality	35	\$10,000	\$100,000	\$300,000	\$1,174,000
Arts, entertainment, and recreation	34	\$10,000	\$44,000	\$263,000	\$217,000
Utilities	31	\$15,000	\$100,000	\$300,000	\$1,133,000
Real estate	29	\$45,000	\$200,000	\$1,400,000	\$2,328,000
Mining	24	\$200,000	\$550,000	\$2,395,000	\$2,912,000
Wholesale trade	15	\$21,000	\$361,000	\$1,000,000	\$3,940,000

\*Mean amounts were calculated using loss data that was winsorized at 5% (i.e., assigned all cases in the top 2.5% and bottom 2.5% the same value as the 97.5<sup>th</sup> percentile and 2.5<sup>th</sup> percentile, respectively).

# PERPETRATORS

We asked survey participants to answer a series of questions about the perpetrators of the fraud schemes they reported, including their demographics, position and department, behaviors leading up to the fraud, and other details. Identification of common characteristics among perpetrators of fraud can help organizations improve elements of their anti-fraud programs to potentially detect and prevent fraud more effectively.

## PERPETRATOR'S POSITION

Our findings show that the perpetrator's position level within their organization is related to the duration and financial impact of their frauds. Specifically, schemes carried out by perpetrators at higher levels of authority caused larger losses and lasted longer, as has been the case in previous editions of this study.

As illustrated in Figure 40, frauds committed by individuals at the owner/executive level only represented 19% of cases but caused the highest median losses by far. Perpetrators at the owner/executive level caused a median loss of USD 500,000, which was more than eight times as much as staff-level employees (USD 60,000) and almost three times as much as mid-level managers (USD 184,000). Frauds carried out by employees and managers were much more common, representing 37% and 41% of the cases submitted, respectively.

Similarly, fraud cases perpetrated by individuals at higher levels of authority took longer to detect. The median duration of frauds perpetrated by employees was only 8 months—one-third as long as those perpetrated by owner/executives (24 months)—while frauds committed by mid-level managers had a median duration of 18 months, as shown in Figure 41.

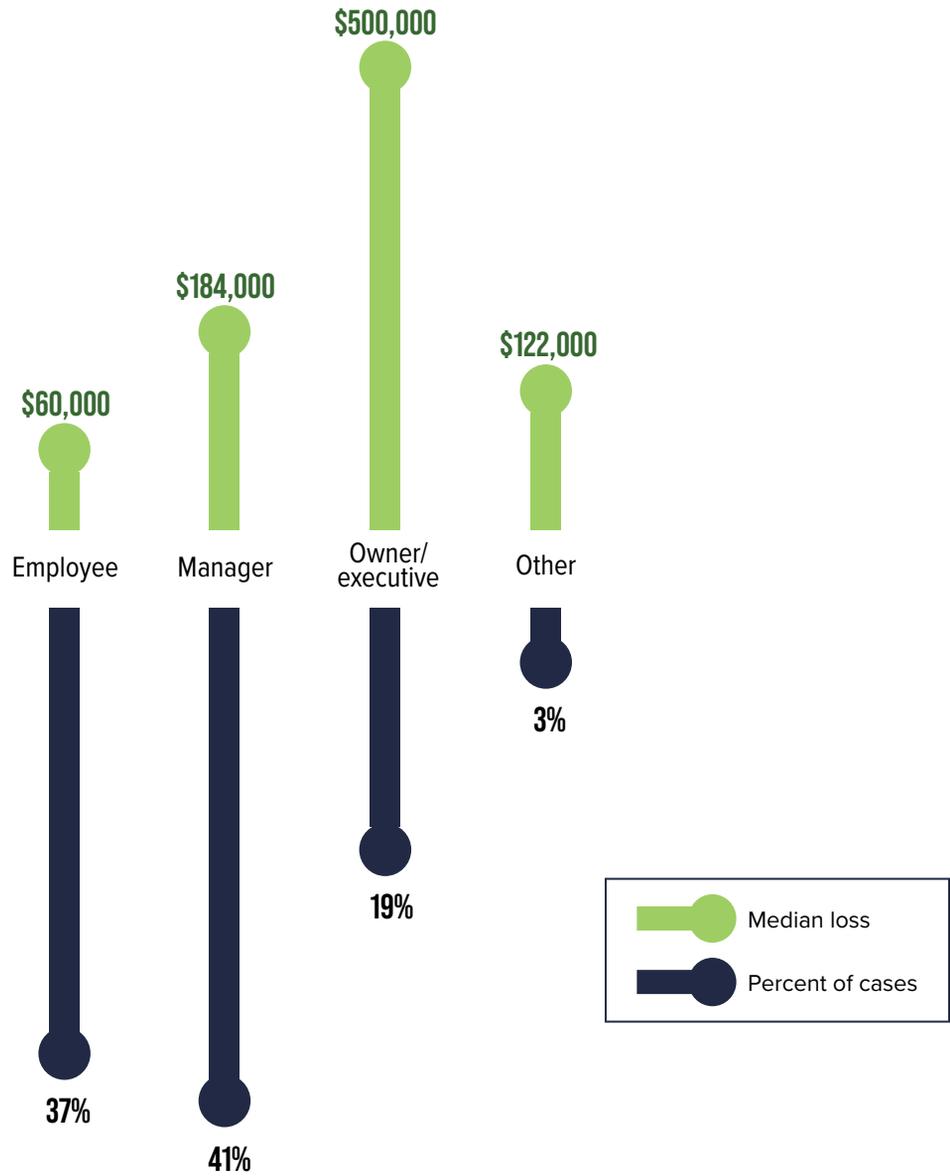
**MORE THAN HALF** of all cases came from these five departments:



**THE LONGER** a fraudster has worked for an organization, **THE MORE COSTLY** their fraud.



**FIG. 40 HOW DOES THE PERPETRATOR'S LEVEL OF AUTHORITY RELATE TO OCCUPATIONAL FRAUD?**



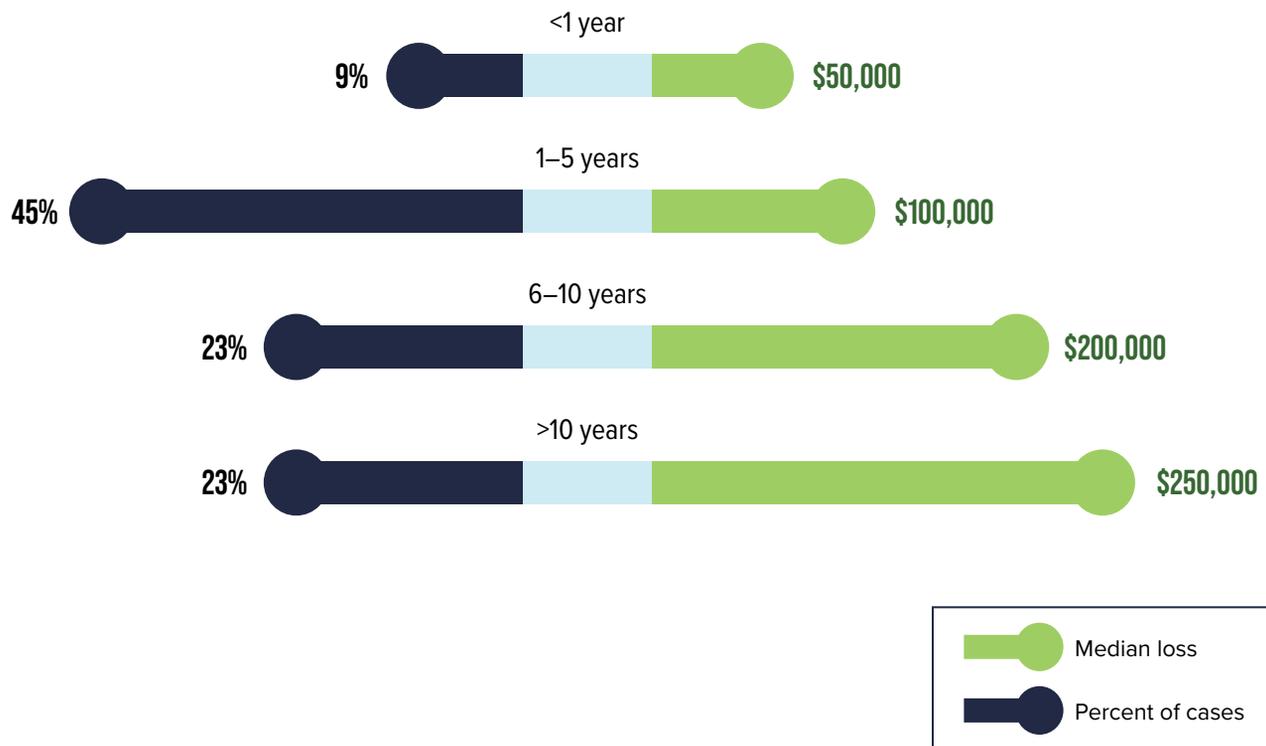
**FIG. 41 HOW DOES THE PERPETRATOR'S LEVEL OF AUTHORITY RELATE TO MEDIAN SCHEME DURATION?**



## PERPETRATOR'S TENURE

To examine the relationship between a fraudster's tenure and occupational fraud risk, we asked survey respondents how long the perpetrators of the frauds had been employed by the victim organization. As seen in Figure 42, the longer the perpetrators in our study had been employed at the victim organization, the higher the median losses they caused. While frauds committed by employees who had been working at the victim organization for more than ten years were the costliest (USD 250,000), almost half of the frauds in our study were perpetrated by employees with between one and five years of tenure.

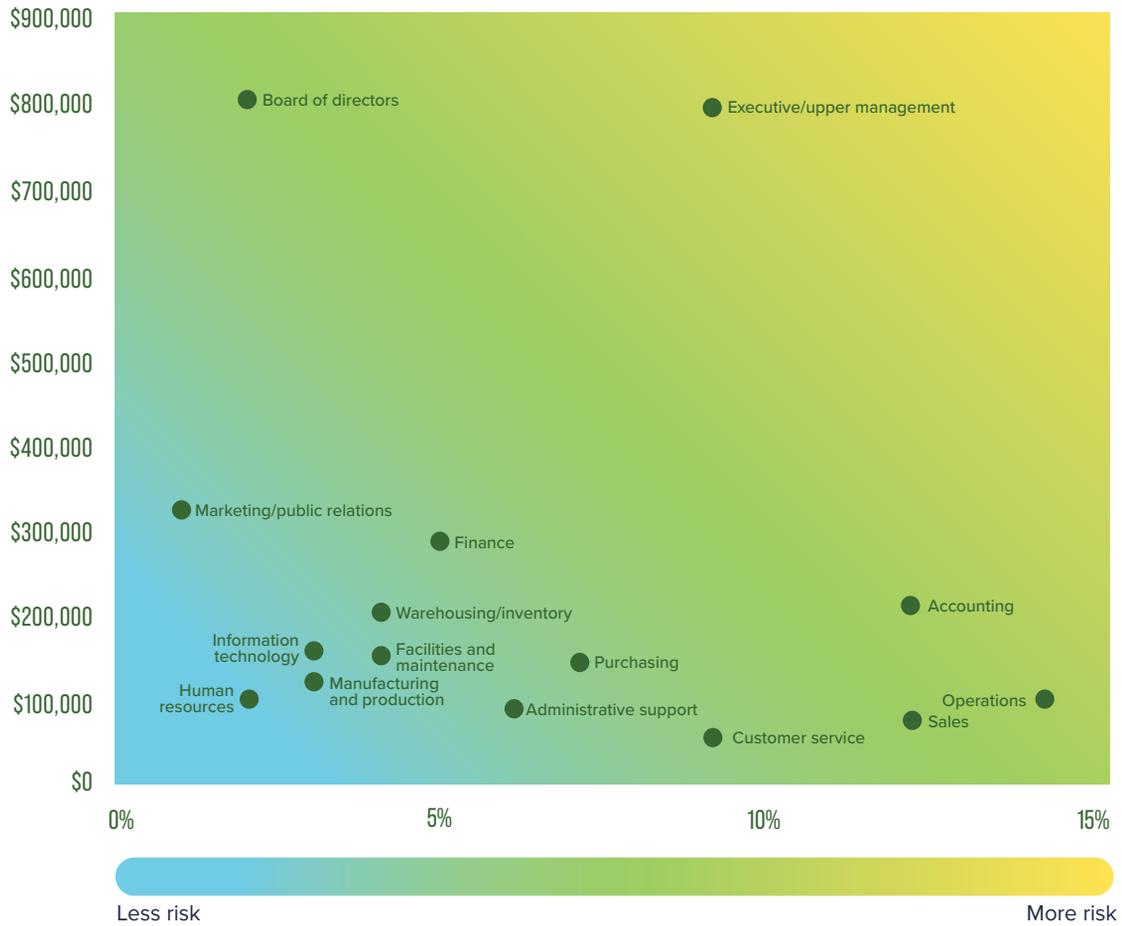
FIG. 42 HOW DOES THE PERPETRATOR'S TENURE RELATE TO OCCUPATIONAL FRAUD?



## PERPETRATOR'S DEPARTMENT

The heat map in Figure 43 shows the frequency and median loss of frauds based on the department in which the perpetrator worked. This information enables anti-fraud professionals to appropriately implement controls and allocate resources to detecting and preventing fraud in the departments with the greatest risks. For example, the executive and upper management department presents a particularly high risk for fraud, based on the combination of frequency and median loss. Consequently, organizations might implement additional proactive measures focused on the detection and prevention of fraud in this area.

**FIG. 43 WHAT DEPARTMENTS POSE THE GREATEST RISK FOR OCCUPATIONAL FRAUD?**



Department*	Number of cases	Percent of cases	Median loss
Operations	227	14%	\$100,000
Accounting	202	12%	\$208,000
Sales	202	12%	\$75,000
Customer service	154	9%	\$55,000
Executive/upper management	146	9%	\$793,000
Purchasing	109	7%	\$143,000
Administrative support	98	6%	\$88,000
Finance	82	5%	\$285,000
Warehousing/inventory	64	4%	\$200,000
Facilities and maintenance	59	4%	\$150,000
Information technology	52	3%	\$156,000
Manufacturing and production	43	3%	\$120,000
Board of directors	37	2%	\$800,000
Human resources	29	2%	\$100,000
Marketing/public relations	23	1%	\$321,000
Research and development	9	1%	*
Legal	9	1%	*
Internal audit	4	<1%	*

\*Departments with fewer than ten cases were omitted.

## SCHEMES BASED ON PERPETRATOR'S DEPARTMENT

Figure 44 shows the eight most common departments that perpetrators worked in, as well as the types of occupational fraud that occurred in those departments. Collectively, 75% of the cases in our study originated from these eight departments. Corruption was the most common scheme across all eight departments. Other schemes were more likely to occur within certain functions, such as check and payment tampering in the accounting department. This data can help anti-fraud professionals tailor controls to target the most common schemes within those departments.

**FIG. 44 WHAT ARE THE MOST COMMON OCCUPATIONAL FRAUD SCHEMES IN HIGH-RISK DEPARTMENTS?**

Department	Cases	Billing	Cash larceny	Cash on hand	Check and payment tampering	Corruption	Expense reimbursements	Financial statement fraud	Noncash	Payroll	Register disbursements	Skimming
Operations	227	22%	7%	10%	8%	44%	13%	2%	20%	12%	2%	8%
Accounting	202	33%	19%	17%	32%	36%	21%	9%	16%	15%	6%	21%
Sales	202	13%	9%	7%	4%	49%	7%	4%	20%	4%	2%	12%
Customer service	154	10%	11%	15%	12%	40%	6%	2%	25%	3%	3%	10%
Executive/upper management	147	33%	11%	10%	14%	65%	24%	11%	18%	16%	4%	8%
Purchasing	109	33%	8%	6%	4%	79%	6%	4%	21%	4%	3%	5%
Administrative support	98	31%	15%	19%	15%	46%	17%	4%	18%	10%	4%	20%
Finance	82	20%	23%	24%	22%	45%	17%	11%	11%	11%	4%	13%

Less risk

More risk

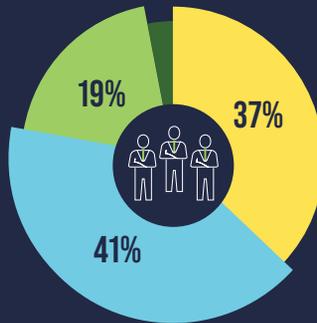
# PROFILE OF A FRAUDSTER

## LEVEL OF AUTHORITY



Most fraudsters were employees or managers, but **FRAUDS PERPETRATED BY OWNERS AND EXECUTIVES WERE THE COSTLIEST.**

PERCENT OF CASES



Employee Manager Owner/Executive



## TENURE

**THE LONGER** a fraudster has worked for an organization, **THE MORE COSTLY** their fraud.



## GENDER

**WOMEN** committed fewer frauds and caused lower losses.



\$158,000  
MEDIAN LOSS



\$100,000  
MEDIAN LOSS



## EDUCATION

**TWO-THIRDS** of occupational fraudsters **HAD A UNIVERSITY DEGREE OR HIGHER.**



Fraudsters **WITHOUT A DEGREE** caused **LOWER LOSSES.**

No university degree  
**\$100,000** MEDIAN LOSS



University degree or higher  
**\$200,000** MEDIAN LOSS

## COLLUSION

**FRAUDSTERS WHO COLLUDED** with others caused median losses **MORE THAN 3X AS HIGH** as those who acted alone.



1 Perpetrator  
MEDIAN LOSS  
**\$75,000**



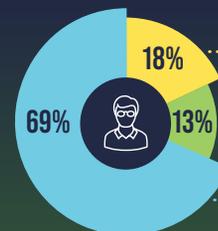
2+ Perpetrators  
MEDIAN LOSS  
**\$250,000**

**AGE MORE THAN TWO-THIRDS** of fraudsters were 31–50 years old.



**FRAUDSTERS OVER THE AGE OF 50** caused the highest median losses.

<31  
31–50  
>50



MEDIAN LOSS  
**\$350,000**

MEDIAN LOSS  
**\$50,000**

MEDIAN LOSS  
**\$136,000**

## PERPETRATOR'S GENDER

In each previous edition of this study, fraud perpetrators have been much more likely to be male, and this edition is no exception. Male perpetrators outnumbered female perpetrators almost three to one, while also causing median losses 58% higher than their female counterparts, as illustrated in Figure 45.

FIG. 45 HOW DOES THE PERPETRATOR'S GENDER RELATE TO OCCUPATIONAL FRAUD?



## PERPETRATOR'S GENDER BASED ON REGION

Male fraud perpetrators were more common than female perpetrators in each global region, although the size of the disparity varied across regions. As shown in Figure 46, female perpetrators were especially rare in Southern Asia (3%) and the Middle East and North Africa (9%); they were most common in the United States and Canada (38%).

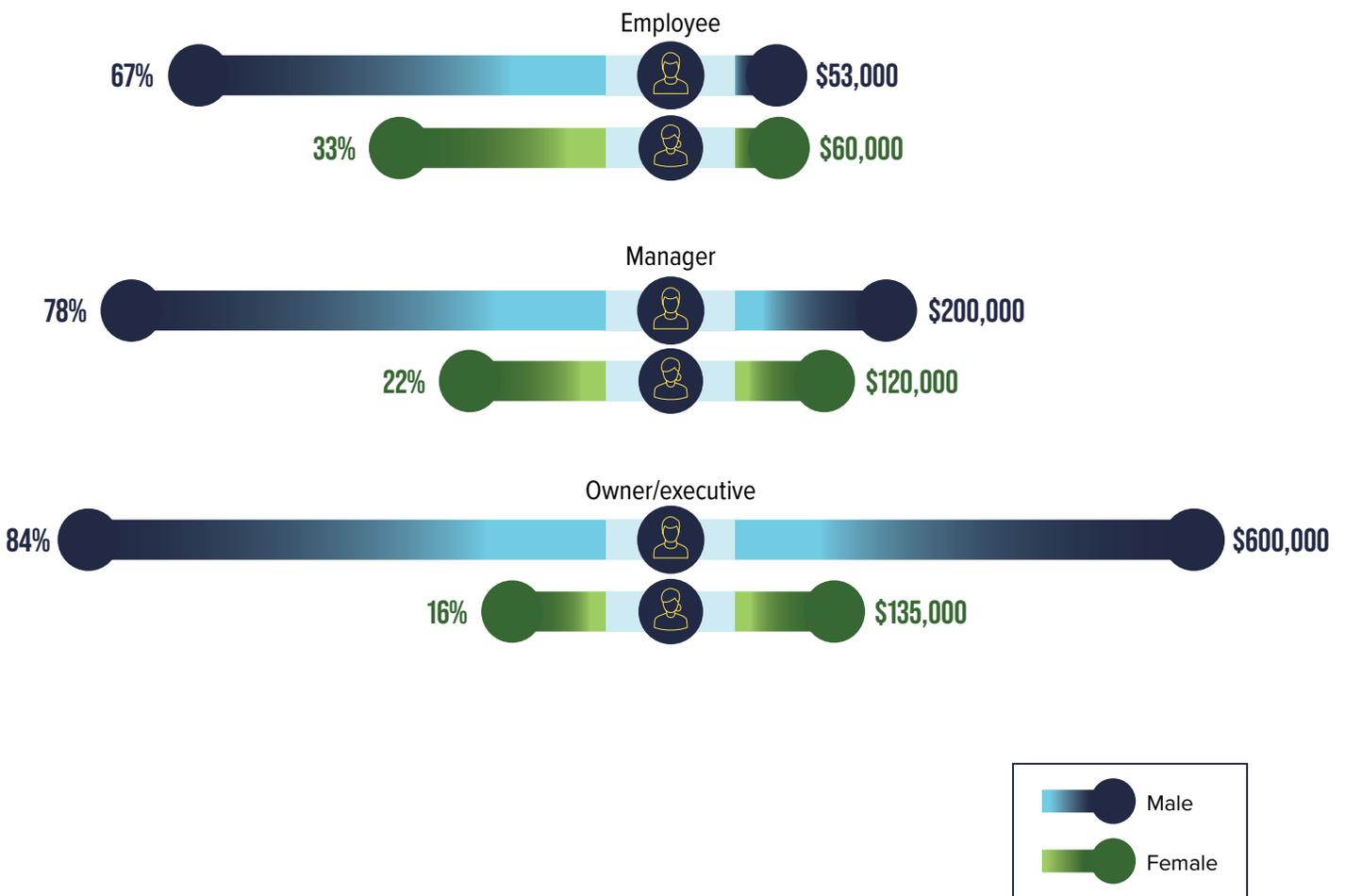
**FIG. 46** HOW DOES THE GENDER DISTRIBUTION OF PERPETRATORS VARY BY REGION?



## POSITION OF PERPETRATOR BASED ON GENDER

To gain further insight into the relationship between a perpetrator's gender and occupational fraud, we examined the frequency and median losses of frauds perpetrated by males and females at different levels of authority. As seen in Figure 47, female fraudsters were most common at the employee level (33%), where they actually caused higher median losses (USD 60,000) than their male counterparts (USD 53,000). The disparity between genders in terms of frequency and median loss was greatest at the owner/executive level of authority; only 16% of owner/executive fraudsters were female, and these perpetrators caused losses that were notably smaller than male owner/executives.

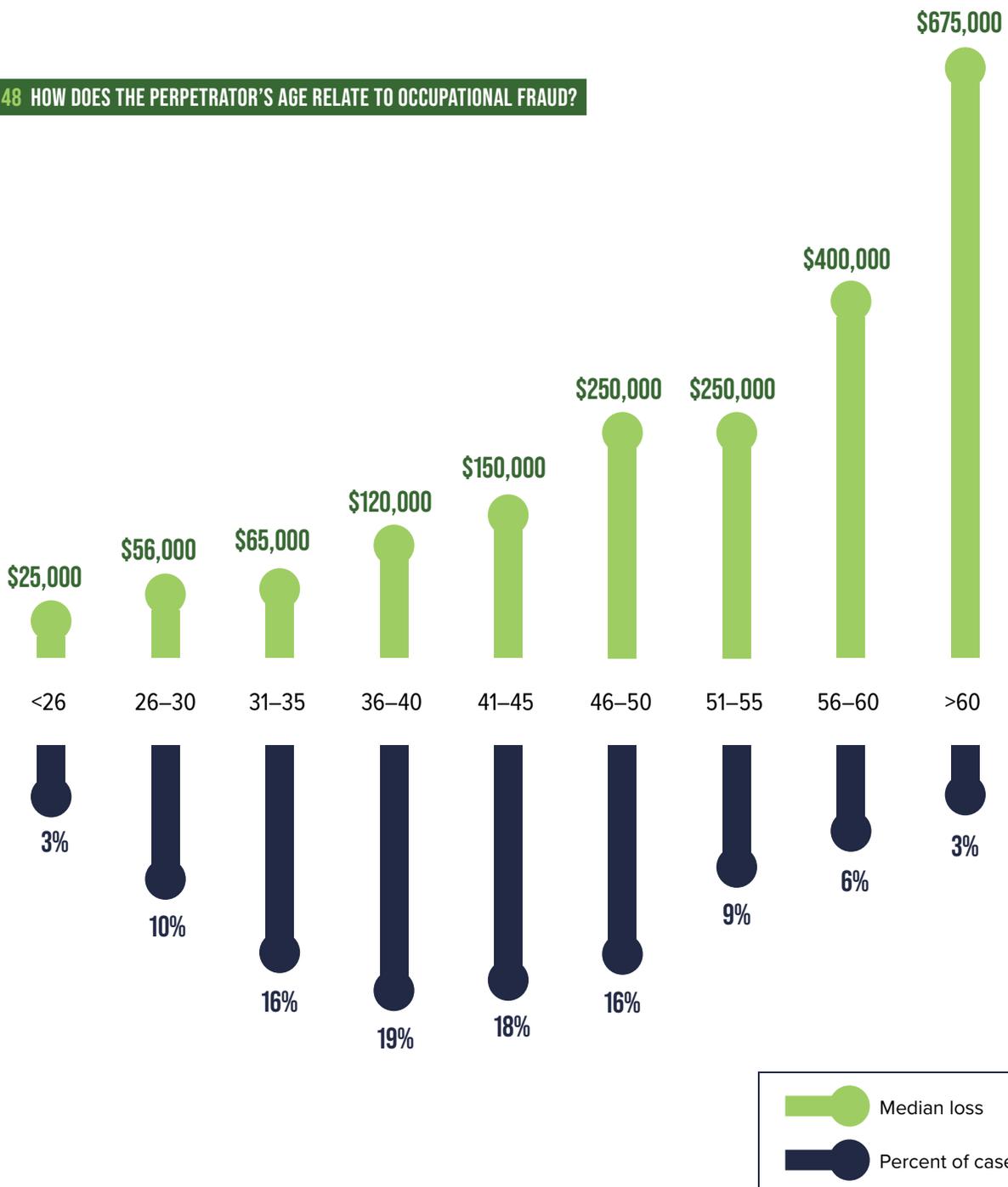
**FIG. 47 HOW DO GENDER DISTRIBUTION AND MEDIAN LOSS VARY BASED ON THE PERPETRATOR'S LEVEL OF AUTHORITY?**



## PERPETRATOR'S AGE

Our data shows a strong relationship between the age of fraud perpetrators and the median losses they caused, with older fraudsters causing higher losses. In fact, perpetrators over the age of 60 caused median losses of USD 675,000, which was 27 times as high as the median losses caused by perpetrators under the age of 26. However, despite frauds perpetrated by older fraudsters causing the highest losses, they were not the most common; perpetrators between the ages of 31 and 50 carried out 69% of the frauds in our study, as shown in Figure 48.

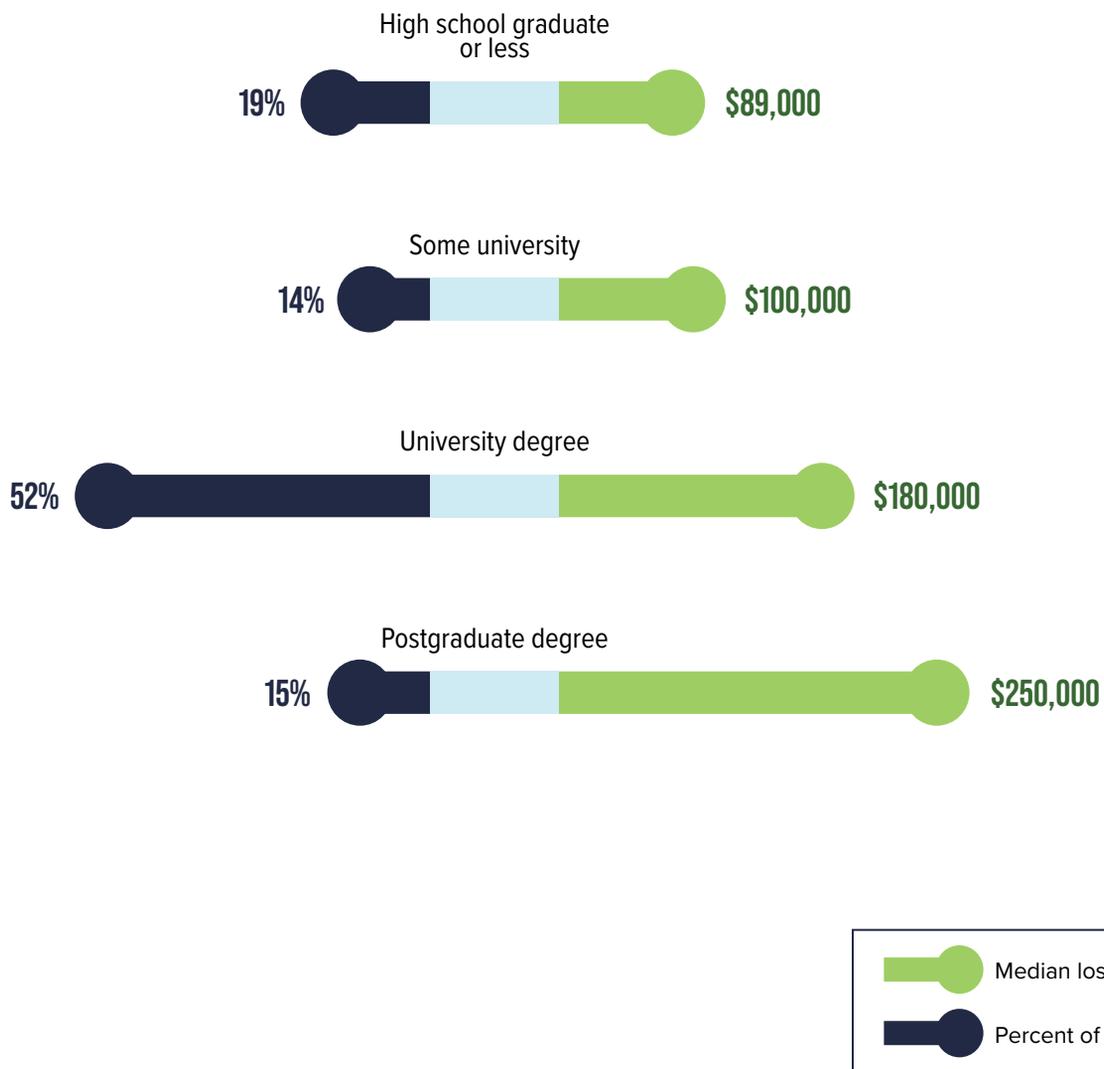
**FIG. 48 HOW DOES THE PERPETRATOR'S AGE RELATE TO OCCUPATIONAL FRAUD?**



## PERPETRATOR'S EDUCATION LEVEL

Fraud risk also tends to increase with the perpetrator's education level. More than two-thirds of fraudsters in our study had at least a university degree. Additionally, median losses increased in line with the perpetrator's level of education, with the most highly educated perpetrators causing losses nearly three times as large as the least educated perpetrators (see Figure 49).

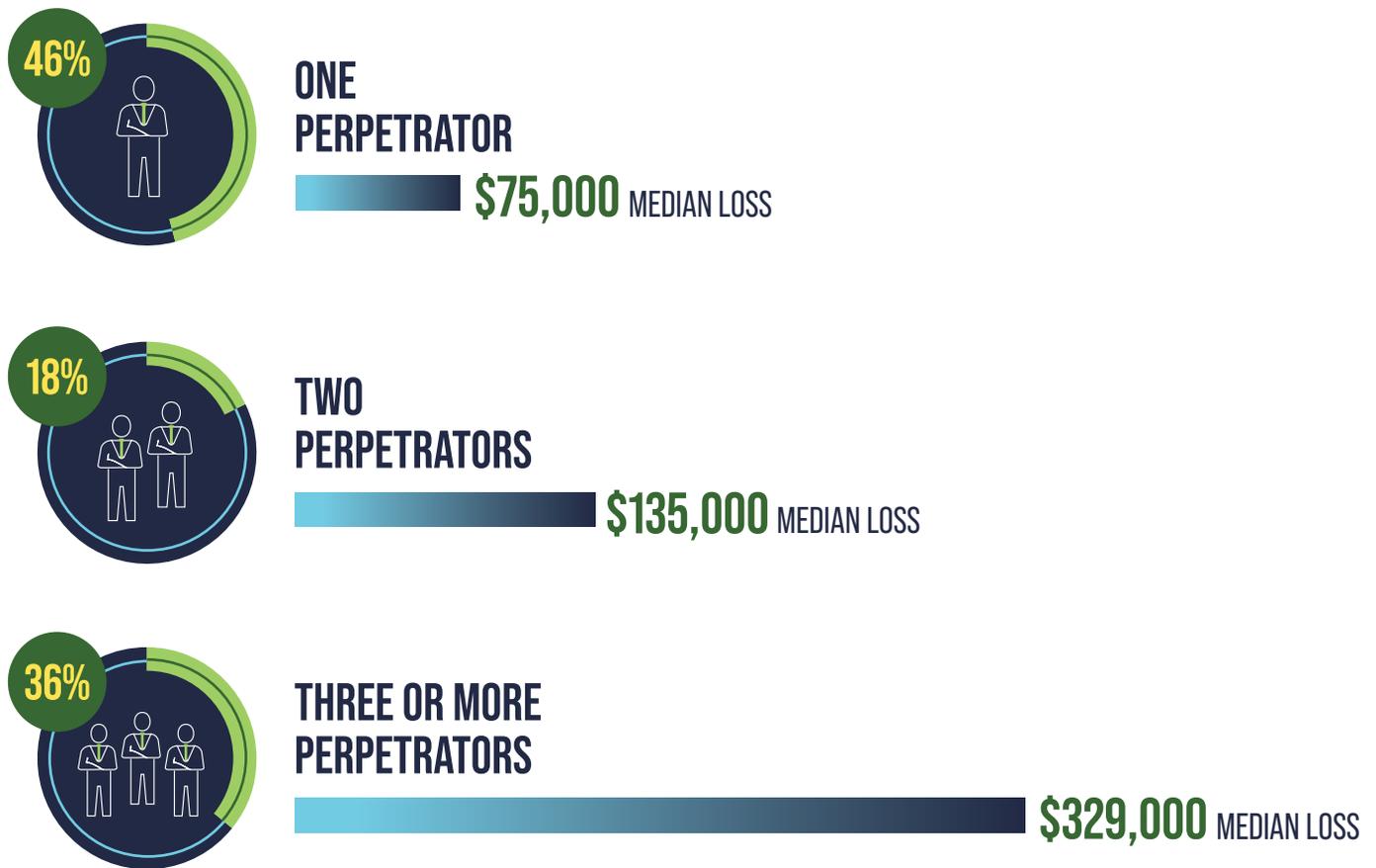
**FIG. 49 HOW DOES THE PERPETRATOR'S EDUCATION LEVEL RELATE TO OCCUPATIONAL FRAUD?**



## COLLUSION BY MULTIPLE PERPETRATORS

As shown in Figure 50, more than half (54%) of the frauds in our study were carried out by multiple perpetrators colluding, rather than a single fraudster acting alone. Schemes committed by sole perpetrators also had the lowest median loss (USD 75,000), and frauds perpetrated by three or more perpetrators caused losses more than twice as high as those perpetrated by only two co-conspirators. The higher losses associated with collusive schemes could be related to easier circumvention of controls, such as separation of duties, when multiple perpetrators work together.

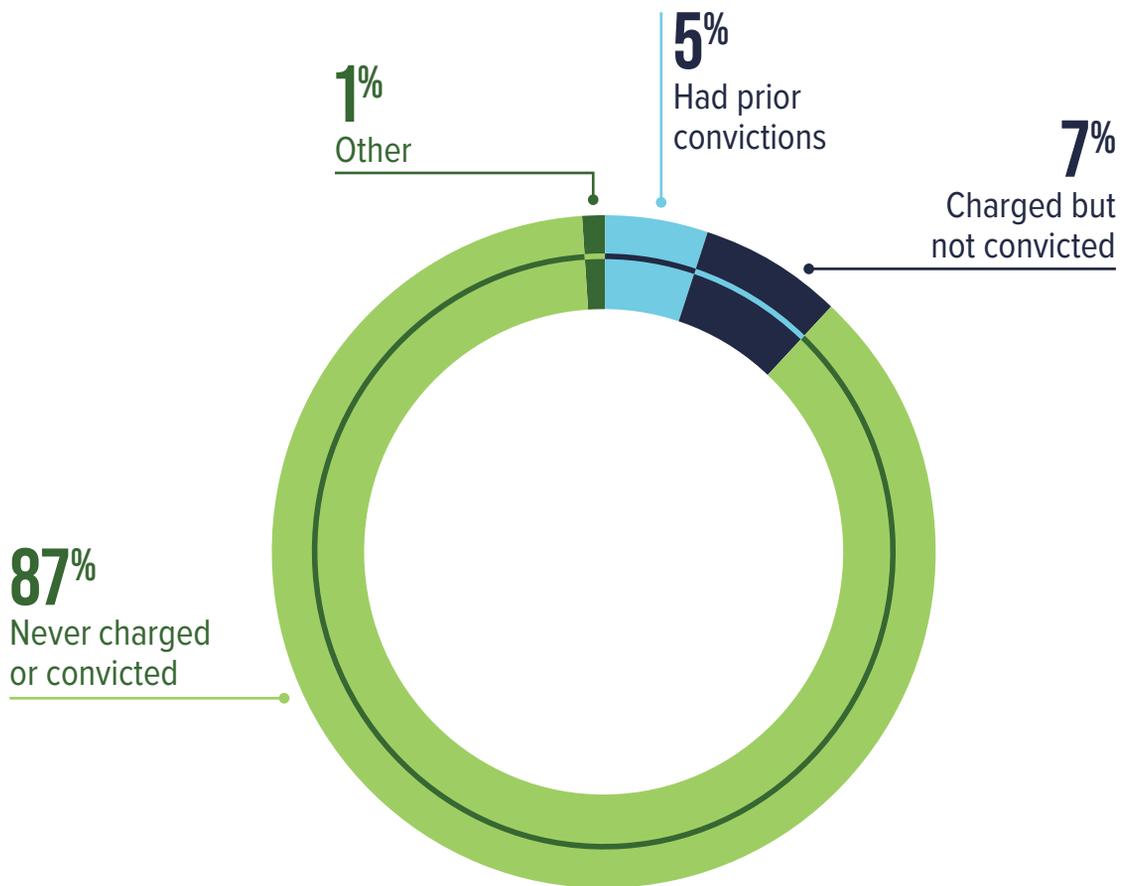
FIG. 50 HOW DOES THE NUMBER OF PERPETRATORS IN A SCHEME RELATE TO OCCUPATIONAL FRAUD?



## PERPETRATOR'S CRIMINAL BACKGROUND

As shown in Figure 51, the vast majority of perpetrators in our study (87%) had never been either charged with or convicted of a fraud-related offense, meaning that traditional criminal background checks would not have prevented the frauds from occurring. Interestingly, 5% of cases involved perpetrators with a prior fraud conviction that either was not known to the victim organization at the time of hiring or did not prevent the organization from hiring them.

FIG. 51 DO PERPETRATORS TEND TO HAVE PRIOR FRAUD CONVICTIONS?

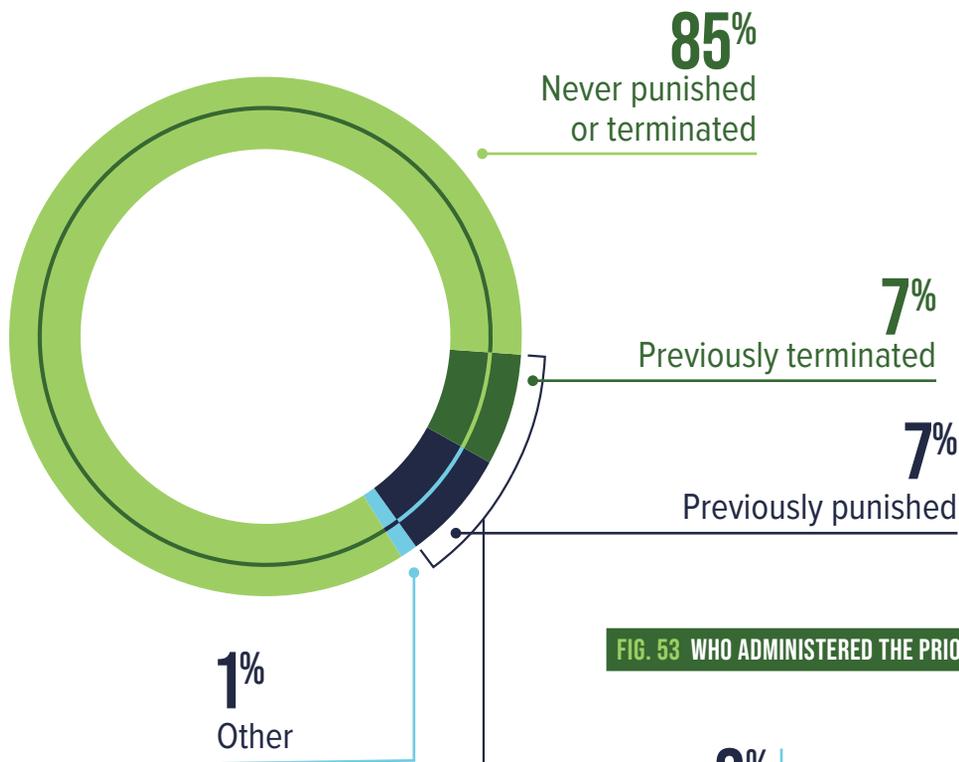


## PERPETRATOR'S EMPLOYMENT HISTORY

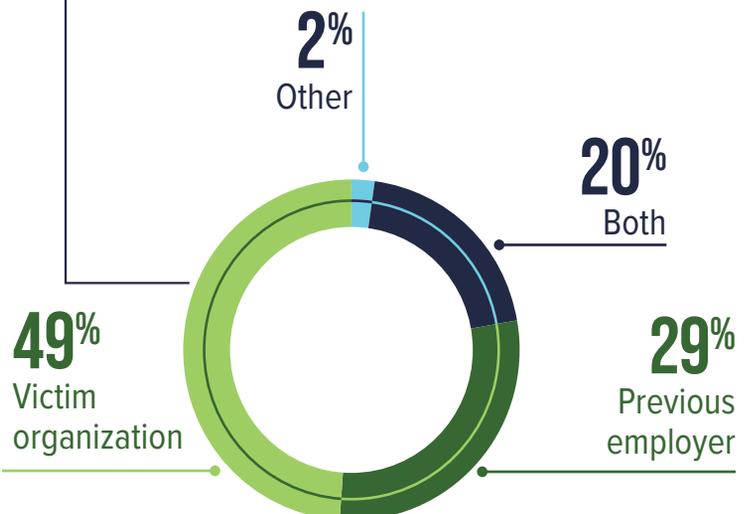
In addition to prior criminal history, we also asked survey respondents whether perpetrators had previously faced employer-administered disciplinary actions related to fraud, as well as who administered the disciplinary action. As illustrated in Figure 52, a significant majority of perpetrators (85%) had not previously been disciplined for fraud, although some perpetrators had either been terminated (7%) or punished for prior fraud-related issues (7%).

Of those who had experienced disciplinary actions related to fraud, almost half were disciplined by the same organization that was victimized in the case submitted for our study (see Figure 53). In contrast, 29% of the perpetrators faced discipline from a previous employer, and 20% were punished by both a previous employer and the victim organization.

**FIG. 52 DO PERPETRATORS TEND TO HAVE PRIOR EMPLOYMENT-RELATED DISCIPLINARY ACTIONS FOR FRAUD?**



**FIG. 53 WHO ADMINISTERED THE PRIOR DISCIPLINE?**

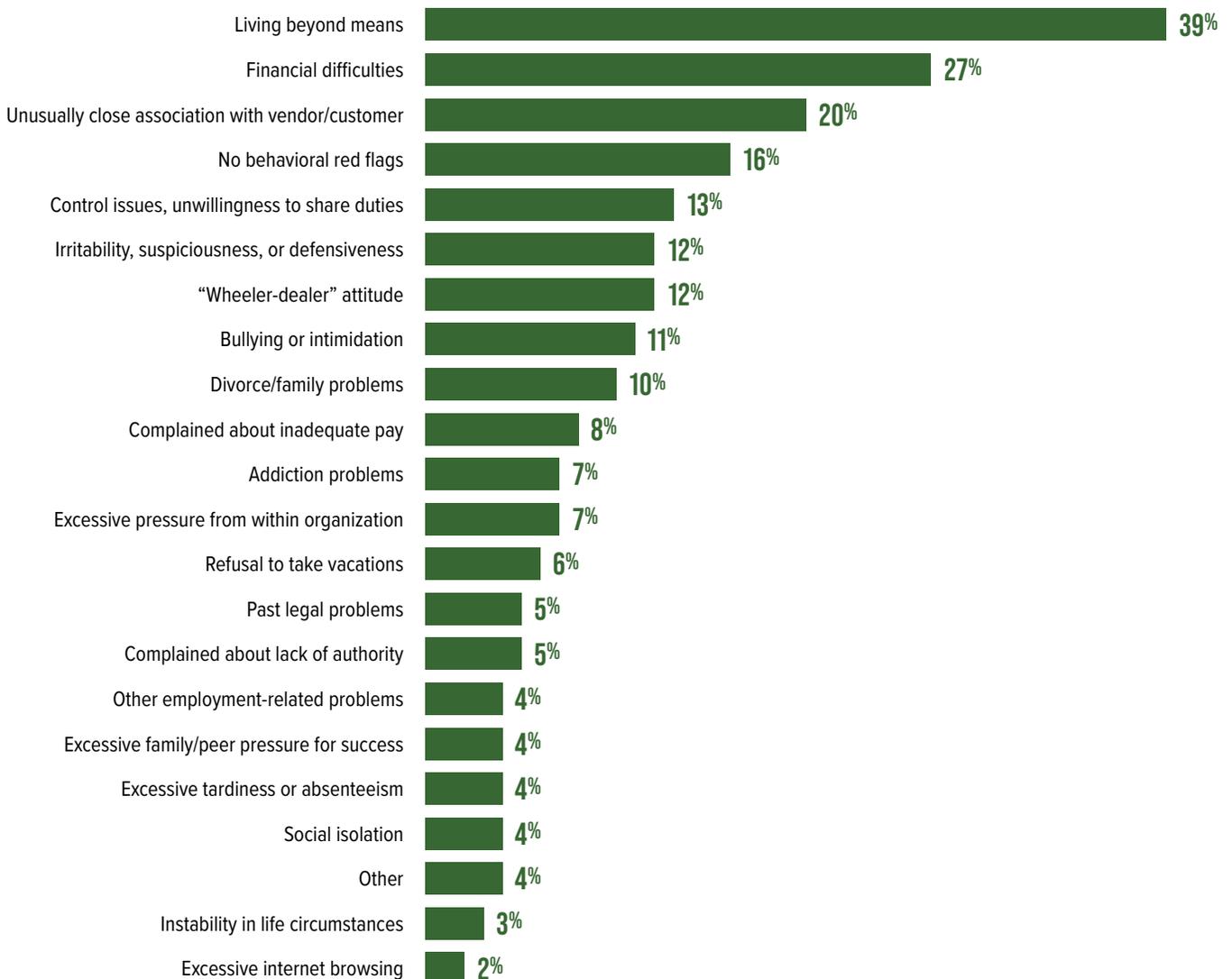


## BEHAVIORAL RED FLAGS DISPLAYED BY PERPETRATORS

Perpetrators of occupational fraud often display distinct behaviors while carrying out their fraud schemes. These behaviors can serve as red flags, potentially indicating the existence of fraud when observed. We asked survey respondents whether the perpetrators in their cases exhibited any of 20 different behavioral traits considered to be red flags of fraud. In 84% of cases, perpetrators displayed at least one of these behavioral red flags, and multiple red flags were present in more than half of cases (52%). Only 16% of cases did not involve the observation of any of these behaviors.

Figure 54 shows that the most common behavioral red flag was living a lifestyle beyond known income sources, or means, which was displayed by 39% of perpetrators. This red flag has consistently been cited as the most common red flag in each edition of our study. Other common behavioral red flags included experiencing financial difficulties (27%) and having an unusually close association with a vendor or customer (20%).

**FIG. 54 HOW OFTEN DO PERPETRATORS EXHIBIT BEHAVIORAL RED FLAGS?**



## HUMAN RESOURCES-RELATED RED FLAGS

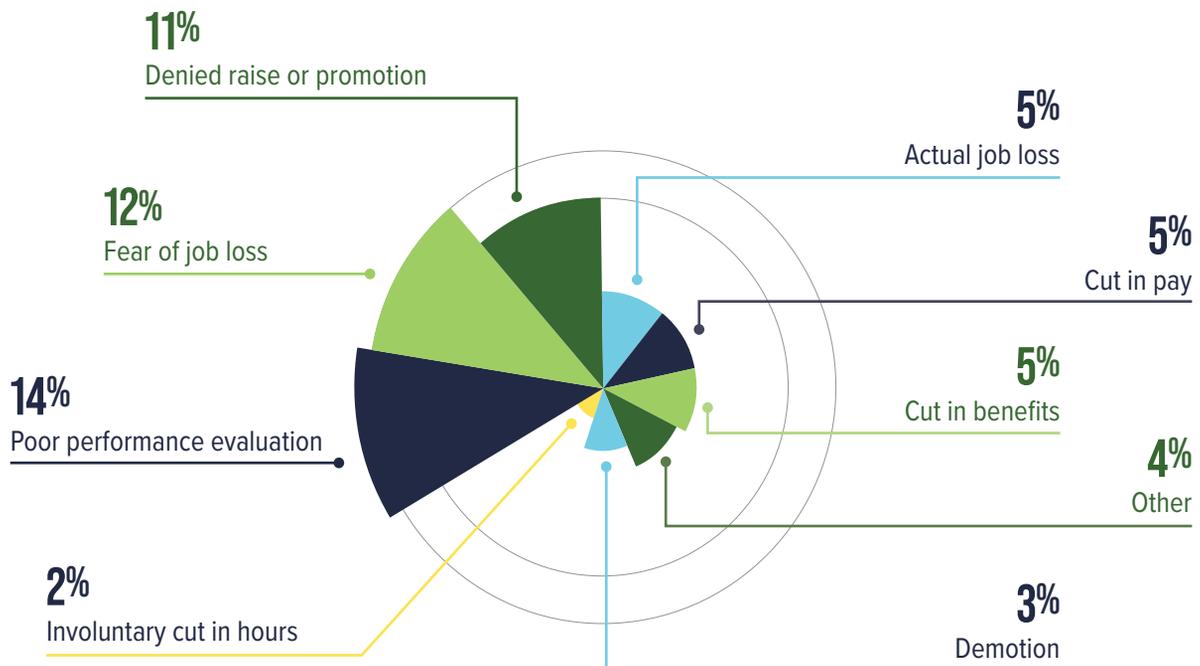
We also asked survey respondents whether perpetrators experienced any job-related circumstances that might influence their decision to commit fraud, which we refer to as human resources–related red flags. These include a fear of job loss; actual job loss; poor performance evaluations; a demotion; being denied a raise or promotion; and cuts in benefits, pay, or hours.

Figures 55 and 56 show that almost half of perpetrators (45%) did experience one of these human resources–related red flags, with poor performance evaluations (14%), fear of job loss (12%), and being denied a raise or promotion (11%) cited as the most common.

**FIG. 55 DO FRAUD PERPETRATORS EXPERIENCE NEGATIVE HR-RELATED ISSUES PRIOR TO OR DURING THEIR FRAUDS?**



**FIG. 56 WHICH HR-RELATED ISSUES ARE MOST COMMONLY EXPERIENCED BY FRAUD PERPETRATORS?**



# BEHAVIORAL RED FLAGS OF FRAUD

Fraudsters commonly display distinct behaviors that can serve as warning signs of their misdeeds. Organizations can improve their anti-fraud programs by taking these behavioral red flags into consideration when designing and implementing fraud prevention and detection measures.



**84%** of all fraudsters displayed at least one **BEHAVIORAL RED FLAG**

**FRAUDSTERS WHO DISPLAYED AT LEAST ONE** behavioral red flag caused median losses that were **20% GREATER** than those who did not display any.

No behavioral red flags  
**\$125,000** MEDIAN LOSS



At least one behavioral red flag  
**\$150,000** MEDIAN LOSS

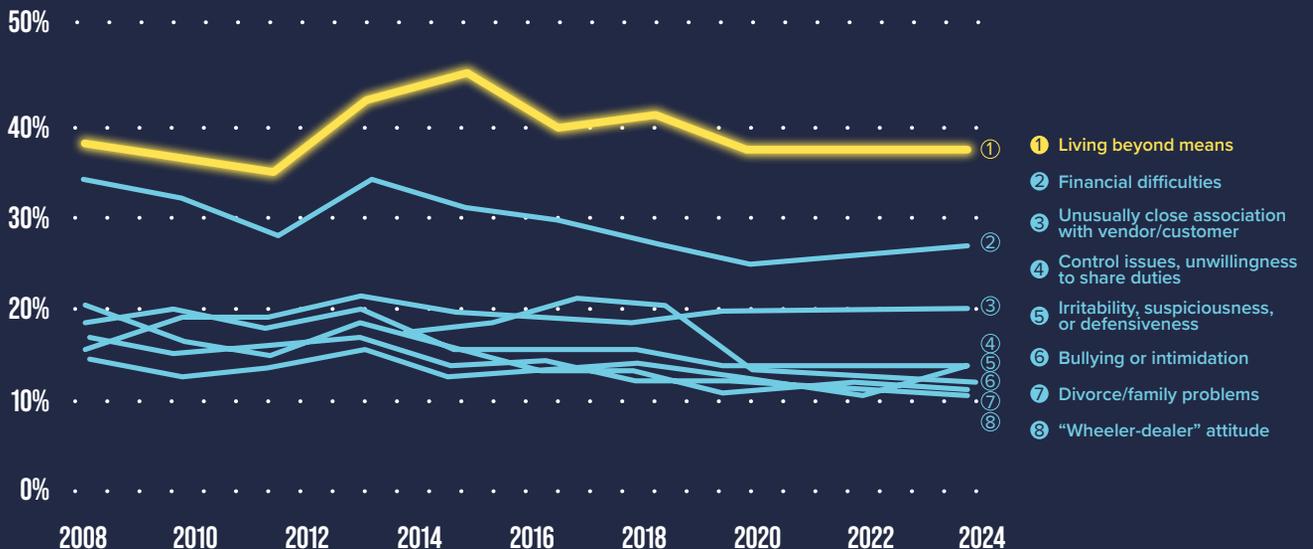
## 8 KEY WARNING SIGNS

**75%** of fraudsters displayed at least one of the **8 MOST COMMON** behavioral clues; each of these **BEHAVIORAL RED FLAGS** was observed in **AT LEAST 10%** of cases.



**FRAUDSTERS LIVING BEYOND THEIR MEANS** has consistently been the **MOST COMMON BEHAVIORAL RED FLAG** since we began tracking this data in 2008.

## COMMON BEHAVIORAL RED FLAGS

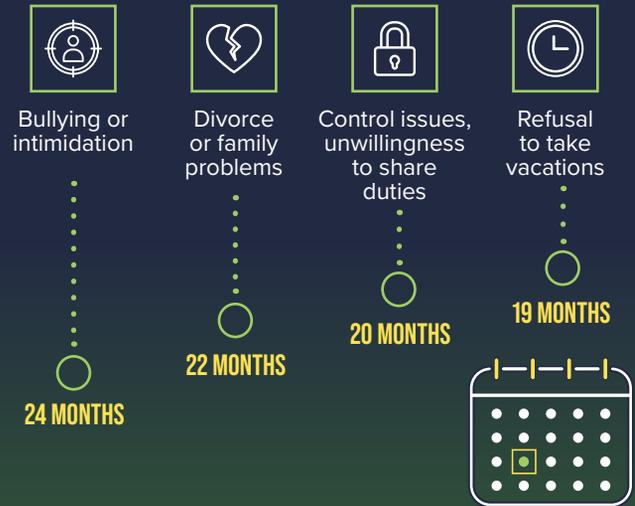




## Behavioral red flags associated with the **HIGHEST MEDIAN LOSSES**



## Behavioral red flags associated with the **LONGEST MEDIAN DURATIONS**



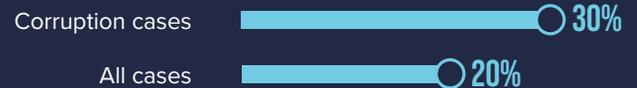
## GENDER DIFFERENCES IN BEHAVIORAL RED FLAGS

These behavioral flags tended to correlate with the fraudster’s gender.

	FEMALE	MALE
Living beyond means	41%	39%
Financial difficulties	31%	26%
Divorce or family problems	14%	8%
Unusually close association with vendor/customer	13%	22%
“Wheeler-dealer” attitude	6%	14%
Irritability, suspiciousness, or defensiveness	11%	13%



Perpetrators of corruption schemes more commonly **MAINTAINED AN UNUSUALLY CLOSE ASSOCIATION WITH A VENDOR/CUSTOMER.**



Perpetrators of financial statement fraud schemes more commonly **FACED EXCESSIVE PRESSURE TO PERFORM FROM WITHIN** the organization.



## PERPETRATORS STATISTICAL ANALYSIS

Most loss amounts presented in this report are median losses, which we use as a proxy for the cost of a “typical” fraud. Figure 57 provides a more holistic view of the costs associated with frauds committed by various categories of perpetrators, showing quartile and mean loss amounts, as well.

**FIG. 57 PERPETRATORS STATISTICAL ANALYSIS TABLE**

PERPETRATORS					
Category	Cases <sup>†</sup>	25 <sup>th</sup> percentile	Median (50 <sup>th</sup> percentile)	75 <sup>th</sup> percentile	Mean*
<b>Number of perpetrators:</b>					
One perpetrator	747	\$12,000	\$75,000	\$350,000	\$773,000
Two perpetrators	289	\$25,000	\$135,000	\$644,000	\$1,279,000
Three or more perpetrators	578	\$64,000	\$329,000	\$1,600,000	\$2,829,000
<b>Position:</b>					
Employee	599	\$10,000	\$60,000	\$255,000	\$726,000
Manager	660	\$40,000	\$184,000	\$750,000	\$1,238,000
Owner/executive	304	\$100,000	\$500,000	\$2,870,000	\$3,960,000
<b>Tenure:</b>					
<1 year	145	\$10,000	\$50,000	\$401,000	\$748,000
1–5 years	722	\$17,000	\$100,000	\$500,000	\$1,218,000
6–10 years	375	\$47,000	\$200,000	\$850,000	\$1,644,000
>10 years	364	\$52,000	\$250,000	\$1,500,000	\$2,692,000
<b>Department:</b>					
Operations	221	\$20,000	\$100,000	\$475,000	\$1,013,000
Sales	199	\$13,000	\$75,000	\$410,000	\$1,464,000
Accounting	197	\$46,000	\$208,000	\$750,000	\$1,147,000
Customer service	149	\$10,000	\$55,000	\$280,000	\$666,000
Executive/upper management	142	\$100,000	\$793,000	\$4,031,000	\$4,570,000
Purchasing	107	\$33,000	\$143,000	\$400,000	\$961,000
Administrative support	94	\$20,000	\$88,000	\$379,000	\$876,000
Finance	82	\$26,000	\$285,000	\$1,063,000	\$2,562,000
Warehousing/inventory	61	\$50,000	\$200,000	\$855,000	\$1,925,000
Facilities and maintenance	59	\$20,000	\$150,000	\$340,000	\$423,000
Information technology	51	\$17,000	\$156,000	\$1,000,000	\$1,302,000
Manufacturing and production	43	\$30,000	\$120,000	\$617,000	\$1,974,000
Board of directors	37	\$79,000	\$800,000	\$5,000,000	\$4,593,000
Human resources	28	\$15,000	\$100,000	\$363,000	\$729,000
Marketing/public relations	21	\$10,000	\$321,000	\$1,550,000	\$1,415,000
<b>Gender:</b>					
Male	1188	\$30,000	\$158,000	\$950,000	\$1,782,000
Female	391	\$19,000	\$100,000	\$402,000	\$920,000
<b>Age:</b>					
<26	50	\$5,000	\$25,000	\$150,000	\$816,000
26–30	157	\$10,000	\$56,000	\$358,000	\$786,000
31–35	241	\$13,000	\$65,000	\$421,000	\$868,000
36–40	296	\$25,000	\$120,000	\$526,000	\$1,315,000
41–45	280	\$40,000	\$150,000	\$1,000,000	\$1,611,000
46–50	233	\$69,000	\$250,000	\$1,000,000	\$2,103,000
51–55	141	\$41,000	\$250,000	\$1,050,000	\$1,712,000
56–60	92	\$100,000	\$400,000	\$2,200,000	\$3,912,000
>60	42	\$81,000	\$675,000	\$4,400,000	\$4,087,000
<b>Education level:</b>					
High school graduate or less	238	\$20,000	\$89,000	\$400,000	\$796,000
Some university	171	\$23,000	\$100,000	\$650,000	\$1,090,000
University degree	649	\$30,000	\$180,000	\$890,000	\$1,863,000
Postgraduate degree	185	\$50,000	\$250,000	\$1,500,000	\$2,631,000

\*Mean amounts were calculated using loss data that was winsorized at 5% (i.e., assigned all cases in the top 2.5% and bottom 2.5% the same value as the 97.5<sup>th</sup> percentile and 2.5<sup>th</sup> percentile, respectively).

†Loss calculations were omitted for categories with fewer than ten responses.

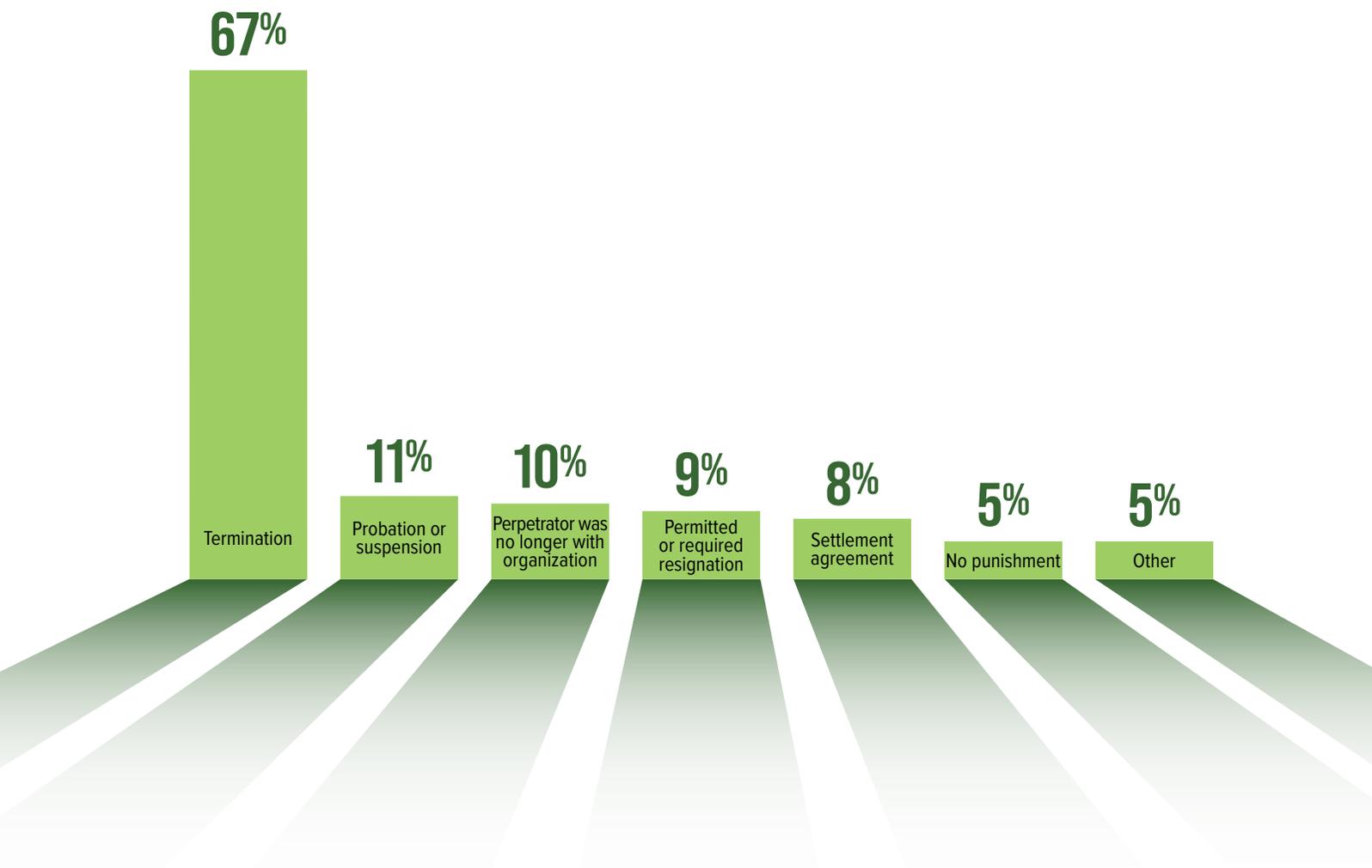
# CASE RESULTS

We asked survey respondents about how the victim organizations responded to the fraud, including whether and how the perpetrators were punished internally and whether the victims pursued legal actions to punish the fraudsters and recover lost assets. This information can assist organizations in determining the best course of action when future frauds are uncovered.

## INTERNAL ACTION TAKEN AGAINST PERPETRATORS

After a fraud examination has successfully and positively identified the perpetrators involved in the scheme, organizations must decide what internal recourse is appropriate. Continuing the trend from our previous studies, termination is far and away the most common punishment, with 67% of perpetrators being terminated following the fraud (see Figure 58). While a small portion (5%) of cases resulted in no punishment, perpetrators rarely remained at the victim organization, either because they were fired (67%), had already left (10%), or were permitted to resign (9%).

FIG. 58 HOW DO VICTIM ORGANIZATIONS PUNISH FRAUD PERPETRATORS?

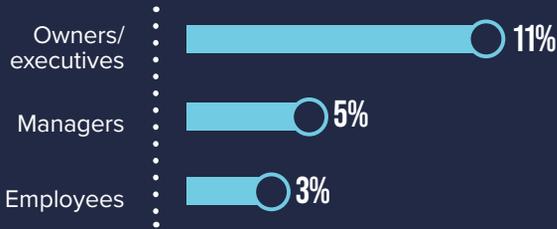


# RESPONSE TO FRAUD

Outcomes in occupational fraud cases can vary based on the role of the perpetrator, the type of scheme, the losses incurred, and how the victim organization chooses to pursue the matter. Whether they handle the fraud internally or through external legal actions, organizations must decide on the best course of action.

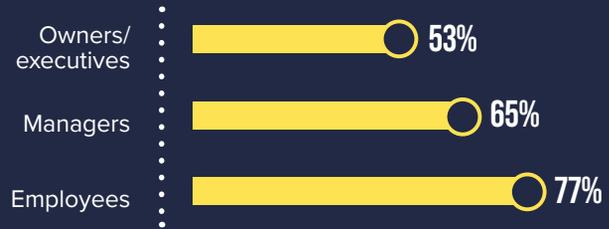
## INTERNAL PUNISHMENT

### RECEIVED NO PUNISHMENT



**OWNERS/EXECUTIVES** are **LEAST LIKELY TO BE PUNISHED** for fraud.

### TERMINATED FOR FRAUD



**STAFF-LEVEL EMPLOYEES** are **MOST LIKELY TO BE TERMINATED** for fraud.

## CRIMINAL REFERRALS

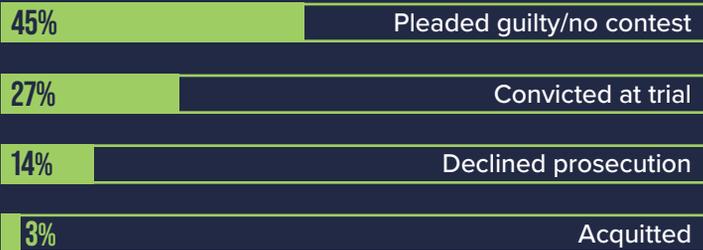
**MOST** occupational fraud cases **RESULT IN A CRIMINAL REFERRAL**



**57%**

of cases resulted in **CRIMINAL REFERRAL**

### MEDIAN LOSS



**72%** 

**“SUCCESS RATE”** of criminal referrals (perpetrator pleaded guilty or was convicted)



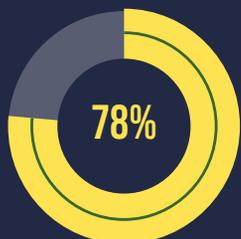
**TOP 3 REASONS WHY** victim organizations **DECLINE TO REFER** to law enforcement:

Internal discipline sufficient	49%
Fear of bad publicity	34%
Private settlement	24%

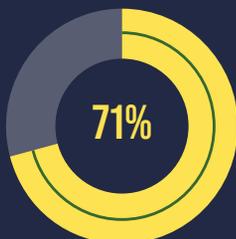
# ASSET MISAPPROPRIATION SCHEMES REFERRED TO LAW ENFORCEMENT

The type of scheme perpetrated has a significant impact on whether organizations make a criminal referral.

## MOST COMMONLY REFERRED



Check and payment tampering

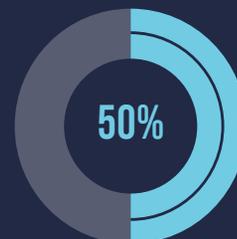


Cash larceny

## LEAST COMMONLY REFERRED

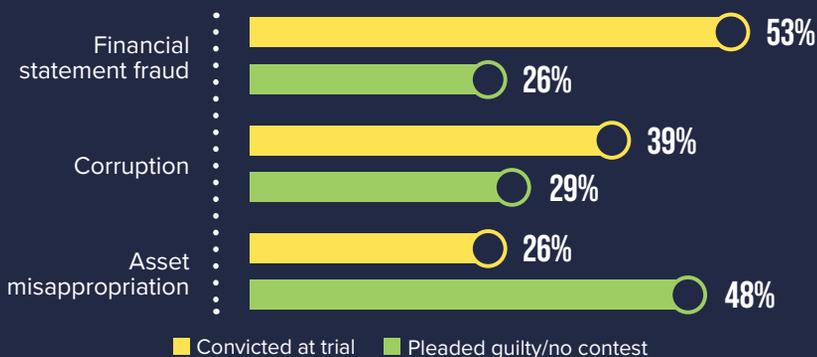


Expense reimbursement



Payroll fraud

**ASSET MISAPPROPRIATION** referrals to law enforcement are the **MOST LIKELY SCHEME TO FIND SUCCESS WITHOUT THE NEED FOR A TRIAL.**



## CIVIL LITIGATION

**73%** of cases did **NOT** result in civil litigation



**CIVIL SUITS ARE MORE FREQUENTLY FILED WHEN LOSSES ARE HIGHER.**

**MEDIAN LOSS** when civil suit **IS** FILED



**MEDIAN LOSS** when civil suit **IS NOT** FILED



## RESULTS OF CIVIL SUITS

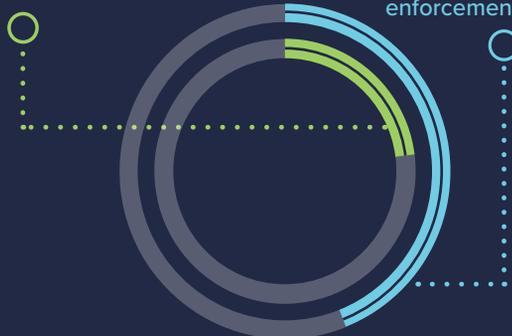
**74%** **“SUCCESS RATE”** of civil suits (perpetrator settled or judgment for victim)



## COMBINED RESULTS

**23%** Pursued **BOTH** civil litigation **AND** a criminal referral

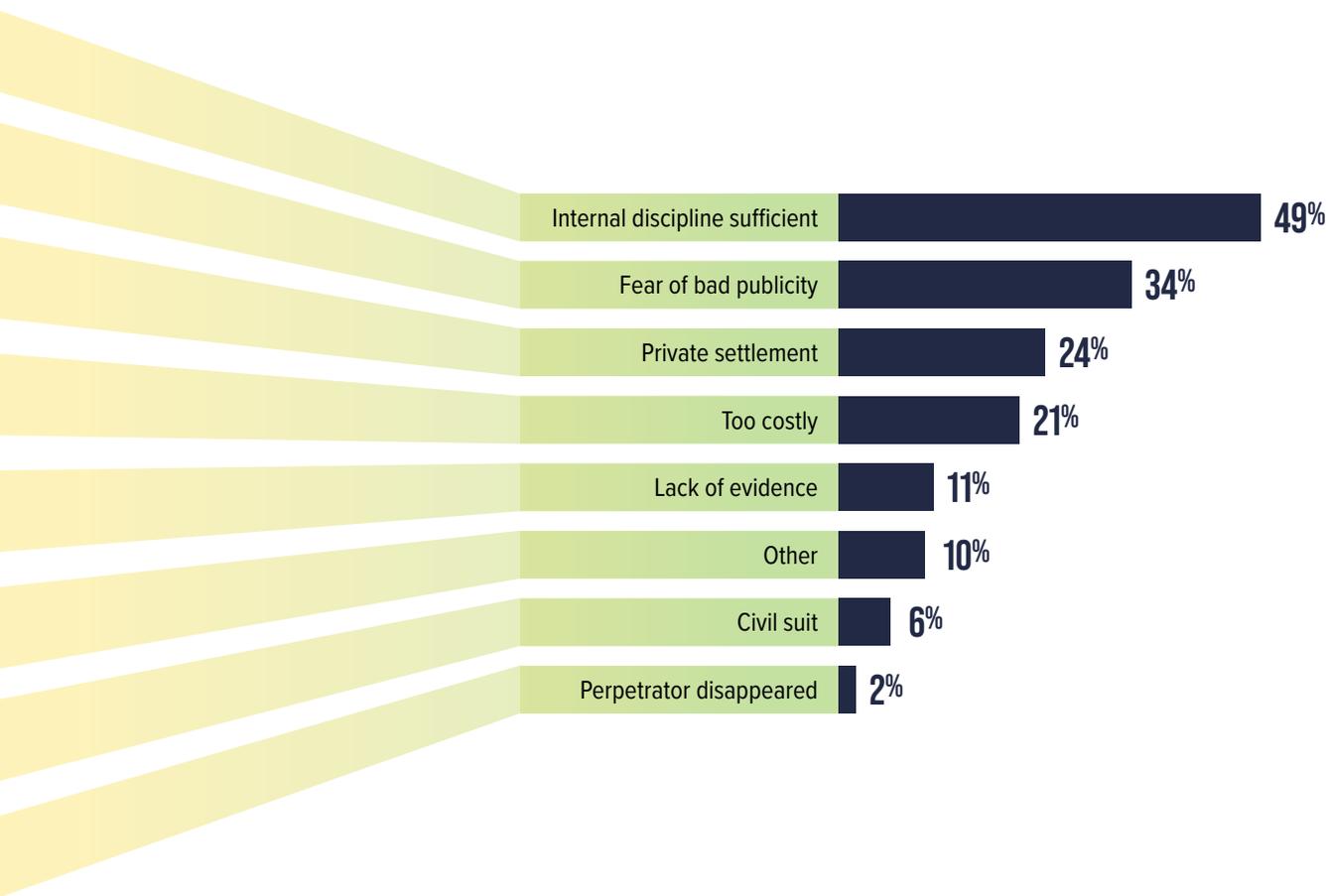
**44%** Did **NOT** file a civil suit **NOR** refer to law enforcement



## REASONS FOR NOT REFERRING CASES TO LAW ENFORCEMENT

As seen in the Response to Fraud infographic on [page 72](#), only 57% of the cases in our study were referred to law enforcement for further investigation and prosecution. To better understand why a victim organization might choose not to make a criminal referral, we asked respondents why the organizations in their reported cases made such a decision. As shown in Figure 59, the most common response was that internal discipline was deemed sufficient punishment of the perpetrator (49%), followed by the fear of bad publicity (34%) and private settlements being reached (24%).

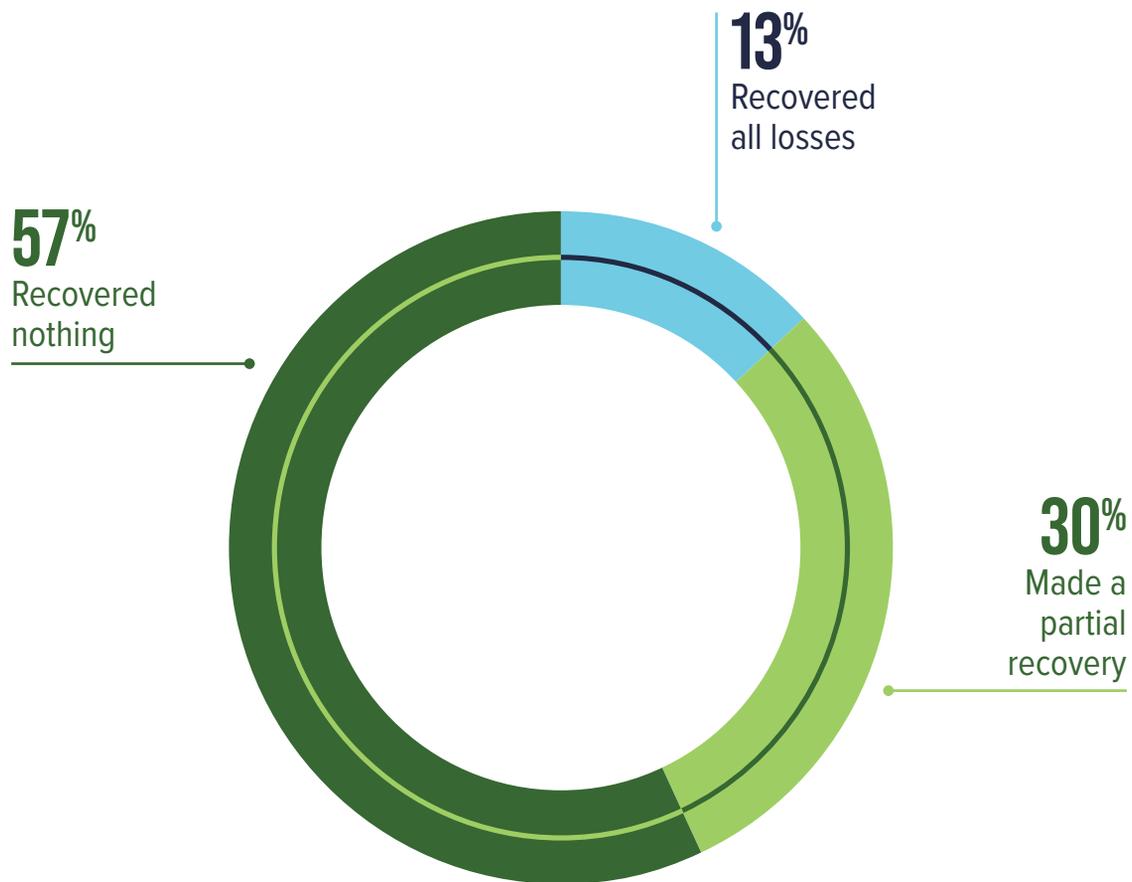
FIG. 59 WHY DO ORGANIZATIONS DECLINE TO REFER CASES TO LAW ENFORCEMENT?



## RECOVERING FRAUD LOSSES

The decision whether to pursue legal action, internally punish, or come to a settlement agreement with perpetrators is often based on the chances of successfully recovering the funds and assets lost to fraud. Unfortunately, regardless of the path chosen, organizations frequently failed to recover any fraud losses. As Figure 60 shows, 57% of the victim organizations in our study were unable to recover anything following the fraud. While 30% of organizations managed a partial recovery, only a small portion of respondents (13%) reported a full recovery for the victim organization.

FIG. 60 HOW SUCCESSFUL WERE ORGANIZATIONS AT RECOVERING LOSSES FROM FRAUD?

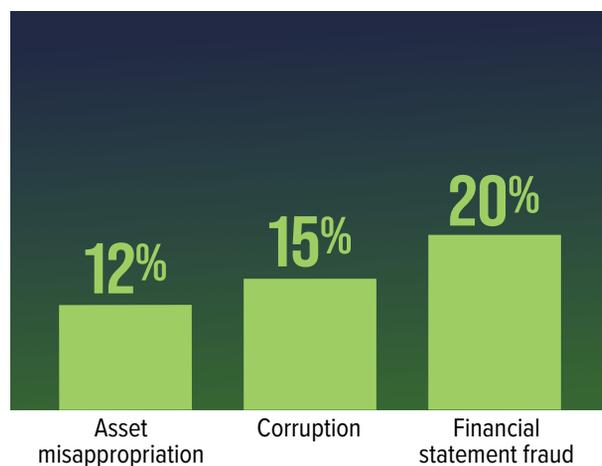


## FINES

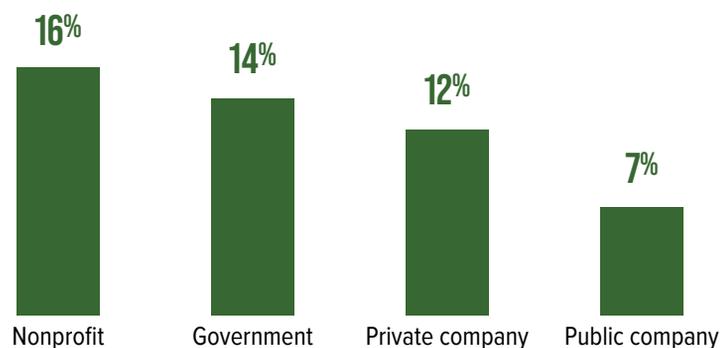
In some circumstances, organizations that experience a fraud might be fined or penalized by the agencies or authorities that oversee them, such as when the scheme resulted in the organization being noncompliant with specific rules or regulations. We asked survey respondents for details concerning whether the victim organization in their case had received such a fine. This information can be helpful for organizations to understand how occupational fraud might result in a finding of noncompliance and to help them make decisions concerning their internal compliance initiatives.

Only 9% of all victim organizations in our study incurred a fine related to the case they experienced. As shown in Figure 61, 12% of organizations victimized by asset misappropriation schemes received a fine. Comparatively, out of the financial statement fraud cases, 20% of victim organizations were fined. Additionally, nonprofit organizations received fines most frequently, while publicly traded companies were the least likely to receive a fine (see Figure 62).

**FIG. 61 HOW DOES SCHEME TYPE AFFECT THE FREQUENCY OF FINES INCURRED BY VICTIM ORGANIZATIONS?**



**FIG. 62 WHAT ORGANIZATION TYPES ARE FINED MOST FREQUENTLY?**



# METHODOLOGY

*Occupational Fraud 2024: A Report to the Nations* is based on the results of the ACFE 2023 *Global Fraud Survey*, an online survey opened to 53,118 Certified Fraud Examiners (CFEs) conducted from July 2023 to September 2023.

As part of the survey, respondents were asked to provide a narrative description of the single largest occupational fraud case they had investigated between January 2022 and the time of the survey. Respondents were then presented with questions regarding the 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. (Respondents were not asked to identify the perpetrator or the victim.)

We received 7,463 total responses to the survey, 1,921 of which were usable for purposes of the report. The data contained herein is based solely on the information provided in these 1,921 survey responses.

Cases submitted by survey participants were required to meet the following four criteria:

1. The case must have involved occupational fraud (i.e., fraud committed by a person against the organization for which they work).
2. The investigation must have occurred since January 2022.
3. The investigation must have been complete.
4. The respondent must have been reasonably sure the perpetrator(s) was (were) identified.

## OUR STUDY COVERED



1,921

CASES

from



138

COUNTRIES and  
TERRITORIES

Causing total losses of more than

**\$3.1 BILLION**

## **ANALYSIS METHODOLOGY**

### **PERCENTAGES**

The percentages discussed throughout this report were calculated by using 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 they did not know the answer to a question. Consequently, the total number of cases included in each analysis varies.

In addition, it is important to understand that several survey questions allowed participants to select more than one answer. Therefore, the sum of percentages in many figures throughout the report exceeds 100%. The sum of percentages in other figures might not be exactly 100% (i.e., it might be 99% or 101%) due to rounding of individual category data.

### **LOSS AMOUNTS**

All loss amounts are expressed in terms of U.S. dollars, which is how respondents were asked to report this information in the *Global Fraud Survey*.

Unless otherwise indicated, all loss amounts discussed throughout the report are calculated using median loss rather than mean, or average, loss. Using median loss provides a more conservative—and we believe more accurate—picture of the typical impact of occupational fraud schemes. The statistical analyses tables presented throughout the report provide a more holistic view of the losses in our study, reflecting quartiles and mean (i.e., average) loss amounts for numerous categories of cases explored throughout the report.

To normalize the loss amounts reported to us and ensure that cases with extremely large losses were not identifiable, all loss amounts reported were calculated using loss data that was winsorized at 5% (i.e., all cases in the top 2.5% and bottom 2.5% were assigned the same value as the 97.5th percentile and 2.5th percentile, respectively). Additionally, we excluded median and mean loss calculations for categories for which there were fewer than ten responses.

Because the direct losses caused by financial statement frauds are typically spread among numerous stakeholders, obtaining an accurate estimate for this amount is extremely difficult. Consequently, for schemes involving financial statement fraud, we asked survey participants to provide the gross amount of the financial statement misstatement (over- or understatement) involved in the scheme. All losses reported for financial statement frauds throughout this report are based on those reported amounts.

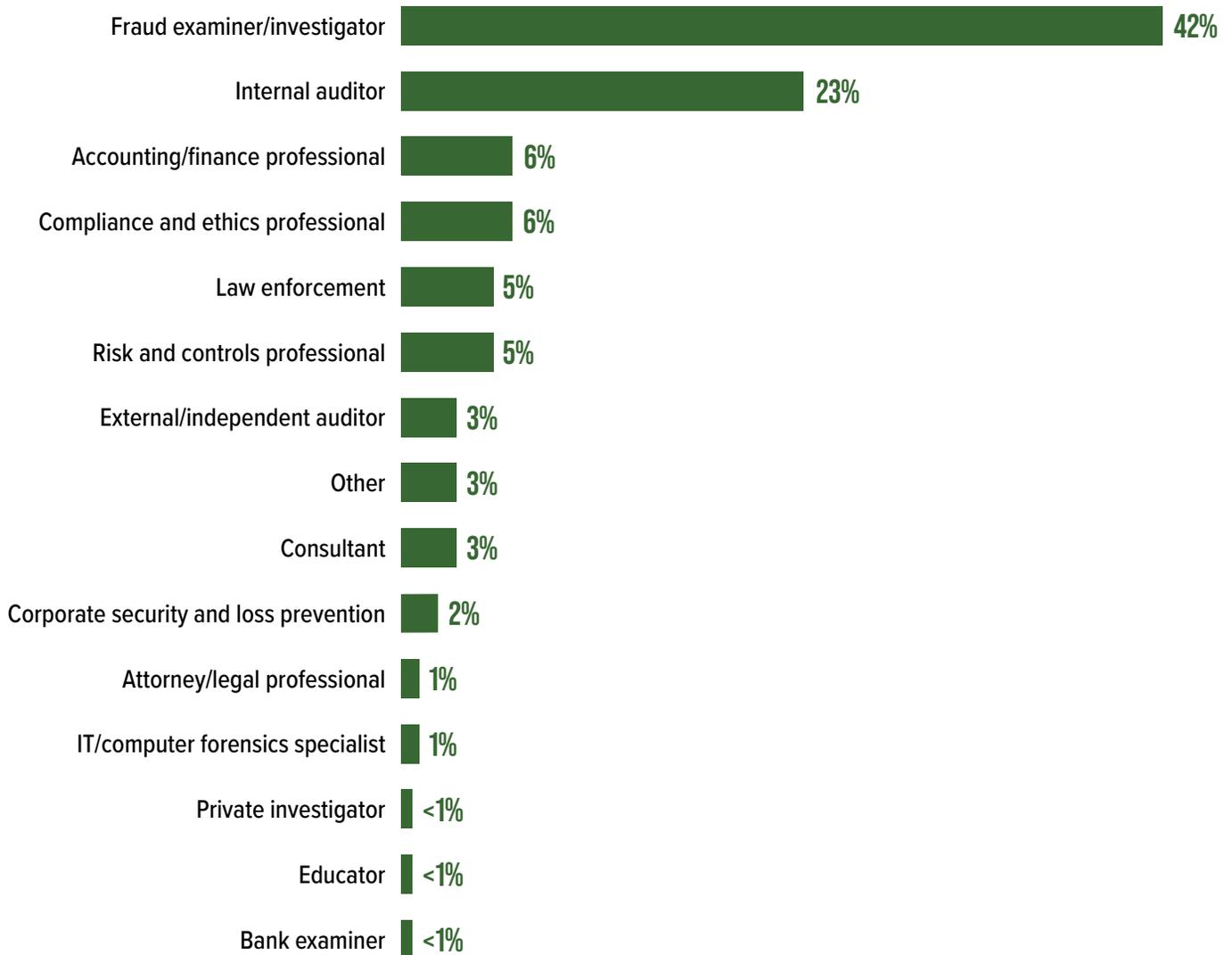
## SURVEY PARTICIPANTS

We asked respondents to provide certain information about their professional experience and qualifications to provide context for the survey responses and to understand who investigates cases of occupational fraud.

### PRIMARY OCCUPATION

The majority of survey respondents indicated that their primary profession is either a fraud examiner/investigator (42%) or an internal auditor (23%), as seen in Figure 63.

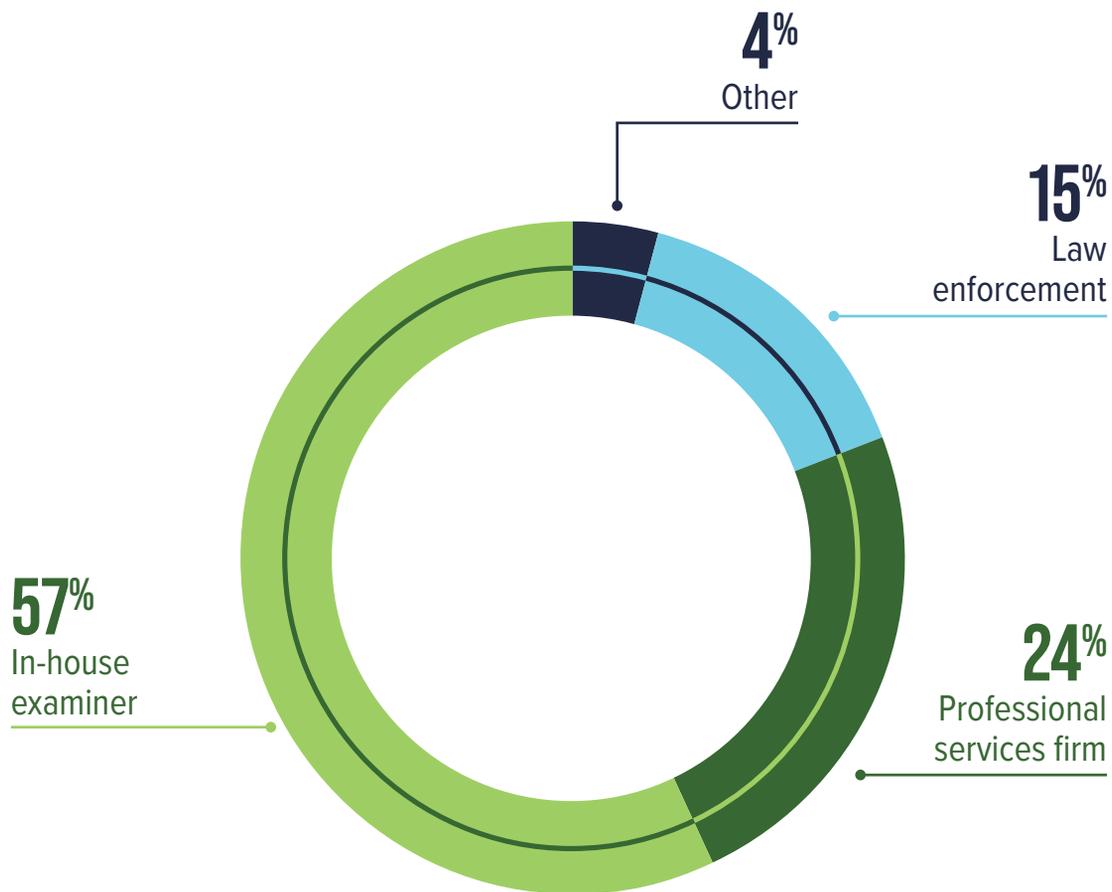
**FIG. 63 WHAT WAS THE PRIMARY OCCUPATION OF SURVEY PARTICIPANTS?**



## NATURE OF FRAUD EXAMINATION ROLE

As seen in Figure 64, over half of our survey participants (57%) work in-house and conduct fraud-related engagements on behalf of a single organization (i.e., their employer), while almost one-quarter (24%) work for a professional services firm that conducts fraud-related engagements for client organizations. Additionally, 15% work for law enforcement agencies and conduct fraud investigations of other parties under their agency's authority.

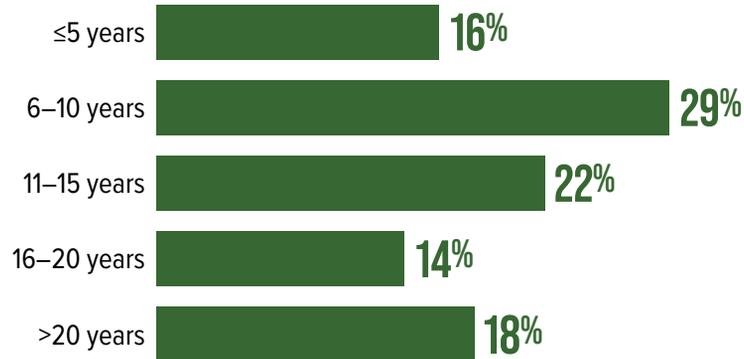
**FIG. 64** WHAT WAS THE PROFESSIONAL ROLE OF THE SURVEY PARTICIPANTS?



## PROFESSIONAL EXPERIENCE

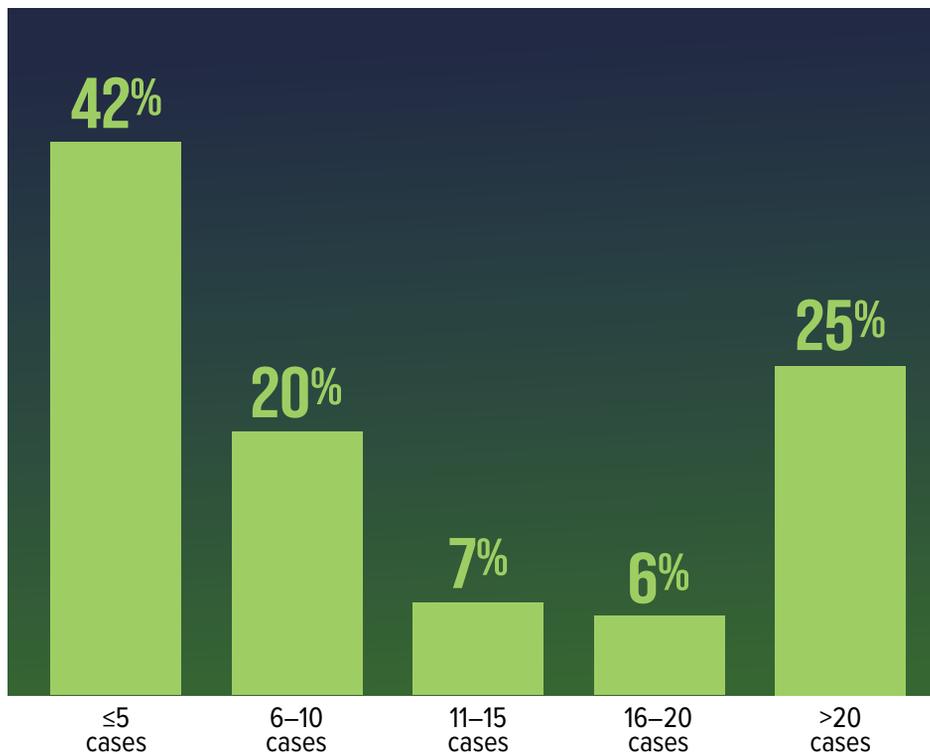
The CFEs who participated in the *Global Fraud Survey* had a median 12 years' experience in the fraud examination field, with 32% having more than 15 years of experience (see Figure 65).

**FIG. 65 HOW MUCH FRAUD EXAMINATION EXPERIENCE DID SURVEY PARTICIPANTS HAVE?**



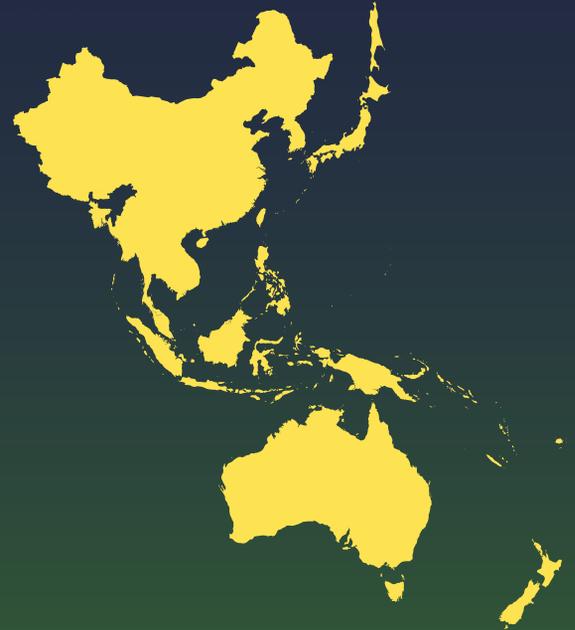
Additionally, one-quarter of participants have investigated more than 20 cases of fraud in the past two years (see Figure 66).

**FIG. 66 HOW MANY FRAUD CASES HAVE SURVEY PARTICIPANTS INVESTIGATED IN THE PAST TWO YEARS?**



REGIONAL FOCUS

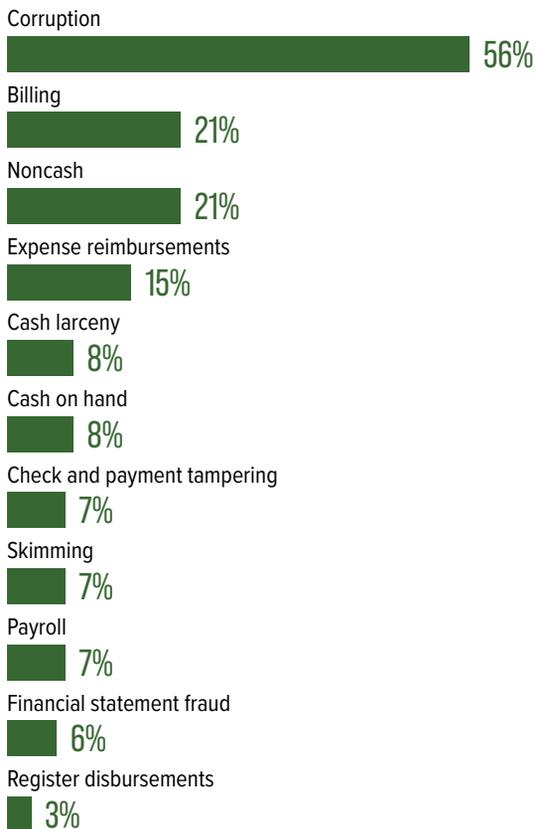
# ASIA-PACIFIC



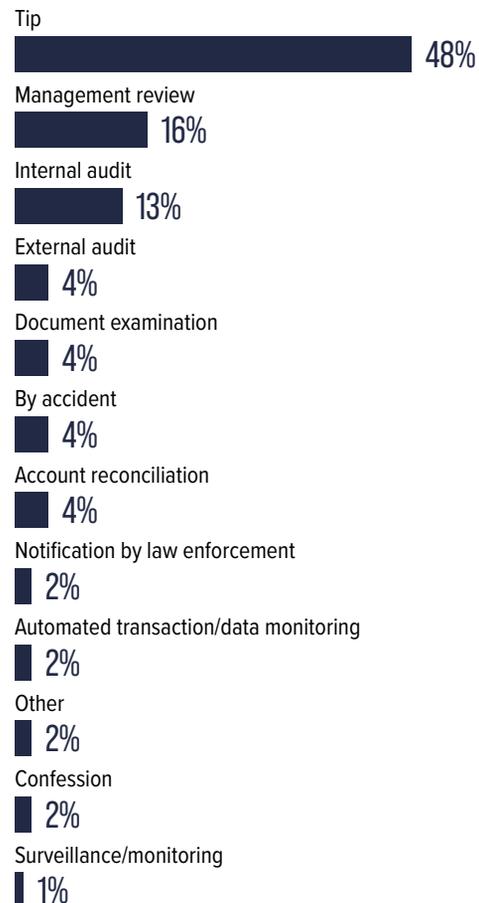
MEDIAN LOSS:  
**\$200,000**



**FIG. 67** WHAT ARE THE MOST COMMON OCCUPATIONAL FRAUD SCHEMES IN THE ASIA-PACIFIC REGION?



**FIG. 68** HOW IS OCCUPATIONAL FRAUD INITIALLY DETECTED IN THE ASIA-PACIFIC REGION?



**FIG. 69 WHAT ANTI-FRAUD CONTROLS ARE THE MOST COMMON IN THE ASIA-PACIFIC REGION?**

Control	Percent of cases
External audit of financial statements	90%
Code of conduct	90%
Internal audit department	86%
Management certification of financial statements	80%
Hotline	79%
Management review	78%
Independent audit committee	73%
External audit of internal controls over financial reporting	72%
Fraud training for employees	70%
Anti-fraud policy	66%
Fraud training for managers/executives	66%
Employee support programs	58%
Formal fraud risk assessments	55%
Dedicated fraud department, function, or team	51%
Proactive data monitoring/analysis	48%
Surprise audits	43%
Job rotation/mandatory vacation	25%
Rewards for whistleblowers	15%

**FIG. 70 HOW DOES THE PERPETRATOR'S LEVEL OF AUTHORITY RELATE TO OCCUPATIONAL FRAUD IN THE ASIA-PACIFIC REGION?**



**FIG. 71 HOW SUCCESSFUL WERE ORGANIZATIONS IN THE ASIA-PACIFIC REGION AT RECOVERING LOSSES FROM FRAUD?**



**FIG. 72 CASES BY COUNTRY/TERRITORY IN THE ASIA-PACIFIC REGION**

Country or territory	Number of cases
Australia	29
Cambodia	1
China	33
Fiji	1
Hong Kong	7
Indonesia	25
Japan	4
Malaysia	17
Myanmar (Burma)	1
New Zealand	8
Papua New Guinea	2
Philippines	12
Samoa	3
Singapore	15
Solomon Islands	1
South Korea	1
Taiwan	10
Thailand	9
Vietnam	4
<b>TOTAL CASES</b>	<b>183</b>

REGIONAL FOCUS

# EASTERN EUROPE AND WESTERN/CENTRAL ASIA

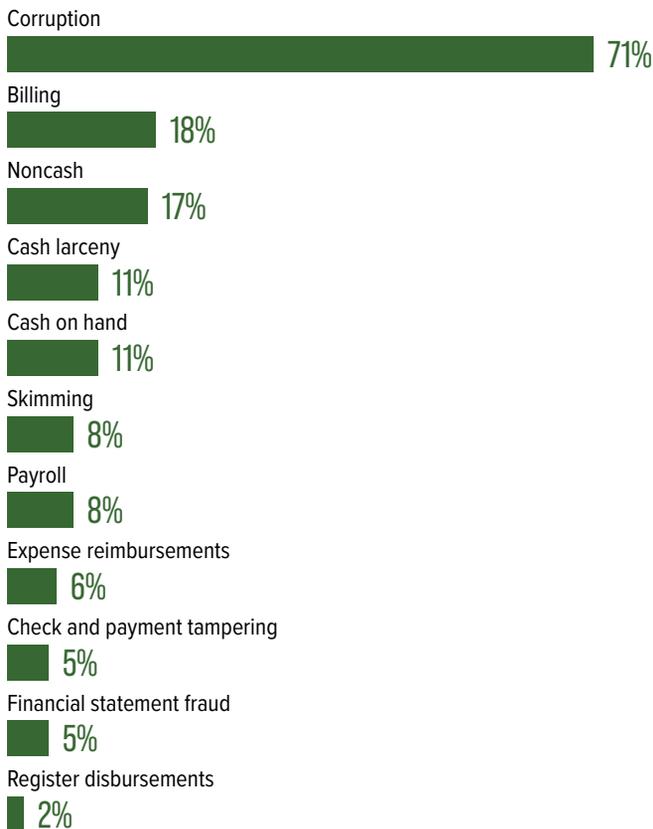


4%  
of cases

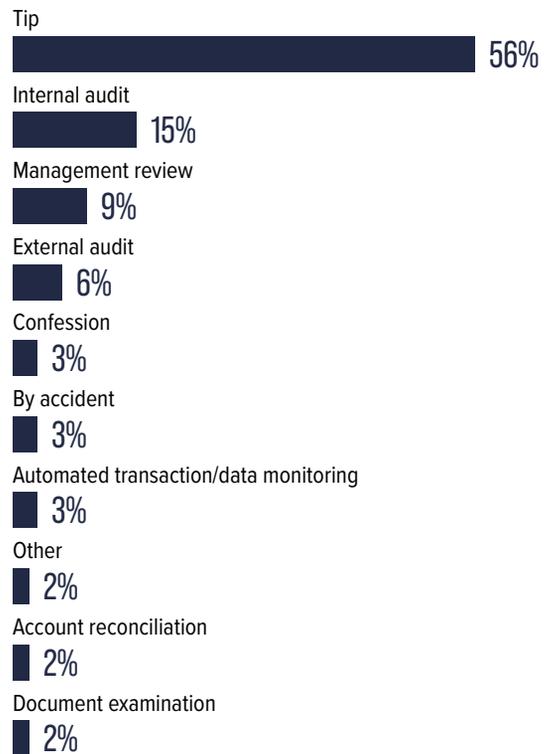
MEDIAN LOSS:  
**\$200,000**



**FIG. 73** WHAT ARE THE MOST COMMON OCCUPATIONAL FRAUD SCHEMES IN EASTERN EUROPE AND WESTERN/CENTRAL ASIA?



**FIG. 74** HOW IS OCCUPATIONAL FRAUD INITIALLY DETECTED IN EASTERN EUROPE AND WESTERN/CENTRAL ASIA?



**FIG. 75 WHAT ANTI-FRAUD CONTROLS ARE THE MOST COMMON IN EASTERN EUROPE AND WESTERN/CENTRAL ASIA?**

Control	Percent of cases
External audit of financial statements	94%
Code of conduct	92%
Internal audit department	88%
Hotline	88%
Management review	80%
Independent audit committee	79%
External audit of internal controls over financial reporting	79%
Management certification of financial statements	76%
Dedicated fraud department, function, or team	74%
Fraud training for employees	68%
Anti-fraud policy	67%
Fraud training for managers/executives	62%
Formal fraud risk assessments	60%
Proactive data monitoring/analysis	56%
Surprise audits	55%
Employee support programs	42%
Job rotation/mandatory vacation	18%
Rewards for whistleblowers	8%

**FIG. 76 HOW DOES THE PERPETRATOR'S LEVEL OF AUTHORITY RELATE TO OCCUPATIONAL FRAUD IN EASTERN EUROPE AND WESTERN/CENTRAL ASIA?**



**FIG. 77 HOW SUCCESSFUL WERE ORGANIZATIONS IN EASTERN EUROPE AND WESTERN/CENTRAL ASIA AT RECOVERING LOSSES FROM FRAUD?**



**FIG. 78 CASES BY COUNTRY/TERRITORY IN EASTERN EUROPE AND WESTERN/CENTRAL ASIA**

Country or territory	Number of cases
Albania	1
Armenia	2
Azerbaijan	3
Bulgaria	7
Czech Republic	4
Estonia	2
Hungary	6
Kazakhstan	4
Macedonia	1
Poland	7
Romania	7
Russia	4
Serbia	2
Slovakia	1
Slovenia	1
Turkey	9
Ukraine	4
Uzbekistan	1
<b>TOTAL CASES</b>	<b>66</b>

**REGIONAL FOCUS**

# LATIN AMERICA AND THE CARIBBEAN

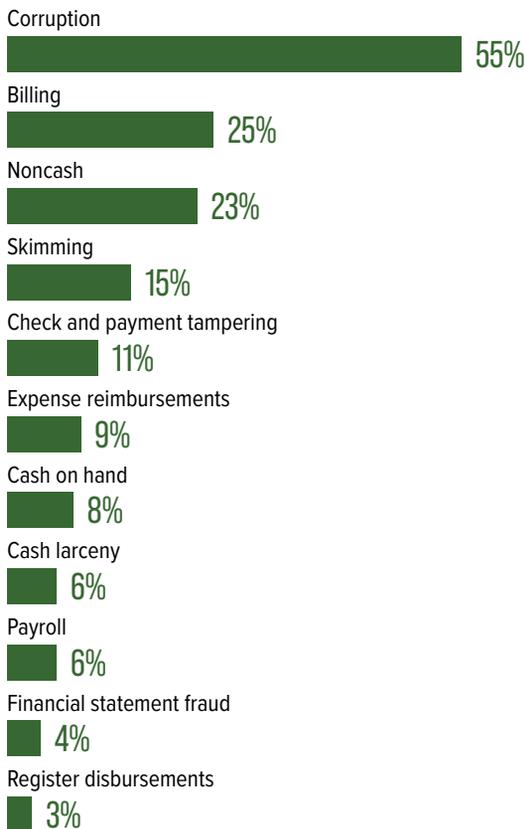


6%  
of cases

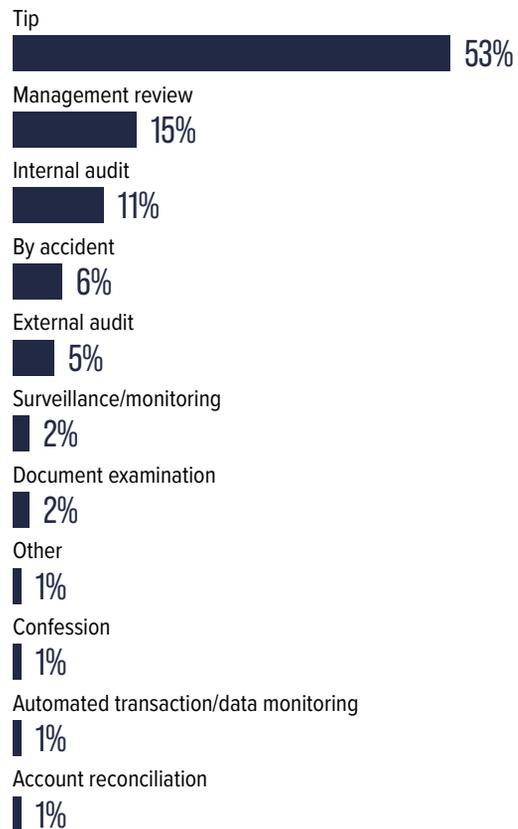
**MEDIAN LOSS:**  
**\$250,000**



**FIG. 79** WHAT ARE THE MOST COMMON OCCUPATIONAL FRAUD SCHEMES IN LATIN AMERICA AND THE CARIBBEAN?



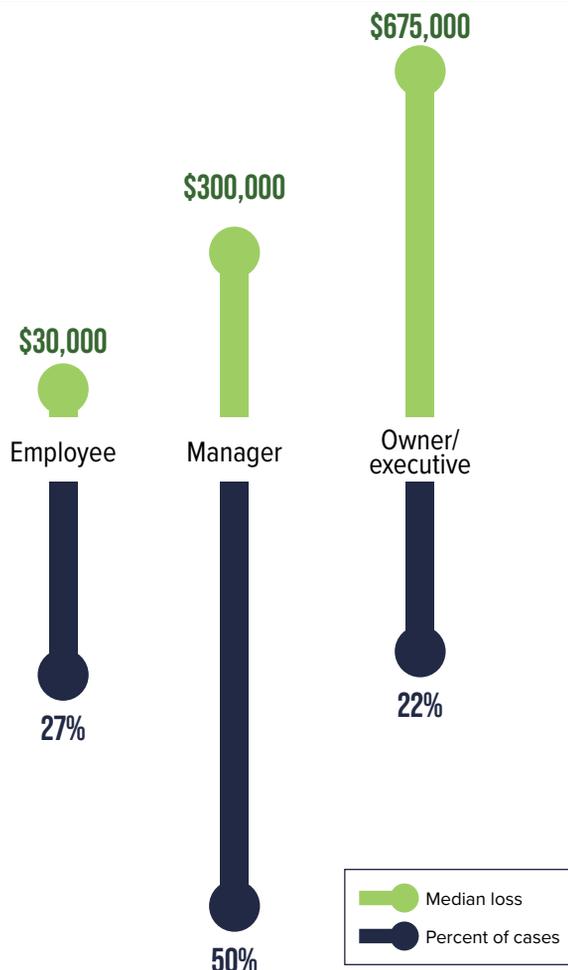
**FIG. 80** HOW IS OCCUPATIONAL FRAUD INITIALLY DETECTED IN LATIN AMERICA AND THE CARIBBEAN?



**FIG. 81 WHAT ANTI-FRAUD CONTROLS ARE THE MOST COMMON IN LATIN AMERICA AND THE CARIBBEAN?**

Control	Percent of cases
Code of conduct	90%
External audit of financial statements	85%
Internal audit department	79%
Hotline	77%
Management certification of financial statements	76%
Independent audit committee	71%
Management review	68%
External audit of internal controls over financial reporting	67%
Fraud training for employees	58%
Fraud training for managers/executives	57%
Anti-fraud policy	52%
Employee support programs	51%
Dedicated fraud department, function, or team	39%
Surprise audits	32%
Formal fraud risk assessments	30%
Proactive data monitoring/analysis	30%
Job rotation/mandatory vacation	21%
Rewards for whistleblowers	5%

**FIG. 82 HOW DOES THE PERPETRATOR'S LEVEL OF AUTHORITY RELATE TO OCCUPATIONAL FRAUD IN LATIN AMERICA AND THE CARIBBEAN?**



**FIG. 83 HOW SUCCESSFUL WERE ORGANIZATIONS IN LATIN AMERICA AND THE CARIBBEAN AT RECOVERING LOSSES FROM FRAUD?**



**FIG. 84 CASES BY COUNTRY/TERRITORY IN LATIN AMERICA AND THE CARIBBEAN**

Country or territory	Number of cases
Argentina	3
Bahamas	2
Barbados	2
Belize	1
Bolivia	1
Bonaire, Sint Eustatius and Saba	1
Brazil	11
Cayman Islands	3
Chile	2
Colombia	7
Costa Rica	2
Curaçao	2
Ecuador	1
Guatemala	2
Jamaica	3
Mexico	29
Nicaragua	1
Panama	4
Peru	7
Puerto Rico	2
Saint Lucia	1
Saint Vincent and the Grenadines	1
Trinidad and Tobago	5
<b>TOTAL CASES</b>	<b>93</b>

**REGIONAL FOCUS**

# MIDDLE EAST AND NORTH AFRICA

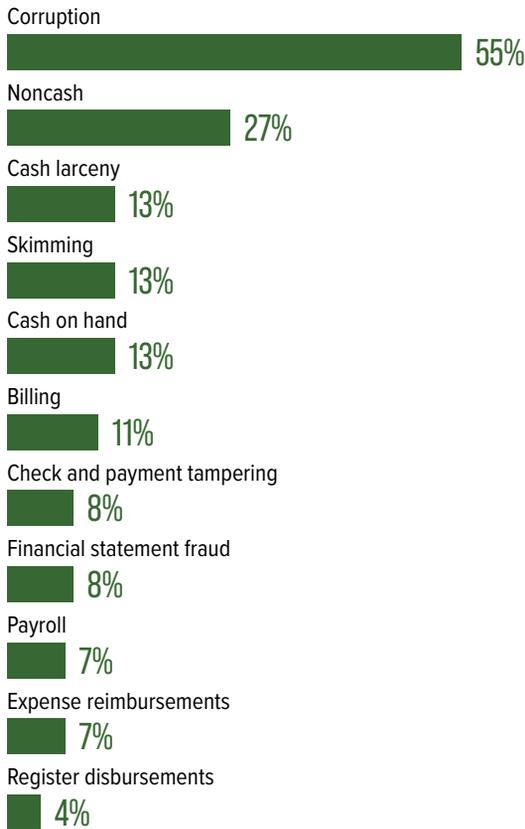


7%  
of cases

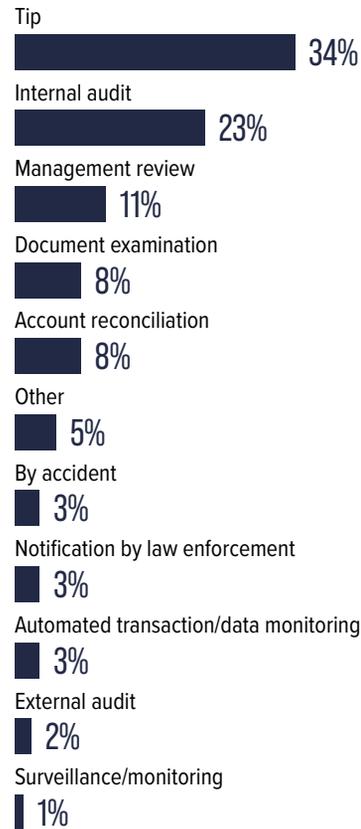
**MEDIAN LOSS:**  
**\$163,000**



**FIG. 85** WHAT ARE THE MOST COMMON OCCUPATIONAL FRAUD SCHEMES IN THE MIDDLE EAST AND NORTH AFRICA?



**FIG. 86** HOW IS OCCUPATIONAL FRAUD INITIALLY DETECTED IN THE MIDDLE EAST AND NORTH AFRICA?



**FIG. 87 WHAT ANTI-FRAUD CONTROLS ARE THE MOST COMMON IN THE MIDDLE EAST AND NORTH AFRICA?**

Control	Percent of cases
External audit of financial statements	93%
Internal audit department	92%
Code of conduct	86%
Management certification of financial statements	80%
Management review	80%
Hotline	76%
External audit of internal controls over financial reporting	75%
Independent audit committee	74%
Fraud training for employees	65%
Surprise audits	62%
Anti-fraud policy	61%
Fraud training for managers/executives	61%
Proactive data monitoring/analysis	55%
Formal fraud risk assessments	52%
Dedicated fraud department, function, or team	51%
Employee support programs	45%
Job rotation/mandatory vacation	33%
Rewards for whistleblowers	28%

**FIG. 88 HOW DOES THE PERPETRATOR'S LEVEL OF AUTHORITY RELATE TO OCCUPATIONAL FRAUD IN THE MIDDLE EAST AND NORTH AFRICA?**



**FIG. 89 HOW SUCCESSFUL WERE ORGANIZATIONS IN THE MIDDLE EAST AND NORTH AFRICA AT RECOVERING LOSSES FROM FRAUD?**



**FIG. 90 CASES BY COUNTRY/TERRITORY IN THE MIDDLE EAST AND NORTH AFRICA**

Country or territory	Number of cases
Algeria	1
Bahrain	2
Cyprus	5
Egypt	7
Iraq	2
Jordan	7
Kuwait	2
Lebanon	2
Libya	3
Malta	2
Morocco	1
Oman	4
Other/unknown	1
Palestine	1
Qatar	5
Saudi Arabia	26
Tunisia	2
United Arab Emirates	46
<b>TOTAL CASES</b>	<b>119</b>

**REGIONAL FOCUS**

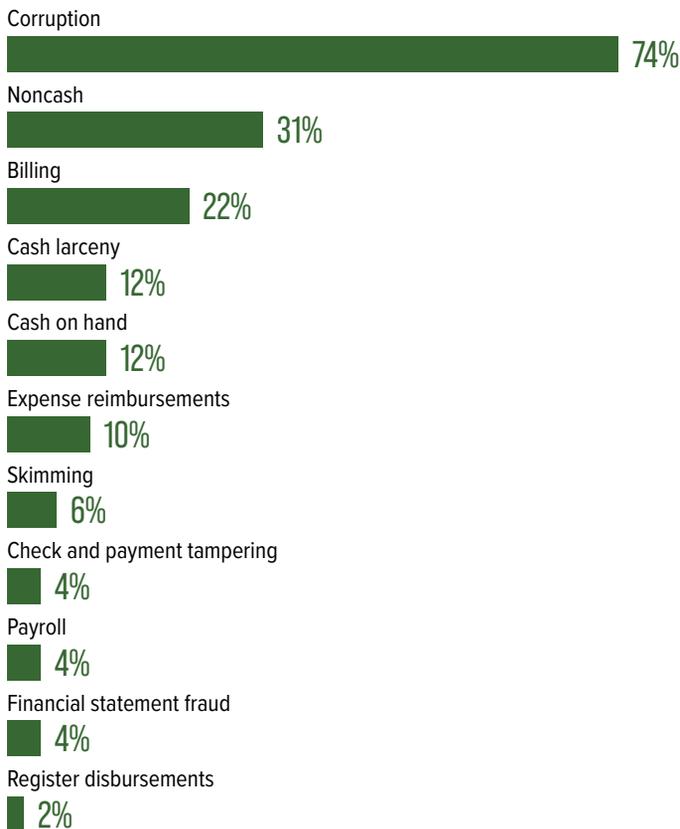
# SOUTHERN ASIA



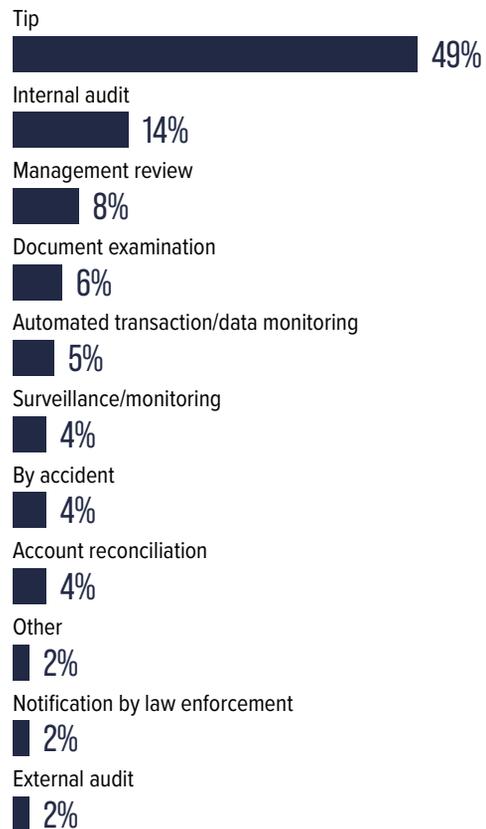
**MEDIAN LOSS:**  
**\$100,000**



**FIG. 91 WHAT ARE THE MOST COMMON OCCUPATIONAL FRAUD SCHEMES IN SOUTHERN ASIA?**



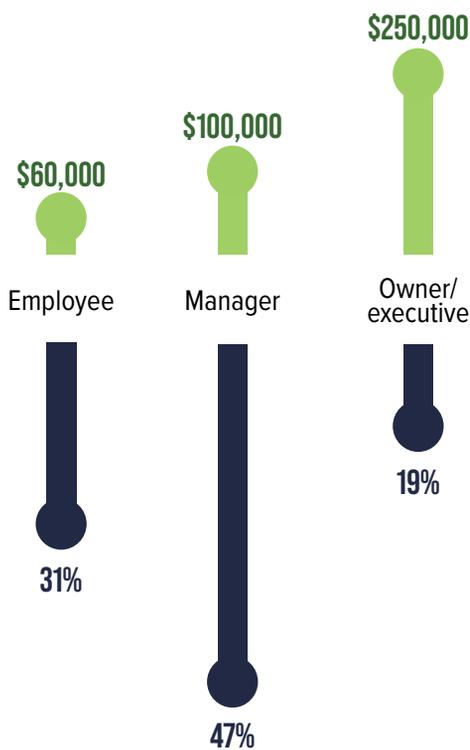
**FIG. 92 HOW IS OCCUPATIONAL FRAUD INITIALLY DETECTED IN SOUTHERN ASIA?**



**FIG. 93 WHAT ANTI-FRAUD CONTROLS ARE THE MOST COMMON IN SOUTHERN ASIA?**

Control	Percent of cases
External audit of financial statements	95%
Code of conduct	93%
Internal audit department	92%
Management certification of financial statements	89%
External audit of internal controls over financial reporting	89%
Management review	85%
Independent audit committee	81%
Hotline	73%
Anti-fraud policy	68%
Fraud training for employees	66%
Fraud training for managers/executives	64%
Dedicated fraud department, function, or team	55%
Employee support programs	55%
Formal fraud risk assessments	51%
Surprise audits	49%
Proactive data monitoring/analysis	47%
Job rotation/mandatory vacation	36%
Rewards for whistleblowers	29%

**FIG. 94 HOW DOES THE PERPETRATOR'S LEVEL OF AUTHORITY RELATE TO OCCUPATIONAL FRAUD IN SOUTHERN ASIA?**



● Median loss  
● Percent of cases

**FIG. 95 HOW SUCCESSFUL WERE ORGANIZATIONS IN SOUTHERN ASIA AT RECOVERING LOSSES FROM FRAUD?**



**FIG. 96 CASES BY COUNTRY/TERRITORY IN SOUTHERN ASIA**

Country or territory	Number of cases
Afghanistan	6
Bangladesh	3
India	101
Nepal	2
Pakistan	10
Sri Lanka	2
<b>TOTAL CASES</b>	<b>124</b>

# SUB-SAHARAN AFRICA

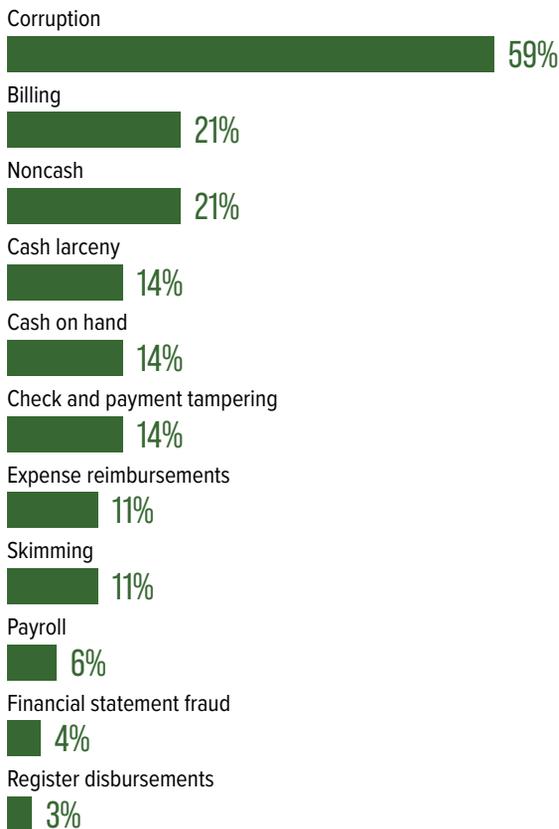


**MEDIAN LOSS:**  
**\$128,000**

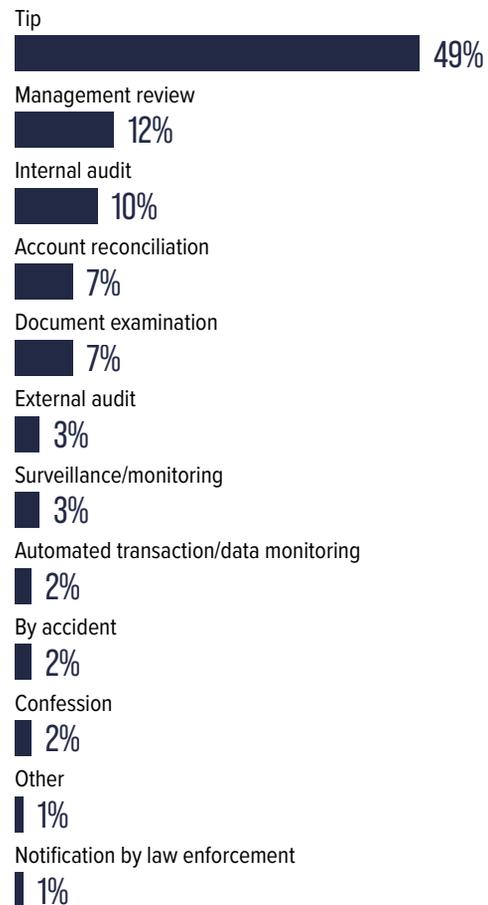


**18%**  
of cases

**FIG. 97** WHAT ARE THE MOST COMMON OCCUPATIONAL FRAUD SCHEMES IN SUB-SAHARAN AFRICA?



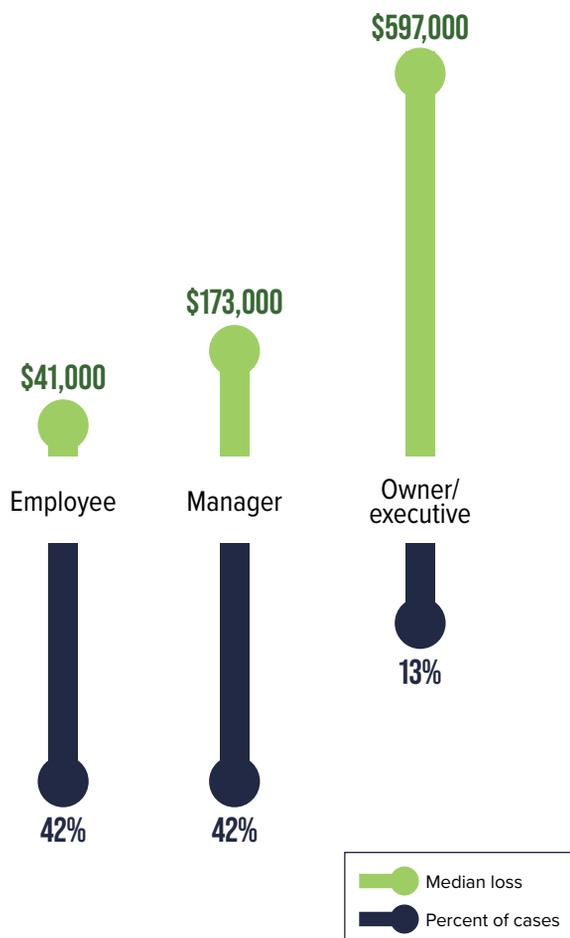
**FIG. 98** HOW IS OCCUPATIONAL FRAUD INITIALLY DETECTED IN SUB-SAHARAN AFRICA?



**FIG. 99 WHAT ANTI-FRAUD CONTROLS ARE THE MOST COMMON IN SUB-SAHARAN AFRICA?**

Control	Percent of cases
External audit of financial statements	90%
Internal audit department	88%
Code of conduct	85%
Management certification of financial statements	82%
External audit of internal controls over financial reporting	74%
Independent audit committee	73%
Hotline	70%
Management review	67%
Anti-fraud policy	63%
Fraud training for employees	63%
Fraud training for managers/executives	60%
Dedicated fraud department, function, or team	53%
Employee support programs	50%
Formal fraud risk assessments	47%
Surprise audits	44%
Proactive data monitoring/analysis	39%
Job rotation/mandatory vacation	23%
Rewards for whistleblowers	13%

**FIG. 100 HOW DOES THE PERPETRATOR'S LEVEL OF AUTHORITY RELATE TO OCCUPATIONAL FRAUD IN SUB-SAHARAN AFRICA?**



**FIG. 101 HOW SUCCESSFUL WERE ORGANIZATIONS IN SUB-SAHARAN AFRICA AT RECOVERING LOSSES FROM FRAUD?**



**FIG. 102 CASES BY COUNTRY/TERRITORY IN SUB-SAHARAN AFRICA**

Country or territory	Number of cases
Angola	2
Botswana	3
Burkina Faso	1
Burundi	1
Central African Republic	1
Cote d'Ivoire	1
Democratic Republic of the Congo	10
Eswatini (formerly Swaziland)	1
Ethiopia	2
Gambia (The)	1
Ghana	12
Kenya	40
Lesotho	3
Liberia	5
Madagascar	2
Malawi	5
Mali	3
Mauritania	2
Mauritius	2
Mozambique	2
Namibia	5
Niger	1
Nigeria	62
Republic of the Congo	1
Rwanda	2
Senegal	1
Seychelles	1
Sierra Leone	5
Somalia	2
South Africa	88
South Sudan	1
Sudan	1
Tanzania	2
Uganda	13
Zambia	4
Zimbabwe	11
<b>TOTAL CASES</b>	<b>299</b>

**REGIONAL FOCUS**

# UNITED STATES AND CANADA

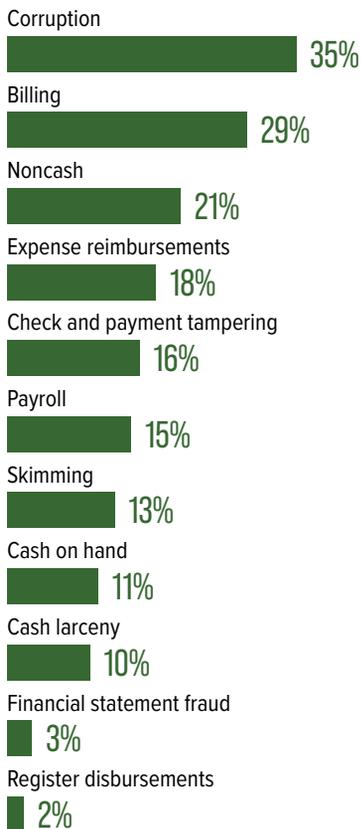
**MEDIAN LOSS:**  
**\$120,000**



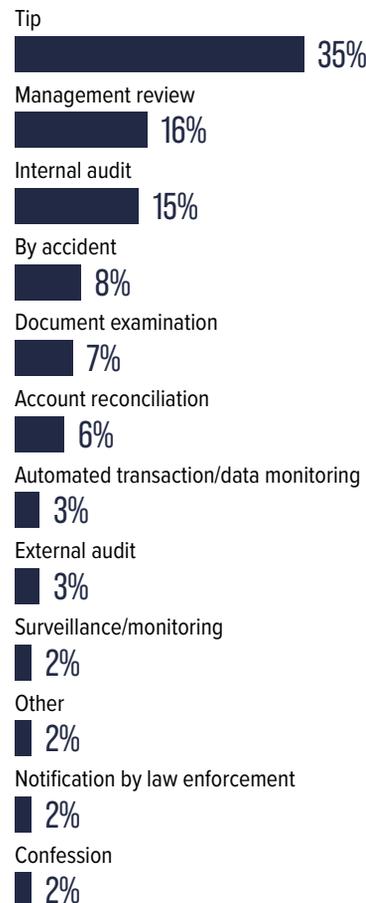
**38%**  
of cases



**FIG. 103** WHAT ARE THE MOST COMMON OCCUPATIONAL FRAUD SCHEMES IN THE UNITED STATES AND CANADA?



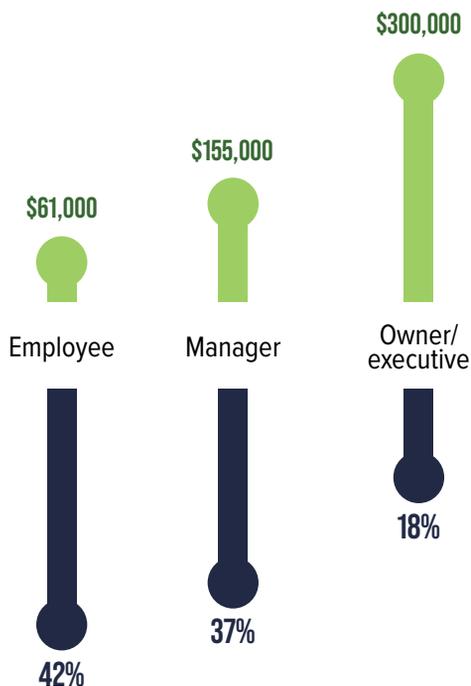
**FIG. 104** HOW IS OCCUPATIONAL FRAUD INITIALLY DETECTED IN THE UNITED STATES AND CANADA?



**FIG. 105 WHAT ANTI-FRAUD CONTROLS ARE THE MOST COMMON IN THE UNITED STATES AND CANADA?**

Control	Percent of cases
Code of conduct	81%
External audit of financial statements	73%
Employee support programs	73%
Management certification of financial statements	69%
Internal audit department	69%
External audit of internal controls over financial reporting	67%
Management review	66%
Hotline	66%
Fraud training for managers/executives	61%
Fraud training for employees	61%
Independent audit committee	57%
Dedicated fraud department, function, or team	54%
Anti-fraud policy	54%
Proactive data monitoring/analysis	48%
Formal fraud risk assessments	46%
Surprise audits	34%
Job rotation/mandatory vacation	19%
Rewards for whistleblowers	11%

**FIG. 106 HOW DOES THE PERPETRATOR'S LEVEL OF AUTHORITY RELATE TO OCCUPATIONAL FRAUD IN THE UNITED STATES AND CANADA?**



**FIG. 107 HOW SUCCESSFUL WERE ORGANIZATIONS IN THE UNITED STATES AND CANADA AT RECOVERING LOSSES FROM FRAUD?**



**FIG. 108 CASES BY COUNTRY/TERRITORY IN THE UNITED STATES AND CANADA**

Country or territory	Number of cases
Canada	51
United States	572
<b>TOTAL CASES</b>	<b>623</b>

# WESTERN EUROPE

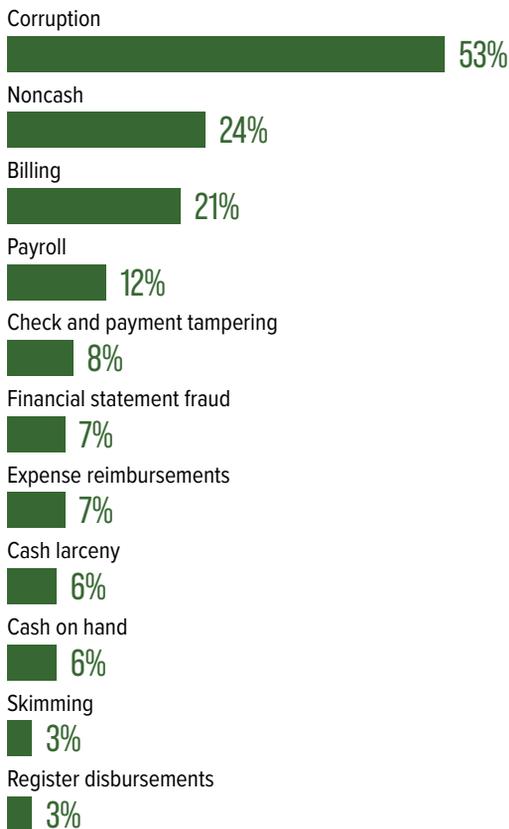


MEDIAN LOSS:  
**\$181,000**

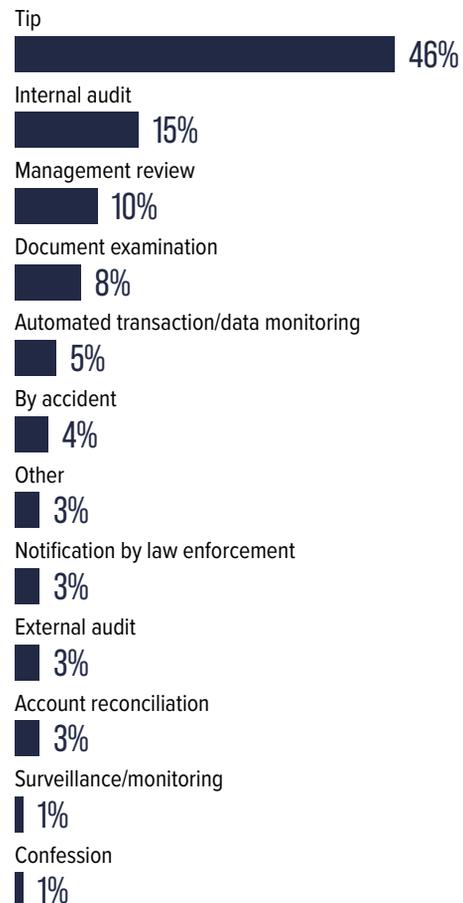


7%  
of cases

**FIG. 109** WHAT ARE THE MOST COMMON OCCUPATIONAL FRAUD SCHEMES IN WESTERN EUROPE?



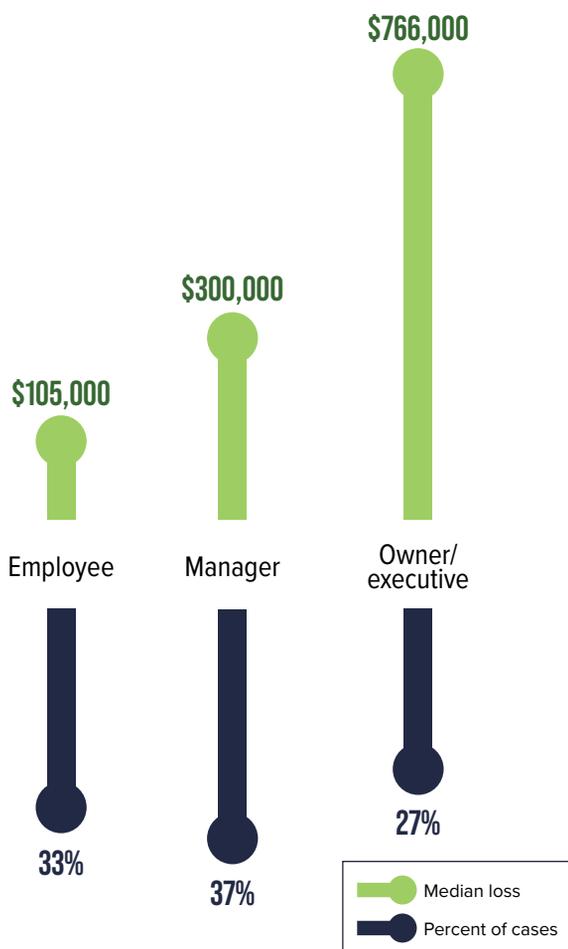
**FIG. 110** HOW IS OCCUPATIONAL FRAUD INITIALLY DETECTED IN WESTERN EUROPE?



**FIG. 111 WHAT ANTI-FRAUD CONTROLS ARE THE MOST COMMON IN WESTERN EUROPE?**

Control	Percent of cases
External audit of financial statements	90%
Code of conduct	89%
Internal audit department	84%
Management certification of financial statements	83%
Management review	74%
Hotline	72%
External audit of internal controls over financial reporting	70%
Independent audit committee	67%
Anti-fraud policy	63%
Fraud training for employees	61%
Fraud training for managers/executives	61%
Employee support programs	53%
Dedicated fraud department, function, or team	44%
Formal fraud risk assessments	43%
Proactive data monitoring/analysis	37%
Surprise audits	35%
Job rotation/mandatory vacation	23%
Rewards for whistleblowers	5%

**FIG. 112 HOW DOES THE PERPETRATOR'S LEVEL OF AUTHORITY RELATE TO OCCUPATIONAL FRAUD IN WESTERN EUROPE?**



**FIG. 113 HOW SUCCESSFUL WERE ORGANIZATIONS IN WESTERN EUROPE AT RECOVERING LOSSES FROM FRAUD?**



**FIG. 114 CASES BY COUNTRY/TERRITORY IN WESTERN EUROPE**

Country or territory	Number of cases
Austria	1
Belgium	8
Denmark	4
France	9
Germany	20
Gibraltar	1
Greece	13
Ireland	3
Italy	16
Luxembourg	2
Netherlands	3
Norway	2
Portugal	2
Spain	14
Sweden	1
Switzerland	5
United Kingdom	13
<b>TOTAL CASES</b>	<b>117</b>

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# FRAUD PREVENTION CHECKLIST

Preventing fraud from occurring in the first place is the most cost-effective way to limit fraud losses. This checklist is designed to help organizations test the effectiveness of their fraud prevention measures. Additional guidance, resources, and tools for managing organizational fraud risk can be found at [ACFE.com/FraudRiskTools](https://www.acfe.com/FraudRiskTools).

## 1. Is ongoing anti-fraud training provided to all employees of the organization?

- Do employees understand what does and does not constitute fraud?
- Have the costs of fraud to the company and everyone in it—including lost profits, adverse publicity, potential job loss, and decreased morale and productivity—been made clear to all 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?
- Are one or more reporting channels (e.g., a third-party hotline, dedicated email inbox, or web-based form) available to employees?
- Are whistleblower resources maintained and accessible to all employees?
- Do employees trust that they can report suspicious activity anonymously and/or confidentially (where legally permissible)

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?
- Do reporting mechanisms include multilingual capabilities and provide access to a trained interviewer 24 hours a day, 7 days a week?

## 3. To increase employees' perception of detection, are the following proactive measures taken and publicized to employees?

- Is possible fraudulent conduct aggressively and proactively sought out, rather than dealt with passively or reactively?
- Are surprise fraud audits performed in addition to regularly scheduled audits?
- Are data analytics techniques used to proactively search for fraud and, if so, has the use of such techniques been communicated throughout the organization?
- Do managers actively review the controls, processes, accounts, or transactions under their purview for adherence to company policies and expectations?

**4. Is the management climate/tone at the top one of honesty and integrity?**

- Are employees periodically surveyed to determine the extent to which they believe management acts with honesty and integrity?
- Are performance goals realistic and clearly communicated?
- Have fraud prevention goals been incorporated into the performance measures that are used to evaluate managers and 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?**

- Are fraud risk assessments updated regularly (e.g., annually), as well as following times of notable organizational or environmental changes?
- Are the results of the fraud risk assessment shared with appropriate levels of management and used to update the organization's anti-fraud program and controls?

**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 regular, anonymous surveys conducted to assess employee morale?**

# GLOSSARY OF TERMINOLOGY

**Asset misappropriation:** A 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 scheme:** A fraudulent disbursement scheme in which a person causes their 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:** A 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)

**Check or payment tampering scheme:** A fraudulent disbursement scheme in which a person steals their employer's funds by intercepting, forging, or altering a check or electronic payment drawn on one of the organization's bank accounts (e.g., employee steals blank company checks and makes them out to themselves or an accomplice; employee re-routes an outgoing electronic payment to a vendor to be deposited into their own bank account)

**Collusion:** Agreement or consent of two or more parties to commit a fraud scheme against a victim organization (e.g., employee agrees to inform a bidder of what criteria will win a contract up for bid)

**Corruption:** A scheme in which an employee misuses their influence in a business transaction in a way that violates their 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 assistance to employees dealing with personal issues or challenges, such as counseling services for drug, family, or financial problems

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

**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)

**Fraudulent disbursement scheme:** A scheme in which an employee makes a distribution of organizational funds or manipulates a disbursement/payment function for a dishonest purpose (e.g., submitting false invoices for payment, altering time cards, or making personal purchases with company funds)

**Hotline:** A mechanism to report fraud or other violations, whether managed internally or by an external party. This might include telephone and text hotlines, dedicated email addresses, web-based platforms, and other mechanisms established to facilitate fraud reporting.

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

**Noncash misappropriation:** Any scheme in which an employee steals or misuses noncash assets of the victim organization (e.g., employee steals inventory from a warehouse or storeroom; employee steals or misuses confidential customer 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 scheme:** A fraudulent disbursement scheme in which an employee causes their 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 who was reasonably confirmed as the primary culprit in the case

**Register disbursements scheme:** 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 a cash register and steals the cash)

**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)

# ABOUT THE ACFE

Founded in 1988 by Dr. Joseph T. Wells, CFE, CPA, the Association of Certified Fraud Examiners (ACFE) is the world's largest anti-fraud organization and premier provider of anti-fraud training and education. Together with more than 90,000 members, the ACFE is reducing business fraud worldwide and inspiring public confidence in the integrity and objectivity within the profession.

The ACFE unites and supports the global anti-fraud community by providing educational tools and practical solutions for professionals through events, publications, networking, and educational materials for colleges and universities.



## CERTIFIED FRAUD EXAMINERS

The ACFE offers its members the opportunity for professional certification with the Certified Fraud Examiner (CFE) credential. The CFE is preferred by businesses and government entities around the world, and indicates expertise in fraud prevention and detection. CFEs are anti-fraud experts who have demonstrated knowledge in four critical areas: Financial Transactions and Fraud Schemes, Law, Investigation, and Fraud Prevention and Deterrence.

## MEMBERSHIP

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. Whether their career is focused exclusively on preventing and detecting fraudulent activities or they just want to learn more about fraud, the ACFE provides anti-fraud professionals with the essential tools and resources necessary to accomplish their objectives.

To learn more, visit [ACFE.com](https://www.acfe.com) or call (800) 245-3321 / +1 (512) 478-9000.

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