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## **Five Deaths a Day: Workplace Fatalities in Canada, 1993-2005**

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Note: This version of the report updates the original December 12 version in three ways. It includes more comprehensive estimates of workplace fatalities in agriculture provided by the Canadian Agricultural Injury Surveillance Program; it updates a number of tables and charts to 2005 with estimates recently released by the AWCBC; and it includes a section comparing the number and incidence of time-loss injuries with workplace fatalities.

## **Five Deaths a Day: Workplace Fatalities in Canada, 1993-2005**

### **Abstract**

According to data collected by the Association of Workers' Compensation Boards of Canada, 1,097 workplace fatalities were recorded in Canada in 2005, up from 758 in 1993. As Canadians work on average 230 days per year, this means that there were nearly five work-related deaths per work day in this country. The objective of this study is to provide a detailed analysis of the characteristics of persons who die on the job and the reasons they die, and to gain a better understanding of developments over time in this key indicator of job quality and labour market well-being.

The study is divided into four main sections. The first section provides a comprehensive examination of workplace fatalities in Canada over the 1993-2005 period. The second section of the study provides an international perspective on workplace fatalities. The third section discusses determinants of workplace fatality trends in Canada. The fourth and final section briefly explores the role of asbestos in workplace fatalities in Canada.

Two key messages emerge from this study. First, despite the problems associated with the definition and measurement of workplace fatalities, the number and rate of workplace fatalities in Canada, even from accidents, is unacceptably high. Second, insufficient progress is being made in reducing the number and rate of workplace fatalities. Canada can do much better.

# **Five Deaths a Day: Workplace Fatalities in Canada, 1993-2005**

## **Executive Summary**

According to data collected by the Association of Workers' Compensation Boards of Canada, 1,097 workplace fatalities were recorded in Canada in 2005, up 45 per cent from 758 in 1993 and 18 per cent from 958 in 2004. As Canadians work on average 230 days per year, this means that there were nearly five work-related deaths per working day in this country. Workplace fatalities, unlike death in general, are in principle avoidable. Thus any workplace death should be unacceptable. It is therefore a matter of grave concern that the number of workplace fatalities in this country is increasing, not falling.

The objective of this study is to provide a detailed analysis of the characteristics of persons who die on the job and the reasons they die, and to gain a better understanding of developments over time in this key indicator of job quality and labour market well-being.

The study is divided into four main sections. The first section provides a comprehensive examination of workplace fatalities in Canada over the 1993-2005 period, looking at the absolute number and rates of fatalities by jurisdiction, gender, age group, industry, occupation, event, nature of injury, and source of injury. The second section of the study provides an international perspective on workplace fatalities by presenting workplace fatality estimates for OECD countries from the ILO data and comparing Canada-US workplace fatality estimates. The third section discusses determinants of workplace fatality trends in Canada in the context of the failure of the workplace fatality rate to continue to decline since the mid-1990s. The fourth and final section briefly explores the role of asbestos in workplace fatalities in Canada.

## **Incidence of Workplace Fatalities by Workforce Characteristics**

The chances of a worker dying from a workplace-related accident or disease in Canada vary greatly by industry, occupation, gender, and age group. They also vary by province. The key features of the incidence of workplace fatalities by the characteristics of the workforce were the following:

- The most dangerous industry in which to work over the 1996-2005 period was mining, quarrying and oil wells (49.9 per 100,000 workers or one out of 2,000); followed by logging and forestry (42.9 per 100,000 per workers or one out of 2,300); fishing and trapping (35.6 fatalities per 100,000 workers or one out of every 2,800 workers), agriculture (28.1 fatalities per 100,000 workers or one out every 3,600 workers) and construction (20.6 per 100,000 workers or one out of 4,900). Finance and insurance was the least dangerous industry, with only 0.2 fatalities per 100,000 workers or one death for every 500,000 workers.

- Like industries, workplace fatalities are highly concentrated in certain occupations. Over the 1996-2005 period, occupations unique to primary occupations had the highest fatality rate at 19.5 per 100,000 workers, followed by trades, transport and equipment operators and related occupations (19.0 per 100,000 workers), and occupations unique to processing, manufacturing, and utilities (10.2). All other major group occupations had a fatality rate less than 4 per 100,000.
- Men are much more likely to die on the job than women. In 2005, the incidence of workplace death was 30 times higher among men than women: 12.4 deaths per 100,000 workers versus 0.4 deaths.
- Older workers are much more likely to experience a workplace-related fatality than a younger worker. In 2005, the incidence rate rises from 1.8 deaths per 100,000 workers for the 15-19 years age group to 18.1 deaths per 100,000 workers for the 60-64 age group.
- The jurisdiction with the highest fatality rate was the Territories at 27.4 deaths per 100,000 workers in 2005, four times the national average. At nearly double the national average, Newfoundland in 2005 had, by far, the highest rate of workplace fatalities of all ten provinces, with 11.7 deaths per 100,000 workers. This situation also prevailed over the 1993-2005 period.
- Workplace fatalities arise from both accidents and occupational diseases. In 2005, out of the 1,097 workplace fatalities 491 (44.8 per cent) were from accidents and 557 (50.8 per cent) from occupational diseases. Asbestos-related deaths alone accounted for about 340 deaths in 2005, 61 per cent of deaths from occupational diseases and 31 per cent of total workplace fatalities.

### **International Comparisons of the Rate of Workplace Fatalities**

The ILO Workplace Fatality database shows that in 2003 Canada had the fifth highest incidence of workplace fatalities out of 29 OECD countries. Only Korea, Mexico, Portugal, and Turkey had workplace fatality higher rates and all four countries are at a much lower level of development than Canada.

Unfortunately, definitions of workplace fatalities differ from country to country and the ILO makes no attempt to standardize the data. For example, some countries exclude deaths from traffic accidents while on the job and deaths from occupational diseases in estimates of workplace fatalities. This means that the ILO statistics should be used with caution. Nevertheless, even if one fully adjusted for definitional differences, it is very unlikely that Canada would emerge as a low workplace fatality country relative to its peers.

According to national data sources, in 2005 the worker fatality rate in the United States was 4.0 per 100,000 workers, well below the 6.8 rate for Canada. But unlike

Canada, the United States excludes workplace fatalities from occupational diseases in its definition of workplace fatalities. If one compares only the workplace fatality rate from accidents, it appears that the United States in 2005 had a higher rate than Canada: 4.0 versus 3.0 per 100,000 workers (or 3.6 per 100,000 workers if an adjustment is made for fatalities for non-insured agricultural workers ).

### **Trends in the Rate of Workplace Fatalities in Canada**

In 2005, the incidence of workplace fatalities in Canada was 6.8 per 100,000 workers, up from 5.9 per 100,000 in 1993. This rate represents one death for every 15,000 workers. This upward trend is disturbing.

The rise in the incidence rate was almost entirely driven by the increased workplace fatality rate from occupational disease, up from 1.5 to 3.4 per 100,000 between 1996 and 2005 (pre-1996 data are not available). The increased fatality rate from asbestos, up from 0.4 per 100,000 workers in 1996 to 2.1 in 2005 accounted for the lion's share of the increased incidence from occupational disease.

The incidence of workplace fatalities from accidents rose from 2.9 to 3.0 per 100,000 workers in 1996-2005. This development lies in contrast to a decline in the fatality rate from accidents in the 1976-1993 period in Canada and a fall in the in almost all other OECD countries over the 1993-2003 period..

This rise in the incidence rate of workplace-related deaths from occupational disease was driven by the 65 years and over age group. Work-related deaths from occupational disease in this age group rose 172 per cent from 95 in 1996 to 258 in 2004 (data for 2005 are currently unavailable), and accounted for 72 per cent of the rise in the total number of workplace deaths.

Between 1976 and 1996 the share of the workforce in high-risk industries fell significantly as the relative importance of goods sector employment fell. Since 1996, this trend has been reversed as the proportion of workers in high-risk industries has actually increased with the boom in employment growth in the construction industry. This development has contributed to the increase in the workplace fatality rate in Canada between 1996 and 2005.

### **Conclusion**

Two key messages emerge from this study. First, despite the problems associated with the definition and measurement of workplace fatalities, the number and rate of workplace fatalities in Canada, even from accidents, is unacceptably high. Second, insufficient progress is being made in reducing the number and rate of workplace fatalities. Canada can do much better.

## **Cinq morts par jour : Décès sur les lieux de travail au Canada entre 1993 et 2005**

### **Sommaire**

Selon des données recueillies par l'Association des Commissions des Accidents du Travail du Canada, 1 097 décès reliés au travail furent enregistrés au Canada en 2005, soit une augmentation de 45 pour cent de 1993, année où furent enregistrés 758 décès et de 18 pour cent en 2004, année où furent enregistrés 928 décès. Étant donné que les Canadiens travaillent en moyenne 230 jours par année, on peut conclure qu'en moyenne, chaque jour, presque cinq travailleurs se rendent au travail sans en revenir. Les décès en milieu de travail sont généralement évitables, contrairement aux morts en général, ainsi il est inacceptable que tant de travailleurs trouvent la mort dans le cadre de leur emploi. L'inquiétude est d'autant plus importante sachant que ce nombre est en hausse dans ce pays, au lieu de régresser.

L'objectif de cette étude est de fournir une analyse détaillée des caractéristiques des travailleurs qui meurent dans le cadre de leurs fonctions et des raisons pour lesquelles ils meurent, ainsi que de mieux comprendre les développements au cours du temps de cet indicateur de la qualité des emplois au Canada et du bien-être sur le marché du travail.

Cette étude est divisée en quatre sections principales. Pour débiter, le rapport offre une analyse des décès en milieu de travail au Canada durant la période s'étalant de 1993 à 2005. Plus spécifiquement, les décès en nombre absolu ainsi que leur incidence sont analysés selon la juridiction, le sexe, l'âge, l'industrie, l'occupation, l'événement, la nature de l'accident ainsi que sa source. Ensuite, l'étude offre une perspective internationale sur les décès des travailleurs en présentant les données pour les pays de l'OCDE selon l'Organisation Internationale du Travail, ainsi qu'en comparant plus en détail les incidences entre le Canada et les États-Unis. La troisième section discute des déterminants des tendances à travers le temps des décès en milieu de travail au Canada, dans le contexte de l'arrêt du déclin de ceux-ci depuis le milieu des années 1990. Finalement, l'étude examinera le rôle de l'amianté dans l'incidence des décès des travailleurs au Canada.

### **Incidence des décès en milieu de travail selon les caractéristiques de la force de travail**

Les chances qu'un travailleur meurt d'un accident ou d'une maladie relié à son emploi varient beaucoup selon l'industrie qui l'emploie, son occupation, son sexe et son âge. Elles varient aussi selon la province. Les principales conclusions tirées sur l'incidence de décès selon les caractéristiques de la force de travail sont les suivantes :

- L'industrie où il était le plus dangereux de travailler pendant la période 1996-2005 est l'extraction minière et de gaz (49,9 décès par 100 000 travailleurs ou un sur 2 000), suivie par, la foresterie (42,9 décès par 100 000 travailleurs ou un sur 2 300), la pêche et le piégeage ( 35,6 décès par 100 000 travailleurs ou environ un

travailleur sur 2 800), l'agriculture (28.1 décès par 100 000 travailleurs ou un sur 2 100), et l'industrie de la construction (20,6 décès par 100 000 travailleurs ou un sur 4 900). Le secteur le moins dangereux était finance et assurances, avec seulement 0.2 décès par 100 000 travailleurs ou une mort par 500 000 travailleurs.

- Les décès par occupation, tout comme par industrie, sont concentrés dans quelques métiers. Pendant la période 1996-2005, les occupations propres au secteur primaire avait l'incidence la plus élevée, à 19,5 décès par 100 000 travailleurs, suivi de près par les métiers spécialisés dans la conduite du matériel de transport et de la machinerie avec une incidence de 19,0, et celles de transformation, fabrication et services d'utilité publique arrivaient en troisième place avec 10,2. Tous les autres groupes majeurs d'occupations avaient une incidence de moins de quatre morts par 100 000 travailleurs.
- Les hommes sont beaucoup plus à risque de mourir dans le cadre de leur emploi que les femmes. En 2005, l'incidence de décès était 30 fois plus élevée chez les hommes que chez les femmes : 12,4 morts par 100 000 travailleurs comparé à 0,4.
- Les travailleurs âgés sont aussi plus à risque que les plus jeunes. En 2005, l'incidence était de 1.8 morts par 100 000 travailleurs chez les 15 à 19 ans, comparé à 18.1 morts par 100 000 travailleurs chez les gens âgés de 60 à 64 ans.
- La juridiction ayant l'incidence de décès le plus élevée en 2005 était les Territoires avec 27,4 morts par 100 000 travailleur, quatre fois la moyenne nationale. Terre-neuve et Labrador était la province avec le taux d'incidence le plus élevé de loin, soit presque le double de la moyenne nationale avec 11,7 morts par 100 000 travailleurs en 2005. Cette situation a duré sur la période entière de 1993 à 2005.
- Les décès en milieu de travail sont dus à des accidents ou à des maladies. En 2005, des 1 097 décès enregistrés, 491 furent causés par des accidents (44,8 pour cent) et 557 (50,8 pour cent) par des maladies professionnelles (49,7 pour cent). Les maladies reliées à l'amiante ont causées à elles seules environ 340 morts en 2005, soit 61 pour cent de toutes les morts causées par des maladies, et 31 pour cent du total des décès.

### **Comparaison internationale de l'incidence des décès en milieu de travail**

La base de données de l'Organisation Internationale du Travail montre qu'en 2003, le Canada était au cinquième rang parmi les 29 pays de l'OCDE pour l'incidence des décès reliés au travail. Seulement la Corée, le Mexique, le Portugal et la Turquie avaient des incidences plus élevées. Par contre, ces quatre pays sont considérablement moins développés que le Canada.

Malheureusement, les définitions des décès reliés au travail diffèrent grandement de pays en pays, et l'OIT ne fait aucun effort pour standardiser les données. Par exemple,

certain pays excluent les décès causés par un accident de voiture pendant les heures de travail ainsi que les décès causés par les maladies occupationnelles. Ceci signifie que les données de l'OIT doivent être utilisées avec précaution. Par contre, même si on ajustait les données pour toutes les différences dans les définitions, il serait surprenant que le Canada apparaisse comme un pays où l'incidence de décès est très basse comparée à ses semblables.

Selon des sources nationales, en 2005 l'incidence de décès des travailleurs aux États-Unis était de 4,0 par 100 000 travailleurs, sous le taux de 6,8 au Canada. Contrairement au Canada, les États-Unis excluent les décès provenant de maladies occupationnelles. En comparant les décès causés par des accidents seulement, il semble que les États-Unis ont une incidence de décès plus élevée que le Canada: 4,0 par 100 000 travailleurs comparé à 3,0 (ou 3,6 si l'on fait un ajustement pour les décès des travailleurs agricoles non couvert par un régime d'indemnisation).

### **Tendances dans l'incidence de décès au travail au Canada**

En 2005, l'incidence de décès des travailleurs était 6,8 par 100 000 travailleurs, par rapport à 5,9 en 1993. Ceci représente une morte par 15 000 travailleurs. Cette tendance est troublante.

La montée dans l'incidence de décès a été due presque totalement aux décès des maladies professionnelles, qui ont augmenté de 1,5 par 100 000 à 3,4 par 100 000 travailleurs entre 1996 et 1993 (les données avant 1996 ne sont pas disponibles). Une augmentation dans l'incidence de décès de l'amiante de 0,4 en 1996 à 2,1 par 100 000 travailleurs en 2005 explique en grande partie l'augmentation des décès liés aux maladies professionnelles.

L'incidence de décès due aux accidents de travail a augmenté de 2,9 à 3,0 par 100 000 travailleurs entre 1996 et 2005. L'incidence au Canada avait diminué de 1976 à 1993. Dans presque tous les autres pays de l'OCDE, l'incidence a continué à baisser de 1993 à 2003, à l'opposé du Canada.

Le fait que l'incidence a augmenté dans les dernières années s'explique par une augmentation massive du nombre de décès chez les travailleurs plus âgés, surtout chez ceux de plus de 65 ans. Les décès dus aux maladies occupationnelles chez les 65 ans et plus ont augmentés de 172 pour cent sur la période, passant de 95 en 1996 à 258 en 2004 (Les données pour 2005 ne sont pas encore disponibles). En fait, 72 pour cent de l'augmentation du nombre total de décès entre 1996 et 2004 est due à l'augmentation des décès chez les gens 65 ans ou plus.

Entre 1976 et 1996, la proportion de travailleurs dans les industries à haut risque a diminuée de façon significative alors que l'importance relative de l'emploi dans le secteur des biens a chuté. Depuis 1996, par contre, cette tendance a été renversée alors que la proportion de travailleurs employés dans les industries à haut risque a augmentée,



surtout à cause du boom dans l'industrie de la construction. Ceci a contribué à l'augmentation de l'incidence des décès reliés au travail entre 1996 et 2005.

### **Conclusion**

Deux messages-clés sont importants dans cette étude. Premièrement, malgré les problèmes associés aux différences dans les définitions et la mesure des décès reliés à l'emploi, le nombre et l'incidence de ceux-ci, même en ne tenant compte que des accidents, sont toujours à des niveaux inacceptables et trop élevés. Deuxièmement, les progrès effectués pour réduire le nombre et l'incidence des décès en milieu de travail sont toujours insuffisants. Le Canada peut faire beaucoup mieux.

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# Five Deaths a Day: Workplace Fatalities in Canada, 1993-2005<sup>1</sup>

## Introduction

According to data collected by the Association of Workers' Compensation Boards of Canada, 1,097 workplace fatalities were recorded in Canada in 2005, up from 758 in 1993. This means that there were around five work-related deaths per working day in this country. Workplace fatalities, unlike death in general, are in principle avoidable. Thus any workplace death should be unacceptable. It is therefore a matter of grave concern that the number of workplace fatalities in this country is increasing, not falling.

The objective of this study is to provide a detailed analysis of the characteristics of persons who die on the job and the reasons they die, and to gain a better understanding of developments over time in this key indicator of job quality and labour market well-being.

This study is motivated by two observations or stylized facts. First, according to statistics published by the International Labour Organization (ILO), Canada has one of the highest rates of workplace fatality in the developed world. Second, in contrast to other countries where the workplace fatality rate has been falling, the rate in Canada has been rising in recent years. This trend also lies in contrast to the continued decline in the workplace injury rate in Canada, as well as the decline in the workplace fatality rate up to the mid-1990s.

The report is divided into four main sections. The first section of this report examines rates and trends in work-related deaths in Canada. This section begins with an overview of the data sources and broad trends in workplace fatalities. It then presents an examination of trends in workplace fatalities by jurisdiction, gender, age, occupation, industry, and event, nature, and source of injury. It concludes with a comparison of trends in time-loss injuries and workplace fatalities.

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The second section of this report situates workplace fatalities in Canada within the broader international arena. This section includes a comparison of workplace fatalities between Canada and OECD countries based on ILO data, and a more detailed comparison between Canada and the United States.

The third section presents a discussion of the determinants of the workplace fatalities trends over time including employment structure, health and safety regulations, trade union density, and unemployment rates. Also, changes in operational definitions are examined in order to determine if and how these factors have influenced the recorded fatality rates in Canada.

The fourth section discusses asbestos exposure as it relates to work-related fatalities in Canada, and the fifth and final section concludes the report.

## **I. Workplace Fatalities in Canada**

### **A. Data Sources and Limitations**

This study calculated Canadian workplace injury and fatality rates using injury and fatality statistics from the National Work Injury Statistics Program (NWISP) administered by the Association of Workers' Compensation Boards of Canada (AWCBC), which produces statistical summaries based on data provided by provincial Workers' Compensation Boards. Employment data were collected from Statistics Canada's Labour Force Survey in order to calculate incidence rates by jurisdiction; gender; age group; occupation; industry; nature and source of injury; and event.

Workplace fatality and time-loss injury data was obtained in September 2006, from statistical summaries produced through NWISP. NWISP produces the publication "National Work Injury and Disease Statistics" on an annual basis, and makes further data available on request through National Work Injury/Disease Statistical Summary Requests.<sup>2</sup> The most recent available "National Work Injury and Disease Statistics" publication provides statistical summaries of accepted time-loss injury or disease and fatality claims for the 2003 to 2005 period. Statistical summaries for additional cross tabulation and time series were obtained from NWISP electronically. Where available, statistical summaries from 1993 to 2005 were obtained. However, NWISP coding changed in 1996 and data coded prior to 1996 used the Canadian Work Injury Standard (CWIS), whereas subsequent data was coded using the Z795 (NWIS) standard for nature and source of injury/disease, and event variables.

In order to calculate fatality rates, employment data were gathered from Statistics Canada's Labour Force Survey (LFS), which provides employment estimates broken

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<sup>2</sup> Association of Workers' Compensation Boards of Canada. *National Work Injury/Disease Statistical Summary Requests*. Available: [http://www.awcbc.org/english/nwisp\\_rqst.asp](http://www.awcbc.org/english/nwisp_rqst.asp).

down by a variety of variables including industry, occupation, and demographic characteristics. Industry and occupation codes are based on the North American Industry Classification System and the National Occupational Classification for Statistics manuals.<sup>3</sup>

There are a number of data limitations that may hinder comparison and analysis and should be taken into consideration when reading this report or conducting future studies. NWISP data do not include work-related injuries or illnesses for workers who are not covered by Workers' Compensation Boards or Commissions, such as self-employed workers and military personnel. These persons not covered by workers compensation, represented in 2005 19.3 per cent of the workforce (Table 3a).

From the point of view of the coverage of the workforce by workers compensation, the provinces and territories can be divided into four groups based on coverage data in 2005 (or 2004 in the case of Quebec as data for 2005 are not available). This groups are:

- universal coverage: Northwest Territories (100 per cent) and Yukon (99.9 per cent);
- coverage above 90 per cent: Newfoundland and Labrador (97.0 per cent), Prince Edward Island (96.4 per cent), New Brunswick (94.5 per cent), Quebec (93.7 per cent), and British Columbia (92.5 per cent);
- Coverage between 80 and 90 per cent: Alberta (87.1 per cent); and
- Coverage below 75 per cent: Saskatchewan (74.0 per cent), Nova Scotia (70.8 per cent), Ontario (69.3 per cent), and Manitoba (67.2 per cent).

Furthermore, since statistics are based on records from provincial and territorial compensation boards and commissions, which are independent agencies, there may be inter-jurisdictional variances, since different policies and procedures exist among the jurisdictions.

It is evident that using Labour Force Survey total employment data where coverage rates differ by jurisdiction, has implications for the incidence rates calculated in this report. However, based on the nature of many of the occupations that are not covered by boards or commissions where there are likely few fatalities, the use of total employment figures rather than actual employment in covered occupations likely does not introduce major bias.

However, one industry that may be significantly affected by this is agriculture, since very low numbers of fatalities are reported to compensation boards in this industry because agricultural workers are generally not automatically covered by jurisdictional workers' compensation legislation. To correct this bias, the section of the report on

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<sup>3</sup> Statistics Canada. *Guide to the Labour Force Survey 2006*. Ottawa: Statistics Canada, Labour Force Survey Program, 1999-; Cat 71-543-GIE.

workplace fatalities by industry uses estimates of workplace fatalities in agriculture from accidents compiled by the Canadian Agricultural Injury Surveillance Program.

Data are based only on *accepted* compensation claims, so it is likely that work-related injuries, diseases and fatalities are under-documented for cases where evidence is not available to sufficiently make the link to a work-related incident. It would be useful for future study to examine the rates of accepted versus filed claims as well as the criteria used to establish and determine claims by province, how this differs across provinces, and whether this has changed over time. Also, it is important to note that declines in recorded fatality rates may either be the result of genuine improvements in safety, or of a reduction in the reporting of injuries (Borooah and Mangan, 1998). This is less of an issue in the case of fatalities, although injuries or illnesses which result in death many years after the incident or exposure are likely underreported.

Since information on claims forms is not necessarily standardized, it is probable that there is variability in the coding of this information, particularly at the more detailed level (referred to as 'minor groups' in this report). For example, it is possible that similar jobs may be coded as different occupations due to the variability of information provided on claims forms.

LFS employment data include the number of people who reported working for pay or profit, or who had a job but were not working due to illness, vacation, personal responsibilities or other reasons, during the reference week. The LFS is subject to sampling error, since it is a sample survey. Furthermore, LFS employment data are not available for Nunavut, Yukon or Northwest Territories. Residents of Indian Reserves and Crown lands, as well as inmates of institutions and full-time members of the Canadian Armed Forces are also excluded. According to Statistics Canada, these groups together represent less than two per cent of the 15 years and over population.<sup>4</sup>

NWISP data are recorded with respect to the year that the claim was accepted by a Board, and not the year in which the injury, fatality, or diagnosis occurred. This means that the fatality rates provided in this report reflect the number of accepted claims in a given year rather than the number of actual deaths.

In Canada, there is no time limitation on the application for compensation for a work-related illness or injury that resulted in death. Fatalities are recorded for the year the claim was accepted, not the year when the incident causing death occurred.<sup>5</sup> The key criterion for acceptance of a claim is sufficient evidence that the cause of death was related to an occupational injury or illness. This may have implications for explaining the high rates of death recorded among the 65 and over age group where individuals have typically already left the workforce. Furthermore, incidence rates are further affected by

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<sup>4</sup> For detailed information on definitions, data sources, methodology see: Statistics Canada. *Labour Force Survey*, April 2005. Ottawa: Statistics Canada, Labour Force Survey Program. Available: <http://www.statcan.ca/english/sdds/3701.htm>.

<sup>5</sup> For National Work Injury and Disease Program definitions see: National Work Injury and Disease Statistics 2002-2004. Association of Workers' Compensation Boards of Canada, 2005, vi-viii.

the fact that LFS employment data clearly do not include retired individuals, while compensation claims are accepted following retirement. Data regarding the date of injury or exposure would be useful in further understanding the age group trends with regards to work-related deaths, particularly where there exist long lags between exposure to noxious substances and death resulting from this exposure.

Data used for international comparison were obtained from the International Labour Organization (ILO) through the Laborsta database. This database contains workplace fatality data for a large number of countries. For our purposes, we focused on OECD countries with similar economic conditions to Canada. The ILO compiled this data from various statistical agencies and organizations responsible for workplace safety-related data collection. While, operational definitions and detailed collection information are available for each country, the ILO does not standardize this data in any way. In section two, we describe the primary differences in the sources and methods used by various OECD countries in compiling workplace fatality statistics. As a result, differences in definitions and data collection methods may induce errors in the comparisons made in this report.

## B. Workplace Fatality Trends

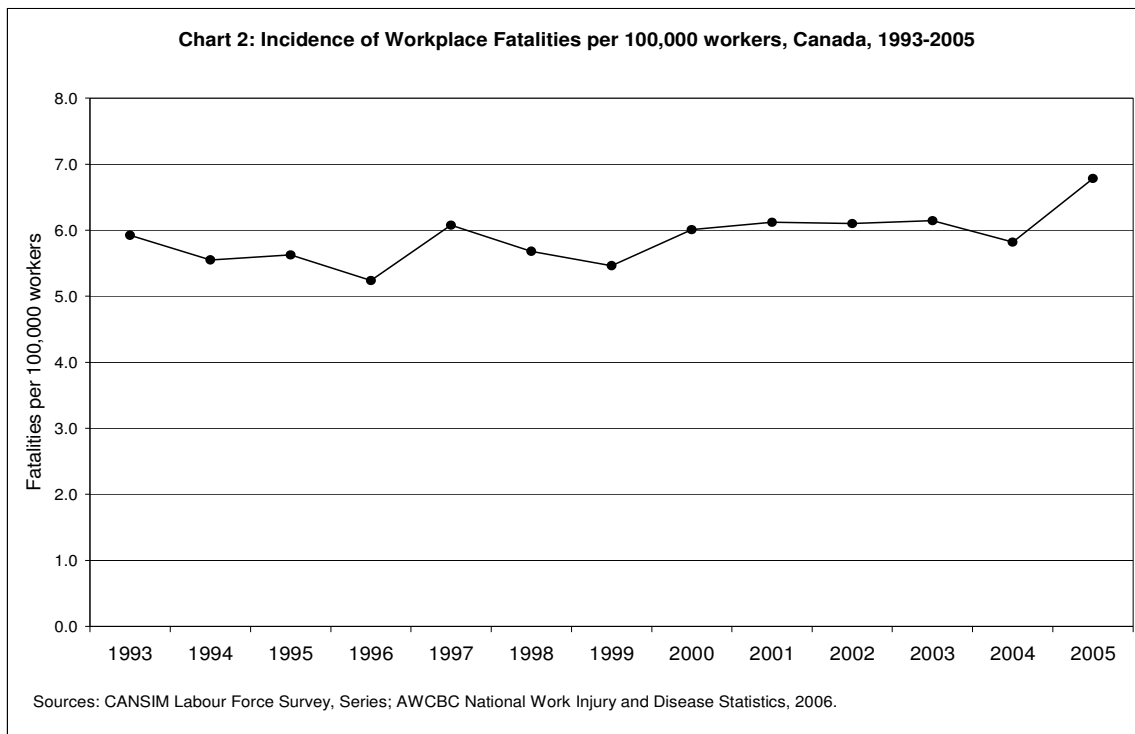
In Canada, in 2005, the most recent year for which data are currently available, there were 1,097 workplace fatalities, which are deaths that resulted from work-related incidents that qualified for compensation by a Workers' Compensation Board (Table 1 and Chart 1). As Canadians work on average 230 days per year, this means that, on average, nearly five people (4.8) died as a result of work-related accidents or illness every single working day in Canada in 2005.<sup>6</sup>



<sup>6</sup> 230 working days per year: based on 365 days per year with 104 weekend days, 10 statutory holidays and 20 vacation and sick and personal days. See Isgut, Bialas and Milway, 2006:Chart 4.

The 2005 figure represents a 44.7 per cent increase from 1993, when there were 758 work-related fatalities. Since 1999, the number of workplace fatalities has been steadily increasing, culminating in the record number of deaths in 2005. Indeed, the 2005 figure represented a 18 per cent increase over 2004 (928).

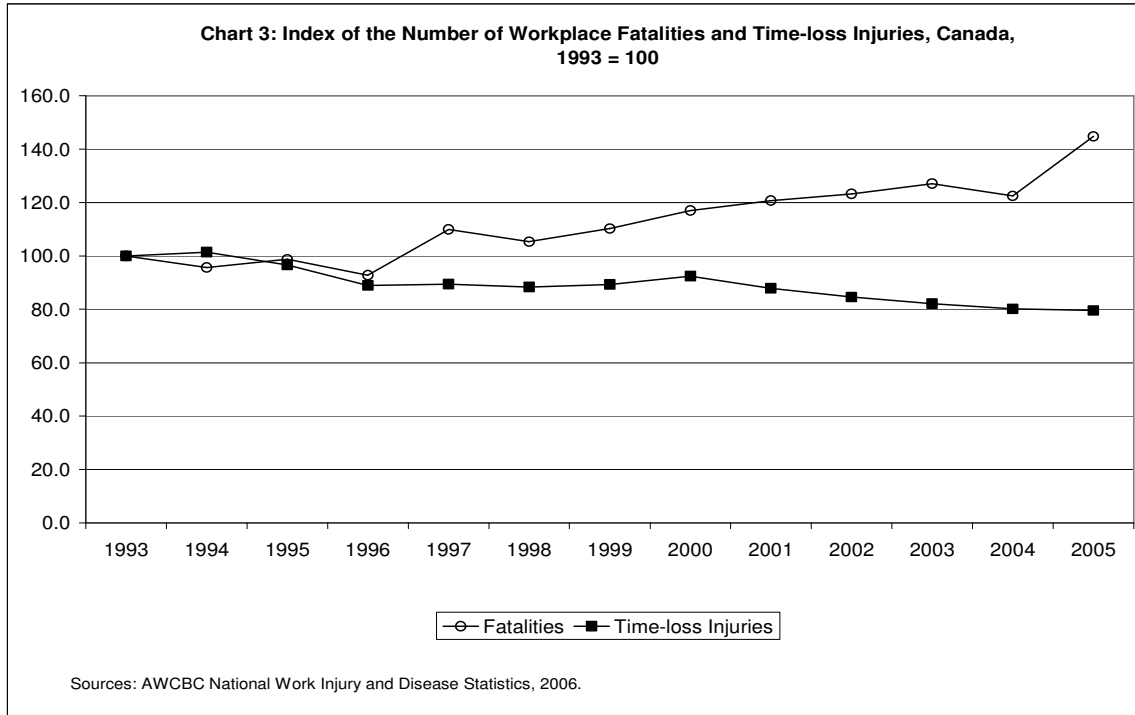
The rate of incidence, which is the number of workplace fatalities as a fraction of the number of employed workers calculated as a rate per 100,000 workers, was 6.8 per 100,000 workers in 2005, up from 5.8 in 1993 (Table 2 and Chart 2). This 17 per cent increase is much less than the 44.7 per cent increase in the absolute number of fatalities because of the 26 per cent increase in the number of workers from 12.8 million in 1993 to 16.2 million in 2004.



In contrast to the increased incidence of workplace fatalities in the last decade, ILO data for Canada, which are available for the pre-1993 period, show a historically downward trend in the late 1980s and first half of the 1990s. The incidence rate declined by over 40 per cent from a 1988 peak of almost 9 deaths per 100,000 workers to 5.2 in 1996.<sup>7</sup> A Statistics Canada study examining workplace fatalities over three 6-year periods from 1976 to 1993 also found a downward trend, from an average 11 deaths per 100,000 workers per year over the 1976-1981 period to 7 deaths for the 1988-1993 period (Marshall, 1996).

<sup>7</sup> See Chart 25. The long-term trends are discussed further in section 2 of this report.

Time-loss injuries are work-related injuries that resulted in worker compensation for lost wages or work-related permanent disabilities, such as hearing loss, that resulted in worker compensation with or without time lost. While the number of workplace fatalities has been on the rise over the 12 year period between 1993 and 2005, the number of time-loss injuries has been falling (Chart 4).



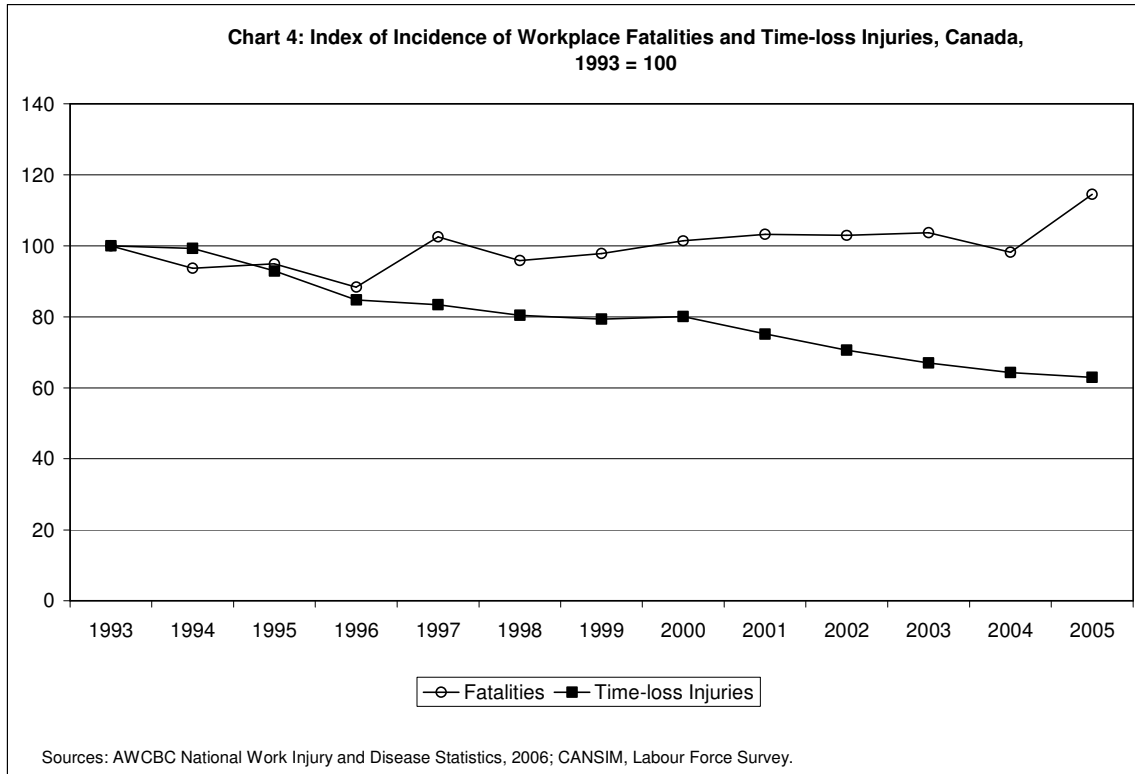
In 2005, the number of time-loss injuries was 337,930, which is 21 per cent lower than the 1993 figure of 424,848 (Table 3 and Chart 4). In 2005, there were less than 390 time-loss injuries for every workplace fatality while the 1993 ratio was 560 time-loss injuries per workplace fatality.

The incidence of time-loss injuries was 2.1 injuries per 100 workers in 2005, which is down 37 per cent from 3.3 injuries per 100 workers in 1993 (Table 3, Chart 5). This lies in stark contrast to the increase in the workplace fatality incidence rate over the 1993-2005 period.

Statistics Canada (1983) published occupational injury data back to 1928 (Table 32).<sup>8</sup> However, data particular to work-related fatalities were not easily accessible. Over the 1928-1975 period, the incidence of fatal and non-fatal workplace accidents increased from 3.2 injuries per 100 workers in 1928 to 10.6 injuries per 100 workers in 1975 (Table 32). This more than 230 per cent increase in recorded work-related injuries is likely due

<sup>8</sup> It is surprising that the number of fatal and non-fatal accidents in Canada was 985,317 in 1975 (Table 32). Eighteen years later in 1993 the number of time-loss injuries was only 424,848 (Table 3), despite the growth in employment over the period. It would seem unlikely that the absolute number of workplace injuries would fall by more than half over an 18 year period. Definitional changes and differences in coverage between the two series are more likely explanations for this discrepancy in the data.

to a multitude of factors including the increased role of unions in establishing and supporting workers' rights with regards to health and safety resulting in increased rates of reporting and improvements in record keeping.



## C. Workplace Fatalities by Jurisdiction

### 1) Incidence Rates

Work-related death incidence rates differ significantly by jurisdiction. As noted earlier in this report jurisdictional differences in coverage exist, which may explain some of the variances in the incidence rates between jurisdictions described in this section.

Over the 1993 to 2005 period, the Territories had by far the highest incidence rate, with an average incidence of 17.9 fatalities per 100,000 workers (Table 2)<sup>9</sup>. This was three times the 5.9 average for the country for that time period. Newfoundland and Labrador had the second highest incidence rate, with an average incidence of 11.9 fatalities per 100,000 workers (Chart 3a). This was twice the national average.

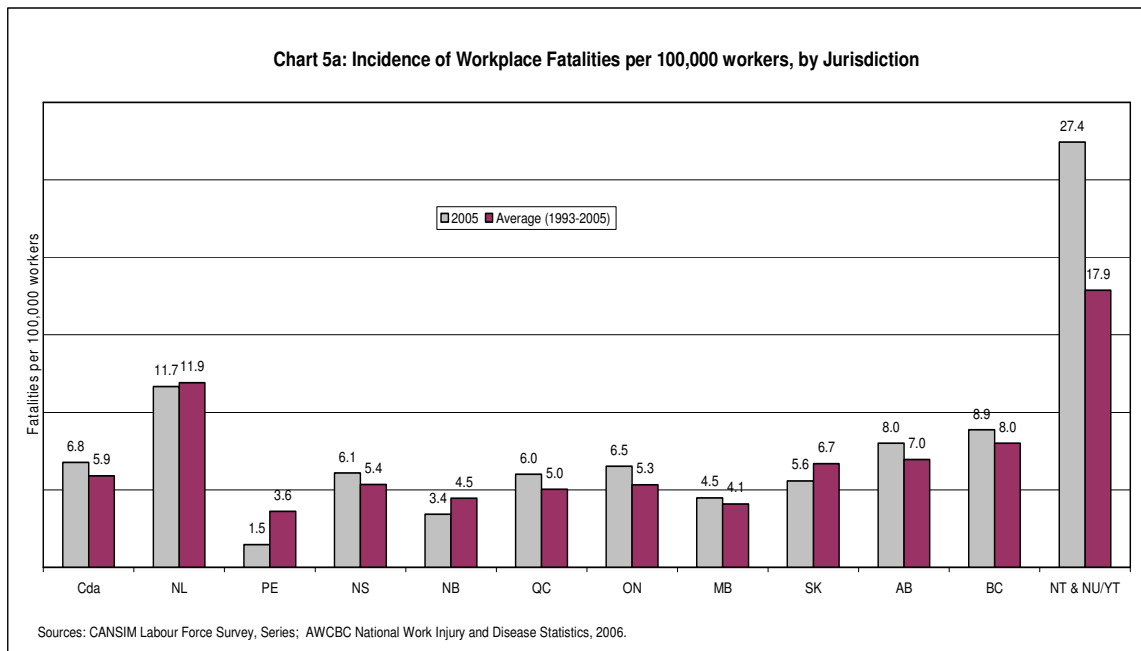
<sup>9</sup> Even though separate estimates of workplace fatalities are available for the Yukon and Northwest Territories/Nunavut (Table 1), the lack of separate employment estimates for the two territories means that it is not possible to calculate separate incidence rates. But on the basis of the number of fatalities (an average of 6.5 per year in the Northwest Territories/Nunavut and 1.4 in Yukon over the 1993-2005 period) and the relative populations, it is likely that the incidence for the Northwest Territories/Nunavut is significantly higher.

Between 1996 and 2005, there were an average of 23.8 work-related deaths in Newfoundland each year. The most deaths occurred in the *mining, quarrying, and oil wells* industry, which accounted for around one third of fatalities in all industries, with an average of 8 deaths per year. As is discussed later in this report, Canada's first asbestos mine opened in the 1890s in Newfoundland, with the last closing in 1990. This may in part explain why this industry has the greatest percentage contribution, on average, to the province's workplace deaths, and why Newfoundland and Labrador has such an exceptionally high incidence rate of work-related death when compared with other provinces. *Construction* accounted for 14 per cent of the province's work-related deaths, with 3.6 deaths per year and *fishing and trapping* 13 per cent, with an average of 3.2 deaths per year.

British Columbia, Saskatchewan, and Alberta had the next highest incidence rates over this period, while Prince Edward Island, Manitoba, and New Brunswick had the lowest average incidence rates.

Over the 1993 to 2005 period, Ontario has, not surprisingly given its large population, had the largest number of workplace fatalities, accounting for 35.4 per cent of the country's total with an average of 303 deaths per year (Table 1). However, the province's average incidence rate for the period, 5.3 deaths per 100,000 workers, is somewhat less than the country's average of 5.9 deaths per 100,000 workers (Table 2 and Chart 3a).

As is illustrated in Chart 3a, the fatality incidence rates for 2005 are relatively close to the period average for all provinces.

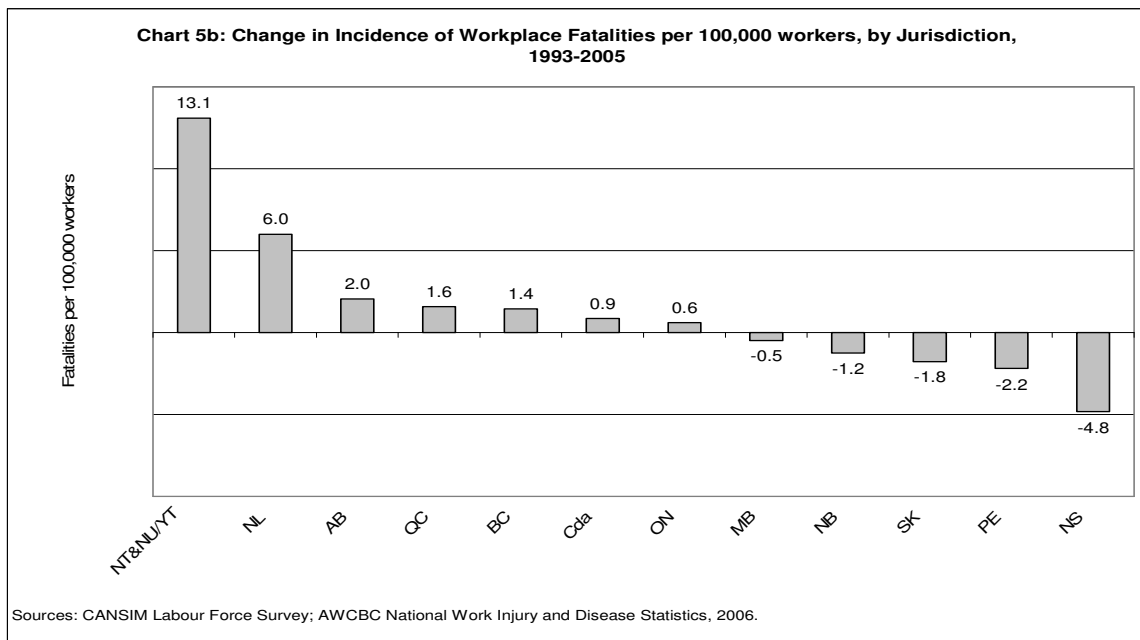




## 2) Change in Incidence Rates

The largest increase in the incidence of workplace fatalities in any jurisdiction between 1993 and 2005 took place in the Territories where the rate rose 13.1 from 14.3 fatalities per 100,000 workers in 1993 to 27.4 in 2005.

Among the ten provinces, Newfoundland and Labrador experienced the largest increase in the workplace fatality rate over the 1993-2005 period. The rate more than doubled from 5.7 deaths per 100,000 workers in 1993 to 11.7 in 2005 (Table 2 and Chart 3b). Fatality incidence rates also increased in Alberta (an additional 2.0 deaths per 100,000 workers), Quebec (1.6), British Columbia (1.4), and Ontario (0.6). The other five provinces experienced decreases, with the largest decline in Nova Scotia (4.8)



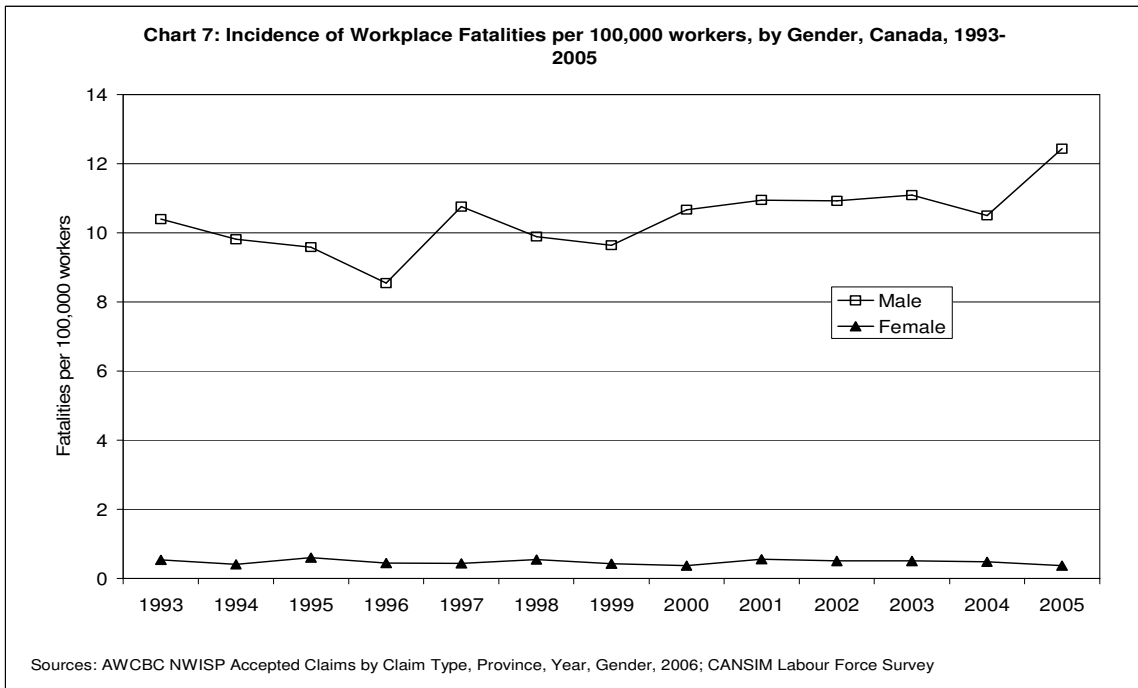
## D. Gender

As is evident in Tables 4a and Charts 6 and 7, far more men suffer from work-related deaths than do women. Table 4b provides a breakdown of work-related deaths by gender by jurisdiction.

In 2005, 97 per cent of Canada's workplace fatalities were men. Fatalities among men have increased by 47 per cent between 1993 and 2005 from 727 deaths in 1993 to 1069 deaths in 2005. This increase accounts for almost all of the national increase. While fatalities among women experienced a 16.1 per cent increase between 1993 and 2004 before decreasing in 2005. In absolute terms there was a rise of only five female fatalities from 31 in 1993 to 36 in 2004, and a decrease of eight fatalities to 28 in 2005 (Table 4a and Chart 6). In fact, all female workplace fatalities between 1993 and 2005 account for less than half of the male workplace fatalities in 2005 alone.



The average rate of incidence of workplace death is 30 times higher for men than women: 12.4 versus 0.4 per 100,000 workers in 2005. The male incidence rate has been rising, up from 10.4 per 100,000 workers in 1993, while the female rate has fallen, down slightly from 0.5 (Table 4a and Chart 7)



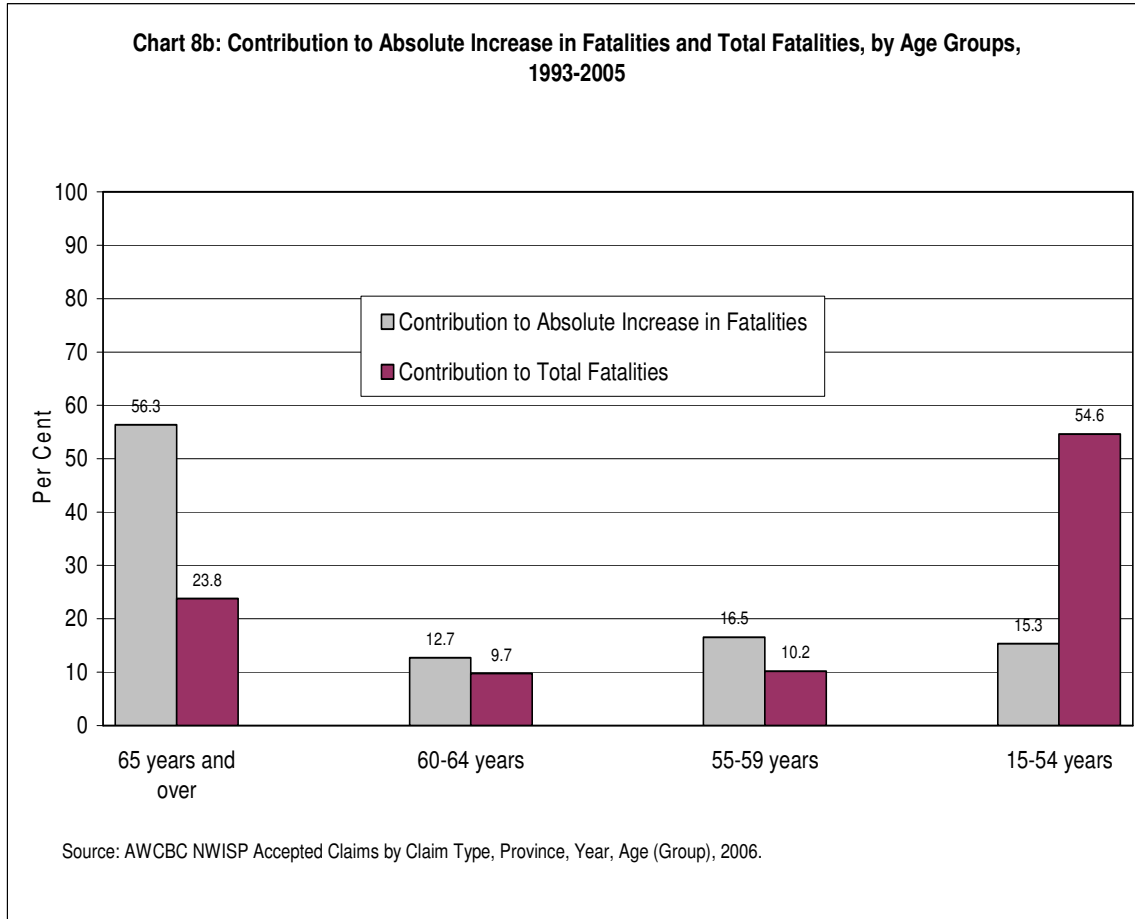
## E. Age Groups

Both the number and incidence of fatalities increases as one moves from younger to older age groups. Based on the average for the 1993-2005 period, the number of workplace fatalities increases from an average of 14 deaths per year for the 15-19 years age group, to an average of 203 work-related deaths per year for the 65 years and over group (Table 5, Chart 8a).

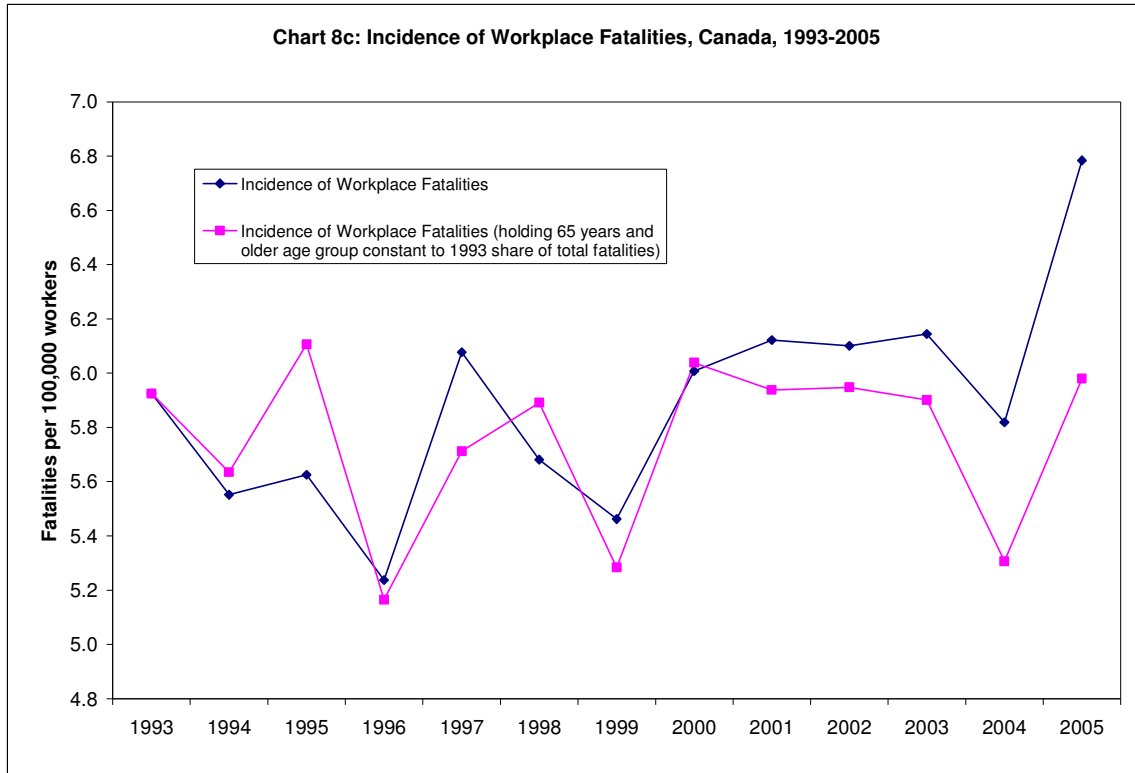


Between 1993 and 2005, the absolute number of work-related fatalities increased by 339 from 758 to 1,097. This increase was predominately accounted for by the greater number of deaths recorded among older workers.

For the 1993 to 2005 period, the increase in workplace fatalities among workers aged 15 to 54 years accounted for only 15.3 per cent of the absolute increase. Over the same period, 12.7 per cent of the increase was attributed to workers between 60 and 64 years; 16.5 per cent to workers 55 to 59 years. The most substantial contribution to the increase was from the 65 years and over group, at over 56 per cent (Table 5, Chart 8b).



In 2005, there were 353 deaths among workers aged 65 years and over, which is 118 per cent more than the 162 deaths in 1993. The 65 years and over age group accounted for over 30 per cent of all work-related deaths in 2005, which is up from 21.4 per cent in 1993. Interestingly, workers 55 years and over account for more than 50 per cent of all work-related fatalities, but represent less than 15 per cent of employed workers. This is largely explained by the fact that there is no time limitation for a death to be claimed as a fatal workplace injury. The significant contribution to the absolute increase in fatalities over the 1993 to 2005 period from the 65 years and older age group may be explained by advances in identifying cause and effect related to occupational injury and illness that would result in an increase in accepted claims by compensation boards. This is further discussed in the Age and Nature of Injury section of this report.



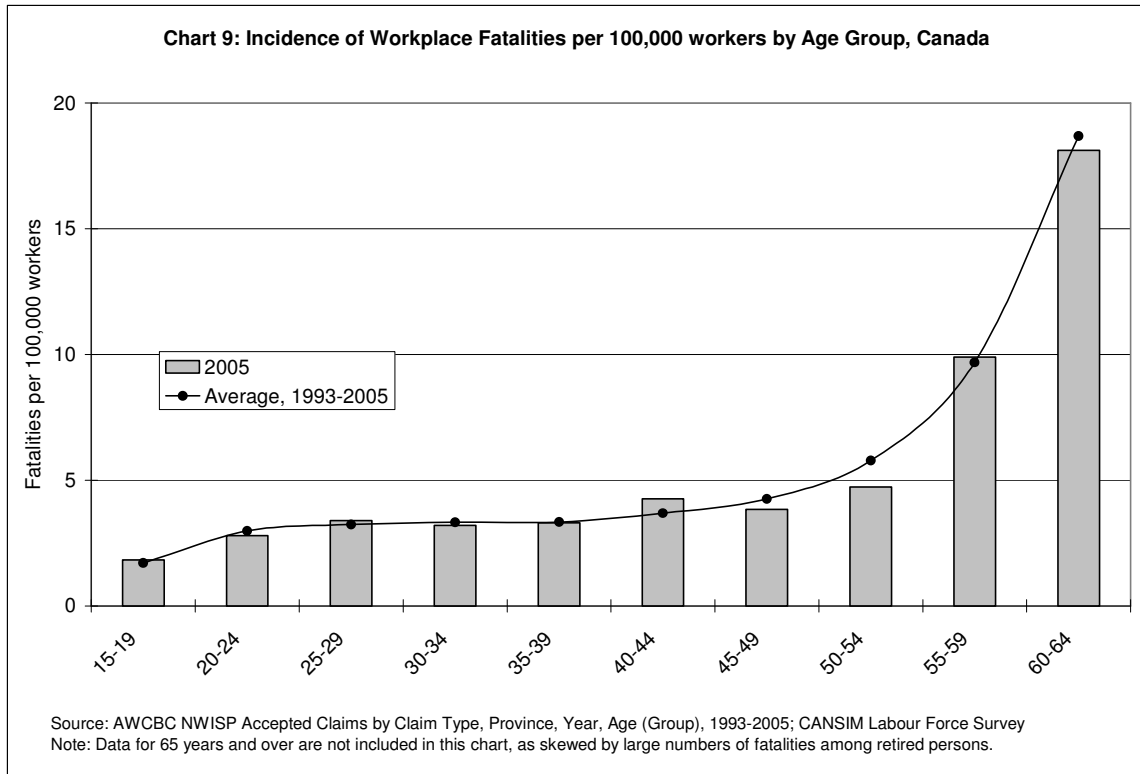
The large increase in the number of workers 65 and over produced a significant increase in the average age of a workplace fatality, from 48.3 per cent in 1993 to 52.6 years in 2005. The disproportionate number of deaths among older workers meant that the increase in total life-years lost from workplace fatalities was less than the increase in the absolute number of fatalities: 38 per cent versus 45 per cent (Table 5).<sup>10</sup>

In order to determine the effect on the total incidence rates over the 1993-2005 period of the increasing number of deaths in the 65 years and over age group, we calculated the fatality rates for that period holding the share of deaths in the 65 years and over age group constant. In 1993, deaths among workers 65 years and over accounted for 21 per cent of total work-related fatalities. By applying this share to the time series, we found the total number of workplace fatalities and then the incidence rates for the 1993-2005 period. Comparing the actual incidence rates with the incidence rates using the 1993 share for the 65 years and over group, we see that there is not a very significant difference, but the latter is consistently lower than the former in the more recent years (Chart 8c).

The incidence of workplace fatalities similarly increases with age, as the lowest incidence of death is among the youngest workers between 15 and 19 years, with an average incidence of less than two deaths per 100,000 workers per year between 1993

<sup>10</sup> Total life-years lost to workplace fatalities are calculated in a two-step process: first determine the life-years lost for each five-year age group as the product of the difference between life expectancy at birth and the average age of the age group and the number of fatalities in the age group. Second, sum the life-years lost for each age group to obtain total life years lost.

and 2005. The average incidence rate of workplace fatalities for the same time period is relatively constant for workers between 20 and 44 years with an average rate of 3.3 deaths per 100,000 workers (Chart 9). However, the incidence rate quickly rises for workers 50 years and over, nearly doubling between the age groups 55-59 years and 60-64 years, and increasing to over 88 deaths per 100,000 workers for the 65 years and over group (Table 6). However, considering that less than 8 per cent of persons 65 years and over were employed in 2005, it is likely that most of these claims are accepted when individuals in this age group are no longer employed, so the incidence rates for this group are not particularly meaningful.



## F. Occupation

### 1) Major Groups

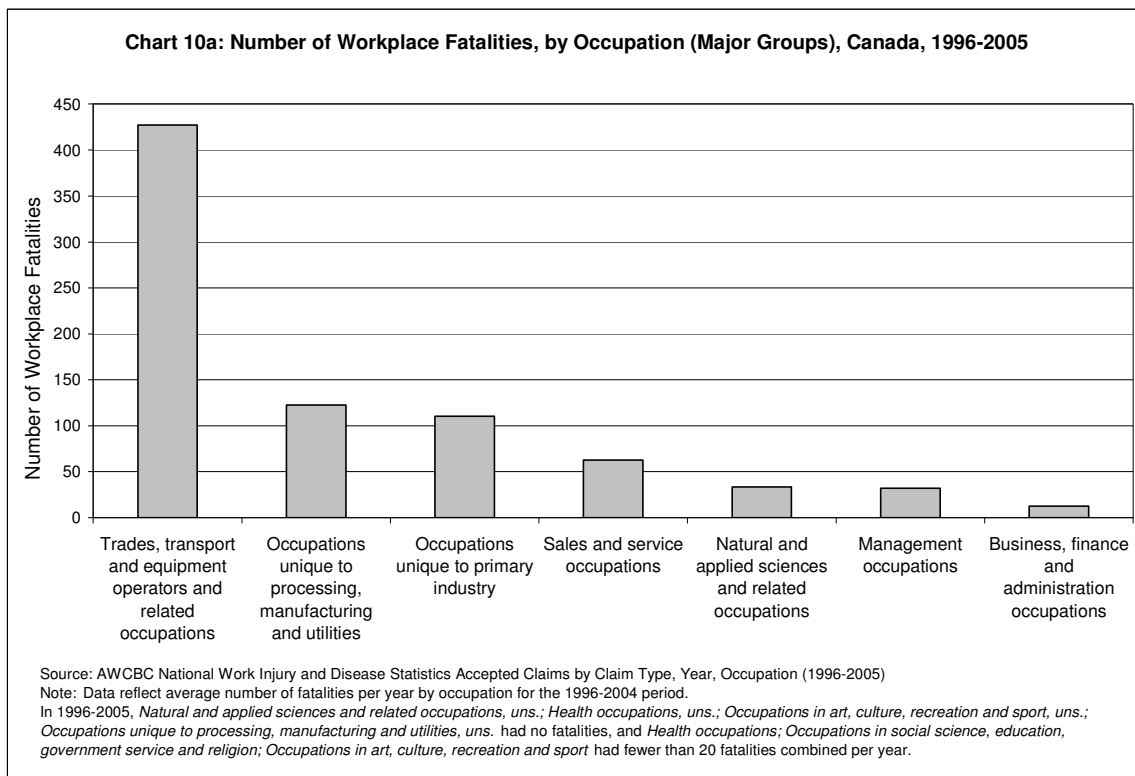
#### a) Absolute Fatalities

Workplace fatalities are very concentrated by occupation. *Trades, transport and equipment operators and related occupations* had the greatest number of work-related fatalities over the 1996-2005 period, with an average of 427.1 deaths per year, accounting for 48.3 per cent of total workplace deaths (Table 7a and Chart 10a). This occupational group represented less than 15 per cent of total employment during this time period. In 1996, 287 workers died in this occupations group, accounting for 41 per cent of that year's fatalities. In 2005, 54 per cent of workplace fatalities, or 594 deaths, occurred in *trades, transport and equipment operators and related occupations* (Table 7a). Therefore,

in 2005, 307, or 107 per cent, more workers died in this group of occupations than in 1996. The increase in the number of deaths in this occupations group accounted for almost all of the absolute increase in work-related fatalities between 1996 and 2004 (Table 7a).<sup>11</sup>

The second most significant occupations group, in terms of workplace fatalities, was *occupations unique to processing, manufacturing and utilities*, which accounted for an average of 13.9 per cent of all work-related deaths between 1996 and 2005, with an average of 122.5 deaths per year (Table 7a and Chart 10a). This group accounted for 13.9 per cent of workplace fatalities in 2005, with 166 deaths, which is a 130.6 per cent increase from the 72 deaths in 1996 (Table 7a).

*Occupations unique to primary industry* accounted for 12.5 per cent of deaths during 1996-2004, with an average of 110.6 deaths per year (Chart 10a). In 2005, 118 fatalities occurred in this occupations group, which is 28 more deaths than occurred in 1996 (Table 7a).



## b) Incidence Rates

*Occupations unique to primary industry* had the highest incidence rate for the 1996 to 2005 period with an average of 19.5 deaths per 100,000 workers (Table 7b and Chart 10b). Workers in this occupational group include those working in agriculture,

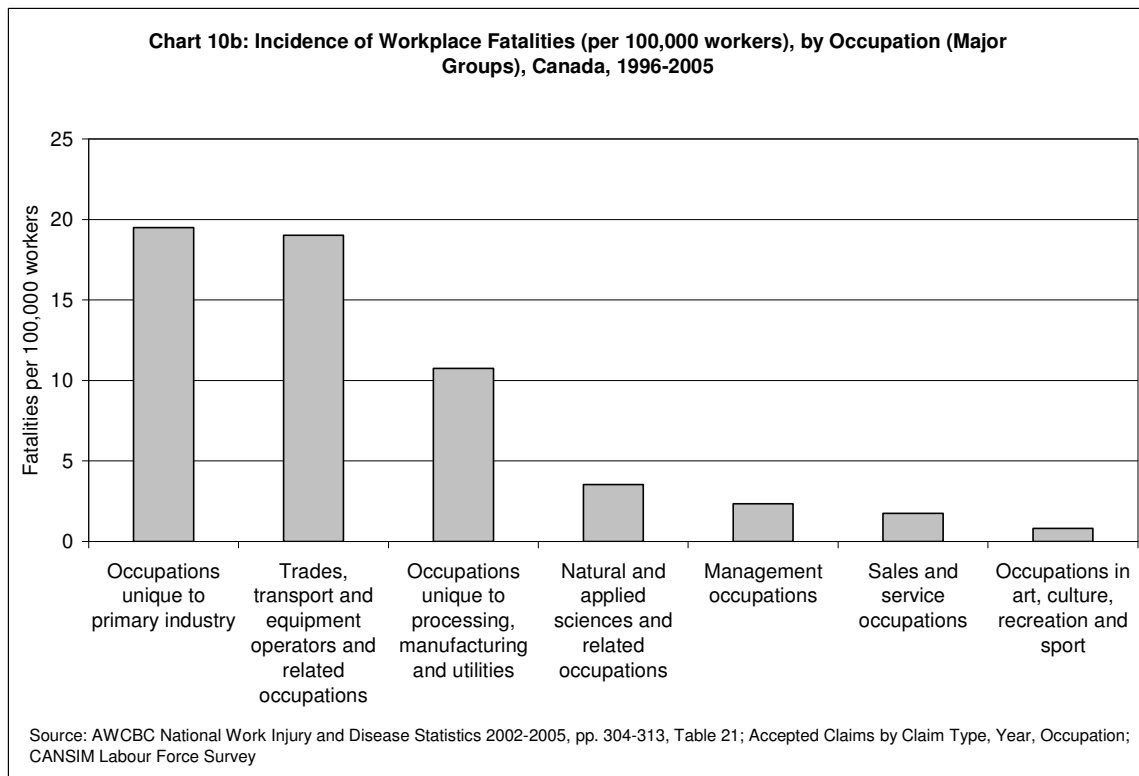
<sup>11</sup> Note that deaths in occupations Not Coded or Not Stated may distort the data. For instance, in 1996 124 deaths were recorded as not coded or not stated compared with only 25 deaths in 2005.

logging, mining, fishing and trapping. The incidence rate increased by 38.6 per cent from 14.9 to 20.7 over the 1996 to 2005 period. However, these occupations accounted for only 12.5 per cent of all workplace fatalities in 2005, with 118 deaths (Tables 7a).

The average incidence rate for trades, *transport and equipment operators and related occupations* was 19 deaths per 100,000 workers between 1996 and 2005. In this occupations group, there were 24.8 deaths per 100,000 workers in 2005, which is 78.2 per cent higher than the 1996 rate of 13.9 (Table 7b).

Over the 1996-2005 period, an average of 10.8 deaths per 100,000 workers occurred in *occupations unique to processing, manufacturing and utilities*. In 2005, the incidence rate for this occupations group was 15.3 deaths per 100,000 workers, which is 98.4 per cent higher than the 1996 rate of 7.7 deaths per 100,000 workers (Table 7b and Chart 10b).

These three occupations groups (*trades, transport and equipment operators and related occupations; occupations unique to processing, manufacturing and utilities; occupations unique to primary industry*) have incidence rates that are consistently higher than the 5.9 national average of all occupations.



## 2) Minor Groups

Table 7c presents a more detailed breakdown of workplace fatalities by occupation. The occupation with the highest average number of deaths per year is *trades*



*and skilled transport and equipment operators*, with 190 fatalities per year, which accounts for 25.2 per cent of work-related deaths. In 2005, there were 355 deaths in this occupations, which is 155.4 per cent higher than the 1996 number of 139. This increase accounted for almost 55 per cent of the absolute increase in total work-related fatalities.

The second greatest number of deaths were attributed to *intermediate occupations in transport, equipment operation, installation and maintenance*, which had an average of 137.3 deaths per year between 1996 and 2005, accounting for 18.2 per cent of all work-related fatalities. This occupation group experienced a 61 per cent increase in the number of fatalities from 115 in 1996 to 185 in 2005, which reflects 17.8 percent of the absolute increase in workplace fatalities over this period.

An average of 7.9 per cent of workplace fatalities occurred among *labourers in processing, manufacturing and utilities*, which had an average of 60 deaths per year from 1996 to 2005. In 2005, 90 deaths occurred within this occupation, which is 130.8 per cent more deaths than in 1996 when there were 39 fatalities. This occupation contributed to 13 per cent of the absolute increase in fatalities (Table 7 c).

## **G. Industry**

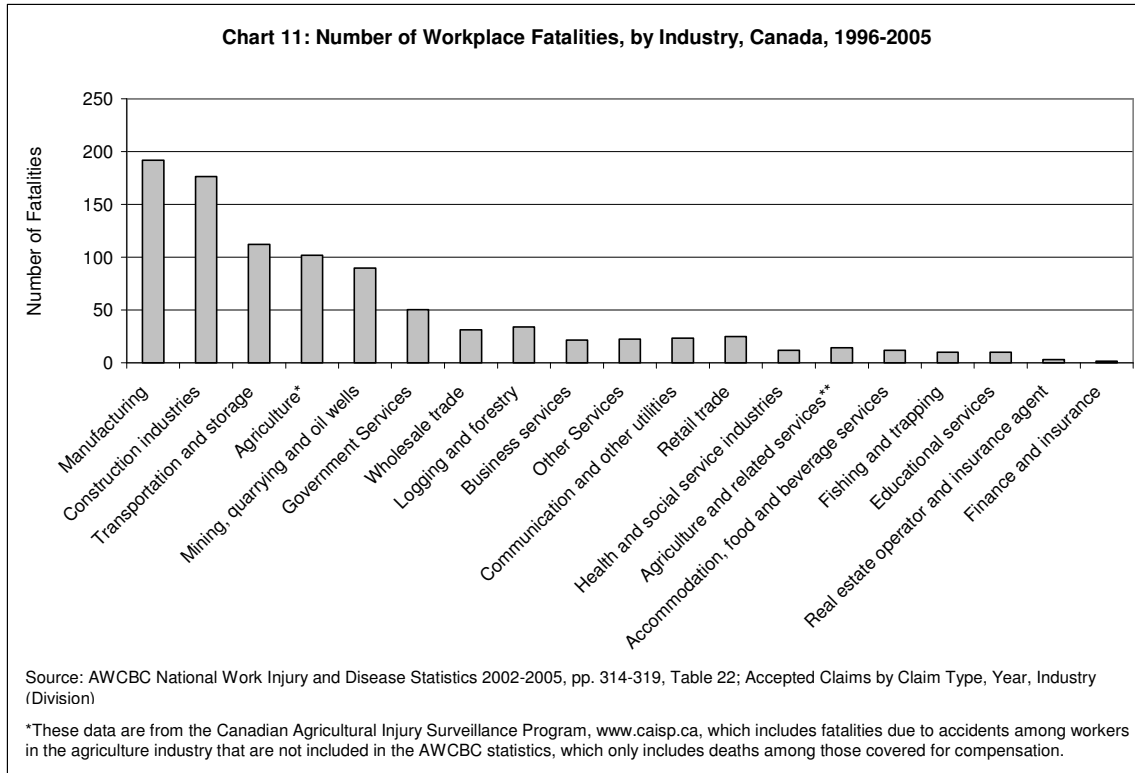
### ***1) Absolute Fatalities***

Fatalities are classified by industry according to the Standard Industrial Classification, 1980, Statistics Canada, which groups same or similar enterprises based on their economic activity. For the 1996 to 2005 period, the greatest number of deaths occurred in the *manufacturing* industry, with an average of 191.8 fatalities per year, which is 21.7 per cent of all workplace fatalities (Table 8 and Chart 11). In 2005, there were 230 fatalities in this industry, which is a 58.6 per cent increase from the 145 deaths in 1996.

*Construction industries* accounted for an average of 20.0 per cent of workplace fatalities, or 176.6 deaths per year between 1996 and 2005. There were 236 deaths in this industry in 2005, which is a 57.3 per cent increase from 1996 when there were 150 deaths.

Transportation and storage accounted for an average 112 workplace fatalities over the 1996-2005 period. The 125 deaths recorded in 2005 represented a 28 per cent increase from 98 in 1996.

The increase with the fourth largest number of workplace fatalities was agriculture. According to the Canadian Agricultural Injury Surveillance Program, there were an average 102 fatalities from accidents (data on agricultural fatalities from disease are not compiled) in this sector from 1996 to 2003 (more recent data are not available). In contrast to trends in the other three industries, the absolute number of workplace fatalities in agriculture has actually fallen 5 per cent from 103 in 1996 to 98 in 2003.



## 2) Incidence Rates

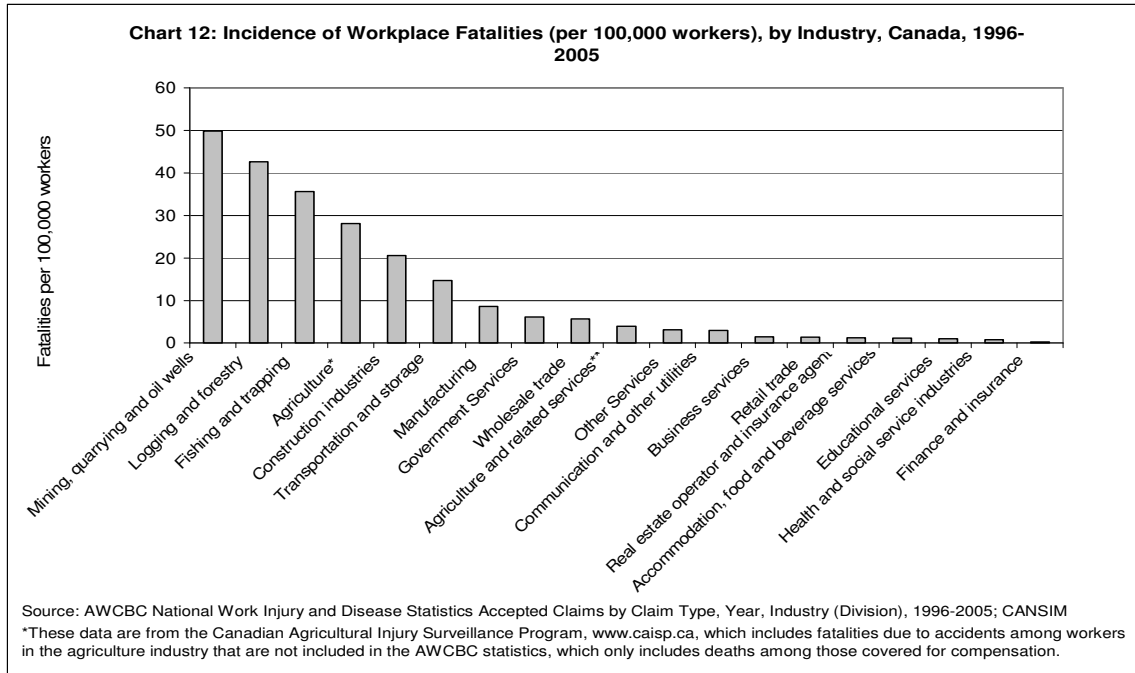
*Mining, quarrying and oil wells* had the highest rates of incidence of workplace fatalities at an average of 49.9 deaths per 100,000 workers, or one death per 2,004 workers in the industry for 1996-2005 (Table 9 and Chart 12). The incidence rate increased by 14 per cent from 37.3 in 1996 to 42.6 in 2005. These deaths accounted for around ten per cent of all workplace fatalities, with an average of 89.7 deaths per year for the 1996-2005 period.

*Logging and forestry* and *fishing and trapping* had the next highest incidence rates for the 1996-2005 period, with 42.6 deaths per 100,000 workers and 35.6 deaths per 100,000 workers, respectively. That is, one death for every 2,347 *logging and forestry* workers and one death for every 2,809 *fishing and trapping* workers. However, less than four per cent of all work-related fatalities occurred in the logging and forestry industry, and only around one per cent in fishing and trapping, which is not surprising given the small share of total employment.

Agriculture had the fourth highest incidence of workplace fatalities with 28.1 deaths per 100,000 workers. This is equivalent to one death for every 3,559 agricultural workers.

Although manufacturing had the greatest absolute number of fatalities, as is evident in Chart 12, there were five industries with significantly greater incidence rates. Over the 1996-2005 period, the average incidence rate for manufacturing was 8.6 deaths

per 100,000 workers in this industry. The incidence rate had increased by 15 per cent from 7.5 to 8.7 fatalities per 100,000 workers employed in the manufacturing industry. While accounting for fewer deaths in absolute terms, the incidence rate is higher for the construction industry than the manufacturing industry, with an average of 20.6 fatalities per 100,000 construction workers for the 1996 to 2005 period. The incidence rate for construction industries has decreased from 21.1 in 1996 to 17.3 in 2005.

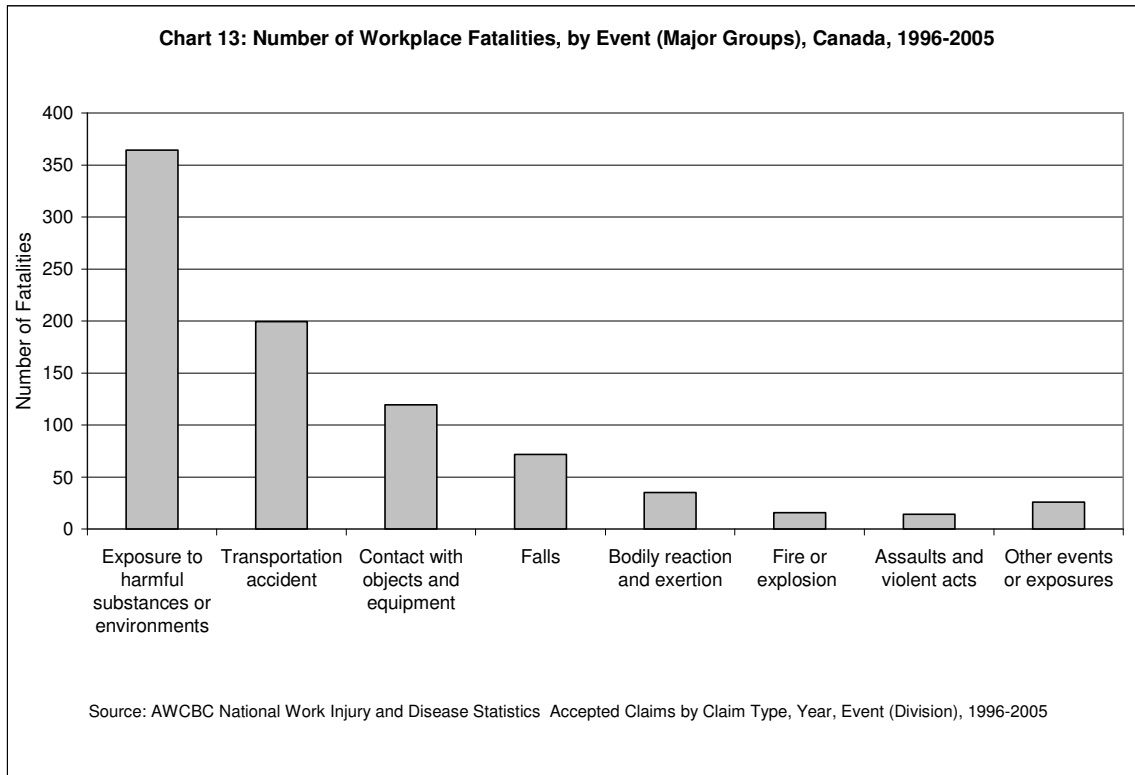


## H. Event

The event refers to the event or exposure that directly resulted in the injury or disease that led to the fatality. Events are organized into the following major categories: Exposure to harmful substances and environments, transportation accidents, contact with objects and equipment, falls, fire or explosions, and assaults and violent acts. Chart 13 shows that over the 1996-2005 period the largest number of fatalities were caused by harmful substances and environments, followed by transportation accidents, and contact with objects and equipment.

As will be seen later in the report, there has been a large increase in the number of fatalities recorded by workers compensation boards due to exposure to harmful substances and environments. This development could reflect three factors: an actual increase in the number of persons dying from occupational diseases, possibly reflecting a better understanding of the role of workplace environments in causing the disease; a change in the rules for acceptance of a claim for an occupational disease by the workers compensation boards; and an increased awareness among workers about what types of compensation are available and hence increased claims for compensation. A full

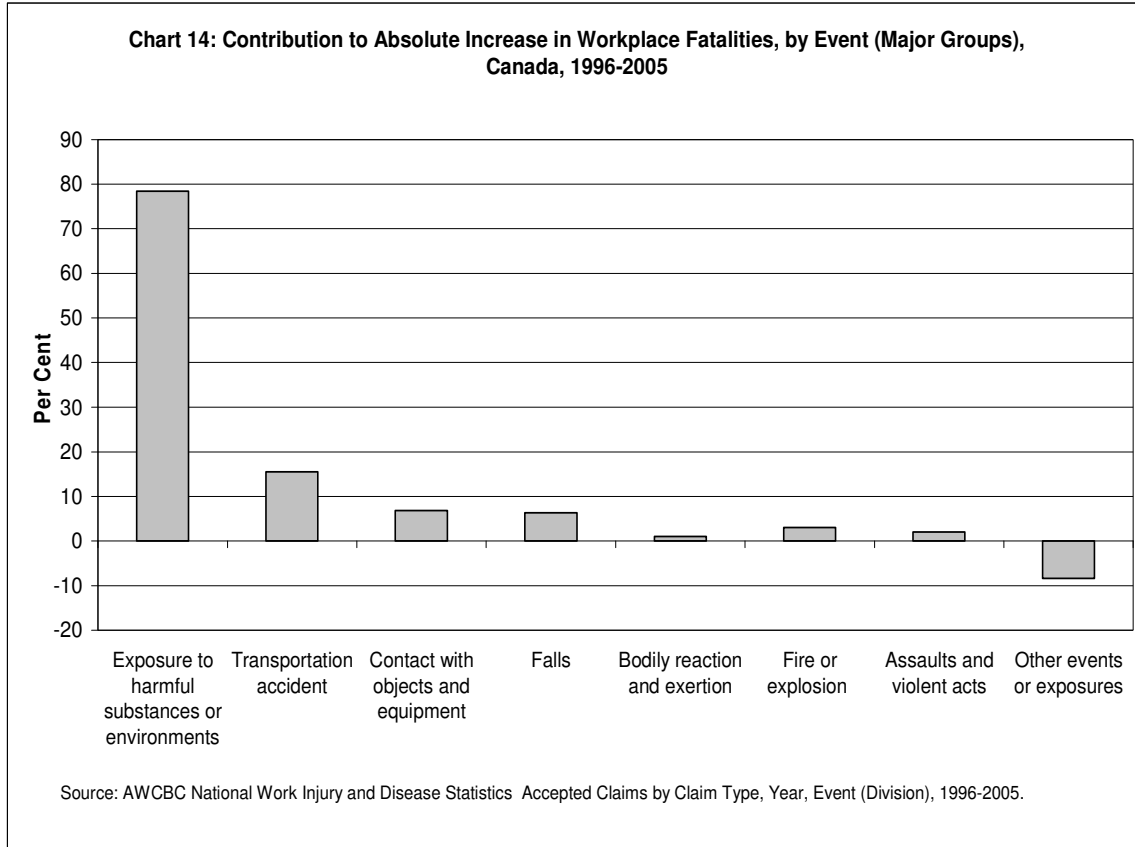
understand of the relative role of these factors is beyond the scope of the report, but an important topic for future research.



### ***1) Absolute Fatalities***

In terms of the event or exposure that directly resulted in the fatal injury or disease, *exposure to harmful substances or environments* was responsible for an average of 364 deaths, or 41 per cent of fatalities, per year between 1996 and 2005 (Table 10 and Chart 13). In 2005, this event group was responsible for 512 deaths, or almost 50 per cent of all work-related fatalities. In 2005, there were 152 per cent more deaths due to *exposure to harmful substances or environments* than in 1996 when there were 203 fatalities. This increase accounted for effectively all of the increase in the number of fatalities over the 1996 to 2005 period (Table 10 and Chart 14).

*Transportation accidents* were the second leading event cause of work-related deaths, accounting for over 20 per cent of total fatalities with an average of 200 fatalities per year for this period. In 1996, there were 168 fatalities attributed to work-related transportation accidents. In 2005, 36 per cent more deaths were attributed to this event, with 229 deaths. This increase contributed to 16 per cent of the absolute increase in workplace fatalities.



*Contact with objects and equipment* accounted for an average of 13.5 per cent of fatalities, or an average of 120 deaths per year between 1996 and 2005. 142 of the 1,097 workplace fatalities in 2005 were attributed to this events group, which is 24 per cent more deaths than occurred in 1996 when there were 115 fatalities from this event.

*Falls* are responsible for an average of 8.1 per cent of fatalities, or 72 deaths per year for this time period; *bodily reaction and exertion*, 35 deaths; *fire or explosion*, 16 deaths; and *assaults and violent acts*, 14 deaths. The remainder of fatalities, which amount together to less than five per cent of all work-related fatalities, are attributed to *other events or exposures*, or are unknown or not coded.

## I. Nature of Injury

The nature of injury refers to the principal physical characteristics of the fatal injury or illness, which we have grouped into two basic categories: accidents and disease. Table 12, present the number of workplace fatalities and incidence rates by nature of injury at this top level. These categories are further broken down into Major and more detailed Minor Groups in Table 13. Table 14 lists the Top Ten Natures of Injury based on the Minor Group categories.

### 1) Accident and Disease

From 1996 to 2002, the majority of workplace fatalities were attributed to accidents. However, the number of deaths due to occupational diseases had been steadily increasing and surpassed the number of deaths due to accident in 2003 (Table 12 and Chart 15). In 2005, 50.8 per cent of workplace fatalities were due to occupational diseases and 44.8 per cent to accidents (uncoded or unclassified fatalities accounted for 4.4 per cent).

While the incidence of workplace fatalities due to accidents remained relatively stable over the 1996 to 2005 period, the overall increase in the number of workplace fatalities can be accounted for by the increase in the incidence of deaths due to work-related disease, which has increased from 1.5 deaths per 100,000 workers in 1996 to 3.4 deaths per 100,000 workers in 2005.

#### **a) Absolute Fatalities**

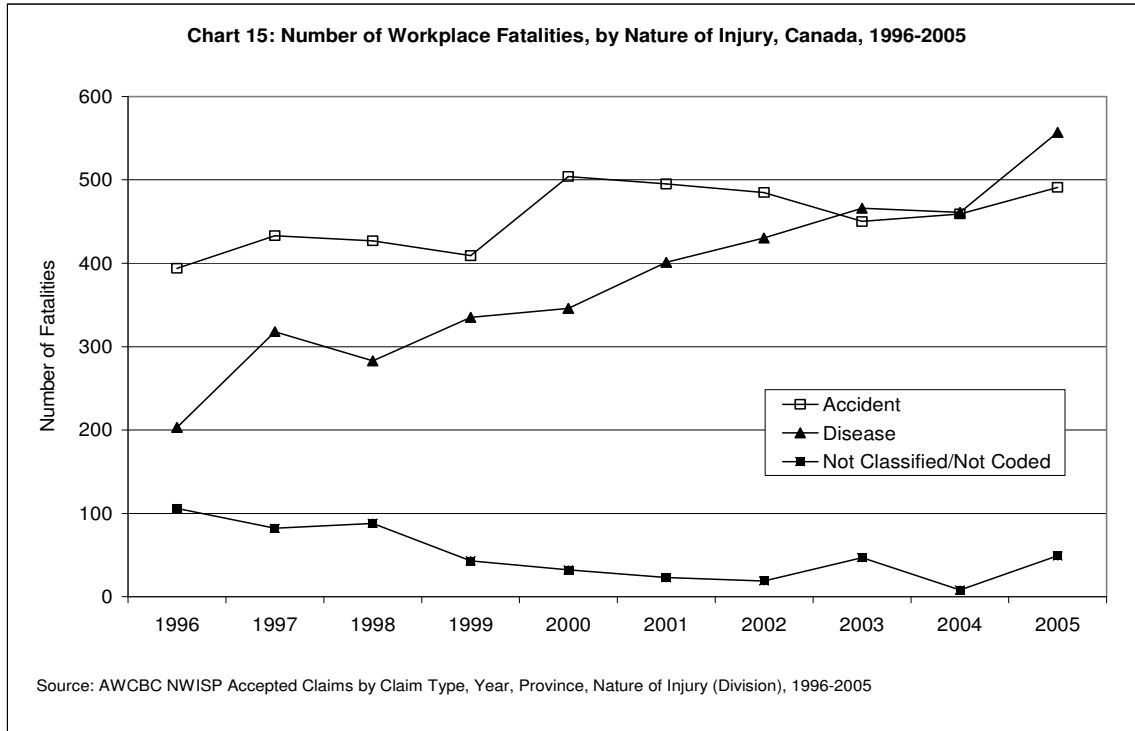
In 1996, 56 per cent of that year's fatalities were the result of work-related accidents while less than 30 per cent were attributed to disease. This changed significantly by 2005, 491 deaths were attributed to accidents while 557 deaths resulted from disease (Table 12a and Chart 15).<sup>12</sup>

There was a 25 per cent increase in the number of deaths attributed to accidents from 394 in 1996 to 491 in 2005. However, the number of work-related fatalities due to disease increased by a dramatic 174 per cent from 203 in 1996 to 557 in 2005.

In 1996, 106 fatalities were recorded as nonclassifiable or not coded. This is important because if those deaths were primarily the results of disease then the dramatic increase in fatalities due to disease over the 1996 to 2004 period may in part be the result of a change in reporting or classification rather than an actual increase. Furthermore, in 2005 the number of deaths not classified or not coded was 49, so the distribution of those deaths between accidents and disease could slightly affect the relative importance of fatalities between accidents and occupational disease.

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<sup>12</sup> See Table 12b for estimates of the number of workplace fatalities by nature of injury (accident or disease) by jurisdiction and Table 12c for the incidence rates.



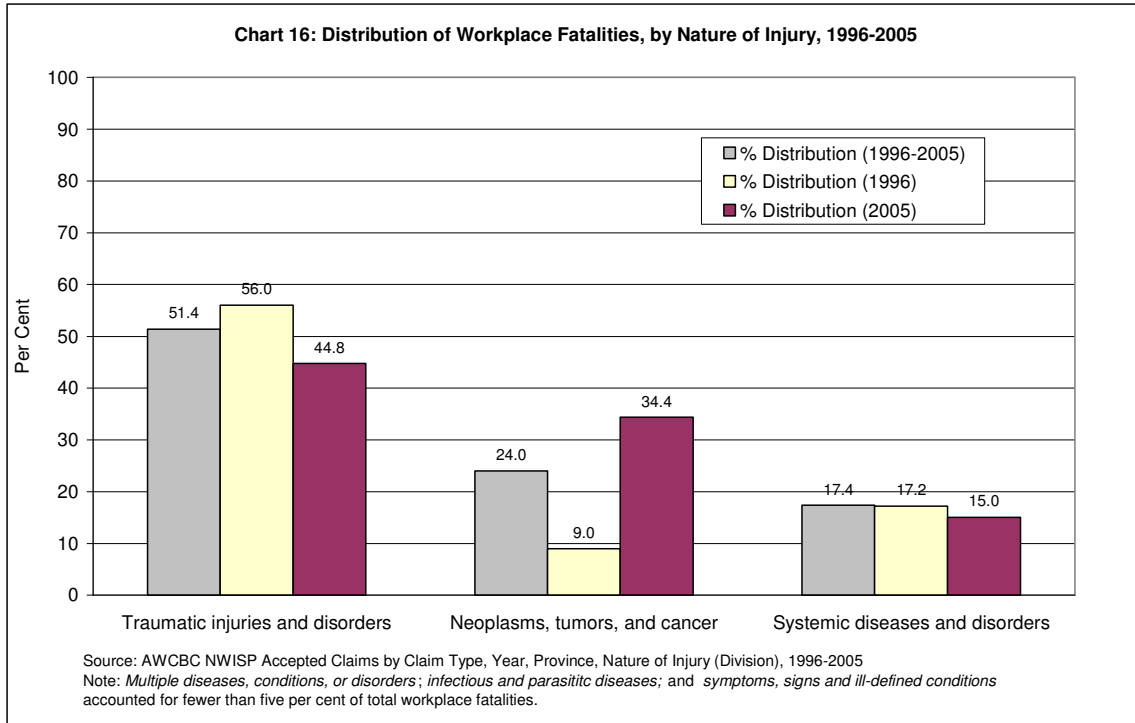
## b) Incidence Rates

The incidence rate of fatalities from accidents averaged 3.1 deaths per 100,000 workers per year from 1996 to 2005, while the rate for death from disease was 2.5 for this period (Table 12a). By 2005 the incidence rate for disease surpassed that of accidents: 3.4 versus 3.0 per 100,000 workers. While the rate for accidents remained relatively constant over the 1996 to 2005 period (2.9 in 1996 versus 3.0 in 2005, the incidence rate for death due to disease increased from 1.5 in 1996 to 3.4 deaths per 100,000 workers in 2005.

## 2) Major Groups

At the Major Groups level found in Table 13, natures of injury are broken down into one accident category (traumatic injuries and disorders) and five disease categories (neoplasms, tumors and cancer; systemic diseases and disorders; multiple diseases, conditions or disorders; infectious and parasitic diseases; and symptoms, signs and ill-defined conditions).

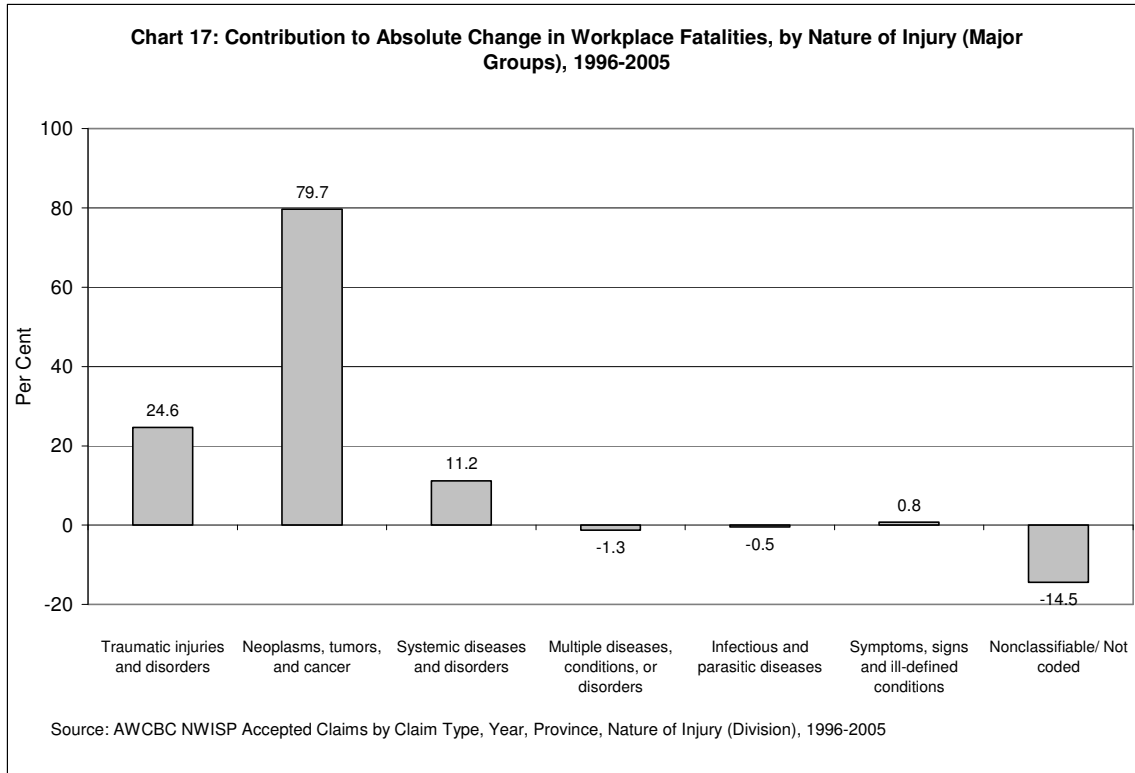
*Traumatic injuries and disorders* accounted for an average of 53 per cent of total work-related fatalities over the 1996-2005 period. In 1996, *traumatic injuries and disorders* accounted for 60 per cent of overall work-related deaths. However, this accident category's weight decreased, and in 2005, it accounted for only 45 per cent of total deaths (Table 13 and Chart 16). This change in distribution was due to the significant increase in the number of deaths due to the disease category, *neoplasms, tumors, and cancer*.



Since most of the absolute increase in the number of fatalities resulted from the increase in the disease category, this breakdown provides a better understanding of this change over time. Almost 80 per cent of the absolute increase in the number of deaths over the 1996-2005 period was due to the increase in the number of deaths due to the disease category: *neoplasms, tumors, and cancer* (Table 13 and Chart 17). The 498 per cent increase from 63 to 377 deaths between 1996 and 2005 in this category was primarily responsible for the dramatic increase in the absolute number of deaths in the disease category. Deaths from diseases related to asbestos accounted for nearly 90 per cent of the deaths in this disease category in 2005

Increased workplace fatalities from occupational diseases could be due to three factors: an actual increase in the number of persons dying from occupational diseases, possibly reflecting a better understanding of the role of workplace environments in causing the disease or the end of latency periods; a change in the rules for acceptance of a claim for an occupational disease by the workers compensation boards (e.g. the acceptance of claims by firefighters for compensation from work-related cancers); and an increased awareness among workers about what types of compensation are available and hence increased claims.





### 3) Minor Groups

The Minor Groups level of analysis, which is presented in Table 13, provides a further breakdown of the nature of injury categories. Table 14 lists the Top Ten natures of injury based on 1996-2005 fatality statistics.

*Neoplasms, tumours, and cancer*, which, as discussed above, was the Major Group that experienced the greatest increase, accounted for almost all of the absolute increase in work-related deaths (Table 13 and Chart 17). The Minor Group category, *malignant neoplasms and tumours (cancers, carcinomas, sarcomas)*, accounted for almost all of that Major Group. *Malignant neoplasms and tumours (cancers, carcinomas, sarcomas)* (Minor Group) have experienced a more than 302 per cent increase from 63 fatalities in 1996 to 365 in 2005 (Table 13). Again, deaths from diseases related to asbestos accounted for nearly 90 per cent of the deaths in this disease category in 2005.

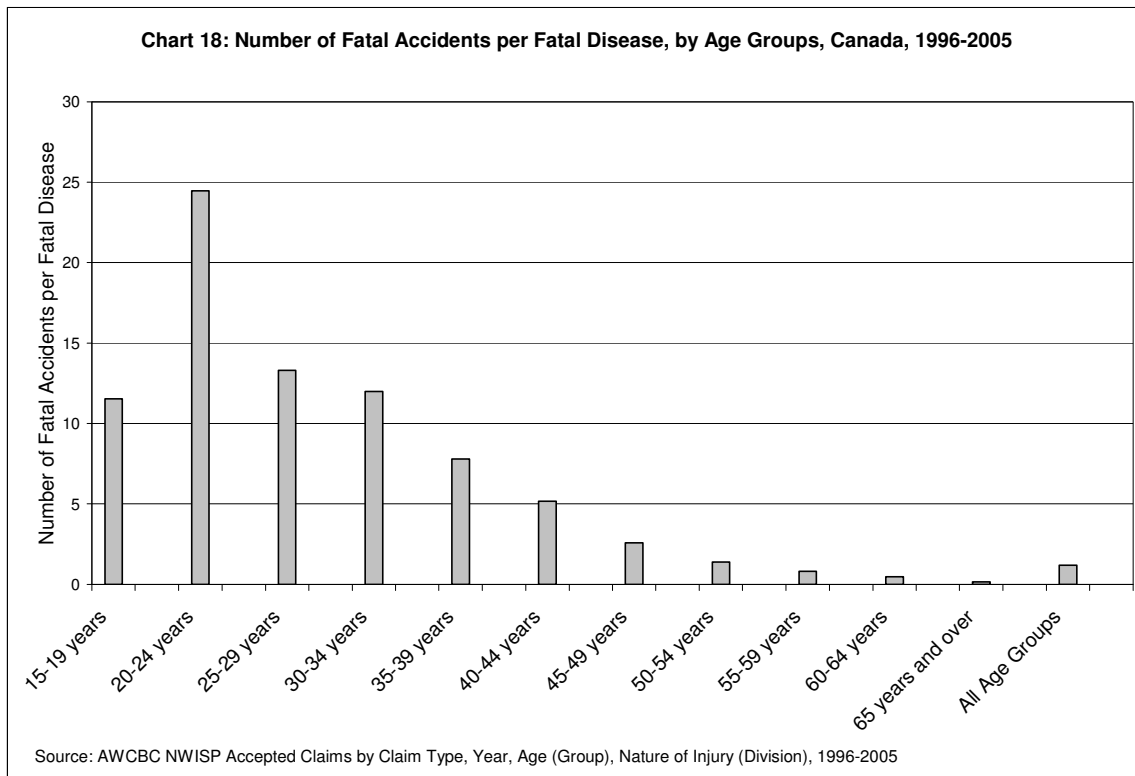
*Systemic diseases and disorders* (Major Group) are responsible for an average of just over 153 deaths per year, accounting for 17.8 per cent of all workplace fatalities. These diseases include *respiratory system diseases*, which claim an average of 117 lives per year; *circulatory system diseases*, with an average of almost 25 deaths per year, and *musculoskeletal system and connective tissue diseases and disorders* (Minor Group), which account for under 9 deaths per year (Table 13).

While the leading nature of injury, *malignant neoplasms and tumours (cancers, carcinomas, sarcomas)* (Minor Group), is in the top-level disease category, seven of the

Top Ten are accidents. *Multiple traumatic injuries and disorders* (Minor Group) experienced a 45 per cent increase from 136 deaths in 1996 to 197 deaths in 2005. The third leading nature of injury was *other traumatic injuries and disorders* (Minor Group), from the accident category, which was responsibly for 137 deaths in 2005, up 33 per cent from 103 deaths in 1996 (Table 14).

#### 4) Age and Nature of Injury

The large majority of workplace fatalities among 15 to 54 year olds are attributed to accidents. This trend reverses for age 55 years and over, who have many more deaths due to disease than accidents. For the 15 to 19 years age group, there was a 1996 to 2005 average of 11.5 deaths due to accidents for every death due to disease (Table 15 and Chart 18). This ratio increased to 24.5 deaths due to accidents for every death due to disease for the 20 to 24 year old workers, before declining to 13.3 deaths due to accidents for every death due to disease for the 25- to 29 years age group, and continuing this decline until the number of fatalities due to diseases exceeded the fatalities due to accidents for workers aged 55 years and over, with almost 7 deaths due to disease for every death due to accident for the 65 years and over age group.



As noted earlier in this report, around 50 per cent of workplace fatalities in 2005 were among workers aged 55 years and over. In 2005, 57 per cent of the 557 workplace fatalities attributed to disease were among the 65 years and over age group, with 318 deaths. In contrast, accidents were the cause of only 28 deaths for this age group that year. This accounted for less than six per cent of that year's work-related fatal accidents.

For the 65 years and over age group, it is interesting to note that the number of workplace fatalities due to accidents has declined from 62 in 1996 to 28 in 2005, while the number of deaths due to disease has increased from 95 to 318 over the same period. It is important to determine whether this 235 per cent rise is the result of a change in claims processing, reporting, or actually fatalities.

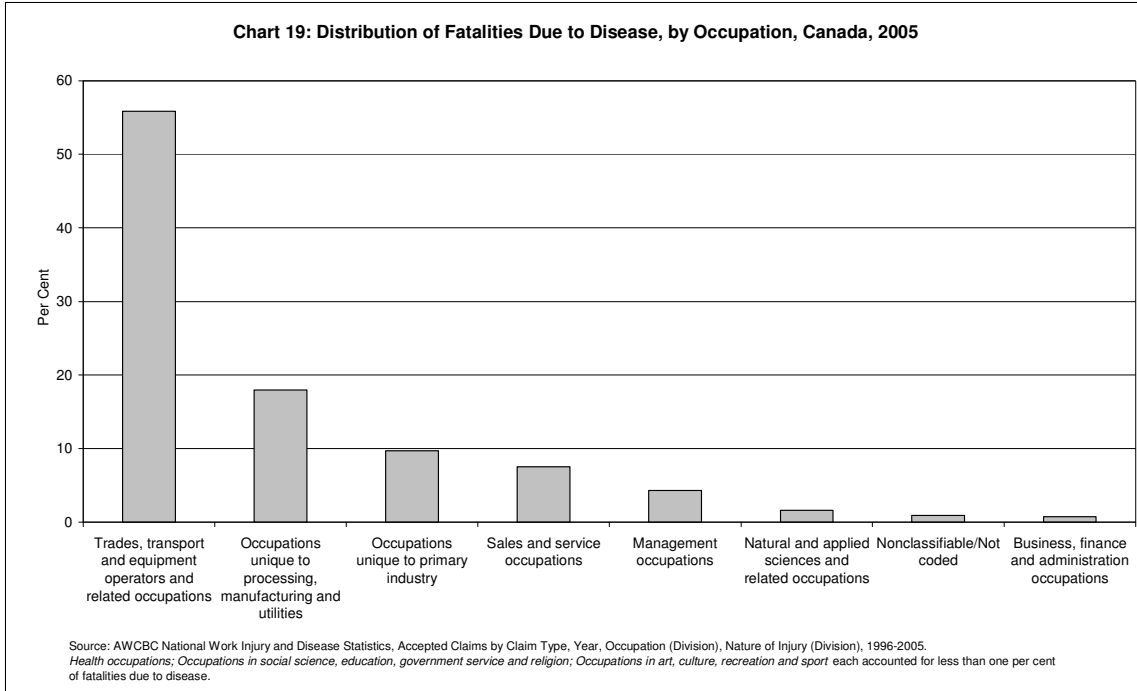
### ***5) Occupation and Nature of Injury***

Table 17 provides a breakdown of workplace fatalities by nature of fatal injury and occupation. For all occupations, there was a 174.4 per cent increase in the number of fatalities due to disease from 203 in 1996 to 557 in 2005. Over this period, the number of deaths due to work-related accidents experiences a much smaller increase of 25 per cent from 394 in 1996 to 491 in 2005.

The *trades, transport and equipment operators and related occupations* group accounted for almost 55 per cent of the total increase in fatalities due to disease between 1996 and 2005 (Table 17 and Chart 19). Fatalities due to disease increased by 220.6 per cent from 97 deaths in 1996 to 311 in 2005. This occupations group also experienced the greatest increase in fatal accidents over this period, from 177 in 1996 to 260 in 2005. This 47 percent increase accounted for over 21 per cent of the increase in the absolute number of work-related fatalities for all occupations.

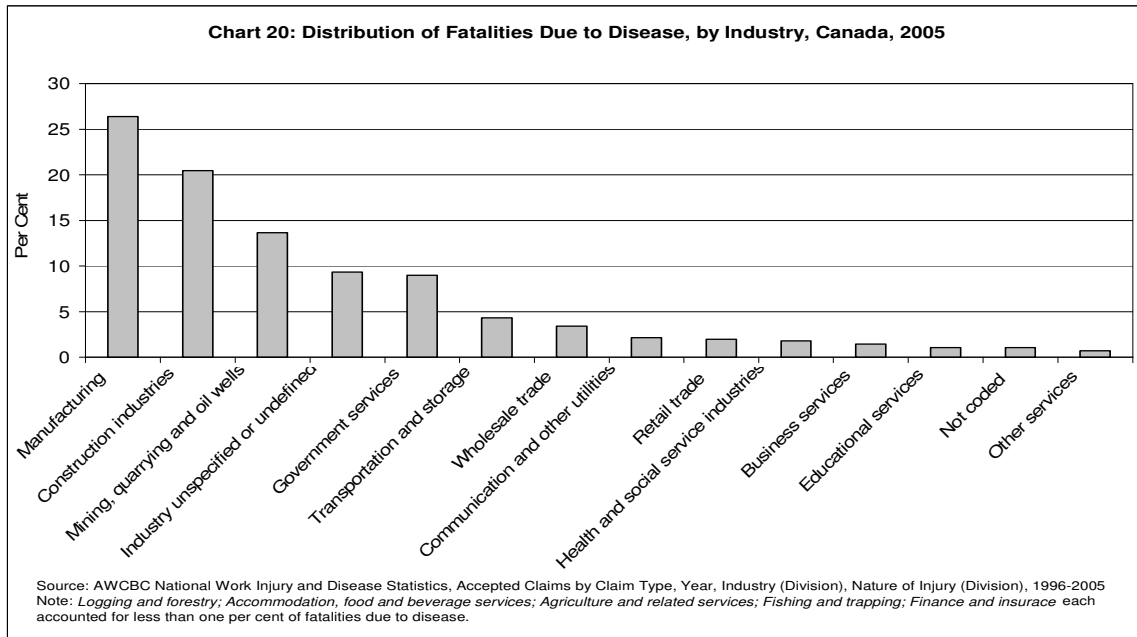
Following *trades, transport and equipment*, the second greatest number of deaths due to disease occur in *occupations unique to processing*. This occupations group experienced a 212.5 per cent increase from 32 deaths due to disease in 1996 to 100 deaths in 2005, accounting for 17.3 per cent of the absolute increase in fatalities over this period.

*Sales and service occupations* had a significant increase in the number of fatalities due to disease, from 15 deaths in 1996 to 42 deaths in 2005. This 180 per cent increase contributed to 6.9 per cent of the overall increase in fatalities.



### 6) Industry and Nature of Injury

As was discussed above, over the 1996 to 2005 period, more people died on average due to work-related accidents rather than due to disease. However, the number of deaths due to disease has increased at a much greater rate than the number of deaths due to accidents, explaining almost all the growth in the absolute number of work-related fatalities. This increase in the fatalities due to disease is concentrated in a small number of industries.



Over 23 per cent of the absolute increase in workplace fatalities resulted from the 172 per cent increase in deaths due to disease in the *manufacturing* industry. In 1996 there were 54 deaths due to disease and 69 deaths due to accidents in that industry. However, by 2005, there were 147 fatalities attributed to disease and 80 due to accidents (Table 18a). This industry accounted for an average of over 20 per cent of all work-related fatalities due to disease between 1996 and 2005 (Chart 20).

*Construction* industries similarly experienced a 153.3 per cent increase in the number of deaths due to disease, which accounted for 17.5 per cent of the absolute increase in workplace fatalities (Table 18a), and 14 per cent of all disease fatalities (Chart 20). In contrast, the number of deaths due to accidents increased by 50.7 per cent from 73 in 1996 to 110 in 2005 and accounted for less than 10 per cent of the total increase. However, this industry accounted, on average, for the most deaths due to accidents over the 1996 to 2005 period.

*Mining, quarrying and oil wells* had the third largest number of deaths due to disease in 2005, with 76 deaths, which is 181.5 per cent more than in 1996 when there were 27 deaths attributed to disease. For the 1996 to 2005 period, this industry accounted for 14.5 per cent of all disease fatalities. In this industry, while there was a significant increase in disease fatalities, the number of deaths due to accidents falls slightly with a decrease of 8 per cent from 25 deaths in 1996 to 23 deaths in 2005.

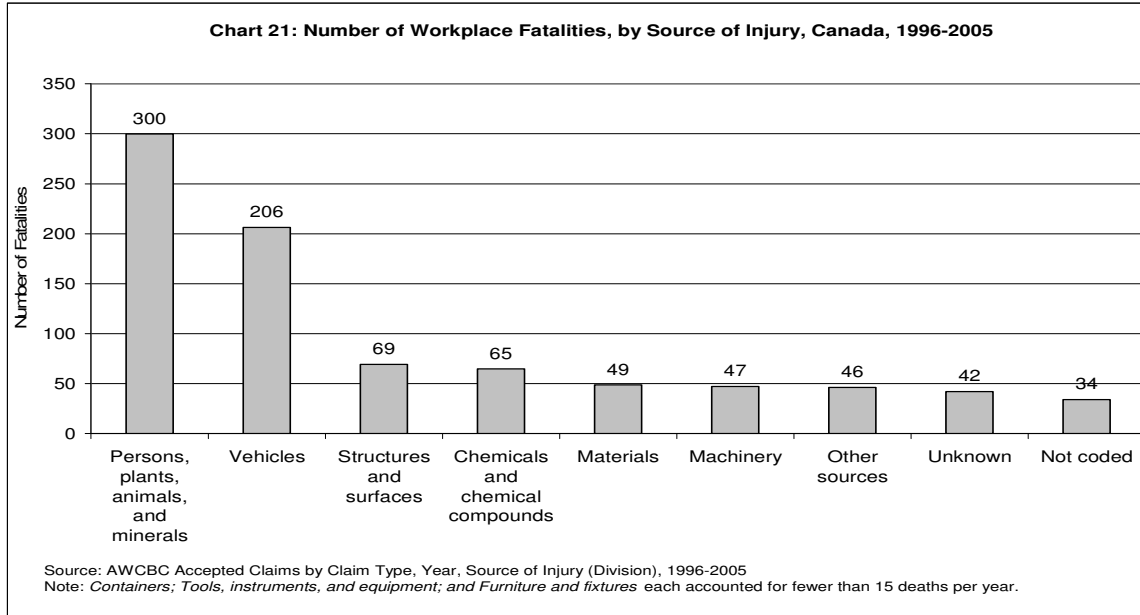
Of the major industry groups used by NWISP, only *mining, quarrying and oil wells; manufacturing; government services; and educational services* had on average more deaths due to disease than accidents between 1996 and 2005.

## **J. Source of Injury**

The source of injury refers to the object, substance, exposure or bodily motion that directly caused the injury or disease. Table 19 presents the number of work-related deaths by source of injury in ten major groups for the 1996-2005 period. Table 20 provides a more detailed break down of these sources of injury.

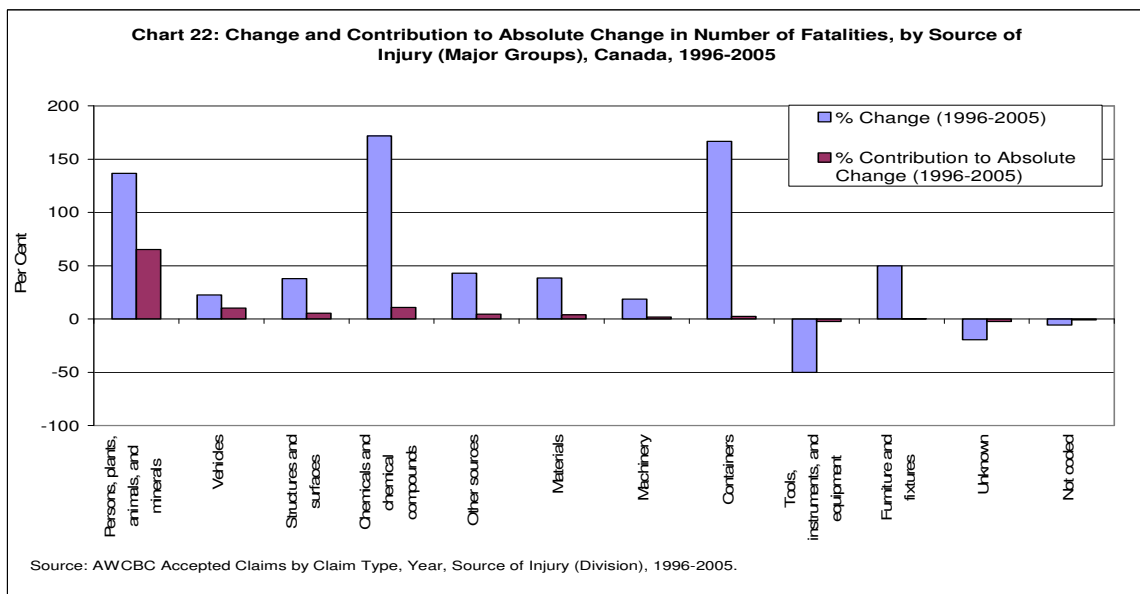
### ***1) Major Groups***

The leading source of injury, which resulted in death, for the 1996 to 2005 period was *persons, plants, animals, and minerals* (Table 19 and Chart 21). The number of deaths due to this source more than doubled from 188 in 1996 to 445 in 2005. This 137 per cent increase is responsibly for over 65 per cent of the absolute increase in the number of workplace deaths (Table 19 and Chart 22).



*Vehicles* are the second most significant source of injury. In 2005, 223 workers died as a result of vehicles, which is 22.5 per cent more deaths than were attributed to this source in 1996. This increase contributed to over 10 per cent of the absolute increase in work-related fatalities.

The third largest source of work-related deaths during the 1996 to 2005 period was *structures and surfaces* (Table 19 and Chart 21). In 1996, there were 58 deaths due to this source. In 2005, this number increased by 38 per cent to 80 fatalities, contributing to 5.6 per cent of the absolute increase in total workplace fatalities (Table 19 and Chart 22).



## 2) *Minor Groups*

Within the *persons, plants, animals, and minerals group* (Major Group), and accounting for nearly 65 per cent of the absolute increase in fatalities, are *non-metallic minerals except fuel*, which were the single largest source of injury, with 383 deaths in 2005 up 197 per cent from 129 in 1996 (Table 20). Of course, asbestos is the non-metallic mineral that is responsible for almost all these deaths.

*Motorized highway vehicles* claimed the lives of 29 per cent more workers in 2005 than in 1996, increasing from 124 to 160 fatalities.

In 2005, 66 workers died from accidents involving *floors, walkways, and ground surfaces*, which is over 34 per cent more than the 49 people that died from this source in 1996.

## K. A Comparison of Workplace Fatalities and Time-Loss Injuries

This primary objective of this report is to analysis trends in workplace fatalities in Canada and the characteristics of the workers affected. But it is also useful to compare the workplace fatality statistics with the time-loss injury statistics to ascertain similarities and dissimilarities. That is the purpose of this section, which looks at injuries by jurisdiction, gender, age group, occupation, industry, event, nature of injury, and source of industry.

It was pointed out earlier in the report (Table 3 and Charts 4 and 5) that both the number and incidence of time-loss injuries had declined significantly in recent years in Canada, in contrast to an increase in both the number and incidence of workplace fatalities. The number of time-loss injuries fell 20.5 per cent from 424,848 in 1993 to 337,930 in 2005, in contrast to the 44.7 per cent increase in the number of workplace fatalities. The incidence of workplace fatalities fell 37.1 per cent from 3.3 per 100 workers in 1993 to 2.1 per 100 workers in 2005, in contrast to the 14.5 per cent increase in the incidence of workplace fatalities.

Much of the discrepancy in trends in both absolute numbers and incidence between injuries and fatalities is accounted for by the very large increase in the number of fatalities due to disease, a 174.4 per cent increase between 1996 and 2005 (data are not available before 1996). Fatalities due to accidents rose only 24.6 per cent over this period. But increased fatalities due to disease cannot explain the increase in the incidence of fatalities due to accidents, compared to the fall in the incidence of injuries.

### 1) *Jurisdiction*

It was noted earlier in the report that there were very large differences in the incidence of workplace fatalities across provinces and territories. In 2005, these ranged

from highs of 27.4 fatalities per 100,000 workers in the Territories and 11.7 fatalities per 100,000 workers in Newfoundland and Labrador to lows of 1.5 in Prince Edward Island and 3.4 in New Brunswick (Table 2). In contrast, the range for the incidence of time-loss injuries across provinces was much less, from a high of 3.6 injuries per 100 workers in British Columbia to a low of 1.5 in New Brunswick (Table 20b).

It is interesting to note that while the incidence of workplace fatalities in the Territories and Newfoundland and Labrador was at least double the national average in 2005, the incidence of injuries for these jurisdictions was only somewhat above average. New Brunswick, on the other hand, was well below the national average for both the incidence of fatalities and injuries.

As noted, at the national level the incidence of time-loss injuries fell 37.1 per cent between 1993 and 2005 while the incidence of workplace fatalities rose 14.5 per cent. It is therefore surprising to encounter the complete opposite trends in certain provinces. In Saskatchewan and Manitoba the incidence of workplace fatalities fell by 24.1 per cent and 9.7 per cent respectively over the 1993-2005 period, while the incidence of injuries rose 7.1 per cent and 0.7 per cent respectively.

## ***2) Gender***

As noted earlier in the report, men account for nearly all (97 per cent in 2005) workplace fatalities. This is not the case for time-loss injuries. In 2005, only 67 per cent of injuries were accounted for by men, with 33 per cent accounted for by women (Table 20c). Thus the incidence of time-loss injuries for men in 2005 is less than double that of women (2.6 versus 1.5 per 100 workers), compared to 30 times greater for workplace fatalities. Women are thus much more likely to be injured than killed on the job.

## ***3) Age Group***

As noted earlier in the report, the incidence of workplace fatalities tends to rise with age (Table 6a). This is true for the incidence of work-related death from accidents, and especially from disease (Table 16). In contrast, the incidence of injuries tends to decline by age group (Table 20d). In 2005, the incidence of injuries was 2.5 per 100 workers for the 20-24 age group<sup>13</sup> and then fell more or less continuously to 2.2 for the 45-49 age group, to 2.0 for the 50-54, 1.9 for the 55-59 age group, 1.7 for the 60-64 age group, and 1.0 for the 65 and over age group.

This pattern is consistent with the commonly held view that younger, less experienced workers are more likely to be injured on the job than older, more experienced workers. It appears inconsistent with the finding that older workers have a higher incidence of workplace fatality from accidents than younger workers.

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<sup>13</sup> The incidence of injuries was actually considerably lower for the 15-19 age group (1.6 per 100 workers). This may reflect the part-time nature of much of the work of this age group (incidence rates are calculated with persons employed, not hours worked) and the fact that most persons in this age group are still in school and work in low-risk service industries.



#### **4) Occupation**

Around three quarters (74.7 per cent in 1996-2005) of workplace fatalities occurred in three occupations: trades, transport and equipment operators; occupations unique to processing, manufacturing and utilities; and occupations unique to primary industry (Table 7a) . Only 56 per cent of injuries in 2002-2005 occurred in these occupations (Table 20e). This is because there are relatively more injuries than fatalities in sales and service occupations (20.2 per cent versus 7.1 per cent of the total), health occupations (7.3 per cent versus 0.8 per cent), and business finance and administration occupations (5.2 per cent versus 1.4 per cent).<sup>14</sup>

The three occupations with the highest incidence of workplace fatalities (Table 7b) were those with the highest incidence of injuries (Table 20e), namely: occupations unique to processing, manufacturing and utilities (5.4 per 100 workers in 2005), trades, transport and equipment operators (4.4); and occupations unique to primary industry (4.0). However, the injury incidence for health occupations (2.9 per 100 workers) and sales and service occupations (1.9) were not far. Overall there were much fewer differences in injury rates between industries than fatality rates. This is explained by much greater likelihood of injuries than deaths occurring in occupations in the service industries.

#### **5) Industry**

As was the case for the distribution of injuries by occupation, a larger proportion of total injuries occur in the service-producing industries than the proportion of fatalities. Conversely, a smaller proportion of total injuries occur in the goods-producing industries than the proportion of fatalities. In 2002-2005, retail trade and health and social service industries accounted for 11.7 per cent and 11.8 per cent respectively of total injuries (Table 20f), compared to only 2.8 per cent and 1.3 per cent respectively of workplace fatalities (Table 8 for 1996-2005). On the other hand, only 1.0 per cent of all injuries occurred in mines, quarries and oil wells, compared to 10.1 per cent of all fatalities. Equally, construction accounted for 8.9 per cent of total injuries, but 20.0 per cent of fatalities.

The ten most dangerous industries in which to work from the point of view of injuries were logging and forestry (3.9 per 100 workers in 2005), followed by manufacturing (3.6), construction (3.2), transportation and storage (3.1), fishing and trapping (3.1), wholesale trade (2.8), government services (2.5), health and social services (2.4), retail trade (2.1), and accommodation, food and beverage services (1.9). Mining, quarrying and oil wells surprisingly ranked 12<sup>th</sup> in terms of risk of injury at 1.6 per 100 workers, even though in 2005 ranked as the second most dangerous industry

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<sup>14</sup> The injury figures are for the 2002-2005 period and the fatality figures are for the 1996-2005 period

from the point of view of the incidence of fatalities (Table 9). It appears that the risk in this industry is death, not injury.

Table 20g compares the number of time-loss injuries to the number of fatalities in an industry for 2005 and the 2002-2005 period by industry. The ratio of injuries to fatality differs greatly across industries. In mining, quarrying and oil wells there were 34 injuries for every work-related death in 2002-2005, in fishing and trapping 60 injuries, and in logging and forestry 82 injuries. In contrast, there were 1,719 injuries for every death in retail trade and 1,652 in health and social services.

### ***6) Event***

The event that leads to a workplace injury tends to be very different that the event that leads to a work-related fatality. The most important event that led to injuries in 2005 were bodily reaction and exertion, which was responsible for 43.7 per cent of all injuries (Table 20h). This was followed by contact with objects and equipment (26.2 per cent) and falls (15.9 per cent). These three events alone accounted for 86 per cent of all injuries, compared to 44 per cent of fatalities (Table 10). By far the most common event leading to a fatality was exposure to harmful substances or environments, responsible for 41 per cent of fatalities, but only 5 per cent of injuries. Transportation accidents were also responsible for 23 per cent of fatalities, but only 3 per cent of injuries.

### ***7) Nature of Injury***

There is a fundamental difference between time-loss injuries and workplace fatalities in the nature of injury. The lion's share of injuries (85 per cent) are due to accidents, with only 15 per cent due to diseases (Table 20i), which fatalities are split roughly equally between fatalities and diseases (Table 12).

In terms of the types of accidents that cause injuries, 44 per cent of all injuries in 2002-2005 were traumatic injuries to muscles, tendons, ligaments, joints, etc.; 13 per cent were surface wounds and bruises; 9 per cent were open wounds; 7 per cent were traumatic injuries to bones, nerves and spinal cord; and 6 per cent were other traumatic injuries and disorders. In terms of the diseases that cause injuries 5 per cent of all injuries arise from musculoskeletal system and connective tissue diseases and disorders.

### ***8) Source of Injury***

In terms of the source of injury, persons, plants, animals and minerals were responsible for 29 per cent of all injuries in 2002-2005 (Table 20j), followed by structures and surfaces (15 per cent), materials (11 per cent), and containers (11 per cent). The major difference with fatalities is the much reduced importance of vehicles, which are the source of only 6 per cent of injuries compared to 23 per cent of fatalities (Table 19).

## II. An International Perspective on Workplace Fatalities

This section of the report provides an international perspective on workplace fatalities. It first discusses the measurement of workplace fatalities, which differs greatly across countries, complicating international comparisons. It then situates Canada among OECD countries in terms of the workplace fatality rate using the estimates provided by the ILO. Finally, it compares Canada and US workplace fatality estimates using domestic data sources.

### A. Measurement Issues in International Comparisons of Workplace Fatalities

#### *1) The ILO workplace fatality data base*

The International Labour Organization maintains an international database on the labour market statistics called Laborsta. From this database, it is possible to gather data on workplace fatalities for over 150 countries. This section will concentrate on OECD countries as they have similar economic conditions to Canada. The data available are provided to the ILO by the different statistical agencies or organizations responsible for collection of workplace safety data in every country. The ILO provides the definitions and detailed information on the data provided by each country,<sup>15</sup> but unfortunately the ILO does not standardize this information in any way. Clearly, differences in definitions reduce the meaningfulness of international comparisons. Also, different units of measure must be converted to a universal one – we chose fatalities per 100,000 workers in this report.

Eight areas in which there are significant definitional and methodological differences in workplace fatality data collection across countries are highlighted below.

- Inclusion or exclusion of fatalities due to occupational disease;
- Length of time limit if any for reporting death after injury or exposure;
- Inclusion or exclusion of deaths due to commuting accidents;
- Inclusion or exclusion of road traffic accidents while working;
- Range of coverage by economic activity and/or sector;
- Class of workers included (i.e. paid workers only, or all workers including self-employed and unpaid family workers, insured workers only);
- Source of data (e.g. administrative based on requirements of worker compensation programs, survey);

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<sup>15</sup> The ILO has compiled a synoptic table of the sources and methods used by member countries in compiling occupational injuries data. Available online: <http://laborsta.ilo.org/applv8/data/SSM8/E/ssm8.html>.

- Overall proportion of workers covered.

Canada appears to be one of only eight of the 29 OECD countries which include deaths due to occupational disease in their workplace fatality statistics. Given the fact that half of Canada's work-related deaths in recent years are due to disease, this definitional difference has significant implications for international comparisons.

Furthermore, even comparison among countries that do include deaths due to occupational disease in their statistics is complicated by the use of different reference periods. In Canada, there is no time limit for a work-related death to receive compensation and hence to be included in the workplace fatality statistics of workers compensation boards. However, in Australia, for example, there is a three-year time limit and in Switzerland a one year limit. This results in the exclusion of many deaths due to illnesses that have latency periods longer than these time limits.

The reference period issue is also relevant to deaths due to accidents where the death does not occur immediately following the injury. While some countries, such as Canada have no maximum limit, other countries do have time limits which result in lower fatality rates due to accidents relative to countries with no time limits..

While the majority of countries included in this study exclude commuting accidents from workplace fatality statistics, seven countries do include them. Road traffic accidents while on the job are generally included in the workplace fatality statistics, but the United Kingdom, for instance, excludes these deaths.

There are differences in the economic activities or sectors included across countries. Some countries cover all activities, while some countries exclude workers in certain sectors including the armed forces and government.

The source and type of data differ by country, ranging from reporting or notification processes to accepted compensation claims. Also, different countries may exclude certain types of workers, i.e., the self-employed and non-insured. As a result, the proportion of workers covered by workplace fatality statistics varies substantially by country, for example from less than 50 per cent in Belgium to around 100 per cent in the United States.

## ***2) A Comparison of the Measurement of Workplace Fatalities in Canada, the United States and the UK***

To provide a more detailed illustration of these international differences in the measurement of workplace fatalities, and to potentially shed light on differences in workplace fatality incidence rates, this section compares data collection methods between Canada, the United States and the United Kingdom.

As discussed earlier in the report, in Canada the data on workplace fatalities and injuries are reported by provincial/territorial Workers Compensation Boards (WCBs) to

the Association of Workers' Compensation Boards (AWCBC). Thus, the data are based on accepted claims for compensation. There are differences in the definitions and data collection methods used by provincial boards, which may result in discrepancies in overall estimates. The Canadian workplace fatality data includes all paid full and part-time employees aged 15 years and over, and self-employed workers that have been accepted for coverage by their WCB, excluding military personnel. Approximately 80 to 85 per cent of total employed workers are covered by a WCB, and hence included in these statistics. Fatalities due to occupational disease are eligible for compensation and included in official statistics. However, deaths due to commuting accidents are not included.

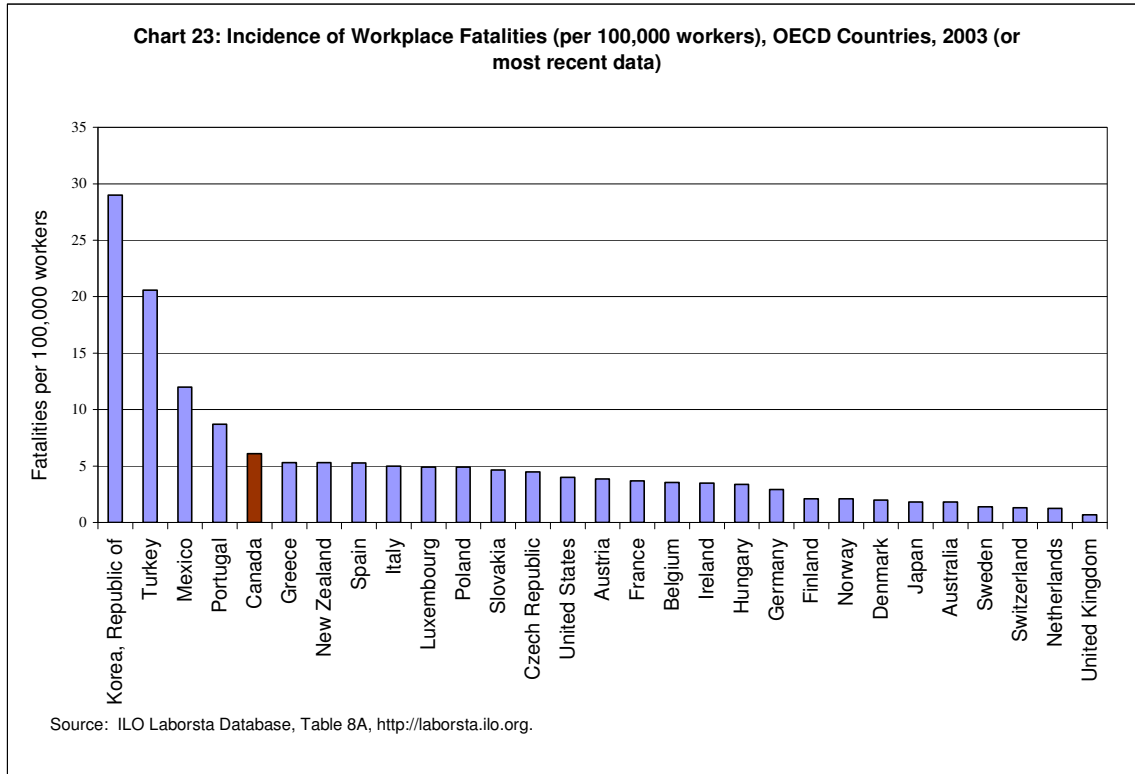
In the United Kingdom a single body, the Health and Safety Executive (HSE), is responsible for enforcement of health and safety laws in the workplace. The HSE is also responsible for the collection and analysis of data related to workplace injuries and fatalities. As opposed to in Canada, this is not done through the compensation process, but through the reporting and notification process. The country's fatality data includes employees and self-employed persons, excluding workers in fishing and air transport. Around 90 per cent of employed persons are included in these statistics. In contrast with Canada, the United Kingdom does not include fatalities due to occupational illness in the data provided by the ILO. This likely explains much of the low workplace fatality rate recorded by the United Kingdom (0.7 per 100,000) relative to that in Canada (6.1). The United Kingdom also excludes deaths from all work-related road traffic accidents, which were not specifically excluded in Canada. It is estimated that this exclusion lowers the UK workplace fatality rate from 1.4 to 0.7 per 100,000 (Australia, National Occupational Health and Safety Commission, 2004).

Workplace fatality data in the United States are collected on an annual basis in the Census of Fatal Occupational Injuries by state statistical agencies. However, the national Bureau of Labor Statistics, which provides funding for the local agencies, enforces the standardization of data, ensuring comparability across states. The census covers all employed and self-employed workers. Unlike Canada, the United States appears to exclude deaths due to occupational disease in its statistics.<sup>16</sup> Commuting accidents are also excluded.

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<sup>16</sup> According to the ILO synoptic table, the U. S. Census of Fatal Occupations includes fatalities due to occupational illness (<http://laborsta.ilo.org/applv8/data/ssm8/e/synoptic.pdf>). However, according to the Census definitions available from the U.S. Department of Labor Bureau of Labor Statistics, "because of the latency period of many occupational illnesses and the resulting difficulty associated with linking illnesses to work, it is difficult to compile a complete count of all fatal illnesses in a given year. Thus, information on illness-related deaths is excluded from the basic fatality count" ([http://www.bls.gov/opub/hom/homch9\\_o.htm#Census%20Definitions](http://www.bls.gov/opub/hom/homch9_o.htm#Census%20Definitions)). Joyce Northwood, Economist with the Bureau of Labor Statistics, confirmed that the workplace fatality statistics for the United States, which are included in this report, do not include deaths due to illness and disease.

## B. Comparisons of Workplace Fatalities in OECD Countries



Based on these ILO data for 29 OECD countries, Canada had the fifth highest incidence of workplace fatalities in 2003, with a rate of 6.1 deaths per 100,000 workers (Table 21 and Chart 23).<sup>17</sup> The countries that had higher workplace fatality incidence rates were the Republic of Korea with a rate of 29.0, Turkey (20.6), Mexico (12.0), and Portugal (8.7). Of those four, only Portugal and Korea are considered to be developed countries. However, they have GDP per capita less than half that of Canada. Canada was also four places ahead, in terms of the incidence of workplace fatalities, of the next G7 country, Italy, which was ranked ninth with a rate of 5.0 deaths per 100,000 workers.

As noted earlier, one reason that Canada has such a high workplace fatality rate is that deaths from occupational diseases are included in the estimates, which is not the case for many countries. However, New Zealand, Switzerland, and Australia also include deaths from occupational diseases (although unlike Canada at least the latter two of these countries have time limits for the inclusion of deaths due to occupational disease). Thus this definitional difference places less of a role in explaining Canada's high incidence rate relative to these three countries.

In 2003, Canada's workplace fatality rate from accidents was 2.9 per 100,000 (Table 12). Even this rate was well above the overall fatality rate from nine OECD

<sup>17</sup> Canada's high incidence of workplace fatalities according to ILO data was first reported in Osberg and Sharpe (2003).

countries: Australia (1.8), Denmark (2.0), Finland 2.1), Japan (1.8), Netherlands (1.2), Norway (1.7), Sweden (1.4), Switzerland (1.3), and the United Kingdom (0.7).

Over the 1985-1996 period, Canada experienced a considerable decline in its incidence rate of work-related deaths. In 1985, the incidence rate for the country was 7.6 per 100,000 workers, growing to a peak of 8.9 in 1988, before declining to a low of 5.2 in 1996. Since 1996, however, the rate began increasing again, settling at 6.1 for the 2001-2003 period, and dropping slightly to 5.8 in 2004 before increasing to 6.8 in 2005.<sup>18</sup> Between 1985 and 2003, the incidence rate dropped by 1.5 points, while it increased by 0.9 points from 1996 to 2003.

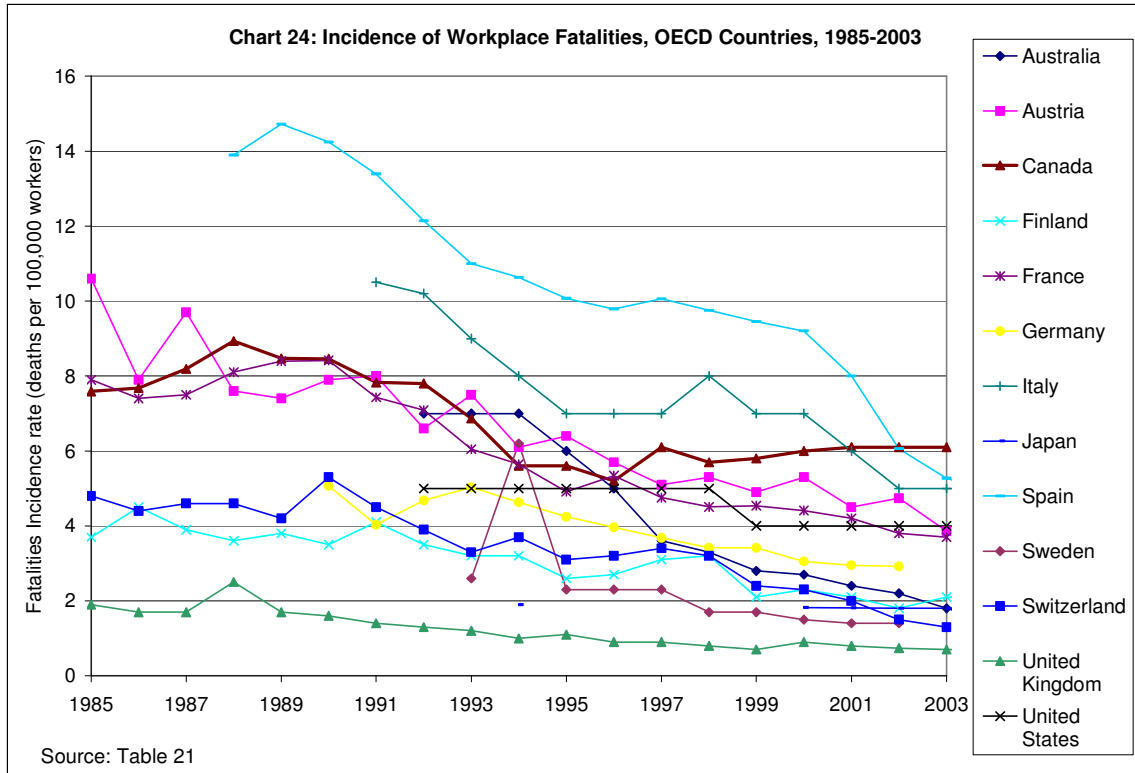
However, most other countries experienced even larger declines since 1985 than Canada, and these declines were sustained after 1996. Table 21 shows the declines in the incidence rates from 1985 to 2003 and from 1996 to 2003 for the 29 OECD countries (using the closest year to 1985, 1996 or 2003 if the actual year is not available). Chart 24 shows trends between 1985 and 2003 for 13 selected OECD countries. For the period from 1985 to 2003, every country in the sample experienced a decline in the fatalities incidence rate (Table 21). The largest declines were in Italy (11.3 points), Spain (8.6 points), Austria (6.7 points), Norway (5.3 points) and Australia (5.2 points). Canada's decline of 1.2 points was the fifth lowest. From 1996 to 2003, almost all countries continued experiencing a decline in their workplace fatality rate, although at a slower rate. The exceptions were for Canada (0.9 point increase), Mexico (1.0 points), and Greece (1.2 point increase). Clearly, Canada's trend toward lower workplace fatality is much less pronounced than in other OECD countries.

The structure of employment in Canada, which is directly related to our industrial structure, raises Canada's workplace fatality rate relative to many other OECD countries. Table 33 compares employment shares by industry in 2003 in G-7\_countries and the EU average relative to those of Canada. Table 34 presents estimates of what workplace fatalities would be if Canada had the employment structure of these countries based on our actual fatalities rate by industry.

In almost all cases (Japan is the exception due to its very large construction sector) Canada would have fewer fatalities and a lower fatality rate. This is because Canada has a greater proportion of employment in high-risk industries such as mines, quarrying and oil wells, logging and forestry, and transportation and storage. For example, if Canada had the UK employment structure the incidence of workplace fatalities would have been 5.0 per 100,000 workers in 2003 compared to the actual rate of 6.0. The respective fatality rate with the employment structure of other countries are: Japan (6.2), Italy (5.8), Germany (5.7), France (5.4), G-7 excluding Canada (5.5), and the EU (5.8)

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<sup>18</sup> The 2004 and 2005 figures are based on the AWCBC statistics (Table 2) as the ILO series only goes to 2003.



### C. Canada-U.S. Workplace Fatality Rate Comparison

Canadians are always very interested in comparing themselves with Americans. This section of the report attempts to compare workplace fatality rates in the two countries, a very difficult task because of important differences in the definition of workplace fatalities.

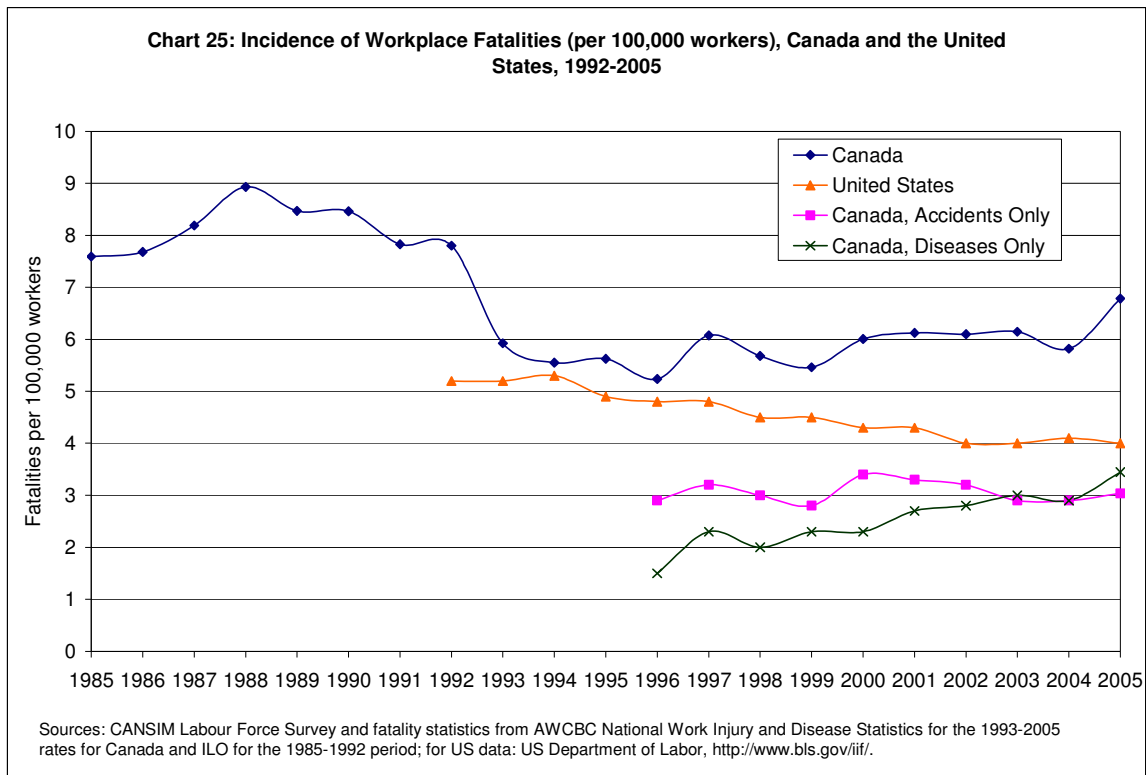
The ILO workplace fatality data base discussed above indicated that that in 2003 the rate of workplace fatalities was significantly higher in Canada than in the United States: 6.1 versus 4.0 deaths per 100,000 workers. But deaths from occupational disease are included in the Canadian total, and not in the U.S. total, so this comparison is not particularly meaningful.

What is more meaningful is a comparison of workplace fatalities due to accidents between the two countries. Chart 25, based on data directly taken from domestic sources, shows that the workplace fatality rate from accidents for Canada in 2005 was 3.0 per 100,000 workers, less than one half of the total rate of 6.8. This is below the overall US rate of 4.0. If one includes fatalities from accidents for agriculture from the Canadian Agricultural Injury Surveillance Program, the incidence rate becomes 3.6 (Table 18b) Yet even with this adjustment, it would appear that in terms of fatal occupational injuries related to accidents, Canadian workers fare somewhat better their U.S. counterparts. One



explanation for this lower accident rate may be the much greater enforcement of health and safety regulations in Canada (or at least Ontario) than the United States.<sup>19</sup>

However, a comparison of trends in the workplace fatality rate shows greater improvement in the United States than in Canada. In 1996, the fatal injury rate in the United States was 4.8 per 100,000 workers, falling to 4.0 per cent by 2005. In contrast, the workplace fatality rate from accidents in Canada was 2.9 per 100,000 workers in 1996 and 3.0 in 2005 (Table 12 and Chart 25).



Tables 22 and 23 provide data on the number and incidence of fatal occupational injuries in the United States by gender and age group for the 1992-2005 period. In comparison with Canada, three observations stand out.

- The differential between the workplace fatality rate for men and women has half as large in the United States than in Canada. In 2002 (the most recent year for which U.S. gender data are available), the male fatality rate was 10 times the

<sup>19</sup> Compared to Canada, health and safety officers in the United States have less power. In 2005, the US Occupational Safety and Health Association (OSHA) hired 1,100 inspectors. In total, there were 97,033 inspections in 2004, of which 55,872 were proactive inspections targeting high-hazard worksites. The total number of inspections in the United States was thus only double Ontario's figures in absolute terms ([www.osha.gov/as/opa/oshafacts.html](http://www.osha.gov/as/opa/oshafacts.html)). In per capita terms, this meant that there were 0.32 inspections per thousand persons in United States, compared with 4.15 inspections in Ontario.

female rate in the United States (7.0 versus 0.7 per 100,000). In Canada, the differential was 20 times (10.9 versus 0.5).

- The importance of workers 65 and over in the workplace fatality statistics was much less in the United States than Canada. In 2004, only 9.9 per cent of persons included in workplace fatality estimates in the United States were 65 and over, compared to 30.2 per cent in Canada (Table 5).
- The age gradient of the workplace fatality rate was much lower in the United States than in Canada. The incidence of workplace fatality in 2004 in the United States rose from 3.1 per 100,000 for the 20-24 age group to 6.7 for the 55 and over age group. In Canada it rose from 3.0 for the 20-24 age group to 16.3 for the 60-64 age group and 97.9 for the 65 and over age group (Table 6).

It is likely that the inclusion of deaths from occupational disease in Canada, and their exclusion in the United States, explain much of the three differences noted above, as workers who die from occupational diseases tend to be male and older.

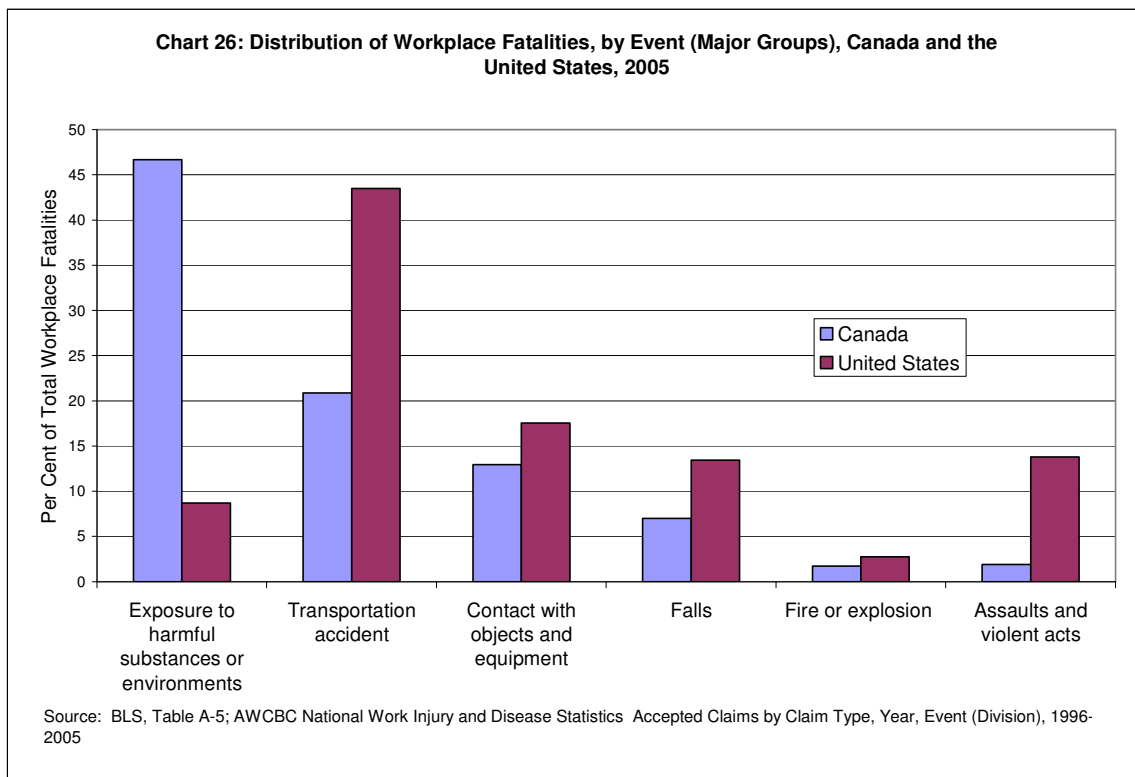


Chart 26 compares the distribution of workplace fatalities between Canada and the United States in 2005 by the event that resulted in the fatality. Very different patterns emerge, due to the differences in the definition of what is included as a workplace fatality in the two countries. In the United States only 8.7 per cent of workplace fatalities were caused by exposure to harmful substances or environments. In Canada, the figure was nearly 50 per cent. The definition of what events are included in the category “exposure

to harmful substances or environments” appears the same in the two countries. They are: contact with electric current; contact with temperature extremes; exposure to caustic, noxious, or allergenic substances; and oxygen deficiency. But in the United States in 2004 only 116 persons died of exposure to caustic, noxious substances, or allergenic substances, 2.0 per cent of all workplace fatalities. In Canada, 409 deaths were recorded under this category, 44.1 per cent of all workplace fatalities.

A second major difference between Canada and the United States regarding fatal event lies in the relative importance of assaults and violent acts. In the United States in 2004 there were 809 deaths, including 559 homicides, from this event, representing 14.0 per cent of all fatalities. In Canada, there were only 12 deaths, including 7 homicides, accounting for 1.3 per cent of all workplace fatalities. Adjusting for the 10-1 ratio between the two countries, a worker appears to be 6-7 times more likely to be killed from assault or violent acts in the workplace in the United States than in Canada.

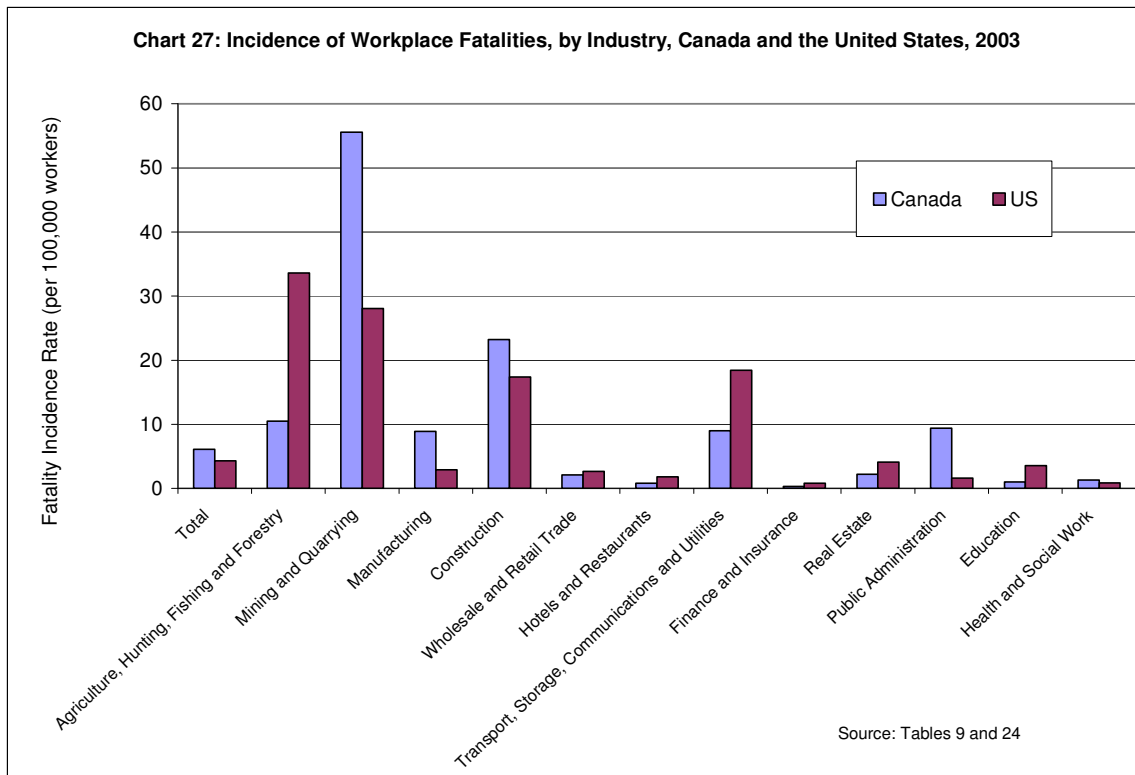


Chart 27 compares the incidence of workplace fatalities by industry in Canada and the United States in 2003. Despite the differences in the definition of a workplace fatality in the two countries, a number of similarities emerge. Four industries have a high incidence of workplace fatality in both countries: mining and quarrying, construction, transport, storage and communications, and agriculture, hunting and forestry. Equally, three industries have low incidence rates in both countries: hotels and restaurants, education, health and social work.

There are also a number of dissimilarities in the industry pattern of workplace fatalities between the two countries. The large difference for workplace fatalities in agriculture, hunting and forestry between Canada and the United States is likely explained by the exclusion of many if not most agricultural workers from worker compensation schemes in Canada. The very high US fatality rate (33.6 per 100,000 workers) likely reflects the true risk of death facing workers in the sector. Indeed, when the fatality estimates from the Canadian Agricultural Injury Surveillance Program for agriculture (Table 18b) are substituted for the AWCBC estimates for agriculture, the fatality incidence rate for the sector rises to 29.5 per 100,000 workers in 2003, close to the US estimate.

The much higher fatality rate in mining and quarrying and manufacturing in Canada is likely due to the inclusion of deaths from occupational diseases, given that one third on the deaths in Canada are due to asbestos and these deaths are concentrated in these two sectors. It is not obvious what explains the much higher fatality rate in public administration in Canada (9.4 per 100,000 versus 1.6 in the United States).

The greater relative importance of employment in resource-based industries in Canada relative to the United States contributes to a higher workplace fatality rate in this country given that the fatality rate is higher in industries such as mining, fishing, and logging. Table 34 compares employment shares by industry in Canada in the United States in 2003 and calculates what the absolute number of total fatalities and the total fatality rate would be in Canada if this country had the US employment shares. Table 36 and 37 repeat the calculation for the fatalities and the fatality rate from accidents and occupational diseases respectively. It is found that 15.7 per cent of workers are in high-risk industries in Canada, compared to 12.9 per cent in the United States. Canada's greater employment shares in mining, quarrying and oil wells, construction, logging and forestry, fishing and trapping, and transportation and storage explain this difference. If Canada had had the U.S employment structure in 2003, its workplace fatality rate would have been 4.9 per 100,000 workers, 1.1 or 18 per cent below the actual rate of 6.0.

### **III. Determinants of Trends in Workplace Fatalities in Canada**

We have shown earlier in this report that Canada's fatality incidence rate, after a significant decline from 1985 to 1996, began to rise again (see Chart 25). The workplace fatality rate in 2005 of 6.8 deaths per 100,000 workers was 1.5 points higher than the 5.2 rate recorded in 1996. This recent upward trend is a major concern, especially since other countries have continued to see decreases in their incidence rates.

Section one of this study has already provided a decomposition of the absolute increase in the number of workplace fatalities in Canada from 1993 or 1996 to 2004 or 2005. It was found that an increasing number of persons 65 years old and over are dying from work-related diseases, and that in general the increase in fatalities is mostly due to increasing deaths from disease, particularly related to asbestos exposure. It was noted that this development could be due to three factors: an actual increase in the number of older persons dying from occupational diseases, possibly reflecting a better understanding of the role of workplace environments in causing the disease or the end of latency periods; a change in the rules for acceptance of a claim for an occupational disease by the workers compensation boards (e.g. the acceptance of claims by firefighter for compensation from work-related cancers); and an increased awareness among workers about what types of compensation are available and hence increased claims.

In this section we examine whether other factors also played a role. Trends in workplace fatalities are affected by a multitude of factors. Recent econometric work on workplace fatalities identifies a variety of these factors as explanatory variables (see, for example, Boorah and Mangan, 1998). In the report, we will examine four of these factors. They are employment structure, health and safety regulation, trade union density, and unemployment rate.

#### **A. Employment structure**

The structure of employment influences the overall incidence of fatalities because some industries are inherently more risky than others. If high-risk industries constitute a falling share of total employment, the fatality incidence should fall and vice versa. In general, goods-producing industries are much more dangerous, as one would expect.

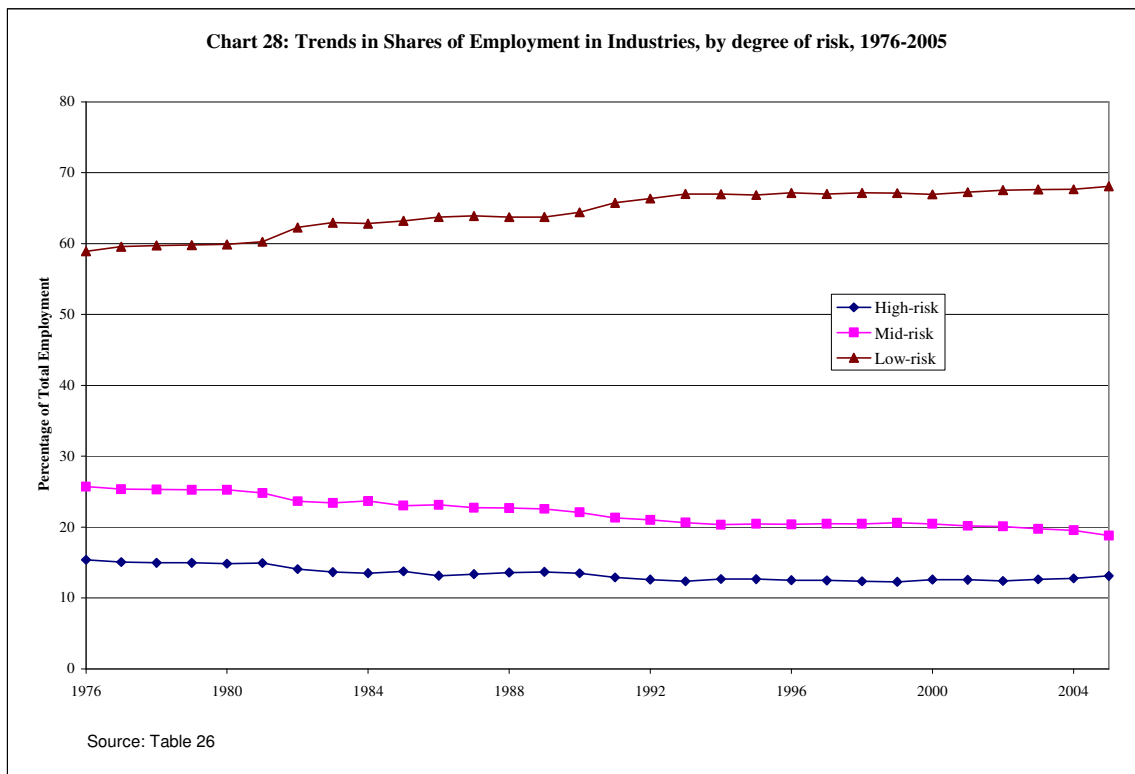
In 2005, out of a total employment of 16,169.7 thousand, 75.2 per cent, or 12,167.3 thousand worked in the services-producing sector (Table 25). The remaining 24.8 per cent, or 4,002.4 thousand worked in the goods-producing sector.

Observing the employment changes between 1976 and 2005, it is possible to clearly see the shifts in the Canadian industrial structure over the past thirty years. In 1976, 65.4 per cent of total employment worked in the services-producing industries, and

the remaining 36.4 per cent in goods-producing (Table 25). There has thus been a 10 percentage point increase in services-producing industries' employment share from 1976 to 2005. The share of the services industries increased rapidly until 1996, reaching 70.5 per cent in 1987 and 74.1 per cent in 1996, and remained relatively stable thereafter. In 2004, the share of services industries was of 75.0 per cent. Strong employment growth in the construction industry largely explains this much slower increase in the importance of the services-producing sector.

In order to examine the impact of the shifting employment structure on the incidence of workplace fatalities, we estimated what would have been the overall number of fatalities in 2004, if there had been no change in employment structure. Using 1996, 1987 and 1976 industry employment shares, we determined what the employment by industry would have been in 2004 if these shares were unchanged. Then, we calculated the workplace fatalities for each sector in Canada with 2004 incidence rates and added them together.

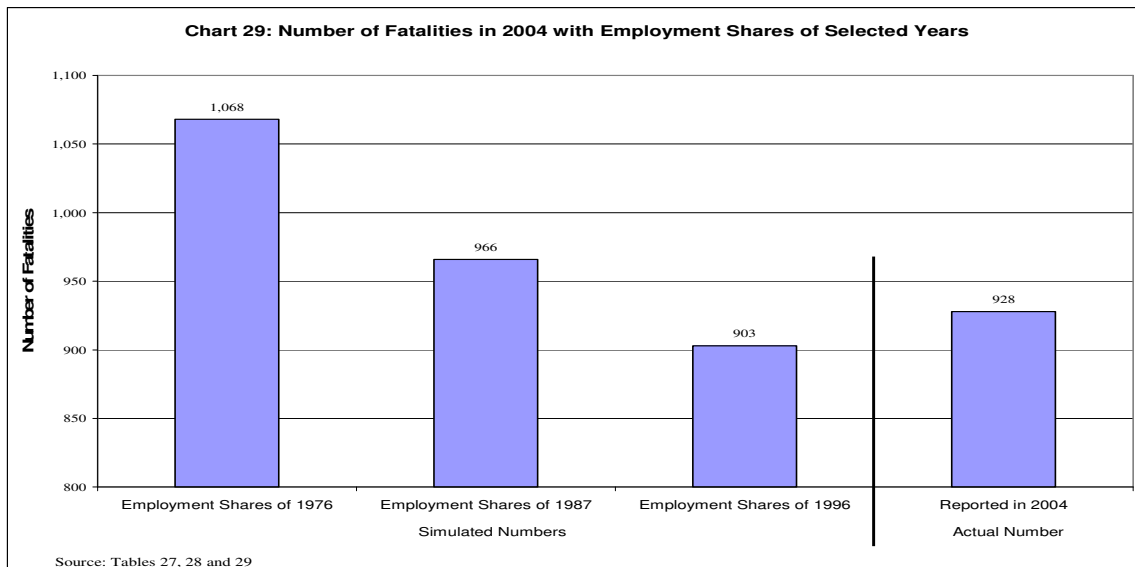
As shown in Chart 28, there is a clear shift from higher risk industries towards safer sectors between 1976 and 1996. High-risk industries are defined to include industries for which the incidence rate was over 10 deaths per 100,000 workers (mining, construction, logging, fishing). Mid-risk industries included manufacturing and transport (between 5 and 10 deaths per 100,000 workers). Low-risk industries included industries for which the incidence rate was under 5 deaths per 100,000 workers.



Between 1976 and 1996 the share of workers in high-risk industries fell around 3 percentage points, and in mid-risk industries 8 points. Conversely, the share of workers in low-risk industries rose 8 points. Since 1996, the employment shares of the three groups of industries have exhibited little change.

Using this method outlined above, we obtain a total of 903 workplace fatalities in 2004 when the 1996 employment structure is used. This is 25 fatalities less than the actual recorded number of 928<sup>20</sup> (Chart 29 and Table 27 for detailed results). One might have expected that the fatalities be higher with the 1996 employment structure than the actual 2004 structure because of the well documented shift towards services industries (Table 25). But as noted, this trend has petered out in Canada since 1996, due to growth of the construction industry. The share of the construction industries in total employment increased by 0.7 percentage points from 1996 to 2004, from 5.3 per cent in 1996 to 6.0 per cent in 2004 (Table 25).

To further examine this issue, we apply the same method with the employment structures of 1987 and 1976 (Chart 29 and Tables 28 and 29 for detailed results). With 1987 employment shares, we obtain a total number of fatalities of 966, which are 38 deaths higher than the actual recorded number for 2004. This clearly shows that employment structure had an impact on the number of workers dying on the job. The number obtained from the 1976 employment structure, 1,079 fatalities, further helps support this hypothesis. From 1976 to 1987, and 1987 to 1996, there were shifts from dangerous industries (manufacturing) towards safer industries (services). Dangerous industries accounted for 3.1 per cent less in 1996 than they did in 1976, and manufacturing decreased by 4.8 per cent over the same period.



<sup>20</sup> However, the estimated amount of 903 fatalities does not include unclassified industries, which accounted for 39 deaths in 2004. If we compare the fatalities without counting the unclassified industries, we find out that there would be 14 more deaths if we had the employment structure of 1996, 903 fatalities versus 889 fatalities. This would further confirm the conclusions we find by looking at shares from 1976 and 1987.

Shifts in employment structures clearly have an impact on the number of workplace fatalities. Indeed, the shift in employment shares from dangerous to safer industries from 1976 to 1996 tended to reduce workplace fatalities in Canada. Since 1996, this structural change has largely disappeared so the downward trend in fatalities from employment shifts has ended.

## **B. Health and Safety Regulatory Framework**

Workplace fatalities can be influenced by the nature of the regulatory framework that governs workplace health and safety issues. A framework with lax health and safety regulations for employers and/or poor enforcement may reduce in a greater number of fatalities than a framework with stringent regulations and/ or strong enforcement.

Occupational health and safety regulations in Canada are greatly decentralized. The *Occupational Health and Safety Act*, at the federal level, covers employees of the federal government, employees of Crown corporations, and of enterprises that operate across provincial and international borders such as airports. Each province and territory has similar legislation in their labour code, which cover employees in their jurisdiction.<sup>21</sup> Self-employed workers and farm operators are often not covered. For simplicity, this report will concentrate mainly on the federal Act, since general principles are similar across the country.

The purpose of the Health and Safety Act is to clarify the duties and rights of the worker and his employer.<sup>22</sup> The employer is required to assure the health and safety of every person employed, while the employee is under the obligation to take all necessary precautions while working to ensure his safety. The employee is given three basic rights. First, employees have the right to receive proper training and supervision provided by their employer in order to minimize the risk of accidents. Second, workers have the right to participate in safety committees in the workplace and to help identify the possible hazards at their worksite. Finally, workers have the right to refuse work that they reasonably judge unsafe (dangerous to them or to another employee).

An important feature of the Act is the creation of joint committees in workplaces with enough workers (generally 20, though it varies by province). These committees are composed of employer and employee representatives, and are mandated with promoting workplace safety. In some provinces they must perform regular safety inspections though they have limited power.

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<sup>21</sup> Parallel to the Occupational Health and Safety acts are the workers' compensation laws. While the Occupational Health and Safety acts concentrate on prevention, the Workers' Compensation Boards in Canada play an important role in providing insurance and benefits in cases where prevention has failed and workers are injured or killed.

<sup>22</sup> For a detailed overview of the Canadian Act, see <http://www.dol.gov/ilab/media/reports/nao/oshreport3.htm>.



To enforce the regulations proposed in the Act, the Minister of Labour appoints health and safety officers. These officers are in fact inspectors and have many powers given to them in order to ensure the regulations are strictly followed. They can visit worksites at any reasonable time, investigate, take samples, photographs, and meet with workers as they wish. Punishments for offences vary in different provinces. Financial punishments under the Canadian Act vary from \$100,000 to \$1,000,000, and in some cases, offences can lead to imprisonment.

The increase in the workplace fatalities incidence rate in Canada since 1996 could in principle be explained by a decrease in the enforcement of the regulation. If there is a decrease in the number of inspections or visits, or if employers have reason to believe they will not receive punishment for encouraging unsafe work, we would expect an increase in the number of fatalities.

In 2004/05, in Ontario, inspectors visited 52,673 workplaces under the provincial Act,<sup>23</sup> out of a total of 349,400 establishments.<sup>24</sup> The number of visits varied somewhat from year to year since 1993 (Table 30), but the general level stayed about the same despite some peaks and lows. The lowest level was 44,470 in 1994/95 and the highest was 64,007 in 1997/98. In recent years there has been an average of around 56,000 visits per year.

It is interesting to note that while the number of proactive inspections is somewhat stable from year to year, the number of reactive investigations (following a complaint or an injury) has increased significantly since 1993, while the number of consultations to inform workers of their rights and safety regulations has decreased. Despite these trends in visits, the number of orders issued (and stop work orders) has increased since 1993, more than doubling over the period. The total amount of fines is also increasing, while the number of convictions is relatively stable.

The data do not show a reduction in the enforcement of health and safety regulation over the 1993-2005 period in Ontario. If Ontario's trend reflects the Canadian average, and this is a big if, weaker enforcement of health and safety regulations do not appear responsible for the increase of workplace fatalities.

### **C. Trade Union Density**

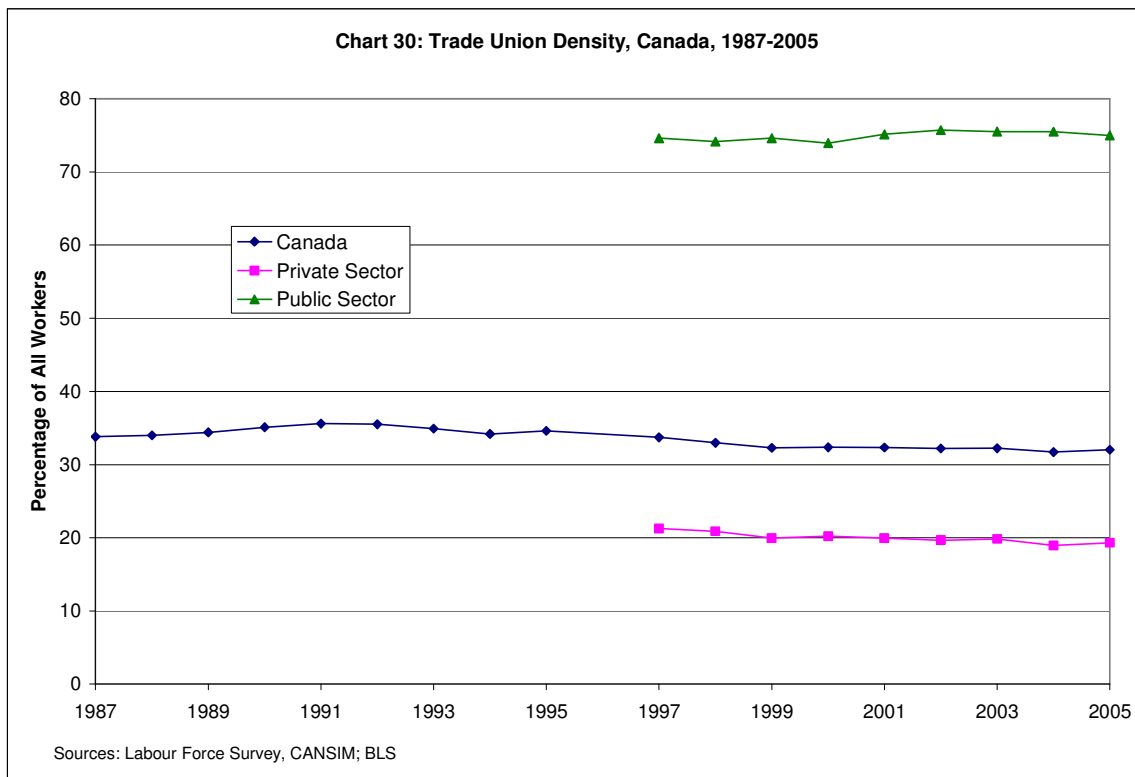
There are a number of links between trade union density and workplace fatality incidence (Fenn and Ashby, 2001). First, union density is higher in the goods-producing, riskier industries such as mining and heavy manufacturing. This produces a positive correlation between trade union density and the number of fatalities at a certain point in time, but it is not a causal relationship. However, controlling for this factor, higher union density should translate into lower fatalities, because of the increased information on risk-reducing work practices and better bargaining power for workers regarding work

<sup>23</sup> See <http://www.labour.gov.on.ca/english/hs/stats/index.html>.

<sup>24</sup> This number actually reflects 2003 data, [http://strategis.ic.gc.ca/sc\\_ecnmy/sio/ciseste.html](http://strategis.ic.gc.ca/sc_ecnmy/sio/ciseste.html).

conditions. Another potential effect of trade unions on workplace fatalities is the possibility of better reporting of injuries and deaths. This effect is probably less relevant when considering fatalities compared to non-fatal injuries or illnesses. It is difficult to determine which of the effects is predominant in general, but in the case of fatalities, rising trade union density would be expected to lower the incidence.

In Canada, trade union density over the period of 1987 to 2005 has been fairly stable (Chart 30). From a level of 33.8 per cent in 1987, it stood at 32.0 percent in 2005 (Table 31). However, trade union density is much different between the public and the private sectors. In 2005, union density in the private sector was 19.3 per cent, while it was at 75.0 per cent in the public sector. Between 1997 and 2005, union density has also decreased slightly more in the private sector: 2.0 percentage points, while increasing by 0.4 points in the public sector. Employment in the private sector is riskier from the point of view of workplace fatalities, simply because riskier industries (such as construction, mining, forestry) tend to be private. Given the overall small changes in union density in recent years, it is unlikely that this factors can account for much if any of the increase in workplace fatalities.

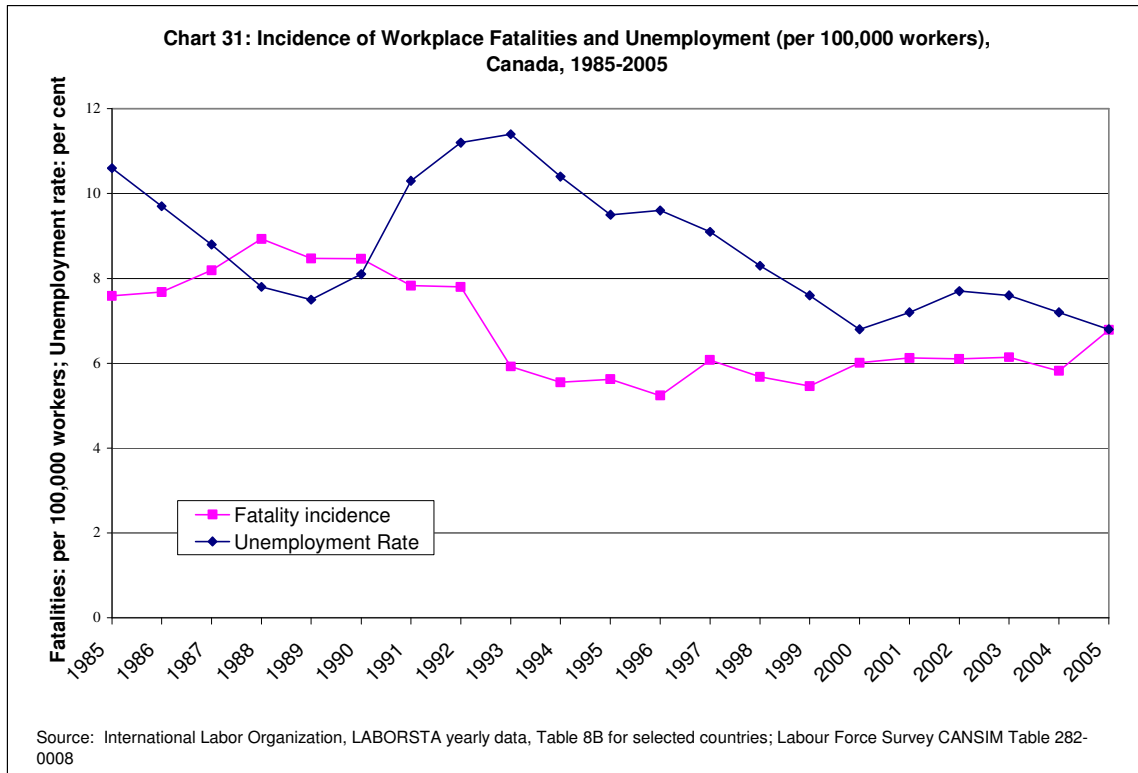


## D. Unemployment Rate

When unemployment is high, workers have more difficulty finding and keeping jobs. Workers will therefore remain in more dangerous jobs that they might otherwise leave, and be more inclined to take risks at the demand of their employer. This effect may increase the fatality incidence rate. Also, high unemployment means the economy is in a

period of slower growth or recession. Employers may have fewer resources available for training workers, which would normally include health and safety training. Less safety training reduces workers' awareness and increases the risk for workplace fatalities.

One could also argue the opposite, and make the case that low unemployment may increase the incidence of workplace fatalities. Indeed, when the economy is in a period of rapid growth, workers are under a greater level of stress, and may pay less attention to safety procedures which would then increase the incidence of fatalities.



As Chart 31 illustrates, there is no clear relationship between the fatality incidence rate and the unemployment rate. Before 1993, there seems to be a negative correlation, but it ceases after that year. Over the whole period, the correlation is very weak, with a correlation coefficient of only 0.13. As expected, the link between unemployment and workplace fatalities is ambiguous, and trends in the unemployment rate cannot not explain the rise of the incidence of workplace fatalities after 1996.

## IV. The Role of Asbestos in Workplace Fatalities in Canada

The increase in the absolute number of work-related fatalities over the 1996 to 2004 period was, as stated earlier in this report, primarily due to an increase in the number of deaths due to occupational illness and disease. The greatest increase in deaths

was among workers dying of malignant neoplasms and tumours (cancers, carcinomas, sarcomas), from 63 in 1996 to 365 in 2005. This increase was consistent with the rise in the number of deaths from exposure to non-metallic minerals except fuel, which is primarily asbestos, cited as the number one carcinogen in the workplace. Indeed, the ILO states that 100,000 workers currently die each year from asbestos-related diseases and that the numbers are expected to grow (ILO, 2006). In Canada in 2005, of the 383 deaths attributed to non-metallic minerals except fuel, around 89 per cent were due to asbestos exposure, making 340 asbestos-related deaths that year. This is **up** from less than 60 asbestos-deaths in 1996. Thus about 70 per cent of the increase in the number of workplace fatalities in Canada since 1996 are due to asbestos.

Asbestos exposure can lead to diseases including asbestosis, pleural plaques, lung cancer and mesothelioma (Workers Health & Safety Centre, 2006). Mesothelioma is a malignant and generally deadly cancer whose only known cause is previous exposure to asbestos. Asbestos exposure occurs through the inhalation of asbestos dust and fibre. Symptoms may not appear until 20 to 50 years after the exposure, which explains why the fatalities occurred among the older age groups. It is likely that a large proportion of the increase in Canada's work-related fatalities is due to exposure prior to the implementation of safety measures to reduce the risk for contact to asbestos in workplace environments. A high profile example is Chuck Strahl, the Minister of Agriculture, who in 2005 was diagnosed with an asbestos-related cancer (mesothelioma). He was exposed to asbestos while working in the logging industry in the 1970s.

Asbestos use in Canada has decreased by over 75 percent between 1998 and 2003 (Natural Resources Canada, 2006). However, despite the known carcinogenic properties of asbestos, and although countries around the world have implemented bans on the use of new asbestos, Canada is one of the world's largest miners and exporters of this dangerous mineral-based fibre.

In 2003, the most recent year for which data are available, Statistics Canada reported that 343 persons died from mesothelioma in Canada. This is a 17 percent increase from only 4 years earlier when 292 people died in 2000 (Statistics Canada, 2006). In the United Kingdom, France, and Australia, the mesothelioma incidence is not expected to peak until the 2010-2020 period (Antti Tossavainen, 2004). In Canada, where the production and use of asbestos is not banned, the number of deaths related to occupational asbestos exposure in Canada is not expected to peak until after 2010-2020.

In a Canadian Cancer Society (Ontario Division) and Cancer Care Ontario report *Insight on Cancer: Environmental Exposures and Cancer*, Larry Stoffman, Chair of the National Committee on Environmental and Occupational Exposure, summarizes the issue as follows:

“We are in the midst of an epidemic of work related mesothelioma cases, which due to long latency periods, is yet to peak... Canada's promotion and sale of asbestos worldwide compromises our ability to be taken seriously regarding cancer promotion, and exports environmental exposure and cancer to those countries with the least resources

to control them. Transition programs for mining communities are needed and the sale and use of this potent carcinogen should be banned” (Stoffman, 2005).

Today all of Canada’s asbestos mining occurs in Quebec. In that province, one-third of work-related deaths are attributed to asbestos exposure each year (YUFA, 2006). However, asbestos mining dates back to the 1890s in Newfoundland. The last Newfoundland asbestos mine closed down in 1990, which may explain the exceptionally high incidence of workplace fatalities in that province.

However, it is not only workers in mining industries that are at risk of exposure to asbestos, since until the 1970s asbestos was used in thousands of commercial products including insulation, ventilation systems, and concrete.

Workers in the *trades, transport and equipment operators and related occupations* group include automotive mechanics that may be exposed to asbestos used in brake pads and workers in construction trades that may come into contact with asbestos insulation on pipes and inside walls and ceilings. This may explain why this occupations group had the highest number of deaths over the 1996-2004 period, accounting for almost half of all work-related fatalities.

In Ontario, 54 per cent of work-related deaths due to disease among workers in construction industries between 1995 and 2004 were attributed to mesothelioma from asbestos exposure. Mesothelioma, asbestosis and lung cancer, all related to asbestos exposure, accounted for 84 percent of all occupational disease fatalities in the construction sector for that period (CSAO, 2004).

Workers in manufacturing, construction, and mining industries have the highest risk of exposure to asbestos, which may explain why these industries had the greatest number of deaths due to disease over the 1996-2005 period.

While increased safety measures have been implemented in recent years, and use has greatly decreased, workers are still at risk of current exposure since as asbestos dries out with age, or is disturbed, fibres can be inhaled during repairs and renovations. Furthermore, claims have been made that previous efforts of asbestos abatement were often inadequate, meaning that workers as well as the general public are at continued threat from exposure.

The number of new cases of mesothelioma in Ontario increased by 260 percent over a twenty year period, rising from 20 in 1982 to 72 in 2002 (Cancer Care Ontario, 2004). Mining and use of asbestos in Canada is now much more strictly regulated, however, given the long latency period, over the next years more workers exposed to asbestos in the 1960s to 1990s when use was greater will likely develop exposure-related illnesses.

## V. Conclusion

Through this study we have examined a variety of attributes of the Canadian workplace as well as data collection techniques and methodologies in order to determine whether the country's incidence of work-related death is higher than many other OECD countries, and why Canada has experienced an increase in the number of work-related deaths in recent years.

As we have seen, there are major differences in definitions and data collection techniques among countries that can go a long way in explaining the variances in workplace fatality incidence rates. The inclusion or exclusion of deaths due to occupational disease is particularly salient since fully half of Canada's recorded work-related deaths are due to disease. A study that is able to fully account for the existing definitional differences among countries is needed to provide a more precise comparative analysis of international workplace fatality rates. The ILO, in its role as gatherer and disseminator of labour statistics, is well placed to undertake such comparative work.

We have also linked the increase in workplace deaths in Canada to asbestos exposure. While we suspect that most of the deaths due to asbestos trace back to exposure prior to the implementation and enforcement of stricter controls, due to the long latency periods of asbestos-related diseases, it is likely that the number of work-related deaths has not yet peaked. Furthermore, Canada continues to mine, use (albeit at a much smaller scale than in the past), and export asbestos while many other OECD countries have implemented bans.<sup>25</sup>

The estimates of workplace fatalities in Canada analyzed in this report come from an administrative source, namely the administrative databases compiled by the provincial workers compensation boards. The report therefore reflects both the strengths and weaknesses of this data source. Additional work is needed to develop estimates of workplace fatalities that take account of: differences in worker compensation coverage across jurisdictions; differences in rules governing the acceptance of compensation claims across jurisdiction; and changes in the rules governing the acceptance of compensation claims over time within the same jurisdiction.

Two key messages emerge from this study. First, despite the problems associated with the definition and measurement of workplace fatalities, the number and rate of workplace fatalities in Canada, even from accidents, is unacceptably high. Second, insufficient progress is being made in reducing the number and rate of workplace fatalities. Canada can do much better.

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<sup>25</sup> Indeed, Canada refuses to sign an international agreement to ban the export of asbestos (Globe and Mail, November 28, 2006)

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## Appendix 1: Examples of Workplace Fatalities in British Columbia in 2006

The fatalities reported here represent worker deaths that occurred 2006 and were compensated by WorkSafeBC (the Workers' Compensation Board of B.C.) Accepted fatality claims include both injury fatalities and work-related disease fatalities.

A salesperson died in a motor vehicle accident while returning from a delivery.

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A ski guide was caught in an avalanche.

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A truck driver died when a landslide hit his vehicle, causing it to swerve off the road.

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A worker died as a result of exposure to asbestos while working as a carpenter in smelters for more than 20 years.

---

An excavator became stuck on the sloped edge of a pond on a farm. The operator left the excavator and was crushed between its cab and a nearby steel water tank when the excavator moved unexpectedly.

---

A worker was crushed under the lifting attachment of a forklift when he tried to lower the load by operating the carriage-lowering lever from a position outside the equipment.

---

A longshoreman died as a result of long-term exposure to asbestos while loading and unloading it onto ships.

---

A cabinet maker/installer succumbed to mesothelioma after decades of exposure to asbestos in insulation.

---

A construction worker was adjusting the height of a section of falsework when it collapsed on top of him.

---

A worker recently died of bladder cancer as a result of years of exposure to chemicals while working in smelters as a saw operator and pipe fitter.

---

A ski lift operator (young worker) died when the snowmobile he was on left the main downhill ski run and collided with a rock and tree. (See ID Number: P08.CK6.K22.L6L for a second fatality in the same incident.)

---

A herring packer, acting as a mother ship to a small gillnet fleet, was running in to deliver her load of herring while punts continued to fish. A lone person on the packer radioed a

Mayday call that the vessel was taking on water and was rolling over. Communications were lost, the vessel sank, and the vessel master remains missing and presumed drowned.

---

A worker died as a result of decades of exposure to asbestos while changing brake pads on logging machinery.

---

A mineral exploration worker drowned when the helicopter in which he was a passenger crashed in a lake.

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A worker died of his injuries after falling approximately 22 feet from an extension ladder. At the time of the accident, workers were installing aluminum gutters on a 3-storey building. The worker fell when a piece of gutter contacted a live overhead high-voltage power line.

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A 30-foot commercial fishing vessel caught fire and burned. The three crew members on board were picked up from the water. One could not be revived and one had second-degree burns.

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A worker died when he fell 20 feet from a steep-sloped roof while removing shingles.

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A pipe layer died as a result of being exposed to asbestos for years while cutting, drilling, fitting, and laying concrete asbestos pipe.

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A worker died of asbestos-related illness after being exposed to asbestos over a long period of time while working as a welder.

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A worker died after more than 30 years of exposure to asbestos while operating a power cutter in the printing industry.

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A worker at a firewood yard was caught in and crushed by a hydraulic wood splitter.

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A worker died as a result of long-term exposure to asbestos while working in aluminum smelters and pulp mills.

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A tile setter died as a result of exposure to asbestos filler while mixing acrylic powders with dry cement.

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A truck driver died when his vehicle failed to negotiate a corner and he lost control of it.

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An inspector of commercial vehicles died as a result of being exposed to crocidolite asbestos in the building where the inspections took place.

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A truck driver was repeatedly exposed to asbestos while repairing and adjusting his brakes.

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A conductor was fatally injured when a train left the tracks and went down an embankment.

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The operator of mobile equipment used to apply shotcrete at a mine was operating a remote boom from the ground. The boom swung around and struck the operator in the back.

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A traffic control person was struck by a motor vehicle that went through lane-closure traffic control devices.

---

A boilermaker died of mesothelioma from exposure to asbestos while working with boilers.

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The driver of a service truck was standing outside between the open truck door and the truck box. The truck rolled down an incline, into the sundeck of a home, fatally crushing the driver.

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A tug boat operator drowned after falling overboard while inspecting a log boom in preparation for towing the boom.

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An auto mechanic died of mesothelioma after years of exposure to asbestos while servicing brakes and sanding brake pads.

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A worker recently died of mesothelioma after decades of exposure to asbestos while working as a painter in steel frame erection.

---

A tandem-axle dump truck and trailer loaded with asphalt drove off the road and into a ditch. The driver sustained fatal injuries.

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A firefighter recently died of cancer due to exposure to cancer-causing agents.

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A loaded logging truck went off a forest service road and over an embankment. The driver was fatally injured.

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A worker recently died of disease caused by years of exposure to asbestos while working in a phosphate plant.

---

A tanker truck travelling on a highway failed to negotiate a curve and rolled. The rollover caused the tanker to catch fire.

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An environmental technician conducting a water check at a seepage shack on a former mine site collapsed as a result of breathing air that was oxygen deficient. The project manager found the first worker, called 911, then went inside the shack to rescue him and also collapsed. When two ambulance attendants arrived, the first paramedic entered the shack and collapsed. The second paramedic went in to perform rescue and collapsed as well. All four workers died.

---

A young worker died when the snowmobile he was on left the main downhill ski run and collided with a rock and tree.

---

While framing a single-family dwelling, a young worker fell through a floor opening to the concrete slab 18.5 feet below.

---

A worker fell 30 metres from a rock bluff to the travelled portion of a highway below.

---

The operator of a log processor and the operator of a rubber-tired skidder were repairing an oil leak on the log processor's head. The processor operator entered the cab of the processor and inadvertently activated a control that swung the processor's boom towards the skidder operator. The head of the processor hit the skidder operator, causing fatal crushing injuries.

---

A worker was struck while using hydraulic jacks to straighten the frame of a logging truck.

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While loading cattle for transport, a farm worker was struck on the head by the centre gate of a stock trailer. A bull that was being loaded had kicked the gate, causing it to strike the worker.

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A worker recently died of asbestos-related disease after being exposed to asbestos while working in mines as a mechanic and heavy equipment operator.

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A volunteer firefighter recently died of cancer after exposure to carcinogens while fighting fires for 20 years.

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A worker recently died of asbestos-related disease. He had worked in the manufacture of a type of vermiculite insulation that contained asbestos.

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An iron worker recently died of asbestos-related disease. He had been exposed to asbestos while welding in the 1950s.

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A yard worker at a warehouse operation inadvertently stepped in front of an oncoming forklift and was run over.

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The skipper of a tugboat fell overboard. His body was later recovered.

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As a worker's vehicle was passing another vehicle on a highway, the worker lost control of his vehicle and was struck by the vehicle being passed. The worker's vehicle remained upright and never left the road but the airbag deployed, and the worker died.

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The driver of a 5-ton tow truck sustained fatal injuries when it left the highway and overturned in a ditch.

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A worker recently died of cancer caused by exposure to petroleum and pitch while working in a smelter for more than 30 years.

---

A twin-engine cargo plane ran off the runway when it landed in severe weather conditions. One pilot was killed, the other was seriously injured.

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A worker recently died of asbestos-related disease. He had been exposed to asbestos while working as a plasterer in the 1950s, when asbestos was added to plaster to make it stronger and fire-resistant.

---

A passenger aircraft's landing gear clipped the top of several trees as the craft attempted an emergency landing on a forest service logging road. This caused the aircraft to crash, killing the pilot and two passengers and injuring five other passengers.

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An operator was crushed between the front of his road grader and an empty log truck trailer.

---

An accountant who died of asbestos-related disease had been exposed to asbestos while working for a metal product manufacturer in the 1960s and 1970s.

---

A powerline technician maintenance crew was performing live line maintenance on a 25-kV overhead power line. The cross-arm supporting the energized circuit inadvertently pivoted, causing two energized conductors to make contact. One worker was electrocuted and another worker sustained flash burns.

---

A security guard died in a single-vehicle MVA.



---

A heavy equipment mechanic was run over by his service truck when it rolled backwards, pinning him under the rear axle differential.

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A 3/4-ton pickup struck the side of a bed truck (oilfield heavy hauler) at a turn on a winter petroleum development road. The worker driving the pickup sustained fatal injuries; the driver of the bed truck was not injured.

---

A worker was run over by mobile equipment in a container yard.

---

A worker died of mesothelioma caused by exposure to asbestos while working around boilers and steam works.

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A log truck driver was fatally injured when a deer struck the front windshield of his loaded log truck, entered the cab, and exited through the rear window. The truck left the highway and struck a power pole before coming to a stop. A vehicle travelling in the opposite direction had first struck the deer, which was then flung into the path of the logging truck at the same height as the truck's windshield.

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A worker died of respiratory complications from asbestosis. He had been exposed to asbestos while working as a carpenter in the 1940s.

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Source: WorkSafeBC (Workers Compensation Board of British Columbia)

**Table 1: Number of Workplace Fatalities, by Jurisdiction, 1993-2005**

<b>Year</b>	<b>Cda</b>	<b>NL</b>	<b>PE</b>	<b>NS</b>	<b>NB</b>	<b>QC</b>	<b>ON</b>	<b>MB</b>	<b>SK</b>	<b>AB</b>	<b>BC</b>	<b>NT &amp; NU</b>	<b>YT</b>
<b>1993</b>	758	11	2	40	14	134	292	25	33	77	124	5	1
<b>1994</b>	725	20	4	22	11	130	248	20	36	74	152	6	2
<b>1995</b>	748	26	2	20	17	148	245	22	26	93	134	12	3
<b>1996</b>	703	17	2	23	20	95	238	27	29	91	153	4	4
<b>1997</b>	833	19	3	20	17	202	225	21	38	120	164	4	0
<b>1998</b>	798	32	3	13	17	208	243	22	28	105	125	2	0
<b>1999</b>	835	27	3	17	20	164	283	23	34	114*	147	2	1
<b>2000</b>	887	38	5	16	7	180	301	19	31	118	157	13	2
<b>2001</b>	915	26	1	8	15	180	328	25	35	118	168	11	0
<b>2002</b>	934	23	1	14	17	188	383	19	23	101	158	6	1
<b>2003</b>	963	23	0	18	7	175	378	24	35	127	170	5	1
<b>2004</b>	928	23	1	41	12	176	365	14	30	124	136	5	1
<b>2005</b>	1097	25	1	27	12	223	412	26	27	143	189	10	2
<b>Average (1993-2005)</b>	855.7	23.8	2.2	21.5	14.3	169.5	303.2	22.1	31.2	107.6	152.1	6.5	1.4
<b>% Distribution</b>													
<b>1993</b>	100	1.5	0.3	5.3	1.8	17.7	38.5	3.3	4.4	10.2	16.4	0.7	0.1
<b>2005</b>	100	2.3	0.1	2.5	1.1	20.3	37.6	2.4	2.5	13.0	17.2	0.9	0.2
<b>Average (1993-2005)</b>	100	2.9	0.3	2.5	1.7	19.8	35.4	2.6	3.8	12.2	17.9	0.8	0.2
<b>Absolute Change (1993-2005)</b>	339	14	-1	-13	-2	89	120	1	-6	66	65	5	1
<b>% Change (1993-2005)</b>	44.7	127.3	-50.0	-32.5	-14.3	66.4	41.1	4.0	-18.2	85.7	52.4	100.0	100.0
<b>% Contribution to Absolute Change in Fatalities</b>	100	4.1	-0.3	-3.8	-0.6	26.3	35.4	0.3	-1.8	19.5	19.2	1.5	0.3

Source: AWCBC National Work Injury and Disease Statistics 2002-2004, pp. 4-5, Table 2; Accepted Claims by Claim Type, Province, 2005.

\*Note: The 1999 fatality total for Alberta was revised from 66 to 114. However, detailed information for the additional 48 fatalities included in the revision is unavailable.

**Table 2: Incidence of Workplace Fatalities per 100,000 workers, by Jurisdiction, 1993-2005**

<b>Year</b>	<b>Cda</b>	<b>NL</b>	<b>PE</b>	<b>NS</b>	<b>NB</b>	<b>QC</b>	<b>ON</b>	<b>MB</b>	<b>SK</b>	<b>AB</b>	<b>BC</b>	<b>NT &amp; NU/YT</b>
<b>1993</b>	5.9	5.7	3.7	10.9	4.7	4.4	5.9	5.0	7.4	6.0	7.4	14.3
<b>1994</b>	5.6	10.3	7.2	5.9	3.7	4.2	4.9	3.9	7.9	5.6	8.7	18.6
<b>1995</b>	5.6	13.4	3.5	5.3	5.5	4.7	4.8	4.3	5.7	6.8	7.5	33.7
<b>1996</b>	5.2	9.1	3.4	6.1	6.5	3.0	4.6	5.2	6.3	6.5	8.4	17.5
<b>1997</b>	6.1	10.1	5.1	5.2	5.5	6.4	4.3	4.0	8.2	8.3	8.8	8.8
<b>1998</b>	5.7	16.6	5.0	3.3	5.4	6.4	4.5	4.1	6.0	7.0	6.7	4.4
<b>1999</b>	5.8	13.4	5.0	4.2	6.1	4.9	5.0	4.2	7.2	7.4	7.8	6.6
<b>2000</b>	6.0	19.2	8.0	3.9	2.1	5.3	5.2	3.4	6.5	7.4	8.1	33.4
<b>2001</b>	6.1	12.8	1.6	1.9	4.5	5.2	5.5	4.5	7.6	7.2	8.7	24.6
<b>2002</b>	6.1	11.1	1.5	3.3	5.0	5.3	6.4	3.3	4.9	6.0	8.0	15.8
<b>2003</b>	6.1	10.8	0.0	4.2	2.0	4.8	6.1	4.2	7.4	7.4	8.4	13.6
<b>2004</b>	5.8	10.7	1.5	9.3	3.4	4.8	5.8	2.4	6.3	7.1	6.6	13.6
<b>2005</b>	6.8	11.7	1.5	6.1	3.4	6.0	6.5	4.5	5.6	8.0	8.9	27.4
<b>Average (1993-2005)</b>	5.9	11.9	3.6	5.4	4.5	5.0	5.3	4.1	6.7	7.0	8.0	17.9
<b>Absolute Change % Change (1993-2005)</b>	0.9	6.0	-2.2	-4.8	-1.2	1.6	0.6	-0.5	-1.8	2.0	1.4	13.1
<b>% of Nat'l Avg.</b>	14.5	105.7	-60.0	-44.2	-26.7	35.7	10.3	-9.7	-24.1	34.1	19.3	91.3
<b>1993</b>	100	95.8	61.8	184.2	78.8	74.6	99.8	83.7	124.2	100.8	125.5	242.1
<b>2005</b>	100	172.1	21.6	89.8	50.5	88.4	96.1	66.0	82.3	118.1	130.8	404.4
<b>Average (1993-2005)</b>	100	201.5	61.0	90.6	75.4	85.1	90.3	69.1	113.0	117.9	135.5	302.3

Sources: Labour Force Survey, Series: V2461119, v2461749, v2462379, v2463009, v2463639, v2464269, v2464899, v2465529, v2466159, v2466789, v2467419; AWCBC National Work Injury and Disease Statistics 2002-2004, pp. 4-5, Table 2; Accepted Claims by Claim Type, Province, 2005.

Note: Incidence rates are not given for NT & NU, and YT because employment estimates are not available from LFS.

**Table 3: Time-loss Injuries, Canada, 1993-2005**

<b>Year</b>	<b>Number of Time-loss Injuries</b>	<b>Incidence of Time-loss Injuries (per 100 workers)</b>
1993	424,848	3.3
1994	430,756	3.3
1995	410,464	3.1
1996	377,885	2.8
1997	379,851	2.8
1998	375,360	2.7
1999	379,450	2.6
2000	392,502	2.7
2001	373,216	2.5
2002	359,174	2.3
2003	348,715	2.2
2004	340,502	2.1
2005	337,930	2.1
Average	379,281	2.7
Absolute Change (1993-2005)	-86,918	-1.2
% Change (1993-2005)	-20.5	-37.1

Sources: AWCBC National Work Injury and Disease Statistics Table 1 Number of Accepted Time-Loss Injuries, by Jurisdiction 1982-2005; CANSIM, Labour Force Survey Series: V2461119

**Table 3a: Percentage of Workforce Covered by a Workers' Compensation Board, 2000-2005**

	<b>CDA</b>	<b>NL</b>	<b>PE</b>	<b>NS</b>	<b>NB</b>	<b>QC</b>	<b>ON</b>	<b>MB</b>	<b>SK</b>	<b>AB</b>	<b>BC</b>	<b>NT</b>	<b>YT</b>
<b>2000</b>	79.8	96.7	88.8	70.2	92.8	94.2	68.9	64.9	68.8	76.5	94.0	100.0	99.9
<b>2001</b>	80.2	96.7	89.5	69.9	94.8	94.5	68.4	66.5	72.6	79.8	94.0	100.0	95.5
<b>2002</b>	79.4	97.0	86.6	70.6	93.9	93.7	67.2	63.2	64.5	82.0	93.7	100.0	94.4
<b>2003</b>	81.2	97.0	91.0	71.3	96.3	93.8	71.3	64.7	64.7	82.9	93.3	99.4	95.7
<b>2004</b>	79.7	97.0	90.6	71.1	95.2	93.7	66.9	65.0	76.1	82.8	93.1	100.0	99.9
<b>2005</b>	80.7	97.0	96.4	71.7	94.5	n.a	69.3	67.2	74.0	87.1	92.5	100.0	99.9
<b>Average</b>													
<b>2000-2005</b>	80.2	96.9	90.5	70.8	94.6	94.0	68.7	65.3	70.1	81.8	93.4	99.9	97.6
<b>Absolute change*</b>													
<b>2000-2005</b>	1.0	0.3	7.6	1.5	1.7	-0.5	0.4	2.3	5.2	10.6	-1.5	0.0	0.0

Source: Workers' Compensation Board/Commission, Financial and Statistical Data Key Statistical Measures, 2000-2005.

\*Absolute change 2000-2004 for Quebec.

**Table 4a: Number and Incidence (per 100,000 workers) of Workplace Fatalities, by Gender, Canada, 1993-2005**

Year	Number of Workplace Fatalities						Incidence of Workplace Fatalities per 100,000 Workers		
	M	% of Total	F	% of Total	Unknown/Not Coded	Total	Year	Male	Female
1993	727	95.9	31	4.1	0	758	1993	10.4	0.5
1994	701	96.7	24	3.3	0	725	1994	9.8	0.4
1995	696	93.0	36	4.8	16	748	1995	9.6	0.6
1996	626	89.0	27	3.8	50	703	1996	8.5	0.4
1997	804	96.5	27	3.2	2	833	1997	10.8	0.4
1998	753	94.4	35	4.4	10	798	1998	9.9	0.5
1999	752	95.6	28	3.6	7	787	1999	9.6	0.4
2000	851	96.5	25	2.8	6	882	2000	10.7	0.4
2001	880	95.9	38	4.1	0	918	2001	11.0	0.5
2002	894	95.7	36	3.9	4	934	2002	10.9	0.5
2003	926	96.2	37	3.8	0	963	2003	11.1	0.5
2004	891	96.0	36	3.9	1	928	2004	10.5	0.5
2005	1069	97.4	28	2.6	0	1097	2005	12.4	0.4
Average (1993-2005)	813.1	95.4	31.4	3.7	7.4	851.8	Average (1993-2005)	10.4	0.5
Absolute Change (1993-2005)	342.0	1.5	-3.0	-1.5	0.0	339.0	Absolute Change (1993-2005)	2.0	-0.2
% Change (1993-2005)	47.0	1.6	-9.7	-37.6	0.0	44.7	% Change (1993-2005)	19.7	-30.9
% Contribution to Absolute Change in Fatalities (1993-2005)	100.9	0.5	-0.9	-0.5	0.0	100.0	% of Total Avg. (1993-2005)	176.7	8.0

Sources: AWCBC National Work Injury and Disease Statistics, Accepted Claims by Claim Type, Province, Year, Gender, 1993-2005

Notes: Totals include all Males, Females, Unknown, and Not Coded in accordance with available AWCBC statistics

**Table 4b: Number of Workplace Fatalities, by Gender and Jurisdiction, 1993-2005**

Year	NL		PE		NS		NB		QC		ON		MB		SK		AB		BC		NT & NU		YT	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
1993	11	0	2	0	40	0	12	2	125	9	282	10	24	1	32	1	74	3	119	5	5	0	1	0
1994	19	1	4	0	22	0	11	0	128	2	239	9	19	1	35	1	71	3	146	6	5	1	2	0
1995	26	0	2	0	20	0	11	3	141	7	237	8	22	0	23	3	88	5	112	9	11	1	3	0
1996	16	1	2	0	22	1	19	1	95	0	178	10	26	1	26	3	85	6	149	4	4	0	4	0
1997	19	0	3	0	19	1	17	0	195	7	219	5	20	1	34	3	118	2	156	8	4	0	0	0
1998	31	1	3	0	12	0	16	1	197	11	221	14	22	0	26	2	104	1	120	5	1	0	0	0
1999	27	0	3	0	15	1	19	0	158	6	271	9	23	0	31	1	63	3	139	8	2	0	1	0
2000	36	1	0	0	15	1	6	1	176	4	293	8	19	0	27	1	111	5	153	4	13	0	2	0
2001	26	0	5	0	7	0	14	1	174	6	310	18	24	1	33	2	116	2	161	7	10	1	0	0
2002	22	1	1	0	12	2	17	0	184	4	366	15	19	0	22	1	94	5	150	8	6	0	1	0
2003	23	0	0	0	18	0	7	0	172	3	362	16	24	0	34	1	122	5	158	12	5	0	1	0
2004	23	0	1	0	41	0	12	0	171	5	348	17	14	0	29	1	119	5	128	8	4	0	1	0
2005	25	0	1	0	27	0	11	1	220	3	399	13	26	0	26	1	140	3	182	7	10	0	2	0
Average (1993-2005)	23.4	0.4	2.1	0.0	20.8	0.5	13.2	0.8	164.3	5.2	286.5	11.7	21.7	0.4	29.1	1.6	100.4	3.7	144.1	7.0	6.2	0.2	1.4	0.0
Absolute Change (1993-2005)	14.0	0.0	-1.0	0.0	-13.0	0.0	-1.0	-1.0	95.0	-6.0	117.0	3.0	2.0	-1.0	-6.0	0.0	66.0	0.0	63.0	2.0	5.0	0.0	1.0	0.0
% Change (1993-2005)	127.3	0.0	-50.0	0.0	-32.5	0.0	-8.3	-50.0	76.0	-66.7	41.5	30.0	8.3	-100.0	-18.8	0.0	89.2	0.0	52.9	40.0	100.0	0.0	100.0	0.0
% Contribution to Absolute Change in Fatalities (1993-2005)	4.1	0.0	-0.3	0.0	-3.8	0.0	-0.3	-0.3	28.0	-1.8	34.5	0.9	0.6	-0.3	-1.8	0.0	19.5	0.0	18.6	0.6	1.5	0.0	0.3	0.0

Sources: AWCBC National Work Injury and Disease Statistics, Accepted Claims by Claim Type, Province, Year, Gender, 1993-2005

Table 5: Number of Workplace Fatalities, by Age Group, Canada, 1993-2005

	Total	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65 and over	Average age	Life Expectancy at birth	Total years lost
1993	758	15	41	50	76	67	58	68	70	71	70	162	48.3	75.0	20,294.0
1994	725	4	34	66	63	62	59	81	54	71	76	144	48.4	75.2	19,451.6
1995	748	13	43	54	82	81	84	79	86	64	56	96	45.5	75.3	22,278.5
1996	703	15	38	44	56	54	53	50	65	49	55	160	48.7	75.7	19,001.1
1997	833	10	52	54	56	72	69	56	66	79	85	228	50.1	76.0	21,543.1
1998	798	16	41	59	77	58	81	75	71	85	79	141	47.7	76.2	22,768.3
1999	787	22	38	40	49	50	69	64	94	70	74	194	50.1	76.5	20,781.2
2000	887	17	45	56	70	86	83	74	81	93	80	185	48.5	76.9	25,148.4
2001	915	20	36	54	58	62	83	91	97	92	88	223	50.2	77.2	24,664.1
2002	934	12	40	55	56	68	85	85	99	113	92	223	50.5	77.4	25,071.9
2003	963	10	40	45	48	72	79	85	102	117	115	244	51.7	77.6	24,931.2
2004	928	16	46	47	47	55	77	86	77	99	96	280	51.8	77.9	24,147.4
2005	1,097	17	43	58	57	62	95	81	84	127	113	353	52.6	78.1	28,023.5
<b>Average (1993-2005)</b>	852	14	41	52	61	65	75	75	80	87	83	203	49.6	76.5	22,931.1
<b>% Change (1993-2005)</b>	44.7	13.3	4.9	16.0	-25.0	-7.5	63.8	19.1	20.0	78.9	61.4	117.9	9.0	4.2	38.1
<b>% Distribution</b>															
1993	98.7	2.0	5.4	6.6	10.0	8.8	7.7	9.0	9.2	9.4	9.2	21.4			
2005	99.4	1.5	3.9	5.3	5.2	5.7	8.7	7.4	7.7	11.6	10.3	32.2			
<b>Average (1993-2005)</b>	98.3	1.7	4.8	6.2	7.2	7.7	8.8	8.8	9.4	10.2	9.7	23.8			
<b>% Contribution to Total Fatalities, by Age Group, 1993-2005</b>															
Age Group		65 years and over			60-64 years			55-59 years			15-54 years				
%		23.8			9.7			10.2			54.6				
<b>% Contribution to Absolute Increase in Fatalities, by Age Group, 1993-2005</b>															
Age Group		65 years and over			60-64 years			55-59 years			15-54 years				
%		56.3			12.7			16.5			15.3				

Source: AWCBC NWISP Accepted Claims by Claim Type, Province, Year, Age (Group), 1993-2005, Life expectancy at birth from CAMSIM: Table 102-0025 and Table 102-0511.

Note: Percentages do not add to 100 because Unknown Age fatalities were excluded.

The life expectancy at birth = male life expectancy \* average male share of workplace fatalities (96.3%) + female life expectancy \* average female share of workplace fatalities (3.7%).

When calculate the average age, 17 is assumed as average age for 15-19, 22 for 20-24, 27 for 25-29, 32 for 30-34, 37 for 35-39, 42 for 40-44, 47 for 45-49, 52 for 50-54, 57 for 55-59, 62 for 60-64, 68 for 65 and over.



**Table 6a: Incidence of Workplace Fatalities per 100,000 workers, by Age Group, Canada, 1993-2005**

	Total	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65 and over
<b>1993</b>	5.9	1.9	3.2	3.0	4.0	3.7	3.4	4.9	6.7	10.8	18.5	88.4
<b>1994</b>	5.6	0.5	2.6	4.1	3.3	3.3	3.3	5.4	5.2	10.4	19.8	72.5
<b>1995</b>	5.6	1.6	3.3	3.4	4.2	4.2	4.6	5.0	7.7	9.2	15.3	49.7
<b>1996</b>	5.2	2.0	2.9	2.8	2.9	2.8	2.8	3.1	5.6	6.8	15.1	81.6
<b>1997</b>	6.1	1.4	4.0	3.4	3.0	3.6	3.6	3.4	5.2	10.6	22.4	110.0
<b>1998</b>	5.7	2.1	3.1	3.7	4.2	2.8	4.0	4.4	5.3	10.7	20.5	65.0
<b>1999</b>	5.5	2.6	2.8	2.5	2.7	2.4	3.3	3.6	6.6	8.3	18.0	91.5
<b>2000</b>	6.0	1.9	3.2	3.5	3.9	4.1	3.9	4.1	5.3	10.2	18.9	88.3
<b>2001</b>	6.1	2.2	2.5	3.4	3.3	3.0	3.8	4.9	6.1	9.7	20.1	104.7
<b>2002</b>	6.1	1.3	2.7	3.4	3.2	3.4	3.8	4.3	6.1	11.0	18.7	93.4
<b>2003</b>	6.1	1.1	2.6	2.7	2.7	3.7	3.6	4.2	6.1	10.2	21.3	89.8
<b>2004</b>	5.8	1.7	3.0	2.8	2.6	2.9	3.5	4.1	4.5	8.2	16.3	97.9
<b>2005</b>	6.8	1.8	2.8	3.4	3.2	3.3	4.3	3.8	4.7	9.9	18.1	114.8
<b>Average (1993-2005)</b>	5.9	1.7	3.0	3.2	3.3	3.3	3.7	4.3	5.8	9.7	18.7	88.3
<b>Absolute Change (1993-2005)</b>	0.9	-0.1	-0.4	0.4	-0.8	-0.4	0.9	-1.1	-2.0	-0.9	-0.3	26.3
<b>% Change (1993-2005)</b>	14.5	-5.7	-11.7	11.9	-19.9	-10.4	25.7	-21.9	-29.9	-8.2	-1.8	29.8
<b>% of Nat'l Avg.</b>												
<b>1993</b>	100	32.7	53.3	51.2	67.5	62.2	57.1	83.1	113.8	181.9	311.5	1492.4
<b>2005</b>	100	26.9	41.1	50.1	47.2	48.7	62.7	56.6	69.7	145.8	267.1	1691.5
<b>Average (1993-2005)</b>	100	29.0	50.7	55.0	56.5	56.6	62.7	72.3	98.3	164.5	317.5	1499.4

Sources: AWCBC NWISP Accepted Claims by Claim Type, Province, Year, Age (Group), 1993-2005

CANSIM, Labour Force Survey Series: v2461127, v2461128, v2461129, v2461130, v2461131, v2461132, v2461133, v2461134, v2461135, v2461136, v2461137

Note: The incidence rate for workers 65 years and over is not meaningful, since most of the deaths for this age group occurred among individuals not employed in the year recorded.

**Table 6b: Absolute Numbers and Incidences of Workplace Fatalities, Canada, 1993-2005**

	<b>Actual Number of Workplace Fatalities</b>	<b>Number of Workplace Fatalities (1993 share)</b>	<b>Actual Incidence of Workplace Fatalities per 100,000 workers</b>	<b>Incidence of Workplace Fatalities per 100,000 workers (1993 share)</b>
<b>1993</b>	758	758	5.9	5.9
<b>1994</b>	725	736	5.6	5.6
<b>1995</b>	748	812	5.6	6.1
<b>1996</b>	703	693	5.2	5.2
<b>1997</b>	833	783	6.1	5.7
<b>1998</b>	798	828	5.7	5.9
<b>1999</b>	787	761	5.5	5.3
<b>2000</b>	887	892	6.0	6.0
<b>2001</b>	915	888	6.1	5.9
<b>2002</b>	934	911	6.1	5.9
<b>2003</b>	963	925	6.1	5.9
<b>2004</b>	928	846	5.8	5.3
<b>2005</b>	1,097	967	6.8	6.0
<b>Average (1993- 2005)</b>	852	831	5.8	5.7
<b>Absolute Change (1993- 2005)</b>	339	209	0.9	0.1
<b>% Change (1993- 2005)</b>	45	28	14.5	0.9

Note: Columns one and three represent the actual numbers, while two and four were calculated by holding the share of deaths in the 65 years and over age group constant to the 1993 share of total deaths (21 per cent).

**Table 7a: Number of Workplace Fatalities, Percentage of Total Workplace Fatalities, by Occupation (Major Groups), Canada, 1996-2005**

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Average (1996-2005)	% Distribution (Average 1996-2005)	Absolute Change (1996-2005)	% Change (1996-2005)	% Contribution to Absolute Change in Fatalities (1996-2005)
Total	703	833	798	787	882	919	934	963	928	1,097	884.4	100 %	394	56.0 %	100 %
Trades, transport and equipment operators and related occupations	287	387	355	359	379	461	463	482	504	594	427.1	48.3	307.0	107.0	77.9
Occupations unique to processing, manufacturing and utilities	72	111	87	108	131	122	146	136	146	166	122.5	13.9	94.0	130.6	23.9
Occupations unique to primary industry	90	114	112	103	123	115	117	120	94	118	110.6	12.5	28.0	31.1	7.1
Sales and service occupations	50	49	62	34	51	71	67	93	79	73	62.9	7.1	23.0	46.0	5.8
Natural and applied sciences and related occupations	36	28	33	34	35	34	30	41	28	34	33.3	3.8	-2.0	-5.6	-0.5
Management occupations	24	37	45	50	14	23	12	25	29	65	32.4	3.7	41.0	170.8	10.4
Business, finance and administration occupations	9	6	13	14	15	16	15	19	9	11	12.7	1.4	2.0	22.2	0.5
Health occupations	4	5	4	8	5	10	9	11	10	4	7.0	0.8	0.0	0.0	0.0
Occupations in social science, education, government service and religion	4	7	4	5	2	8	3	6	3	6	4.8	0.5	2.0	50.0	0.5
Occupations in art, culture, recreation and sport	3	2	1	6	5	3	5	2	7	1	3.5	0.4	-2.0	-66.7	-0.5
Not coded	52	2	7	3	95	34	32	2	2	14	24.3	2.7	-38.0	-73.1	-9.6
Occupations not stated	72	85	75	63	27	22	35	26	17	11	43.3	4.9	-61.0	-84.7	-15.5

Source: AWCBC National Work Injury and Disease Statistics Accepted Claims by Claim Type, Year, Occupation (1996-2005)

Note: Natural and applied sciences and related occupations, uns.; Health occupations, uns.; Occupations in art, culture, recreation and sport, uns.; Occupations unique to processing, manufacturing and utilities, uns. had no fatalities in 1996-2005.

**Table 7b: Incidence of Workplace Fatalities per 100,000 workers, by Occupation (Major Groups), Canada, 1996-2005**

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Average (1996-2005)	Absolute Change (1996- 2005)	% Change (1996-2005)
Total	5.2	6.1	5.7	5.5	6.0	6.1	6.1	6.1	5.8	6.8	5.9	0.6	29.5
Occupations unique to primary industry	14.9	19.0	18.4	17.5	21.5	21.8	22.3	21.9	16.9	20.7	19.5	2.0	38.6
Trades, transport and equipment operators and related occupations	13.9	18.1	16.5	16.6	17.2	20.9	20.5	20.7	21.3	24.8	19.0	7.4	78.2
Occupations unique to processing, manufacturing and utilities	7.7	11.4	8.5	10.1	11.8	11.2	12.9	10.5	8.2	15.3	10.8	0.5	98.4
Natural and applied sciences and related occupations	5.0	3.5	3.8	3.6	3.6	3.4	2.9	3.9	2.7	3.1	3.5	-2.3	-38.4
Management occupations	1.8	2.7	3.3	3.7	1.0	1.7	0.9	1.8	2.0	4.5	2.3	0.2	150.8
Sales and service occupations	1.6	1.5	1.9	1.0	1.4	2.0	1.8	2.4	2.1	1.9	1.8	0.5	19.4
Occupations in art, culture, recreation and sport	0.8	0.5	0.3	1.5	1.2	0.7	1.1	0.4	1.5	0.2	0.8	0.7	-75.4
Health occupations	0.5	0.7	0.5	1.0	0.6	1.2	1.0	1.2	1.1	0.4	0.8	0.5	-23.9
Business, finance and administration occupations	0.4	0.2	0.5	0.5	0.6	0.6	0.5	0.7	0.3	0.4	0.5	-0.1	3.5
Occupations in social science, education, government service and religion	0.4	0.7	0.4	0.4	0.2	0.7	0.2	0.5	0.2	0.4	0.4	-0.1	16.6

Source: AWCBC National Work Injury and Disease Statistics 2002-2004, pp. 304-313, Table 21; Accepted Claims by Claim Type, Year, Occupation; CANSIM Labour Force Survey, Series: v2368998, V2369001, v2369005, v2369006, v2369009, v2369012, v2369013, v2369020, v2369026, v2369027

Note: Natural and applied sciences and related occupations, uns.; Health occupations, uns.; Occupations in art, culture, recreation and sport, uns.; Occupations unique to processing, manufacturing and utilities, uns. had no fatalities in 1996-2005

**Table 7c: Number of Workplace Fatalities, Percentage of Total Workplace Fatalities, by Occupation (Minor Groups), Canada, 1996-2005**

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Average	% Distribution (Average 1996- 2005)	Absolute Change (1996- 2005)	% Change	% Distribution (2005)	% Contribution to Absolute Change in Fatalities (1996-2005)
Total	703	833	798	787	882	919	934	963	928	1097	753.7	100	394	56.0	100	100
Trades and skilled transport and equipment operators	139	210	167	199	201	220	224	251	264	355	190.0	25.2	216.0	155.4	32.4	54.8
Intermediate occupations in transport, equipment operation, installation and maintenance	115	147	146	117	151	181	185	183	199	185	137.3	18.2	70.0	60.9	16.9	17.8
Labourers in processing, manufacturing and utilities	39	67	49	53	85	64	86	83	82	90	59.7	7.9	51.0	130.8	8.2	12.9
Skilled occupations in primary industry	37	44	56	50	58	48	53	47	44	48	41.3	5.5	11.0	29.7	4.4	2.8
Processing and manufacturing machine operators and assemblers	27	36	35	50	40	46	45	48	53	70	38.3	5.1	43.0	159.3	6.4	10.9
Trades helpers, construction labourers and related occupations	33	30	42	43	27	60	54	48	41	54	36.9	4.9	21.0	63.6	4.9	5.3
Intermediate occupations in primary industry	26	37	26	30	45	38	46	27	25	47	29.6	3.9	21.0	80.8	4.3	5.3
Labourers in primary industry	27	33	30	23	20	29	18	46	25	23	23.4	3.1	-4.0	-14.8	2.1	-1.0
Technical occupations related to natural and applied sciences	31	19	27	28	27	24	24	25	21	22	21.1	2.8	-9.0	-29.0	2.0	-2.3
Elemental sales and service occupations	23	25	31	18	23	28	20	35	22	17	20.6	2.7	-6.0	-26.1	1.5	-1.5
Skilled sales and service occupations	11	7	19	7	16	22	33	42	45	43	21.1	2.8	32.0	290.9	3.9	8.1
Middle and other management occupations	10	17	17	16	12	21	12	22	13	22	13.8	1.8	12.0	120.0	2.0	3.0
Intermediate sales and service occupations	16	17	12	9	11	21	14	16	12	13	12.0	1.6	-3.0	-18.8	1.2	-0.8

**Table 7c: Number of Workplace Fatalities, Percentage of Total Workplace Fatalities, by Occupation (Minor Groups), Canada, 1996-2005 (cont'd)**

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Average	% Distribution (Average 1996- 2005)	Absolute Change (1996- 2005)	% Change	% Distribution (2005)	% Contribution to Absolute Change in Fatalities (1996-2005)
Management occupations, uns.	13	18	27	34	0	0	0	0	14	40	12.2	1.6	27.0	207.7	3.6	6.9
Professional occupations in natural and applied sciences	5	9	6	6	8	10	6	16	7	12	7.3	1.0	7.0	140.0	1.1	1.8
Clerical occupations	7	5	9	10	12	9	10	10	6	9	7.4	1.0	2.0	28.6	0.8	0.5
Skilled administrative and business occupations	2	1	3	1	2	1	3	9	3	2	2.4	0.3	0.0	0.0	0.2	0.0
Occupations unique to processing, manufacturing, utilities supervisors, skilled operators	6	8	3	5	6	12	15	5	11	5	6.5	0.9	-1.0	-16.7	0.5	-0.3
Technical and skilled occupation in art, culture, recreation and sport	2	2	1	6	5	3	4	2	5	1	2.6	0.3	-1.0	-50.0	0.1	-0.3
Professional occupations in health	3	2	1	4	0	5	4	6	4	0	2.5	0.3	-3.0	-100.0	0.0	-0.8
Professional occupations in social science, education, government services and religion	4	4	0	3	2	6	3	4	3	3	2.7	0.4	-1.0	-25.0	0.3	-0.3
Assisting occupations in support of health services	1	0	2	2	5	3	1	2	5	1	1.9	0.2	0.0	0.0	0.1	0.0
Technical and skilled occupations in health	0	2	1	2	0	2	4	3	1	3	1.6	0.2	3.0	N/A	0.3	0.8
Senior management occupations	1	2	1	0	2	2	0	3	2	3	1.4	0.2	2.0	200.0	0.3	0.5
Professional occupations in business and finance	0	0	1	3	1	6	2	0	0	0	1.1	0.1	0.0	N/A	0.0	0.0
Paraprofessional occupations in law, social services, education and religion	0	4	0	2	0	2	0	2	0	3	1.1	0.1	3.0	N/A	0.3	0.8

**Table 7c: Number of Workplace Fatalities, Percentage of Total Workplace Fatalities, by Occupation (Minor Groups), Canada, 1996-2005 (cont'd)**

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Average	% Distribution (Average 1996- 2005)	Absolute Change (1996- 2005)	% Change	% Distribution (2005)	% Contribution to Absolute Change in Fatalities (1996-2005)
Professional occupations in art and culture	1	0	0	0	0	0	1	0	2	0	0.3	0.0	-1.0	-100.0	0.0	-0.3
Occupations in social science, education, government service and religion, uns.	0	0	4	0	0	0	0	0	0	0	0.3	0.0	0.0	0.0	0.0	0.0
Sales and service occupations, uns.	0	0	0	0	1	0	0	0	0	0	0.1	0.0	0.0	0.0	0.0	0.0
Occupations unique to processing, manufacturing and utilities, uns.	0	0	0	0	0	0	0	0	0	1	0.1	0.0	1.0	N/A	0.1	0.3
Not Coded	52	2	7	3	95	34	32	2	2	14	20.6	2.7	-38.0	-73.1	1.3	-9.6
Occupation not stated	72	85	75	63	27	22	35	26	17	11	36.6	4.9	-61.0	-84.7	1.0	-15.5

Source: AWCBC National Work Injury and Disease Statistics 2002-2004, pp. 304-313, Table 21; Accepted Claims by Claim Type, Year, Occupation; CANSIM Labour Force Survey, Series: v2368998, V2369001, v2369005, v2369006, v2369009, v2369012, v2369013, v2369020, v2369026, v2369027

Note: Natural and applied sciences and related occupations, uns.; Health occupations, uns.; Occupations in art, culture, recreation and sport, uns. had no fatalities in 1996-2005

**Table 8: Number of Workplace Fatalities, by Industry, Canada, 1996-2005**

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Average (1996-2005)	% Distribution (Average 1996-2005)	Absolute Change (1996-2005)	% Change (1996-2005)	% Contribution to Absolute Change in Fatalities (1996- 2005)
Total	703	833	798	787	882	919	934	963	928	1097	884.4	100	394	56.0	100
Manufacturing	145	163	166	181	209	193	227	202	202	230	191.8	21.7	85	58.6	21.6
Construction industries	150	149	162	156	148	184	179	210	192	236	176.6	20.0	86	57.3	21.8
Transportation and storage	98	114	95	96	122	123	98	122	128	125	112.1	12.7	27	27.6	6.9
Agriculture*	103	117	109	95	111	95	94	98	98	98	101.8	11.5	-5	-4.9	-1.3
Mining, quarrying and oil wells	67	92	81	75	98	96	98	99	88	103	89.7	10.1	36	53.7	9.1
Government Services	39	44	35	38	32	63	48	77	64	65	50.5	5.7	26	66.7	6.6
Wholesale trade	20	27	24	27	40	31	47	27	26	45	31.4	3.6	25	125.0	6.3
Logging and forestry	41	42	23	34	34	39	41	20	24	43	34.1	3.9	2	4.9	0.5
Business services	4	24	20	15	21	30	34	14	31	23	21.6	2.4	19	475.0	4.8
Other Services	22	20	20	15	24	18	20	35	21	28	22.3	2.5	6	27.3	1.5
Communication and other utilities	23	21	28	27	22	20	20	25	21	29	23.6	2.7	6	26.1	1.5
Retail trade	21	26	27	20	27	30	16	24	23	37	25.1	2.8	16	76.2	4.1
Health and social service industries	9	8	10	12	8	16	14	21	15	6	11.9	1.3	-3	-33.3	-0.8
Agriculture and related services**	10	14	10	11	25	13	18	16	11	16	14.4	1.6	6	60.0	1.5
Accommodation, food and beverage services	10	13	13	10	8	11	11	8	16	19	11.9	1.3	9	90.0	2.3
Fishing and trapping	9	5	10	7	16	8	10	10	14	12	10.1	1.1	3	33.3	0.8
Educational services	5	12	15	7	5	13	14	10	8	13	10.2	1.2	8	160.0	2.0
Real estate operator and insurance agent	0	1	5	2	3	3	5	6	3	3	3.1	0.4	3	N/A	0.8
Finance and insurance	0	4	1	4	0	1	0	2	2	1	1.5	0.2	1	N/A	0.3
Industry unspecified or undefined	20	45	42	40	36	21	22	26	30	52	33.4	3.8	32	160.0	8.1
Not Coded	10	9	11	10	4	6	12	9	9	11	9.1	1.0	1	10.0	0.3

Source: AWCBC National Work Injury and Disease Statistics 2002-2004, pp. 314-319, Table 22; Accepted Claims by Claim Type, Year, Industry (Division), 1996-2005

\*These data are from the Canadian Agricultural Injury Surveillance Program, [www.caisp.ca](http://www.caisp.ca), which include fatalities due only to workplace accidents among workers in the agriculture industry. These statistics include those collected by the AWCBC as well as workers that are not covered by a WCB or eligible for compensation. 2004 and 2005 data are not available, so we have assumed the same number of deaths as 2003. These fatalities are not included in the Totals.

\*\* These data are from the AWCBC, which include workplace fatalities for workers whose claims are accepted for compensation from a WCB.



**Table 9: Incidence of Workplace Fatalities per 100,000 workers by Industry, 1996-2004**

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Average (1996-2005)	% of Nat'l Avg. (1996-2005)	Absolute Change (1996-2005)	% Change (1996-2005)
All Industries	5.2	6.1	5.7	5.5	6.0	6.1	6.1	6.1	5.8	6.8	5.9	100.0	1.5	29.5
Mining, quarrying and oil wells	37.3	49.9	45.1	48.7	61.2	53.8	57.6	55.6	46.9	42.6	49.9	839.0	5.2	14.1
Logging and forestry	48.8	51.2	27.4	42.6	39.4	52.8	55.6	26.0	33.3	49.1	42.6	716.8	0.3	0.6
Fishing and trapping	29.6	16.5	33.7	23.4	55.6	31.0	38.0	37.6	52.0	38.4	35.6	598.7	8.8	29.7
Agriculture*	24.4	28.1	25.7	23.4	29.8	29.4	28.9	29.5	30.1	32.1	28.1	473.2	7.7	31.5
Construction industries	21.1	20.7	22.1	20.3	18.3	22.3	20.7	23.2	20.2	17.3	20.6	347.0	-3.8	-18.0
Transportation and storage	14.5	16.4	13.3	13.0	15.8	15.9	12.9	15.4	16.0	14.1	14.7	248.0	-0.4	-2.9
Manufacturing	7.5	8.1	7.9	8.3	9.3	8.7	9.9	8.9	8.8	8.7	8.6	144.8	1.2	15.4
Government Services	4.8	5.5	4.5	4.9	4.1	8.0	6.1	9.4	7.8	6.1	6.1	102.9	1.2	25.6
Wholesale trade	4.5	6.0	5.3	5.1	7.3	5.6	8.6	4.7	4.5	5.2	5.7	95.5	0.6	14.0
Agriculture and related services**	2.4	3.4	2.4	2.7	6.7	4.0	5.5	4.8	3.4	4.2	3.9	66.4	1.8	77.0
Other Services	3.4	2.9	2.8	2.1	3.5	2.7	2.9	4.9	3.0	3.2	3.1	52.9	-0.1	-4.1
Communication and other utilities	3.3	2.9	3.8	3.6	2.8	2.4	2.4	3.0	2.4	2.7	2.9	49.4	-0.5	-16.1
Business services	0.4	2.0	1.5	1.1	1.4	2.0	2.2	0.9	1.9	1.3	1.4	24.4	0.9	257.2
Retail trade	1.3	1.6	1.6	1.2	1.5	1.7	0.9	1.3	1.2	1.3	1.3	22.6	0.0	0.0
Real estate operator and insurance agent	0.0	0.4	2.0	0.8	1.2	1.2	2.1	2.2	1.1	1.1	1.2	20.5	1.1	N/A
Accommodation, food and beverage services	1.2	1.5	1.1	1.1	0.9	1.2	1.1	0.8	1.6	1.2	1.2	19.5	0.0	0.4
Educational services	0.5	1.3	1.6	0.7	0.5	1.3	1.4	1.0	0.8	0.9	1.0	17.0	0.4	68.4
Health and social service industries	0.6	0.6	0.7	0.8	0.5	1.0	0.9	1.3	0.9	0.7	0.8	13.4	0.0	6.0
Finance and insurance	0.0	0.6	0.2	0.6	0.0	0.2	0.0	0.3	0.3	0.2	0.2	4.1	0.2	N/A

Source: AWCBC National Work Injury and Disease Statistics Accepted Claims by Claim Type, Year, Industry (Division), 1996-2005; CANSIM Labour Force Survey, Series: V2363384, v2363389, v2363394, v2363395, v2363398, v2363399, v2363407, v2363402, v2363403, v2363405, v2363406

Note: Totals include Industry unspecified or undefined, and Not Coded.

\*These incidence rates are based on data from the Canadian Agricultural Injury Surveillance Program, www.caisp.ca, which includes fatalities due only to workplace accidents among workers in the agriculture industry. These statistics include those collected by the AWCBC as well as workers that are not covered by a WCB or eligible for compensation. 2004/2005 data are not available, so we have assumed the same number of deaths as 2003. The overall incidence rates do not include these data. However, for comparative analysis at the industry level, these figures are recommended, since the "Agriculture and related services" category includes deaths among workers covered by a WCB. Incidence rates are also available, though not included in this table, for the 1990-1995 period. In 1990, the incidence rate for this industry group was 30.8 deaths per 100,000 workers.

\*\* These data are from the AWCBC, which include workplace fatalities for workers whose claims are accepted for compensation from a WCB.

**Table 10: Number of Workplace Fatalities, by Event (Major Groups), Canada, 1996-2005**

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Average (1996-2005)	% Distribution (1996-2005)	Absolute Change (1996-2005)	% Change (1996-2005)	% Contribution to Absolute Change in Fatalities (1996-2005)
Total	703	833	798	787	882	919	934	963	928	1097	884.4	100	394	56.0	100
Exposure to harmful substances or environments	203	289	284	312	339	388	424	443	449	512	364.3	41.2	309	152.2	78.4
Transportation accident	168	197	181	158	216	226	193	224	203	229	199.5	22.6	61	36.3	15.5
Contact with objects and equipment	115	126	116	132	121	122	121	92	109	142	119.6	13.5	27	23.5	6.9
Falls	52	87	66	55	77	59	86	82	78	77	71.9	8.1	25	48.1	6.3
Bodily reaction and exertion	26	35	37	44	34	44	34	33	34	30	35.1	4.0	4	15.4	1.0
Fire or explosion	7	10	18	14	17	16	14	16	26	19	15.7	1.8	12	171.4	3.0
Assaults and violent acts	13	13	12	13	13	11	22	14	12	21	14.4	1.6	8	61.5	2.0
Other events or exposures	36	70	58	43	25	24	0	1	0	3	26.0	2.9	-33	-91.7	-8.4
Unknown	0	0	0	0	0	0	6	19	17	22	6.4	0.7	22	N/A	5.6
Not Coded	83	6	26	16	40	29	34	39	0	42	31.5	3.6	-41	-49.4	-10.4

Source: AWCBC National Work Injury and Disease Statistics Accepted Claims by Claim Type, Year, Event (Division), 1996-2005

**Table 11: Incidence of Workplace Fatalities per 100,000 workers, by Event (Major Groups), Canada, 1996-2005**

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Average (1996-2005)	% Distribution (1996-2005)	Absolute Change (1996-2005)	% Change (1996-2005)
Total	5.2	6.1	5.7	5.5	6.0	6.1	6.1	6.1	5.8	6.8	5.9	100.0	1.5	29.5
Exposure to harmful substances or environments	1.51	2.11	2.02	2.17	2.30	2.60	2.77	2.83	2.82	3.17	2.4	46.7	1.7	109.3
Transportation accident	1.25	1.44	1.29	1.10	1.46	1.51	1.26	1.43	1.27	1.42	1.3	20.9	0.2	13.1
Contact with objects and equipment	0.86	0.92	0.83	0.92	0.82	0.82	0.79	0.59	0.68	0.88	0.8	12.9	0.0	2.5
Falls	0.39	0.63	0.47	0.38	0.52	0.39	0.56	0.52	0.49	0.48	0.5	7.0	0.1	22.9
Bodily reaction and exertion	0.19	0.26	0.26	0.31	0.23	0.29	0.22	0.21	0.21	0.19	0.2	2.7	0.0	-4.2
Fire or explosion	0.05	0.07	0.13	0.10	0.12	0.11	0.09	0.10	0.16	0.12	0.1	1.7	0.1	125.3
Assaults and violent acts	0.10	0.09	0.09	0.09	0.09	0.07	0.14	0.09	0.08	0.13	0.1	1.9	0.0	34.1
Other events or exposures	0.27	0.51	0.41	0.30	0.17	0.16	0.00	0.01	0.00	0.02	0.2	0.3	-0.2	-93.1
Unknown	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.12	0.11	0.14	0.0	2.0	0.1	N/A
Not Coded	0.62	0.04	0.19	0.11	0.27	0.19	0.22	0.25	0.00	0.26	0.2	3.8	-0.4	-58.0

Source: AWCBC National Work Injury and Disease Statistics Accepted Claims by Claim Type, Year, Event (Division), 1996-2005; CANSIM, Labour Force Survey Series: V2461119

**Table 12a: Number and Incidence (per 100,000 workers) of Workplace Fatalities, by Nature of Injury, Canada, 1996-2005**

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Average (1996- 2005)	% Distributi on (1996- 2005)	Absolute Change (1996- 2005)	% Change (1996- 2005)	% Contribution to Absolute Change in Fatalities (1996-2005)
<b>Number of Workplace Fatalities</b>															
Accident	394	433	427	409	504	495	485	450	459	491	454.7	51.4	97.0	24.6	24.6
Disease	203	318	283	335	346	401	430	466	461	557	380.0	43.0	354.0	174.4	89.8
Nonclassifiable/ Not coded	106	82	88	43	32	23	19	47	8	49	49.7	5.6	-57.0	-53.8	-14.5
Total	703	833	798	787	882	919	934	963	928	1097	884.4	100	394.0	56.0	100.0
<b>Incidence of Workplace Fatalities per 100,000 Workers</b>															
Accident	2.9	3.2	3.0	2.8	3.4	3.3	3.2	2.9	2.9	3.0	3.1	51.6	0.1	3.4	6.5
Disease	1.5	2.3	2.0	2.3	2.3	2.7	2.8	3.0	2.9	3.4	2.5	42.6	1.9	127.7	124.9
Nonclassifiable/ Not coded	0.8	0.6	0.6	0.3	0.2	0.2	0.1	0.3	0.1	0.3	0.3	5.8	-0.5	-61.6	-31.5
Total	5.2	6.1	5.7	5.5	6.0	6.1	6.1	6.1	5.8	6.8	5.9	100	1.5	29.5	100.0

Source: AWCBC NWISP Accepted Claims by Claim Type, Year, Province, Nature of Injury (Division), 1996-2005

**Table 12b: Number of Workplace Fatalities by Nature of Injury and Province, Canada, 1996-2005**

	Canada				Nfld and Labrador				Prince Edward Island				Nova Scotia			
	Total	Acc.	Dis.	NC	Total	Acc.	Dis.	NC	Total	Acc.	Dis.	NC	Total	Acc.	Dis.	NC
1996	703	394	203	106	17	12	4	1	2	2	0	0	23	11	12	0
1997	833	433	318	82	19	18	1	0	3	1	2	0	20	14	5	1
1998	798	427	283	88	32	17	14	1	3	2	1	0	13	8	5	0
1999	787	409	335	43	27	7	20	0	3	1	1	1	17	8	9	0
2000	882	504	346	32	38	20	18	0	0	0	0	0	16	7	9	0
2001	919	495	401	23	26	14	11	1	5	0	0	5	8	5	3	0
2002	934	485	430	19	23	9	14	0	1	1	0	0	14	6	8	0
2003	963	450	466	47	23	9	14	0	0	0	0	0	18	12	6	0
2004	928	459	461	8	23	8	15	0	1	0	0	1	41	21	20	0
2005	1,097	491	557	49	25	12	13	0	1	1	0	0	27	10	15	2
Average (1996- 2005)	884.4	454.7	380.0	49.7	25.3	12.6	12.4	0.3	1.9	0.8	0.4	0.7	19.7	10.2	9.2	0.3
Absolute Change (1996- 2005)	394	97	354	-57	8	0	9	-1	-1	-1	0	0	4	-1	3	2
% Change (1996- 2005)	56.0	24.6	174.4	-53.8	47.1	0.0	225.0	-100.0	-50.0	-50.0	N/A	N/A	17.4	-9.1	25.0	N/A

Source: AWCBC National Work Injury and Disease Statistics, Accepted Claims by Nature of Injury, Province, Year, 1996-2005

**Table 12b: Number of Workplace Fatalities by Nature of Injury and Province, Canada, 1996-2005 (cont'd)**

	New Brunswick				Quebec				Ontario				Manitoba			
	Total	Acc.	Dis.	NC	Total	Acc.	Dis.	NC	Total	Acc.	Dis.	NC	Total	Acc.	Dis.	NC
1996	20	12	0	8	95	59	28	8	238	132	56	50	27	11	16	0
1997	17	11	1	5	202	92	96	14	225	114	110	1	21	10	10	1
1998	17	12	1	4	208	112	73	23	243	133	93	17	22	10	6	6
1999	20	16	2	2	164	88	57	19	283	142	141	0	23	13	9	1
2000	7	4	1	2	180	94	67	19	301	150	150	1	19	8	9	2
2001	15	9	3	3	180	87	90	3	328	156	172	0	25	7	16	2
2002	17	12	5	0	188	99	86	3	383	162	219	2	19	6	9	4
2003	7	6	1	0	175	73	100	2	378	167	211	0	24	3	19	2
2004	12	8	4	0	176	78	96	2	365	158	207	0	14	3	9	2
2005	12	10	2	0	223	89	133	1	412	146	263	3	26	5	14	7
Average (1996-2005)	14.4	10.0	2.0	2.4	179.1	87.1	82.6	9.4	315.6	146.0	162.2	7.4	22.0	7.6	11.7	2.7
Absolute Change (1996-2005)	-8	-2	2	-8	128	30	105	-7	174	14	207	-47	-1	-6	-2	7
% Change (1996-2005)	-40.0	-16.7	N/A	-100.0	134.7	50.8	375.0	-87.5	73.1	10.6	369.6	-94.0	-3.7	-54.5	-12.5	N/A

**Table 12b: Number of Workplace Fatalities by Nature of Injury and Province, Canada, 1996-2005 (cont'd)**

	Saskatchewan				Alberta				British Columbia				NWT & Nunavut				Yukon			
	Total	Acc.	Dis.	NC	Total	Acc.	Dis.	NC	Total	Acc.	Dis.	NC	Total	Acc.	Dis.	NC	Total	Acc.	Dis.	NC
1996	29	13	8	8	91	30	35	26	153	108	44	1	4	4	0	0	4	0	0	4
1997	38	18	3	17	120	26	51	43	164	125	39	0	4	4	0	0	0	0	0	0
1998	28	18	7	3	105	38	35	32	125	75	48	2	2	2	0	0	0	0	0	0
1999	34	19	8	7	66	20	38	8	147	92	50	5	2	2	0	0	1	1	0	0
2000	31	19	5	7	118	90	28	0	157	101	55	1	13	11	1	1	2	0	2	0
2001	35	25	8	2	118	76	40	2	168	107	57	4	11	9	1	1	0	0	0	0
2002	23	11	7	5	101	70	28	3	158	104	52	2	6	5	1	0	1	0	1	0
2003	35	18	11	6	127	62	36	29	170	97	68	5	5	2	0	3	1	1	0	0
2004	30	17	12	1	124	75	47	2	136	86	50	0	5	4	1	0	1	1	0	0
2005	27	20	4	3	143	65	51	27	189	126	62	1	10	5	0	5	2	2	0	0
Average (1996- 2005)	31.0	17.8	7.3	5.9	111.3	55.2	38.9	17.2	156.7	102.1	52.5	2.1	6.2	4.8	0.4	1.0	1.2	0.5	0.3	0.4
Absolute Change (1996- 2005)	-2	7	-4	-5	52	35	16	1	36	18	18	0	6	1	0	5	-2	2	0	-4
% Change (1996- 2005)	-6.9	53.8	-50.0	-62.5	57.1	116.7	45.7	3.8	23.5	16.7	40.9	0.0	150.0	25.0	N/A	N/A	-50.0	N/A	N/A	-100.0

**Table 12b: Number of Workplace Fatalities by Nature of Injury and Province, Canada, 1996-2005 (cont'd)**

	Canada				Nfld and Labrador				Prince Edward Island				Nova Scotia			
	Total	Acc.	Dis.	NC	Total	Acc.	Dis.	NC	Total	Acc.	Dis.	NC	Total	Acc.	Dis.	NC
1996	5.2	2.9	1.5	0.8	9.1	6.4	2.1	0.5	3.4	3.4	0.0	0.0	6.1	2.9	3.2	0.0
1997	6.1	3.2	2.3	0.6	10.1	9.6	0.5	0.0	5.1	1.7	3.4	0.0	5.2	3.7	1.3	0.3
1998	5.7	3.0	2.0	0.6	16.6	8.8	7.3	0.5	5.0	3.4	1.7	0.0	3.3	2.0	1.3	0.0
1999	5.5	2.8	2.3	0.3	13.4	3.5	10.0	0.0	5.0	1.7	1.7	1.7	4.2	2.0	2.2	0.0
2000	6.0	3.4	2.3	0.2	19.2	10.1	9.1	0.0	0.0	0.0	0.0	0.0	3.9	1.7	2.2	0.0
2001	6.1	3.3	2.7	0.2	12.8	6.9	5.4	0.5	7.9	0.0	0.0	7.9	1.9	1.2	0.7	0.0
2002	6.1	3.2	2.8	0.1	11.1	4.3	6.8	0.0	1.5	1.5	0.0	0.0	3.3	1.4	1.9	0.0
2003	6.1	2.9	3.0	0.3	10.8	4.2	6.6	0.0	0.0	0.0	0.0	0.0	4.2	2.8	1.4	0.0
2004	5.8	2.9	2.9	0.1	10.7	3.7	7.0	0.0	1.5	0.0	0.0	1.5	9.3	4.7	4.5	0.0
2005	6.8	3.0	3.4	0.3	11.7	5.6	6.1	0.0	1.5	1.5	0.0	0.0	6.1	2.3	3.4	0.5
Average (1996-2005)	5.9	3.1	2.5	0.3	12.6	6.3	6.1	0.2	3.1	1.3	0.7	1.1	4.8	2.5	2.2	0.1
Absolute Change (1996-2005)	1.5	0.1	1.9	-0.5	2.6	-0.8	3.9	-0.5	-1.9	-1.9	0.0	0.0	0.0	-0.7	0.2	0.5
% Change (1996-2005)	29.5	3.4	127.7	-61.6	28.8	-12.4	184.6	-100.0	-56.8	-56.8	0.0	0.0	-0.1	-22.7	6.3	N/A

Source: AWCBC National Work Injury and Disease Statistics, Accepted Claims by Nature of Injury, Province, Year, 1996-2005; CANSIM LFS



**Table 12b: Number of Workplace Fatalities by Nature of Injury and Province, Canada, 1996-2005 (cont'd)**

	New Brunswick				Quebec				Ontario				Manitoba			
	Total	Acc.	Dis.	NC	Total	Acc.	Dis.	NC	Total	Acc.	Dis.	NC	Total	Acc.	Dis.	NC
1996	6.5	3.9	0.0	2.6	3.0	1.9	0.9	0.3	4.6	2.6	1.1	1.0	5.2	2.1	3.1	0.0
1997	5.5	3.6	0.3	1.6	6.4	2.9	3.0	0.4	4.3	2.2	2.1	0.0	4.0	1.9	1.9	0.2
1998	5.4	3.8	0.3	1.3	6.4	3.4	2.2	0.7	4.5	2.4	1.7	0.3	4.1	1.9	1.1	1.1
1999	6.1	4.9	0.6	0.6	5.0	2.6	1.7	0.6	5.0	2.5	2.5	0.0	4.2	2.4	1.7	0.2
2000	2.1	1.2	0.3	0.6	5.3	2.8	2.0	0.6	5.2	2.6	2.6	0.0	3.4	1.4	1.6	0.4
2001	4.5	2.7	0.9	0.9	5.2	2.5	2.6	0.1	5.5	2.6	2.9	0.0	4.5	1.3	2.9	0.4
2002	5.0	3.5	1.5	0.0	5.3	2.8	2.4	0.1	6.4	2.7	3.6	0.0	3.3	1.1	1.6	0.7
2003	2.0	1.7	0.3	0.0	4.8	2.0	2.8	0.1	6.1	2.7	3.4	0.0	4.2	0.5	3.3	0.4
2004	3.4	2.3	1.1	0.0	4.8	2.1	2.6	0.1	5.8	2.5	3.3	0.0	2.4	0.5	1.6	0.3
2005	3.4	2.9	0.6	0.0	6.0	2.4	3.6	0.0	6.4	2.3	4.1	0.0	4.5	0.9	2.4	1.2
Average (1996-2005)	4.4	3.1	0.6	0.8	5.2	2.5	2.4	0.3	5.4	2.5	2.7	0.1	4.0	1.4	2.1	0.5
Absolute Change (1996-2005)	-3.1	-1.1	0.6	-2.6	3.0	0.5	2.7	-0.2	1.8	-0.3	3.0	-0.9	-0.7	-1.3	-0.7	1.2
% Change (1996-2005)	-47.7	-27.4	0.0	-100.0	97.8	27.0	299.9	-87.5	39.8	-10.7	279.3	-95.2	-14.1	-59.5	-22.0	0.0

**Table 12b: Number of Workplace Fatalities by Nature of Injury and Province, Canada, 1996-2005 (cont'd)**

	Saskatchewan				Alberta				British Columbia			
	Total	Acc.	Dis.	NC	Total	Acc.	Dis.	NC	Total	Acc.	Dis.	NC
1996	6.3	2.8	1.8	1.8	6.5	2.1	2.5	1.9	8.4	5.9	2.4	0.1
1997	8.2	3.9	0.6	3.6	8.3	1.8	3.5	3.0	8.8	6.7	2.1	0.0
1998	6.0	3.8	1.5	0.6	7.0	2.5	2.3	2.1	6.7	4.0	2.6	0.1
1999	7.2	4.0	1.7	1.5	4.3	1.3	2.5	0.5	7.8	4.9	2.6	0.3
2000	6.5	4.0	1.1	1.5	7.4	5.7	1.8	0.0	8.1	5.2	2.8	0.1
2001	7.6	5.4	1.7	0.4	7.2	4.7	2.5	0.1	8.7	5.6	3.0	0.2
2002	4.9	2.3	1.5	1.1	6.0	4.2	1.7	0.2	8.0	5.3	2.6	0.1
2003	7.4	3.8	2.3	1.3	7.4	3.6	2.1	1.7	8.4	4.8	3.4	0.2
2004	6.3	3.5	2.5	0.2	7.1	4.3	2.7	0.1	6.6	4.2	2.4	0.0
2005	5.6	4.1	0.8	0.6	8.0	3.6	2.9	1.5	8.9	5.9	2.9	0.0
Average (1996-2005)	6.6	3.8	1.6	1.3	6.9	3.4	2.4	1.1	8.1	5.3	2.7	0.1
Absolute Change (1996-2005)	-0.8	1.3	-0.9	-1.1	1.5	1.5	0.4	-0.3	0.4	0.0	0.5	0.0
% Change (1996-2005)	-12.0	45.4	-52.8	-64.6	23.7	70.6	14.7	-18.2	5.3	-0.5	20.1	-14.7

**Table 13: Number of Workplace Fatalities, by Nature of Injury (Major and Minor Groups), Canada, 1996-2005**

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Average (1996-2005)	% Distribution (1996-2005)	Absolute Change (1996- 2005)	% Change (1996- 2005)	% Contribution to Absolute Change in Fatalities (1996-2005)
<b>Total</b>	703	833	798	787	882	919	934	963	928	1,097	884.4	100.0	394.0	56.0	100.0
<b>Major Groups</b>															
<b>ACCIDENT</b>															
<b>Traumatic injuries and disorders</b>	394	433	427	409	504	495	485	450	459	491	454.7	51.4	97.0	24.6	24.6
<b>DISEASE</b>	203	318	283	335	346	401	430	466	461	557	380.0	43.0	354.0	174.4	89.8
<b>Neoplasms, tumors, and cancer</b>	63	103	132	180	189	212	257	305	305	377	212.3	24.0	314.0	498.4	79.7
<b>Systemic diseases and disorders</b>	121	187	138	143	148	179	160	147	148	165	153.6	17.4	44.0	36.4	11.2
<b>Multiple diseases, conditions, or disorders</b>	16	26	12	9	5	6	7	7	2	11	10.1	1.1	-5.0	-31.3	-1.3
<b>Infectious and parasitic diseases</b>	2	1	1	0	1	2	2	5	3	0	1.7	0.2	-2.0	-100.0	-0.5
<b>Symptoms, signs and ill-defined conditions</b>	1	2	0	3	3	2	4	2	3	4	2.4	0.3	3.0	300.0	0.8
<b>Nonclassifiable</b>	48	76	60	26	12	15	14	14	6	13	28.4	3.2	-35.0	-72.9	-8.9
<b>Not coded</b>	58	6	28	17	20	8	5	33	2	36	21.3	2.4	-22.0	-37.9	-5.6
<b>Minor Groups</b>															
<b>ACCIDENT</b>															
<b>Traumatic injuries and disorders</b>	394	433	427	409	504	495	485	450	459	491	454.7	51.4	97.0	24.6	24.6
Multiple traumatic injuries and disorders	136	122	109	112	184	180	205	203	219	197	166.7	18.8	61.0	44.9	15.5
Other traumatic injuries and disorders	103	126	158	150	156	161	116	102	90	137	129.9	14.7	34.0	33.0	8.6
Intracranial injuries	32	28	29	33	43	34	48	41	41	45	37.4	4.2	13.0	40.6	3.3
Traumatic injuries to bones, nerves, spinal cord	41	43	44	27	39	40	38	32	35	34	37.3	4.2	-7.0	-17.1	-1.8
Traumatic injuries and disorders, uns.	21	36	15	12	20	15	16	15	25	18	19.3	2.2	-3.0	-14.3	-0.8
Surface wounds and bruises	22	27	19	30	15	14	21	11	17	17	19.3	2.2	-5.0	-22.7	-1.3
Traumatic injuries to muscles, tendons, ligaments, joints, etc.	13	20	15	13	19	17	13	19	16	15	16.0	1.8	2.0	15.4	0.5
Open wounds	14	15	13	17	12	19	17	16	8	17	14.8	1.7	3.0	21.4	0.8
Burns	12	14	22	15	11	13	7	8	7	9	11.8	1.3	-3.0	-25.0	-0.8
Effects of environmental conditions	0	2	3	0	5	2	4	3	1	2	2.2	0.2	2.0	N/A	0.5

**Table 13: Number of Workplace Fatalities, by Nature of Injury (Major and Minor Groups), Canada, 1996-2005 (cont'd)**

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Average (1996-2005)	% Contributio n	Absolute Change (1996- 2005)	% Change (1996- 2005)	% Contribution to Absolute Change in Fatalities (1996-2005)
<b>DISEASE</b>															
<b>Systemic diseases and disorders</b>	121	187	138	143	148	179	160	147	148	165	152.3	17.2	44.0	36.4	11.2
Respiratory system diseases	97	153	103	108	112	131	128	105	111	121	116.9	13.2	24.0	24.7	6.1
Circulatory system diseases	17	17	28	27	25	35	16	26	26	27	24.4	2.8	10.0	58.8	2.5
Musculoskeletal system and connective tissue diseases and disorders	6	13	5	7	7	9	10	8	8	9	8.2	0.9	3.0	50.0	0.8
Nervous system and sense organs diseases	0	1	0	1	0	0	3	3	1	5	1.4	0.2	5.0	N/A	1.3
Other systemic diseases and disorders	0	0	1	0	1	1	3	2	0	1	0.9	0.1	1.0	N/A	0.3
Diseases of the blood and blood forming organs	0	0	0	0	0	0	0	0	2	1	0.3	0.0	1.0	N/A	0.3
Genitourinary system diseases and disorders	0	3	1	0	2	2	0	2	0	1	1.1	0.1	1.0	N/A	0.3
Digestive system diseases and disorders	1	0	0	0	1	0	0	1	0	0	0.3	0.0	-1.0	-100.0	-0.3
Systemic diseases and disorders, uns.	0	0	0	0	0	1	0	0	0	0	0.1	0.0	0.0	N/A	0.0
Diseases and disorders of the skin and subcutaneous tissue	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	N/A	0.0
<b>Infectious and parasitic diseases</b>	2	0	1	0	1	2	2	5	3	0	1.8	0.2	-2.0	-100.0	-0.5
Infectious and parasitic diseases, uns.	0	0	0	0	0	0	2	2	1	0	0.6	0.1	0.0	N/A	0.0
Viral diseases	2	0	0	0	1	1	0	1	2	0	0.8	0.1	-2.0	-100.0	-0.5
Bacterial diseases	0	0	1	0	0	0	0	2	0	0	0.3	0.0	0.0	N/A	0.0
Other arthropod-borne diseases	0	0	0	0	0	1	0	0	0	0	0.1	0.0	0.0	N/A	0.0
Mycoses	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	N/A	0.0
Helminthiasis	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	N/A	0.0
Infectious diseases peculiar to the intestines	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	N/A	0.0
Other infectious and parasitic diseases	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	N/A	0.0

**Table 13: Number of Workplace Fatalities, by Nature of Injury (Major and Minor Groups), Canada, 1996-2005 (cont'd)**

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Average (1996-2005)	% Contributio n	Absolute Change (1996- 2005)	% Change (1996- 2005)	% Contribution to Absolute Change in Fatalities (1996-2005)
<b>Neoplasms, tumors, and cancer</b>	63	103	132	180	189	212	257	305	305	377	212.3	24.0	314.0	498.4	79.7
Malignant neoplasms and tumors (cancers, carcinomas, sarcomas)	63	100	132	178	184	203	247	298	300	365	207.0	23.4	302.0	479.4	76.6
Neoplasms, tumors, and cancer, uns.	0	2	0	1	5	0	5	5	3	7	2.8	0.3	7.0	N/A	1.8
Other neoplasms, tumors, and cancer	0	0	0		0	0	4	1	2	5	1.3	0.2	5.0	N/A	1.3
Benign neoplasms and tumors	0	1	0	0	0	8	0	1	0	0	1.0	0.1	0.0	N/A	0.0
Neoplasms and tumors of unknown properties	0	0	0	1	0	1	1	0	0	0	0.3	0.0	0.0	N/A	0.0
<b>Symptoms, signs and ill-defined conditions</b>	1	2	0	4	3	2	4	2	3	4	2.5	0.3	3.0	300.0	0.8
Symptoms	1	0	0	3	1	1	2	1	1	1	1.1	0.1	0.0	0.0	0.0
Mental disorders or syndromes	0	1	0	1	1	1	2	1	1	2	1.0	0.1	2.0	N/A	0.5
Other diseases, conditions, n.e.c.	0	1	0	0	1	0	0	0	1	1	0.4	0.0	1.0	N/A	0.3
Symptoms, signs and ill-defined conditions, uns.	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	N/A	0.0
Abnormal findings	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	N/A	0.0
Multiple symptoms, signs, and ill-defined conditions	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	N/A	0.0
Symptoms, signs, and ill-defined conditions, n.e.c.	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	N/A	0.0
Other diseases, conditions, and disorders, uns.	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	N/A	0.0
Damage to prosthetic devices	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	N/A	0.0
<b>Multiple diseases, conditions, or disorders</b>	16	26	12	8	5	6	7	7	2	11	10.0	1.1	-5.0	-31.3	-1.3
<b>Nonclassifiable</b>	48	76	60	26	12	15	14	14	6	13	28.4	3.2	-35.0	-72.9	-8.9
<b>Not coded</b>	58	6	28	17	20	8	5	33	2	36	21.3	2.4	-22.0	-37.9	-5.6

Source: AWCBC NWISP Accepted Claims by Claim Type, Year, Province, Nature of Injury (Division), 1996-2005

**Table 14: Top Ten (Minor Groups) - Number of Workplace Fatalities, by Nature of Injury, Canada, 1996-2005**

Nature of Injury		Number of Fatalities										Average (1996-2005)	Absolute Change (1996-2004)	% Change (1996-2004)
		1996	1997	1998	1999	2000	2001	2002	2003	2004	2005			
Malignant neoplasms and tumors (cancers, carcinomas, sarcomas)	Disease	63	100	132	178	184	203	247	298	300	365	207	302	479.4
Multiple traumatic injuries and disorders	Accident	136	122	109	112	184	180	205	203	219	197	167	61	44.9
Respiratory system diseases	Disease	97	153	103	108	112	131	128	105	111	121	117	24	24.7
Other traumatic injuries and disorders	Accident	103	126	158	150	156	161	116	102	90	137	130	34	33.0
Intracranial injuries	Accident	32	28	29	33	43	34	48	41	41	45	37	13	40.6
Traumatic injuries to bones, nerves, spinal cord	Accident	41	43	44	27	39	40	38	32	35	34	37	-7	-17.1
Circulatory system diseases	Disease	17	17	28	27	25	35	16	26	26	27	24	10	58.8
Traumatic injuries and disorders, uns.	Accident	21	36	15	12	20	15	16	15	25	18	19	-3	-14.3
Surface wounds and bruises	Accident	22	27	19	30	15	14	21	11	17	17	19	-5	-22.7
Traumatic injuries to muscles, tendons, ligaments, joints, etc.	Accident	13	20	15	13	19	17	13	19	16	15	16	2	15.4
All other		158	161	146	97	85	89	86	111	48	121	110	-37	-23.4
Total fatalities		703	833	798	787	882	919	934	963	928	1097	884	394	56.0

Source: Table 13

**Table 15: Number of Workplace Fatalities, by Age and Nature of Injury (Accident/Disease), Canada, 1996-2005**

	15-19 years		20-24 years		25-29 years		30-34 years		35-39 years		40-44 years		45-49 years		50-54 years		55-59 years		60-64 years		65 years and over		Unknown		Not coded		All Age Groups		
	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	All Natures of Injury <sup>1</sup>
1996	8	3	28	2	38	1	47	5	41	6	37	10	29	13	38	21	26	18	23	29	62	95	13	0	4	0	394	203	703
1997	7	1	39	5	41	5	48	3	49	6	54	5	37	10	33	23	32	42	32	48	55	170	5	0	1	0	433	318	833
1998	12	0	35	0	49	4	63	4	49	3	55	12	48	18	35	28	33	41	24	50	17	118	5	3	2	2	427	283	798
1999	19	1	34	2	34	4	41	3	42	4	58	10	45	16	42	46	37	31	22	46	16	169	18	2	1	1	409	335	787
2000	15	0	42	2	50	2	63	5	73	7	67	13	58	14	50	28	32	59	23	53	18	159	12	3	1	1	504	346	882
2001	20	0	35	0	47	4	47	8	56	5	65	18	66	21	53	42	46	45	30	57	21	200	8	1	1	0	495	401	919
2002	10	0	37	0	49	3	48	6	57	8	72	10	59	26	58	40	43	70	33	59	15	208	0	0	4	0	485	430	934
2003	8	1	37	1	40	2	37	4	56	10	66	11	49	32	58	37	47	66	25	87	24	214	0	1	3	0	450	466	963
2004	13	3	44	1	42	4	46	0	47	6	61	14	62	24	47	30	48	51	27	69	21	258	1	1	0	0	459	461	928
2005	15	2	36	2	49	4	51	3	45	11	76	15	54	22	44	36	57	65	32	78	28	318	4	1	0	0	491	557	1097
Average (1996-2004)	12.7	1.1	36.7	1.5	43.9	3.3	49.1	4.1	51.5	6.6	61.1	11.8	50.7	19.6	45.8	33.1	40.1	48.8	27.1	57.6	27.7	190.9	6.6	1.2	1.7	0.4	454.7	380.0	884.4
Number of Fatal Accidents per Fatal Disease		11.5		24.5		13.3		12.0		7.8		5.2		2.6		1.4		0.8		0.5		0.1		5.5		4.3		1.2	
Absolute Change (1996-2005)	7	-1	8	0	11	3	4	-2	4	5	39	5	25	9	6	15	31	47	9	49	-34	223	-9	1	-4	0	97	354	394
% Change (1996-2005)	87.5	-33.3	28.6	0.0	28.9	300.0	8.5	-40.0	9.8	83.3	105.4	50.0	86.2	69.2	15.8	71.4	####	261.1	39.1	169.0	-54.8	234.7	-69.2	N/A	-100.0	N/A	24.6	174.4	56.0
% Contribution to Absolute Change in Fatalities (1996-2005)	1.8	-0.3	2.0	0.0	2.8	0.8	1.0	-0.5	1.0	1.3	9.9	1.3	6.3	2.3	1.5	3.8	7.9	11.9	2.3	12.4	-8.6	56.6	-2.3	0.3	-1.0	0.0	24.6	89.8	100.0

Source: AWCBC NWISP Accepted Claims by Claim Type, Year, Age (Group), Nature of Injury (Division), 1996-2005

<sup>1</sup> Includes all fatalities including those in Unknown and Not Coded Age groups and Nature of Injury

**Table 16: Incidence of Workplace Fatalities (per 100,000 workers), by Age and Nature of Injury (Accident/Disease), Canada, 1996-2004**

	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65 and over	All Age Groups	
	Acc. Dis.	Acc. Dis.	Acc. Dis.	Acc. Dis.	Acc. Dis.	Acc. Dis.	Acc. Dis.	Acc. Dis.	Acc. Dis.	Acc. Dis.	Acc. Dis.	Acc. Dis.	All Natures of Injury <sup>1</sup>
1996	1.0 0.4	2.2 0.2	2.4 0.1	2.4 0.3	2.1 0.3	2.0 0.5	1.8 0.8	3.3 1.8	3.6 2.5	6.3 8.0	31.6 48.4	2.9 1.5	5.2
1997	1.0 0.1	3.0 0.4	2.6 0.3	2.5 0.2	2.4 0.3	2.8 0.3	2.2 0.6	2.6 1.8	4.3 5.6	8.4 12.6	26.5 82.0	3.2 2.3	6.1
1998	1.6 0.0	2.7 0.0	3.1 0.2	3.4 0.2	2.4 0.1	2.7 0.6	2.8 1.1	2.6 2.1	4.2 5.2	6.2 13.0	7.8 54.4	3.0 2.0	5.7
1999	2.3 0.1	2.5 0.1	2.1 0.2	2.3 0.2	2.0 0.2	2.8 0.5	2.5 0.9	2.9 3.2	4.4 3.7	5.4 11.2	7.5 79.7	2.8 2.3	5.5
2000	1.7 0.0	3.0 0.1	3.1 0.1	3.5 0.3	3.5 0.3	3.1 0.6	3.2 0.8	3.3 1.8	3.5 6.5	5.4 12.6	8.6 75.9	3.4 2.3	6.0
2001	2.2 0.0	2.5 0.0	2.9 0.2	2.7 0.5	2.8 0.2	3.0 0.8	3.5 1.1	3.3 2.6	4.9 4.7	6.8 13.0	9.9 93.9	3.3 2.7	6.1
2002	1.1 0.0	2.5 0.0	3.0 0.2	2.7 0.3	2.9 0.4	3.2 0.5	3.0 1.3	3.6 2.5	4.2 6.8	6.7 12.0	6.3 87.1	3.2 2.8	6.1
2003	0.9 0.1	2.4 0.1	2.4 0.1	2.1 0.2	2.9 0.5	3.0 0.5	2.4 1.6	3.5 2.2	4.1 5.7	4.6 16.1	8.8 78.7	2.9 3.0	6.1
2004	1.4 0.3	2.9 0.1	2.5 0.2	2.6 0.0	2.5 0.3	2.7 0.6	3.0 1.2	2.7 1.7	4.0 4.2	4.6 11.7	7.3 90.2	2.9 2.9	5.8
2005	1.6 0.2	2.3 0.1	2.9 0.2	2.9 0.2	2.4 0.6	3.4 0.7	2.6 1.0	2.5 2.0	4.4 5.1	5.1 12.5	9.1 103.4	3.0 3.4	6.8
Average (1996-2005)	1.5 0.1	2.6 0.1	2.7 0.2	2.7 0.2	2.6 0.3	2.9 0.6	2.7 1.0	3.0 2.2	4.1 5.0	6.0 12.3	12.4 79.4	3.1 2.5	5.9
Absolute Change (1996-2005)	0.6 -0.2	0.2 0.0	0.4 0.2	0.4 -0.1	0.3 0.3	1.4 0.1	0.8 0.2	-0.8 0.2	0.8 2.6	-1.2 4.5	-22.5 54.9	0.1 1.9	1.5
% of Nat'l Avg. (1996-2005)	24.8 2.2	43.6 1.8	45.5 3.4	45.7 3.8	43.5 5.6	48.5 9.4	45.6 17.5	51.1 36.8	69.8 84.1	100.4 206.4	207.9 1335.8	51.6 42.6	100.0

Source: AWCBC NWISP Accepted Claims by Claim Type, Year, Age (Group), Nature of Injury (Division), 1996-2004; CANSIM, Labour Force Survey Series: v2461127, v2461128, v2461129, v2461130, v2461131, v2461132, v2461133, v2461134, v2461135, v2461136, v2461137

<sup>1</sup> Includes all fatalities including those in Unknown and Not Coded Age groups and Nature of Injury



**Table 17: Number of Workplace fatalities, by Nature of Injury and Occupation, Canada, 1996-2005**

	Management occupations		Business, finance and administration occupations		Natural and applied sciences and related occupations		Health occupations		Occupations in social science, education, government service		Occupations in art, culture, recreation and sport		Sales and service occupations	
	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.
1996	13	8	7	2	32	4	4	0	3	0	3	0	34	15
1997	14	20	4	2	17	7	4	1	5	2	2	0	31	14
1998	21	18	6	4	22	9	3	1	3	1	1	0	46	13
1999	21	28	11	3	27	7	6	2	2	3	5	1	24	10
2000	10	4	13	2	25	8	4	1	1	1	4	1	34	16
2001	15	7	11	5	23	11	8	2	2	6	3	0	39	31
2002	10	2	8	7	18	11	6	3	2	0	2	3	42	22
2003	20	4	10	9	27	12	6	5	3	3	2	0	39	53
2004	15	14	5	4	18	10	5	5	3	0	4	3	31	47
2005	34	24	7	4	25	9	2	1	5	1	1	0	29	42
Average (1996-2005)	17.3	12.9	8.2	4.2	23.4	8.8	4.8	2.1	2.9	1.7	2.7	0.8	34.9	26.3
Number of Fatal Accidents per Fatal Disease (Average 1996-2005)	1.3		2.0		2.7		2.3		1.7		3.4		1.3	
Absolute Change (1996-2005)	21	16	0	2	-7	5	-2	1	2	1	-2	0	-5	27
% Change (1996-2005)	161.5	200.0	0.0	100.0	-21.9	125.0	-50.0	N/A	66.7	N/A	-66.7	N/A	-14.7	180.0
% Contribution to Absolute Change in Fatalities	5.3	4.1	0.0	0.5	-1.8	1.3	-0.5	0.3	0.5	0.3	-0.5	0.0	-1.3	6.9

Source: AWCBC National Work Injury and Disease Statistics, Accepted Claims by Claim Type, Year, Occupation (Division), Nature of Injury (Division), 1996-2005

**Table 17: Number of Workplace fatalities, by Nature of Injury and Occupation, Canada, 1996-2005 (cont'd)**

	Trades, transport and equipment operators and related		Occupations unique to primary industry		Occupations unique to processing, manufacturing and		Not coded		Occupations not stated		All Occupations		Total
	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	
1996	177	97	61	23	38	32	1	0	21	22	394	203	703
1997	216	145	73	36	45	62	0	0	22	29	433	318	833
1998	191	135	66	40	38	43	1	0	30	19	427	283	798
1999	200	150	56	43	44	63	0	0	13	25	409	335	787
2000	217	159	75	48	52	77	65	27	4	2	504	346	882
2001	247	205	76	36	45	74	14	18	12	6	495	401	919
2002	250	205	69	47	48	98	21	10	9	22	485	430	934
2003	230	229	54	57	52	81	0	0	10	13	450	466	963
2004	270	231	54	39	44	100	1	1	9	7	459	461	928
2005	260	311	63	54	56	100	5	5	4	6	491	557	1,097
Average (1996-2005)	225.8	172.9	64.7	42.3	46.2	70.0	10.8	6.1	13.4	15.1	454.7	360.3	865
Number of Fatal Accidents per Fatal Disease (Average 1996-2005)	1.3		1.5		0.7		1.8		0.9		1.3		
Absolute Change (1996-2005)	83	214	2	31	18	68	4	5	-17	-16	97	354	394
% Change (1996-2005)	46.9	220.6	3.3	134.8	47.4	212.5	400.0	N/A	-81.0	-72.7	24.6	174.4	56.0
% Contribution to Absolute Change in Fatalities	21.1	54.3	0.5	7.9	4.6	17.3	1.0	1.3	-4.3	-4.1	24.6	89.8	100.0

Table 18a: Number of Workplace Fatalities, by Nature of Injury and Industry, Canada, 1996-2005

	Agriculture*		Agriculture and related services**		Fishing and trapping		Logging and forestry		Mining, quarrying and oil wells		Manufacturing		Construction industries		Transportation and storage		Communication and other utilities		Wholesale trade		Retail trade	
	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.
1996	103		7	0	8	0	33	5	25	27	69	54	73	45	66	19	19	3	14	5	17	2
1997	117		12	1	5	0	38	2	32	51	59	93	83	53	78	16	11	7	18	6	16	9
1998	109		9	1	9	1	20	1	28	43	82	65	78	73	71	10	19	9	15	5	16	6
1999	95		8	2	6	1	31	3	17	54	67	108	77	70	71	17	20	7	20	7	12	6
2000	111		20	3	16	0	32	0	33	58	75	129	83	61	105	15	17	5	36	4	20	7
2001	95		12	0	8	0	37	2	41	54	75	114	96	83	95	24	13	7	17	14	19	7
2002	94		18	0	10	0	38	3	29	66	71	153	96	77	82	15	13	7	31	16	10	6
2003	98		14	2	9	0	16	3	25	67	65	133	94	106	94	17	13	11	19	5	12	11
2004	98		11	0	13	1	24	0	31	56	70	131	95	95	106	21	7	14	18	8	15	8
2005	98		12	3	11	1	37	3	23	76	80	147	110	114	92	24	17	12	20	19	26	11
Average (1996-2005)	101.8		12.3	1.2	9.5	0.4	30.6	2.2	28.4	55.2	71.3	112.7	88.5	77.7	86.0	17.8	14.9	8.2	20.8	8.9	16.3	7.3
Number of Fatal Accidents per Fatal Disease (Average 1996-2004)	N/A		10.3		23.8		13.9		0.5		0.6		1.1		4.8		1.8		2.3		2.2	
Absolute Change (1996-2005)	-5		5	3	3	1	4	-2	-2	49	11	93	37	69	26	5	-2	9	6	14	9	9
% Change (1996-2005)	-4.9		71.4	N/A	37.5	N/A	12.1	-40.0	-8.0	181.5	15.9	172.2	50.7	153.3	39.4	26.3	-10.5	300.0	42.9	280.0	52.9	450.0
% Contribution to Absolute Change in Fatalities	-1.3		1.3	0.8	0.8	0.3	1.0	-0.5	-0.5	12.4	2.8	23.6	9.4	17.5	6.6	1.3	-0.5	2.3	1.5	3.6	2.3	2.3

Source: AWCBC National Work Injury and Disease Statistics, Accepted Claims by Claim Type, Year, Industry (Division), Nature of Injury (Division), 1996-2005

\*These data are from the Canadian Agricultural Injury Surveillance Program, www.caisp.ca, which includes fatalities due only to workplace accidents among workers in the agriculture industry. These statistics include those collected by the AWCBC as well as workers that are not covered by a WCB or eligible for compensation. 2004/05 data are not available, so we have assumed the same number of deaths as 2003. These fatalities are not included in the Totals.

\*\* These data are from the AWCBC, which include workplace fatalities for workers whose claims are accepted for compensation from a WCB.

Table 18a: Number of Workplace fatalities, by Nature of Injury and Industry, Canada, 1996-2005 (cont'd)

	Finance and insurance		Real estate operator and insurance agent		Business services		Government services		Educational services		Health and social service industries		Accommodation, food and beverage services		Other services		Industry unspecified or undefined		Not coded		All Industries				All Industries (including CAISP data for Agriculture)	
	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	NC	Total	Acc.	Total
1996	0	0	0	0	2	2	20	14	3	2	8	0	8	1	15	3	7	13	0	8	394	203	106	703	490	796
1997	4	0	1	0	14	8	18	20	7	5	6	2	9	4	13	1	7	38	2	2	433	318	82	833	538	936
1998	0	0	3	2	11	6	19	12	7	7	4	3	9	1	12	5	11	28	4	5	427	283	88	798	527	897
1999	2	0	1	1	8	4	24	12	4	3	7	5	8	2	10	4	10	26	6	3	409	335	43	787	496	871
2000	0	0	1	2	18	3	14	15	2	3	5	3	8	0	14	8	4	28	1	2	504	346	32	882	595	968
2001	1	0	1	2	21	9	26	36	6	7	9	7	8	2	7	9	1	20	2	4	495	401	23	919	578	1,001
2002	0	0	4	1	23	10	21	26	4	10	6	7	7	3	14	6	1	21	7	3	485	430	19	934	561	1,010
2003	2	0	2	3	9	4	30	46	2	8	10	10	7	0	23	10	0	26	4	4	450	466	47	963	534	1,045
2004	2	0	1	2	19	11	17	46	0	8	5	10	10	6	12	9	0	30	3	5	459	461	8	928	546	1,015
2005	0	1	1	2	14	8	11	50	5	6	3	10	1	4	11	4	0	52	5	6	491	557	49	1,097	577	1,179
Average (1996-2004)	1.1	0.1	1.5	1.5	13.9	6.5	20.0	27.7	4.0	5.9	6.3	5.7	7.5	2.3	13.1	5.9	4.1	28.2	3.4	4.2	454.7	380.0	49.7	884.4	544.2	971.8
Number of Fatal Accidents per Fatal Disease (Average 1996-2004)	N/A		1.0		2.1		0.7		0.7		1.1		3.3		2.2		0.1		0.8		1.2				1.4	
Absolute Change (1996-2004)	0	1	1	2	12	6	-9	36	2	4	-5	10	-7	3	-4	1	-7	39	5	-2	97	354	-57	394	87	383
% Change (1996-2004)	N/A	N/A	N/A	N/A	600.0	300.0	-45.0	257.1	66.7	200.0	-62.5	N/A	-87.5	300.0	-26.7	33.3	-100.0	300.0	N/A	-25.0	24.6	174.4	-53.8	56.0	17.8	48.1
% Contribution to Absolute Change in Fatalities	0.0	0.3	0.3	0.5	3.0	1.5	-2.3	9.1	0.5	1.0	-1.3	2.5	-1.8	0.8	-1.0	0.3	-1.8	9.9	1.3	-0.5	24.6	89.8	-14.5	100.0	22.1	97.2

Note: The All Industries rates are based on the numbers of fatalities recorded by the AWCBC.

**Table 18b: Incidence of Workplace Fatalities (per 100,000 workers), by Nature of Injury and Industry, Canada, 1996-2005**

	Agriculture*	Agriculture and related services		Fishing and trapping		Logging and forestry		Mining, quarrying and oil wells		Manufacturing		Construction industries		Transportation and storage		Communication and other utilities		Wholesale trade		Retail trade	
	Acc.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.
1996	24.4	1.7	0.0	26.3	0.0	39.2	5.9	13.9	15.0	3.6	2.8	10.3	6.3	9.8	2.8	2.7	0.4	3.2	1.1	1.0	0.1
1997	28.1	2.9	0.2	16.5	0.0	46.3	2.4	17.3	27.6	2.9	4.6	11.5	7.4	11.2	2.3	1.5	1.0	4.0	1.3	1.0	0.5
1998	25.7	2.1	0.2	30.3	3.4	23.8	1.2	15.6	23.9	3.9	3.1	10.7	10.0	10.0	1.4	2.6	1.2	3.3	1.1	1.0	0.4
1999	23.4	2.0	0.5	20.1	3.3	38.8	3.8	11.0	35.0	3.1	4.9	10.0	9.1	9.6	2.3	2.7	0.9	3.8	1.3	0.7	0.4
2000	29.8	5.4	0.8	55.6	0.0	37.0	0.0	20.6	36.2	3.3	5.7	10.2	7.5	13.6	1.9	2.2	0.6	6.6	0.7	1.1	0.4
2001	29.4	3.7	0.0	31.0	0.0	50.1	2.7	23.0	30.3	3.4	5.1	11.6	10.1	12.3	3.1	1.6	0.8	3.1	2.5	1.0	0.4
2002	28.9	5.5	0.0	38.0	0.0	51.5	4.1	17.0	38.8	3.1	6.7	11.1	8.9	10.8	2.0	1.5	0.8	5.7	2.9	0.5	0.3
2003	29.5	4.2	0.6	33.8	0.0	20.8	3.9	14.0	37.6	2.9	5.8	10.4	11.7	11.9	2.1	1.5	1.3	3.3	0.9	0.6	0.6
2004	30.1	3.4	0.0	48.3	3.7	33.3	0.0	16.5	29.9	3.1	5.7	10.0	10.0	13.3	2.6	0.8	1.6	3.1	1.4	0.8	0.4
2005	28.5	3.5	0.9	41.8	3.8	53.2	4.3	10.9	36.1	3.6	6.7	10.8	11.2	11.6	3.0	2.0	1.4	3.3	3.1	1.3	0.6
Average (1996-2005)	27.7	3.4	0.3	33.3	1.2	37.9	2.7	16.6	30.5	3.2	5.0	10.6	9.0	11.4	2.3	1.9	1.0	4.0	1.5	0.9	0.4
Absolute Change (1996-2005)	5.7	1.7	0.0	22.0	3.7	-6.0	-5.9	2.6	14.8	-0.5	2.9	-0.3	3.6	3.5	-0.2	-1.9	1.2	-0.1	0.2	-0.3	0.3
% Change (1996-2005)	23.3	103.7	N/A	83.6	N/A	-15.2	-100.0	18.6	98.5	-14.8	103.8	-3.0	57.4	35.4	-6.8	-70.3	276.6	-2.7	21.0	-24.5	242.3

Source: AWCBC National Work Injury and Disease Statistics, Accepted Claims by Claim Type, Year, Industry (Division), Nature of Injury (Division), 1996-2004; CANSIM LFS Series: V2363384, v2363389, v2363394, v2363395, v2363398, v2363399, v2363407, v2363402, v2363403, v2363405, v2363406, v2363400, v2363401

\*These incidence rates are based on data from the Canadian Agricultural Injury Surveillance Program, www.caaisp.ca, which include fatalities due only to workplace accidents among workers in the agriculture industry. These statistics include those collected by the AWCBC as well as workers that are not covered by a WCB or eligible for compensation. 2004/05 data are not available, so we have assumed the same number of deaths as 2003. For comparative analysis at the industry level, these figures are recommended, since the "Agriculture and related services" category includes deaths among workers covered by a WCB.

Table 18b: Incidence of Workplace fatalities (per 100,000 workers), by Nature of Injury and Industry, Canada, 1996-2005 (cont'd)

	Finance and insurance		Real estate operator and insurance agent		Business services		Government services		Educational services		Health and social service industries		Accommodation, food and beverage services		Other services		All Industries				All Industries (including CAISP data for Agriculture)			
	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	Acc.	Dis.	NC	Total	Acc.	Total				
1996	0.0	0.0	0.0	0.0	0.2	0.2	2.5	1.7	0.3	0.2	0.6	0.0	0.9	0.1	2.3	0.5			2.9	1.5	0.8	5.2	3.7	5.9
1997	0.6	0.0	0.4	0.0	1.1	0.7	2.3	2.5	0.8	0.5	0.4	0.1	1.0	0.5	1.9	0.1			3.2	2.3	0.6	6.1	3.9	6.8
1998	0.0	0.0	1.2	0.8	0.8	0.5	2.4	1.5	0.8	0.8	0.3	0.2	1.0	0.1	1.7	0.7			3.0	2.0	0.6	5.7	3.8	6.4
1999	0.3	0.0	0.4	0.4	0.6	0.3	3.1	1.5	0.4	0.3	0.5	0.3	0.9	0.2	1.4	0.6			2.8	2.3	0.3	5.5	3.4	6.0
2000	0.0	0.0	0.4	0.8	1.2	0.2	1.8	1.9	0.2	0.3	0.3	0.2	0.9	0.0	2.0	1.2			3.4	2.3	0.2	6.0	4.0	6.6
2001	0.2	0.0	0.4	0.8	1.4	0.6	3.3	4.6	0.6	0.7	0.6	0.5	0.8	0.2	1.0	1.3			3.3	2.7	0.2	6.1	3.9	6.7
2002	0.0	0.0	1.6	0.4	1.5	0.6	2.7	3.3	0.4	1.0	0.4	0.4	0.7	0.3	2.0	0.9			3.2	2.8	0.1	6.1	3.7	6.6
2003	0.3	0.0	0.7	1.1	0.6	0.2	3.7	5.6	0.2	0.8	0.6	0.6	0.7	0.0	3.2	1.4			2.9	3.0	0.3	6.1	3.4	6.7
2004	0.3	0.0	0.4	0.7	1.2	0.7	2.1	5.6	0.0	0.8	0.3	0.6	1.0	0.6	1.7	1.3			2.9	2.9	0.1	5.8	3.4	6.4
2005	0.0	0.1	0.4	0.7	0.8	0.5	1.3	6.0	0.5	0.5	0.2	0.6	0.1	0.4	1.6	0.6			3.0	3.4	0.3	6.8	3.6	7.3
Average (1996-2005)	0.2	0.0	0.6	0.6	0.9	0.4	2.6	3.1	0.4	0.6	0.4	0.3	0.9	0.2	1.9	0.9			3.1	2.4	0.4	5.8	3.7	6.5
Absolute Change (1996-2005)	0.3	0.0	0.4	0.7	1.0	0.5	-0.4	3.8	-0.3	0.6	-0.3	0.6	0.0	0.5	-0.6	0.8			-0.1	1.4	-0.7	0.6	-0.2	0.4
% Change (1996-2005)	N/A	N/A	N/A	N/A	549.8	276.2	-16.8	221.5	-100.0	252.6	-49.8	N/A	4.7	402.5	-24.7	182.5			-2.0	91.1	-93.6	11.1	-6.2	7.3

Note: The All Industries rates are based on the numbers of fatalities recorded by the AWCBC.

**Table 19: Number of Workplace Fatalities, by Source of Injury (Major Groups), Canada, 1996-2005**

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Average (1996- 2005)	% Distribution (1996-2005)	Absolute Change (1996- 2005)	% Change (1996- 2005)	% Contribution to Absolute Change in Fatalities (1996- 2005)
Total	703	833	798	787	882	919	934	963	928	1097	884.4	100	394	56.0	100
Persons, plants, animals, and minerals	188	265	222	279	248	294	346	351	360	445	299.8	33.9	257	136.7	65.2
Vehicles	182	204	193	167	218	234	199	227	215	223	206.2	23.3	41	22.5	10.4
Structures and surfaces	58	73	66	51	68	54	84	82	76	80	69.2	7.8	22	37.9	5.6
Chemicals and chemical compounds	25	49	55	53	75	89	80	81	72	68	64.7	7.3	43	172.0	10.9
Other sources	42	30	49	37	48	45	44	47	58	60	46.0	5.2	18	42.9	4.6
Materials	39	41	46	54	59	53	48	40	51	54	48.5	5.5	15	38.5	3.8
Machinery	43	56	49	54	44	51	45	38	39	51	47.0	5.3	8	18.6	2.0
Containers	6	13	16	10	19	13	13	14	8	16	12.8	1.4	10	166.7	2.5
Tools, instruments, and equipment	18	12	7	17	12	13	12	13	6	9	11.9	1.3	-9	-50.0	-2.3
Furniture and fixtures	2	4	2	1	1	5	4	1	1	3	2.4	0.3	1	50.0	0.3
Unknown	46	79	65	48	31	31	21	27	34	37	41.9	4.7	-9	-19.6	-2.3
Not coded	54	7	28	16	59	37	38	42	8	51	34.0	3.8	-3	-5.6	-0.8

Source: AWCBC Accepted Claims by Claim Type, Year, Source of Injury (Division), 1996-2005

**Table 20: Number of Workplace Fatalities, by Source of Injury (Minor Groups), Canada, 1996-2005**

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Average (1996-2005)	Absolute Change (1996- 2005)	% Change (1996-2005)	% Contribution to Absolute Change in Fatalities (1996- 2005)
<b>Total</b>	703	833	798	787	882	919	934	963	928	1097	884.4	394	56.0	100.0
<b>Chemicals and chemical compounds</b>	<b>25</b>	<b>49</b>	<b>55</b>	<b>53</b>	<b>75</b>	<b>89</b>	<b>80</b>	<b>81</b>	<b>72</b>	<b>68</b>	<b>64.7</b>	<b>43</b>	<b>172.0</b>	<b>10.9</b>
Other chemicals	10	14	26	22	25	39	37	26	25	25	24.9	15	150.0	3.8
Metallic particulates trace elements, dusts, powders, fumes	6	24	18	20	30	31	22	24	20	13	20.8	7	116.7	1.8
Chemical products – general	2	2	2	2	3	9	6	15	14	14	6.9	12	600.0	3.0
Aromatics and hydrocarbon derivatives, except halogenated	0	2	0	0	8	4	8	5	7	10	4.4	10	N/A	2.5
Chemicals and chemical compounds, uns.	2	1	2	5	4	2	3	5	4	1	2.9	-1	-50.0	-0.3
Coal, natural gas, petroleum fuels and products, n.e.c.	4	3	5	1	4	2	3	4	1	2	2.9	-2	-50.0	-0.5
Halogens and halogen compounds	1	2	0	2	0	0	0	2	0	0	0.7	-1	-100.0	-0.3
Alkalies	0	0	1	0	0	0	0	0	1	2	0.4	2	N/A	0.5
Agricultural chemicals and other pesticides	0	0	1	0	0	1	1	0	0	1	0.4	1	N/A	0.3
Acids	0	1	0	1	1	1	0	0	0	0	0.4	0	N/A	0.0
<b>Containers</b>	<b>6</b>	<b>13</b>	<b>16</b>	<b>10</b>	<b>19</b>	<b>13</b>	<b>13</b>	<b>14</b>	<b>8</b>	<b>16</b>	<b>12.8</b>	<b>10</b>	<b>166.7</b>	<b>2.5</b>
Containers – nonpressurized	4	8	8	3	6	10	7	11	5	10	7.2	6	150.0	1.5
Containers – variable restraint	2	3	4	6	4	2	5	2	2	3	3.3	1	50.0	0.3
Skids, pallets	0	0	1	0	3	1	0	1	1	0	0.7	0	N/A	0.0
Containers, uns.	0	0	0	0	2	0	1	0	0	0	0.3	0	N/A	0.0
Containers – pressurized	0	2	2	1	4	0	0	0	0	3	1.2	3	N/A	0.8
Dishes, drinking cups, beverage glasses	0	0	0	0	0	0	0	0	0	0	0.0	0	N/A	0.0
Luggage, handbags	0	0	1	0	0	0	0	0	0	0	0.1	0	N/A	0.0
Containers, n.e.c.	0	0	0	0	0	0	0	0	0	0	0.0	0	N/A	0.0



**Table 20: Number of Workplace Fatalities, by Source of Injury (Minor Groups), Canada, 1996-2005 (cont'd)**

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Average (1996-2005)	Absolute Change (1996- 2005)	% Change (1996-2005)	% Contribution to Absolute Change in Fatalities (1996- 2005)
<b>Furniture and fixtures</b>	<b>2</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>5</b>	<b>4</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>2.4</b>	<b>1</b>	<b>50.0</b>	<b>0.3</b>
Cases, cabinets, racks, shelves	0	2	1	0	0	4	3	1	0	1	1.2	1	N/A	0.3
Furniture	1	0	0	1	1	0	1	0	1	1	0.6	0	0.0	0.0
Furniture and fixtures, uns.	0	1	0	0	0	0	0	0	0	0	0.1	0	N/A	0.0
Floor, wall, window coverings	0	1	0	0	0	0	0	0	0	1	0.2	1	N/A	0.3
Other fixtures	1	0	1	0	0	1	0	0	0	0	0.3	-1	-100.0	-0.3
Furniture and fixtures, n.e.c.	0	0	0	0	0	0	0	0	0	0	0.0	0	N/A	0.0
<b>Machinery</b>	<b>43</b>	<b>56</b>	<b>49</b>	<b>54</b>	<b>44</b>	<b>51</b>	<b>45</b>	<b>38</b>	<b>39</b>	<b>51</b>	<b>47.0</b>	<b>-4</b>	<b>18.6</b>	<b>-1.0</b>
Construction, logging, and mining machinery	14	22	18	15	15	28	17	14	10	23	17.6	9	64.3	2.3
Material handling machinery	8	20	10	18	11	7	6	8	11	10	10.9	2	25.0	0.5
Miscellaneous machinery	10	4	3	7	6	3	4	6	5	4	5.2	-6	-60.0	-1.5
Metal, woodworking, and special material machinery	3	1	8	5	1	4	8	0	5	5	4.0	2	66.7	0.5
Agricultural and garden machinery	1	4	2	2	3	3	4	6	1	2	2.8	1	100.0	0.3
Machinery, uns.	3	2	3	3	3	2	3	2	2	3	2.6	0	0.0	0.0
Special process machinery	3	2	5	3	4	4	1	2	3	2	2.9	-1	-33.3	-0.3
Heating, cooling, and cleaning machinery and appliances	1	1	0	1	1	0	2	0	2	2	1.0	1	100.0	0.3
Office and business machinery	0	0	0	0	0	0	0	0	0	0	0.0	0	N/A	0.0

**Table 20: Number of Workplace Fatalities, by Source of Injury (Minor Groups), Canada, 1996-2005 (cont'd)**

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Average (1996-2005)	Absolute Change (1996- 2005)	% Change (1996-2005)	% Contribution to Absolute Change in Fatalities (1996- 2005)
<b>Materials</b>	<b>39</b>	<b>41</b>	<b>46</b>	<b>54</b>	<b>59</b>	<b>53</b>	<b>48</b>	<b>40</b>	<b>51</b>	<b>54</b>	<b>48.5</b>	<b>15</b>	<b>38.5</b>	<b>3.8</b>
Building materials – solid elements	17	15	14	22	26	20	20	15	20	18	18.7	1	5.9	0.3
Machine, tool, and electric parts	13	17	22	18	16	19	15	15	18	20	17.3	7	53.8	1.8
Vehicle and mobile equipment parts	3	1	4	8	10	5	8	2	6	9	5.6	6	200.0	1.5
Fasteners, connectors, ropes, ties	1	2	1	2	1	2	2	3	2	2	1.8	1	100.0	0.3
Parts and materials, uns.	0	0	0	2	0	1	1	1	2	0	0.7	0	N/A	0.0
Parts and materials, n.e.c.	1	1	0	1	0	1	1	2	1	1	0.9	0	0.0	0.0
Hoisting accessories	0	3	1	0	2	2	1	1	1	1	1.2	1	N/A	0.3
Tars, sealants, insulating material	0	1	1	1	2	1	0	1	1	0	0.8	0	N/A	0.0
Metal materials – non-structural	4	1	3	0	2	2	0	0	0	3	1.5	-1	-25.0	-0.3
Tarps and sheeting – non-metal	0	0	0	0	0	0	0	0	0	0	0.0	0	N/A	0.0
<b>Persons, plants, animals, and minerals</b>	<b>188</b>	<b>265</b>	<b>222</b>	<b>279</b>	<b>248</b>	<b>294</b>	<b>346</b>	<b>351</b>	<b>360</b>	<b>445</b>	<b>299.8</b>	<b>257</b>	<b>136.7</b>	<b>65.2</b>
Nonmetallic minerals except fuel	129	199	174	215	194	233	292	304	320	383	244.3	254	196.9	64.5
Person – injured or ill worker	16	18	15	23	21	23	16	16	15	17	18.0	1	6.3	0.3
Plants, trees, vegetation – not processed	26	26	11	19	19	17	16	13	14	22	18.3	-4	-15.4	-1.0
Metallic minerals	5	14	5	13	5	3	8	9	1	11	7.4	6	120.0	1.5
Person – other than injured or ill worker	6	5	10	3	6	8	9	3	2	6	5.8	0	0.0	0.0
Infectious and parasitic agents	1	0	1	1	0	3	1	3	3	0	1.3	-1	-100.0	-0.3
Food products – fresh or processed	2	0	3	3	2	5	0	2	4	1	2.2	-1	-50.0	-0.3
Animals and animal products	3	2	3	2	1	2	3	1	1	5	2.3	2	66.7	0.5
Persons, plants, animals and minerals, n.e.c.	0	1	0	0	0	0	1	0	0	0	0.2	0	N/A	0.0
Persons, plants, animals, and minerals, uns.	0	0	0	0	0	0	0	0	0	0	0.0	0	N/A	0.0

**Table 20: Number of Workplace Fatalities, by Source of Injury (Minor Groups), Canada, 1996-2005 (cont'd)**

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Average (1996-2005)	Absolute Change (1996- 2005)	% Change (1996-2005)	% Contribution to Absolute Change in Fatalities (1996- 2005)
<b>Structures and surfaces</b>	<b>58</b>	<b>73</b>	<b>66</b>	<b>51</b>	<b>68</b>	<b>54</b>	<b>84</b>	<b>82</b>	<b>76</b>	<b>80</b>	<b>69.2</b>	<b>22</b>	<b>37.9</b>	<b>5.6</b>
Floors, walkways, ground surfaces	49	67	52	41	61	48	72	72	69	66	59.7	17	34.7	4.3
Other structural elements	4	3	4	2	3	2	7	6	3	8	4.2	4	100.0	1.0
Structures	4	3	10	7	3	2	3	4	3	5	4.4	1	25.0	0.3
Structures and surfaces, uns.	1	0	0	1	1	2	2	0	0	0	0.7	-1	-100.0	-0.3
Building systems	0	0	0	0	0	0	0	0	1	0	0.1	0	N/A	0.0
Structures and surfaces, n.e.c.	0	0	0	0	0	0	0	0	0	1	0.1	1	N/A	0.3
<b>Tools, instruments, and equipment</b>	<b>18</b>	<b>12</b>	<b>7</b>	<b>17</b>	<b>12</b>	<b>13</b>	<b>12</b>	<b>13</b>	<b>6</b>	<b>9</b>	<b>11.9</b>	<b>-9</b>	<b>-50.0</b>	<b>-2.3</b>
Handtools – nonpowered	13	4	2	6	5	4	3	6	3	2	4.8	-11	-84.6	-2.8
Other tools, instruments, and equipment	2	5	2	7	4	4	7	2	3	3	3.9	1	50.0	0.3
Handtools – powered	2	2	2	4	2	2	2	0	0	2	1.8	0	0.0	0.0
Recreation and athletic equipment	0	0	1	0	0	0	0	2	0	0	0.3	0	N/A	0.0
Tools, instruments, and equipment, uns.	0	0	0	0	1	0	0	1	0	0	0.2	0	N/A	0.0
Ladders	1	1	0	0	0	2	0	1	0	2	0.7	1	100.0	0.3
Protective equipment, except clothing	0	0	0	0	0	0	0	1	0	0	0.1	0	N/A	0.0
Handtools – power not determined	0	0	0	0	0	1	0	0	0	0	0.1	0	N/A	0.0
Medical and surgical instrument	0	0	0	0	0	0	0	0	0	0	0.0	0	N/A	0.0
Photographic equipment	0	0	0	0	0	0	0	0	0	0	0.0	0	N/A	0.0

**Table 20: Number of Workplace Fatalities, by Source of Injury (Minor Groups), Canada, 1996-2005 (cont'd)**

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Average (1996-2005)	Absolute Change (1996- 2005)	% Change (1996-2005)	% Contribution to Absolute Change in Fatalities (1996- 2005)
<b>Vehicles</b>	<b>182</b>	<b>204</b>	<b>193</b>	<b>167</b>	<b>218</b>	<b>234</b>	<b>199</b>	<b>227</b>	<b>215</b>	<b>223</b>	<b>206.2</b>	<b>41</b>	<b>22.5</b>	<b>10.4</b>
Highway vehicle, motorized	124	141	128	116	156	168	160	175	168	160	149.6	36	29.0	9.1
Air vehicle	34	24	28	26	23	23	12	15	10	18	21.3	-16	-47.1	-4.1
Plant and industrial powered vehicles, tractors	15	11	11	4	7	8	13	8	11	13	10.1	-2	-13.3	-0.5
Water vehicle	2	6	9	9	9	9	6	9	8	8	7.5	6	300.0	1.5
Vehicles, uns.	2	7	5	4	10	11	5	7	9	13	7.3	11	550.0	2.8
Rail vehicle	3	10	6	4	6	3	0	7	8	7	5.4	4	133.3	1.0
Vehicles, n.e.c.	2	4	3	2	3	4	2	4	0	1	2.5	-1	-50.0	-0.3
Offroad vehicle, nonindustrial	0	0	2	2	3	5	0	2	1	2	1.7	2	N/A	0.5
Plant and industrial vehicle – nonpowered	0	1	1	0	1	2	1	0	0	1	0.7	1	N/A	0.3
Highway vehicle, nonmotorized	0	0	0	0	0	1	0	0	0	0	0.1	0	N/A	0.0
<b>Other sources</b>	<b>42</b>	<b>30</b>	<b>49</b>	<b>37</b>	<b>48</b>	<b>45</b>	<b>44</b>	<b>47</b>	<b>58</b>	<b>60</b>	<b>46.0</b>	<b>18</b>	<b>42.9</b>	<b>4.6</b>
Other sources, n.e.c.	11	8	10	17	11	9	10	23	28	19	14.6	8	72.7	2.0
Atmospheric and environmental conditions	10	14	20	6	15	19	18	11	11	27	15.1	17	170.0	4.3
Steam, vapors, liquids, n.e.c.	15	2	15	10	14	13	8	11	16	8	11.2	-7	-46.7	-1.8
Scrap, waste, debris	2	2	3	3	7	3	8	1	3	5	3.7	3	150.0	0.8
Paper, books, magazines	0	0	0	0	0	1	0	1	0	0	0.2	0	N/A	0.0
Other sources, uns.	0	0	0	0	0	0	0	0	0	0	0.0	0	N/A	0.0
Ammunition	4	4	1	1	1	0	0	0	0	0	1.1	-4	-100.0	-1.0
Apparel and textiles	0	0	0	0	0	0	0	0	0	1	0.1	1	N/A	0.3
<b>Unknown</b>	<b>46</b>	<b>79</b>	<b>65</b>	<b>48</b>	<b>31</b>	<b>31</b>	<b>21</b>	<b>27</b>	<b>34</b>	<b>37</b>	<b>41.9</b>	<b>-9</b>	<b>-19.6</b>	<b>-2.3</b>
<b>Not coded</b>	<b>54</b>	<b>7</b>	<b>28</b>	<b>16</b>	<b>59</b>	<b>37</b>	<b>38</b>	<b>42</b>	<b>8</b>	<b>51</b>	<b>34.0</b>	<b>-3</b>	<b>-5.6</b>	<b>-0.8</b>

Source: AWCBC Accepted Claims by Claim Type, Year, Source of Injury (Major Group), 1996-2005.

**Table 20a: Number of Workplace Time-loss Injuries, by Jurisdiction, 1993-2005**

<b>Year</b>	<b>CDA</b>	<b>NL</b>	<b>PE</b>	<b>NS</b>	<b>NB</b>	<b>QC</b>	<b>ON</b>	<b>MB</b>	<b>SK</b>	<b>AB</b>	<b>BC</b>	<b>NT &amp; NU</b>	<b>YT</b>
<b>1993</b>	424,848	6,116	2,009	13,332	5,647	135,411	125,118	15,327	12,277	29,602	78,495	1,058	456
<b>1994</b>	430,756	6,646	2,094	13,223	4,784	135,482	125,638	17,740	13,337	30,801	79,428	1,120	463
<b>1995</b>	410,464	6,150	2,443	10,463	4,310	129,926	118,812	17,405	14,206	30,285	74,881	1,049	534
<b>1996</b>	377,885	5,272	2,436	7,940	3,906	119,633	103,071	17,255	13,465	31,835	71,602	975	495
<b>1997</b>	379,851	5,295	1,794	8,199	4,212	117,407	101,806	17,738	14,345	35,234	72,428	873	520
<b>1998</b>	375,360	5,879	2,034	8,159	4,729	116,060	97,190	18,658	13,872	36,104	71,502	780	393
<b>1999</b>	379,450	6,640	2,099	8,547	5,170	116,787	100,727	18,979	13,720	35,393	70,090	871	417
<b>2000</b>	392,502	6,609	2,066	9,232	5,354	119,135	104,154	19,721	14,945	39,393	70,661	835	397
<b>2001</b>	373,216	6,173	1,779	9,082	5,162	112,887	98,359	18,544	15,065	38,755	66,076	889	445
<b>2002</b>	359,174	5,517	1,475	8,724	4,685	110,244	95,568	17,919	15,623	38,426	59,530	968	495
<b>2003</b>	348,715	5,247	1,241	8,849	4,604	107,160	93,234	17,586	15,135	37,335	56,946	936	442
<b>2004</b>	340,502	4,834	1,037	9,173	4,185	104,209	90,397	17,260	13,880	35,969	58,289	817	452
<b>2005</b>	337,930	4,821	876	8,998	4,439	99,067	89,734	17,785	14,170	36,305	60,340	950	445
<b>Average (1993-2005)</b>	379,281.0	5,784.5	1,798.7	9,532.4	4,706.7	117,185.2	103,369.8	17,839.8	14,156.9	35,033.6	68,482.2	932.4	458.0
<b>% Distribution</b>													
<b>1993</b>	100	1.4	0.5	3.1	1.3	31.9	29.5	3.6	2.9	7.0	18.5	0.2	0.1
<b>2005</b>	100	1.4	0.3	2.7	1.3	29.3	26.6	5.3	4.2	10.7	17.9	0.3	0.1
<b>Average (1993-2005)</b>	100	1.5	0.5	2.5	1.2	30.9	27.3	4.7	3.7	9.2	18.1	0.2	0.1
<b>Absolute Change (1993-2005)</b>	-86,918	-1,295	-1,133	-4,334	-1,208	-36,344	-35,384	2,458	1,893	6,703	-18,155	-108	-11
<b>% Change (1993-2005)</b>	-20.5	-21.2	-56.4	-32.5	-21.4	-26.8	-28.3	16.0	15.4	22.6	-23.1	-10.2	-2.4
<b>% Contribution to Absolute Change in Fatalities</b>	100	1.5	1.3	5.0	1.4	41.8	40.7	-2.8	-2.2	-7.7	20.9	0.1	N/A

Source: AWCBC National Work Injury and Disease Statistics, Number of Accepted Time-loss Injuries, by Jurisdiction, 1982 – 2005

**Table 20b: Incidence of Workplace Time-loss Injuries (per 100 workers), by Jurisdiction, 1993-2005**

<b>Year</b>	<b>CDA</b>	<b>NL</b>	<b>PE</b>	<b>NS</b>	<b>NB</b>	<b>QC</b>	<b>ON</b>	<b>MB</b>	<b>SK</b>	<b>AB</b>	<b>BC</b>	<b>NT &amp; NU / YT</b>
<b>1993</b>	3.3	3.2	3.7	3.6	1.9	4.5	2.5	3.0	2.7	2.3	4.7	3.6
<b>1994</b>	3.3	3.4	3.8	3.5	1.6	4.4	2.5	3.5	2.9	2.3	4.6	3.7
<b>1995</b>	3.1	3.2	4.3	2.8	1.4	4.1	2.3	3.4	3.1	2.2	4.2	3.6
<b>1996</b>	2.8	2.8	4.1	2.1	1.3	3.8	2.0	3.3	2.9	2.3	3.9	3.2
<b>1997</b>	2.8	2.8	3.1	2.1	1.4	3.7	1.9	3.4	3.1	2.4	3.9	3.1
<b>1998</b>	2.7	3.1	3.4	2.1	1.5	3.6	1.8	3.5	2.9	2.4	3.8	2.6
<b>1999</b>	2.6	3.3	3.5	2.1	1.6	3.5	1.8	3.5	2.9	2.3	3.7	2.9
<b>2000</b>	2.7	3.3	3.3	2.2	1.6	3.5	1.8	3.6	3.2	2.5	3.7	2.7
<b>2001</b>	2.5	3.0	2.8	2.2	1.6	3.3	1.7	3.3	3.3	2.4	3.4	3.0
<b>2002</b>	2.3	2.7	2.3	2.1	1.4	3.1	1.6	3.2	3.3	2.3	3.0	3.3
<b>2003</b>	2.2	2.5	1.9	2.1	1.3	3.0	1.5	3.1	3.2	2.2	2.8	3.1
<b>2004</b>	2.1	2.3	1.6	2.1	1.2	2.8	1.4	3.0	2.9	2.0	2.8	2.9
<b>2005</b>	2.1	2.3	1.3	2.0	1.3	2.7	1.4	3.1	2.9	2.0	2.8	3.2
<b>Average (1993-2005)</b>	2.7	2.9	3.0	2.4	1.5	3.5	1.9	3.3	3.0	2.3	3.6	3.1
<b>Absolute Change (1993-2005)</b>	2.1	2.3	1.3	2.0	1.3	2.7	1.4	3.1	2.9	2.0	2.8	3.2
<b>% Change (1993-2005)</b>	-37.1	-28.6	-65.1	-44.2	-32.7	-40.3	-44.6	0.7	7.1	-11.4	-39.8	-11.9
<b>% of Nat'l Avg.</b>												
<b>1993</b>	100	95	111	110	57	135	76	92	82	69	142	109
<b>2005</b>	100	108	61	97	61	128	67	147	140	97	136	153
<b>Average (1993-2005)</b>	100	109	113	90	55	133	70	124	114	86	137	118

Sources: Labour Force Survey, Series: V2461119, v2461749, v2462379, v2463009, v2463639, v2464269, v2464899, v2465529, v2466159, v2466789, v2467419; AWCBC National Work Injury and Disease Statistics, Accepted Time-loss Injuries, by Jurisdiction, 1993-2005

**Table 20c: Number and Incidence of Workplace Time-loss Injuries, by Gender, Canada, 2002-2005**

Year	Number of Time-loss Injuries						Incidence of Workplace Time-loss injuries per 100 Workers	
	M	% of Total	F	% of Total	Unknown/Not Coded	Total	M	F
2002	246,532	68.6	111,100	30.9	1,542	359,174	3.0	1.6
2003	237,582	68.1	109,680	31.5	1,453	348,715	2.8	1.5
2004	230,304	67.6	109,138	32.1	1,060	340,502	2.7	1.5
2005	227,096	67.2	109,912	32.5	922	337,930	2.6	1.5
Average (2002-2005)	235,378.5	67.9	109,957.5	31.7	1,244.3	346,580.3	2.8	1.5
Absolute Change (2002-2005)	-19,436	-1	-1,188	2	-620	-21,244	0	0
% Change (2002-2005)	-7.9	-2.1	-1.1	5.1	-40.2	-5.9	-12.3	-6.9
% Contribution to Absolute Change in Fatalities (2002-2005)	91.5	0.0	5.6	0.0	2.9	100.0	0.0	0.0

Sources: AWCBC National Work Injury and Disease Statistics, Accepted Claims by Claim Type, Province, Year, Gender, 1993-2005

Notes: Totals include all Males, Females, Unknown, and Not Coded in accordance with available AWCBC statistics

**Table 20d: Number and Incidence of Workplace Time-loss Injuries by Age Group, Canada, 2002-2005**

	Total	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65 and over
<b>Absolute Numbers of Workplace Time-loss Injuries</b>												
2002	359,174	17,310	41,520	40,376	43,403	52,137	54,063	44,284	33,376	21,170	8,892	2,113
2003	348,715	15,904	39,476	38,761	41,130	47,376	52,268	45,024	34,138	22,547	9,498	2,318
2004	340,502	15,271	38,780	38,064	38,572	44,103	50,948	45,184	34,369	22,706	9,700	2,480
2005	337,930	15,043	37,877	37,563	37,250	41,435	49,668	45,659	35,750	23,978	10,290	3,048
<b>Average (2002-2005)</b>	346,580	15,882	39,413	38,691	40,089	46,263	51,737	45,038	34,408	22,600	9,595	2,490
<b>% Change (2002-2005)</b>	-5.9	-13.1	-8.8	-7.0	-14.2	-20.5	-8.1	3.1	7.1	13.3	15.7	44.2
<b>% Distribution (2005)</b>	100.0	4.5	11.2	11.1	11.0	12.3	14.7	13.5	10.6	7.1	3.0	0.9
<b>Incidence of Workplace Time-loss Injuries (per 100 workers)</b>												
2002	2.3	1.9	2.8	2.5	2.5	2.6	2.4	2.3	2.1	2.1	1.8	0.9
2003	2.2	1.7	2.6	2.4	2.3	2.4	2.4	2.2	2.0	2.0	1.8	0.9
2004	2.1	1.6	2.5	2.3	2.2	2.3	2.3	2.2	2.0	1.9	1.6	0.9
2005	2.1	1.6	2.5	2.2	2.1	2.2	2.2	2.2	2.0	1.9	1.7	1.0
<b>Average (2002-2005)</b>	2.2	1.7	2.6	2.3	2.3	2.4	2.3	2.2	2.0	1.9	1.7	0.9
<b>% Change (2002-2005)</b>	-10.9	-13.1	-13.1	-11.8	-15.4	-16.1	-8.7	-4.1	-2.5	-9.5	-8.6	11.9

Source: AWCBC NWISP Accepted Claims by Claim Type, Province, Year, Age (Group), 1993-2005; CANSIM LFS Series: v2461127, v2461128, v2461129, v2461130, v2461131, v2461132, v2461133, v2461134, v2461135, v2461136, v2461137



**Table 20e: Number and Incidence of Workplace Time-loss Injuries, by Occupation (Major Groups), Canada, 2002-2005**

	Number of Time-loss Injuries				Incidence of Time-loss Injuries per 100 workers					
	2002	2003	2004	2005	% Distribution (2005)	% Distribution (Average 2002-2005)	2002	2003	2004	2005
Total	359,174	348,715	340,502	337,930	100	100	2.35	2.23	2.14	2.09
Occupations unique to processing, manufacturing and utilities	73,267	71,131	67,675	61,414	18.2	19.7	6.45	6.27	5.96	5.41
Trades, transport and equipment operators and related occupations	108,178	103,882	101,827	100,105	29.6	29.9	4.80	4.61	4.52	4.44
Occupations unique to primary industry	21,660	21,962	21,129	23,092	6.8	6.3	4.13	4.18	4.02	4.40
Health occupations	24,874	25,596	25,455	25,263	7.5	7.3	2.84	2.92	2.91	2.89
Sales and service occupations	71,578	70,263	69,533	68,821	20.4	20.2	1.92	1.88	1.87	1.85
Occupations in social science, education, government service and religion	8,234	8,562	8,491	9,062	2.7	2.5	0.67	0.69	0.69	0.73
Business, finance and administration occupations	18,024	18,132	18,072	18,443	5.5	5.2	0.66	0.66	0.66	0.68
Occupations in art, culture, recreation and sport	2,113	2,500	2,651	2,630	0.8	0.7	0.48	0.57	0.61	0.60
Management occupations	9,574	8,645	8,155	5,629	1.7	2.3	0.71	0.64	0.60	0.42
Natural and applied sciences and related occupations	3,832	3,951	3,866	3,947	1.2	1.1	0.37	0.38	0.37	0.38
Not coded	3,785	72	11,176	16,153	4.8	2.2	N/A	N/A	N/A	N/A
Occupations not stated	13,985	14,019	2,472	3,371	1.0	2.4	N/A	N/A	N/A	N/A

Source: AWCBC National Work Injury and Disease Statistics Accepted Claims by Claim Type, Year, Occupation (1996-2005), CANSIM LFS

Table 20f: Number and Incidence of Workplace Time-loss Injuries, by Industry, Canada, 2002-2005

	Number of Time-loss Injuries					Incidence of Time-loss Injuries per 100 workers				
	2002	2003	2004	2005	% Distribution (2005)	% Distribution (Average 2002-2005)	2002	2003	2004	2005
Total	359,174	348,715	340,502	337,930	100.0	100	2.35	2.23	2.14	2.09
Manufacturing	96,175	89,346	84,466	80,193	23.7	25.3	4.21	3.93	3.69	3.63
Construction industries	30,754	30,829	31,791	32,642	9.7	9.1	3.55	3.40	3.34	3.20
Transportation and storage	25,946	25,258	24,876	24,652	7.3	7.3	3.41	3.19	3.11	3.11
Mining, quarrying and oil wells	3,340	3,438	3,195	3,342	1.0	1.0	1.96	1.93	1.70	1.59
Government Services	21,076	21,816	21,012	20,956	6.2	6.1	2.67	2.66	2.55	2.52
Wholesale trade	18,301	17,796	17,257	16,727	4.9	5.1	3.34	3.11	2.96	2.76
Logging and forestry	3,334	3,050	2,884	2,684	0.8	0.9	4.52	3.97	4.00	3.86
Business services	9,588	9,579	9,907	10,370	3.1	2.8	0.61	0.59	0.60	0.61
Other Services	12,762	12,661	12,479	12,549	3.7	3.6	1.86	1.78	1.79	1.81
Communication and other utilities	7,984	7,660	7,086	7,341	2.2	2.2	0.94	0.91	0.81	0.85
Retail trade	41,771	41,040	40,251	40,261	11.9	11.8	2.24	2.17	2.09	2.05
Health and social service industries	41,420	41,594	40,949	41,261	12.2	11.9	2.56	2.48	2.36	2.38
Agriculture and related services	4,366	4,092	4,017	3,993	1.2	1.2	1.34	1.23	1.23	1.16
Accommodation, food and beverage services	21,740	19,862	19,607	19,372	5.7	5.8	2.21	1.98	1.94	1.93
Fishing and trapping	862	780	756	826	0.2	0.2	3.28	2.93	2.81	3.14
Educational services	8,563	8,619	8,656	8,377	2.5	2.5	0.85	0.84	0.84	0.76
Real estate operator and insurance agent	1,978	2,027	1,904	1,957	0.6	0.6	0.81	0.76	0.69	0.70
Finance and insurance	659	610	650	591	0.2	0.2	0.10	0.09	0.10	0.08
Industry unspecified or undefined	1,247	1,304	1,311	4	0.0	0.3	N/A	N/A	N/A	N/A
Not Coded	7,308	7,354	7,448	9,832	2.9	2.3	N/A	N/A	N/A	N/A

Source: AWCBC National Work Injury and Disease Statistics 2002-2004, Table 10; Accepted Time-loss Injuries, by Industry (Division), 1996-2005; CANSIM LFS

**Table 20g: Comparison of Time-loss Injuries and Fatalities, by Industry, 2002-2005**

	Number of Workplace Time-loss Injuries		Number of Workplace Fatalities		Number of Time-loss Injuries per Fatality	
	2005	Average (2002-2005)	2005	Average (2002-2005)	2005	Average (2002-2005)
Total	337,930	346,580.3	1097	981	308.0	353.5
Manufacturing	80,193	87,545.0	230	215	348.7	406.7
Construction industries	32,642	31,504.0	236	204	138.3	154.2
Transportation and storage	24,652	25,183.0	125	118	197.2	213.0
Mining, quarrying and oil wells	3,342	3,328.8	103	97	32.4	34.3
Government Services	20,956	21,215.0	65	97	322.4	218.7
Wholesale trade	16,727	17,520.3	45	64	371.7	275.9
Logging and forestry	2,684	2,988.0	43	36	62.4	82.4
Business services	10,370	9,861.0	23	32	450.9	308.2
Other Services	12,549	12,612.8	28	26	448.2	494.6
Communication and other utilities	7,341	7,517.8	29	26	253.1	289.1
Retail trade	40,261	40,830.8	37	24	1088.1	1719.2
Health and social service industries	41,261	41,306.0	6	25	6876.8	1652.2
Agriculture and related services	3,993	4,117.0	16	14	249.6	294.1
Accommodation, food and beverage services	19,372	20,145.3	19	15	1019.6	1321.0
Fishing and trapping	826	806.0	12	14	68.8	59.7
Educational services	8,377	8,553.8	13	12	644.4	743.8
Real estate operator and insurance agent	1,957	1,966.5	3	11	652.3	174.8
Finance and insurance	591	627.5	1	4	591.0	147.6
Industry unspecified or undefined	4	966.5	52	1	0.1	773.2
Not Coded	9,832	7,985.5	11	33	893.8	245.7

Source: AWCBC National Work Injury and Disease Statistics 2003-2005, Table 8 Number of Accepted Time-loss Injuries, by Industry and Table 22 Number of Fatalities, by Industry

**Table 20h: Number and Incidence of Workplace Time-loss Injuries, by Event (Major Groups), Canada, 2003-2005**

	Number of Time-loss Injuries					Incidence of Time-loss Injuries per 100 workers		
	2003	2004	2005	% Distribution (2005)	% Distribution (2003-2005)	2003	2004	2005
Total	348,715	340,502	337,930	100	100	2.23	2.14	2.09
Bodily reaction and exertion	151,796	148,630	145,009	42.9	43.4	0.99	0.93	0.90
Contact with objects and equipment	91,586	89,126	87,409	25.9	26.1	0.60	0.56	0.54
Falls	56,230	54,097	54,806	16.2	16.1	0.37	0.34	0.34
Exposure to harmful substances or environments	15,855	15,318	15,665	4.6	4.6	0.10	0.10	0.10
Assaults and violent acts	5,734	5,890	6,089	1.8	1.7	0.04	0.04	0.04
Transportation accident	9,871	10,091	10,046	3.0	2.9	0.06	0.06	0.06
Not Coded	12,066	13,453	16,122	4.8	4.1	0.08	0.08	0.10
Unknown	4,666	3,061	1,994	0.6	0.9	0.03	0.02	0.01
Fire or explosion	779	760	751	0.2	0.2	0.01	0.00	0.00
Other events or exposures	132	76	39	0.0	0.0	0.00	0.00	0.00

Source: AWCBC National Work Injury and Disease Statistics Accepted Time-loss Injuries, by Event (Division), 2002-2004; CANSIM LFS

**Table 20i: Number and Incidence of Time-loss Injuries, by Nature of Injury (Major and Minor Groups), Canada, 2002-2005**

	Number of Time-loss Injuries					Incidence of Time-loss Injuries per 100 workers				
	2002	2003	2004	2005	% Distribution (2005)	% Distribution (2002-2005)	2002	2003	2004	2005
<b>Total</b>	<b>359,174</b>	<b>348,715</b>	<b>340,502</b>	<b>337,930</b>	<b>100</b>	<b>100</b>	<b>2.35</b>	<b>2.23</b>	<b>2.14</b>	<b>2.09</b>
<b>Major Groups</b>										
<b>ACCIDENT</b>	<b>307,305</b>	<b>296,954</b>	<b>291,323</b>	<b>287,996</b>	<b>85.2</b>	<b>85.4</b>	<b>2.40</b>	<b>1.89</b>	<b>1.90</b>	<b>1.78</b>
Traumatic injuries and disorders	307,305	296,954	291,323	287,996	85.2	85.4	2.40	1.89	1.90	1.78
<b>DISEASE</b>	<b>35,002</b>	<b>36,958</b>	<b>33,692</b>	<b>31,844</b>	<b>9.4</b>	<b>9.9</b>	<b>0.27</b>	<b>0.24</b>	<b>0.22</b>	<b>0.20</b>
Neoplasms, tumors, and cancer	81	116	103	133	0.0	0.0	0.00	0.00	0.00	0.00
Systemic diseases and disorders	30,422	31,165	29,123	27,218	7.9	8.5	0.24	0.20	0.19	0.17
Multiple diseases, conditions, or disorders	235	341	328	382	0.1	0.1	0.00	0.00	0.00	0.00
Infectious and parasitic diseases	995	824	897	847	0.2	0.3	0.01	0.01	0.01	0.01
Symptoms, signs and ill-defined conditions	3,269	4,512	3,241	3,264	0.9	1.0	0.03	0.03	0.02	0.02
<b>Nonclassifiable</b>	<b>4,125</b>	<b>4,486</b>	<b>3,039</b>	<b>2,569</b>	<b>0.7</b>	<b>1.0</b>	<b>0.03</b>	<b>0.03</b>	<b>0.02</b>	<b>0.02</b>
<b>Not coded</b>	<b>12,742</b>	<b>11,461</b>	<b>12,448</b>	<b>15,521</b>	<b>4.5</b>	<b>3.8</b>	<b>0.10</b>	<b>0.07</b>	<b>0.08</b>	<b>0.10</b>

Table 20i: Number and Incidence of Time-loss Injuries, by Nature of Injury (Major and Minor Groups), Canada, 2002-2005 (cont'd)

Minor Groups	Number of Time-loss Injuries					Incidence of Time-loss Injuries per 100 workers				
	2002	2003	2004	2005	% Distribution	% Distribution (2002-2005)	2002	2003	2004	2005
<b>ACCIDENT</b>										
<b>Traumatic injuries and disorders</b>	307,305	296,954	291,323	287,996	83.1	85.4	2.40	1.89	1.90	1.78
Traumatic injuries to muscles, tendons, ligaments, joints, etc.	155,736	151,845	153,654	153,627	44.3	44.4	0.04	0.04	0.04	0.95
Surface wounds and bruises	47,743	44,388	42,980	43,450	12.5	12.9	0.21	0.16	0.12	0.27
Open wounds	33,520	31,879	31,779	31,116	9.0	9.3	0.02	0.02	0.02	0.19
Traumatic injuries to bones, nerves, spinal cord	24,439	24,835	24,679	24,243	7.0	7.1	0.19	0.16	0.16	0.15
Other traumatic injuries and disorders	26,614	25,661	19,057	16,811	4.9	6.4	0.02	0.01	0.01	0.10
Burns	7,873	7,150	7,089	7,156	2.1	2.1	0.37	0.28	0.28	0.04
Multiple traumatic injuries and disorders	5,719	5,738	6,491	6,607	1.9	1.8	1.22	0.97	1.00	0.04
Intracranial injuries	2,702	2,983	3,317	3,413	1.0	0.9	0.26	0.20	0.21	0.02
Traumatic injuries and disorders, uns.	2,670	2,221	1,995	1,241	0.4	0.6	0.06	0.05	0.05	0.01
<b>DISEASE</b>										
<b>Systemic diseases and disorders</b>	30,422	31,165	29,123	27,218	7.9	8.5	0.24	0.20	0.19	0.17
Musculoskeletal system and connective tissue diseases and disorders	18,879	18,823	18,130	16,431	4.7	5.2	0.15	0.12	0.12	0.10
Nervous system and sense organs diseases	6,758	7,084	6,360	6,079	1.8	1.9	0.05	0.05	0.04	0.04
Digestive system diseases and disorders	2,906	3,089	2,901	2,765	0.8	0.8	0.02	0.02	0.02	0.02
<b>Infectious and parasitic diseases</b>	995	824	897	847	0.2	0.3	0.01	0.01	0.01	0.01
<b>Neoplasms, tumors, and cancer</b>	81	116	103	133	0.0	0.0	0.00	0.00	0.00	0.00
<b>Symptoms, signs and ill-defined conditions</b>	3,269	4,512	3,241	3,264	0.9	1.0	0.03	0.03	0.02	0.02
Mental disorders or syndromes	1,906	1,925	2,064	2,195	0.6	0.6	0.01	0.01	0.01	0.01
<b>Multiple diseases, conditions, or disorders</b>	235	341	328	382	0.1	0.1	0.00	0.00	0.00	0.00
<b>Nonclassifiable</b>	4,125	4,486	3,039	2,569	0.7	1.0	0.03	0.03	0.02	0.02
<b>Not coded</b>	12,742	11,461	12,448	15,521	4.5	3.8	0.10	0.07	0.08	0.10

Source: AWCBC NWISP Accepted Time-loss Injuries, Year, Province, Nature of Injury (Division), 1996-2005

Note: Only Minor Groups which account for more the 0.5 per cent of the total number of Workplace Time-loss Injuries for the 2002/04 period appear in this table.

**Table 20j: Number and Incidence of Workplace Time-Loss Injuries, by Source of Injury (Major Groups), Canada, 2002-2005**

	Number of Time-loss Injuries						Incidence of Time-loss Injuries per 100 workers			
	2002	2003	2004	2005	% Distribution (2005)	% Distribution (2002-2005)	2002	2003	2004	2005
Total	359,174	348,715	340,502	337,930	100.0	100.0	2.35	2.23	2.14	2.09
Persons, plants, animals, and minerals	101,945	100,916	98,568	95,301	28.2	28.8	0.67	0.64	0.62	0.59
Structures and Surfaces	53,762	54,520	52,823	54,471	16.1	15.4	0.35	0.35	0.33	0.34
Materials	38,744	37,573	37,954	37,007	11.0	10.9	0.25	0.24	0.24	0.23
Containers	39,397	37,559	36,676	35,944	10.6	10.8	0.26	0.24	0.23	0.22
Tools, instruments, and equipment	24,758	24,231	23,914	23,871	7.1	7.0	0.16	0.15	0.15	0.15
Vehicles	20,535	20,368	20,301	20,248	6.0	5.8	0.13	0.13	0.13	0.13
Machinery	19,661	18,473	18,005	17,368	5.1	5.4	0.13	0.12	0.11	0.11
Other Sources	18,965	18,455	17,335	17,269	5.1	3.9	0.12	0.12	0.11	0.11
Furniture and Fixtures	11,086	10,676	10,442	10,461	3.1	3.1	0.07	0.07	0.07	0.06
Chemicals and chemical compounds	4,867	4,736	4,629	4,482	1.3	1.4	0.03	0.03	0.03	0.03
Unknown	8,083	7,666	4,996	4,000	1.2	2.0	0.05	0.05	0.03	0.02
Not coded	17,371	13,542	14,859	17,508	5.2	4.4	0.11	0.09	0.09	0.11

Source: AWCBC Accepted Claims by Claim Type, Year, Source of Injury (Division), 1996-2005, CANSIM LFS

**Table 21: Incidence of Workplace Fatalities per 100,000 workers, OECD Countries, 1980-2005**

	Australia*1	Austria	Belgium†	Canada*	Czech Republic	Denmark	Finland	France	Germany†	Greece‡
	Per 100,000 employees	Per 100,000 workers insured	Per 100,000 workers	Per 100,000 employees	Per 100,000 workers insured	Per 100,000 workers employed	Per 100,000 employees	Per 100,000 workers insured	Per 100,000 full-time equivalent workers	Per 100,000 workers insured
1980		16.5					5.9	10.1		16.5
1981		16.7					5.3	10.2		16.7
1982		10.8					4.0	9.7		6.5
1983		10.3				2.5	4.7	9.3		6.2
1984		9.6				3.3	2.9	8.4		5.3
1985		10.6		7.6		3.3	3.7	7.9		5.4
1986		7.9		7.7		3.0	4.5	7.4		6.1
1987		9.7		8.2		2.4	3.9	7.5		5.8
1988		7.6		8.9		3.0	3.6	8.1		4.9
1989		7.4		8.5		3.0	3.8	8.4		5.4
1990		7.9		8.5		2.6	3.5	8.4	5.1	4.6
1991		8.0		7.8		1.7	4.1	7.4	4.0	4.8
1992	7.0	6.6		7.8		2.4	3.5	7.1	4.7	5.2
1993	7.0	7.5		6.9		2.3	3.2	6.0	5.0	5.3
1994	7.0	6.1	9.3	5.6	5.2	2.9	3.2	5.6	4.6	4.4
1995	6.0	6.4		5.6	5.5	3.0	2.6	4.9	4.2	4.8
1996	5.0	5.7		5.2	6.0	3.0	2.7	5.3	4.0	4.1
1997	3.6	5.1		6.1	5.5	3.0	3.1	4.8	3.7	4.0
1998	3.3	5.3		5.7	4.4	3.0	3.2	4.5	3.4	4.1
1999	2.8	4.9		5.8	4.2	3.0	2.1	4.5	3.4	6.2
2000	2.7	5.3	4.6	6.0	4.9	2.0	2.3	4.4	3.1	4.1
2001	2.4	4.5	3.6	6.1	5.2	2.0	2.1	4.2	3.0	5.9
2002	2.2	4.7		6.1	4.6		1.8	3.8	2.9	5.3
2003	1.8	3.9		6.1	4.5		2.1	3.7		
2004	1.4				4.3		2.1			
2005					3.7					
Absolute Change (1985-2003)	-5.2	-6.7	N/A	-1.5	-0.7	-1.3	-1.6	-4.2	-2.2	-0.1
Absolute Change (1996-2003)	-3.2	-1.8	-5.7	0.9	-1.5	-1.0	-0.6	-1.6	-1.0	1.2

Source: International Labor Organization, LABORSTA yearly data, Table 8B for selected countries.

Available online at: <http://laborsta.ilo.org>

Average annual hours worked obtained from OECD, Employment Outlook 2006

Canadian data is obtained by ILO from Statistics Canada and the Association of Workers' Compensation Boards of Canada

Note: Data available in "per 1,000,000 hours" series were converted to "per 100,000 workers" using the hours data from OECD.

Hours data was available only for 1983, 1994 and 2000-2005.

1985-2003 and 1996-2003 are absolute changes between those two years, or the closest year to 1985, 1996 or 2003 if the data for that year are not available.

Note: Base case is that workplace fatality data includes deaths due to occupational accidents, while excluding deaths due to occupational disease. Countries that do include deaths due to occupational illness are noted.

Commuting accidents are generally excluded from fatality statistics, but inclusions are noted.

\* Fatalities due to occupational illness are included

† Fatalities due to commuting accidents are included

<sup>1</sup> Maximum period for death to be considered a fatal occupational injury: up to three years

<sup>2</sup> Commuting accidents are included in statistics if transportation provided by employer

<sup>3</sup> Deaths due to occupational illness are not included, but certain illnesses are recognized as equivalent to an occupational injury (e.g., illness caused by solvents, asbestos or other minute particles, poisoning or other effects from chemicals, and allergic skin and lung diseases)

<sup>4</sup> Maximum period for death to be considered a fatal occupational injury: one year

<sup>5</sup> All road traffic accidents while on the job are excluded



**Table 21: Incidence of Workplace Fatalities per 100,000 workers, OECD Countries, 1980-2005 (cont'd)**

	Hungary	Ireland	Italy†	Japan	Republic of Korea*†	Luxembourg	Mexico*†	Netherlands	New Zealand*†2	Norway3
	Per 100,000 employees	Per 100,000 workers employed	Per 100,000 workers	Per 100,000 workers	Per 100,000 workers insured	Per 100,000 workers insured	Per 100,000 workers insured	Per 100,000 workers	Per 100,000 workers employed	Per 100,000 workers
1980					34.0				16.6	
1981					37.0		18.0		13.4	
1982					35.0		17.0		8.0	
1983			16.3	4.2	37.0		16.0	1.2	6.0	
1984					38.0		14.0		7.6	
1985					38.0		16.0			
1986					35.0		18.0			
1987					33.0		15.0			
1988					34.0		14.0		6.3	
1989					26.0		11.0		0.1	
1990					30.0		11.0		7.1	
1991			10.5		29.0		13.0		5.7	
1992			10.2		34.0		12.0		4.5	
1993		5.6	9.0		32.0		12.0		5.3	
1994	3.8	4.2	8.0	1.9	37.0		17.0			
1995	4.7	7.3	7.0		34.0	3.8	15.0			
1996	4.1	4.2	7.0		33.0	5.4	11.0			
1997	3.9	3.5	7.0		33.0	4.5	12.0			
1998	4.3	4.6	8.0		29.0	3.1	13.0			2.8
1999	4.1	4.3	7.0			2.1	12.0			2.5
2000	4.0	4.2	7.0	1.8		4.6	14.0			2.5
2001	3.2	3.8	6.0	1.8			12.0			1.6
2002	4.2	3.5	5.0	1.8		5.7	11.0			1.7
2003	3.4		5.0	1.8		4.9	12.0			2.1
2004	4.1		5.0	1.8			11.0			1.7
2005	3.2			1.8			11.0			2.1
Absolute Change (1985-2003)	0.4	-2.1	-11.3	-2.4	-8.0	N/A	-3.0	N/A	N/A	2.1
Absolute Change (1996-2003)	0.1	-0.7	-2.0	-0.1	N/A	1.1	N/A	N/A	N/A	-0.7

**Table 21: Incidence of Workplace Fatalities per 100,000 workers, OECD Countries, 1980-2005 (cont'd)**

	Poland	Portugal <sup>2</sup>	Slovakia	Spain†	Sweden	Switzerland * <sup>4</sup>	Turkey*	United Kingdom <sup>5</sup>	United States*
	Per 100,000 workers employed	Per 100,000 workers insured	Per 100,000 workers insured	Per 100,000 workers insured	Per 100,000 workers	Per 100,000 workers insured	Per 100,000 workers insured	Per 100,000 employees	Per 100,000 workers
1980	12.0						59.9		
1981	9.6		10.0				52.6	2.1	
1982	10.0		10.0				43.6	2.2	
1983	10.5		7.0		3.7		56.9	2.2	5.1
1984	9.5		10.0			4.4	45.0	2.1	
1985	10.4		8.0			4.8	41.2	1.9	
1986	10.9		9.0			4.4		1.7	
1987	10.7		9.0			4.6		1.7	
1988	10.9		8.0	13.9		4.6	47.0	2.5	
1989	10.9		9.0	14.7		4.2	44.6	1.7	
1990	6.5		9.0	14.2		5.3	43.5	1.6	
1991	6.5		7.3	13.4		4.5	45.3	1.4	
1992	6.0		6.6	12.1		3.9	46.8	1.3	5.0
1993	6.1		5.7	11.0	2.6	3.3	38.1	1.2	5.0
1994	5.7		6.1	10.6	6.2	3.7	28.3	1.0	5.0
1995	5.5		6.2	10.1	2.3	3.1	20.8	1.1	5.0
1996	5.7	11.4	7.0	9.8	2.3	3.2	32.2	0.9	5.0
1997	6.0	10.2	4.7	10.1	2.3	3.4	29.0	0.9	5.0
1998	5.5		6.3	9.8	1.7	3.2	22.5	0.8	5.0
1999		7.4	5.5	9.5	1.7	2.4	22.9	0.7	4.0
2000	5.2	8.7	4.3	9.2	1.5	2.3	24.6	0.9	4.0
2001	5.1		4.9	8.0	1.4	2.0	20.6	0.8	4.0
2002	4.9		4.3	6.1	1.4	1.5		0.7	4.0
2003	4.9		4.7	5.3		1.3		0.7	4.0
2004	4.7		3.9	4.9				0.7	4.0
2005				4.7					
Absolute Change (1985- 2003)	-5.5	N/A	-3.3	-8.6	-2.3	-3.5	-20.6	-1.2	-1.1
Absolute Change (1996- 2003)	-0.8	N/A	-2.4	-4.5	-0.9	-1.9	-11.6	-0.2	-1.0

**Table 22: Number of Fatal Occupational Injuries by Age, United States, 1992-2005**

	<b>Total</b>	<b>Male</b>	<b>Female</b>	<b>19 and under</b>	<b>20-24</b>	<b>25-34</b>	<b>35-44</b>	<b>45-54</b>	<b>55-64</b>	<b>65 and over</b>
<b>1992</b>	6217	5774	443	175	544	1556	1538	1167	767	467
<b>1993</b>	6331	5842	489	170	508	1521	1584	1204	811	522
<b>1994</b>	6632	6104	528	181	545	1567	1619	1310	866	525
<b>1995</b>	6275	5736	539	198	486	1409	1571	1256	827	515
<b>1996</b>	6202	5688	514	195	444	1362	1586	1242	855	504
<b>1997</b>	6238	5761	477	175	503	1325	1524	1302	875	520
<b>1998</b>	6055	5569	486	202	421	1238	1525	1279	836	541
<b>1999</b>	6054	5612	442	194	451	1175	1510	1333	816	565
<b>2000</b>	5920	5471	449	200	446	1163	1473	1313	831	488
<b>2001</b>	5815	5442	473	175	441	1142	1478	1368	775	530
<b>2002</b>	5534	5092	442	133	436	1023	1403	1253	784	495
<b>2003</b>	5575	N/A	N/A	137	462	1018	1329	1301	802	523
<b>2004</b>	5761	N/A	N/A	141	421	996	1342	1384	907	569
<b>2005</b>	5702	N/A	N/A	166	403	1005	1239	1383	924	575
<b>Average (1992-2005)</b>	6022.2	5644.6	480.2	174.4	465.1	1250.0	1480.1	1292.5	834.0	524.2
<b>Absolute Change (1992-2005)</b>	-515	-682	-1	-9	-141	-551	-299	216	157	108
<b>% Change (1992- 2005)</b>	-8.3	-11.8	-0.2	-5.1	-25.9	-35.4	-19.4	18.5	20.5	23.1
<b>% Distribution (1992)</b>	100	92.9	7.1	2.8	8.8	25.0	24.7	18.8	12.3	7.5
<b>% Distribution (2005)</b>	100	N/A	N/A	2.9	7.1	17.6	21.7	24.3	16.2	10.1

Source: BLS, 2006

**Table 23: Incidence Rate of Fatal Occupational Injuries by Age, United States, 1992-2005**

	<b>Total</b>	<b>Male</b>	<b>Female</b>	<b>19 and under</b>	<b>20-24</b>	<b>25-34</b>	<b>35-44</b>	<b>45-54</b>	<b>55 and over</b>
<b>1992</b>	5.2	9.0	0.8	3.1	4.2	4.8	4.8	5.6	8.6
<b>1993</b>	5.2	8.9	0.9	2.9	4.0	4.7	4.8	5.4	9.3
<b>1994</b>	5.3	9.2	0.9	2.9	4.3	4.9	4.8	5.6	9.3
<b>1995</b>	4.9	8.5	0.9	3.1	3.9	4.4	4.6	5.2	8.9
<b>1996</b>	4.8	8.3	0.9	3.0	3.7	4.2	4.5	4.9	8.8
<b>1997</b>	4.8	8.3	0.8	2.6	4.1	4.2	4.2	4.9	8.7
<b>1998</b>	4.5	7.9	0.8	2.9	3.4	3.9	4.2	4.6	8.3
<b>1999</b>	4.5	7.9	0.7	2.7	3.5	3.8	4.1	4.7	8.0
<b>2000</b>	4.3	7.5	0.7	2.8	3.4	3.7	4.0	4.3	7.3
<b>2001</b>	4.3	7.4	0.7	2.6	3.3	3.7	4.1	4.4	6.9
<b>2002</b>	4.0	7.0	0.7	2.1	3.3	3.4	4.0	4.0	6.4
<b>2003</b>	4.0	N/A	N/A	2.3	3.4	3.4	3.8	4.1	6.2
<b>2004</b>	4.1	N/A	N/A	2.4	3.1	3.3	3.9	4.3	6.7
<b>2005</b>	4.0	N/A	N/A	2.8	2.9	3.3	3.6	4.2	6.4
<b>Average (1992- 2005)</b>	4.6	8.2	0.8	2.7	3.6	4.0	4.3	4.7	7.8
<b>Absolute Change (1992-2005)</b>	-1.2	-2.0	-0.1	-0.3	-1.3	-1.5	-1.2	-1.4	-2.2
<b>% Change (1992- 2005)</b>	-23.1	-22.0	-15.2	-10.0	-30.9	-31.2	-25.7	-25.0	-25.7

Source: Incidence rates were calculated using BLS fatality data and employment estimates available at <http://www.bls.gov/cps/cpsatabs.htm>.

**Table 24: Incidence of Workplace Fatalities per 100,000 workers, by Industry, US, 1993-2003**

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Average (1993-2003)	Absolute Change (1993-2003)	% Change (1993-2004)
Total	5.1	5.2	4.7	4.7	4.6	4.3	4.3	4.1	4.0	3.8	4.3	4.5	-0.8	-15.8
Agriculture, Hunting and Forestry	69.2	67.7	61.0	60.2	58.6	58.5	54.5	48.9	47.5	51.0	45.2	56.6	-24.1	-34.7
Fishing	19.2	13.5	12.6	14.1	11.5	13.3	13.8	8.0	8.6	4.8	7.2	11.5	-12.0	-62.3
Mining and Quarrying	29.7	31.2	28.1	27.7	27.7	26.0	23.8	30.0	32.1	24.2	28.0	28.1	-1.7	-5.7
Manufacturing	4.6	4.6	4.1	4.2	4.3	4.0	4.2	3.9	3.7	3.7	2.9	4.0	-1.7	-36.4
Electricity, Gas and Water Supply	14.9	17.7	18.2	17.0	18.5	19.2	17.9	17.6	19.2	18.1	7.3	16.9	-7.6	-51.2
Construction	19.5	20.2	20.0	18.9	19.0	19.1	18.2	17.0	18.0	16.8	17.4	18.5	-2.1	-10.8
Wholesale and Retail Trade	5.8	5.8	4.9	4.9	4.5	3.9	3.6	3.9	3.6	3.4	2.6	4.3	-3.2	-55.0
Hotels and Restaurants	1.9	2.4	1.7	1.7	2.2	1.8	1.8	1.9	1.7	1.8	1.8	1.9	-0.1	-3.8
Transport, Storage and Communications	23.5	23.0	21.4	21.9	22.9	20.1	21.5	19.7	19.0	19.7	20.0	21.2	-3.5	-15.1
Financial Intermediation	1.1	1.2	1.2	1.1	0.9	0.9	1.0	0.6	0.7	0.8	0.8	0.9	-0.3	-28.9
Real Estate, Renting and Business Activities	4.0	3.1	3.8	3.3	2.8	2.2	2.5	2.4	2.3	2.1	4.1	2.9	0.1	2.2
Public Administration and Defence; Compulsory Social Security	3.6	3.5	4.0	3.1	3.2	3.0	2.8	2.8	3.0	2.6	1.6	3.0	-2.0	-56.0
Education	5.1	3.5	3.6	3.7	4.1	3.6	3.4	3.8	3.9	2.6	3.5	3.7	-1.5	-30.5
Health and Social Work	1.2	1.2	1.0	1.3	0.9	0.9	1.0	0.9	0.9	0.8	0.8	1.0	-0.3	-29.0
Other Community, Social and Personal Service Activities	5.7	6.0	5.2	5.0	4.7	4.9	4.5	4.7	4.6	4.0	3.6	4.8	-2.1	-36.9

Source: calculated using fatal injuries and total employment data from BLS, Table 11.

**Table 25: Employment by Industry, Canada, for Selected Years with Shares of Total Employment**

	Employment					Shares				
	1976	1987	1996	2004	2005	1976	1987	1996	2004	2005
<b>Total, all industries</b>	9,747.5	12,333.0	13,421.4	15,947.0	16,169.7					
<b>Goods-producing sector</b>	3,370.9	3,633.9	3,476.0	3,989.8	4,002.4	34.6	29.5	25.9	25.0	24.8
Agriculture	463.9	464.5	422.5	326.0	343.7	4.8	3.8	3.1	2.0	2.1
Forestry, Fishing, Hunting and Mining	254.8	287.1	294.0	286.6	306.5	2.6	2.3	2.2	1.8	1.9
Forestry and logging with support activities	N/A	68.5	84.1	72.1	69.5	n.a.	0.6	0.6	0.5	0.4
Fishing, hunting and trapping	N/A	34.2	30.4	26.9	26.3	n.a.	0.3	0.2	0.2	0.2
Mining and oil and gas extraction	N/A	184.4	179.5	187.6	210.7	n.a.	1.5	1.3	1.2	1.3
Utilities	109.8	114.8	124.1	133.3	125.3	1.1	0.9	0.9	0.8	0.8
Construction	681.6	726.6	709.7	951.7	1,019.5	7.0	5.9	5.3	6.0	6.3
Manufacturing	1,861.0	2,041.0	1,925.7	2,292.1	2,207.4	19.1	16.5	14.3	14.4	13.7
<b>Services-producing sector</b>	6,376.6	8,699.2	9,945.4	11,957.2	12,167.3	65.4	70.5	74.1	75.0	75.2
Trade	1,571.5	1,982.0	2,087.7	2,507.1	2,574.6	16.1	16.1	15.6	15.7	15.9
Wholesale trade	N/A	417.4	440.8	582.7	607.1	N/A	3.4	3.3	3.7	3.8
Retail trade	N/A	1,564.6	1,646.9	1,924.4	1,967.5	N/A	12.7	12.3	12.1	12.2
Transportation and warehousing	563.1	634.0	674.0	799.4	793.6	5.8	5.1	5.0	5.0	4.9
Finance and Real Estate	526.0	765.8	861.3	960.7	987.8	5.4	6.2	6.4	6.0	6.1
Finance and insurance	N/A	536.4	609.6	682.9	707.0	n.a.	4.3	4.5	4.3	4.4
Real estate and leasing	N/A	229.4	251.7	277.8	280.8	n.a.	1.9	1.9	1.7	1.7
Professional, scientific and technical services	252.6	489.8	706.7	1,018.3	1,050.0	2.6	4.0	5.3	6.4	6.5
Business, building and other support services	161.4	272.6	420.8	630.2	654.4	1.7	2.2	3.1	4.0	4.0
Educational services	676.7	776.6	913.0	1,035.7	1,106.1	6.9	6.3	6.8	6.5	6.8
Health care and social assistance	793.6	1,152.0	1,390.9	1,733.4	1,734.6	8.1	9.3	10.4	10.9	10.7
Information, culture and recreation	346.7	511.1	579.1	738.0	735.1	3.6	4.1	4.3	4.6	4.5
Accommodation and food services	413.3	716.7	847.9	1,012.4	1,004.5	4.2	5.8	6.3	6.3	6.2
Other services	426.9	633.1	656.0	696.6	693.4	4.4	5.1	4.9	4.4	4.3
Public administration	644.8	765.4	807.8	825.5	833.1	6.6	6.2	6.0	5.2	5.2

Source: LFS, CANSIM Table 282-0008

**Table 26: Shares of Employment in Categories of Industries, Canada, 1976-2005**

	High-risk	Mid-risk	Low-risk
1976	15.4	25.7	58.9
1977	15.1	25.4	59.6
1978	14.9	25.3	59.7
1979	15.0	25.3	59.8
1980	14.8	25.3	59.9
1981	14.9	24.8	60.3
1982	14.1	23.7	62.3
1983	13.7	23.4	62.9
1984	13.5	23.7	62.8
1985	13.8	23.0	63.2
1986	13.1	23.1	63.7
1987	13.4	22.8	63.9
1988	13.6	22.7	63.7
1989	13.7	22.6	63.8
1990	13.5	22.1	64.4
1991	12.9	21.3	65.8
1992	12.6	21.0	66.4
1993	12.4	20.6	67.0
1994	12.7	20.4	67.0
1995	12.7	20.5	66.9
1996	12.5	20.4	67.1
1997	12.5	20.5	67.0
1998	12.4	20.5	67.2
1999	12.3	20.6	67.1
2000	12.6	20.5	66.9
2001	12.6	20.2	67.3
2002	12.4	20.1	67.5
2003	12.6	19.7	67.6
2004	12.8	19.5	67.7
2005	13.1	18.8	68.1

Source: CANSIM, LFS Table 282-0008

Notes: High-risk industries include Mining, Construction, Logging and Fishing and Transportation and Warehousing, which, based on 2005 data, have fatality incidence rates of over 10 deaths per 100,000 workers. Mid-risk industries are Manufacturing and Public Administration, which have fatality incidence rates of 5-10 deaths per 100,000 workers. Low-risk industries are all other industries, which have incidence rates under 5.

**Table 27: Estimated Workplace Fatalities, Canada, 2004 with 1996 Employment Structure**

Industry	1996 Employment Share (%)	2004 Employment Share (%)	2004 employment (estimated with 1996 shares), thousands	Fatalities Incidence Rate, 2004	Estimated Number of Fatalities with 1996 shares	Actual Number of Fatalities	Difference (Estimated - Actual)
Mining, quarrying and oil wells	1.3	1.2	213	46.9	100	88	12
Logging and forestry	0.6	0.5	100	33.3	33	24	9
Fishing and trapping	0.2	0.2	36	52.0	19	14	5
Construction industries	5.3	6.0	843	20.2	170	192	-22
Transportation and storage	5.0	5.0	801	16.0	128	128	0
Manufacturing	14.3	14.4	2,288	8.8	202	202	0
Government Services	6.0	5.2	960	7.8	74	64	10
Communication and other utilities	5.2	5.5	836	2.4	20	21	-1
Wholesale trade	3.3	3.7	524	4.5	23	26	-3
Business services	8.4	10.3	1,340	1.9	25	31	-6
Agriculture and related services	3.1	2.0	502	3.4	17	11	6
Other Services	4.9	4.4	779	3.0	23	21	2
Retail trade	12.3	12.1	1,957	1.2	23	23	0
Real estate operator and insurance agent	1.9	1.7	299	1.1	3	3	0
Accommodation, food and beverage services	6.3	6.3	1,007	1.6	16	16	0
Educational services	6.8	6.5	1,085	0.8	8	8	0
Health and social service industries	10.4	10.9	1,653	0.9	14	15	-1
Finance and insurance	4.5	4.3	724	0.3	2	2	0
<b>Total</b>			<b>15,947</b>		<b>903</b>	<b>889</b>	<b>14</b>
				Incidence (actual total):	<b>5.7</b>	<b>5.8</b>	
				Incidence (estimated total):		<b>5.6</b>	<b>0.1</b>

Source: AWCBC, CANSIM LFS

Note: Actual total is 928 and includes unclassified fatalities. Estimated total is the sum of the estimated fatalities by industry.



**Table 28: Estimated Workplace Fatalities, Canada, 2004 with 1987 Employment Structure**

Industry	1987 Employment share	2004 Employment share (%)	2004 Employment (estimated with 1987 shares), thousands	Incidence Rate, 2004	Estimated number of fatalities with 1987 shares	Actual Number of Fatalities	Difference (Estimated - Actual)
Mining, quarrying and oil wells	1.5	1.2	238	46.9	112	88	24
Logging and forestry	0.6	0.5	89	33.3	29	24	5
Fishing and trapping	0.3	0.2	44	52.0	23	14	9
Construction industries	5.9	6.0	940	20.2	190	192	-2
Transportation and storage	5.1	5.0	820	16.0	131	128	3
Manufacturing	16.5	14.4	2,639	8.8	233	202	31
Government Services	6.2	5.2	990	7.8	77	64	13
Communication and other utilities	5.1	5.5	809	2.4	19	21	-2
Wholesale trade	3.4	3.7	540	4.5	24	26	-2
Business services	6.2	10.3	986	1.9	19	31	-12
Agriculture and related services	3.8	2.0	601	3.4	20	11	9
Other Services	5.1	4.4	819	3.0	25	21	4
Retail trade	12.7	12.1	2,023	1.2	24	23	1
Real estate operator and insurance agent	1.9	1.7	297	1.1	3	3	0
Accommodation, food and beverage services	5.8	6.3	927	1.6	15	16	-1
Educational services	6.3	6.5	1,004	0.8	8	8	0
Health and social service industries	9.3	10.9	1,490	0.9	13	15	-2
Finance and insurance	4.3	4.3	694	0.3	2	2	0
<b>TOTAL</b>			<b>15,947</b>		<b>966</b>	<b>889</b>	<b>77</b>
				Incidence (actual total):	<b>6.1</b>	<b>5.8</b>	
				Incidence (estimated total):		<b>5.6</b>	<b>0.5</b>

Source: AWCBC, CANSIM LFS

Note: Actual total is 928 and includes unclassified fatalities. Estimated total is the sum of the estimated fatalities by industry.

**Table 29: Estimated Fatalities in 2004 with employment structure of 1976**

Industry	1976 Employment Share	2004 Employment Share (%)	2004 Employment (estimated with 1976 shares), thousands	Incidence rate, 2004	Estimated number of fatalities with 1976 shares	Actual Number of Fatalities	Difference (Estimated - Actual)
Mining, quarrying and oil wells							
Logging and forestry	2.6	1.9	417	44.0	183	126	57
Fishing and trapping							
Construction industries	7.0	6.0	1,115	20.2	225	192	33
Transportation and storage	5.8	5.0	921	16.0	148	128	20
Manufacturing	19.1	14.4	3,045	8.8	268	202	66
Government Services	6.6	5.2	1,055	7.8	82	64	18
Communication and other utilities	4.7	5.5	747	2.4	18	21	-3
Wholesale trade	16.1	15.8	2,571	2.0	50	49	1
Retail trade							
Business services	4.2	10.3	677	1.9	13	31	-18
Agriculture and related services	4.8	2.0	759	3.4	26	11	15
Other Services	4.4	4.4	698	3.0	21	21	0
Real estate operator and insurance agent	5.4	6.0	861	0.5	4	5	-1
Finance and insurance							
Accommodation, food and beverage services	4.2	6.3	676	1.6	11	16	-5
Educational services	6.9	6.5	1,107	0.8	9	8	1
Health and social service industries	8.1	10.9	1,298	0.9	11	15	-4
<b>TOTAL</b>			<b>15,947</b>		<b>1,068</b>	<b>889</b>	<b>179</b>
			Incidence (actual total):		<b>6.7</b>	<b>5.8</b>	
			Incidence (estimated total):			<b>5.6</b>	<b>1.1</b>

Source: AWCBC, LFS

Note: Actual total is 928 and includes unclassified fatalities. Estimated total is the sum of the estimated fatalities by industry.

**Table 30: Enforcement of Safety Laws, Ontario, 1993-2005**

	Visits	Inspections	Investigations	Consultations	Orders Issued	Stop Work Orders	Number of Convictions	Amount of Fines
1993/94	50,874	34,078	11,706	5,090	43,276	2,474	397	\$4,122,349
1994/95	47,403	30,302	12,442	4,659	39,725	2,305	352	\$1,650,832
1995/96	44,470	28,704	12,387	3,379	36,232	2,056	268	\$2,401,809
1996/97	59,345	43,306	13,094	2,945	54,840	2,884	162	\$3,137,940
1997/98	64,007	47,009	14,262	2,736	65,893	3,383	313	\$3,746,893
1998/99	56,193	38,728	14,998	2,467	56,765	2,964	283	\$4,582,638
1999/00	60,784	41,874	16,704	2,206	69,940	3,492	309	\$6,545,260
2000/01	58,656	37,878	18,484	2,294	70,843	4,105	333	\$5,155,775
2001/02	55,728	37,244	16,590	1,894	75,167	4,462	287	\$7,300,715
2002/03	52,093	35,715	14,783	1,595	72,522	4,794	459	\$9,157,860
2003/04	56,102	36,986	17,277	1,839	77,774	5,955	618	\$7,115,725
2004/05	52,673	34,530	16,202	1,941	90,141	6,048	386	\$6,292,835

**Overall Percentage Change**

93-05	3.5	1.3	38.4	-61.9	108.3	144.5	-2.8	52.7
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Source: Safety Statistics, Ministry of Labour of Ontario, <http://www.labour.gov.on.ca/english/hs/stats/index.html>.

Note: Visits include inspections, investigations and consultations. Inspections are proactive visits; investigations result from a complaint or injury; consultations are information sessions for workers. Orders issued include stop work orders.

**Table 31: Union coverage (percentage of all workers)**

			Canada	
	Canada	United States	Public	Private
1987	33.8	17.0	N/A	N/A
1988	34.0	16.8	N/A	N/A
1989	34.4	16.4	N/A	N/A
1990	35.1	16.0	N/A	N/A
1991	35.6	16.0	N/A	N/A
1992	35.5	15.7	N/A	N/A
1993	34.9	15.7	N/A	N/A
1994	34.2	15.5	N/A	N/A
1995	34.6	14.9	N/A	N/A
1996	N/A	14.5	N/A	N/A
1997	33.7	14.1	74.6	21.3
1998	33.0	13.9	74.2	20.9
1999	32.3	13.9	74.6	19.9
2000	32.4	13.5	73.9	20.2
2001	32.3	13.4	75.2	19.9
2002	32.2	13.2	75.7	19.7
2003	32.2	12.9	75.5	19.8
2004	31.7	12.5	75.5	18.9
2005	32.0	N/A	75.0	19.3

Source:

LFS, CANSIM Tables 279-0024 and 282-0078  
BLS

**Table 32: Industrial Accidents, Fatal and Non-Fatal, Canada, 1928-1975**

Year	Number of Fatal and Non-Fatal Accidents	Total Civilian Employment (thousands)	Civilian Employment in Non-Agricultural Industries (thousands)	Incidence per 100 Workers in Total Civilian Employment	Incidence per 100 Workers in Non-Agricultural Industries
1928	123,030	3,796	2,491	3.2	4.9
1929	155,086	3,848	2,541	4.0	6.1
1930	134,098	3,689	2,451	3.6	5.5
1931	117,625	3,670	2,454	3.2	4.8
1932	111,331	3,470	2,233	3.2	5.0
1933	95,966	3,449	2,192	2.8	4.4
1934	125,454	3,707	2,430	3.4	5.2
1935	140,451	3,777	2,479	3.7	5.7
1936	150,363	3,895	2,576	3.9	5.8
1937	212,022	4,115	2,776	5.2	7.6
1938	183,103	4,066	2,707	4.5	6.8
1939	180,979	4,120	2,741	4.4	6.6
1940	233,804	4,184	2,840	5.6	8.2
1941	295,582	4,271	3,047	6.9	9.7
1942	348,795	4,434	3,295	7.9	10.6
1943	349,291	4,491	3,373	7.8	10.4
1944	322,067	4,485	3,349	7.2	9.6
1945	310,141	4,447	3,303	7.0	9.4
1946	351,524	4,666	3,480	7.5	10.1
1947	371,245	4,832	3,711	7.7	10.0
1948	417,396	4,875	3,779	8.6	11.0
1949	412,343	4,913	3,837	8.4	10.7
1950	415,170	4,976	3,958	8.3	10.5
1951	447,011	5,097	4,158	8.8	10.8
1952	476,313	5,169	4,278	9.2	11.1
1953	480,269	5,235	4,377	9.2	11.0
1954	463,943	5,243	4,365	8.8	10.6
1955	496,396	5,364	4,546	9.3	10.9
1956	553,387	5,585	4,808	9.9	11.5
1957	563,299	5,731	4,983	9.8	11.3
1958	511,544	5,706	4,988	9.0	10.3
1959	547,058	5,870	5,170	9.3	10.6
1960	542,657	5,965	5,282	9.1	10.3
1961	539,092	6,055	5,374	8.9	10.0
1962	573,306	6,225	5,564	9.2	10.3
1963	603,871	6,375	5,726	9.5	10.5
1964	672,690	6,609	5,979	10.2	11.3
1965	741,764	6,862	6,268	10.8	11.8
1966	781,884	7,152	6,609	10.9	11.8
1967	782,070	7,379	6,820	10.6	11.5
1968	762,027	7,537	6,992	10.1	10.9
1969	795,429	7,780	7,245	10.2	11.0
1970	793,697	7,879	7,368	10.1	10.8
1971	793,533	8,079	7,569	9.8	10.5
1972	860,485	8,329	7,848	10.3	11.0
1973	985,680	8,759	8,292	11.3	11.9
1974	1,047,033	9,137	8,664	11.5	12.1
1975	985,317	9,308	8,828	10.6	11.2

Source: Statistics Canada (1983) Historical Statistics of Canada (2nd Ed.) Ottawa: Canadian Government Centre.

Note: 1928-1945 total civilian employment data from Series D129; non-agricultural industries employment data from Series D130;

1946-1975 total civilian employment data from Series D139; non-agricultural industries employment data from Series D141;

1928-1975 industrial accident, fatal and non-fatal, data from Series E376.

**Table 33: Employment Shares (%), by Industry, Selected Countries, 2003**

	Canada	United States	United Kingdom	Japan (2002)	Italy	Germany	France	EU
<b>High-Risk Industries</b>	15.67	12.92	13.24	17.06	13.64	13.13	13.47	14.35
<b>Mining, quarrying and oil wells</b>	1.14	0.40	0.24	0.11	0.16	0.25	0.12	0.20
<b>Construction industries</b>	6.47	5.88	6.53	9.89	6.90	6.00	6.16	6.94
<b>Logging and forestry</b>	0.39	0.18	0.05	0.14	0.14	0.10	0.13	0.28
<b>Fishing and trapping</b>	0.14	0.07	0.05	0.35	0.14	0.01	0.11	0.12
<b>Transportation and storage</b>	7.52	6.39	6.36	6.58	6.29	6.77	6.95	6.82
<b>Mid-Risk Industries</b>	15.38	14.48	14.79	16.41	22.69	23.76	19.81	20.76
<b>Manufacturing</b>	10.55	9.15	9.63	12.95	17.09	16.65	10.93	13.89
<b>Government Services</b>	4.83	5.33	5.15	3.46	5.60	7.11	8.87	6.87
<b>Low-Risk Industries</b>	68.95	72.60	71.58	66.07	62.13	62.76	66.32	64.88
<b>Agriculture and related services</b>	2.12	1.46	1.30	5.50	4.16	2.16	3.40	3.51
<b>Accommodation, food and beverage services</b>	8.63	8.60	8.30	15.09	7.12	6.77	5.93	7.12
<b>Wholesale trade</b>	5.82	3.84	3.67	6.13	4.39	4.21	3.74	4.16
<b>Retail trade</b>	9.43	9.83	11.38	11.83	8.76	8.76	7.23	8.81
<b>Communication and other utilities</b>	2.96	2.32	2.56	2.15	1.81	2.36	2.86	2.39
<b>Finance and insurance</b>	5.83	4.76	4.94	3.21	2.99	3.51	3.38	3.48
<b>Real estate operator and insurance agent</b>	0.61	1.29	1.56	1.43	0.52	1.17	1.04	1.03
<b>Business services</b>	10.71	11.92	13.06	5.91	15.41	12.82	14.84	13.30
<b>Educational services</b>	6.17	11.30	8.10	2.81	6.86	5.74	8.07	6.78
<b>Health and social service industries</b>	16.67	17.28	16.71	11.99	10.10	15.26	15.83	14.32

Source: Shares were calculated using data (persons engaged, by industry) from Groningen Growth and Development Centre (GGDC), 60-Industry Database, September 2006, <http://www.ggdc.net>

Table 34: Estimated Total Workplace Fatalities and Incidence Rates in Canada using Employment Shares from Selected Countries, 2003

	Canada	United States	United Kingdom	Japan (2002)	Italy	Germany	France	Average (G-7 excluding Canada)	Difference (Canada-Average)	EU	Difference (Canada-EU)
<b>High-Risk Industries</b>	585	421	425	564	439	416	421	467	118	461	125
<b>Mining, quarrying and oil wells</b>	110	35	22	9	14	22	11	19	91	18	93
<b>Construction industries</b>	239	218	242	366	255	222	228	255	-16	257	-17
<b>Logging and forestry</b>	16	7	2	6	6	4	6	5	11	12	5
<b>Fishing and trapping</b>	9	4	3	21	9	1	6	7	1	7	2
<b>Transportation and storage</b>	211	157	157	162	155	167	171	161	50	168	43
<b>Mid-Risk Industries</b>	206	210	214	235	326	342	288	269	-64	300	-94
<b>Manufacturing</b>	133	130	136	183	242	236	155	180	-47	197	-64
<b>Government Services</b>	72	80	77	52	84	107	133	89	-16	103	-31
<b>Low-Risk Industries</b>	168	157	155	185	156	149	160	161	6	159	8
<b>Agriculture and related services</b>	16	11	10	42	32	17	26	23	-7	27	-11
<b>Accommodation, food and beverage services</b>	11	11	11	19	9	9	8	11	0	9	2
<b>Wholesale trade</b>	44	29	28	46	33	32	28	33	11	31	12
<b>Retail trade</b>	20	20	23	24	18	18	15	19	1	18	2
<b>Communication and other utilities</b>	14	11	12	10	9	11	13	11	3	11	3
<b>Finance and insurance</b>	3	2	2	2	1	2	2	2	1	2	1

Table 34: Estimated Total Workplace Fatalities and Incidence Rates in Canada using Employment Shares from Selected Countries, 2003 (cont'd)

	Canada	United States	United Kingdom	Japan (2002)	Italy	Germany	France	Average (excluding Canada)	Difference (Canada-Average)	EU	Difference (Canada-EU)
<b>Real estate operator and insurance agent</b>	2	5	6	5	2	4	4	4	-2	4	-1
<b>Business services</b>	15	17	18	8	21	18	21	17	-2	18	-4
<b>Educational services</b>	10	18	13	4	11	9	13	11	-2	11	-1
<b>Health and social service industries</b>	33	34	33	24	20	30	32	29	4	29	5
<b>Total Number of Workplace Fatalities</b>	958	788	794	984	920	907	869	877	81	920	39
<b>Difference (Canada - Other countries)</b>	-	170	165	-25	38	52	89	81	-	39	-
<b>Incidence of Workplace Fatalities (per 100,000 Workers)</b>	6.0	4.9	5.0	6.2	5.8	5.7	5.4	5.5	0.5	5.8	0.2
<b>Difference (Canada - Other countries)</b>	-	1.1	1.0	-0.2	0.2	0.3	0.6	0.5	-	0.2	-

Sources: Fatality estimates were calculated using shares calculated using data (persons engaged, by industry) from Groningen Growth and Development Centre (GGDC), 60-Industry Database, September 2006, <http://www.ggdc.net>, and Canadian incidence rates for 2003, which were calculated using workplace fatality data from AWCBC National Work Injury and Disease Statistics Accepted Claims by Claim Type, Year, Industry (Division), 1996-2004 and employment data from the StatCan Labour Force Survey.

Note: High-risk industries include Mining, Construction, Logging and Fishing, and Transportation and Storage. Mid-risk industries are Manufacturing and Public Administration. Low-risk industries are all the others.



Table 35: Estimated Total Workplace Fatalities in 2003 in Canada using US Employment Structure

	US employment shares (%)	Canada employment shares (%)	Number of persons engaged (Canada), thousands	Number of persons engaged (estimated with US shares), thousands	Incidence rate (Canada, 2003)	Estimated number of fatalities using US shares	Estimated number of fatalities using Cda shares	Difference
<b>High-Risk Industries</b>	<b>12.92</b>	<b>15.67</b>	<b>2,683</b>	<b>2,061</b>	<b>28.5</b>	<b>421</b>	<b>585</b>	<b>164</b>
Mining, quarrying and oil wells	0.40	1.14	199	63	55.6	35	110	75
Construction industries	5.88	6.47	1,032	938	23.2	218	239	22
Logging and forestry	0.18	0.39	62	28	26.0	7	16	9
Fishing and trapping	0.07	0.14	23	11	37.6	4	9	4
Transportation and storage	6.39	7.52	1,368	1,020	15.4	157	211	54
<b>Mid-Risk Industries</b>	<b>14.48</b>	<b>15.38</b>	<b>2,270</b>	<b>2,311</b>	<b>9.0</b>	<b>210</b>	<b>206</b>	<b>-4</b>
Manufacturing	9.15	10.55	1,500	1,460	8.9	130	133	4
Government Services	5.33	4.83	770	851	9.4	80	72	-8
<b>Low-Risk Industries</b>	<b>72.60</b>	<b>68.95</b>	<b>11,001</b>	<b>11,583</b>	<b>3.0</b>	<b>157</b>	<b>168</b>	<b>10</b>
Agriculture and related services	1.46	2.12	338	233	4.8	11	16	5
Accommodation, food and beverage services	8.60	8.63	1,377	1,372	0.8	11	11	0
Wholesale trade	3.84	5.82	929	612	4.7	29	44	15
Retail trade	9.83	9.43	1,586	1,569	1.3	20	20	0
Communication and other utilities	2.32	2.96	472	370	3.0	11	14	3
Finance and insurance	4.76	5.83	849	759	0.3	2	3	0
Real estate operator and insurance agent	1.29	0.61	98	205	2.2	5	2	-2
Business services	11.92	10.71	1,709	1,902	0.9	17	15	-2
Educational services	11.30	6.17	984	1,803	1.0	18	10	-8
Health and social service industries	17.28	16.67	2,659	2,758	1.3	34	33	-1
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>15,954</b>	<b>15,954</b>	<b>6.1</b>	<b>788</b>	<b>958</b>	<b>170</b>
					<b>Incidence of workplace fatalities:</b>	<b>4.9</b>	<b>6.0</b>	<b>1.1</b>

Sources: Shares were calculated using Canada and US data (persons engaged, by industry) from Groningen Growth and Development Centre (GGDC), 60-Industry Database, September 2006, <http://www.ggdc.net>. Canadian incidence rates were calculated using workplace fatality data from AWCBC National Work Injury and Disease Statistics Accepted Claims by Claim Type, Year, Industry (Division), 1996-2004 and employment data from the StatCan Labour Force Survey.

Notes: For comparison, the number of fatalities estimates were calculated using the Canadian workplace fatality incidence rates based on AWCBC and LFS data. Therefore, the number of fatalities recorded in this table, which are based on the GGDC data, differ from the actual numbers presented elsewhere in this report. However, the differences are not great as the actual number of work-related deaths in Canada in 2003 was 963 with a incidence rate of 6.1, while the total calculated through this method is 958 with an incidence rate of 6.0.

Table 36: Estimated Workplace Fatalities due to Accidents in 2003 in Canada Using US Employment Structure

	US employment shares (%)	Canada employment shares (%)	Number of persons engaged (Canada), thousands	Number of persons engaged (estimated with US shares), thousands	Actual number of fatalities (Canada, 2003)	Accident Incidence rate (Canada, 2003)	Estimated number of fatalities using US shares (Canada, 2003)	Estimated number of fatalities using Cdn shares	Difference
Mining, quarrying and oil wells	0.40	1.14	199	63	25	14.0	9	28	19
Construction industries	5.88	6.47	1,032	938	94	10.4	97	107	10
Logging and forestry	0.18	0.39	62	28	16	20.8	6	13	7
Fishing and trapping	0.07	0.14	23	11	9	33.8	4	8	4
Manufacturing	9.15	10.55	1,500	1,460	65	2.9	42	43	1
Government Services	5.33	4.83	770	851	30	3.7	31	28	-3
Agriculture and related services	1.46	2.12	338	233	14	4.2	10	14	4
Accommodation, food and beverage services	8.60	8.63	1,377	1,372	7	0.7	10	10	0
Wholesale trade	3.84	5.82	929	612	19	3.3	20	31	10
Retail trade	9.83	9.43	1,586	1,569	12	0.6	10	10	0
Transportation and storage	6.39	7.52	1,368	1,020	94	11.9	121	163	41
Communication and other utilities	2.32	2.96	472	370	13	1.5	6	7	2
Finance and insurance	4.76	5.83	849	759	2	0.3	2	3	0
Real estate operator and insurance agent	1.29	0.61	98	205	2	0.7	2	1	-1
Business services	11.92	10.71	1,709	1,902	9	0.6	11	10	-1
Educational services	11.30	6.17	984	1,803	2	0.2	4	2	-2
Health and social service industries	17.28	16.67	2,659	2,758	10	0.6	16	16	-1
<b>Total</b>			<b>15,954</b>	<b>15,954</b>	<b>423</b>	<b>2.7</b>	<b>400</b>	<b>492</b>	<b>92</b>
<b>Incidence of workplace fatalities:</b>							<b>2.5</b>	<b>3.1</b>	<b>0.6</b>

Sources: Shares were calculated using Canada and US data (persons engaged, by industry) from Groningen Growth and Development Centre (GGDC), 60-Industry Database, September 2006, <http://www.ggdc.net>. Canadian incidence rates were calculated using workplace fatality data from AWCBC National Work Injury and Disease Statistics Accepted Claims by Claim Type, Year, Industry (Division), 1996-2004 and employment data from the StatCan Labour Force Survey.

Note: Incidence rates do not add up to the overall incidence rate by industry since some fatalities are not classified or not coded by nature of injury.

Table 37: Estimated Workplace Fatalities due to Disease in 2003 in Canada Using US Employment Structure

	US employment shares (%)	Canada employment shares (%)	Number of persons engaged (Canada), thousands	Number of persons engaged (estimated with US shares), thousands	Actual number of fatalities (Canada, 2003)	Disease Incidence rate (Canada, 2003)	Estimated number of fatalities using US shares (Canada, 2003)	Estimated number of fatalities using Cdn shares	Difference
Mining, quarrying and oil wells	0.40	1.14	199	63	67	37.62	24	75	51
Construction industries	5.88	6.47	1,032	938	106	11.70	110	121	11
Logging and forestry	0.18	0.39	62	28	3	3.90	1	2	1
Fishing and trapping	0.07	0.14	23	11	0	0.00	0	0	0
Manufacturing	9.15	10.55	1,500	1,460	133	5.85	85	88	2
Government Services	5.33	4.83	770	851	46	5.62	48	43	-5
Agriculture and related services	1.46	2.12	338	233	2	0.60	1	2	1
Accommodation, food and beverage services	8.60	8.63	1,377	1,372	0	0.00	0	0	0
Wholesale trade	3.84	5.82	929	612	5	0.87	5	8	3
Retail trade	9.83	9.43	1,586	1,569	11	0.58	9	9	0
Transportation and storage	6.39	7.52	1,368	1,020	17	2.15	22	29	7
Communication and other utilities	2.32	2.96	472	370	11	1.30	5	6	1
Finance and insurance	4.76	5.83	849	759	0	0.00	0	0	0
Real estate operator and insurance agent	1.29	0.61	98	205	3	1.12	2	1	-1
Business services	11.92	10.71	1,709	1,902	4	0.25	5	4	0
Educational services	11.30	6.17	984	1,803	8	0.78	14	8	-6
Health and social service industries	17.28	16.67	2,659	2,758	10	0.60	16	16	-1
<b>Total</b>			<b>15,954</b>	<b>15,954</b>	<b>426</b>	<b>2.72</b>	<b>348</b>	<b>413</b>	<b>65</b>
						<b>Incidence of workplace fatalities:</b>	<b>2.2</b>	<b>2.6</b>	<b>0.4</b>

Sources: Shares were calculated using Canada and US data (persons engaged, by industry) from Groningen Growth and Development Centre (GGDC), 60-Industry Database, September 2006, <http://www.ggdc.net>. Canadian incidence rates were calculated using workplace fatality data from AWCBC National Work Injury and Disease Statistics Accepted Claims by Claim Type, Year, Industry (Division), 1996-2004 and employment data from the StatCan Labour Force Survey.

Note: Incidence rates do not add up to the overall incidence rate by industry since some fatalities are not classified or not coded by nature of injury.