

OCCUPATIONAL INJURIES AND DISEASES IN ALBERTA



Lost-Time Claims, Disabling Injury
Claims and Claim Rates

Manufacturing, Processing and Packaging Industries

2003 to 2007

Summer 2008



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HIGHLIGHTS

Lower lost-time and disabling injury rates in 2007.

- The 2007 lost-time claim rate for the Manufacturing, Processing and Packaging sector decreased by 11.5% to 2.75 per 100 person-years worked from 3.11 in 2006. The average lost-time claim rate for all sectors in the province was 2.12 per 100 person-years worked. The duration rate in 2007 was 51 days-lost per 100 person-years worked, a 5.6% decrease from 2006 but higher than the provincial average for all industry sectors, 48 days-lost.
- The disabling injury rate decreased by 7.3% in 2007 to 6.50 per 100 person-years worked. The average disabling injury rate for all sectors in the province was 3.88 per 100 person-years worked.
- The decreases in the lost-time claim rate and disabling injury rate in 2007 were the result of decreases in the number of injury claims. Lost-time claims decreased by 15.0% and disabling injury claims by 11.0%. The person-years worked estimates decreased by 4.0%, meaning that the number of injury claims decreased at an even greater rate than employment in the sector.
- The 2007 fatality rate for the Manufacturing, Processing and Packaging sector was 105 per million person-years worked, an increase 77 per million person-years worked in 2006. The average fatality rate for all sectors in the province in 2007 was 93 per million person-years worked.

Small-to-medium employers experienced the highest injury rates.

- Employers with 20 to 39 person-years worked had the highest lost-time claim rate in 2007, at 3.63 per 100 person-years worked, followed by employers with 10 to 19 person-years worked at 3.49. Employers with 100 or more person-years worked had the lowest rate, 2.41 per 100 person-years worked.
- Employers with 100 or more person-years worked had the highest disabling injury rate at 7.33 per 100 person-years worked, followed by employers with 40 to 99 person-years worked, 6.38. Employers with more than 100 person-years worked had a disabling injury rate over three times higher than the lost-time claim rate.

Injury rates decreased in most sectors.

- Lost-time claim and disabling injury rates decreased in most Manufacturing, Processing and Packaging sub-sectors. The Printed and Published Products sub-sector, the Gases, Fertilizer and Petrochemical - Refining and Manufacturing sub-sector and the Other Manufacturing, Processing and Packaging sub-sector displayed increases in lost-time claim rates in 2007. For disabling injury rates the Wood

Products sub-sector and the Other Manufacturing, Processing and Packaging sub-sector displayed increases in 2007.

- The Gases, Fertilizer and Petrochemical - Refining and Manufacturing sub-sector had the lowest lost-time claim and disabling injury rates in 2007 at 0.37 and 1.08 per 100 person-years worked respectively.
- The Meat, Hides and Pelt Products sub-sector had the highest lost-time claim and disabling injury rates at 5.20 and 17.08 per 100 person-years worked respectively.
- The Manufacturing, Processing and Packaging sector accounted for 12.4% of the person-years worked in the province, 16.0% of the lost-time claims, 23.4% of modified work claims and when combined, 20.7% of the disabling injury claims.

In 2007, sprains, strains and tears was the most common nature of injury.

- Sprains, strains and tears continued to be the leading nature of injury, accounting for 39.4% of the disabling injury claims submitted in the Manufacturing, Processing and Packaging sector in 2007. However, the Manufacturing, Processing and Packaging sector has higher relative proportions for disabling injury claims for open wounds, indicating a likelihood 2.3 times higher than the average for all sectors.
- The back (including spine and spinal cord) was the most commonly injured body part, accounting for 19.3% of all disabling injury claims. Disabling injury claims connected with the eyes displayed a relative proportion that was 2.7 times the average for all sectors. Injuries to fingers or fingernails and the wrists and hands displayed relative proportions that were 2.6 and 2.1 times higher than the average for all sectors.
- The primary source of injury causing disabling injury claims in 2007 were persons, plants, animals and minerals, accounting for 21.4% of the disabling injury claims. This was followed by parts and materials, 20.2%. Compared to the average for all sectors in the province however, the injury category hand tools - powered displayed a relative proportion that was 3.3 times higher than the average for all sectors. Other persons, plants, animals and materials and parts and materials displayed relative proportions that were 3.2 and 2.5 times higher than the average for all sectors.
- In 2007, the two most common types of event or exposure were bodily reaction and exertion and contact with objects and equipment, accounting for 39.4% and 36.3% of disabling injury claims in the Manufacturing, Processing and Packaging sector. Disabling injury claims caused by rubs or abrasions had a relative frequency that was 2.7 times the average for all sectors. Repetitive motion injuries and caught in object had relative proportions that were 2.9 and 2.5 times higher than the average for all sectors.
- The median work days-lost was five and the average days-lost per claim was 18. For all sectors of the province, the median days-lost and average days-lost was seven and 22 days-lost per claim respectively.

A few notes about this report:

- This report presents 2007 data beside 2006 data to help with comparisons. Additional historical data are presented where possible.
- Information presented in this report is based on incidents that occurred during 2007 and accepted as lost-time or modified work claims by WCB as of March 31, 2008.
- About 80% of employed persons in Alberta are covered by WCB. This report focuses on all industry activity in Alberta covered by the WCB and by the provincial legislation for occupational health and safety. Most industry sectors are included but notable exceptions consist of the Government of Canada, and parts of the agriculture and finance sectors. Several professional groups (i.e. the teaching and medical professions) are also excluded as are some industries where WCB coverage is not compulsory.
- Injury claim rates based on a small number of person-years worked are too volatile to make valid comparisons over time. Therefore, claim rates are not calculated when there are fewer than 40 person-years worked. Duration rates are also volatile when based on a small number of lost-time claims. Duration rates are not calculated when there are fewer than 30 lost-time claims.
- Estimates of year-over-year change for rates presented in this report are calculated using unrounded figures and may not match those produced from rounded figures. Percentages displayed in tables may also not total 100, due to rounding.
- Throughout the report, the lost-time claim rate is the number of lost-time claims per 100 person-years worked, the disabling injury rate is the number of disabling injury claims per 100 person-years worked and the duration rate is the number of days-lost per 100 person-years worked. Fatality rates are expressed as the number of fatalities per million person-years worked.
- Analyses by industry are based on WCB industry classification and aggregation. For more information see http://www.wcb.ab.ca/pdfs/08rate_manual.pdf.
- Analyses by occupation group are based on the National Occupation Classification (NOC). The NOC provides a standard list of occupations across the country. For more information see <http://www5.hrsdc.gc.ca/NOC-CNP/app/index.aspx?lc=e>.
- Occupational injuries and diseases listed throughout this report are based on the Z795 Coding of Work Injury or Disease Information produced by the Canadian Standards Association (CSA) for categorizing occupational injury and disease. For information see <http://www.csa-intl.org/onlinestore/GetCatalogDrillDown.asp>.
- Terms, definitions and formulas used throughout this report are described in Appendix A.

INTRODUCTION

Role of the Ministry of Employment and Immigration

The Ministry of Employment and Immigration includes the reporting entity of the Department of Employment and Immigration (E&I). E&I develops and delivers policies, programs and services to foster labour force development; ensure fair, safe and healthy workplaces; and help those in need. The Department also provides leadership for immigration and interprovincial labour mobility policy for the Government of Alberta, and coordinates resources to support the settlement and integration of new Albertans.

Occupational Injuries and Diseases in Alberta – Manufacturing, Processing and Packaging sector 2003 to 2007

E&I prepares this annual report to provide analysis of workplace health and safety to meet the demand from industry and safety associations, labour organizations, employers and workers for incorporating this information into their strategic plans for enhancing workplace health and safety. This includes:

- descriptions of programs and initiatives undertaken in pursuit of its workplace health and safety mission and goals;
- analysis of provincial occupational injury and disease information against a national picture;
- estimations of the risk of injury or disease at the provincial, industry sector and sub-sector level as well as general descriptions about the incidents and injured workers; and
- analysis of workplace injury and disease literature in Alberta.

The *Occupational Injury and Diseases in Alberta* publications present analysis of aggregate injury claim data to allow for the tracking of workplace health and safety performance over time. This is important for evaluating past and present performance, and in providing strategic information for the direction of workplace health and safety policy. The analysis contained in this report provides a comprehensive picture of workplace injuries in the province, allowing for a prevention focus to be made based on injury probabilities, rather than possibilities.

Sustainable Economic Growth

E&I promotes safe, healthy and productive workplaces, as well as fair, equitable and stable labour relations to ensure a fair, safe and healthy work environment for Alberta's workers. Work is central to people's lives, and to the stability of families and societies. People want

work that provides them with an acceptable standard of living. It is important that workers enter an environment where their health and safety are protected, where they are treated with respect and they are compensated fairly for the job they are doing. This results in an attractive workplace that furthers the position of Alberta employers to be competitive in the global economy (see Note 1.1). Alongside the human cost of occupational injuries and diseases and the impact on families and society, the economic costs are numerous.

In 2008, direct compensation payments for occupational injury and disease by WCB were projected to total \$755 million.¹ These costs are ultimately paid by employers through premium payments, and impact the costs of running a business as well as the final cost of delivering products and services. Further costs associated with occupational injuries and diseases include the material damage to equipment and premises, the additional cost of hiring staff to cover for injured workers, and the lost productivity resulting from the absence. Additional impacts of poor health and safety for employers include higher absenteeism and lower morale of employees, loss of skilled and experienced employees, loss of the company's investment in training, and difficulty recruiting high-quality employees due to the loss of image (particularly in the case of subcontractors to larger companies) all leading to losses in productivity and underutilization of production (see Note 1.2).

Other costs borne by the economy and society due in part to work-related injuries and diseases include early retirements, unemployment and poorer households. The International Labour Organization (ILO) estimates that in high-income countries, around 40% of all retirements (before statutory age) are caused by disability. This is equivalent to around 14% of the lifetime working capacity of the employed labour force.² Occupational injuries and diseases also affect unemployment and household income levels. Workers with an impairment of capacity can reduce their re-employability and impact household income. Workplace injuries and diseases typically reduce the overall earnings of households and in certain cases, family members have to give up jobs in order to care for an injured worker.

Sustainable economic growth creates the prosperity needed to sustain quality of life and ensures a higher standard of living. Sustainable economic performance can be achieved if growth pressures are properly addressed. The economy can also only be sustained if Alberta has the right people with the right skills at the right time to do the work.

Note 1.1

Research by the International Institute for Management Development and the World Economic Forum suggests that the safest-working countries also have the best competitiveness ratings

(International Labour Organization, Safety in Numbers – pointers to a global safety culture at work, 2003).

Note 1.2

The International Labour Organization (ILO) estimates that approximately 4% of Gross Domestic Product is lost due to occupational injuries and diseases (ILO, Safety in Numbers – pointers to a global safety culture at work, 2003).

¹ See the Workers Compensation Board Alberta 2008 Premium Rate Manual http://www.web.ab.ca/pdfs/08rate_manual.pdf

² See the International Labour Organization report: Safety in numbers – pointers for a global safety culture at work http://www.ilo.org/public/english/protection/safework/worldday/report_eng.pdf

PROVINCIAL SUMMARY

The positive trend continues: there were fewer injuries reported and more person-years worked in 2007.

In recent years, improvements were made to the analysis of Workers' Compensation Board – Alberta (WCB) claim information allowing for modified work claims to be analyzed alongside lost-time claims. Using modified work claim data in addition to lost-time claim data ensures a more comprehensive picture of workplace injuries, and allows for greater insight into incident prevention.

A lost-time claim is a claim submitted to the WCB for an occupational injury or disease that causes a worker to have time away from work beyond the day of injury. Included are claims receiving reimbursement of full or partial lost wages due to occupational illness or injury, or payment for permanent loss of function (for example, hearing loss claims).

A modified work claim is submitted for an occupational injury or disease where workers have their normal work duties altered enabling them to remain working without losing time from work. Included in the figures are claims where injured workers are helped back into the workplace with modified duties after time lost due to injury or disease, and cases where workers were provided modified duties prior to time lost because of an injury or disease.

Modifying an injured worker's duties can be beneficial for both an employer and an employee. For the employer, the financial cost of an absent worker can be high and returning an injured employee to work as soon as it is medically possible is important for properly managing compensation, disability claims and productivity levels. For the employee, returning to work as soon as medically possible is beneficial both physically and psychologically, and is linked to quicker recovery rates and higher self-esteem. Long absences from the workplace are also linked to decreases in labour market attachment.

The number of disabling injury claims reflects both the lost-time and modified work concepts and produces an overall figure where an occupational injury or disease disables a worker causing either time lost from work or for normal work duties to be modified.

In 2007, a total of 34,227 lost-time claims were accepted by WCB. This is a decrease of 6.7% from 2006. In contrast, the person-years worked estimates increased by 3.3% to 1,611,892 between 2006 and 2007 (see Table 2.1). Expressed as a lost-time claim rate, the data translates into a rate of 2.12 per 100 person-years worked, a decrease of 9.7% from 2006, as proportionately there were fewer lost-time injury claims. The 2007 rate is the

Note 2.1

- The **lost-time claim rate** represents the probability or risk of an injury or disease to a worker requiring time away from work, during a period of one year of work.
- The **disabling injury rate** represents the probability or risk of a disabling injury.

lowest in the past seventeen years and since 1991, the lost-time claim rate has decreased by 48.7%. Since 2003, the lost-time claim rate has decreased by 23.7%.

Table 2.1

Provincial Figures – Alberta: 2006 and 2007

	2006	2007	% Change
Person-years worked	1,560,078	1,611,892	3.3%
Lost-time claims	36,701	34,227	-6.7%
Lost-time claim rate	2.35	2.12	-9.7%
Modified-work claims	41,390	42,491	2.7%
Lost-time claims involving modified-work	13,566	14,245	5.0%
Disabling injury claims	64,525	62,473	-3.2%
Disabling injury rate	4.14	3.88	-6.3%
Duration rate	54	48	-12.0%
Days lost (LTC)	844,508	767,671	-9.1%
Compensation payments (LTC)	\$202,598,539	\$219,296,722	8.2%

Data Source: WCB Data, Prepared by Data Development and Evaluation

The total number of modified work claims submitted in 2007 was 42,491, an increase of 2.7%. There were 14,245 claims involving both lost-time and modified work, producing 62,473 disabling injury claims, a decrease of 3.2% from 2006. The number of lost-time claims involving modified work increased by 5.0% from 2006, indicative of improving claims management. Expressed as a rate, the 2007 disabling injury rate was 3.88 per 100 person-years worked, a decrease of 6.3% from the 2006 rate of 4.14.

Estimates of injury and disease severity are calculated using information on the number of days-lost from work. Three basic measures of severity are the duration rate, median days-lost from work and average days-lost from work. The severity of the injuries and diseases decreased in 2007, as reflected by a lower duration rate and a decrease in average days-lost. The efforts of employers to introduce modified work programs to integrate injured workers back into the workforce also have a positive impact on work days-lost. The duration rate of 48 days-lost per 100 person-years worked was 12.0% lower than in 2006. The median number of work days-lost in 2007 was seven, the same as 2006, and the average days-lost decreased to 22, from 23 in 2006.

Table 2.2 displays the lost-time claim and disabling injury figures and rates for the province, and also for the major industry sectors in Alberta. The data provides a useful setting for analyzing the health and safety performance of the Manufacturing, Processing and Packaging sector.

The 2007 lost-time claim rate for the Manufacturing, Processing and Packaging sector of 2.75 per 100 person-years worked is higher than all major industry sectors except the Agriculture and Forestry sector and the Transportation, Communication and Utilities sector. The disabling injury rate for the Manufacturing, Processing and Packaging sector of 6.50 per 100 person-years worked is higher than all major industry sectors.

Table 2.2
Lost-Time Claim and Disabling Injury Rates by Major Industry Sector – Alberta: 2006 and 2007

Major Industry Sector	2006		2007	
	Lost-Time Claim Rate	Disabling Injury Rate	Lost-Time Claim Rate	Disabling Injury Rate
Alberta	2.35	4.14	2.12	3.88
Agriculture and Forestry	3.24	4.10	2.99	3.75
Business, Personal and Professional Services	1.54	2.05	1.30	1.86
Construction and Construction Trade Services	2.50	5.22	2.32	5.05
Mining and Petroleum Development	0.87	3.64	0.76	3.02
Public Administration, Education and Health Services	2.66	3.41	2.44	3.14
Transportation, Communication and Utilities	3.17	4.81	2.94	4.70
Wholesale and Retail	2.43	3.67	2.17	3.55
Manufacturing, Processing and Packaging	3.11	7.01	2.75	6.50

Data Source: WCB Data, Prepared by Data Development and Evaluation

INDUSTRY SECTOR SUMMARY

The 2007 lost-time claim rate for the Manufacturing, Processing and Packaging sector was 2.75 per 100 person-years worked and the disabling injury rate was 6.50.

In 2007, there were 5,490 lost-time claims and 12,963 disabling injury claims in the Manufacturing, Processing and Packaging sector, representing 16.0% of lost-time claims and 20.7% of disabling injury claims in the province. The Manufacturing, Processing and Packaging sector's lost-time claim rate decrease by 11.5% to 2.75 per 100 person-years worked. The disabling injury rate decreased by 7.3% to 6.50 per 100 person-years worked (see Table 3.1). The 2007 lost-time claim rate for all sectors in the province was 2.12 per 100 person-years worked, while the disabling injury rate was 3.88.

The decreases in the lost-time claim and disabling injury rates in 2007 were the result of the number of injury claims decreasing by an even greater amount than person-years worked. The number of lost-time claims decreased by 15.0% and the number of disabling injury claims decreased by 11.0%. The person-years worked estimates decreased by 4.0%, meaning that proportionately there were fewer injury claims.

Table 3.1

Manufacturing, Processing and Packaging Sector — Alberta: 2006-2007

	2006	2007	% Change
Person-years worked	207,563	199,357	-4.0%
Lost-time claims	6,460	5,490	-15.0%
Lost-time claim rate	3.11	2.75	-11.5%
Modified-work claims	10,747	9,961	-7.3%
Lost-time claims involving modified work	2,648	2,488	-6.0%
Disabling injury claims	14,559	12,963	-11.0%
Disabling injury rate	7.01	6.50	-7.3%
Duration rate	54	51	-5.6%
Days lost (LTC)	111,898	101,413	-9.4%
Compensation payments (LTC)	\$31,424,039	\$37,135,811	18.2%

Data Source: WCB Data, Prepared by Data Development and Evaluation

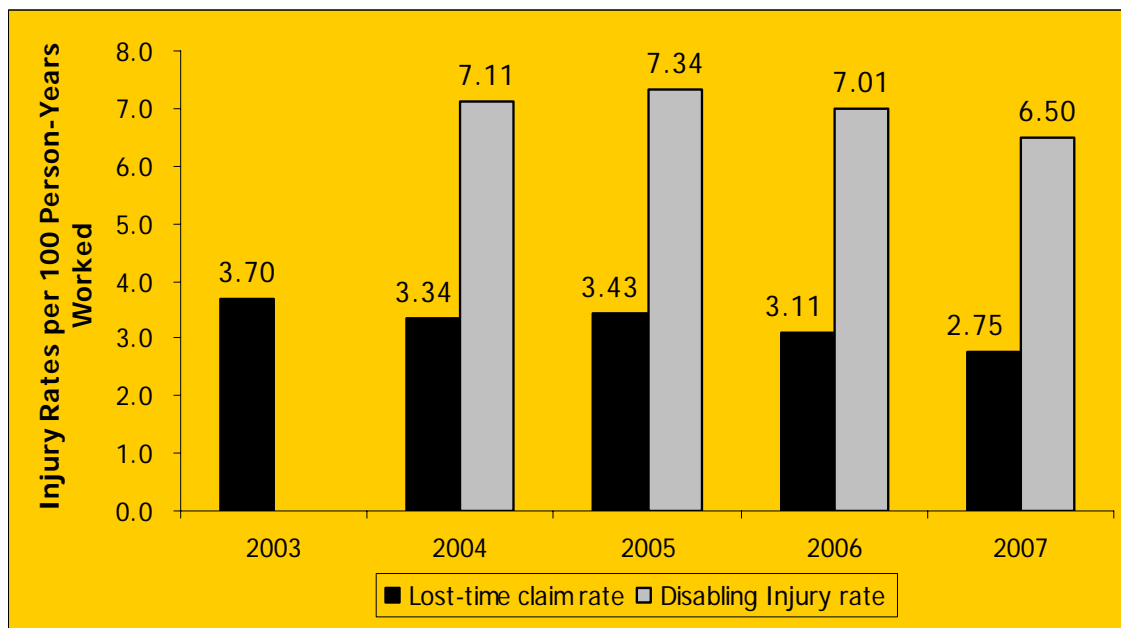
The duration rate is intended to show the severity of the effects of occupational injury and disease as reflected by the number of days off work per 100 person-years worked. The efforts of employers to introduce modified work programs to integrate injured workers back into the workforce also have a positive impact on work days-lost. In 2007, the Manufacturing, Processing and Packaging sector had a duration rate of 51 days-lost per 100 person-years worked, a decrease of 5.6% from 2006 although higher than the 2007 average

for all sectors, 48 days (see Tables 2.1 and 3.1). The Manufacturing, Processing and Packaging sector had relatively low median and average days-lost at five and 18 respectively, lower than the provincial figures of seven and 23 days per claim.

Since 2003, the average lost-time claim rate for all sectors in the province has decreased by 23.7%. Over the same time period, the Manufacturing, Processing and Packaging sector saw a 25.5% decrease from 3.70 per 100 person-years worked in 2003 to 2.75. This was the result of lost-time claims decreasing by 14.9% and person-years worked increasing by 14.2%. This means that despite an increase in the number of people working in Manufacturing, Processing and Packaging sector in the last five years, the number of lost-time claims has decreased.

Chart 3.1

Lost-Time Claim and Disabling Injury Rates for the Manufacturing, Processing and Packaging Sector – 2003-2007³



Data Source: WCB Data, Prepared by Data Development and Evaluation

Rates by Employer Size

In the Manufacturing, Processing and Packaging sector, employers with 20 to 39 person-years worked had the highest lost-time claim rate at 3.63 per 100 person-years worked, followed by employers with 10 to 19 person-years worked at 3.49. Employers with 100 or more person-years worked had the lowest lost-time claim rate at 2.41, although the highest disabling injury rate at 7.33 per 100 person-years worked (see Table 3.2).

³ Disabling Injury Rates are available from 2004 onwards. The rate in 2004 was produced using a 27 month period to capture information on submitted claims in the 2004 calendar year. From 2005, a consistent 15 month period has been used to capture claims for particular years, in line with the methodology for the production of Lost-Time Claim Rates.

For all sectors of the province, employers with 40 to 99 person-years worked and employers with 20 to 39 person-years worked had the highest lost-time claim rates at 2.43 and 2.33 per 100 person-years worked respectively. Employers with 100 or more person-years worked had the highest disabling injury rate at 4.34 per 100 person-years worked.

Table 3.2

Lost-Time Claim and Disabling Injury Rate by Size⁴ of Employer — Alberta: 2007

Size of Employer	Number of Accounts	Person-Years Worked	Lost-Time Claims	Disabling Injury Claims	Lost-Time Claim Rate	Disabling Injury Rate
Less than 10 person-years	12,303	19,850	483	610	2.43	3.07
10 to 19 person-years	878	12,506	437	618	3.49	4.94
20 to 39 person-years	634	18,057	656	1,056	3.63	5.85
40 to 99 person-years	549	34,053	1,069	2,173	3.14	6.38
100 or more person-years	408	114,891	2,767	8,425	2.41	7.33
Unspecified*	30	N/A*	78	81	N/A*	N/A*

* These are employers with no payroll information or with person-years worked equal to zero.

Data Source: WCB Data, Prepared by Data Development and Evaluation

Distribution of Injury Claims

Table 3.3 presents figures for the proportion of employers in the Manufacturing, Processing and Packaging sector with no lost-time claims and the proportion of employers with no disabling injury claims in 2007. Table 3.4 displays figures for the number of claims submitted by employers (with submitted claims).

In 2007, 88% of employers had no lost-time claims and 86% of employers had no disabling injury claims, meaning the injuries and diseases happening in the province are the result of incidents occurring at the operations of 14% of employers (see Table 3.3). For all sectors in the province, 93% of employers submitted no lost-time claims and 91% of employers submitted no disabling injury claims. These figures are however, influenced by employer size. In 2007, the number of employers with no lost-time or disabling injury claims translates to approximately 31% and 22% of the total person-years worked in the Manufacturing, Processing and Packaging sector respectively (see Table 4.14).

⁴ Size is measured in terms of person-years worked. One person-year is equivalent to one full-time worker working for one year.

Table 3.3

Proportion of Employers with no Lost-Time or Disabling Injury Claims – Manufacturing, Processing and Packaging Sector: 2007

Proportion of Employers	With no Lost-Time Claims	With no Disabling Injury Claims
Manufacturing, Processing and Packaging sector	88%	86%

Data Source: WCB Data, Prepared by Data Development and Evaluation

For employers with submitted claims, 50% submitted one lost-time claim, 39% two to five claims and 12% six or more lost-time claims. For disabling injury claims, similar proportions exist although the number of employers submitting six or more disabling injury claims was 22% (see Table 3.4).

Employers that submitted one to five lost-time claims and employers that submitted one to five disabling injury claims accounted for 42% and 29% of the total person-years worked in the Manufacturing, Processing and Packaging sector respectively. Employers that submitted six or more lost-time claims and employers that submitted six or more disabling injury claims accounted for 27% and 48% of the total person-years worked in the Manufacturing, Processing and Packaging sector.

Table 3.4

Proportion of Employers with Claims – Manufacturing, Processing and Packaging Sector: 2007

1 Lost-Time Claim	2 to 5 Lost-Time Claims	6 to 20 Lost-Time Claims	Over 20 Lost-Time Claims
50%	39%	10%	2%
1 Disabling Injury Claim	2 to 5 Disabling Injury Claims	6 to 20 Disabling Injury Claims	Over 20 Disabling Injury Claims
42%	36%	17%	5%

Data Source: WCB Data, Prepared by Data Development and Evaluation

INDUSTRY SECTOR ANALYSIS

In 2007, the Meat, Hides and Pelt Products sub-sector had the highest lost-time claim rate and the highest disabling injury rate.

Between 2003 and 2007, the Meat, Hides and Pelt Products sub-sector had the highest lost-time claim rate of all Manufacturing, Processing and Packaging sub-sectors at 5.20 per 100 person-years worked. The Furniture and Allied products sub-sector had the second highest rate in four of the five years, with Feed/Seed, Food and Beverage Products sub-sector having the second highest lost-time claim rate in 2005. The Clothing and Textile Products sub-sector displayed the largest decrease since 2003, 64.2%.

In 2007, the Meat, Hides and Pelt Products sub-sector had a disabling injury claim rate of 17.08 per 100 person-years worked, the highest of any Manufacturing, Processing and Packaging sub-sectors (see Chart 4.1 and Table 4.2).

Table 4.1

Lost-Time Claim Rate by Manufacturing, Processing and Packaging Sub-Sector — Alberta: 2003-2007

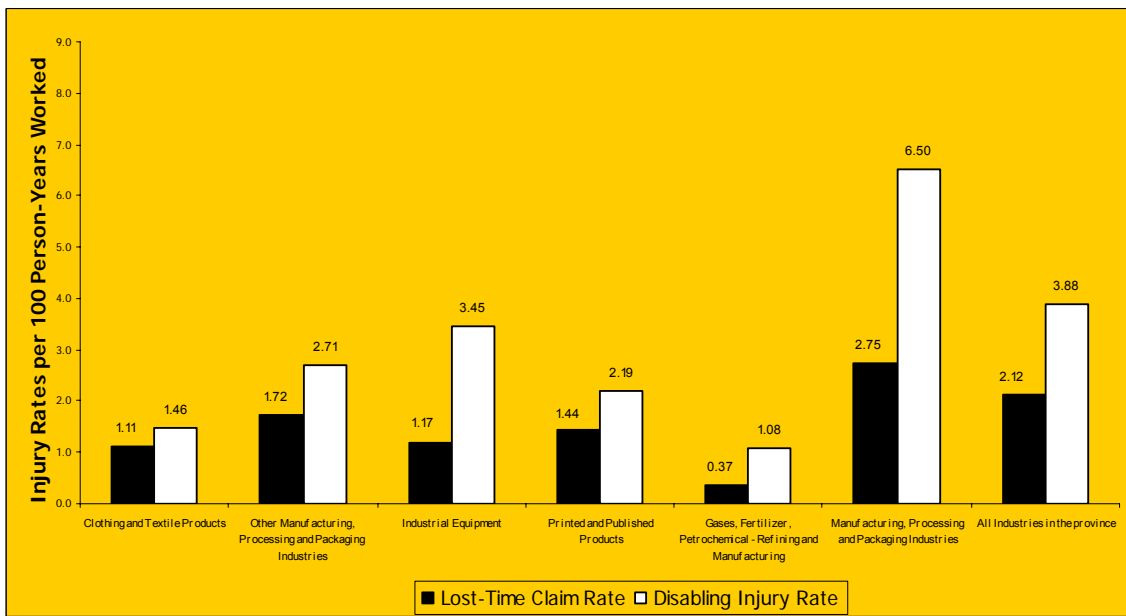
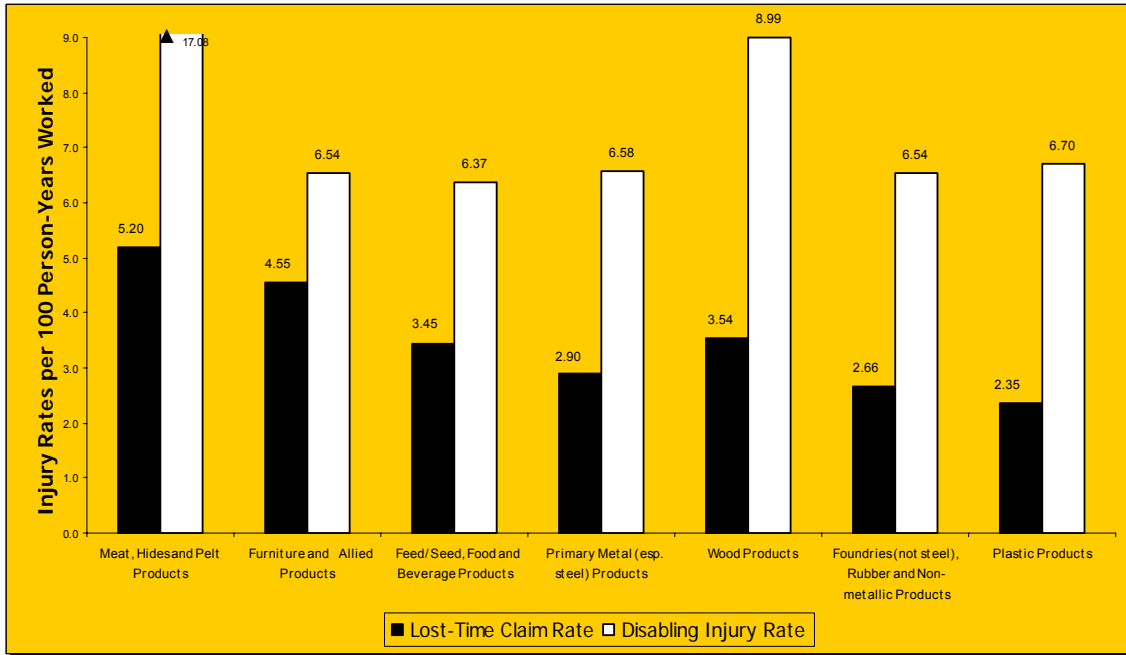
Sub-Sector	2003	2004	2005	2006	2007
Manufacturing, Processing and Packaging	3.70	3.34	3.43	3.11	2.75
Meat, Hides and Pelt Products	7.35	6.11	6.48	6.97	5.20
Clothing and Textile Products	3.10	1.96	1.47	1.64	1.11
Feed/Seed, Food and Beverage Products	5.28	4.43	4.51	4.09	3.45
Wood Products	3.78	3.59	3.61	3.59	3.54
Furniture and Allied Products	6.17	4.91	4.46	4.58	4.55
Printed and Published Products	1.47	1.42	1.73	1.33	1.44
Foundries (not steel), Rubber and Non-metallic Products	3.58	3.52	3.58	3.24	2.66
Primary Metal (esp. steel) Products	4.23	3.92	4.03	3.66	2.90
Industrial Equipment	1.78	1.26	1.33	1.37	1.17
Gases, Fertilizer and Petrochemical Refining and Manufacturing	0.37	0.53	0.42	0.18	0.37
Plastic Products	4.10	3.86	3.29	3.04	2.35
Other Manufacturing, Processing and Packaging Industries	1.89	1.82	1.67	1.55	1.72

Data Source: WCB Data, Prepared by Data Development and Evaluation

The Gases, Fertilizer and Petrochemical Refining and Manufacturing sub-sector had the lowest lost-time claim and disabling injury rates in 2007 at 0.37 and 1.08 per 100 person-years worked, respectively (see Chart 4.1). More than half of the sub-sectors in the Manufacturing, Processing and Packaging sector had lost-time claim and disabling injury rates higher than the average rates for all sectors of 2.12 and 3.88 per 100 person-years worked.

Chart 4.1

Lost-Time Claim and Disabling Injury Rate by Manufacturing, Processing and Packaging Sub-Sector — Alberta: 2007



Data Source: WCB Data, Prepared by Data Development and Evaluation

Meat, Hides and Pelt Products

In 2007, the lost-time claim rate for the Meat, Hides and Pelt Products sub-sector decreased by 25.4% to 5.20 per 100 person-years worked, a result of the number of lost-time claims decreasing by 29.0% and person-years worked by 4.9%, meaning that proportionately there were fewer lost-time claims. The disabling injury rate decreased by 20.6% in 2007 although it remains the highest in the Manufacturing, Processing and Packaging sector at 17.08 per 100 person-years worked (see Table 4.2).

The duration rate decreased by 30.4% in 2007, to 71 days-lost per 100 person-years worked. The average duration rate for all sectors of the province was 48. There were indications of lower injury severity in this sub-sector, with a median days-lost of five and an average days-lost of 14 days per claim. The average for all sectors in the province was higher at seven and 22, respectively.

Since 2003, the lost-time claim rate for this sub-sector decreased by 29.3%. The average decrease for the Manufacturing, Processing and Packaging sector was 25.5%. The average decrease for all sectors of the province was 23.7%.

Table 4.2

Meat, Hides and Pelt Products — Alberta: 2006-2007

	2006	2007	% Change
Person-years worked	13,753	13,079	-4.9%
Lost-time claims	958	680	-29.0%
Lost-time claim rate	6.97	5.20	-25.4%
Modified-work claims	2,575	1,971	-23.5%
Lost-time claims involving modified work	573	417	-27.2%
Disabling injury claims	2,960	2,234	-24.5%
Disabling injury rate	21.52	17.08	-20.6%
Duration rate	102	71	-30.4%
Days lost (LTC)	14,016	9,283	-33.8%
Compensation payments (LTC)	\$4,290,826	\$3,816,726	-11.0%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Clothing and Textile Products

In 2007, the lost-time claim rate for the Clothing and Textile Products sub-sector decreased by 32.3% to 1.11 per 100 person-years worked, a result of the number of lost-time claims decreasing by 36.7% and person-years worked by 6.4%, meaning that proportionately, there were fewer lost-time claims. The disabling injury rate in 2007 was the second lowest of the Manufacturing, Processing and Packaging sub-sectors at 1.46 per 100 person-years worked (see Table 4.3).

The duration rate decreased to 29 days-lost per 100 person-years worked in 2007. The average duration rate for all sectors of the province was 48. The median days-lost was nine and average days-lost 27 days per claim. The average for all sectors in the province was seven and 22, respectively.

Since 2003, the lost-time claim rate for this sub-sector decreased by 64.2%. The average decrease for the Manufacturing, Processing and Packaging sector was 25.5%. The average decrease for all sectors of the province was 23.7%.

Table 4.3

Clothing and Textile Products — Alberta: 2006-2007

	2006	2007	% Change
Person-years worked	3,661	3,427	-6.4%
Lost-time claims	60	38	-36.7%
Lost-time claim rate	1.64	1.11	-32.3%
Modified-work claims	29	21	-27.6%
Lost-time claims involving modified work	21	9	-57.1%
Disabling injury claims	68	50	-26.5%
Disabling injury rate	1.86	1.46	-21.5%
Duration rate	31	29	-5.0%
Days lost (LTC)	1,136	1,010	-11.1%
Compensation payments (LTC)	\$233,770	\$220,926	-5.5%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Feed/Seed, Food and Beverage Products

In 2007, the lost-time claim rate for the Feed/Seed, Food and Beverage Products sub-sector decreased by 15.8% to 3.45 per 100 person-years worked, a result of the number of lost-time claims decreasing by 13.4% and person-years worked increasing by 2.8%, meaning that despite an increase in the number of people working in this sub-sector the number of lost-time claims has decreased. The disabling injury rate decreased by 10.5% in 2007 to 6.37 per 100 person-years worked (see Table 4.4).

The duration rate decreased by 15.8% to 54 days-lost per 100 person-years worked in 2007. The average duration rate for all sectors of the province was 48. The median days-lost was five and average days-lost 16 days per claim. The average for all sectors in the province was higher at seven and 22, respectively.

Since 2003, the lost-time claim rate for this sub-sector decreased by 34.8%. The average decrease for the Manufacturing, Processing and Packaging sector was 25.5%. The average decrease for all sectors of the province was 23.7%.

Table 4.4

Feed/Seed, Food and Beverage Products — Alberta: 2006-2007

	2006	2007	% Change
Person-years worked	15,664	16,109	2.8%
Lost-time claims	641	555	-13.4%
Lost-time claim rate	4.09	3.45	-15.8%
Modified-work claims	800	777	-2.9%
Lost-time claims involving modified work	326	306	-6.1%
Disabling injury claims	1,115	1,026	-8.0%
Disabling injury rate	7.12	6.37	-10.5%
Duration rate	65	54	-15.8%
Days lost (LTC)	10,120	8,765	-13.4%
Compensation payments (LTC)	\$2,380,398	\$3,381,952	42.1%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Wood Products

The Wood Products sub-sector is the second largest sub-sector in the Manufacturing, Processing and Packaging sector, accounting for 14% of the person-years worked. In 2007, the lost-time claim rate decreased by 1.6% to 3.54 per 100 person-years worked, a result of the number of lost-time claims decreasing by 2.5% and person-years worked decreasing by 1.0%, meaning that proportionately there were fewer lost-time claims. The disabling injury rate in 2007 increased by 3.3% to 8.99 per 100 person-years worked (see Table 4.5).

In 2007, the duration rate decreased to 64 days-lost per 100 person-years worked. The average duration rate for all sectors of the province was 48. The median days-lost was six and average days-lost 18 days per claim. The average for all sectors in the province was higher at seven and 22, respectively.

Since 2003, the lost-time claim rate for this sub-sector decreased by 6.5%. The average decrease for the Manufacturing, Processing and Packaging sector was 25.5%. The average decrease for all sectors of the province was 23.7%.

Table 4.5

Wood Products — Alberta: 2006-2007

	2006	2007	% Change
Person-years worked	28,519	28,238	-1.0%
Lost-time claims	1,025	999	-2.5%
Lost-time claim rate	3.59	3.54	-1.6%
Modified-work claims	1,896	1,994	5.2%
Lost-time claims involving modified work	438	454	3.7%
Disabling injury claims	2,483	2,539	2.3%
Disabling injury rate	8.71	8.99	3.3%
Duration rate	65	64	-2.4%
Days lost (LTC)	18,591	17,969	-3.3%
Compensation payments (LTC)	\$4,875,950	\$6,173,930	26.6%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Furniture and Allied Products

In 2007, the lost-time claim rate for the Furniture and Allied Products sub-sector decreased by 0.6% to 4.55 per 100 person-years worked, a result of the number of lost-time claims decreasing by 2.0% and person-years worked decreasing by 1.5%, meaning that proportionately there were fewer lost-time claims. The disabling injury rate in 2007 decreased by 11.2% to 6.54 per 100 person-years worked (see Table 4.6).

In 2007, the duration rate increased to 118 days-lost per 100 person-years worked. The average duration rate for all sectors of the province was 48. The median days-lost was six and average days-lost 18 days per claim. The average for all sectors in the province was higher at seven and 22, respectively.

Since 2003, the lost-time claim rate for this sub-sector decreased by 26.2%. The average decrease for the Manufacturing, Processing and Packaging sector was 25.5%. The average decrease for all sectors of the province was 23.7%.

Table 4.6

Furniture and Allied Products — Alberta: 2006-2007

	2006	2007	% Change
Person-years worked	3,277	3,229	-1.5%
Lost-time claims	150	147	-2.0%
Lost-time claim rate	4.58	4.55	-0.6%
Modified-work claims	141	132	-6.4%
Lost-time claims involving modified work	50	68	36.0%
Disabling injury claims	241	211	-12.4%
Disabling injury rate	7.36	6.54	-11.2%
Duration rate	95	118	24.0%
Days lost (LTC)	3,106	3,794	22.2%
Compensation payments (LTC)	\$658,033	\$937,270	42.4%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Printed and Published Products

In 2007, the lost-time claim rate for the Printed and Published Products sub-sector increased by 8.1% to 1.44 per 100 person-years worked, a result of the number of lost-time claims increasing by 7.0% and person-years worked decreasing by 1.0%. The disabling injury rate decreased in 2007 by 2.9% to 2.19 per 100 person-years worked (see Table 4.7).

The duration rate increased to 36 days-lost per 100 person-years worked in 2007, although it remains lower than the average duration rate for all sectors of the province, 48. The median days-lost was nine and average days-lost 25 days per claim. The average for all sectors in the province was lower at seven and 22, respectively.

Since 2003, the lost-time claim rate for this sub-sector decreased by 1.9%. The average decrease for the Manufacturing, Processing and Packaging sector was 25.5%. The average decrease for all sectors of the province was 23.7%.

Table 4.7

Printed and Published Products — Alberta: 2006-2007

	2006	2007	% Change
Person-years worked	13,892	13,755	-1.0%
Lost-time claims	185	198	7.0%
Lost-time claim rate	1.33	1.44	8.1%
Modified-work claims	174	174	0.0%
Lost-time claims involving modified work	46	71	54.3%
Disabling injury claims	313	301	-3.8%
Disabling injury rate	2.25	2.19	-2.9%
Duration rate	32	36	10.6%
Days lost (LTC)	4,511	4,941	9.5%
Compensation payments (LTC)	\$801,483	\$981,781	22.5%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Foundries (not Steel), Rubber and Non-metallic Products

In 2007, the lost-time claim rate for the Foundries, Rubber and Non-metallic Products sub-sector decreased by 17.7% to 2.66 per 100 person-years worked, a result of the number of lost-time claims decreasing by 7.6% and person-years worked increasing by 12.2%. Despite an increase in the number of people working in this sub-sector, the number of lost-time claims has decreased. The disabling injury rate in 2007 decreased by 19.1% to 6.54 per 100 person-years worked (see Table 4.8).

The duration rate decreased by 20.0% in 2007 to 54 days-lost per 100 person-years worked. The average duration rate for all sectors of the province was 48. The median days-lost was seven and average days-lost 20 days per claim. The average for all sectors in the province was seven and 22, respectively.

Since 2003, the lost-time claim rate for this sub-sector decreased by 25.7%. The average decrease for the Manufacturing, Processing and Packaging sector was 25.5%. The average decrease for all sectors of the province was 23.7%.

Table 4.8

Foundries (not Steel), Rubber and Non-Metallic products

	2006	2007	% Change
Person-years worked	9,302	10,438	12.2%
Lost-time claims	301	278	-7.6%
Lost-time claim rate	3.24	2.66	-17.7%
Modified-work claims	572	538	-5.9%
Lost-time claims involving modified work	121	133	9.9%
Disabling injury claims	752	683	-9.2%
Disabling injury rate	8.08	6.54	-19.1%
Duration rate	68	54	-20.0%
Days lost (LTC)	6,332	5,685	-10.2%
Compensation payments (LTC)	\$1,815,110	\$2,557,902	40.9%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Primary Metal (esp. Steel) Products

The primary metal products sub-sector is the largest of the Manufacturing, Processing and Packaging sub-sectors accounting for 36% of the total person-years worked. In 2007, the lost-time claim rate decreased by 20.9% to 2.90 per 100 person-years worked, a result of the number of lost-time claims decreasing by 18.4% and person-years worked increasing by 3.1%. Despite an increase in the number of people working in this sub-sector, the number of lost-time claims has decreased. The disabling injury rate in 2007 decreased by 13.7% to 6.58 per 100 person-years worked (see Table 4.9).

The duration rate decreased in 2007 by 13.7% to 55 days-lost per 100 person-years worked. The average duration rate for all sectors of the province was 48. The median days-lost was five and average days-lost 19 days per claim. The average for all sectors in the province was higher at seven and 22, respectively.

Since 2003, the lost-time claim rate for this sub-sector decreased by 31.5%. The average decrease for the Manufacturing, Processing and Packaging sector was 25.5%. The average decrease for all sectors of the province was 23.7%.

Table 4.9

Primary Metal (esp. Steel) Products — Alberta: 2006-2007

	2006	2007	% Change
Person-years worked	70,052	72,219	3.1%
Lost-time claims	2,565	2,092	-18.4%
Lost-time claim rate	3.66	2.90	-20.9%
Modified-work claims	3,629	3,474	-4.3%
Lost-time claims involving modified work	850	812	-4.5%
Disabling injury claims	5,344	4,754	-11.0%
Disabling injury rate	7.63	6.58	-13.7%
Duration rate	64	55	-13.7%
Days lost (LTC)	44,805	39,885	-11.0%
Compensation payments (LTC)	\$13,136,713	\$14,618,718	11.3%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Industrial Equipment

In 2007, the lost-time claim rate for the Industrial Equipment sub-sector decreased by 14.2% to 1.17 per 100 person-years worked, a result of the number of lost-time claims decreasing by 19.1% and person-years worked decreasing by 5.6%, meaning that proportionately there were fewer lost-time claims. The disabling injury rate in 2007 decreased by 14.9% to 3.45 per 100 person-years worked (see Table 4.10).

The duration rate increased in 2007 from 18 to 19 days-lost per 100 person-years. The average duration rate for all sectors of the province was 48. The median days-lost was five and the average days-lost 16 days per claim. The average for all sectors in the province was higher at seven and 22, respectively.

Since 2003, the lost-time claim rate for this sub-sector decreased by 34.2%. The average decrease for the Manufacturing, Processing and Packaging sector was 25.5%. The average decrease for all sectors of the province was 23.7%.

Table 4.10
Industrial Equipment — Alberta: 2006-2007

	2006	2007	% Change
Person-years worked	12,673	11,960	-5.6%
Lost-time claims	173	140	-19.1%
Lost-time claim rate	1.37	1.17	-14.2%
Modified-work claims	413	332	-19.6%
Lost-time claims involving modified work	72	59	-18.1%
Disabling injury claims	514	413	-19.6%
Disabling injury rate	4.06	3.45	-14.9%
Duration rate	18	19	3.5%
Days lost (LTC)	2,340	2,285	-2.4%
Compensation payments (LTC)	\$901,249	\$956,758	6.2%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Gases, Fertilizer and Petrochemical – Refining and Manufacturing

In 2007, the lost-time claim rate for the Gases, Fertilizer and Petrochemical – Refining and Manufacturing sub-sector increased from 0.18 in 2006 to 0.37 per 100 person-years worked. This was the result of the number of lost-time claims increasing by 9.4% and person-years worked decreasing by 46.0%. The disabling injury rate in 2007 increased from 0.60 to 1.08 per 100 person-years worked (see Table 4.11). Despite displaying increases in 2007, the lost-time claim rate and the disabling injury rate for the Gases, Fertilizer and Petrochemical – Refining and Manufacturing sub-sector remain the lowest of the Manufacturing, Processing and Packaging sub-sectors.

The duration rate increased in 2007 from three to six days-lost per 100 person-years. The average duration rate for all sectors of the province was 48. The median days-lost was five and average days-lost 16 days per claim. The average for all sectors in the province was higher at seven and 22, respectively.

Since 2003, the lost-time claim rate for this sub-sector decreased by 0.6%. The average decrease for the Manufacturing, Processing and Packaging sector was 25.5%. The average decrease for all sectors of the province was 23.7%.

Table 4.11

Gases, Fertilizer and Petrochemical – Refining and Manufacturing
— Alberta: 2006-2007

	2006	2007	% Change
Person-years worked	17,497	9,446	-46.0%
Lost-time claims	32	35	9.4%
Lost-time claim rate	0.18	0.37	102.6%
Modified-work claims	82	86	4.9%
Lost-time claims involving modified work	9	19	111.1%
Disabling injury claims	105	102	-2.9%
Disabling injury rate	0.60	1.08	79.9%
Duration rate	3	6	83.2%
Days lost (LTC)	558	552	-1.1%
Compensation payments (LTC)	\$540,844	\$738,449	36.5%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Plastic Products

In 2007, the lost-time claim rate for the Plastic Products industry decreased by 22.8% to 2.35 per 100 person-years worked, the result of the number of lost-time claims decreasing by an even greater amount than the person-years worked. Lost-time claims decreased by 28.8% and the person-years worked by 7.7%. The disabling injury rate in 2007 decreased by 2.2% to 6.70 per 100 person-years worked (see Table 4.12).

The duration rate decreased by 41.3% to 28 days-lost per 100 person-years worked in 2007. The average duration rate for all sectors of the province was 48. The median days-lost was three and average days-lost 12 days per claim. The average for all sectors in the province was higher at seven and 22, respectively.

Since 2003, the lost-time claim rate for this industry decreased by 42.7%. The average decrease for the Manufacturing, Processing and Packaging sector was 25.5%. The average decrease for all sectors of the province was 23.7%.

Table 4.12
Plastic Products — Alberta: 2006-2007

	2006	2007	% Change
Person-years worked	4,803	4,433	-7.7%
Lost-time claims	146	104	-28.8%
Lost-time claim rate	3.04	2.35	-22.8%
Modified-work claims	251	242	-3.6%
Lost-time claims involving modified work	68	49	-27.9%
Disabling injury claims	329	297	-9.7%
Disabling injury rate	6.85	6.70	-2.2%
Duration rate	48	28	-41.3%
Days lost (LTC)	2,320	1,256	-45.9%
Compensation payments (LTC)	\$606,517	\$623,867	2.9%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Distribution of injury claims

Table 4.13 presents figures for the proportion of employers without lost-time claims and the proportion of employers without disabling injury claims in 2007, by sub-sector. Table 4.14 displays the respective person-years worked for those employers. Table 4.15 displays figures for the number of claims submitted by employers.

Four industry sub-sectors had higher proportions of employers with no lost-time claims and higher proportions of employers with no disabling injury claims than the average for the Manufacturing, Processing and Packaging sector, indicating a more highly concentrated occurrence of injury in those sub-sectors. These were the Clothing and Textile Products sub-sector, the Furniture and Allied Products sub-sector, the Primary Metal Products sub-sector and the Other Manufacturing, Processing and Packaging Industries sub-sector (see Table 4.13).

These figures however, are influenced by employer size. In 2007, the number of employers with no lost-time claims translates to 66%, 63%, 33% and 46% of the total person-years worked in these four sub-sectors respectively (see Table 4.14).

Table 4.13

Proportion of Employers with no Lost-Time or Disabling Injury Claims, by Manufacturing, Processing and Packaging Sub-Sector – Alberta: 2007

Proportion of Employers by Sub-Sector	With no Lost-Time Claims	With no Disabling Injury Claims
Manufacturing, Processing and Packaging	88%	86%
Meat, Hides and Pelt Products	67%	63%
Clothing and Textile Products	94%	93%
Feed/Seed, Food and Beverage Products	79%	77%
Wood Products	75%	72%
Furniture and Allied Products	95%	95%
Printed and Published Products	86%	85%
Foundries (not steel), Rubber and Non-metallic Products	69%	65%
Primary Metal (esp. steel) Products	91%	89%
Industrial Equipment	87%	84%
Gases, Fertilizer and Petrochemical - Refining and Manufacturing	77%	69%
Plastic Products	69%	62%
Other Manufacturing, Processing and Packaging Industries	89%	87%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Table 4.14

Proportion of Person-years worked accounted for by Employers with no Lost-Time or Disabling Injury Claims, by Manufacturing, Processing and Packaging Sub-Sector – Alberta: 2007

Proportion of person-years accounted for by employers	With no Lost-Time Claims	With no Disabling Injury Claims
Manufacturing, Processing and Packaging	31%	22%
Meat, Hides and Pelt Products	6%	5%
Clothing and Textile Products	66%	62%
Feed/Seed, Food and Beverage Products	21%	16%
Wood Products	22%	11%
Furniture and Allied Products	63%	62%
Printed and Published Products	33%	31%
Foundries (not steel), Rubber and Non-metallic Products	30%	20%
Primary Metal (esp. steel) Products	33%	23%
Industrial Equipment	39%	33%
Gases, Fertilizer and Petrochemical - Refining and Manufacturing	37%	18%
Plastic Products	25%	15%
Other Manufacturing, Processing and Packaging Industries	46%	36%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Table 4.15

Proportion of Employers with Lost-Time or Disabling Injury Claims, by Manufacturing, Processing and Packaging Sub-Sector – Alberta: 2007

Sub-Sector	1 Lost-Time Claim	2 to 5 Lost-Time Claims	6 to 20 Lost-Time Claims	Over 20 Lost-Time Claims
Meat, Hides and Pelt Products	22%	40%	20%	18%
Clothing and Textile Products	77%	23%	0%	0%
Feed/Seed, Food and Beverage Products	43%	42%	11%	5%
Wood Products	44%	41%	12%	3%
Furniture and Allied Products	78%	15%	3%	3%
Printed and Published Products	52%	35%	13%	0%
Foundries (not steel), Rubber and Non-metallic Products	52%	39%	9%	0%
Primary Metal (esp. steel) Products	50%	40%	9%	0%
Industrial Equipment	52%	38%	10%	0%
Gases, Fertilizer and Petrochemical - Refining and Manufacturing	58%	42%	0%	0%
Plastic Products	48%	46%	7%	0%
Other Manufacturing, Processing and Packaging Industries	56%	36%	8%	0%

Data Source: WCB Data, Prepared by Data Development and Evaluation

For employers who did submit lost-time claims, two sub-sectors had proportions of employers submitting over six lost-time claims that were higher than 15%. These were the Meat, Hides and Pelt Products sub-sector and the Feed/Seed, Food and Beverage Products sub-sector (see Table 4.15). Nine of the sub-sectors had proportions of employers submitting over six disabling injury claims that were higher than 15%.

Table 4.15 (Continued)

Proportion of Employers with Lost-Time or Disabling Injury Claims, by Manufacturing, Processing and Packaging Sub-Sector – Alberta: 2007

Sub-Sector	1 Disabling Injury Claim	2 to 5 Disabling Injury Claims	6 to 20 Disabling Injury Claims	Over 20 Disabling Injury Claims
Meat, Hides and Pelt Products	25%	25%	21%	29%
Clothing and Textile Products	73%	23%	3%	0%
Feed/Seed, Food and Beverage Products	36%	39%	19%	7%
Wood Products	39%	34%	19%	8%
Furniture and Allied Products	74%	15%	8%	3%
Printed and Published Products	51%	30%	18%	1%
Foundries (not steel), Rubber and Non-metallic Products	35%	41%	17%	6%
Primary Metal (esp. steel) Products	42%	37%	17%	4%
Industrial Equipment	39%	35%	20%	5%
Gases, Fertilizer and Petrochemical - Refining and Manufacturing	38%	47%	16%	0%
Plastic Products	33%	40%	23%	4%
Other Manufacturing, Processing and Packaging Industries	53%	39%	7%	2%

Data Source: WCB

Data, Prepared by Data Development and Evaluation

DEMOGRAPHICS OF INJURED WORKERS

Injured Worker Characteristics

In 2007, the Machinists, metal forming, shaping and erecting occupation group had the highest proportion of lost-time claims in the Manufacturing Processing and Packaging sector at 17.7%. Labourers in processing, manufacturing and utilities had the highest proportion of disabling injuries at 17.0%. The Trades helpers, construction and transportation labourers and related occupations group had the largest difference between their proportion of lost-time claims and proportion of those in employment at 15.4% and 1.8%, indicating these workers were more likely to be injured than other occupational groups in the Manufacturing, Processing and Packaging sector. In contrast, assemblers in manufacturing accounted for 4.1% of lost-time claims, 3.7% of disabling injury claims, and 8.5% of those in employment (see Chart 5.1).

Chart 5.1

Lost-Time, Disabling Injury Claims and Employment by Selected Occupation Group — Alberta: 2007

Occupation Group	Lost-time Claims	Disabling Injury Claims	Employment
Machinists, Metal Forming, Shaping and Erecting Occupations	17.7%	16.4%	10.2%
Labourers in Processing, Manufacturing and Utilities	17.4%	17.0%	7.3%
Trades Helpers, Construction, and Transportation Labourers and Related Occupations	15.4%	15.3%	1.8%
Machine Operators in Manufacturing	10.8%	13.1%	18.6%
Clerical Occupations	5.4%	4.4%	6.8%
Construction Trades	5.1%	5.3%	2.3%
Assemblers in Manufacturing	4.1%	3.7%	8.5%
Transportation Equipment Operators and Related Workers, Excl. Labourers	3.9%	3.0%	1.5%
Sales & Service Occupations N.E.C.	3.4%	3.2%	1.0%

Data Source: WCB Data, Prepared by Data Development and Evaluation; Statistics Canada, Labour Force Survey (Microdata Files)

In 2007, workers aged 15 to 34 years accounted for almost half of all lost-time and disabling injury claims. Young workers aged between 15 and 24 accounted for 18.1% of lost-time claims and 21.1% of disabling injury claims, while representing only 13.6% of those in employment⁵, indicating that young workers are more likely to be injured on the job in the Manufacturing, Processing and Packaging sector than are older workers⁶ (see Table 5.2).

Table 5.2

Lost-Time and Disabling Injury Claims by Age — Alberta: 2006-2007

Age	2006				2007			
	Lost-Time Claims	%	Disabling Injury Claims	%	Lost-Time Claims	%	Disabling Injury Claims	%
15-19 Years	326	5.0%	829	5.7%	311	5.7%	745	5.7%
20-24 Years	867	13.4%	2,369	16.3%	684	12.5%	1,989	15.3%
25-34 Years	1,654	25.6%	4,070	28.0%	1,337	24.4%	3,554	27.4%
35-44 Years	1,683	26.1%	3,687	25.3%	1,449	26.4%	3,216	24.8%
45-54 Years	1,372	21.2%	2,664	18.3%	1,161	21.1%	2,492	19.2%
55-64 Years	489	7.6%	848	5.8%	471	8.6%	859	6.6%
65+ Years	69	1.1%	92	0.6%	75	1.4%	106	0.8%
Unspecified	0	N/A	0	N/A	2	N/A	0	N/A
Total	6,460	100.0%	14,559	100.0%	5,490	100.0%	12,961	100.0%

Data Source: WCB Data, Prepared by Data Development and Evaluation

In the Manufacturing, Processing and Packaging sector, the majority of claims were from men. In 2007, 82.5% of lost-time and 83.1% of disabling injury claims involved men, while they composed 74.2% of those employed (see Table 5.3)⁷.

Table 5.3

Lost-Time and Disabling Injury Claims by Gender — Alberta: 2006-2007

Gender	2006				2007			
	Lost-Time Claims	%	Disabling Injury Claims	%	Lost-Time Claims	%	Disabling Injury Claims	%
Women	1,192	18.7%	2,565	17.8%	954	17.5%	2,168	16.9%
Men	5,197	81.3%	11,856	82.2%	4,482	82.5%	10,675	83.1%
Unspecified	71	N/A	138	N/A	54	N/A	120	N/A
Total	6,460	100.0%	14,559	100.0%	5,490	100.0%	12,963	100.0%

Data Source: WCB Data, Prepared by Data Development and Evaluation

⁵ Statistics Canada's Labour Force Survey (2007 Historical Review).

⁶ See the Occupational Injuries and Diseases in Alberta Young Workers publication.

⁷ Statistics Canada's Labour Force Survey (2007 Historical Review).

INJURY AND DISEASE ANALYSIS

Overexertion was the most common cause for lost-time claims in the Manufacturing, Processing and Packaging sector. Sprains, strains and tears continued to be the leading nature of injury with the trunk being the most commonly injured body part.

Nature of Injury or Disease

The nature of injury is used to identify the physical characteristics of the injury or disease. In 2007, 91.2% of lost-time and 92.5% of disabling injury claims were caused by traumatic injuries and disorders. The two most common traumatic injuries and disorders were sprains, strains and tears, and surface wounds and bruises (see Table 6.1).

Note 6.1

Throughout this section, the classifications used are based on the Canadian Standards Association (CSA) standards for categorizing occupational injury and disease information.

Compared to the rest of the province, the Manufacturing, Processing and Packaging sector had higher relative proportions of lost-time and disabling injury claims in most nature of injury categories⁸. For lost-time claims the nature of injury category open wounds was 1.8 times higher than the average for all sectors. The number of disabling injury claims for this category was 2.3 times higher. Surface wounds and bruises, and systemic diseases and disorders displayed high relative lost-time claim proportions, both at 1.7 times the average for all sectors, and high disabling injury claim proportions, 2.1 and 2.0 times the average for all sectors in the province.

Note 6.2

The CSA standard is designed so that Nature of Injury and Part of Body categories are directly linked when classifying injuries. This is also true for the relationship between the Source of Injury and Type of Event categories.

⁸ The relative proportion or number of times higher or lower compares the Manufacturing, Processing and Packaging sector's claim rate and proportion of injuries by each injury type, against the average claim rate and injury proportion for all sectors in the province. A value equal to 1 indicates an equal probability or likelihood to the average. A value higher than 1 indicates an increased likelihood of this type of injury occurring, and a value less than one indicates a lower likelihood. See Appendix A for calculation details.

Table 6.1

Nature of Injury or Disease — Alberta: 2007

Nature of Injury	Lost-Time Claims	%	Disabling Injury claims	%
Traumatic Injuries and Disorders	5,007	91.2%	11,997	92.5%
Sprains, Strains and Tears	2,133	38.9%	5,112	39.4%
Surface Wounds and Bruises	850	15.5%	2,088	16.1%
Open Wounds	690	12.6%	1,949	15.0%
Fractures and Dislocations	485	8.8%	800	6.2%
Burns	143	2.6%	281	2.2%
Other Traumatic Injuries and Disorders	706	12.9%	1,767	13.6%
Systemic Diseases and Disorders	330	6.0%	631	4.9%
Neoplasms, Tumors and Cancer	4	0.1%	5	0.0%
Infectious and Parasitic Disorders	2	<0.1%	2	<0.1%
Symptoms, Signs and Ill-Defined Conditions	9	0.2%	17	0.1%
Multiple Diseases, Conditions and Disorders	0	0.0%	0	0.0%
Other Diseases, Conditions and Disorders	9	0.2%	11	0.1%
Nature of Injury - Unknown	129	2.3%	300	2.3%
Total	5,490	100.0%	12,963	100.0%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Part of Body Injured

In 2007, the back (including spine and spinal cord) was the most commonly injured body part, accounting for 21.9% of lost-time claims in the Manufacturing, Processing and Packaging sector and 19.3% of disabling injury claims. This was followed by injuries to the fingers and fingernails, accounting for 12.8% and 17.5% of lost-time claims and disabling injury claims, and wrists and hands, 12.8% and 13.1% respectively (see Table 6.2).

Compared to the average for all sectors in the province, the Manufacturing, Processing and Packaging sector had higher relative proportions⁹ of lost-time claims in most injury categories. For lost-time claims, the eyes displayed the highest relative proportion, 2.8 times higher in the Manufacturing, Processing and Packaging sector than the average. Injuries to fingers or fingernails and to the wrists and hands displayed relative proportions for lost-time claims that were 2.1 and 1.5 times higher than the average for all sectors in the province. For disabling injury claims, these body parts had relative proportions 2.7 times, 2.6 times and 2.1 times higher than the average respectively.

⁹ The relative proportion or number of times higher or lower compares the Manufacturing, Processing and Packaging sector's claim rate and proportion of injuries by each injury type, against the average claim rate and injury proportion for all sectors in the province. A value equal to 1 indicates an equal probability or likelihood to the average. A value higher than 1 indicates an increased likelihood of this type of injury occurring, and a value less than one indicates a lower likelihood. See Appendix A for calculation details.

Table 6.2
Part of Body Injured — Alberta: 2007

Part of Body Injured	Lost-Time Claims	%	Disabling Injury Claims	%
Trunk	1,903	34.7%	4,207	32.5%
Back, Including Spine, Spinal Cord	1,203	21.9%	2,507	19.3%
Other Trunk	700	12.8%	1,700	13.1%
Upper Extremities	1,609	29.3%	4,872	37.6%
Finger(s), Fingernail(s)	703	12.8%	2,265	17.5%
Wrist(s) and Hand(s) Except Finger(s)	528	9.6%	1,630	12.6%
Other Upper Extremities	378	6.9%	977	7.5%
Lower Extremities	1,000	18.2%	2,164	16.7%
Leg(s)	471	8.6%	1,080	8.3%
Ankle(s) and Foot (Feet) Except Toes	475	8.7%	991	7.6%
Other Lower Extremities	54	1.0%	93	0.7%
Head	611	11.1%	1,059	8.2%
Eye(s)	339	6.2%	569	4.4%
Other Head Parts	272	5.0%	490	3.8%
Multiple Body Parts	247	4.5%	418	3.2%
Neck, Including Throat	88	1.6%	193	1.5%
Body Systems	22	0.4%	33	0.3%
Part of Body - Unknown	7	0.1%	14	0.1%
Other Body Parts	3	0.1%	3	0.0%
Total	5,490	100.0%	12,963	100.0%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Source of Injury or Disease

The source of injury or disease describes the object or substance that came into contact with the worker and resulted in an injury or disease. In 2007, persons, plants, animals and minerals accounted for 19.7% of lost-time claims and 21.4% of disabling injury claims. This was followed by parts and materials at 18.7% and 20.2% respectively (see Table 6.3).

Compared to the average for all sectors in the province, the Manufacturing, Processing and Packaging sector had higher relative proportions¹⁰ of lost-time claims in most injury categories. For disabling injury claims, the injury category hand tools - powered displayed the highest relative proportion, 2.9 times than the average for all sectors for lost-time claims and 3.3 times higher for disabling injury claims. This was followed by other persons, plants, animals and materials, 2.4 times higher for lost-time claims and 3.2 times higher for disabling injury claims. Parts and materials displayed relative proportions that were 2.3 and 2.5 times higher for lost-time claims and disabling injury claims than the average for all sectors in the province.

¹⁰The relative proportion or number of times higher or lower compares Manufacturing, Processing and Packaging sector's claim rate and proportion of injuries by each injury type, against the average claim rate and injury proportion for all sectors in the province. A value equal to 1 indicates an equal probability or likelihood to the average. A value higher than 1 indicates an increased likelihood of this type of injury occurring, and a value less than one indicates a lower likelihood. See Appendix A for calculation details.

Table 6.3

Source of Injury or Disease Alberta: 2007

Source of Injury	Lost-Time Claims	%	Disabling Injury Claims	%
Persons, Plants, Animals and Minerals	1,079	19.7%	2,772	21.4%
Person-Injured or Ill Worker	949	17.3%	2,479	19.1%
Minerals - Metallic or Nonmetallic (except fuel)	15	0.3%	29	0.2%
Person-Other Than Injured or Ill Worker*	21	0.4%	35	0.3%
Other Persons, Plants, Animals & Minerals	94	1.7%	229	1.8%
Parts and Materials	1,026	18.7%	2,623	20.2%
Structures and Surfaces	700	12.8%	1,343	10.4%
Containers**	442	8.1%	941	7.3%
Tools, Instruments and Equipment	445	8.1%	1,316	10.2%
Hand Tools - Nonpowered	194	3.5%	728	5.6%
Hand Tools - Powered	115	2.1%	327	2.5%
Other Tools and Equipments	136	2.5%	261	2.0%
Machinery	475	8.7%	786	6.1%
Vehicles	184	3.4%	406	3.1%
Furniture and Fixtures	138	2.5%	308	2.4%
Chemicals and Chemical Products	74	1.3%	112	0.9%
Other Sources	432	7.9%	977	7.5%
Source of Injury - Unknown	495	9.0%	1,379	10.6%
Total	5,490	100.0%	12,963	100.0%

* Person – other than injured or ill worker: classifies workplace injuries or illnesses inflicted by family members as well as non-family relations, including co-workers, former co-workers, and patients.

** Containers: classifies receptacles that are commonly used to hold, store or carry materials (examples: dishes, cups and glasses, luggage, etc.).

Data Source: WCB Data, Prepared by Data Development and Evaluation

Type of Event or Exposure

The type of event or exposure describes the incident or event that occurred at the time of the exposure that directly resulted in the injury or disease. The two most common types of event or exposure comprising over three-quarters of the total lost-time and disabling injury claims in the Manufacturing, Processing and Packaging sector in 2007 were bodily reaction and exertion, and contact with objects and equipment (see Table 6.4). Bodily reaction accounted for 38.0% of the lost-time claims and 39.4% of the disabling injury claims. Contact with objects and equipment accounted for 36.4% and 36.3% respectively.

Lost-time claims caused by rubs or abrasions had the highest relative proportion¹¹ at 2.8 times the average for all sectors in the province. For disabling injury claims it was 2.7 times higher in the Manufacturing, Processing and Packaging sector. This was followed by caught in object with relative proportions 2.3 times higher for lost-time claims and 2.5 times higher for disabling injury claims. Repetitive motion injuries were 1.9 times higher for lost-time claims and 2.9 times higher for disabling injury claims than the average for all sectors of the province.

¹¹ The relative proportion or number of times higher or lower compares the Manufacturing, Processing and Packaging sector's claim rate and proportion of injuries by each injury type, against the average claim rate and injury proportion for all sectors in the province. A value equal to 1 indicates an equal probability or likelihood to the average. A value higher than 1 indicates an increased likelihood of this type of injury occurring, and a value less than one indicates a lower likelihood. See Appendix A for calculation details.

Table 6.4

Type of Event or Exposure — Alberta: 2007

Type of Event or Exposure	Lost-Time Claims	%	Disabling Injuries	%
Bodily Reaction or Exertion	2,085	38.0%	5,104	39.4%
Overexertion	1,083	19.7%	2,557	19.7%
Bodily Reaction*	595	10.8%	1,356	10.5%
Repetitive Motion	284	5.2%	897	6.9%
Other Bodily Reaction/Exertion	123	2.2%	294	2.3%
Contact with Objects or Equipment	1,997	36.4%	4,712	36.3%
Struck by Object	985	17.9%	2,458	19.0%
Caught in Object	433	7.9%	972	7.5%
Struck against Object	323	5.9%	857	6.6%
Rubbed or Abraded	146	2.7%	271	2.1%
Other Contact with Object/Equipment	110	2.0%	154	1.2%
Falls	730	13.3%	1,598	12.3%
Fall on Same Level	458	8.3%	1,130	8.7%
Fall to Lower Level	208	3.8%	341	2.6%
Other Falls	64	1.2%	127	1.0%
Exposure to Harmful Substances	300	5.5%	739	5.7%
Transportation Accidents	89	1.6%	264	2.0%
Assaults and Violent Acts	25	0.5%	39	0.3%
Assaults and Violent Acts by Person(s)	19	0.3%	26	0.2%
Other Assaults and Violent Acts	6	0.1%	13	0.1%
Fires and Explosions	12	0.2%	17	0.1%
Other Events or Exposures	1	<0.1%	2	<0.1%
Type of Event - Unknown	251	4.6%	488	3.8%
Total	5,490	100.0%	12,963	100.0%

* Bodily reaction: injuries or illnesses resulting from a single incident of free bodily motion which imposed stress or strain on some part of the body.

Data Source: WCB Data, Prepared by Data Development and Evaluation

Duration of Disability

Duration of disability¹² is intended to reflect the severity of the effects of occupational injury and disease as reflected by the number of days off work. The efforts of employers to introduce modified work programs to integrate injured workers more quickly back into the workforce also have a positive impact on workdays-lost.

In 2007, lost-time claims with duration of disability between one and ten days accounted for 60.2% of all claims, compared with 55.7% for all sectors in the province. Lost-time claims resulting in 31 days or more lost accounted for 17.1% of all lost-time claims in the Manufacturing, Processing and Packaging sector (see Table 6.5). For all sectors in the province, 21.0% of claimants were unable to work for 31 days or more.

Table 6.5

Duration of Disability — Alberta: 2007

Duration of Disability	% of Manufacturing, Processing and Packaging Sector's Lost-Time Claims	% of Lost-Time Claims in the Province
1-5 Days	46.2%	41.1%
6-10 Days	14.1%	14.5%
11-15 Days	7.2%	7.4%
16-20 Days	4.8%	5.1%
21-30 Days	5.9%	6.8%
31-40 Days	4.8%	4.8%
41-50 Days	2.4%	3.3%
51 Days or More	9.9%	12.9%
Unspecified	4.8%	4.0%

Data Source: WCB Data, Prepared by Data Development and Evaluation

¹² The duration of disability refers to the length of time, in days, for which the worker receives wage compensation from the WCB.

OCCUPATIONAL FATALITIES

In 2007, the WCB accepted 21 fatalities in the Manufacturing, Processing and Packaging industries, accounting for 13.6% of all 154 fatalities in the province.

A WCB accepted occupational fatality is defined as the death of a worker resulting from a work-related incident or exposure which has been accepted by the WCB for compensation. The WCB classifies occupational fatalities into three general types:

Motor Vehicle Incidents

Motor vehicle incidents typically involve non-industrial vehicles operating on public roads in which the fatally injured worker was either the driver or a passenger. This type of occupational fatality also includes cases involving aircraft, train, helicopter and water vehicle crashes. In 2007, three Manufacturing, Processing and Packaging fatalities accepted by WCB were motor vehicle incidents (see Table 7.1).

Workplace Incidents

Workplace incidents consisted of cases in which the worker died at a worksite or as a result of injuries sustained at a worksite. This is the type of fatality that E&I typically investigates. In 2007, four of the Manufacturing, Processing and Packaging fatalities accepted by WCB were workplace incidents (see Table 7.1).

Latent Workplace and Motor Vehicle Fatalities

Latent fatalities consist of workers who were involved in a workplace incident or exposure, or a motor vehicle incident that did not become a fatality until a much later date, often years later. These incidents were classified as occupational diseases. From 2007, these incidents will be separated out and included with either motor vehicle or workplace incident categories in accordance to their original injury.

Usually, other contributing factors cause a latent fatality, although these contributing factors are the result of the initial injury or exposure. A motor vehicle incident, where a worker received leg injuries requiring surgery is a good example of this. Complications during the surgery result in a blood clot causing a fatal stroke. Thus, the injury is classified latent because the original injury caused the requirement for surgery. In 2007, there were no latent fatalities in the Manufacturing, Processing and Packaging industries.

Occupational Disease

Occupational disease fatalities consist mostly of recognized occupational disease, that is, disease known to be primarily or exclusively work-related such as asbestosis and coal workers' pneumoconiosis. This category also includes heart attacks suffered on the job. Occupational diseases are frequently diagnosed several years after the initial or crucial

exposure to the toxic substance, and in such cases, it is difficult to determine when the fatal exposure occurred. *The occupational disease category, therefore, should not be interpreted to reflect present worksite hazardous conditions or exposures.*

Each year the WCB accepts some occupational fatality claims for compensation. Occupational fatality claims that were accepted in a particular year may include fatalities from prior years. In 2007, 14 of the fatalities accepted by the WCB in the Manufacturing, Processing and Packaging industries were occupational disease incidents (see Table 7.1).

Table 7.1

Types of Occupational Fatalities Accepted by the WCB –
Alberta: 2003 - 2007

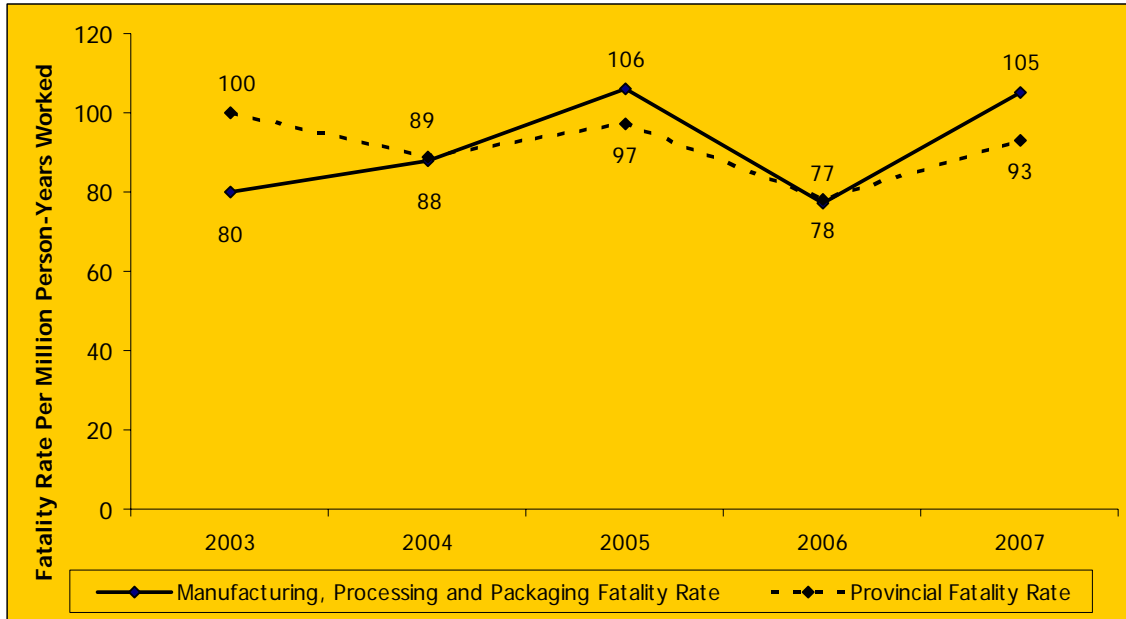
Year	Motor Vehicle Incident		Workplace Incident		Occupational Disease		Total
	Number of Fatalities	%	Number of Fatalities	%	Number of Fatalities	%	Number of Fatalities
2003	1	7.1%	4	28.6%	9	71.4%	14
2004	2	12.5%	7	43.8%	7	50.0%	16
2005	3	15.0%	8	40.0%	9	50.0%	20
2006	2	12.5%	5	31.3%	9	56.3%	16
2007	3	14.3%	4	19.0%	14	66.7%	21
Total	11	12.6%	28	32.2%	48	55.2%	87

Data Source: WCB Data, Prepared by Data Development and Evaluation

The fatality rate is calculated by dividing the number of accepted fatalities in the year by the number of person-years worked in that year. The result is expressed as “per million person-years worked.” The 2007 fatality rate increased by 36.7% from 77 per million person-years worked in 2006 to 105 per million person-years worked in 2007 (see Chart 7.1).

Chart 7.1

Fatality Rate¹³ in the Manufacturing, Processing and Packaging Sector: 2003-2007



Data Source: WCB Data, Prepared by Data Development and Evaluation

Between 2003 and 2007, the WCB accepted 87 fatalities in the Manufacturing, Processing and Packaging industries. The Primary Metal (especially Steel) Products sub-sector had the most with 39 fatalities, accounting for 44.8% of all the fatalities in the Manufacturing, Processing and Packaging sector (see Table 7.2).

¹³ Estimates are based upon information provided by the WCB. Fatalities occurring under Government of Canada jurisdiction are excluded from the calculation of the fatality rates.

Table 7.2

Manufacturing, Processing and Packaging Occupational Fatalities Accepted by the WCB by Sub-Sector – Alberta: 2003 - 2007

Sub-Sector	2003	2004	2005	2006	2007	Number of Fatalities	%
Feed/Seed, Food and Beverage Products	1	1	1	1	2	6	6.9%
Foundries (not steel), Rubber and Non-metallic Products	2	2	2	1	3	10	11.5%
Furniture and Allied Products	0	0	1	0	0	1	1.1%
Gases, Fertilizer and Petrochemical Refining and Manufacturing	3	3	2	1	3	12	13.8%
Industrial Equipment	0	1	1	1	1	4	4.6%
Meat, Hides and Pelt Products	0	0	2	1	0	3	3.4%
Other Manufacturing, Processing and Packaging Industries	0	1	0	1	0	2	2.3%
Primary Metal (esp. steel) Products	6	8	8	9	8	39	44.8%
Printed and Published Products	0	0	0	0	1	1	1.1%
Wood Products	2	0	3	1	3	9	10.3%
Manufacturing, Processing and Packaging Sector	14	16	20	16	21	87	100.0%

Data Source: WCB Data, Prepared by Data Development and Evaluation

CERTIFICATE OF RECOGNITION

A Certificate of Recognition (COR) is given to employers who develop health and safety programs that meet established standards. Certificates are issued by Certifying Partners and are co-signed by E&I¹⁴.

In 2007, 4.8% of employers in the Manufacturing, Processing and Packaging sector were COR holders. These employers accounted for 43.5% of all person-years worked in the Manufacturing, Processing and Packaging sector. The Gases, Fertilizer and Petrochemical - Refining and Manufacturing sub-sector had the highest proportion with 17.5% of employers in this sub-sector holding a valid COR in 2007, covering 55.3% of person-years worked in this sub-sector (see Table 8.1).

Table 8.1

Employers With Valid COR — Alberta: 2007

Sub-Sector	Number of Certified Employers	Total Number of Employers	% of Total Employers Certified	% of Total Person-Years Certified
Manufacturing, Processing and Packaging Sector	704	14,802	4.8%	43.5%
Clothing and Textile Products	5	441	1.1%	1.6%
Feed/Seed, Food and Beverage Products	29	622	4.7%	41.5%
Foundries (not steel), Rubber and Non-metallic Products	56	350	16.0%	47.4%
Furniture and Allied Products	9	1,262	0.7%	13.9%
Gases, Fertilizer and Petrochemical - Refining and Manufacturing	18	103	17.5%	55.3%
Industrial Equipment	45	461	9.8%	42.8%
Meat, Hides and Pelt Products	13	150	8.7%	62.3%
Plastic Products	15	150	10.0%	10.0%
Primary Metal (esp. steel) Products	390	8,769	4.4%	4.4%
Printed and Published Products	3	492	0.6%	0.6%
Wood Products	94	1,089	8.6%	8.6%
Other Manufacturing, Processing and Packaging	27	913	3.0%	3.0%

Data Source: WCB Data, Prepared by Data Development and Evaluation

¹⁴ For more information on the COR program visit <http://employment.alberta.ca/whs-partnerships>

In the Manufacturing, Processing and Packaging sector, the lost-time claim rate for COR holders was 2.60 per 100 person-years worked in 2007, while the rate for non-COR holders was 2.90. For disabling injury rates, COR holders had a rate of 8.29 per 100 person-years worked, while the rate for non-COR holders was 4.77 (see Table 8.2).

A low lost-time claim rate and high disabling injury rate can be indicative of proficient claims management. However, it may also be a reflection of larger employers having greater capacity to offer modified duties to injured workers than smaller employers.

Comparing COR holders against all non-COR holders provides useful information about each group, although it does not compare like-with-like. A COR is given to employers who develop health and safety programs that meet established standards, with this group seeing continued improvement in their lost-time claim rates. Some non-COR holders have good programs in place above this standard, whereas others do not. This makes evaluating improving health and safety trends less clear for this group.

The two groups also differ significantly in employer structure and size. COR holders account for 4.8% of employers in the Manufacturing, Processing and Packaging sector (see Table 8.1) but 43.5% of the person-years worked. Analysis by employer size for all sectors of the province¹⁵ show smaller employers tend to have better health and safety performance than medium-sized and large employers. For the Manufacturing, Processing and Packaging sector a different pattern is displayed with employers between 20 and 39 person-years and employers between 10 and 19 person-years worked displaying the highest lost-time claim rates (see Table 3.2). The pattern of claim rates by employer size differs depending on the measure. Large employers have the lowest lost-time claim rate and highest disabling injury rate.

Table 8.2

Lost-Time Claim and Disabling Injury Rates for Manufacturing, Processing and Packaging COR Holders — Alberta: 2006-2007

Employer	Year	Number of Accounts	Person-Years	Lost-Time Claims	Disabling Injury Claims	Lost-Time Claim Rate	Disabling Injury Rate	Change in Lost-Time Claim Rate	Change in Disabling Injury Rate
COR	2006	841	103,807	3,105	9,035	2.99	8.70	-13.0%	-4.7%
	2007	833	98,010	2,550	8,127	2.60	8.29		
Non-COR	2006	13,453	103,756	3,355	5,524	3.23	5.32	-10.3%	-10.4%
	2007	13,969	101,347	2,940	4,836	2.90	4.77		

Data Source: WCB Data, Prepared Data Development and Evaluation

¹⁵ See the Occupational Injury and Diseases in Alberta Summary publication 2007 <http://employment.alberta.ca/cps/rde/xchg/hre/hs.xsl/129.html>

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APPENDIX A: TERMS, DEFINITIONS AND FORMULAS

Lost-Time Claim	A lost-time claim (LTC) is a claim for an occupational injury or disease that causes the worker to have time away from work beyond the day of injury. Included are claims receiving reimbursement of full or partial lost wages due to occupational illness or injury, or payment for permanent loss of function.
Modified Work Claim	A modified work claim is a claim for an occupational injury or disease where a worker had their normal work duties altered to enable them to remain working without losing time from work. Also included are claims where injured workers are helped back into the workplace with modified duties after time lost due to injury or disease.
Disabling Injury Claim	Disabling injury (DI) claims combine both the lost-time and modified work concepts to produce an overall figure where an occupational injury or disease disables the worker causing either time-lost from work or for their normal work duties to be modified.
Person-Years Worked	Person-years worked are estimates calculated from wage and payroll data provided by account holders to the WCB. Alberta Employment and Immigration uses data to estimate an average industry wage, and uses the average industry wage and employer payroll data to estimate person-years worked for each employer and each industry. One person-year is equivalent to one full-time worker working for one year, and can be assumed to equal 2,000 hours worked.
Lost-Time Claim Rate	The lost-time claim rate is calculated by dividing the number of lost-time claims by the person-year estimate, and multiplying the result by 100. The lost-time claim rate represents the probability or risk of an injury or disease to a worker during a period of one-year work, which will result in time lost from work. Comparisons of lost-time claim rates between industries, or between years, can be used to indicate increases, decreases, or differences in this risk.

$$\text{LTC Rate} = \frac{\text{Number of LTC's} \times 100}{\text{Person-years worked}}$$



Disabling Injury Rate

The disabling injury rate is calculated by dividing the number of disabling injury claims by the person-year estimates, and multiplying the result by 100. The disabling injury rate represents the probability or risk of a disabling injury or disease to a worker during a period of one year of work. The disabling injury rate is similar to the LTC rate although it covers a broader range of injuries, including those that are less severe in nature (do not require time away from work). The rate represents the number of claims per 100 person-years worked and includes claims made for both lost-time and modified work.

$$\text{Disabling Injury Rate} = \frac{\text{Number of DI's} \times 100}{\text{Person-years worked}}$$

Duration (Days-lost)

The duration of disability is the number of days following the injury or disease for which the worker was disabled and unable to perform normal work duties. This information is obtained for this report from data on compensation days paid on each claim from the WCB. Alberta Employment and Immigration obtains these data on March 31 of the year following the claim year, and does not update the information, even though many injured workers continue to be disabled beyond this date. As a result, the duration information reported here underestimates the true impact of lost-time injury and disease.

Duration Rate

The duration rate is calculated by dividing the number of workdays-lost (disability days) by the person-year estimate, and multiplying by 100. The result is expressed as days-lost per 100 person-years worked, and indicates, in part, the economic impact of occupational injury and disease. Duration rates are not recommended as reliable indicators of full economic cost. In addition, readers are warned that duration rates are highly unstable when based on only a few lost-time claims; it is recommended that the duration rate not be calculated based upon fewer than 30 lost-time claims.

$$\text{Duration Rate} = \frac{\text{Disability Days} \times 100}{\text{Person-years worked}}$$

Industry Coverage

About 80% of employed persons in Alberta are covered by WCB. This report focuses on all industry activity in Alberta covered by the WCB and by the provincial legislation for occupational health and safety. Most industry sectors are included but notable exceptions consist of the Government of Canada, and parts of the agriculture and finance



sectors. Several professional groups (i.e. the teaching and medical professions) are also excluded as are some industries where WCB coverage is not compulsory.

WCB Accepted Fatality
An occupational fatality is the death of a worker which resulted from a work-related incident or exposure and which has been accepted by the WCB for compensation. A fatality is counted in the year it is accepted.

Fatality Rate
The fatality rate is calculated by dividing the number of accepted fatalities by the person-years worked estimate and multiplying the result by one million. The result is expressed as fatalities per million person-years worked. Fatalities that are found under the jurisdiction of the Government of Canada are excluded before the calculation of the fatality rate.

$$\text{Fatality Rate} = \frac{\text{Number of Fatalities} \times 1,000,000}{\text{Person-years worked}}$$

Number of Times Higher/Lower than the Provincial Average
The number of times higher/lower than the provincial average is used to compare the performance of the industries with the province regarding specific injury or disease. A number less than one indicates that the injury of the industries is lower than the provincial average; if equal to one it indicates the injury of the industries is the same as the provincial average and a number greater than one indicates that the injury of the industries is higher than the provincial average.

$$\frac{\text{Per cent of Total Claims for the Industries}}{\text{Per cent of Total Claims for the Province}} \times \frac{\text{Industries' LTC Rate}}{\text{Provincial LTC Rate}}$$

Where:

$$\text{Per cent of Total Claims for the Industries} = \frac{\text{Number of LTCs for the Industries (e.g. back injury)} \times 100}{\text{Total LTCs for the Industries}}$$

$$\text{Per cent of Total Claims for the Province} = \frac{\text{Number of LTCs for the Province (e.g. back injury)} \times 100}{\text{Total LTCs for the Province}}$$

Labour Force Survey

The Labour Force Survey (LFS) is a household survey carried out monthly by Statistics Canada. The objectives of the LFS have been to divide the working-age population into three mutually exclusive classifications - employed, unemployed, and not in the labour force - and to provide descriptive and explanatory data on each of these categories. Data from the survey provide information on major labour market trends such as shifts in employment across industrial sectors, hours worked, labour force participation and unemployment rates.

For the most part, annual LFS data has been analyzed alongside injury and disease information to aid the understanding of injury risk or frequency by worker type. The LFS uses a different industry classification from WCB, although there are similarities in structure. Where possible, the two data sources are used comparably and proportions (of totals) have been used to evaluate information generated from both sources. Using proportions attempts to overcome obvious distortions in the numbers in employment from both sources, although the impact on the proportions from industry coverage differences is unclear. In certain instances, monthly LFS micro-data files have been combined and used to produce proportion estimates for the whole year for particular sub-groups of the population.

For further information on the LFS, please see <http://employment.alberta.ca/cps/rde/xchg/hre/hs.xsl/67.html>

APPENDIX B: MANUFACTURING, PROCESSING AND PACKAGING INDUSTRIES WCB CODES

1. Meat, Hides and Pelt Products

01103 – Poultry Loading Services
10100 – Meat Processing
10104 – Rendering Plants
17200 – Tanneries

2. Clothing and Textile Products

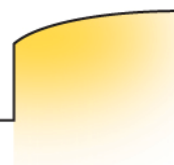
17900 – Leather Goods – Manufacturing/Repair
21300 – Rope/Carpet – Manufacturing/Repair
22900 – Crests/Pennants – Manufacturing/Repair
22901 – Drapes/Linens – Manufacturing/Repair/Installation
24900 – Wearing Apparel – Manufacturing/Repair

3. Feed/Seed, Food and Beverage Products

02101 – Seed Cleaning Plants
02112 – Egg Grading
10500 – Dairy Products Processing
11202 – Fruit Juice Processing
12301 – Feed Mills
12400 – Flour Mills
12900 – Bakeries
13100 – Food Process – Miscellaneous
13101 – Candy Manufacturing
13300 – Beet Sugar Processing
13500 – Vegetable Oils/Yeast Manufacturing
13900 – Malt Manufacturing
13904 – Pasta Manufacturing
13905 – Vegetables Process/Grade
14100 – Soft Drinks/Water/Ice – Manufacturing
14300 – Liquor/Wine – Manufacturing
14500 – Breweries
37402 – Medicine/Vitamin Manufacturing

4. Wood Products

25100 – Saw Mills/Planing Mills
25401 – Wood Products – Manufacturing
25900 – Peel/Point – Posts
25901 – Treating of Timber
27102 – Pulp Mills
27103 – Panelboard – Manufacturing



5. Furniture and Allied Products

- 26101 – Upholstered Furniture – Manufacturing/Repair
- 26104 – Furniture Refinishing
- 42147 – Finishing Carpentry

6. Printed and Published Products

- 27402 – Envelope Manufacturing
- 28600 – Printing/Book Binding
- 28800 – Publish without Printing
- 28900 – Publish with Printing
- 86202 – Newspaper/Flyer Distribution
- 89301 – Electronic Print/Photofinishing

7. Foundries (not Steel), Rubber and Non-metallic Products

- 16901 – Tires/Rubber Products – Manufacturing
- 27200 – Asphalt Roofing Products – Manufacturing
- 29700 – Foundry – Non-ferrous
- 34100 – Pre-mixed Cement – Manufacturing
- 34500 – Gypsum Board – Manufacturing
- 34700 – Concrete Products – Manufacturing
- 34702 – Artificial Stone Products – Manufacturing
- 34800 – Transit Mix Operations
- 35200 – Clay Bricks – Manufacturing
- 35401 – Fibreglass Insulation – Manufacturing
- 38500 – Fibreglass Reinforced Products – Manufacturing

8. Primary Metal (esp. Steel) Products

- 26401 – Metal Furniture Manufacturing
- 29100 – Steel Manufacturing – exclude Foundries
- 29102 – Foundries, Iron and Steel
- 29200 – Steel Pipe Manufacturing
- 30100 – Steel/Metal Fabrication
- 30101 – Heat Treating/Stress Relieving
- 30403 – Metal/Porcelain Products – Coating
- 30407 – Pipe Cleaning/Coating
- 30412 – Sheet Metal Shops
- 30700 – Heat/Cooling Equipment Manufacturing
- 30801 – Machining
- 33602 – Switchboard/Electrical Panel – Manufacturing
- 33606 – Industrial Electric Equipment – Manufacturing
- 62500 – Steel Service Centre – No Salvage
- 62700 – Scrap/Salvage Dealers
- 89401 – Welding

9. Industrial Equipment

- 16902 – Industrial Belting – Install/Service
- 38100 – Instrumentation – Manufacturing

62304 – Compressors/Power Unit – Manufacturing

10. Gases, Fertilizer and Petrochemical – Refining and Manufacturing

36500 – Refine – Crude/Used Oil

37201 – Fertilizer Manufacturing/Nickel Refining

37801 – Petrochemicals – Manufacturing

37805 – Industrial Gases – Manufacturing

11. Plastic Products

37301 – Plastic Products – Manufacturing

12. Other Manufacturing, Processing and Packaging Industries

07900 – Peat Moss – Harvest/Process

12304 – Forage Processing

16900 – Rubber Stamps/Stencils – Manufacturing

17901 – Vinyl Goods – Manufacturing /Repair

22101 – Awnings/Tents/Tarps – Manufacturing /Repair

27300 – Cardboard Box/Tubing/Bag – Manufacturing

28603 – Signs/Advertising Displays – Manufacturing

29600 – Aluminum/Metal Extrusion

33500 – Phone Equipment – Manufacturing /Install

33900 – Light Fixtures – Manufacturing /Assembly

33902 – Electrical Components – Manufacturing

38200 – Jewelry – Manufacturing

38201 – Lapidary Services

39300 – Sporting Equipment/Brooms – Manufacturing

39701 – Outdoor Advertising

39901 – Picture Frame, Case, Casket – Manufacturing

69903 – Pottery – Manufacturing

86201 – Window/Store Display Ad Services

89916 – Taxidermists

CONTACT INFORMATION

For further information about the data presented in this report contact:

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Fax: 780-422-5070

Employment and Immigration website:

<http://employment.alberta.ca>

Work Safe Alberta website:

www.worksafely.org

Workplace Health and Safety Contact Centre:

Telephone: 780-415-8690, toll free by calling 1-866-415-8690

<http://employment.alberta.ca/whs-contact>

Certificate of Recognition (COR) Program:

<http://employment.alberta.ca/whs-partnerships>