Detecting Occupational Fraud in Canada:
A Study of its Victims and Perpetrators

Association of Certified Fraud Examiners and
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Introduction

Canada has not escaped the recent worldwide wave of financial scandals. The Canadian Government sponsorship scandal and the Norbourg mutual funds scandal are prime examples of major frauds committed here at home. These crimes were not isolated incidents.

Fraud — particularly occupational fraud — is a pervasive threat that exists in any economic system and has the potential to impact any organization regardless of size, type or industry.

Detecting Occupational Fraud in Canada: A Study of its Victims and Perpetrators is based on a nationwide anonymous web survey of all Canadian members of the Association of Certified Fraud Examiners (ACFE). Each respondent was asked to provide detailed information about the largest occupational fraud case he or she had investigated since January 2004. Ninety (90) complete responses were received and used to prepare this report. The purpose of this study is to describe how frauds are committed in Canada, explain how they are detected, describe who perpetrates them, explain the characteristics of the victim entities and document the outcomes of the fraud cases.

This study should be a useful research tool for all anti-fraud professionals and academics who may use its findings to help them better understand how to prevent and detect fraud. The data reported herein may also help business, government and not-for-profit organizations understand how to implement more effective anti-fraud controls.

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.”¹ This term includes any fraud perpetrated by an employee, manager, executive or owner of an organization of which the victim is the organization itself. This type of crime is also sometimes referred to as “internal fraud”.

¹The Association of Certified Fraud Examiners, 2002, Report to the Nation on Occupational Fraud and Abuse, ACFE, Austin (Texas).

A French-language version of this report is available for download at www.ACFE.com/fraud/downloads/asp

La version française de ce rapport peut être téléchargée à l’adresse suivante: www.ACFE.com/fraud/downloads/asp
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The median loss caused by the 90 occupational fraud cases reported in this study was C$187,500. These occupational frauds had been ongoing for a median 24 months before being detected.

One quarter (25.6%) of the fraud cases caused losses to the victim organization of at least C$1 million.

Participants in this study — anti-fraud professionals with a median 15 years of experience in the fraud examination field — estimate that the typical Canadian organization loses 5% of its annual sales to fraud every year.

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

- Ninety percent of all occupational fraud cases involved asset misappropriations with a median loss of C$200,000; 38.9% of the cases had a corruption component with a median loss of C$250,000; 11.1% of the cases involved fraudulent financial statement schemes with a median loss of C$1,075,000.

- The most affected industries in our survey were government & public administration (13.3% of all cases), retail (11.1%), and banking & financial (10%).

- Private companies were more affected than public companies; 38.2% of the fraud cases we reviewed occurred in private companies, compared to 23.6% in public companies.

- Smaller organizations with less than 100 employees accounted for 42.2% of the victim organizations represented in this study. Small companies suffer disproportionately large fraud losses with a median of C$150,000. This is likely caused in large part by small organizations tending to have fewer internal controls than larger entities due to their limited resources.

Detecting Occupational Fraud in Canada: A Study of its Victims and Perpetrators
- Forty-two percent of the occupational frauds reported in this study were detected through tips from employees, vendors, customers or anonymous sources. By comparison, only 18.9% of the frauds were detected by the organizations’ internal controls, 13.3% were detected by internal audits, and 6.7% were detected by external audits.

- While only 24.4% of the victim organizations used a formal fraud reporting mechanism or hotline to prevent and detect fraud, those organizations that had such a mechanism in place experienced much lower median fraud losses than organizations that did not (C$90,000 versus C$197,500). Furthermore, the time it took to detect fraud was reduced from 24 to 18 months for organizations that had fraud hotlines.

- Organizations that conducted surprise audits on a regular basis experienced much lower median fraud losses than other organizations (C$60,000 versus C$195,000) and their time to detection was lower by six months.

- Organizations that provided fraud awareness or ethics training to their employees and managers had median fraud losses of C$100,000 as compared to C$222,000 for organizations that did not offer such training. The median number of months until fraud was detected was lower by six months for those organizations that conducted fraud training.

- Forty-two percent of occupational frauds were committed by employees, as compared to 38.6% for managers and 19.3% for owners/executives. Owners/executives tended to commit the largest frauds with a median loss of C$1 million. More owners/executives’ frauds (52.9%) were detected by tips than by any other detection method.

- The departments that accounted for the highest percentage of occupational fraud cases were, in order, sales (17.4% of all cases), executive/upper management (15.1%), accounting (15.1%), and customer service (12.8%).
Measuring the Cost of Occupational Fraud

Measuring the total cost of occupational fraud is a difficult task because fraud is clandestine and can sometimes go undetected for many years.

Even once detected it may be impossible to determine and trace the entire amount that has been misappropriated. Furthermore, some victim organizations choose not to report incidents of fraud, often because they fear the negative publicity associated with reporting a fraud.

Nonetheless, we asked survey participants to give their opinions of the percentage of annual revenues (sales) the typical organization loses in a given year as a result of fraud. Our survey respondents are fraud experts who work on a regular basis preventing and detecting fraud; they have a median 15 years’ experience in the field. In the absence of a definite figure, their opinions likely constitute as reliable an estimate as can be obtained with respect to the total cost of occupational fraud.

Our respondents estimate that the typical Canadian organization loses 5% of its annual revenues to fraud every year. So for every C$100 of sales, C$5 are lost to fraud in general. This is a huge number when considering the highly competitive nature of our economy. Occupational fraud also imposes significant indirect costs to society and investors in general in terms of lost savings, lost jobs, reduction in stock prices, increased unemployment, and loss of confidence in capital markets and in the audit profession.
Distribution of Dollar Losses

Our survey measured the direct losses suffered by victim organizations on an individual fraud case basis. The median loss among all fraud schemes was C$187,500 (not reported in a chart or table). Chart 1 below shows how those losses were distributed. Close to one-third (30%) of the fraud cases triggered a loss between C$100,000 and C$499,999, while one-quarter (25.6%) of the cases caused losses of at least C$1 million.

Chart 1: Distribution of Dollar Losses

0% 5% 10% 15% 20% 25% 30%

Percent of Cases

C$1,000- C$9,999 1.6%
C$10,000- C$49,999 15.6%
C$50,000- C$999,999 13.3%
C$100,000- C$499,999 30.0%
C$500,000- C$999,999 8.9%
C$1,000,000+ 25.6%

Dollar Loss
Generally fraud cases can be classified into one of the following three categories:

1) **Asset misappropriation**: Any scheme that involves the theft or misuse of an organization's assets, such as skimming sales, fraudulent billing, payroll fraud, or expense reimbursement fraud.

2) **Corruption**: Any scheme in which a perpetrator uses his or her influence in a business or official transaction to obtain an unauthorized benefit contrary to that person's duty to his or her employer. Common examples include paying or accepting bribes or illegal gratuities, engaging in self-dealing transactions or engaging in conflicts of interests.

3) **Fraudulent financial statements**: Any scheme that involves the deliberate falsification of an organization's financial statements to make the organization appear more or less profitable. Examples include recording fictitious sales and concealing liabilities or expenses.

The sum of percentages in this chart exceeds 100% because several cases involved schemes that fell into more than one category.

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2The sum of percentages in this chart exceeds 100% because several cases involved schemes that fell into more than one category.
Chart 2 shows that 90% of all cases involved asset misappropriation schemes with a median loss of C$200,000, and nearly 39% of frauds included some form of corruption with a median loss of C$250,000. Only 11.1% of the cases related to fraudulent financial statements, but the losses caused by financial statement fraud (median loss of C$1,075,000) were five times larger than those of asset misappropriations. The low frequency of fraudulent financial statement cases may be explained by the fact that most entities restrict access to financial records to a relatively small group of people within the organization. However those with access to financial records have the potential to cause much more harm than other employees.

Asset Misappropriations — Cash vs. Non-Cash

Asset misappropriations target either cash or non-cash assets. As Chart 3 illustrates, cash is by far the most frequently misappropriated asset (86.4% of the 81 misappropriation cases) with a median loss of C$198,500, which is almost twice as much as non-cash losses (C$100,000). This finding is most likely explained by the liquid nature of cash as opposed to inventory, equipment and other types of non-cash assets.

Chart 3: Breakdown of Asset Misappropriations – Cash vs. Non-Cash

The sum of percentages in this chart exceeds 100% because some cases involved schemes that fell into more than one category.
How Cash is Misappropriated

**Cash Receipts (and Cash on Hand)**

Cash (including checks or money orders) can be misappropriated by stealing incoming cash receipts or cash on hand. Two basic schemes can be used by a fraudster to misappropriate cash receipts or cash on hand:

1) **Skimming**: Any scheme that involves the misappropriation of cash before the entity records it in its accounting system, such as an employee pocketing the proceeds from a sale without recording it on a cash register.

2) **Cash larceny**: Any scheme where cash is stolen after it has been recorded in the organization’s records, such as a manager stealing cash from the daily deposits on his way to the bank.

Chart 4 shows that 27.1% of cash misappropriations are skimming cases whereas 22.9% are cash larcenies. The median losses are C$55,000 and C$80,000 respectively.
Fraudulent Disbursements

Cash can also be stolen by misappropriating outgoing cash disbursements. There are six basic methods by which this can be done:

1) **Billing fraud**: Any scheme in which a person causes his or her employer to issue a payment by submitting or processing fraudulent invoices or payables, such as setting up a shell company and billing the victim organization for fictitious services, or submitting a company credit card bill with personal purchases on it.

2) **Payroll fraud**: Any scheme that involves the submission of false claims for compensation such as adding a ghost employee to the payroll or inflating number of hours worked.

3) **Check tampering**: Any scheme in which the perpetrator writes, alters or forges checks drawn on the victim organization’s bank accounts; for example, forging an endorsement on a check intended for another payee or writing a company check to pay for personal expenses.

4) **Electronic transfers**: Any scheme that involves processing or submitting fraudulent requests for electronic transfer payments such as submitting a request to the bank to transfer money from the victim company’s bank accounts to a shell company or personal bank account.

5) **Expense reimbursement frauds**: Any scheme in which an employee makes a claim for reimbursement of fictitious or inflated business expenses, such as claiming a reimbursement for a personal trip or for a meal with the family.

6) **Cash register disbursements**: Any fraud where the perpetrator processes fraudulent refund transactions or voided sales on a cash register to conceal the fraudulent removal of cash.

Chart 5 illustrates that the most prevalent fraudulent disbursement schemes were billing frauds, which represented 38.6% of all cash schemes and resulted in a median loss of C$325,000. Check tampering and wire transfer schemes were also quite costly with a median loss of C$100,000 each. These schemes were less frequent than billing fraud, each representing 10% of all cash misappropriation cases. On the other hand, expense reimbursement schemes accounted for 20% of all cash frauds but had a relatively low median loss of C$18,000.
How Non-Cash Assets are Misappropriated

The following three different types of non-cash assets are frequently targeted by fraudsters:

1) **Inventory, equipment or supplies**: Any scheme that involves the theft or misuse of physical non-cash assets; for example, altering shipping documents to ship goods to an accomplice’s address, or intercepting incoming shipments of raw materials.

2) **Proprietary information**: Any scheme in which a person steals or otherwise misappropriates proprietary confidential information or trade secrets; for example, stealing the personal information of a bank account holder to obtain fraudulent loans or credit cards.

3) **Securities**: Any scheme that involves the misappropriation of investment securities such as treasury bills or company stocks.

As illustrated in Chart 6, 23 of the 29 non-cash misappropriation cases (85.2%) involved the theft of inventory, with a median loss of C$55,000. By comparison, schemes involving the theft of proprietary information were less common (five cases) but were much more costly, with a median loss of C$500,000.

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*The sum of percentages in this chart exceeds 100% because some cases involved schemes that fell into more than one category.*
How Financial Statements are Falsified

There are five general methods by which financial statements are manipulated:

1) **Fictitious revenues**: Schemes in which financial statements are inflated by recording sales of goods or services that never occurred, or by inflating actual sales. Examples include altering existing invoices to show higher quantities than are actually delivered to customers or booking sales to customers that do not exist.

2) **Concealed liabilities or expenses**: Schemes in which financial statements are misstated by improperly recording liabilities and/or expenses. Examples include understating the provision for warranties or capitalizing expenditures that should be expensed.

3) **Timing differences**: Schemes in which financial statements are intentionally misstated by recording revenues in a different accounting period than their corresponding expenses; for example, recording sales before they have been earned (i.e., before the product has been delivered or the service rendered), or deferring expenses to future periods.

4) **Improper asset valuations**: Schemes in which the value of an organization’s assets is fraudulently misstated in the financial statements, such as by failing to write down obsolete inventories or understating the allowance for doubtful accounts receivable.

5) **Improper disclosures**: Schemes in which management fails to disclose material information in its financial statements in an attempt to mislead users of the financial statements. Examples include failing to disclose contingent liabilities or related-party transactions in the financial statements’ footnotes.

There were ten financial statement fraud cases reported in our study. According to the results presented in Chart 7, the two most frequently reported schemes were fictitious revenues and improper asset valuations. These were also the most costly schemes, with median losses of C$2.55 million and C$3.5 million respectively.

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**Chart 7: Financial Statement Fraud Schemes**

<table>
<thead>
<tr>
<th>Type of Scheme (percent of cases)</th>
<th>Median Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improper Asset Valuation (40.0%)</td>
<td>C$3,500,000</td>
</tr>
<tr>
<td>Fictitious Revenue (70.0%)</td>
<td>C$2,550,000</td>
</tr>
<tr>
<td>Improper Disclosures (20.0%)</td>
<td>C$100,000</td>
</tr>
<tr>
<td>Concealed Liabilities (30.0%)</td>
<td>C$75,000</td>
</tr>
<tr>
<td>Timing Differences (10.0%)</td>
<td>C$10,000</td>
</tr>
</tbody>
</table>

*The sum of percentages in this chart exceeds 100% because a number of cases involved more than one method of falsifying financial statements.*
How Corruption Occurs

In general there are four ways a perpetrator can use his or her influence to obtain undisclosed personal benefits during a business transaction:

1) **Bribery:** Any scheme in which a person offers, gives, receives, or solicits something of value for the purpose of influencing an official act or a business decision without the knowledge or consent of the principal, such as where an employee accepts cash kickbacks from a vendor in return for directing business to that vendor.

2) **Illegal gratuities:** Any scheme in which a person offers, gives, receives, or solicits something of value for, or because of, an official act or business decision without the knowledge or consent of the principal, such as where an employee accepts a free trip because of his or her decision to award a contract to a certain vendor.

3) **Extortion:** The coercion of another to enter into a transaction or deliver property based on wrongful use of actual or threatened force, fear or economic duress; for example, an employee threatens to withhold business from a vendor unless that vendor makes cash payments to the employee in advance.

4) **Conflicts of interest:** Any scheme in which an employee, manager or executive has an undisclosed economic or personal interest in a transaction that adversely affects the company as a result; for instance, selling goods at a price lower than market price to a company owned by a relative of the perpetrator.
Thirty-five (35) cases in our study involved some form of corruption. Chart 8 shows the distribution and median loss associated with each category. The vast majority of corruption cases (77.1%) had a conflict of interest component, whereas in 40% of the cases a bribe was exchanged.

Chart 8: Breakdown of Corruption Schemes

- **Illegal Gratuities**: 25.7% (C$750,000)
- **Extortion**: 25.7% (C$400,000)
- **Conflicts of Interest**: 77.1% (C$253,500)
- **Bribery**: 40.0% (C$253,500)

The sum of the percentages in this chart exceeds 100% because a number of cases involved more than one category of corruption.

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6The sum of the percentages in this chart exceeds 100% because a number of cases involved more than one category of corruption.
Industries Affected in the Study

As stated in the introduction of this report, our survey was distributed to all Canadian members of the ACFE. This may have caused a certain selection bias in the results presented in this section, as ACFE members may be more or less concentrated in certain industries or types of organizations than in others. Therefore, the data in this section should not be read as an illustration of the prevalence of fraud in various industries. The purpose of this section is not to determine whether some industries or types of organizations are more at risk than others, but to identify and describe the victims of the 90 fraud cases reported in the survey. In the next section it will also prove useful to identify anti-fraud measures that were in place in these organizations at the time the fraud was discovered.

As Table 1 shows, the frauds in this study were distributed fairly evenly over a wide range of industries. The most common were government and public administration sector (12 cases), retail industry (10 cases) and banking & financial services industry (9 cases). On the other hand, Table 2 reports that the largest median losses occurred in the manufacturing industry (C$1.375 million), the education sector (C$1.036 million) and in the professional, scientific and technical service industry (C$1.0 million). It is interesting to note, however, that even though the government and public administration sector suffered the largest number of frauds (13.3% of all cases); the median loss relating to those cases was among the lowest at C$84,500.

Table 1: Occupational Frauds Based On Industry — Sorted By Frequency

<table>
<thead>
<tr>
<th>Industry</th>
<th># Cases</th>
<th>% Cases</th>
<th>Median Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government and Public Administration</td>
<td>12</td>
<td>13.3%</td>
<td>C$84,500</td>
</tr>
<tr>
<td>Retail</td>
<td>10</td>
<td>11.1%</td>
<td>C$236,000</td>
</tr>
<tr>
<td>Banking/Financial Services</td>
<td>9</td>
<td>10.0%</td>
<td>C$197,000</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>8</td>
<td>8.9%</td>
<td>C$1,375,000</td>
</tr>
<tr>
<td>Oil &amp; Gas</td>
<td>6</td>
<td>6.7%</td>
<td>C$522,000</td>
</tr>
<tr>
<td>Service (other)</td>
<td>6</td>
<td>6.7%</td>
<td>C$28,000</td>
</tr>
<tr>
<td>Health Care</td>
<td>5</td>
<td>5.6%</td>
<td>C$200,000</td>
</tr>
<tr>
<td>Insurance</td>
<td>5</td>
<td>5.6%</td>
<td>C$100,000</td>
</tr>
<tr>
<td>Service (professional, scientific or technical)</td>
<td>5</td>
<td>5.6%</td>
<td>C$1,000,000</td>
</tr>
<tr>
<td>Transportation and Warehousing</td>
<td>5</td>
<td>5.6%</td>
<td>C$900,000</td>
</tr>
<tr>
<td>Utilities</td>
<td>5</td>
<td>5.6%</td>
<td>C$55,000</td>
</tr>
<tr>
<td>Agriculture, Forestry, Fishing and Hunting</td>
<td>3</td>
<td>3.3%</td>
<td>C$150,000</td>
</tr>
<tr>
<td>Real Estate</td>
<td>3</td>
<td>3.3%</td>
<td>C$135,000</td>
</tr>
<tr>
<td>Arts, Entertainment and Recreation</td>
<td>2</td>
<td>2.2%</td>
<td>C$62,500</td>
</tr>
<tr>
<td>Construction</td>
<td>2</td>
<td>2.2%</td>
<td>C$628,500</td>
</tr>
<tr>
<td>Education</td>
<td>2</td>
<td>2.2%</td>
<td>C$1,036,000</td>
</tr>
<tr>
<td>Communications/ Publishing</td>
<td>1</td>
<td>1.1%</td>
<td>C$400,000</td>
</tr>
</tbody>
</table>

*The median loss in the education sector may not be representative since it is based on two fraud cases only.*
Industries with the Most Corruption Cases

As shown in Table 3, 41.7% of all government and public administration fraud cases involved some form of corruption, and corruption was an element in 40% of the retail industry cases. Only two fraud cases were reported in the construction industry but both involved corruption schemes.

| Table 2: Occupational Frauds Based On Industry – Sorted By Median Loss |
|-------------|-----|-----------------|------------------|
| Industry                                      | Cases | % Cases | Median Loss     |
| Manufacturing                                  | 8    | 8.9%    | C$1,375,000     |
| Education                                      | 2    | 2.2%    | C$1,036,000     |
| Service (professional, scientific or technical)| 5    | 5.6%    | C$1,000,000     |
| Transportation and Warehousing                 | 5    | 5.6%    | C$900,000       |
| Construction                                   | 2    | 2.2%    | C$628,500       |
| Oil & Gas                                      | 6    | 6.7%    | C$522,000       |
| Communications/ Publishing                     | 1    | 1.1%    | C$400,000       |
| Retail                                         | 10   | 11.1%   | C$236,000       |
| Health Care                                    | 5    | 5.6%    | C$200,000       |
| Banking/Financial Services                     | 9    | 10.0%   | C$197,000       |
| Agriculture, Forestry, Fishing and Hunting     | 3    | 3.3%    | C$150,000       |
| Real Estate                                    | 3    | 3.3%    | C$135,000       |
| Insurance                                      | 5    | 5.6%    | C$100,000       |
| Government and Public Administration           | 12   | 13.3%   | C$84,500        |
| Arts, Entertainment and Recreation             | 2    | 2.2%    | C$62,500        |
| Utilities                                      | 5    | 5.6%    | C$55,000        |
| Service (other)                                | 6    | 6.7%    | C$28,000        |

| Table 3: Corruption Cases by Industry |
|-------------|-----|-----------------|------------------|
| Industry                                      | All Cases | Corrupt. Cases | % Corrupt. Cases |
| Government and Public Administration        | 12       | 5              | 41.7%            |
| Retail                                       | 10       | 4              | 40.0%            |
| Banking/Financial Services                   | 9        | 2              | 22.2%            |
| Manufacturing                                | 8        | 5              | 62.5%            |
| Oil & Gas                                    | 6        | 2              | 33.3%            |
| Service (other)                              | 6        | 1              | 16.7%            |
| Health Care                                  | 5        | 2              | 40%              |
| Insurance                                    | 5        | 3              | 60.0%            |
| Service (professional, scientific, technical)| 5        | 3              | 60.0%            |
| Transportation and Warehousing               | 5        | 2              | 40.0%            |
| Utilities                                    | 5        | 0              | 0.0%             |
| Agriculture, Forestry, Fishing and Hunting   | 3        | 2              | 66.7%            |
| Real Estate                                  | 3        | 1              | 33.3%            |
| Arts, Entertainment and Recreation           | 2        | 0              | 0.0%             |
| Construction                                 | 2        | 2              | 100.0%           |
| Education                                    | 2        | 1              | 50.0%            |
| Communications/ Publishing                   | 1        | 0              | 0.0%             |
Victims of Occupational Fraud

Types of Organizations

Private companies were the most common victims of occupational fraud in our study and they also suffered the largest losses. Chart 9 illustrates that 38.2% of all cases occurred in private companies, with a median loss of C$253,500. By comparison, 28.1% of frauds took place in government agencies and 23.6% in public companies (both organization types having a median loss of C$150,000).

Size of the Victim Organization

Number of Employees

Chart 10 shows that 42.2% of all fraud cases occurred in small businesses (those with less than 100 employees). This percentage is significantly larger than that of any other size category and is larger than the percentage of jobs provided by small businesses in Canada (33%). The median loss of C$150,000 is also quite large considering the small size of these organizations.

These findings may be explained by the fact that smaller businesses tend to have fewer internal controls than their larger counterparts (see Chart 21). This discrepancy in internal controls is largely due to small businesses having more limited resources; for example, small businesses tend to have fewer employees to enforce an adequate segregation of duties, which is a key fraud prevention control.

However, it is obvious that other factors can also influence fraud losses. The largest organizations in our study (those with more than 10,000 employees) suffered the largest losses in general (median loss of C$452,500) despite presumably having sufficient resources to implement adequate internal controls.

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Methods of Fraud in Small Businesses

Given the high occurrence of fraud in small businesses, it is interesting to examine more closely what types of fraud take place in these organizations. Table 4 shows that 34.3% of the thirty-five (35) small business fraud cases involved corruption. Billing, cash larceny and skimming schemes were also quite frequent, each occurring in over a quarter of small business cases.

**Annual Sales**

Annual sales (or budgets for government agencies) can also be used to measure the size of an organization. According to Chart 11, frauds were reported most frequently in organizations with gross sales over C$500 million (35.8% of all cases), but the largest fraud losses (C$402,360) occurred in organizations that generate annual revenues between C$10 million and C$50 million.

<table>
<thead>
<tr>
<th>Scheme</th>
<th>Cases</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corruption</td>
<td>12</td>
<td>34.3%</td>
</tr>
<tr>
<td>Billing</td>
<td>9</td>
<td>25.7%</td>
</tr>
<tr>
<td>Larceny</td>
<td>9</td>
<td>25.7%</td>
</tr>
<tr>
<td>Skimming</td>
<td>9</td>
<td>25.7%</td>
</tr>
<tr>
<td>Financial Statement Fraud</td>
<td>8</td>
<td>22.9%</td>
</tr>
<tr>
<td>Non-Cash</td>
<td>8</td>
<td>22.9%</td>
</tr>
<tr>
<td>Check Tampering</td>
<td>6</td>
<td>17.1%</td>
</tr>
<tr>
<td>Expense Reimbursement</td>
<td>6</td>
<td>17.1%</td>
</tr>
<tr>
<td>Payroll</td>
<td>5</td>
<td>14.3%</td>
</tr>
<tr>
<td>Wire Transfers</td>
<td>3</td>
<td>8.6%</td>
</tr>
<tr>
<td>Register Disbursements</td>
<td>1</td>
<td>2.9%</td>
</tr>
</tbody>
</table>

Table 4: Small Business (<100 employees) — 35 Cases

*The sum of percentages in this table exceeds 100% because several cases involved schemes that fell into more than one category.*
How Fraud is First Discovered

Chart 12 illustrates how the fraud cases reported in this study were initially detected by the victim organizations. Tips were by far the most frequent detection method (42.2% of all cases). This result brings some support to new audit committee regulations adopted by most Canadian provinces in the last few years, which require audit committees of publicly traded companies to establish reporting mechanisms to receive and address complaints regarding internal controls and financial matters of the company. It is also worth mentioning that more frauds were detected by accident than by internal or external audits, which suggests that organizations should tailor more audit tests to detect and investigate indicia of fraud.

Sources of Tips

Chart 13 shows the importance of designing effective fraud reporting mechanisms that reach beyond an organization’s staff to include customers, vendors and other stakeholders. Less than half of all tips were identified as having come from employees of the victim organization, while 27% and 18.9% of the tips were reported by customers and vendors, respectively.

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More frauds are detected by tips than by any other method.

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

One way to measure the effectiveness of various detection methods is to analyze the dollar value of losses detected by each method. The purpose of this analysis is to identify which types of detection methods tend to uncover the largest and most harmful frauds.

According to Chart 14, the largest frauds were reported/detected by the police with a median loss of C$500,000. Frauds discovered through tips had a median value of C$253,500, while frauds discovered by accident had a median loss of C$200,000. On the other end of the spectrum, internal controls and internal audits tended to uncover lower-dollar schemes.

Detecting Frauds by Owners/Executives

Because of their positions within an organization, owner/executives generally can circumvent the organization’s internal controls more easily than other employees, either through intimidation or simply because owner/executives often serve as controls themselves when they authorize key transactions. Chart 15 shows that frauds perpetrated by owners/executives are detected by tips at a higher rate (52.9%) than all frauds in general. Inversely, a lower percentage of frauds committed by owners/executives is detected by internal controls (5.9%) when compared to the percentage for all cases (18.9%). These results underscore the importance and the effectiveness of reporting programs in detecting frauds committed by the bosses, which tend to be the largest frauds (see Chart 32).

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11 This amount may not be as reliable as others given that only four cases were notified by the police.
12 The sum of the percentages in this chart exceeds 100% because in some cases respondents identified more than one detection method.
Detecting the Largest Frauds

Chart 16 demonstrates that the largest frauds (those with a loss greater than or equal to C$1,000,000) are also more frequently detected by tips (60.9%) than occupational frauds in general (42.2%). This result supports the usefulness of reporting programs in catching the most damaging frauds for an organization. As mentioned above, this finding may also be explained by the fact that larger frauds tend to be committed by owners/executives.

Detecting Fraud in Small Businesses

According to Chart 17, external audits are more effective at detecting fraud in small businesses (i.e., those with less than 100 employees) than for all cases in general. More precisely, 16.2% of small business fraud cases are detected by external auditors as compared to 6.7% for all occupational fraud cases. Tips are also slightly less likely to detect fraud in small businesses which may be explained, at least in part, by the fact that only one out of the thirty-five (35) small businesses had a formal fraud reporting mechanism in our survey (see Chart 21 for results on anti-fraud measures in small businesses).

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13 The sum of percentages in these charts exceeds 100% because in some cases respondents identified more than one detection method.
Detecting Fraud in Government Agencies

As shown in Chart 18, internal audits are more likely to detect fraud in government agencies (28%) than fraud in all organizations reported in our study (13.3%). On the other hand, internal controls were less efficient in government agencies. Only 8% of the twenty-five (25) fraud cases perpetrated in government agencies were detected by internal controls.

Detecting Fraud in Publicly Traded Companies

Surprisingly, Chart 19 illustrates that none of the twenty-one (21) fraud cases that occurred in publicly traded companies were detected by external audits. This may be explained by the inherent difficulty to detect fraud without the assistance of a lead (or tip) and the general scope of most external audit missions. On the other hand, internal controls were quite effective at detecting fraud in publicly traded companies. Internal controls were cited as a detection method in 33.3% public company cases.

Detecting Fraud in Privately Held Companies

Chart 20 measures the effectiveness of various detection methods for the thirty-four (34) fraud cases in privately held companies. External audits were more effective in privately held companies than in public ones as evidenced by the detection of 11.8% of the privately held company fraud cases.

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15 The sum of percentages in these charts exceeds 100% because in some cases respondents identified more than one detection method.
Limiting Fraud Losses

Various anti-fraud measures may be implemented by an organization to prevent or limit fraud losses. Organizations may implement a fraud hotline or anonymous reporting program; they may provide a fraud awareness or fraud training program for their employees and managers; they may establish an internal audit or fraud examination department; they may perform surprise audits on a regular basis; or they may be audited by external auditors.

The purpose of this section is to analyze the effect each of these anti-fraud measures has on the median duration and on the median loss associated with occupational fraud cases reported in our survey.

Most Common Anti-Fraud Measures

According to Chart 21, external audits are the most frequent anti-fraud measure; 78.6% of all organizations used them at the time the frauds occurred. On the other hand, only 24.4% of all organizations used a hotline or fraud reporting program, and only 16.3% conducted surprise audits on a regular basis. These results are surprising in light of the findings on initial detection of occupational fraud cases (see Chart 12) where 42.2% of all cases were detected through tips and only 6.7% through external audits. These findings clearly show the effectiveness of tips in detecting occupational fraud despite the limited use of formal reporting programs within organizations.

Chart 21 also analyzes the frequency of anti-fraud measures used in the thirty-five (35) small businesses with less than 100 employees. It illustrates that small businesses tend to have fewer anti-fraud controls, probably because of limited financial and human resources. Every anti-fraud measure tested for in this study was utilized less frequently in small businesses than in larger organizations.
Effectiveness of Anti-Fraud Measures

Anonymous Fraud Hotlines

Charts 22 and 23 illustrate the effectiveness of fraud hotlines as an anti-fraud measure. The median fraud loss in organizations that did not have a fraud hotline was more than double the loss of organizations that had one in place (C$197,500 as compared to C$90,099). Moreover, organizations that had implemented fraud hotlines experienced a shorter time until detection — a median duration of 18 months as compared to 24 months for other organizations. Fraud hotlines are not only effective at detecting fraud, they can also be very effective in preventing or limiting fraud losses since they may increase employees’ perception that fraudulent conduct will be detected.
Detecting Occupational Fraud in Canada: A Study of its Victims and Perpetrators

Internal Audit
According to Charts 24 and 25, organizations that have an internal audit or fraud examination department are associated with lower median fraud losses, i.e. C$150,000, as compared to C$210,000 for organizations where internal audit departments do not exist. Fraud is also detected more quickly as evidenced by a median duration of 18 months for organizations with internal audit departments, which is 6 months shorter than the median duration in other organizations.

External Audits
Even though external audits were the most frequent anti-fraud measure (see Chart 21), there was no evident relationship between the use of external audits and reduced fraud losses (see Charts 26 and 27). Organizations that had external audits suffered median losses of C$198,500, as opposed to C$145,000 for organizations where external audits were not conducted. Clearly, this should not be read to suggest that external audits actually increase fraud losses. There are a number of factors that influence the size of fraud losses aside from whether external audits are conducted or not. For example, external audits tend to be conducted in larger organizations which are in turn associated with larger fraud losses (see Chart 10). More precisely, organizations that conducted external audits had a median 500 employees as compared to a median 10 employees for organizations without external auditors (results not reported in a chart or table).
**Surprise Audits**
Chart 28 shows that organizations that conduct surprise audits on a regular basis experience much lower fraud losses than organizations where surprise audits are not utilized (median losses of C$60,000 and C$195,000, respectively).

The median duration of fraud schemes is also reduced from 24 to 18 months for businesses that conduct surprise audits, as shown in Chart 29.

**Fraud Awareness/Ethics Training**
Conducting regular anti-fraud or ethics training may be used to increase the perception of fraud detection within organizations and to educate employees on the importance of reporting misconduct.

This anti-fraud measure was associated with a median fraud loss of C$100,000, less than half of the C$222,000 median loss in businesses where such training was not employed (Chart 30). Moreover, the time it took to detect fraud was 6 months lower in organizations that conducted anti-fraud training (Chart 31).
In our survey, respondents were asked to provide detailed information about the perpetrators of the frauds they had investigated. This data helps us understand how certain factors related to the perpetrator affect the nature of fraud and the size of losses inflicted upon victim organizations.

Because a single case of occupational fraud may be perpetrated by many individuals or organizations, we asked survey respondents to limit their responses to the principal perpetrator of each fraud, which may be defined as the person who works for the victim organization and is the primary culprit.

Effect of the Perpetrator’s Position

Chart 32 shows that occupational frauds are most commonly perpetrated by employees (42.0%) with diminishing frequency for managers (38.6%) and owner/executives (19.3%), respectively. These numbers are most likely correlated to the respective numbers of employees, managers and owners/executives present in most organizations, although the percentage of fraud committed by owners/executives is relatively large.

The median loss associated with executives’ frauds was C$1,000,000, which was much larger than the median losses in cases involving managers (C$165,000) and employees (C$75,000). This result is likely explained in large part by the fact that executives typically have more opportunity to commit larger frauds due to their high level of authority, which enables them to override controls more easily than lower-level employees. Executives also frequently have greater access to organizational assets than their subordinates.
The Perpetrator’s Annual Income

Chart 33 shows that perpetrators with higher incomes are associated with larger median fraud losses. This relationship is likely explained in large part by the fact that perpetrators with higher incomes tend to have higher levels of authority. Thus, this relationship may be secondary to the link between position and loss, which was shown in Chart 32. The median loss for fraud cases with a perpetrator’s income of C$500,000 and higher is based on only one observation; therefore, this statistic has limited reliability.

<table>
<thead>
<tr>
<th>Perpetrator’s Income (percent of cases)</th>
<th>Median Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;C$50,000 (37.6%)</td>
<td>C$70,000</td>
</tr>
<tr>
<td>C$50,000-C$99,999 (37.6%)</td>
<td>C$187,500</td>
</tr>
<tr>
<td>C$100,000-C$149,999 (10.6%)</td>
<td>C$257,000</td>
</tr>
<tr>
<td>C$150,000-C$199,999 (8.2%)</td>
<td>C$3,500,000</td>
</tr>
<tr>
<td>C$200,000-C$499,999 (4.7%)</td>
<td>C$4,500,000</td>
</tr>
<tr>
<td>C$500,000+ (1.2%)</td>
<td>C$650,000</td>
</tr>
</tbody>
</table>
The Effect of Tenure

To some extent, the longer an employee works for an organization, the more likely that employee is to advance to increasing levels of authority. Thus, we could expect some linkage between a perpetrator’s tenure and his or her position within the organization, the latter having exhibited a strong correlation with fraud losses (see Chart 32). In addition, employees with longer tenures will, by and large, tend to become more familiar with an organization’s operations and controls — including gaps in those controls — which can provide a greater understanding of how to misappropriate assets without getting caught. However, as illustrated in Chart 34, there was no clear relationship between tenure and median loss in our study.

The Effect of Gender

Chart 35 shows that 71.1% of all occupational frauds were committed by males, with a median loss of C$250,000. The median loss of C$70,000 for frauds perpetrated by females was only about one-fourth as large. This huge difference in median losses may be explained by the fact that men continue to hold more advanced positions (e.g., managers, executives) than women in many organizations, thus providing men with more opportunity to commit larger frauds (see Chart 32). However, the percentage of fraud committed by males (71.1%) is much larger than the percentage of jobs occupied by men in the Canadian workforce (53%).

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The Effect of Education

Even though education may also be linked to the position occupied by the perpetrator within the victim organization, Chart 36 provides some mixed results about the effect of education on the size of occupational fraud. The largest frauds reported in our survey were committed by perpetrators who graduated with a bachelor’s degree (median loss of C$1,000,000) followed by frauds committed by perpetrators with postgraduate degrees (median loss of C$350,000).

The Effect of Age

Chart 37 provides evidence that there may be a positive relationship between the perpetrator’s age and median loss. Perpetrators who are 56 years and older committed frauds with a median loss of C$257,000 in our survey. However, there is some correlation between age and position of the perpetrator which may also explain these results.
The Perpetrator’s Department

Table 5 displays the number of fraud cases based on the perpetrator’s department. This information is useful to determine where organizations are most vulnerable to fraud and where they should increase the focus of their anti-fraud efforts. As shown in Table 5, the department most commonly involved in occupational fraud was the sales department (17.4% of all cases), followed by executive/upper management (15.1%), accounting (15.1%), customer service (12.8%) and finance (9.3%).

On the other hand, Chart 38 ranks the perpetrator’s department on the basis of median losses. Some median loss figures may not be reliable due to the low number of cases in various departments. However, it is interesting to note that frauds committed by the executive/upper management had the highest median loss with C$3,000,000, whereas the median loss of frauds in the customer service department was relatively low at C$100,000.

Table 5: Number of Cases Based on Perpetrator’s Department

<table>
<thead>
<tr>
<th>Department</th>
<th># of Cases</th>
<th>%</th>
<th>Median Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>15</td>
<td>17.4%</td>
<td>C$195,000</td>
</tr>
<tr>
<td>Executive/Upper Management</td>
<td>13</td>
<td>15.1%</td>
<td>C$3,000,000</td>
</tr>
<tr>
<td>Accounting</td>
<td>13</td>
<td>15.1%</td>
<td>C$135,000</td>
</tr>
<tr>
<td>Customer Service</td>
<td>11</td>
<td>12.8%</td>
<td>C$100,000</td>
</tr>
<tr>
<td>Finance</td>
<td>8</td>
<td>9.3%</td>
<td>C$378,500</td>
</tr>
<tr>
<td>Information Technology</td>
<td>6</td>
<td>7.0%</td>
<td>C$77,500</td>
</tr>
<tr>
<td>Purchasing</td>
<td>4</td>
<td>4.7%</td>
<td>C$325,000</td>
</tr>
<tr>
<td>Warehousing/Inventory</td>
<td>4</td>
<td>4.7%</td>
<td>C$100,000</td>
</tr>
<tr>
<td>Manufacturing &amp; Production</td>
<td>4</td>
<td>4.7%</td>
<td>C$112,500</td>
</tr>
<tr>
<td>Marketing/Public Relations</td>
<td>3</td>
<td>3.5%</td>
<td>C$30,000</td>
</tr>
<tr>
<td>Research &amp; Development</td>
<td>2</td>
<td>2.3%</td>
<td>C$1,112,500</td>
</tr>
<tr>
<td>Board of Directors</td>
<td>2</td>
<td>2.3%</td>
<td>C$464,860</td>
</tr>
<tr>
<td>Human Resources</td>
<td>1</td>
<td>1.1%</td>
<td>C$2,000,000</td>
</tr>
</tbody>
</table>

Chart 38: Median Loss Based on Perpetrator’s Department
The Effect of Collusion

While the previous charts and tables were based on the principal perpetrator, Chart 39 examines the effect of collusion on the size of losses sustained by victim organizations. The results are quite clear. Frauds perpetrated by two or more persons are more than eight times larger than those committed by a single individual. More precisely, the median fraud loss in cases involving collusion is C$825,000 as compared to C$100,000 for cases with one fraudster only. This result may be explained by the overall difficulty to detect collusion since it can neutralize the effectiveness of segregation of duties as an anti-fraud control.

The Perpetrators’ Criminal Histories

To conclude this section of our study, Chart 40 analyzes the criminal history of the principal perpetrator. Prior to the cases reported, 88.9% of the fraudsters in our survey had never been charged or convicted of a fraud-related offense. This indicates that criminal background checks will have limited effectiveness as an anti-fraud measure.
Case Results

This section of our study investigates actions taken by victim organizations once fraud was discovered. This should prove useful in understanding how victim organizations and the legal system deal with occupational offenders.

Criminal Prosecutions

Chart 41 shows that 57.6% of all fraud cases in our study were reported to the police. These cases tended to be larger than non-reported cases as evidenced by a median loss of C$227,000 as opposed to C$123,500 for cases not referred to law enforcement.

Chart 42 illustrates the final legal outcome of the 28 cases that were referred to the police for potential prosecution (it does not include the 21 cases that were still pending at the time the survey was conducted). In these 28 cases, 50% of the offenders pled guilty or no contest, 22.7% were convicted at trial, and in only one case (4.5%) the suspect was acquitted.
Why Organizations Decide Not to Prosecute

Chart 43 summarizes information from the 36 cases that were not referred to the police by victim organizations. In 47.2% of the cases, fear of bad publicity was a major reason why the victim organization decided not to report the case to law enforcement. In 38.9% of the cases a private settlement was agreed upon, and in 27.8% of the cases internal discipline was considered sufficient. Finally, in 11.1% of the cases a civil lawsuit was deemed an appropriate alternative by the victim organization.

Civil Lawsuits

Chart 44 shows that in 26.6% of the cases a civil lawsuit was filed against the perpetrator. This percentage is much lower than that of cases referred to law enforcement (57.6%) as illustrated in Chart 41. However, the median loss in cases resulting in civil litigation was much larger (C$704,719) than the median loss in cases referred for criminal prosecutions (C$227,000). Given the significant costs frequently associated with civil litigation, it is not surprising that this measure tends to be employed only in the largest cases.

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19The sum of percentages in this chart exceeds 100% because some respondents cited more than one reason why victim organizations declined to prosecute.
Chart 45 displays the final legal outcomes of ten cases in which a civil action was filed against the principal perpetrator (cases still pending were excluded). In six cases the parties settled and in three cases a judgment was rendered in favor of the victim organization. Only one of the ten cases was won by the defendant.
Recovering Losses Caused by Fraud

Survey participants were asked to estimate the percentage of the victim organization’s fraud loss that had been recovered through all methods including restitution agreements, civil judgments and insurance claims. In 36.2% of the cases the victim organization did not recover anything from its fraud loss (see Chart 46). On the other hand, the victim organization recovered the full amount stolen in 17.4% of the cases. However, the median loss of fraud cases that were completely recovered is only C$37,000 as compared to C$150,000 for cases with no recovery (median loss results not disclosed in a chart or table).
The web survey used to gather data for this study was distributed to all Canadian members of the ACFE in March 2006.

The Canadian survey has been adapted from previous ACFE U.S. fraud surveys by Dr. Peltier-Rivest, Associate Professor at Concordia University in Montreal (Quebec, Canada), and the ACFE. Each respondent was asked to provide detailed information about the investigation of the largest occupational fraud case he or she had investigated that met the following criteria:

1) The case involved occupational fraud;
2) The fraud was investigated after January 2004;
3) The investigation of the fraud was complete; and
4) The ACFE member was reasonably sure the perpetrator had been identified.

The survey was organized into five sections. Section A asked respondents to describe the fraud in narrative form, to provide detailed information about its classification and amount, and to identify how it was first detected. Section B asked for a detailed description of the victim organization and the anti-fraud measures it had in place at the time the fraud was detected.

Section C solicited data about the characteristics of the principal perpetrator and his or her background. Section D of the survey requested information about how the case was dealt with by the victim organization and its legal outcome. Finally, section E asked every survey participant to provide background information about himself or herself.

The Canadian survey yielded 112 responses but 22 of them were aborted because they related to external fraud as opposed to occupational fraud as requested in the instructions to participants. Therefore 90 complete responses were received and used to prepare this report.
Acknowledgements

This Report was jointly produced by Dominic Peltier-Rivest, Ph.D., M.Acc., CFE, Associate Professor, Concordia University, Montreal, Quebec and the Association of Certified Fraud Examiners. The authors would like to acknowledge the financial support provided by the Government of Quebec through an FQRSC Research Grant, which helped make this report possible. The authors also wish to acknowledge Corey Anne Bloom, CFE, CA, CA•IFA of Montreal, Quebec, Chairman of the Board of Regents of the ACFE for her support and contribution to this study.

Finally, the ACFE would like to thank all of the ACFE members who took part in our survey, supplying the fraud case information upon which Detecting Occupational Fraud in Canada: A Study of its Victims and Perpetrators was based. Your support and dedication, along with your efforts to establish prevention, deterrence and detection measures, is critical to the fight against fraud.

About the ACFE

The ACFE is the world’s premier provider of anti-fraud training and education. A leader in the community, the ACFE has nearly 40,000 members, sponsors more than 125 local chapters worldwide and provides anti-fraud educational materials to more than 300 universities. Certified Fraud Examiners (CFEs) on six continents have investigated more than two million suspected cases of fraud.

The ACFE provides educational tools and practical solutions for anti-fraud professionals through initiatives including:

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