2004 REPORT TO THE NATION ON OCCUPATIONAL FRAUD AND ABUSE
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Letter from the President & CEO

Occupational fraud and abuse is a tremendous problem, one that affects practically every organization. In 1996, the Association of Certified Fraud Examiners (ACFE) published its first Report to the Nation on Occupational Fraud and Abuse, which was the largest privately funded study on the subject. Six years later, the ACFE released the 2002 Report to the Nation on Occupational Fraud and Abuse, which updated and expanded the original report. We now present our third major study on occupational fraud, the 2004 Report to the Nation on Occupational Fraud and Abuse. This new study represents our most comprehensive examination of the effects of occupational fraud and abuse to date.

This report is based on 508 occupational fraud cases that were reported by the Certified Fraud Examiners (CFEs) who investigated them. In total, the cases in this study caused over $761 million in losses. This report focuses on six areas: the cost of occupational fraud and abuse, the methods for committing these crimes, detection of occupational fraud, the victims, the perpetrators, and the legal outcomes of fraud cases.

The 2004 Report to the Nation was conceived by the Association’s founder and chairman, Joseph T. Wells. Through his work with the ACFE, Mr. Wells has contributed more to the study of occupational fraud than any person in the field. In his honor, Dr. Gil Geis, former president of ACFE, named this report The Wells Report.

This report is being made available to the general public, organizations, practitioners, academicians and the media. For anyone who is interested in the study of occupational fraud or the practical consequences wrought by this type of crime, the 2004 Wells Report is an invaluable source of information.

Toby J. F. Bishop, CFE, CPA, FCA
President and CEO
Association of Certified Fraud Examiners
About the ACFE

The Association of Certified Fraud Examiners is the world’s premier provider of anti-fraud training and education. A leader in the global anti-fraud community, the ACFE has over 30,000 members, sponsors more than 100 chapters worldwide and provides anti-fraud educational materials to over 180 universities. Certified Fraud Examiners (CFEs) on six continents have investigated more than 1 million suspected cases of civil and criminal fraud. Together, with our members, the ACFE is reducing business fraud worldwide and inspiring public confidence in the value and integrity of the profession.

The ACFE is dedicated to the global advancement of the fight against fraud while increasing the recognition of the CFE credential. Every year the ACFE strives to support its mission by offering new resources and tools.

2004 Initiatives include:

- Enhanced selection of training on timely fraud topics like international bribery, e-fraud, insurance fraud, Sarbanes-Oxley, statement analysis and fraud prevention.
- Conferences and seminars in cities around the world including Calgary, London, Toronto, Vancouver, Auckland, Hong Kong and Melbourne. Spanish language anti-fraud courses are also being conducted.
- Expanded ACFE resources, focused on research and development of comprehensive anti-fraud educational and training materials.
- Anti-fraud database including searchable fraud-related articles at CFEnet.com
- Enhanced Higher Education Initiative providing anti-fraud educational materials and fee-waived attendance at seminars and conferences worth up to $800,000 to academics worldwide who commit to provide anti-fraud education at their colleges and universities.
- A new Corporate Fraud Handbook providing up-to-date information on fraud schemes perpetrated in business and government.
- A college textbook, Principles of Fraud Examination, which is being published to support dedicated courses in fraud examination.
- Expanded Fraud Magazine with more articles providing practical solutions to today’s fraud challenges.
Executive Summary

- This study covers 508 cases of occupational fraud totaling over $761 million in losses. All information was provided by the Certified Fraud Examiners (CFEs) who investigated these cases.

- Organizations suffer tremendous costs as a result of occupational fraud and abuse. Participants in this study, anti-fraud specialists with a median 16 years' experience in the fraud examination field, estimate that the typical U.S. organization loses 6% of its annual revenues to fraud. Applied to the US Gross Domestic Product for 2003, this translates to approximately $660 billion in total losses.

- Our data strongly supports Sarbanes-Oxley's requirement for audit committees to establish confidential reporting mechanisms. Occupational frauds in our study were much more likely to be detected by a tip than through other means such as internal audits, external audits, and internal controls. Among frauds committed by owners and executives, which tend to be the most costly, over half of all cases were identified by a tip.

- Confidential reporting mechanisms reduce fraud losses significantly. The median loss among organizations that had anonymous reporting mechanisms was $56,500. In organizations that did not have established reporting procedures, the median loss was more than twice as high.

- While Sarbanes-Oxley only requires publicly traded companies to establish confidential reporting mechanisms for employees, our data strongly suggests that these programs should also embrace third-party sources such as customers and vendors. Among cases that were detected by a tip, 60% of the tips came from employees, 20% of the tips came from customers, 16% came from vendors, and 13% came from anonymous sources. Companies that have implemented basic employee hotlines to ensure Sarbanes-Oxley compliance could detect significantly more frauds by making their hotlines available to third parties as well.
More effective internal controls are needed to detect fraud. Internal controls ranked fourth - behind By Accident - in terms of the number of frauds detected in our study. Furthermore, the frauds that were detected by internal controls tended to be relatively small, with a median loss of $40,000, which was by far the lowest of any detection method. More effective types of internal controls are needed to detect fraud, especially larger frauds that may involve senior personnel overriding or circumventing traditional internal controls.

Small businesses suffer disproportionately large losses due to occupational fraud and abuse. The median cost experienced by small businesses in our study was $98,000. This was higher than the median loss experienced by all but the very largest organizations. Small businesses are less likely to be able to survive such losses and should better protect themselves from fraud.

The loss caused by occupational fraud is directly related to the position of the perpetrator. Frauds committed by owners and executives caused a median loss of $900,000, which was six times higher than the losses caused by managers, and 14 times higher than the losses caused by employees. Despite this fact, organizations were less likely to take legal action against owners and executives who had committed fraud than they were against employees and managers. This may remove a useful deterrent and unnecessarily expose such organizations to additional high-dollar frauds.

Most occupational fraudsters are first time offenders. Only 12% of the fraudsters in our study had a previous conviction for a fraud-related offense. Criminal background checks can help organizations make informed hiring decisions, but they will not weed out all fraudsters because most frauds are committed by apparently honest employees.

The most cost-effective way to deal with fraud is to prevent it. According to our study, once an organization has been defrauded it is unlikely to recover its losses. The median recovery among victim organizations in our study was only 20% of the original loss. Almost 40% of victims recovered nothing at all.
Introduction

What is Occupational Fraud?
The term "occupational fraud" may be defined as:

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

This definition is very broad, encompassing a wide range of misconduct by employees, managers, and executives. Occupational fraud schemes can be as simple as pilferage of company supplies or as complex as sophisticated financial statement frauds. All occupational fraud schemes have four key elements in common. The activity:

- is clandestine;
- violates the perpetrator's fiduciary duties to the victim organization;
- is committed for the purpose of direct or indirect financial benefit to the perpetrator; and
- costs the employing organization assets, revenue, or reserves.

Occupational fraud and abuse is a widespread problem that affects practically every organization, regardless of size, location, or industry. The ACFE has made it a goal to better educate the public and anti-fraud professionals about this threat. In 1996, we released the first Report to the Nation on Occupational Fraud and Abuse, the largest known privately funded study on the subject. The stated goals of that report were to:

- Summarize the opinions of experts on the percentage and amount of organizational revenue lost to all forms of occupational fraud and abuse
- Examine the characteristics of the employees who commit occupational fraud and abuse
- Determine what kinds of organizations are victims of occupational fraud and abuse
- Categorize the ways in which serious fraud and abuse occurs.
In 2002 we issued our second *Report to the Nation*. Like the first Report, the 2002 edition was also based on detailed case information supplied by CFEs, but this report expanded on the first. In 2002 we revised our survey instrument to gather more useful information on the specific methods used to commit occupational fraud. We also gathered information on the legal dispositions of the cases, which had not been included in the 1996 *Report*.

Like the fight against fraud, the task of gathering meaningful information about fraud is an arduous and ongoing process. With each successive edition of the *Report to the Nation*, it is our goal to provide better, more accurate and more useful information.

In the present edition of the Report, we have again expanded its scope. Our 2004 survey of CFEs was designed to gather the same key information that was present in the first two *Reports to the Nation*, but in this edition we added key questions on methods of detection and the effectiveness of anti-fraud controls in limiting fraud losses. We also added more demographic questions on the perpetrators and victims of occupational fraud to give us an even better picture of who commits fraud and who suffers from it.

The result of these changes is what we believe to be the most complete and useful edition of the *Report to the Nation* to date. The information contained in this Report should be of great value to anti-fraud practitioners everywhere. It also should offer stark lessons and valuable insights to any organization concerned with limiting its exposure to occupational fraud and abuse.
Methodology

The 2004 Report to the Nation is based on a survey that began in late 2003 and ran through the early months of 2004. We distributed an online questionnaire to CFEs throughout the US asking each participant to provide detailed information on one fraud case he or she had personally investigated that met the following criteria:

1. The case involved occupational fraud;
2. The fraud occurred within the last two years;
3. The investigation of the fraud was complete; and
4. The CFE was reasonably sure that the perpetrator had been identified.

For each case in our survey, the CFE who investigated it was asked to provide a narrative explanation of how the scheme worked, along with detailed information about the perpetrator and the victim of the crime. Respondents also provided information on how the frauds were detected, and the anti-fraud controls that the victims had in place at the time the frauds occurred. The goal was to help us measure the effectiveness of various controls in identifying fraud and limiting fraud losses. Finally, CFEs were asked to describe how the victims responded to the frauds after they had been detected, including whether any criminal or civil legal actions were taken.

Our survey yielded 508 usable cases of occupational fraud. The data in this Report is based solely on the information from those 508 cases. Cumulatively, the frauds in this study caused over $761 million in total losses.

Who Provided the Data?
The data in this report was supplied by CFEs who related information from cases they had personally investigated. Because CFEs work in many different fields, we asked our respondents to define their occupation so we would have some indication of the perspective from which they were viewing these crimes. The following chart shows that approximately half of those who responded deemed fraud examiner to be their primary role. This was an increase from 28% in our 2002 Report. We believe this indicates an increase in the demand for professionals dedicated specifically to the detection, prevention and investigation of fraud, whereas in the past these duties were often merged into other, more traditional job functions.
The CFEs who took part in our survey had a great deal of experience in the fraud examination field. The median length of experience among respondents was 16 years, making this group an excellent source from which to draw meaningful information. The following chart shows the distribution of the respondents' experience.

1 The sum of percentages in this chart exceeds 100% because a number of participants identified themselves under more than one occupational category.
Where Did the Frauds Occur?

The victims of occupational fraud are the organizations that employ the fraud perpetrators and suffer losses as a result of these crimes. The frauds in our study occurred in a wide range of organizations, based on size, industry and type of organization. The victims in our study had gross annual revenues ranging from a low of $25,000 to a high of over $80 billion, with median annual revenues of $26 million.

It should be remembered that our survey was not designed to measure the prevalence of fraud in various industries or types of organizations; therefore, we did not seek a statistically random sample of victim organizations from which to gather our information. The data in this report was provided by CFEs based on cases they had personally investigated, so to some extent the information on victims in this report is reflective of the types of organizations that employ or hire CFEs. Nevertheless, the following data shows that the pool of victims in our study was well distributed over several key fields.

Types of Organizations

The following chart shows the distribution of frauds in our survey, based on the type of organization that was victimized. Most of the frauds occurred in privately held or publicly traded companies, although government agencies and not-for-profit organizations were well represented.

Privately held companies suffered the largest median losses, followed by public companies and not-for-profit organizations. Government agencies had the lowest median losses by far, at $37,500 per scheme.
Small Organizations Suffered Disproportionately Large Losses

Approximately 46% of the frauds in our study attacked small businesses, which we define as organizations that employ fewer than 100 people. Given their relative size, the impact on small businesses from the occupational frauds in our survey was much greater than the impact on larger companies. The median loss in small companies was $98,000. Only the largest organizations - those with 10,000 or more employees — suffered greater losses. This finding was consistent with the results from our 2002 Report.
What Industries Were Affected?

The following table shows the industries that were affected by the frauds in our survey, along with the median loss for schemes in each industry. Again, readers should be cautioned that our survey was not designed to measure the relative frequency of fraud in various industries. Nevertheless, this information is meaningful in that it shows that the frauds we studied were spread over a wide range of industries. It also gives some measure of how various industries are affected by occupational fraud.

**Frequency and Median Loss of Occupational Frauds Based on Industry**

<table>
<thead>
<tr>
<th>INDUSTRY</th>
<th># CASES</th>
<th>% CASES²</th>
<th>MEDIAN LOSS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>65</td>
<td>12.9%</td>
<td>$125,000</td>
</tr>
<tr>
<td>Banking</td>
<td>56</td>
<td>11.1%</td>
<td>$101,000</td>
</tr>
<tr>
<td>Service</td>
<td>56</td>
<td>11.1%</td>
<td>$139,000</td>
</tr>
<tr>
<td>Government</td>
<td>53</td>
<td>10.5%</td>
<td>$45,000</td>
</tr>
<tr>
<td>Other</td>
<td>47</td>
<td>9.3%</td>
<td>$145,000</td>
</tr>
<tr>
<td>Insurance</td>
<td>46</td>
<td>9.1%</td>
<td>$172,500</td>
</tr>
<tr>
<td>Retail</td>
<td>40</td>
<td>7.9%</td>
<td>$35,500</td>
</tr>
<tr>
<td>Health Care</td>
<td>37</td>
<td>7.3%</td>
<td>$105,000</td>
</tr>
<tr>
<td>Education</td>
<td>31</td>
<td>6.1%</td>
<td>$31,000</td>
</tr>
<tr>
<td>Construction</td>
<td>17</td>
<td>3.4%</td>
<td>$145,000</td>
</tr>
<tr>
<td>Transportation</td>
<td>17</td>
<td>3.4%</td>
<td>$225,000</td>
</tr>
<tr>
<td>Oil &amp; Gas</td>
<td>16</td>
<td>3.2%</td>
<td>$101,500</td>
</tr>
<tr>
<td>Communication</td>
<td>13</td>
<td>2.6%</td>
<td>$150,000</td>
</tr>
<tr>
<td>Utility</td>
<td>13</td>
<td>2.6%</td>
<td>$30,000</td>
</tr>
<tr>
<td>Real Estate</td>
<td>11</td>
<td>2.2%</td>
<td>$385,000</td>
</tr>
<tr>
<td>Agriculture</td>
<td>6</td>
<td>1.2%</td>
<td>$1,080,000</td>
</tr>
</tbody>
</table>

² The sum of percentages in this column exceeds 100% because some victim organizations were characterized as belonging to more than one industry category.
Determining the true cost of occupational fraud and abuse is most likely an impossible task. Because fraud is a crime based on concealment, organizations often do not know when they are being victimized. Many frauds are never detected, or are only caught after they have gone on for several years. Furthermore, many frauds that are detected are never reported for a variety of reasons, and those frauds that are reported are often not prosecuted. Finally, there is no agency or organization that is specifically charged with gathering comprehensive fraud-related information. All of these factors combine to make any estimate of the total cost of occupational fraud just that - an estimate.

In our study we asked CFEs to give us their best estimate of the percent of revenues a typical organization in the US loses in a given year as a result of occupational fraud (for government agencies, we asked what percent of the annual budget was lost). The answers to this question were based on the opinions of CFEs, not specific data from the cases they had reported. But keep in mind that our body of respondents was made up of experts in fraud prevention and detection, with 16 years' median experience in the field. Given the obstacles to developing meaningful data on the overall costs of fraud, this may be as reliable a source as is available.

The median response among the CFEs we surveyed was that the typical organization loses 6% of its annual revenues to occupational fraud, the same result we obtained from our studies in 1996 and 2002. This is a staggering figure. If multiplied by the U.S. Gross Domestic Product, which in 2003 totaled just under $11 trillion, it would translate into $660 billion in annual fraud losses.
There were 487 cases in our study in which the respondent was able to specify the amount of loss suffered by the victim organization. The median loss for all cases in the study was $100,000. As the following distribution shows, 15% of the frauds in our study caused losses of at least $1 million, while one in five cost at least $500,000. This distribution was very similar to the one in our 2002 Report.

Distribution of Dollar Losses

Dollar figures are based on an estimated 6% loss of annual revenues to fraud, multiplied by Annual U.S. Gross Domestic Product.

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3 Dollar figures are based on an estimated 6% loss of annual revenues to fraud, multiplied by Annual U.S. Gross Domestic Product.
Uniform Occupational Fraud Classification System
One of the major goals of this Report was to classify each fraud according to the methods used by the perpetrator. This gives us a better understanding of how fraud is committed and the types of schemes that tend to produce the largest losses. Also, by breaking down occupational frauds into distinct categories, we are better able to study their common characteristics, which in turn assists in the development of better anti-fraud tools. Accordingly, every fraud in our study was classified according to the Uniform Occupational Fraud Classification System (commonly known as the Fraud Tree), which is illustrated on the preceding page.

As was first stated in the 1996 Report to the Nation, all occupational frauds fall into one of three major categories:

- **Asset Misappropriations**, which involve the theft or misuse of an organization's assets. (Common examples include skimming revenues, stealing inventory and payroll fraud.)

- **Corruption**, in which fraudsters wrongfully use their influence in a business transaction in order to procure some benefit for themselves or another person, contrary to their duty to their employer or the rights of another. (Common examples include accepting kickbacks, and engaging in conflicts of interest.)

- **Fraudulent Statements**, which generally involve falsification of an organization's financial statements. (Common examples include overstating revenues and understating liabilities or expenses.)

Asset misappropriations were by far the most common of the three categories, occurring in over 90% of the cases we reviewed. However, these schemes had the lowest median loss, at $93,000. Conversely, fraudulent statements were the least commonly reported frauds (7.9%) but they had the highest median loss at $1,000,000.4

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4 It should be noted that a number of cases involved aspects of more than one type of occupational fraud. For instance, several schemes involved both corruption and asset misappropriation. We were unable to subdivide the losses in cases where there were multiple schemes to show exactly how much of the loss was attributable to each of the component schemes. The same is true for all charts in this report showing median loss based on scheme type.
The median loss figure for fraudulent statements was much lower than we expected and was significantly lower than what was reported in our 2002 study. The reader must be cautioned that this does not necessarily indicate a declining trend in the costs associated with financial statement fraud. As indicated earlier, this report is based on a compilation of information from frauds investigated by CFEs. It was not intended to be a comprehensive study on financial statement frauds, and we were not necessarily working from a representative sample of those crimes. There were only 40 financial statement schemes reported in our survey, too few to draw a meaningful conclusion on the impact of all financial statement frauds. Furthermore, the losses caused by these schemes can vary wildly based on a number of factors related to the specific organization whose financials are falsified. Reports of recent scandals indicate that shareholders are still suffering massive losses due to financial statement fraud. While the median loss in our study was low, we still found that one in six financial statement fraud schemes cost its victims at least $10 million, with three cases generating at least $50 million in losses.

**Asset Misappropriations - Cash vs. Non-Cash**

As the above chart illustrated, over 90% of the occupational fraud cases in our study involved the misappropriation of assets. Not surprisingly, the asset that was most frequently targeted was cash. Of 471 asset misappropriation cases we reviewed, 93% involved the misappropriation of cash, while only 22% involved misappropriation of non-cash assets. The median loss in the two categories was almost identical.

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5 The sum of percentages in this chart exceeds 100% because a number of cases involved multiple schemes that fell into more than one category.
Cash Misappropriations

Out of 508 cases in our study, 440 cases (87%) involved some form of cash misappropriation. According to the Fraud Tree, cash frauds fall into one of three categories:

- **Fraudulent Disbursements**, in which the perpetrator causes his organization to disburse funds through some trick or device. Common examples include submitting false invoices or forging company checks.
- **Skimming**, in which cash is stolen from an organization before it is recorded on the organization's books and records
- **Cash Larceny**, in which cash is stolen from an organization after it has been recorded on the organization’s books and records

Approximately three-fourths of the cash frauds in our study involved some form of fraudulent disbursement, making this the most common category by far. Schemes that involved a fraudulent disbursement also had the highest median loss, at $125,000.

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6 The sum of percentages in this chart exceeds 100% because a number of cases involved the misappropriation of more than one type of asset.

7 The sum of percentages in this chart exceeds 100% because a number of cases involved multiple schemes that fell into more than one category.
Fraudulent Disbursements

Approximately two-thirds of all the cases in our study (326 out of 508) involved some form of fraudulent disbursement. These schemes can generally be divided into five distinct subcategories:

- **Billing Schemes**, in which a fraudster causes the victim organization to issue a payment by submitting invoices for fictitious goods or services, inflated invoices, or invoices for personal purchases.
- **Payroll Schemes**, in which an employee causes the victim organization to issue a payment by making false claims for compensation.
- **Expense Reimbursement Schemes**, in which an employee makes a claim for reimbursement of fictitious or inflated business expenses.
- **Check Tampering**, in which the perpetrator converts an organization’s funds by forging or altering a check on one of the organization’s bank accounts, or steals a check the organization has legitimately issued to another payee.
- **Register Disbursement Schemes**, in which an employee makes false entries on a cash register to conceal the fraudulent removal of currency.

Just over half of the fraudulent disbursement cases in our study involved billing fraud, making this the most common type of fraudulent disbursement scheme. The highest median loss occurred in schemes involving check tampering.

![Breakdown of Fraudulent Disbursements](image)

Breakdown of Fraudulent Disbursements

<table>
<thead>
<tr>
<th>Category</th>
<th>Median Loss</th>
<th>Percent of Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Billing</td>
<td>$140,000</td>
<td>52.1%</td>
</tr>
<tr>
<td>Check Tampering</td>
<td>$155,000</td>
<td>31.3%</td>
</tr>
<tr>
<td>Expense Reimburse</td>
<td>$92,000</td>
<td>22.1%</td>
</tr>
<tr>
<td>Payroll</td>
<td>$90,000</td>
<td>19.6%</td>
</tr>
<tr>
<td>Register Disburse</td>
<td>$18,000</td>
<td>4.3%</td>
</tr>
</tbody>
</table>

8 The sum of percentages in this chart exceeds 100% because a number of cases involved multiple schemes that fell into more than one category.
Comparison of All Fraud Categories - 2002 and 2004
The following table provides a comparison of the frequency and median loss data for all categories of occupational fraud in 2004 and 2002.

Comparison of All Occupational Fraud Categories by 2004 and 2002 Data

<table>
<thead>
<tr>
<th>Scheme Type</th>
<th>2004</th>
<th></th>
<th>2002</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% Cases</td>
<td>Median Cost</td>
<td>% Cases</td>
<td>Median Cost</td>
</tr>
<tr>
<td>Asset Misappropriations</td>
<td>92.7</td>
<td>$93,000</td>
<td>85.7</td>
<td>$80,000</td>
</tr>
<tr>
<td>Cash Misappropriations</td>
<td>86.6</td>
<td>$98,000</td>
<td>77.8</td>
<td>$80,000</td>
</tr>
<tr>
<td>Cash Larceny</td>
<td>20.7</td>
<td>$80,000</td>
<td>6.9</td>
<td>$25,000</td>
</tr>
<tr>
<td>Skimming</td>
<td>24.4</td>
<td>$85,000</td>
<td>24.7</td>
<td>$70,000</td>
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<tr>
<td>Fraudulent Disbursements</td>
<td>64.2</td>
<td>$125,000</td>
<td>55.4</td>
<td>$100,000</td>
</tr>
<tr>
<td>Billing Schemes</td>
<td>33.5</td>
<td>$140,000</td>
<td>25.2</td>
<td>$160,000</td>
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<tr>
<td>Payroll Schemes</td>
<td>12.6</td>
<td>$90,000</td>
<td>9.8</td>
<td>$140,000</td>
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<tr>
<td>Expense Reimbursements</td>
<td>14.2</td>
<td>$92,000</td>
<td>12.2</td>
<td>$60,000</td>
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<tr>
<td>Check Tampering</td>
<td>20.1</td>
<td>$155,000</td>
<td>16.7</td>
<td>$140,000</td>
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<tr>
<td>Register Disbursements</td>
<td>2.8</td>
<td>$18,000</td>
<td>1.7</td>
<td>$18,000</td>
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<td>Non-Cash Misappropriations</td>
<td>20.5</td>
<td>$100,000</td>
<td>9.0</td>
<td>$200,000</td>
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<td>Corruption Schemes</td>
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<td>12.8</td>
<td>$530,000</td>
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<tr>
<td>Fraudulent Statements</td>
<td>7.9</td>
<td>$1,000,000</td>
<td>5.1</td>
<td>$4,250,000</td>
</tr>
</tbody>
</table>

Readers may note that the percentages in this column do not match the percentages in earlier charts. For instance, in this table skimming is shown to have occurred in 24.4% of cases in 2004, while in the chart entitled Breakdown of Cash Misappropriations on page 13 skimming had a value of 28.2%. That is because this table shows percentages based on our entire pool of 508 schemes, whereas the other chart reflected the percentage of skimming schemes based on the pool of cash misappropriations.
Methods of Fraud Based on Industry

The following table shows the categories of occupational fraud that occurred based on the industry in which the victim organization operated. For example, there were 65 cases in our study that occurred in the manufacturing sector. Eleven of these cases (16.9%) involved skimming. We have placed the most common scheme for each industry in bold type.

<table>
<thead>
<tr>
<th>Industry</th>
<th>Total Cases</th>
<th>Skimming #</th>
<th>Skimming %</th>
<th>Cash #</th>
<th>Cash %</th>
<th>Larc #</th>
<th>Larc %</th>
<th>Billing #</th>
<th>Billing %</th>
<th>Payroll #</th>
<th>Payroll %</th>
<th>Exp. #</th>
<th>Reimb. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>65</td>
<td>11</td>
<td>16.9%</td>
<td>6</td>
<td>9.2%</td>
<td>23</td>
<td>35.4%</td>
<td>7</td>
<td>10.8%</td>
<td>12</td>
<td>18.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Banking</td>
<td>56</td>
<td>8</td>
<td>14.3%</td>
<td>10</td>
<td>17.9%</td>
<td>11</td>
<td>19.6%</td>
<td>1</td>
<td>1.8%</td>
<td>3</td>
<td>5.4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service</td>
<td>56</td>
<td>16</td>
<td>28.6%</td>
<td>16</td>
<td>28.6%</td>
<td>18</td>
<td>32.1%</td>
<td>13</td>
<td>23.2%</td>
<td>13</td>
<td>23.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government</td>
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<td>16</td>
<td>30.2%</td>
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<td>17.0%</td>
<td>8</td>
<td>15.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insurance</td>
<td>46</td>
<td>8</td>
<td>17.4%</td>
<td>4</td>
<td>8.7%</td>
<td>23</td>
<td>50.0%</td>
<td>3</td>
<td>6.5%</td>
<td>2</td>
<td>4.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retail</td>
<td>40</td>
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<td>17</td>
<td>42.5%</td>
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<tr>
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<td>21.6%</td>
<td>11</td>
<td>29.7%</td>
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<td>35.1%</td>
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<td>13</td>
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<td>25.8%</td>
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<td>22.6%</td>
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<td></td>
</tr>
<tr>
<td>Construction</td>
<td>17</td>
<td>4</td>
<td>23.5%</td>
<td>1</td>
<td>5.9%</td>
<td>3</td>
<td>17.6%</td>
<td>5</td>
<td>29.4%</td>
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<tr>
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<td>23.5%</td>
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<td>11.8%</td>
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<td></td>
</tr>
<tr>
<td>Oil &amp; gas</td>
<td>16</td>
<td>6</td>
<td>37.5%</td>
<td>2</td>
<td>12.5%</td>
<td>8</td>
<td>50.0%</td>
<td>1</td>
<td>6.3%</td>
<td>3</td>
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</tr>
<tr>
<td>Communication</td>
<td>13</td>
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<td>30.8%</td>
<td>3</td>
<td>23.1%</td>
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<td>15.4%</td>
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<td>30.8%</td>
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<tr>
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<td>0.0%</td>
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<td>7.7%</td>
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<tr>
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<tr>
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<td>33.3%</td>
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<table>
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<th>Industry</th>
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<th>Check #</th>
<th>Check %</th>
<th>Tamp #</th>
<th>Tamp %</th>
<th>Register #</th>
<th>Register %</th>
<th>Non-Cash #</th>
<th>Non-Cash %</th>
<th>Corruption #</th>
<th>Corruption %</th>
<th>Frd. Stmts. %</th>
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</thead>
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<tr>
<td>Manufacturing</td>
<td>65</td>
<td>15</td>
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<td>21</td>
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<td>25</td>
<td>38.5%</td>
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<tr>
<td>Banking</td>
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<td>4</td>
<td>7.1%</td>
<td>1</td>
<td>1.8%</td>
<td>3</td>
<td>5.4%</td>
<td>20</td>
<td>35.7%</td>
<td>5</td>
<td>8.9%</td>
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</tr>
<tr>
<td>Service</td>
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<td>18</td>
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<td>2</td>
<td>3.6%</td>
<td>9</td>
<td>16.1%</td>
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<td>25.0%</td>
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<td>5.4%</td>
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<tr>
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<td>3.6%</td>
<td>9</td>
<td>16.1%</td>
<td>14</td>
<td>25.0%</td>
<td>3</td>
<td>5.4%</td>
<td></td>
</tr>
<tr>
<td>Insurance</td>
<td>46</td>
<td>8</td>
<td>17.4%</td>
<td>0</td>
<td>0.0%</td>
<td>6</td>
<td>13.0%</td>
<td>13</td>
<td>28.3%</td>
<td>3</td>
<td>6.5%</td>
<td></td>
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<tr>
<td>Retail</td>
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<td>7.5%</td>
<td>8</td>
<td>20.0%</td>
<td>15</td>
<td>37.5%</td>
<td>6</td>
<td>15.0%</td>
<td>3</td>
<td>7.5%</td>
<td></td>
</tr>
<tr>
<td>Health care</td>
<td>37</td>
<td>8</td>
<td>21.6%</td>
<td>1</td>
<td>2.7%</td>
<td>5</td>
<td>13.5%</td>
<td>14</td>
<td>37.8%</td>
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<td>10.8%</td>
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<tr>
<td>Education</td>
<td>31</td>
<td>9</td>
<td>29.0%</td>
<td>0</td>
<td>0.0%</td>
<td>10</td>
<td>32.3%</td>
<td>9</td>
<td>29.0%</td>
<td>2</td>
<td>6.5%</td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td>17</td>
<td>10</td>
<td>58.8%</td>
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<td>0.0%</td>
<td>0</td>
<td>0.0%</td>
<td>2</td>
<td>11.8%</td>
<td>3</td>
<td>17.6%</td>
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</tr>
<tr>
<td>Transportation</td>
<td>17</td>
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<td>5.9%</td>
<td>0</td>
<td>0.0%</td>
<td>6</td>
<td>35.3%</td>
<td>10</td>
<td>58.8%</td>
<td>1</td>
<td>5.9%</td>
<td></td>
</tr>
<tr>
<td>Oil &amp; gas</td>
<td>16</td>
<td>2</td>
<td>12.5%</td>
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<td>0.0%</td>
<td>3</td>
<td>18.8%</td>
<td>7</td>
<td>43.8%</td>
<td>1</td>
<td>6.3%</td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td>13</td>
<td>2</td>
<td>15.4%</td>
<td>0</td>
<td>0.0%</td>
<td>3</td>
<td>23.1%</td>
<td>6</td>
<td>46.2%</td>
<td>2</td>
<td>15.4%</td>
<td></td>
</tr>
<tr>
<td>Utility</td>
<td>13</td>
<td>1</td>
<td>7.7%</td>
<td>0</td>
<td>0.0%</td>
<td>3</td>
<td>23.1%</td>
<td>5</td>
<td>38.5%</td>
<td>0</td>
<td>0.0%</td>
<td></td>
</tr>
<tr>
<td>Real estate</td>
<td>11</td>
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<td>9.1%</td>
<td>0</td>
<td>0.0%</td>
<td>2</td>
<td>18.2%</td>
<td>4</td>
<td>36.4%</td>
<td>1</td>
<td>9.1%</td>
<td></td>
</tr>
<tr>
<td>Agriculture</td>
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<td>2</td>
<td>33.3%</td>
<td>0</td>
<td>0.0%</td>
<td>0</td>
<td>0.0%</td>
<td>1</td>
<td>16.7%</td>
<td>0</td>
<td>0.0%</td>
<td></td>
</tr>
</tbody>
</table>
Methods of Fraud Based on Organization Type of the Victim

Different types of organizations tend to have different attitudes toward fraud prevention and detection, as well as different vulnerabilities to occupational fraud. The following table shows the methods of fraud that were committed based on the type of organization that was victimized.

<table>
<thead>
<tr>
<th>Total Cases</th>
<th>Skimming #</th>
<th>Cash Larc #</th>
<th>Billing #</th>
<th>Payroll #</th>
<th>Exp. Rejmb. #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not-for-Profit</td>
<td>58</td>
<td>14</td>
<td>24.1%</td>
<td>10</td>
<td>17.2%</td>
</tr>
<tr>
<td>Government</td>
<td>75</td>
<td>17</td>
<td>22.7%</td>
<td>14</td>
<td>18.7%</td>
</tr>
<tr>
<td>Public Company</td>
<td>144</td>
<td>22</td>
<td>15.3%</td>
<td>26</td>
<td>18.1%</td>
</tr>
<tr>
<td>Private Company</td>
<td>199</td>
<td>64</td>
<td>32.2%</td>
<td>52</td>
<td>26.1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Cases</th>
<th>Check Tamp #</th>
<th>Register #</th>
<th>Non-Cash #</th>
<th>Corruption #</th>
<th>Frd Stmts #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not-for-Profit</td>
<td>58</td>
<td>26</td>
<td>44.8%</td>
<td>2</td>
<td>3.4%</td>
</tr>
<tr>
<td>Government</td>
<td>75</td>
<td>7</td>
<td>9.3%</td>
<td>1</td>
<td>1.3%</td>
</tr>
<tr>
<td>Public Company</td>
<td>144</td>
<td>11</td>
<td>7.6%</td>
<td>5</td>
<td>3.5%</td>
</tr>
<tr>
<td>Private Company</td>
<td>199</td>
<td>54</td>
<td>27.1%</td>
<td>6</td>
<td>3.0%</td>
</tr>
</tbody>
</table>

Methods of Fraud in Small Businesses

Because our survey suggests that small businesses are disproportionately vulnerable to occupational fraud, we also broke down the categories of frauds that were committed in small businesses (those with fewer than 100 employees) versus those that were committed in larger organizations.

<table>
<thead>
<tr>
<th>Total Cases</th>
<th>Skimming #</th>
<th>Cash Larc #</th>
<th>Billing #</th>
<th>Payroll #</th>
<th>Exp. Rejmb. #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fewer than 100</td>
<td>224</td>
<td>68</td>
<td>30.4%</td>
<td>56</td>
<td>25.0%</td>
</tr>
<tr>
<td>100 or More</td>
<td>265</td>
<td>53</td>
<td>20.0%</td>
<td>44</td>
<td>16.6%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Cases</th>
<th>Check Tamp #</th>
<th>Register #</th>
<th>Non-Cash #</th>
<th>Corruption #</th>
<th>Frd Stmts #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fewer than 100</td>
<td>244</td>
<td>74</td>
<td>33.0%</td>
<td>7</td>
<td>3.1%</td>
</tr>
<tr>
<td>100 or More</td>
<td>265</td>
<td>24</td>
<td>9.1%</td>
<td>6</td>
<td>2.3%</td>
</tr>
</tbody>
</table>
Detecting Occupational Fraud

In any study of occupational fraud cases, perhaps the most important question that can be asked is, “How was the fraud detected?” After all, next to preventing fraud, the primary goal of any organization when it comes to this topic is to detect ongoing crimes as quickly as possible in order to minimize their negative impact. With this goal in mind, we sought to determine how the frauds in our study were initially detected by the organizations that were victimized. By studying how past frauds were identified, we hope to provide some guidance to organizations on how they can design their fraud detection efforts to catch future crimes.

Respondents were given a list of common means for detecting fraud, and were asked to identify how the frauds in their cases were initially discovered. As the following chart shows, the most common means of detection - by a wide margin - was through tips. The same was true in our 2002 study. We note that Section 301 of the Sarbanes-Oxley Act (“SOX”) amends the Securities Exchange Act of 1934, requiring audit committees of publicly traded companies to establish procedures for “the confidential, anonymous submission by employees of the issuer of concerns regarding questionable accounting or auditing matters.” This data, which suggests that tips are the most effective way to detect fraud, seems to support that mandate.

Initial Detection of Occupational Frauds

<table>
<thead>
<tr>
<th>Detection Method</th>
<th>2004</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tip</td>
<td>39.6%</td>
<td>43.0%</td>
</tr>
<tr>
<td>Internal Audit</td>
<td>23.8%</td>
<td>18.6%</td>
</tr>
<tr>
<td>By Accident</td>
<td>21.3%</td>
<td>18.8%</td>
</tr>
<tr>
<td>Internal Controls</td>
<td>18.4%</td>
<td>15.4%</td>
</tr>
<tr>
<td>External Audit</td>
<td>10.9%</td>
<td>11.5%</td>
</tr>
<tr>
<td>Notified by Police</td>
<td>0.9%</td>
<td>1.7%</td>
</tr>
</tbody>
</table>

The sum of percentages in this chart exceeds 100% because in some cases respondents identified more than one detection method.
The majority of tips in our study came from employees, but it is worth noting that tips from customers, vendors, and anonymous sources, were also common, each accounting for between 10 and 20% of all tip cases in 2004 and 2002.

Many organizations establish internal reporting mechanisms, but fail to make these known or available to third parties such as customers and vendors who conduct business with the organization. It is often these third parties who are in the best position to see characteristics of occupational fraud. Although Section 301 of SOX only requires audit committees to establish procedures for confidential reporting by employees, our study clearly indicates that any effective reporting structure should be designed to reach out to customers, vendors, and other third party sources as well.

![Percent of Tips by Source](image)

**Percent of Tips by Source**

- Tip from Vendor: 15.7% (2004) & 11.8% (2002)

**Detecting Fraud by Owners and Executives**

Although the data from our survey strongly supports Sarbanes-Oxley’s call for the establishment of anonymous reporting mechanisms, the information we gathered did not provide the same measure of support for the significant burden SOX (particularly Section 404) places on the internal controls as a fraud detection tool. Obviously, strong internal controls can have a significant impact on fraud and a well-designed control structure should be a priority in any comprehensive anti-fraud program. But as the chart on the preceding page shows, internal controls placed fourth among the cases we reviewed - behind By Accident - in terms of the number of cases detected.

The limited effect of internal controls in detecting fraud was particularly evident when we measured the method of detection in cases committed by owners and executives. These schemes were the most costly in our study and they would be expected to be among the most difficult to detect, given the level of authority and the ability to override controls that owners and executives generally possess. Furthermore, under Section 302 of SOX, these cases must be disclosed to auditors and the audit committee regardless of whether they are material.

---

11 The sum of percentages in this chart exceeds 100% because in some cases tips were received from more than one source.
As the following chart shows, only 6% of the owner/executive cases were detected through internal controls, which was only one-third the rate for all cases. Of six detection methods that were tested, internal controls ranked fifth in owner/executive cases. On the other hand, over half of all owner/executive cases were initially discovered through a tip. This lends additional credence to SOX's mandate that audit committees establish internal reporting mechanisms such as hotlines.

Detection of Frauds by Owner/Executives

<table>
<thead>
<tr>
<th>Method of Detection</th>
<th>Owner/Exec</th>
<th>All Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tip</td>
<td>51.0%</td>
<td>39.6%</td>
</tr>
<tr>
<td>Internal Audit</td>
<td>23.5%</td>
<td>23.8%</td>
</tr>
<tr>
<td>By Accident</td>
<td>11.8%</td>
<td>21.3%</td>
</tr>
<tr>
<td>Internal Controls</td>
<td>5.9%</td>
<td>18.4%</td>
</tr>
<tr>
<td>External Audit</td>
<td>10.9%</td>
<td>27.5%</td>
</tr>
<tr>
<td>Notified by Police</td>
<td>2.0%</td>
<td>0.9%</td>
</tr>
</tbody>
</table>

Detecting the Largest Frauds

We also wanted to determine what methods of detection were most effective in high-dollar fraud cases. Limiting our review to the 71 cases in our study that caused losses of $1 million or more, we found that tips were again the most effective detection method, at 43%, which was slightly higher than the rate among all cases. Internal controls again fared poorly as a detection method, catching only 8% of the million-dollar cases in our study. External audits had a better rate of success among these high dollar frauds than among all cases, but they still only ranked fourth in terms of effectiveness, and they still lagged significantly behind internal audits in terms of catching high-dollar schemes. External audits also trailed accidental detection in this category.

12 The sum of percentages in this chart exceeds 100% because in some cases respondents identified more than one detection method.
13 Of the 71 cases in our study exceeding $1 million in losses, we received 45 responses that specified the gross annual revenues of the victim organization at the time of the fraud. (This question only applied to commercial enterprises). Of these 45 cases, the loss caused by fraud appeared to exceed 5% of annual income (a common initial test for materiality) in 26 cases. Defining these frauds as “material”, we found that only six of the 26 cases (23%) were detected by external audits. Narrowing this focus to “material” frauds that occurred in publicly traded companies, we encountered only five “material” fraud cases, none of which were identified by an external audit.
Another way to measure the effectiveness of various detection methods in identifying large schemes is to measure the median loss in frauds based on how they were detected. When we ran this data, we found, to our surprise, that the median loss in schemes detected *By Accident* was $140,000, which exceeded the median loss in all other categories. The fact that so many large frauds are detected by accident certainly implies that there is much more opportunity for organizations to reduce costs by proactively seeking out fraud and abuse.

The data in this chart also, once again, suggests that traditional internal controls do a poor job of catching large frauds. The median loss among schemes detected by internal controls was $40,000, which was less than half of the loss in the next-lowest category.

$^{14}$ The sum of percentages in this chart exceeds 100% because in some cases respondents identified more than one detection method.
**Detecting Fraud in Small Businesses**

Frauds in small businesses were more likely to be detected by accident or by external audit than was the case among all frauds. Conversely, they were less likely to be detected by internal controls and internal audit. It should be noted, however, that only 70 small businesses had internal audit or fraud examination departments, yet in 35 small business cases the fraud was detected by an internal audit, which translates to an adjusted rate of 50%. This would tend to indicate that internal auditors can have a real impact in detecting occupational fraud and minimizing fraud losses in small businesses.

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**Detection of Frauds in Small Businesses**

The sum of percentages in this chart exceeds 100% because in some cases respondents identified more than one detection method.
Detection Based on the Type of Victim Organization

The following series of charts shows how frauds were detected based on the types of organizations in which they occurred.

Publicly Traded Companies

Public companies did a much better job of catching fraud through internal controls than did other organizations. Nearly one-third of occupational frauds in publicly traded companies were detected by internal controls, as opposed to less than one-fifth overall. However, the median loss in these schemes was relatively low, at $63,500, and only one scheme appeared to be material (based on fraud losses that exceeded 5% of gross annual revenue).

Privately Held Companies

In privately held companies, the most common method of detection was by accident, which was a very disappointing discovery. Over one-third of all frauds in these companies were detected accidentally, suggesting that private organizations are missing an opportunity to reduce costs by proactively seeking out occupational fraud.

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The sum of percentages in this chart exceeds 100% because in some cases respondents identified more than one detection method.

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16
Government Agencies

Government agencies were very successful at detecting occupational fraud through tips and internal audits, while a significantly lower percentage of cases were detected by accident in governmental agencies as opposed to the rate for all cases.

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17 The sum of percentages in this chart exceeds 100% because in some cases respondents identified more than one detection method.

18 The sum of percentages in this chart exceeds 100% because in some cases respondents identified more than one detection method.
Not-for-Profit Organizations\(^{19}\)

Occupational frauds in not-for-profit organizations were much less likely to be detected by internal audits than was the case in other types of organizations. This was partially due to the fact that only 41\% of not-for-profit organizations had internal audit departments, although even among this group only 17\% detected their frauds through internal audit, which was still lower than the rate among all cases.

\(^{19}\) The sum of percentages in this chart exceeds 100\% because in some cases respondents identified more than one detection method.
Respondents were asked whether the victim organizations in the cases they reviewed had certain anti-fraud measures in place at the time the frauds occurred. The three measures tested for were anonymous reporting mechanisms (typically hotlines), internal audit or fraud examination departments, and external audits. The following chart shows the percent of victim organizations that had adopted these measures at the time of their frauds. The numbers are very similar to the results from our 2002 surveys.

**Anonymous Fraud Hotlines**

In order to test the effectiveness of each anti-fraud control in limiting losses, we measured the median loss for organizations that had each control, versus the median loss in organizations that did not. Using this test, we found that anonymous reporting mechanisms showed the greatest impact on fraud losses. Organizations that did not have reporting mechanisms suffered median losses that were over twice as high as organizations where anonymous reporting mechanisms had been established. This was consistent with the findings of our 2002 Report.
This result is also consistent with the data we gathered showing that the most common way for frauds to be discovered is through tips. Obviously, hotlines and other reporting mechanisms are designed to facilitate tips on wrongdoing. The fact that tips were the most common means of detection, combined with the fact that organizations which had reporting mechanisms showed the greatest reduction in fraud losses, indicates that this is an extremely valuable anti-fraud resource, and gives further support to Sarbanes-Oxley’s mandate for confidential reporting mechanisms. As was discussed earlier, the effectiveness of these reporting mechanisms is significantly higher when they are made available to customers, vendors, and other third parties, not just employees. Organizations that rushed to implement employee hotlines to comply with Sarbanes-Oxley may not have incorporated those valuable additional sources of information.

Curiously, anonymous reporting mechanisms were the least common anti-fraud measure of the three we tested for. Only a little over one-third of victim organizations in our study had established anonymous reporting structures at the time they were victimized. Given the data from our study, we believe that anonymous hotlines and other reporting mechanisms provide real, measurable anti-fraud benefits, and given their relatively low cost compared to other anti-fraud controls, it would seem advisable for more organizations to implement them.
Internal Audits

About 57% of the victim organizations in our study had internal audit or internal fraud examination departments. These organizations suffered a median loss of $80,000, compared with the median loss of $130,000 in organizations where there was no internal audit department.

The impact on fraud losses associated with internal audits was much greater than the impact associated with external audits (see below). Additionally, the data presented earlier on Initial Detection of Occupational Frauds shows that schemes were identified by internal audits at over twice the rate of external audits, despite the fact that victim organizations in our study were more likely to have external audits. The discrepancy between internal and external audits may be largely due to the fact that internal auditors generally are full-time employees of the victim organization, whereas external auditors spend a limited amount of time in a number of different organizations. In addition, external auditors are responsible only for frauds that may have a material impact on the financial statements as a whole. Nevertheless, the discrepancies between the two disciplines suggest a need for greater fraud training for external auditors, particularly given the enhanced fraud detection responsibilities imposed on them by auditing standard SAS No. 99.
External Audits

The most common anti-fraud measure among the victims in our study was the external audit. Seventy-five percent of victims employed independent auditors. However, the effectiveness of external audits in reducing fraud losses was not observable in our study. In fact, the median loss was actually higher in organizations that had external audits, as opposed to those that did not. Of course, there are several factors that contribute to the presence and size of fraud. But it was disappointing to find no trend indicating reduced losses as a result of external audits (such a trend did exist in 2002). The absence of a measurable impact as a result of external audits is consistent with the data we gathered on fraud detection, which showed that external audits generally ranked low - behind By Accident - as a means of catching fraud.

Median Loss Based on Whether Organization had External Audits

<table>
<thead>
<tr>
<th>Survey Year</th>
<th>External Audit</th>
<th>No External Audit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>$100,000</td>
<td>$85,000</td>
</tr>
<tr>
<td>2002</td>
<td>$100,000</td>
<td>$140,000</td>
</tr>
</tbody>
</table>

Median Loss
The Perpetrators

The perpetrators of occupational fraud are the people who use their positions within an organization for personal enrichment through the deliberate misuse or misapplication of the organization's resources or assets. In our survey, we asked respondents to provide detailed information about the perpetrators of the crimes they had investigated. This data helps show how certain factors affect the nature of fraud and the size of losses inflicted upon victim organizations.

The Effect of the Perpetrator's Position

Generally speaking, the position a perpetrator holds within an organization will tend to have the most significant effect on the size of losses in a fraud scheme. As the level of authority for perpetrators rises, fraud losses rise correspondingly. This is borne out by the data in the following chart, which shows that the median loss in schemes involving owners and executives ($900,000) was more than six times as high as the median loss caused by managers, and more than 14 times as high as the median loss in schemes involving employees.

![Position of Perpetrator Chart]

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20 In cases where there was more than one perpetrator, respondents were asked to provide data on the "Principal Perpetrator", the person who was in charge of the scheme and in the respondent's view was the primary culprit.
21 The sum of percentages in this chart exceeds 100% because some cases involved multiple perpetrators from more than one category.
The Perpetrator's Annual Income

Similar to the data on position, the median loss in occupational fraud schemes generally increased as the perpetrator's annual income rose. Obviously, this information is influenced to a great deal by the perpetrator's position, since higher-level personnel would be expected to have higher salaries. There were very few cases in our study in which the perpetrator earned more than $200,000 a year (just under 5%), but in these cases median losses exceeded $1,000,000.

The Effect of Tenure

Similar to position, we found a direct correlation between the length of time a perpetrator had been employed with a victim organization and the size of the loss in the fraud scheme. This correlation most likely exists for two reasons: 1) the longer an employee works for an organization, the more likely he or she is to advance to higher levels of authority (see position data on previous page; and 2) the longer an employee works for an organization, the greater the degree of trust he or she will tend to engender from superiors and co-workers.

This second factor is significant because frauds are crimes that depend upon their victims' trust for success. The more reliance an organization places on an employee, the more autonomy and authority an employee receives, the greater the risk of fraud. This fact highlights the peculiar dichotomy of fraud: these crimes cannot succeed without trust, but neither can business. Employers must be able to delegate authority to employees and must be able to trust that their employees will act appropriately and in their organization's best interests, yet too much delegation, too much trust, creates an environment in which fraud can thrive. The key, in any effective anti-fraud program, is to strike the right balance between oversight and trust.
The Effect of Gender

In our first occupational fraud study, conducted in 1996, men dominated the reported frauds, accounting for two-thirds of the cases. Since then, that dominance has largely evaporated. In 2004, we found that the number of schemes was divided almost evenly between men and women, with only slightly more cases (53%) having been committed by men. Whatever strides women have made toward equality in the arena of occupational fraud were not evident when we compared median losses based on gender. Consistent with results from our earlier studies, the median loss in schemes committed by men remains significantly higher than the median loss in schemes committed by women, although the gap has narrowed somewhat from our 2002 results.

Because position appears to play such a strong role in determining the size of the loss in a fraud, we believe that the discrepancy in median loss for the two sexes most likely reflects the "glass ceiling" phenomenon, in which men tend to occupy more positions of high authority than women.
The Effect of Age

There was a direct correlation in our study between the age of the perpetrator and the size of the median loss, a trend that was consistent with data from our 2002 report. As with income, tenure, and gender, we believe age is most likely a secondary factor, typically reflective of the perpetrator's position in the organization. While there were only nine frauds in our study committed by persons over the age of 60, in those cases the median loss was $527,000, which was 29 times higher than the losses caused by the youngest perpetrators.

Approximately half of the perpetrators in our study (49%) were over the age of 40, while only one in six (17%) were under the age of 30. This data runs counter to some studies that have suggested that younger employees are more likely to commit illegal acts.
The Effect of Education

Approximately half of the perpetrators in our study had no more than a high school education, while 42% had a bachelor's degree and 9% had a postgraduate degree. As the education level of the perpetrators rose, so did the losses they caused. The median loss in schemes committed by those with postgraduate degrees was $325,000, or 6.5 times larger than the median loss in schemes committed by those with a high school degree or less. This trend was to be expected given that those with higher levels of education tend to occupy higher positions and enjoy more authority within an organization. Curiously, this trend did not hold up in 2002, when we found that those with bachelor's degrees caused higher losses than those with postgraduate degrees.

Education of the Perpetrator - Frequency
The Effect of Collusion

Approximately two-thirds of the frauds in our study were committed by a single perpetrator, but when more than one person conspired to commit fraud, the median loss rose dramatically, more than tripling. This trend was expected because when multiple perpetrators conspire to commit a fraud, this makes it easier to circumvent anti-fraud controls. For example, collusion among several employees can render ineffective the independent checks that might otherwise flag an internal fraud scheme. The effect of collusion was actually much larger in our 2002 study, where we found that the median loss increased by a multiple of 7 when more than one person conspired to defraud an organization.

Number of Perpetrators - Frequency
The Perpetrators' Criminal Histories

As was the case in our previous studies, most of the perpetrators we encountered in this survey were first-time offenders. This finding is consistent with other studies, particularly the research of Dr. Donald Cressey, which suggests that most occupational fraudsters are not career criminals. There were 363 cases in which the respondent was able to provide information about the past criminal history of the perpetrator, and in 83% of those cases the perpetrator had never been charged or convicted prior to the offense in question. This number actually reflected a slight decline from the results of our 2002 study. The number of perpetrators with prior convictions rose slightly, from 9% in 2002 to 12% in 2004.
**Case Results**

Respondents were asked to provide information on how the victim organizations dealt with perpetrators after they had caught them. There is a great deal of anecdotal evidence in the field suggesting that organizations are generally reluctant to prosecute fraud offenders; we sought to determine if that would be supported by the data in our study.

**Employment Actions Taken Against Fraudsters**

When a person is caught defrauding his or her employer, the first and most immediate reaction by the victim organization will usually come in the form of an adverse employment action. We received 428 responses in which the CFE identified what adverse employment action was taken against the perpetrator. In 88% of the cases, the victim organization fired the perpetrator.

This does not mean, however, that 12% of organizations retained the fraudsters. In many cases, the perpetrator quit or disappeared when it became apparent that his or her scheme was about to be discovered, before the victim organization had an opportunity to take action. Obviously, it would be rare for an organization to retain an employee, manager, or officer after that person had defrauded the organization, although there are occasions where that occurs.

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**Adverse Employment Actions**

<table>
<thead>
<tr>
<th>Employment Action</th>
<th>Percent of Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terminated</td>
<td>87.9%</td>
</tr>
<tr>
<td>Restitution</td>
<td>22.9%</td>
</tr>
<tr>
<td>No punish.</td>
<td>6.5%</td>
</tr>
<tr>
<td>Prob./sus.</td>
<td>5.8%</td>
</tr>
</tbody>
</table>

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22 The sum of percentages in this chart exceeds 100% because in some cases the victim organization took more than one adverse action.
As the preceding chart shows, the victim organization entered into a restitution agreement with the perpetrator in 23% of the cases. When a private restitution agreement was reached, the victim company had a median recovery of 95% of its losses. By comparison, the median recovery in all cases was 20%. However, the "private restitution" cases tended to involve small frauds; the median loss in these cases was $59,000. It is often much more difficult to obtain a significant recovery in a larger fraud case.

**Criminal Prosecutions**

Despite frequent claims that organizations are hesitant to prosecute fraud offenders, our data showed that the majority of victim organizations referred their cases to law enforcement authorities. The rate of referral was actually slightly lower than in 2002, but at 69% it was still higher than anecdotal evidence frequently suggests.

Not surprisingly, the decision of whether to refer a case for prosecution seems to be strongly influenced by the size of the fraud. In cases that were referred to prosecutors, the median loss was $135,000. This was more than double the median loss in cases that were not referred.
There were 339 frauds in our survey that were referred to law enforcement authorities. Among this group, we received 161 responses that specified the outcomes of the criminal actions (over half of the criminal cases were still pending). Among those cases in which the outcome was identified, we found that prosecutors were overwhelmingly successful in convicting fraudsters. Seventy-three percent of perpetrators pled guilty, and another nine percent were convicted at trial, while less than two percent were acquitted. These numbers were very similar to the results of our 2002 study.

Civil Lawsuits
In addition to, or in place of, criminal prosecutions, organizations may also file civil lawsuits against perpetrators to recover stolen funds. In our study, civil actions were much less common than criminal referrals. This is not surprising, given that civil lawsuits can be very expensive and time consuming. Furthermore, it is common for fraudsters to have spent the proceeds of their crimes by the time they are detected, leaving them unable to satisfy a civil judgment even if the victim organization were to succeed in a lawsuit.

As a result of these factors, civil actions were typically only brought in very large cases. Less than one in five victim organizations filed a civil lawsuit against the perpetrator in their case, and in those cases the median loss was $470,000. Conversely, the median loss was only $60,000 in cases where no civil action was taken.
Of the 75 cases in our study that resulted in a civil lawsuit, 49 cases were still pending at the time of our survey. Among the remaining 26 cases, the victims were extremely successful. Twelve of those cases resulted in a judgment for the victim organization, while the remaining 14 were settled. There was not a single judgment in favor of a perpetrator. There were also no judgments in favor of perpetrators in 2002.
Why do Organizations Decline to Take Legal Action?

In cases where the victim organization declined to take legal action, we asked respondents to tell us why. A list of 12 common reasons was given, and respondents marked as many as applied in their particular case. The following chart shows the results of this inquiry. Although no reason was prevalent, *private settlement* and *fear of bad publicity* were the most commonly cited reasons, each occurring in over a quarter of the “no action” cases.

We also found that to some extent, the decision of whether to take legal action in a particular case may be influenced by the perpetrator's position within the victim organization. As the following chart shows, the higher a perpetrator's level of authority within an organization, the less likely the organization was to take legal action against that perpetrator. This is an unusual trend, especially given the fact that median losses tend to rise with position level.
Recovering Losses Caused by Fraud

Even if organizations catch an occupational fraud scheme, they are not likely to recover their losses. As we stated earlier, the median recovery in all cases was only 20%. In over 37% of the cases we reviewed, the victim organization was unable to recover any of its losses, and 63% of the victims failed to recover more than half of what was stolen. About 22% of the victims managed to recover all of their losses (one-third of these did so through their insurance).

These statistics illustrate that the most cost-effective way to deal with fraud is to prevent it. Once fraud occurs, it is expensive and time consuming to try to recover what was stolen, and often those efforts prove futile.
The ACFE would like to thank the hundreds of Certified Fraud Examiners who made this report possible. This information shows how having effective fraud prevention, deterrence and detection measures in your organization can save money. Although fraud is widespread today, its potential impact on your organization can be reduced through appropriate anti-fraud programs.
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