FIG. 1 Reported cases by region

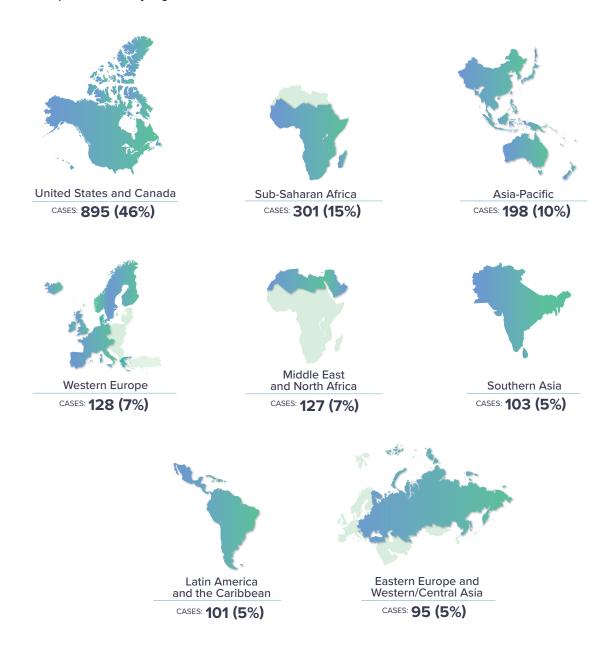


FIG. 2 How is occupational fraud committed?

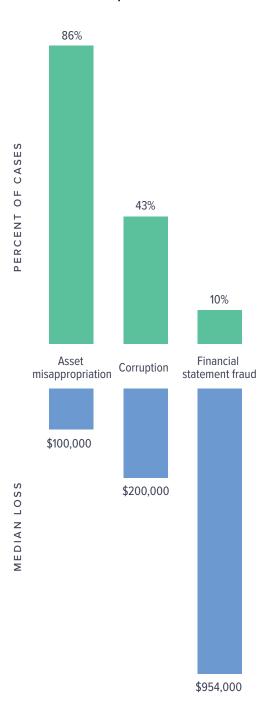


FIG. 3 Occupational Fraud and Abuse Classification System (the Fraud Tree)

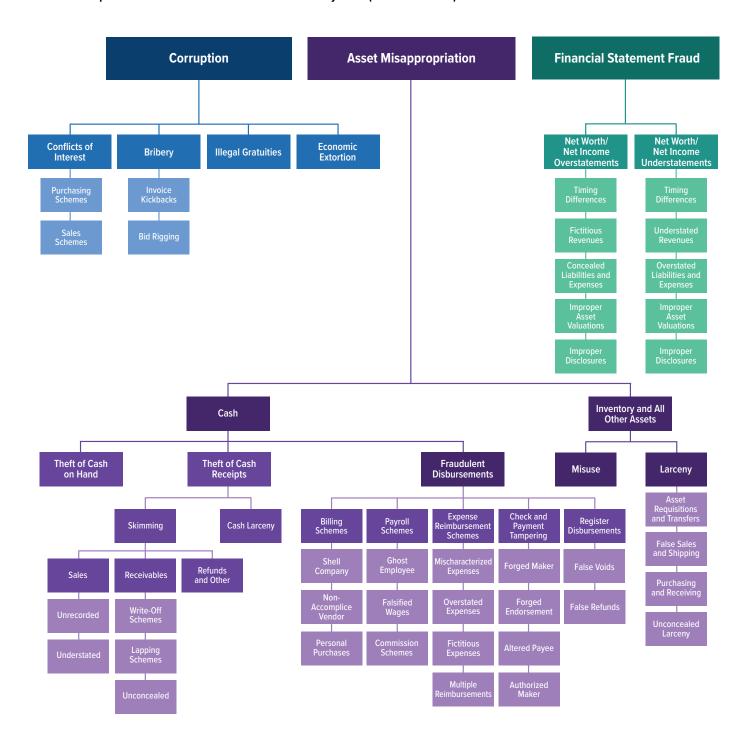


FIG. 4 How often do fraudsters commit more than one type of occupational fraud?

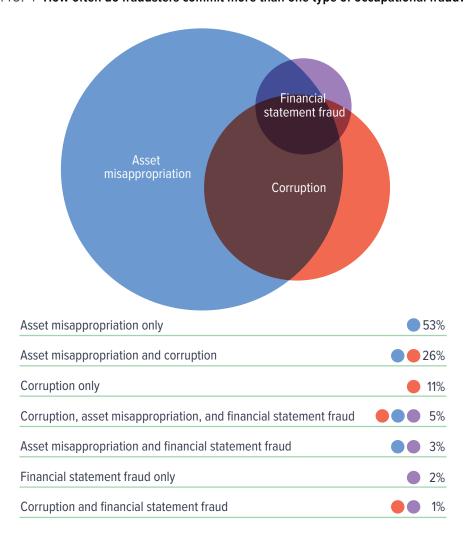


FIG. 5 What asset misappropriation schemes present the greatest risk?

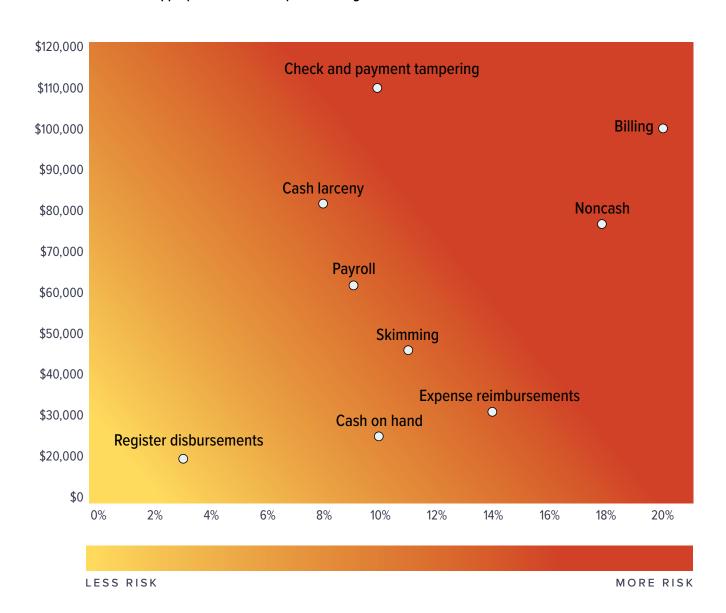


FIG. 6 How does the duration of a fraud relate to median loss?

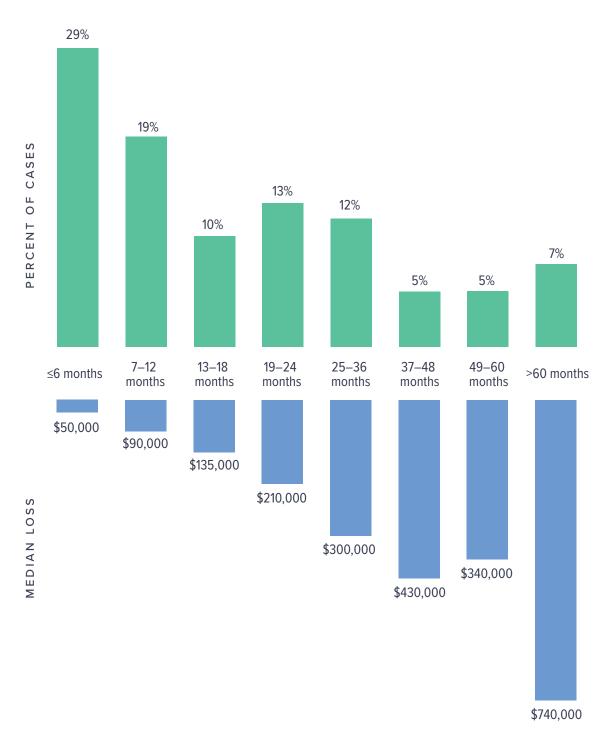


FIG. 7 How long do different occupational fraud schemes last?

Payroll	
	24 months
Check and payment tampering	
	24 months
Register disbursements	
	24 months
Financial statement fraud	
	24 months
Expense reimbursements	
<u> </u>	24 months
Billing	
	24 months
Cash larceny	
	21 months
Corruption	
	18 months
Skimming	
	16 months
Cash on hand	
	15 months
Noncash	
	13 months

FIG. 8 What is the typical velocity (median loss per month) of different occupational fraud schemes?

Financial statement fraud	
	\$39,800
Corruption	
	\$11,100
Noncash	
	\$6,000
Check and payment tampering	
	\$4,600
Billing	
	\$4,200
Cash larceny	
	\$4,000
Skimming	
	\$2,900
Payroll	
	\$2,600
Cash on hand	
	\$1,700
Expense reimbursements	
	\$1,400
Register disbursements	
	\$800

FIG. 9 How is occupational fraud initially detected?

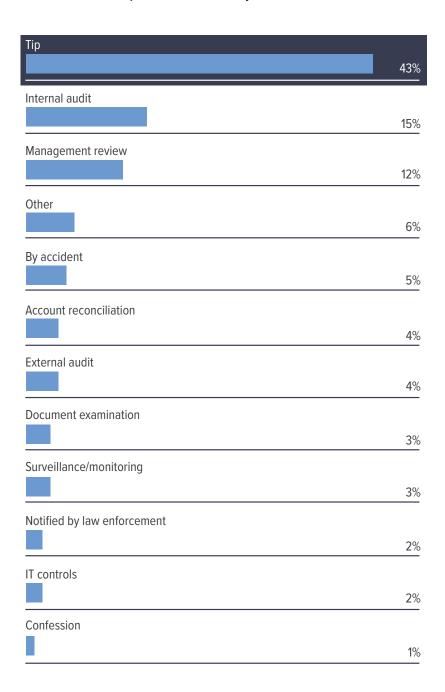


FIG. 10 Who reports occupational fraud?

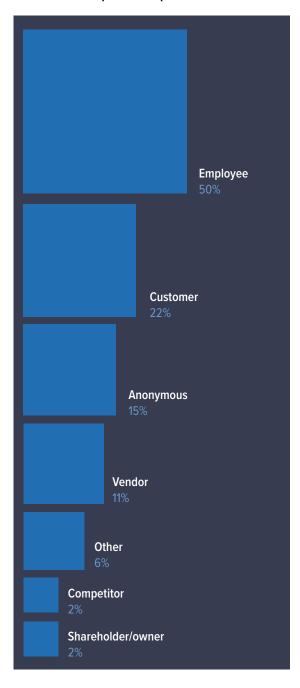


FIG. 11 How does detection method relate to fraud duration and loss?

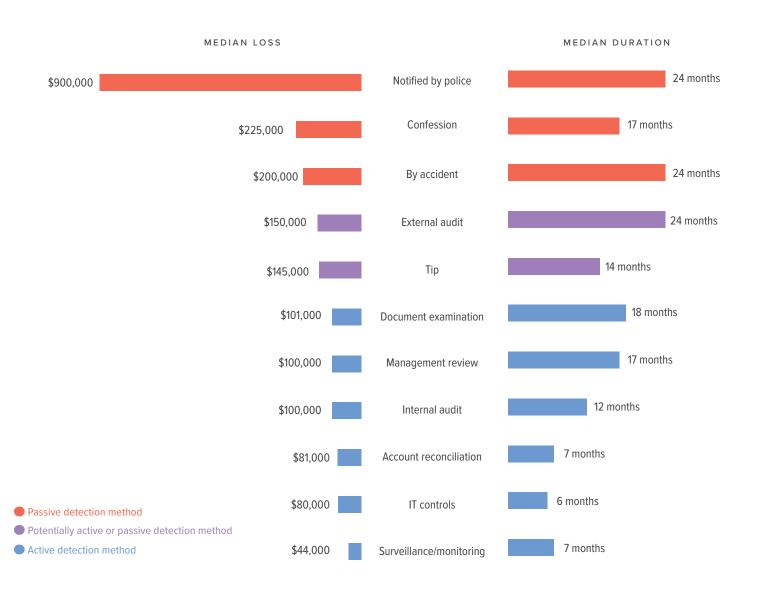


FIG. 12 What formal reporting mechanisms did whistleblowers use?

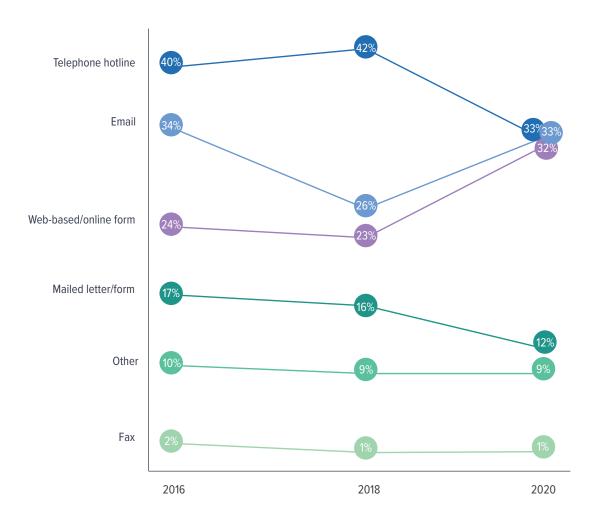


FIG. 13 To whom did whistleblowers initially report?

Direct supervisor	
	28%
Other	
other	
	15%
Fraud investigation team	
	140/
	14%
Internal audit	
	12%
	1270
Executive	
	11%
Coworker	
	10%
Law enforcement or regulator	
	7%
Owner	
Owner	
	7%
Board or audit committee	
	C 0/
	6%
Human resources	
	6%
	0 76
In-house counsel	
	4%
External audit	
	1%

FIG. 14 What types of organizations are victimized by occupational fraud?

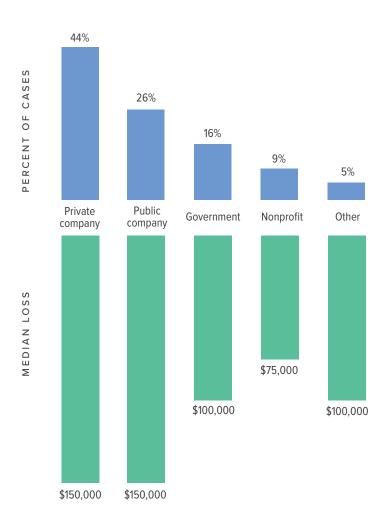


FIG. 15 What levels of government are victimized by occupational fraud?

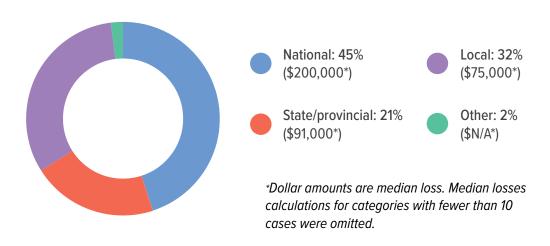


FIG. 16 How does an organization's size relate to its occupational fraud risk?



FIG. 17 How does an organization's gross annual revenue relate to its occupational fraud risk?

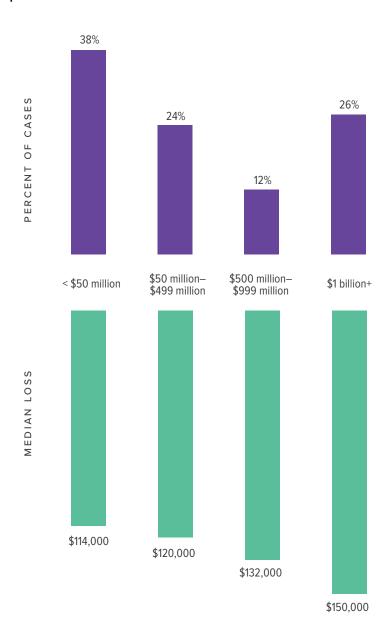


FIG. 18 How do fraud schemes vary by organization size?

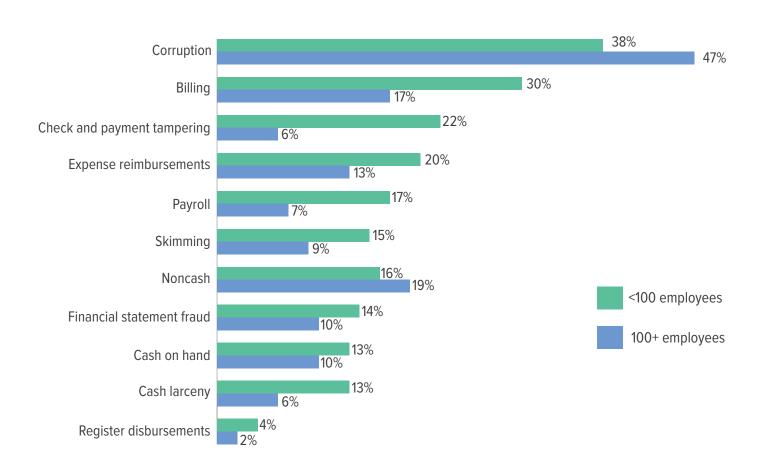


FIG. 19 How does occupational fraud affect organizations in different industries?



FIG. 20 What are the most common occupational fraud schemes in various industries?

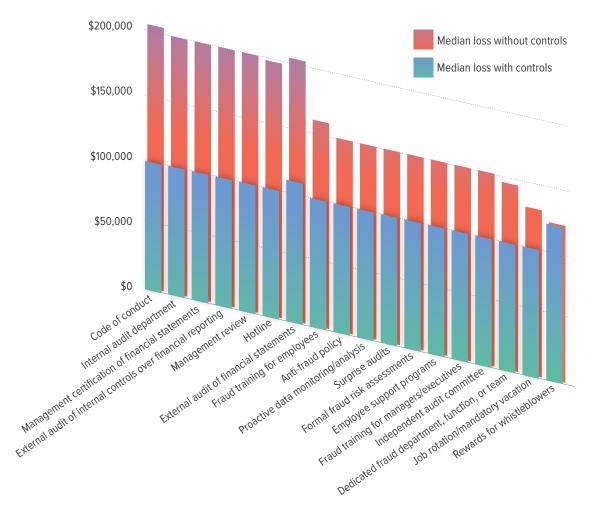
INDUSTRY	Cases	Billing	Cash larceny	Cash on hand	Check and payment tampering	Corruption	Expense reimbursements	Financial statement fraud	Noncash	Payroll	Register disbursements	Skimming
Banking and financial services	364	8%	10%	18%	9%	40%	8%	10%	10%	2%	2%	10%
Government and public administration	189	18%	5%	9%	4%	48%	17%	4%	17%	17%	0%	7%
Manufacturing	177	23%	5%	6%	8%	50%	20%	18%	23%	10%	2%	8%
Health care	145	33%	10%	10%	14%	40%	22%	14%	24%	15%	6%	10%
Energy	89	24%	6%	7%	6%	66%	11%	9%	25%	6%	1%	9%
Retail	89	22%	15%	15%	11%	37%	17%	6%	20%	11%	7%	15%
Insurance	82	24%	2%	5%	9%	43%	16%	11%	9%	5%	2%	6%
Education	82	30%	9%	13%	18%	30%	22%	7%	17%	13%	1%	22%
Construction	77	22%	13%	12%	17%	47%	9%	25%	13%	13%	4%	13%
Transportation and warehousing	64	13%	5%	9%	5%	52%	9%	3%	23%	6%	0%	19%
Technology	63	24%	0%	5%	6%	46%	13%	13%	22%	11%	0%	0%
Telecommunications	62	5%	2%	3%	2%	56%	5%	6%	31%	2%	0%	5%
Food service and hospitality	59	22%	20%	10%	12%	39%	8%	8%	25%	12%	10%	14%
Services (professional)	54	37%	0%	9%	20%	26%	24%	15%	11%	22%	2%	11%
Real estate	52	25%	13%	12%	21%	48%	17%	15%	12%	8%	4%	27%

LESS RISK MORE RISK

FIG. 21 What anti-fraud controls are most common?

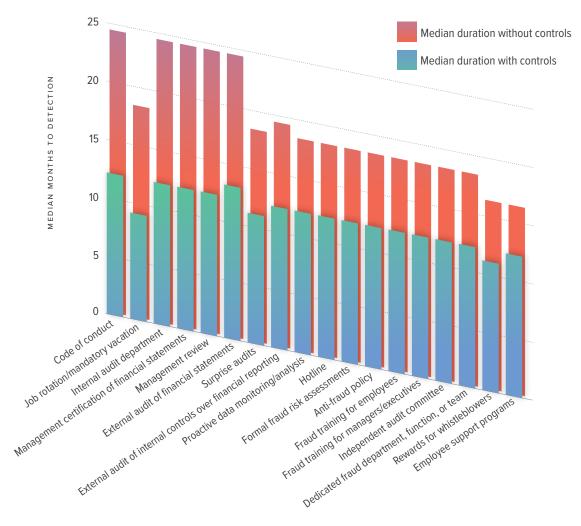
External audit of financial statements 83% Code of conduct 81% Internal audit department 74% Management certification of financial statements 73% External audit of internal controls over financial reporting 68% Management review 65% Hotline 64% Independent audit committee 62% Anti-fraud policy 56% Employee support programs 55% Fraud training for employees 55% Fraud training for managers/executives 55% Dedicated fraud department, function, or team 44% Formal fraud risk assessments 41% Surprise audits 38% Proactive data monitoring/analysis 38% Job rotation/mandatory vacation 23% Rewards for whistleblowers 13%

FIG. 22 How does the presence of anti-fraud controls relate to median loss?



Control	Percent of cases	Control in place	Control not in place	Percent reduction
Code of conduct	81%	\$100,000	\$205,000	51%
Internal audit department	74%	\$100,000	\$200,000	50%
Management certification of financial statements	73%	\$100,000	\$200,000	50%
External audit of internal controls over financial reporting	68%	\$100,000	\$200,000	50%
Management review	65%	\$100,000	\$200,000	50%
Hotline	64%	\$100,000	\$198,000	49%
External audit of financial statements	83%	\$ 110,000	\$204,000	46%
Fraud training for employees	55%	\$100,000	\$160,000	38%
Anti-fraud policy	56%	\$100,000	\$150,000	33%
Proactive data monitoring/analysis	38%	\$100,000	\$150,000	33%
Surprise audits	38%	\$100,000	\$150,000	33%
Formal fraud risk assessments	41%	\$100,000	\$150,000	33%
Employee support programs	55%	\$100,000	\$150,000	33%
Fraud training for managers/executives	55%	\$100,000	\$150,000	33%
Independent audit committee	62%	\$100,000	\$150,000	33%
Dedicated fraud department, function, or team	44%	\$100,000	\$145,000	31%
Job rotation/mandatory vacation	23%	\$100,000	\$130,000	23%
Rewards for whistleblowers	13%	\$120,000	\$122,000	2%

FIG. 23 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
Code of conduct	81%	12 months	24 months	50%
Job rotation/mandatory vacation	23%	9 months	18 months	50%
Internal audit department	74%	12 months	24 months	50%
Management certification of financial statements	73%	12 months	24 months	50%
Management review	65%	12 months	24 months	50%
External audit of financial statements	83%	13 months	24 months	46%
Surprise audits	38%	11 months	18 months	39%
External audit of internal controls over financial reporting	68%	12 months	19 months	37%
Proactive data monitoring/analysis	38%	12 months	18 months	33%
Hotline	64%	12 months	18 months	33%
Formal fraud risk assessments	41%	12 months	18 months	33%
Anti-fraud policy	56%	12 months	18 months	33%
Fraud training for employees	55%	12 months	18 months	33%
Fraud training for managers/executives	55%	12 months	18 months	33%
Independent audit committee	62%	12 months	18 months	33%
Dedicated fraud department, function, or team	44%	12 months	18 months	33%
Rewards for whistleblowers	13%	11 months	16 months	31%
Employee support programs	55%	12 months	16 months	25%

FIG. 24 How do anti-fraud controls vary by size of victim organization?

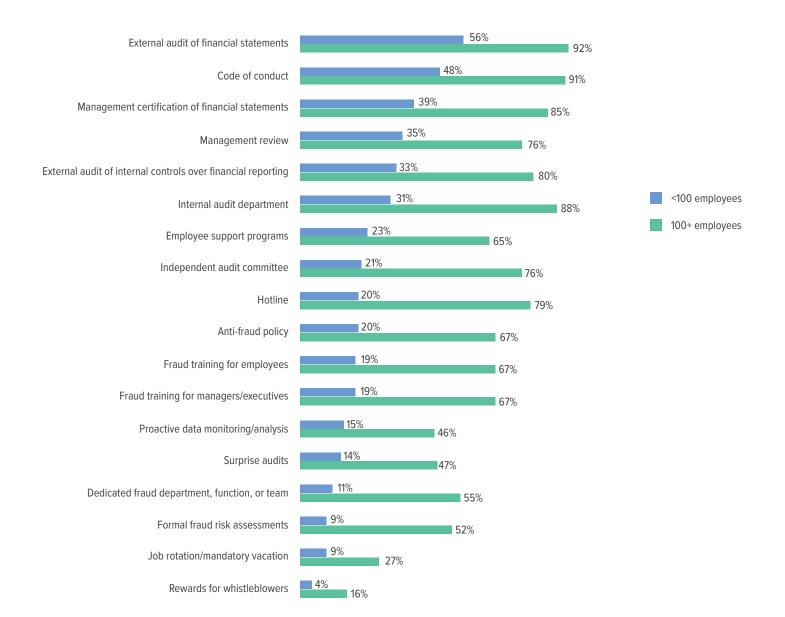


FIG. 25 Was a background check run on the perpetrator prior to hiring?

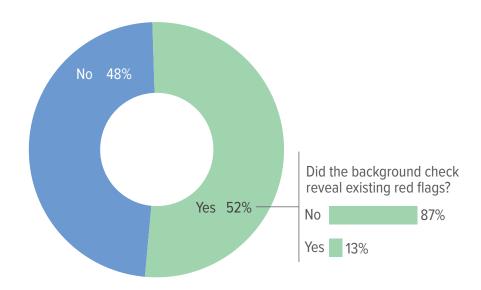


FIG. 26 What types of background checks were run on the perpetrator prior to hiring?

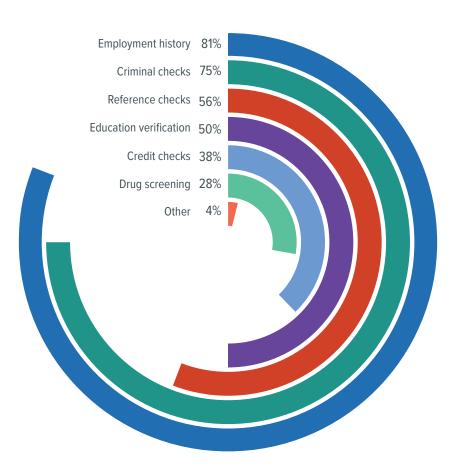


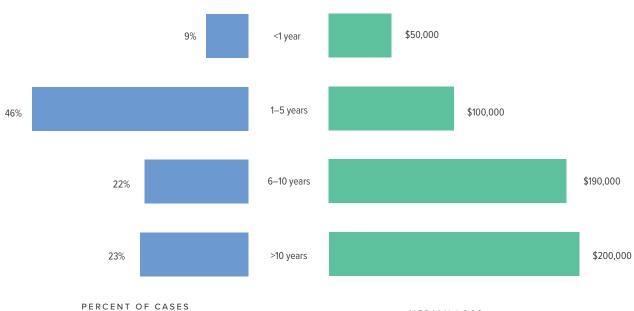
FIG. 27 How does the perpetrator's level of authority relate to occupational fraud?



FIG. 28 How does the perpetrator's level of authority relate to scheme duration?



FIG. 29 How does the perpetrator's tenure relate to occupational fraud?



MEDIAN LOSS

FIG. 30 How does the perpetrator's tenure relate to median loss at different levels of authority?

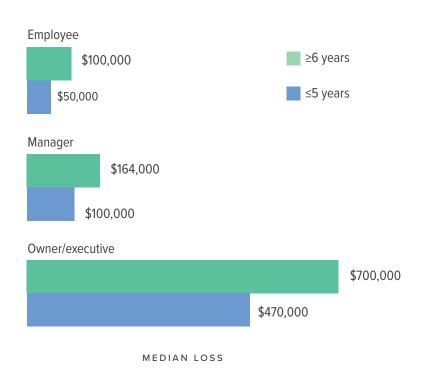
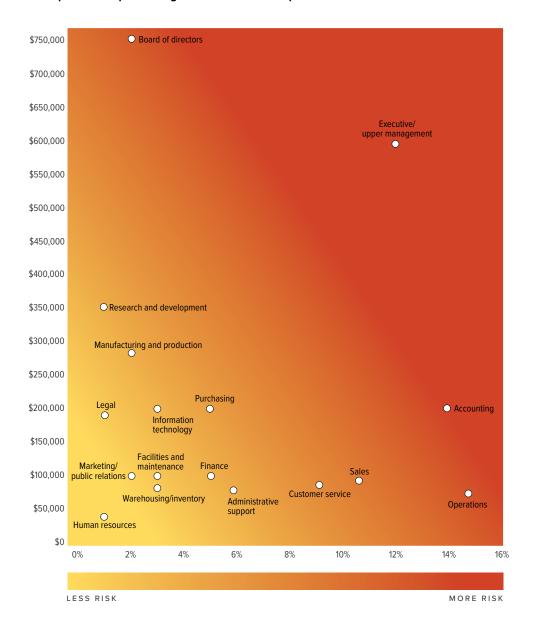


FIG. 31 What departments pose the greatest risk for occupational fraud?



Department*	Number of cases	Percent of cases	Median loss
Operations	288	15%	\$72,000
Accounting	277	14%	\$200,000
Executive/upper management	234	12%	\$596,000
Sales	225	11%	\$94,000
Customer service	175	9%	\$86,000
Administrative support	116	6%	\$76,000
Finance	101	5%	\$100,000
Purchasing	96	5%	\$200,000
Information technology	69	3%	\$200,000
Facilities and maintenance	60	3%	\$100,000
Warehousing/inventory	60	3%	\$85,000
Board of directors	45	2%	\$750,000
Marketing/public relations	40	2%	\$100,000
Manufacturing and production	35	2%	\$275,000
Human resources	27	1%	\$40,000
Research and development	14	1%	\$350,000
Legal	13	1%	\$195,000

^{*}Departments with fewer than 10 cases were omitted

 $FIG.\ 32\ \ \textbf{What are the most common occupational fraud schemes in high-risk departments?}$

DEPARTMENT	Cases	Billing	Cash larceny	Cash on hand	Check and payment tampering	Corruption	Expense reimbursements	Financial statement fraud	Noncash	Payroll	Register disbursements	Skimming
Operations	288	15%	5%	10%	5%	44%	12%	7%	15%	8%	3%	9%
Accounting	277	32%	14%	12%	27%	24%	18%	15%	11%	21%	5%	19%
Executive/upper management	234	26%	11%	12%	11%	62%	26%	30%	18%	12%	3%	10%
Sales	225	10%	6%	10%	5%	39%	14%	8%	21%	2%	4%	10%
Customer service	175	5%	8%	11%	8%	33%	6%	1%	9%	2%	2%	17%
Administrative support	116	31%	8%	18%	12%	29%	14%	8%	12%	9%	3%	12%
Finance	101	20%	10%	12%	9%	35%	14%	14%	12%	9%	3%	8%
Purchasing	96	22%	4%	4%	2%	81%	7%	7%	18%	2%	0%	4%

LESS RISK MORE RISK

FIG. 33 How does the perpetrator's gender relate to occupational fraud?

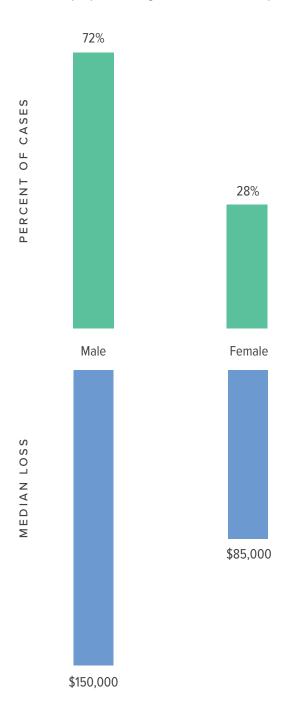
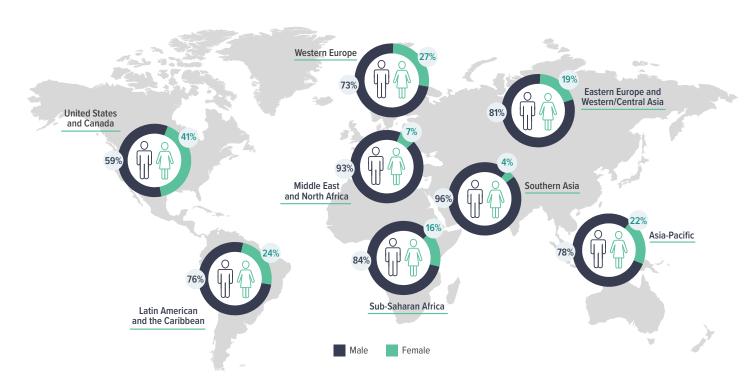


FIG. 34 How does the gender distribution of perpetrators vary by region?



 ${\sf FIG.~35~How~do~gender~distribution~and~median~loss~vary~based~on~the~perpetrator's~level~of~authority?}$



FIG. 36 How does the perpetrator's age relate to occupational fraud?

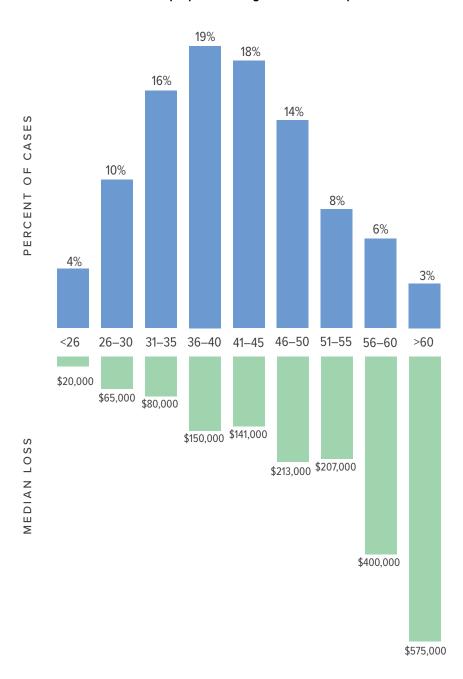


FIG. 37 How does the perpetrator's education level relate to occupational fraud?

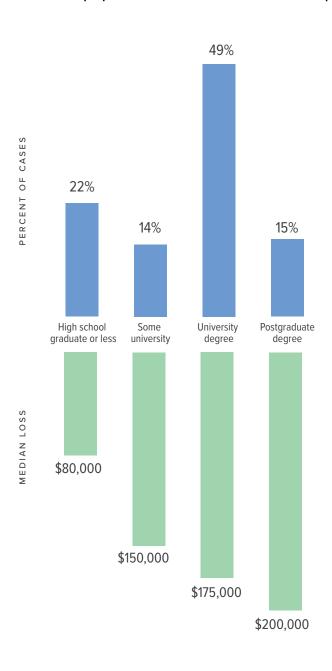


FIG. 38 How does the number of perpetrators in a scheme relate to occupational fraud?







\$350.000 Median loss

FIG. 39 Do perpetrators tend to have prior fraud convictions?

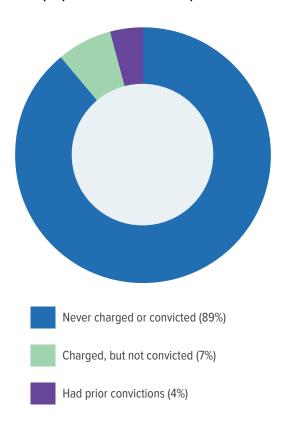


FIG. 40 Do perpetrators tend to have prior employment-related disciplinary actions for fraud?

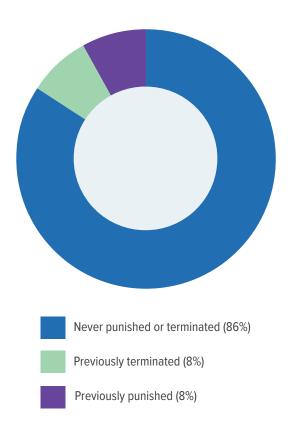


FIG. 41 How often do perpetrators exhibit behavioral red flags?

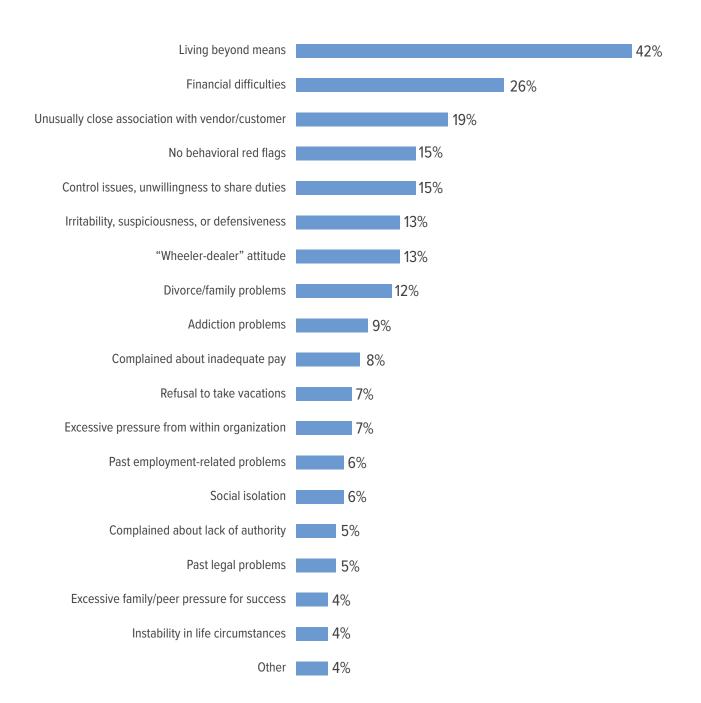
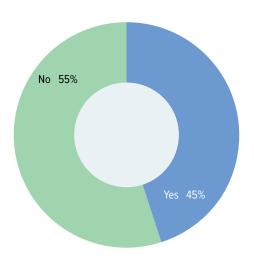


FIG. 42 Do fraud perpetrators also engage in non-fraud-related misconduct?



Which forms of non-fraud misconduct are most common among fraud perpetrators?

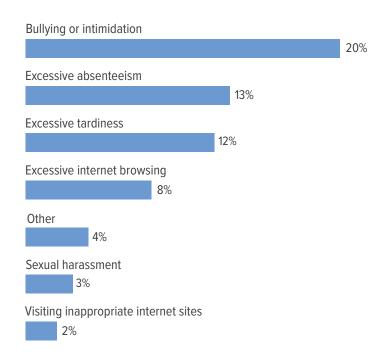
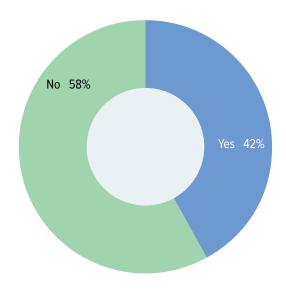


FIG. 43 Do fraud perpetrators experience negative HR-related issues prior to or during their frauds?



Which HR-related issues are most commonly experienced by fraud perpetrators?

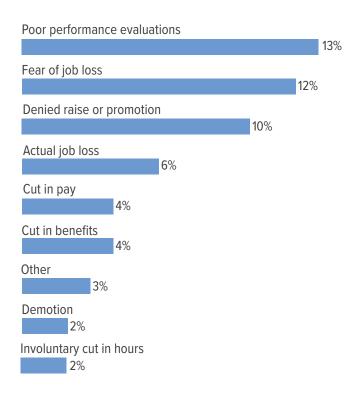
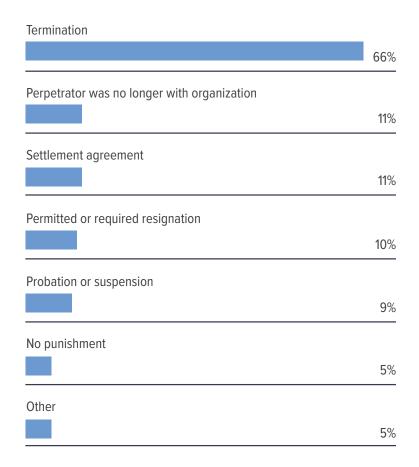


FIG. 44 How do victim organizations punish fraud perpetrators?



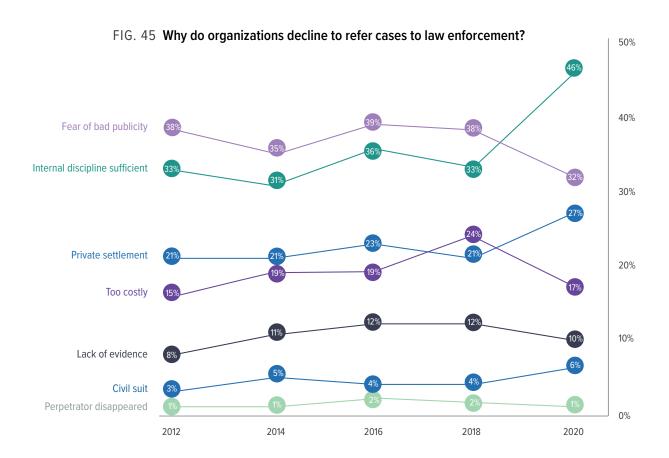


FIG. 46 How did the recovery of fraud losses vary by region?

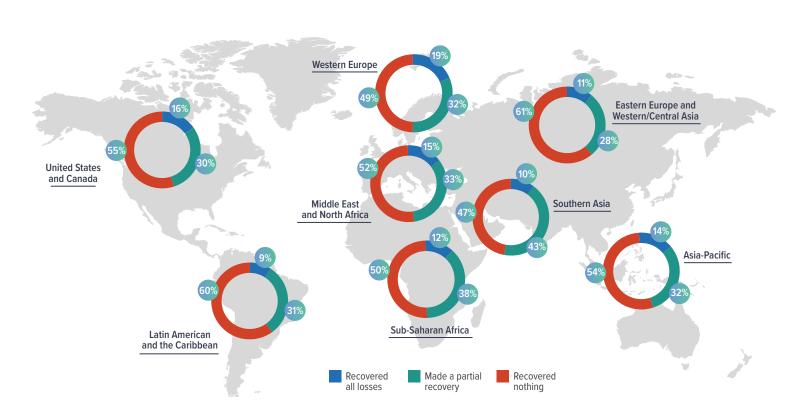


FIG. 47 How did the type of scheme relate to fines incurred by victim organizations?



FIG. 48 What was the primary occupation of survey participants?

Fraud	01/01	inor	linu	otic	0+0r
Fraud	exam	ımer	/IIIVE	2S1101	alor

- Trada Grammer/mitosagator	39%
Internal auditor	21%
Accounting/finance professional	8%
Law enforcement	7%
Compliance and ethics professional	5%
Risk and controls professional	4%
External/independent auditor	3%
Consultant	3%
Other	3%
Corporate security and loss prevention	3%
Attorney	1%
IT/computer forensics specialist	1%
Bank examiner	1%
Private investigator	1%
Educator	<1%

FIG. 49 What was the professional role of the survey participants?

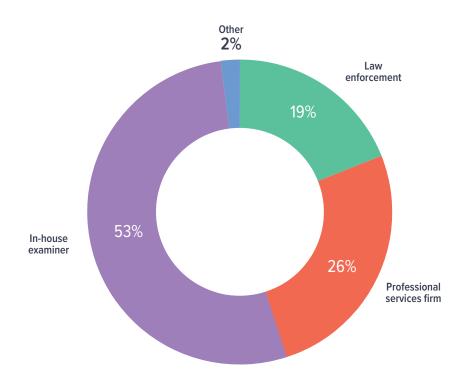


FIG. 50 How much fraud examination experience did survey participants have?

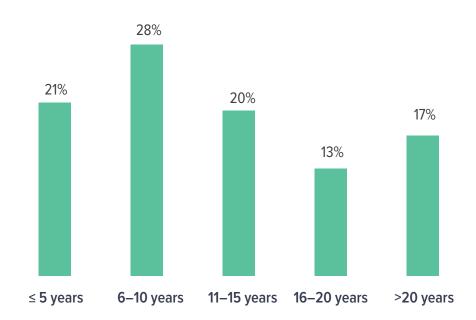


FIG. 51 How many fraud cases have survey participants investigated in the past two years?

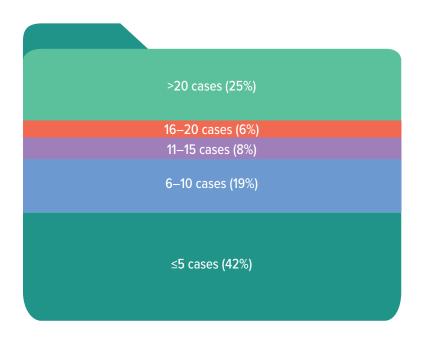


FIG. 52 What are the most common occupational fraud schemes in the Asia-Pacific region?

Noncash	18%
Noncash	18%
	18%
Expense reimbursements	
	16%
Billing	
	15%
Financial statement fraud	
	14%
Cash on hand	
	11%
Payroll	
	8%
Skimming	
	8%
Check and payment tampering	
	7%
Cash larceny	
	4%
Register disbursements	
	2%

${\sf FIG.~53~How}$ is occupational fraud initially detected in the Asia-Pacific region?

Tip	
	44%
Internal audit	
	15%
Management review	
	11%
Other	
	7%
External audit	
	7%
Account reconciliation	F0/
	5%
By accident	20/
Surveillance/manitoring	3%
Surveillance/monitoring	3%
IT controls	
Treditions	2%
Document examination	
	2%
Confession	
	2%
Notification by law enforcement	
	1%

${\sf FIG.~54}\,$ What anti-fraud controls are the most common in the Asia-Pacific region?

Control	Percent of cases
External audit of financial statements	93%
Code of conduct	88%
Internal audit department	84%
Management certification of financial statements	80%
Management review	78%
External audit of internal controls over financial reporting	75%
Hotline	72%
Independent audit committee	71%
Fraud training for employees	64%
Fraud training for managers/executives	62%
Anti-fraud policy	59%
Employee support programs	50%
Dedicated fraud department, function, or team	50%
Formal fraud risk assessments	45%
Proactive data monitoring/analysis	43%
Surprise audits	36%
Job rotation/mandatory vacation	32%
Rewards for whistleblowers	15%

FIG. 55 How does the perpetrator's level of authority relate to occupational fraud in the Asia-Pacific region?



FIG. 56 Cases by country in the Asia-Pacific region

Country	Number of cases
Australia	29
China	33
Hong Kong	11
Indonesia	36
Japan	8
Laos	1
Macau	1
Malaysia	19
Myanmar (Burma)	1
New Zealand	3
Philippines	24
Singapore	17
South Korea	5
Taiwan	2
Thailand	6
Vietnam	2
Total cases:	198

FIG. 57 What are the most common occupational fraud schemes in Eastern Europe and Western/Central Asia?

Corruption	
	61%
Noncash	
	22%
Billing	
	17%
Cash on hand	
	13%
Financial statement fraud	
	10%
Skimming	
	8%
Expense reimbursements	
	7%
Cash larceny	
	7%
Payroll	
	5%
Check and payment tampering	
	4%
Register disbursements	
l .	1%

FIG. 58 How is occupational fraud initially detected in Eastern Europe and Western/Central Asia?

Tip	
	51%
Internal audit	
	14%
Management review	
	9%
Other	_
	6%
Surveillance/monitoring	
	4%
Document examination	_
	3%
Account reconciliation	_
	3%
Notification by law enforcement	
	2%
IT controls	_
	2%
External audit	_
	2%
By accident	_
	2%
Confession	
	1%

FIG. 59 What anti-fraud controls are the most common in Eastern Europe and Western/Central Asia?

Control	Percent of cases
External audit of financial statements	89%
Code of conduct	87%
Management review	84%
Internal audit department	80%
Management certification of financial statements	78%
Hotline	76%
Anti-fraud policy	73%
Independent audit committee	72%
External audit of internal controls over financial reporting	71%
Fraud training for employees	67%
Fraud training for managers/executives	66%
Dedicated fraud department, function, or team	58%
Formal fraud risk assessments	51%
Surprise audits	45%
Proactive data monitoring/analysis	42%
Employee support programs	29%
Job rotation/mandatory vacation	29%
Rewards for whistleblowers	9%

FIG. 60 How does the perpetrator's level of authority relate to occupational fraud in Eastern Europe and Western/Central Asia?

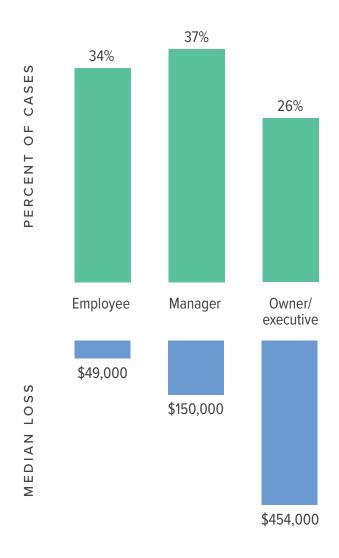


FIG. 61 Cases by country in Eastern Europe and Western/Central Asia

Country	Number of cases
Albania	1
Azerbaijan	1
Bosnia and Herzegovina	1
Bulgaria	2
Czech Republic	5
Estonia	1
Georgia	1
Hungary	5
Kazakhstan	4
Kosovo	2
Lithuania	1
Moldova	1
North Macedonia	2
Poland	6
Romania	9
Russia	13
Serbia	14
Slovakia	3
Slovenia	4
Tajikistan	1
Turkey	13
Ukraine	4
Uzbekistan	1
Total cases:	95

FIG. 62 What are the most common occupational fraud schemes in Latin America and the Caribbean?

Corruption	
	51%
Noncash	
	23%
Financial statement fraud	
	19%
Billing	
	18%
Skimming	
	13%
Expense reimbursements	
	10%
Cash on hand	
	10%
Payroll	
	9%
Check and payment tampering	
	8%
Cash larceny	
	8%
Register disbursements	
	4%

FIG. 63 How is occupational fraud initially detected in Latin America and the Caribbean?

Tip	
	55%
Internal audit	
	12%
Management review	
	9%
Notification by law enforcement	
	5%
External audit	
	4%
Other	
	3%
IT controls	
	3%
By accident	
	3%
Account reconciliation	
	3%
Document examination	
	2%
Confession	
	1%

FIG. 64 What anti-fraud controls are the most common in Latin America and the Caribbean?

Control	Percent of cases
External audit of financial statements	88%
Code of conduct	88%
Internal audit department	81%
Management certification of financial statements	72%
Hotline	72%
External audit of internal controls over financial reporting	71%
Independent audit committee	67%
Management review	65%
Fraud training for employees	58%
Anti-fraud policy	56%
Fraud training for managers/executives	54%
Dedicated fraud department, function, or team	46%
Employee support programs	45%
Formal fraud risk assessments	44%
Surprise audits	40%
Proactive data monitoring/analysis	26%
Job rotation/mandatory vacation	16%
Rewards for whistleblowers	9%

FIG. 65 How does the perpetrator's level of authority relate to occupational fraud in Latin America and the Caribbean?

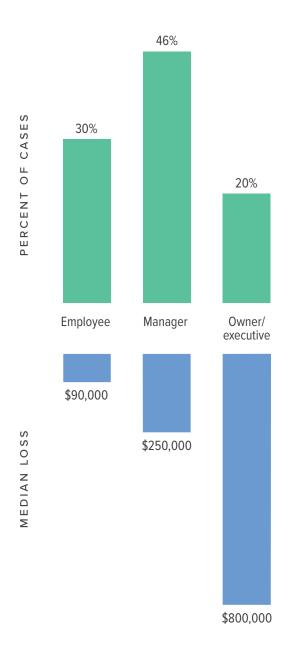


FIG. 66 Cases by country in Latin America and the Caribbean

Country	Number of cases
Argentina	10
Bahamas	5
Barbados	1
Brazil	22
Chile	2
Colombia	10
Costa Rica	4
Curaçao	1
Dominican Republic	1
Ecuador	1
Grenada	2
Haiti	1
Jamaica	3
Mexico	23
Peru	6
Saint Vincent and the Grenadines	1
Suriname	1
Trinidad and Tobago	5
Venezuela	2
Total cases:	101

FIG. 67 What are the most common occupational fraud schemes in the Middle East and North Africa?

Corruption	
	52%
Noncash	
	19%
Skimming	
	16%
Cash on hand	
	12%
Cash larceny	
	9%
Expense reimbursements	
	8%
Billing	
	8%
Financial statement fraud	
	7%
Payroll	
	5%
Check and payment tampering	
	4%
Register disbursements	
	2%

FIG. 68 How is occupational fraud initially detected in the Middle East and North Africa?

Tip	
	46%
Internal audit	
	17%
Management review	9%
Other	
Other	7%
Account reconciliation	
	6%
By accident	
	4%
External audit	
	3%
Document examination	
	3%
IT controls	
	2%
Surveillance/monitoring	
I and the second	1%
Notification by law enforcement	
	1%
Confession	
	1%

FIG. 69 What anti-fraud controls are the most common in the Middle East and North Africa?

Control	Percent of cases
External audit of financial statements	88%
Internal audit department	87%
Code of conduct	84%
Management certification of financial statements	83%
External audit of internal controls over financial reporting	74%
Management review	72%
Independent audit committee	72%
Hotline	72%
Fraud training for managers/executives	58%
Surprise audits	55%
Anti-fraud policy	55%
Fraud training for employees	55%
Dedicated fraud department, function, or team	46%
Formal fraud risk assessments	45%
Proactive data monitoring/analysis	41%
Employee support programs	34%
Job rotation/mandatory vacation	33%
Rewards for whistleblowers	17%

FIG. 70 How does the perpetrator's level of authority relate to occupational fraud in the Middle East and North Africa?

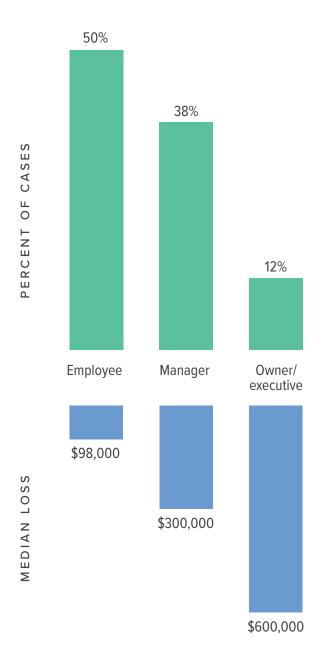


FIG. 71 Cases by country in the Middle East and North Africa

Country	Number of cases
Bahrain	5
Cyprus	11
Egypt	6
Iraq	3
Israel	1
Jordan	4
Kuwait	9
Lebanon	4
Morocco	3
Oman	5
Qatar	5
Saudi Arabia	23
Tunisia	2
United Arab Emirates	46
Total cases:	127

FIG. 72 What are the most common occupational fraud schemes in Southern Asia?

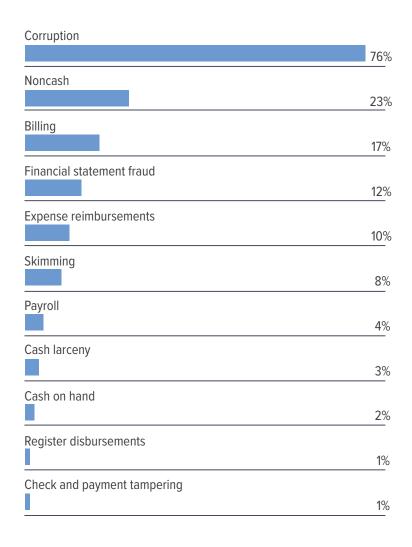
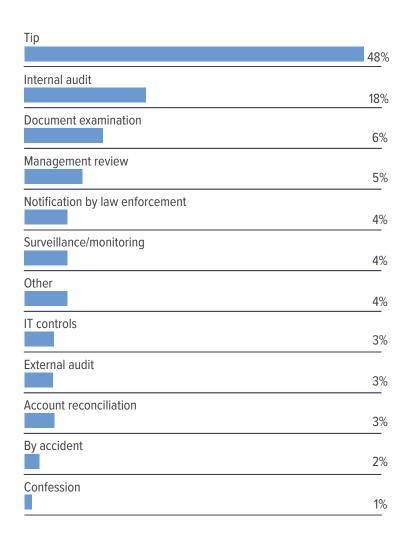


FIG. 73 How is occupational fraud initially detected in Southern Asia?



 $\mathsf{FIG}.\ 74\,$ What anti-fraud controls are the most common in Southern Asia?

Control	Percent of cases
External audit of financial statements	88%
Management certification of financial statements	86%
Internal audit department	86%
Code of conduct	81%
External audit of internal controls over financial reporting	76%
Management review	72%
Independent audit committee	70%
Hotline	66%
Anti-fraud policy	64%
Fraud training for managers/executives	55%
Fraud training for employees	51%
Employee support programs	43%
Surprise audits	43%
Dedicated fraud department, function, or team	36%
Formal fraud risk assessments	35%
Proactive data monitoring/analysis	34%
Job rotation/mandatory vacation	29%
Rewards for whistleblowers	20%

FIG. 75 How does the perpetrator's level of authority relate to occupational fraud in Southern Asia?

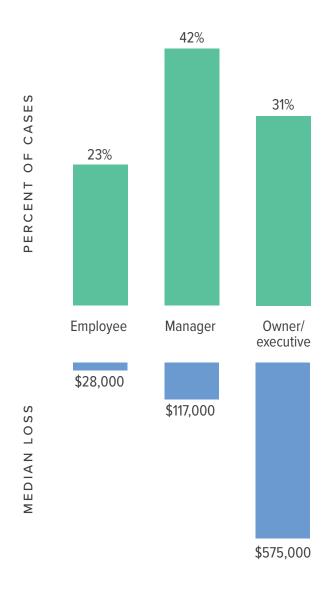


FIG. 76 Cases by country in Southern Asia

Country	Number of cases	
Afghanistan	3	
Bangladesh	4	
India	77	
Nepal	1	
Pakistan	15	
Sri Lanka	3	
Total cases:	103	

${\sf FIG.~77~What}$ are the most common occupational fraud schemes in Sub-Saharan Africa?

Corruption	
	56%
Billing	
	19%
Noncash	
	18%
Cash on hand	
	14%
Skimming	
	13%
Expense reimbursements	
	11%
Cash larceny	
	11%
Financial statement fraud	
	11%
Check and payment tampering	
	8%
Payroll	
	5%
Register disbursements	
	3%

FIG. 78 How is occupational fraud initially detected in Sub-Saharan Africa?

Tip	48%
Internal audit	14%
Management review	11%
Other	6%
Account reconciliation	4%
External audit	4%
Document examination	3%
By accident	3%
Surveillance/monitoring	2%
IT controls	2%
Notification by law enforcement	1%
Confession	1%

FIG. 79 What anti-fraud controls are the most common in Sub-Saharan Africa?

Control	Percent of cases
External audit of financial statements	92%
Code of conduct	86%
Internal audit department	85%
Management certification of financial statements	82%
External audit of internal controls over financial reporting	79%
Management review	70%
Hotline	69%
Independent audit committee	69%
Anti-fraud policy	61%
Fraud training for employees	57%
Fraud training for managers/executives	54%
Dedicated fraud department, function, or team	49%
Employee support programs	49%
Surprise audits	48%
Formal fraud risk assessments	44%
Proactive data monitoring/analysis	31%
Job rotation/mandatory vacation	28%
Rewards for whistleblowers	21%

FIG. 80 How does the perpetrator's level of authority relate to occupational fraud in Sub-Saharan Africa?

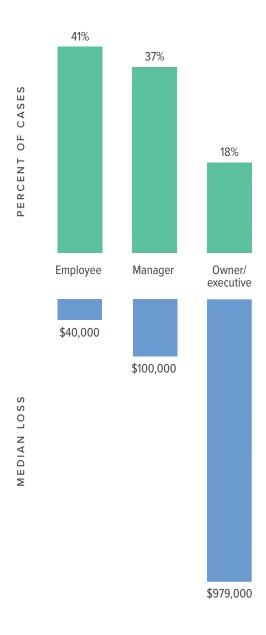
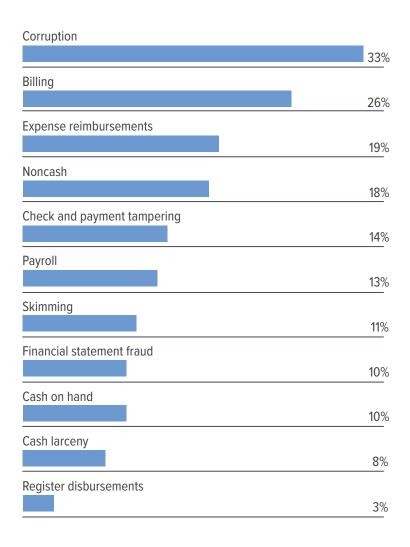


FIG. 81 Cases by country in Sub-Saharan Africa

Country	Number of cases	
Angola	1	
Benin	1	
Botswana	5	
Burundi	1	
Cameroon	4	
Central African Republic	2	
Chad	1	
Cote d'Ivoire	4	
Democratic Republic of the Congo	5	
Ethiopia	2	
Gabon	1	
Ghana	12	
Kenya	53	
Lesotho	2	
Liberia	8	
Madagascar	4	
Malawi	10	
Mauritius	6	
Mozambique	3	
Namibia	3	
Nigeria	49	
Rwanda	3	
Senegal	2	
South Africa	77	
Sudan	2	
Swaziland	1	
Tanzania	7	
Togo	4	
Uganda	16	
Zambia	3	
Zimbabwe	9	
Total cases:	301	

FIG. 82 What are the most common occupational fraud schemes in the United States and Canada?



${\sf FIG.~83~How}$ is occupational fraud initially detected in the United States and Canada?

Tip	
	37%
Management review	
	15%
Internal audit	
	14%
By accident	
	7%
Other	
	6%
Account reconciliation	
	4%
Document examination	
	4%
External audit	40/
	4%
Surveillance/monitoring	3%
N. 16 N. A.	
Notification by law enforcement	3%
0 (;	3 /0
Confession	1%
IT controls	1%
	170

FIG. 84 What anti-fraud controls are the most common in the United States and Canada?

Control	Percent of cases
Code of conduct	80%
External audit of financial statements	72%
Internal audit department	71%
Employee support programs	71%
Management review	68%
Management certification of financial statements	67%
Independent audit committee	61%
Hotline	57%
External audit of internal controls over financial reporting	54%
Fraud training for managers/executives	51%
Fraud training for employees	51%
Anti-fraud policy	44%
Proactive data monitoring/analysis	38%
Formal fraud risk assessments	35%
Dedicated fraud department, function, or team	33%
Surprise audits	28%
Job rotation/mandatory vacation	15%
Rewards for whistleblowers	10%

FIG. 85 How does the perpetrator's level of authority relate to occupational fraud in the United States and Canada?

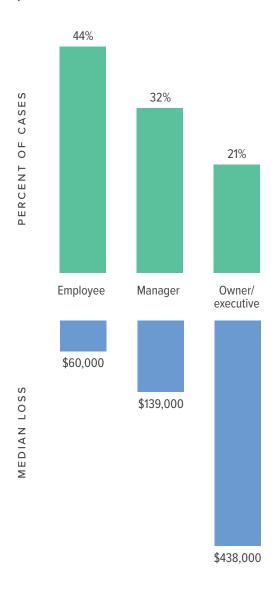


FIG. 86 Cases by country in the United States and Canada

Country	Number of cases
Canada	66
United States	829
Total cases:	895

FIG. 87 What are the most common occupational fraud schemes in Western Europe?

Corruption	
	37%
Billing	
	15%
Noncash	
	15%
Expense reimbursements	
	12%
Financial statement fraud	
	11%
Cash on hand	
	11%
Check and payment tampering	
	7%
Cash larceny	
	6%
Skimming	
	5%
Payroll	
	4%
Register disbursements	
	2%

FIG. 88 How is occupational fraud initially detected in Western Europe?

Tip	
	39%
Internal audit	
	17%
Management review	
	12%
By accident	
	9%
Other	
	6%
Surveillance/monitoring	
	5%
Notification by law enforcement	
	5%
External audit	
	3%
Account reconciliation	
	2%
IT controls	
	2%
Document examination	
	2%

 ${\sf FIG.~89}~$ What anti-fraud controls are the most common in Western Europe?

Control	Percent of cases
External audit of financial statements	89%
Code of conduct	87%
Management certification of financial statements	81%
Internal audit department	80%
External audit of internal controls over financial reporting	79%
Management review	74%
Independent audit committee	70%
Hotline	65%
Anti-fraud policy	65%
Fraud training for managers/executives	62%
Fraud training for employees	61%
Employee support programs	57%
Formal fraud risk assessments	53%
Dedicated fraud department, function, or team	51%
Proactive data monitoring/analysis	44%
Surprise audits	43%
Job rotation/mandatory vacation	25%
Rewards for whistleblowers	6%

FIG. 90 How does the perpetrator's level of authority relate to occupational fraud in Western Europe?

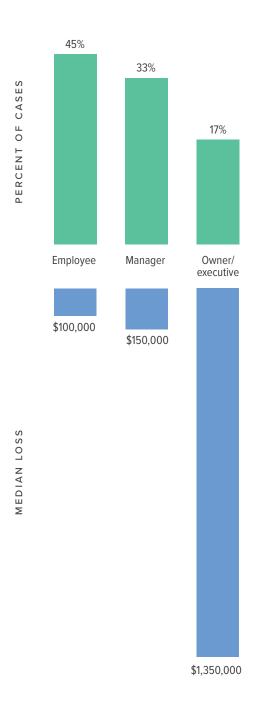


FIG. 91 Cases by country in Western Europe

Country	Number of cases		
Austria	2		
Belgium	3		
Denmark	2		
Finland	3		
France	6		
Germany	12		
Greece	21		
Ireland	2		
Italy	10		
Luxembourg	1		
Netherlands	12		
Spain	13		
Switzerland	17		
United Kingdom	24		
Total cases:	128		

FIG. 92 Statistical Analysis Spreadsheet

	Cases	25th percentile	Median (50th)	75th percentile	Mean*
All cases	2,448	\$29,000	\$125,000	\$605,000	\$1,509,000
Schemes	,			·	
Asset misappropriation	1,639	\$21,000	\$100,000	\$500,000	\$1,199,000
Billing	306	\$20,000	\$100,000	\$407,000	\$842,000
Noncash	305	\$10,000	\$78,000	\$500,000	\$1,138,000
Expense reimbursements	193	\$6,000	\$33,000	\$140,000	\$202,000
Skimming	160	\$10,000	\$47,000	\$133,000	\$361,000
Cash on hand	154	\$5,000	\$26,000	\$95,000	\$1,204,000
Check and payment tampering	141	\$40,000	\$110,000	\$500,000	\$588,000
Cash larceny	106	\$13,000	\$83,000	\$305,000	\$1,000,000
Payroll	105	\$16,000	\$62,000	\$238,000	\$367,000
Register disbursements	27	\$7,000	\$20,000	\$65,000	\$85,000
Corruption	789	\$34,000	\$200,000	\$1,100,000	\$3,039,000
Financial statement fraud	186	\$140,000	\$954,000	\$5,000,000	\$8,693,000
Detection method					
Tip	869	\$30,000	\$145,000	\$750,000	\$1,486,000
Internal audit	291	\$14,000	\$100,000	\$350,000	\$1,115,000
Management review	240	\$26,000	\$100,000	\$570,000	\$1,316,000
By accident	103	\$50,000	\$200,000	\$600,000	\$613,000
Account reconciliation	86	\$17,000	\$81,000	\$325,000	\$485,000
External audit	80	\$39,000	\$150,000	\$972,000	\$2,397,000
Document examination	71	\$32,000	\$101,000	\$500,000	\$1,357,000
Surveillance/monitoring	56	\$10,000	\$44,000	\$300,000	\$955,000
Notified by law enforcement	48	\$197,000	\$900,000	\$9,750,000	\$5,206,000
IT controls	33	\$9,000	\$80,000	\$1,255,000	\$1,133,000
Confession	23	\$100,000	\$225,000	\$3,000,000	\$3,826,000

	Cases	25th percentile	Median (50th)	75th percentile	Mean*
Victim organization					
Region:					
United States and Canada	886	\$22,000	\$120,000	\$563,000	\$1,234,000
Sub-Saharan Africa	295	\$15,000	\$100,000	\$568,000	\$1,523,000
Asia-Pacific	197	\$38,000	\$195,000	\$1,000,000	\$1,988,000
Western Europe	124	\$50,000	\$139,000	\$638,000	\$2,113,000
Middle East and North Africa	124	\$33,000	\$100,000	\$1,000,000	\$1,302,000
Southern Asia	102	\$28,000	\$117,000	\$713,000	\$2,208,000
Latin America and the Caribbean	99	\$50,000	\$200,000	\$1,000,000	\$1,500,000
Eastern Europe and Western/Central Asia	94	\$30,000	\$133,000	\$499,000	\$1,603,000
Organization type:					
Private company	883	\$31,000	\$150,000	\$750,000	\$1,451,000
Public company	529	\$35,000	\$150,000	\$925,000	\$1,675,000
Nonprofit	189	\$12,000	\$75,000	\$300,000	\$639,000
Government	327	\$23,000	\$100,000	\$530,000	\$1,812,000
National	141	\$34,000	\$200,000	\$1,000,000	\$2,652,000
State/provincial	66	\$12,000	\$91,000	\$1,125,000	\$2,693,000
Local	105	\$18,000	\$75,000	\$253,000	\$365,000
Organization size:		· · · · · · · · · · · · · · · · · · ·		. , ,	· · · · ·
<100 employees	516	\$31,000	\$150,000	\$697,000	\$1,145,000
100–999 employees	452	\$26,000	\$120,000	\$520,000	\$1,580,000
1,000–9,999 employees	541	\$24,000	\$100,000	\$513,000	\$1,557,000
10,000+ employees	496	\$32,000	\$140,000	\$800,000	\$1,715,000
Organization revenue:		402,000	ψ,σσσ	4000,000	Ψ.,,ο,σσσ
< USD 50 million	745	\$28,000	\$114,000	\$500,000	\$985,000
USD 50 million–USD 499 million	473	\$20,000	\$120,000	\$684,000	\$1,884,000
USD 500 million—USD 999 million	236	\$21,000	\$132,000	\$608,000	\$1,936,000
USD 1 billion+	526	\$35,000	\$150,000	\$1,000,000	\$1,679,000
Industry:	320	Ψ33,000	ψ130,000	ψ1,000,000	\$1,073,000
Banking and financial services	379	\$20,000	\$100,000	\$600,000	\$1,546,000
Government and public administration	193	\$18,000	\$100,000	\$500,000	\$1,609,000
Manufacturing	181	\$50,000	\$100,000	\$1,000,000	\$1,579,000
Health care	147	\$33,000	\$200,000	\$900,000	\$1,579,000
	91	\$54,000	\$200,000	\$1,225,000	\$2,337,000
Energy Retail	89	\$10,000	\$85,000	\$550,000	\$1,112,000
		· · · · · · · · · · · · · · · · · · ·	\$70,000	\$410,000	\$889,000
Insurance	86 81	\$12,000 \$17,000	\$65,000	\$250,000	
Education				· · · · · · · · · · · · · · · · · · ·	\$354,000
Construction	77	\$47,000	\$200,000	\$995,000	\$1,872,000
Telecommunications	66	\$71,000	\$250,000	\$2,000,000	\$2,049,000
Technology	65	\$39,000	\$150,000	\$1,000,000	\$1,823,000
Transportation and warehousing	63	\$32,000	\$150,000	\$1,000,000	\$653,000
Food service and hospitality	58	\$29,000	\$114,000	\$509,000	\$771,000
Services (professional)	53	\$46,000	\$150,000	\$700,000	\$772,000
Real estate	52	\$38,000	\$254,000	\$1,777,000	\$1,988,000
Religious, charitable, or social services	43	\$12,000	\$76,000	\$300,000	\$919,000
Agriculture, forestry, fishing, and hunting	39	\$29,000	\$100,000	\$1,000,000	\$2,191,000
Arts, entertainment, and recreation	39	\$30,000	\$90,000	\$255,000	\$1,254,000
Services (other)	29	\$7,000	\$150,000	\$1,400,000	\$2,316,000
Mining	26	\$100,000	\$475,000	\$3,100,000	\$4,409,000
Wholesale trade	25	\$20,000	\$130,000	\$454,000	\$923,000
Utilities	20	\$14,000	\$163,000	\$350,000	\$1,271,000
Communications and publishing	14	\$39,000	\$115,000	\$526,000	\$673,000

	Cases	25th percentile	Median (50th)	75th percentile	Mean
Perpetrator					
Number of perpetrators:					
One perpetrator	954	\$15,000	\$90,000	\$300,000	\$666,000
Two perpetrators	358	\$30,000	\$105,000	\$713,000	\$1,115,000
Three or more perpetrators	641	\$75,000	\$350,000	\$2,000,000	\$2,953,000
Position:					
Employee	803	\$10,000	\$60,000	\$259,000	\$545,000
Manager	688	\$36,000	\$150,000	\$600,000	\$1,247,000
Owner/executive	398	\$111,000	\$600,000	\$3,485,000	\$3,817,000
Tenure:					
> 10 years	452	\$50,000	\$200,000	\$1,000,000	\$2,082,000
6–10 years	432	\$50,000	\$190,000	\$1,000,000	\$1,664,000
1–5 years	886	\$20,000	\$100,000	\$500,000	\$1,268,000
<1 year	169	\$10,000	\$50,000	\$295,000	\$604,000
Department:					
Operations	285	\$12,000	\$72,000	\$410,000	\$1,249,000
Accounting	273	\$50,000	\$200,000	\$763,000	\$1,109,000
Executive/upper management	230	\$132,000	\$596,000	\$3,383,000	\$3,787,000
Sales	222	\$22,000	\$94,000	\$385,000	\$807,000
Customer service	174	\$15,000	\$86,000	\$250,000	\$826,000
Administrative support	114	\$10,000	\$76,000	\$259,000	\$568,000
Finance	101	\$19,000	\$100,000	\$682,000	\$1,833,000
Purchasing	95	\$39,000	\$200,000	\$1,000,000	\$1,556,000
Information technology	66	\$73,000	\$200,000	\$813,000	\$1,204,000
Facilities and maintenance	59	\$30,000	\$100,000	\$450,000	\$390,000
Warehousing/inventory	58	\$20,000	\$85,000	\$313,000	\$453,000
Board of directors	45	\$101,000	\$750,000	\$5,575,000	\$5,205,000
Marketing/public relations	40	\$20,000	\$100,000	\$363,000	\$797,000
Manufacturing and production	34	\$45,000	\$275,000	\$1,350,000	\$1,486,000
Human resources	27	\$15,000	\$40,000	\$400,000	\$915,000
Legal	13	\$10,000	\$195,000	\$741,000	\$450,000
Research and development	12	\$26,000	\$350,000	\$1,113,000	\$1,795,000
Internal audit	8	†	†	†	†

	Cases	25th percentile	Median (50th)	75th percentile	Mean
Perpetrator (cont.)					
Gender:					
Male	1,391	\$35,000	\$150,000	\$1,000,000	\$1,823,000
Female	543	\$18,000	\$85,000	\$300,000	\$677,000
Age:					
<26	81	\$5,000	\$20,000	\$113,000	\$169,000
26–30	191	\$15,000	\$65,000	\$250,000	\$403,000
31–35	307	\$18,000	\$80,000	\$400,000	\$845,000
36–40	347	\$31,000	\$150,000	\$600,000	\$1,320,000
41–45	345	\$38,000	\$141,000	\$750,000	\$1,733,000
46–50	268	\$56,000	\$213,000	\$1,200,000	\$2,379,000
51–55	152	\$50,000	\$207,000	\$1,000,000	\$1,641,000
56–60	117	\$78,000	\$400,000	\$2,284,000	\$3,086,000
>60	60	\$120,000	\$575,000	\$3,425,000	\$3,644,000
Education level:					
High school graduate or less	325	\$15,000	\$80,000	\$312,000	\$933,000
Some university	219	\$30,000	\$150,000	\$451,000	\$751,000
University degree	751	\$40,000	\$175,000	\$1,000,000	\$1,811,000
Postgraduate degree	238	\$35,000	\$200,000	\$1,000,000	\$2,285,000