

2016 Workplace Injury, Disease and Fatality Statistics Provincial Summary

Table of Contents

1. Overview	2
1.1 Injury claims, injury rates and person-years (Table 1)	2
1.2 Major sectors (Table 2)	2
1.3 Demographics	2
1.4 Occupational fatalities – by year of acceptance	3
1.5 Occupational fatalities – by year of death	3
2 Tables, Charts and Figures	3
2.1 Injury claims, injury rates and person-years	3
2.2 Major sectors	5
2.3 Demographics	7
2.4 Characteristics of injuries and diseases	11
2.5 Occupational fatalities - by year of acceptance	15
2.6 Occupational fatalities - by year of death	17
3 Appendix: Terms and Definitions	20

1. Overview

This report provides statistical information of workplace injuries, diseases and fatalities in Alberta for 2016. It contains highlights, tables and graphical representations of the results. The 2016 Workers' Compensation Board-Alberta (WCB) data and results of Labour Force Survey conducted by Statistics Canada are used in this analysis.

Note: Due to an administrative process, there may be a difference between the year when a fatality claim was accepted by the WCB and the year when the worker died. This report provides results based on both years. Throughout this report, percentages may not equal to 100 due to differences in rounding.

1.1 Injury claims, injury rates and person-years (Table 1)

- The provincial lost-time claim rate decreased by 3.1 per cent to 1.25 from 1.29 per 100 person-years worked in 2015.
- The provincial disabling injury rate decreased by 2.1 per cent to 2.36 from 2.41 per 100 person-years worked in 2015.
- The number of lost-time claims decreased by 9.1 per cent to 23,649 from 26,017; modified work claims decreased by 6.7 per cent to 35,708 from 38,283; and the combined measure of disabling injury claims decreased by 8.0 per cent to 44,543 from 48,427 in 2015.
- Estimated person-years for Alberta decreased by 6.2 per cent to 1,885,552 from 2,010,252 in 2015.

1.2 Major sectors (Table 2)

- Mining and Petroleum Development had the lowest lost-time claim rate at 0.27, while Agriculture and Forestry had the highest at 2.24.
- Manufacturing, Processing and Packaging had the highest disabling injury rate at 3.10 in 2016 and Mining and Petroleum Development had the lowest rate at 0.81.
- Injury rates (i.e., lost-time claim rate and disabling injury rate) for Business, Personal and Professional Services and Mining and Petroleum Development have been lower than the provincial average for the last three years.

1.3 Demographics

- Workers aged 55 to 64 had the highest lost-time injury frequency rate at 1.42 in 2016, which was different from the results in the previous year. In 2015, workers aged 15 to 24 had the highest lost-time injury frequency rate. Lost-time injury frequency rate for workers 45 and above increased and that for workers aged 15 to 44 decreased between 2015 and 2016.
- Young workers (15 to 24 years old) had the highest disabling injury frequency rate in the last two years (see Tables 3-4).
- Workers aged 65 years and over had the highest fatality frequency rate in the last two years (see Tables 9-10).
- Men were at a higher risk of experiencing an occupation injury, disease or fatality than women (see Tables 5-6 and Tables 11-12).

1.4 Occupational fatalities – by year of acceptance

- The number of fatality claims accepted by WCB increased by 15.2 per cent in 2016, from 125 in 2015 to 144 in 2016 (see Figure 3). More than one third was reported by Construction and Construction Trade Services.
- The provincial fatality rate increased by 22.6 per cent to 76 from 62 per million person-years worked in 2015.
- Among the major sectors, Agriculture and Forestry observed the highest fatality rate in 2016 (see Figure 4).

1.5 Occupational fatalities – by year of death (Figure 5)

- The number of fatality claims decreased by 7.2 per cent in 2016, from 125 in 2015 to 116 in 2016, which was different from the trend of occupational fatalities by year of acceptance.
- The provincial fatality rate remained the same as the previous year at 62 per million person-years worked in 2016, which was the lowest in the last five years.

2 Tables, Charts and Figures

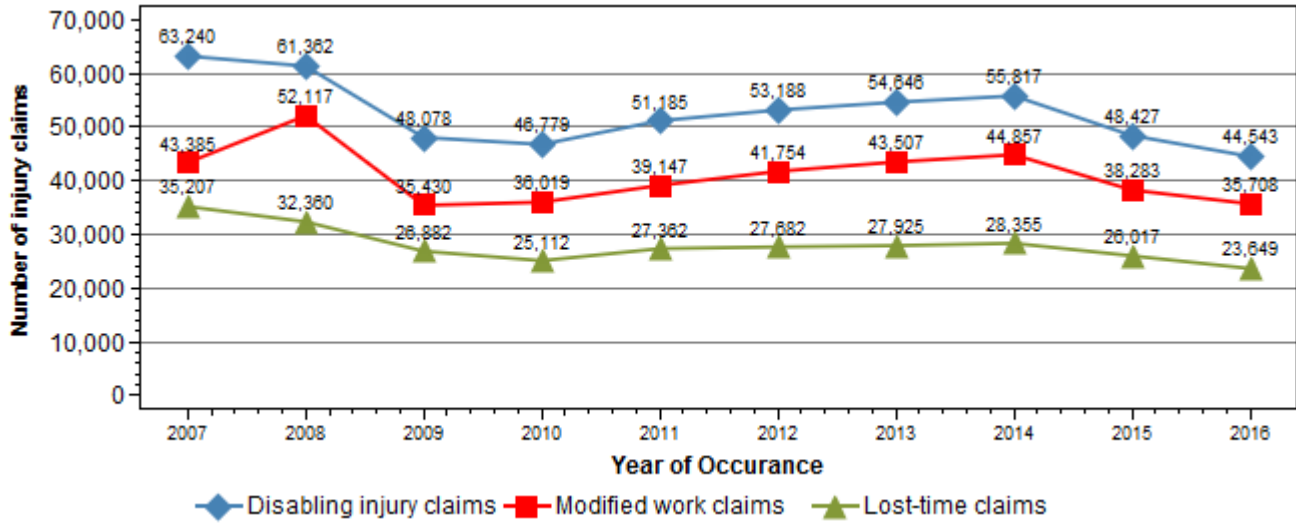
2.1 Injury claims, injury rates and person-years

Table 1 – Injury Claims, Rates and Person-years: 2014 to 2016

	2014	2015	2016	Change 2014 to 2015 (%)	Change 2015 to 2016 (%)
Person-years	2,082,416	2,010,252	1,885,552	-3.5↓	-6.2↓
Lost-time Claims	28,355	26,017	23,649	-8.2↓	-9.1↓
Lost-time Claim Rate	1.36	1.29	1.25	-5.1↓	-3.1↓
Modified Work Claims	44,857	38,283	35,708	-14.7↓	-6.7↓
Disabling Injury Claims	55,817	48,427	44,543	-13.2↓	-8.0↓
Disabling Injury Claim Rate	2.68	2.41	2.36	-10.1↓	-2.1↓

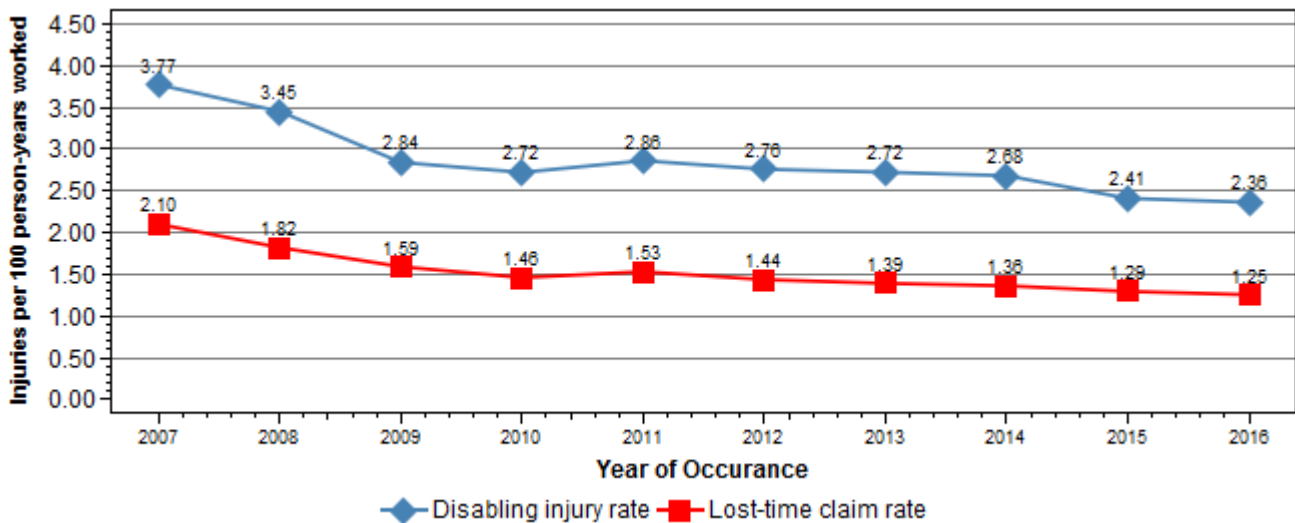
- The workplace injuries decreased in 2016. A total of 23,649 lost-time claims were identified by WCB, a decrease of 9.1 per cent from 2015. Modified work claims decreased by 6.7 per cent, from 38,283 in 2015 to 35,708 in 2016. As a result, disabling injury claims declined to 44,543, the lowest in the last 5 years.
- The person-years worked estimates decreased by 6.2 per cent to 1,885,552 between 2015 and 2016.

Figure 1 - Injury Claims, 2007 to 2016



- Between 2007 and 2010, both disabling injury and lost-time claims showed a downward trend, while the number of modified claims increased by 20.1 per cent in 2008.
- Over the period between 2010 and 2014, all injury claims showed an upward trend. The trend reversed between 2014 and 2016.

Figure 2 - Injury Rates, 2007 to 2016



- The disabling injury and lost-time claim rates decreased in 2016 and were the lowest observed in the past ten years.

2.2 Major sectors

Table 2 - Injury Claims and Claim Rates, by Major Industry Sector, 2015 to 2016

Major Industry Sector	Measure	2015	2016	Change 2015 to 2016 (%)
Agriculture and Forestry	Person-years	13,226	19,673	48.7↑
	Lost-time Claims	263	441	67.7↑
	Lost-time Claim Rate	1.99	2.24	12.6↑
	Modified Work Claims	219	338	54.3↑
	Disabling Injury Claims	358	560	56.4↑
	Disabling Injury Claim Rate	2.71	2.85	5.2↑
Business, Personal and Professional Services	Person-years	362,775	344,600	-5.0↓
	Lost-time Claims	3,460	3,308	-4.4↓
	Lost-time Claim Rate	0.95	0.96	1.1↑
	Modified Work Claims	3,876	3,939	1.6↑
	Disabling Injury Claims	5,432	5,294	-2.5↓
	Disabling Injury Claim Rate	1.50	1.54	2.7↑
Construction and Construction Trade Services	Person-years	418,551	364,452	-12.9↓
	Lost-time Claims	4,694	3,777	-19.5↓
	Lost-time Claim Rate	1.12	1.04	-7.1↓
	Modified Work Claims	8,758	7,332	-16.3↓
	Disabling Injury Claims	10,594	8,771	-17.2↓
	Disabling Injury Claim Rate	2.53	2.41	-4.7↓
Manufacturing, Processing and Packaging	Person-years	188,464	168,276	-10.7↓
	Lost-time Claims	2,376	1,708	-28.1↓
	Lost-time Claim Rate	1.26	1.02	-19.0↓
	Modified Work Claims	5,470	4,716	-13.8↓
	Disabling Injury Claims	6,225	5,216	-16.2↓
	Disabling Injury Claim Rate	3.30	3.10	-6.1↓
Mining and Petroleum Development	Person-years	178,701	153,282	-14.2↓
	Lost-time Claims	476	417	-12.4↓
	Lost-time Claim Rate	0.27	0.27	0.0
	Modified Work Claims	1,478	1,107	-25.1↓
	Disabling Injury Claims	1,600	1,237	-22.7↓
	Disabling Injury Claim Rate	0.90	0.81	-10.0↓
Provincial and Municipal Government, Education and Health Services	Person-years	331,854	348,341	5.0↑
	Lost-time Claims	6,886	7,230	5.0↑
	Lost-time Claim Rate	2.08	2.08	0.0
	Modified Work Claims	6,564	7,153	9.0↑
	Disabling Injury Claims	9,520	10,130	6.4↑
	Disabling Injury Claim Rate	2.87	2.91	1.4↑
Transportation, Communication and Utilities	Person-years	154,603	144,698	-6.4↓
	Lost-time Claims	2,371	1,960	-17.3↓
	Lost-time Claim Rate	1.53	1.35	-11.8↓
	Modified Work Claims	3,391	3,160	-6.8↓
	Disabling Injury Claims	4,339	3,845	-11.4↓
	Disabling Injury Claim Rate	2.81	2.66	-5.3↓
Wholesale and Retail	Person-years	362,078	342,230	-5.5↓
	Lost-time Claims	5,115	4,389	-14.2↓
	Lost-time Claim Rate	1.41	1.28	-9.2↓
	Modified Work Claims	8,308	7,787	-6.3↓
	Disabling Injury Claims	9,776	8,906	-8.9↓
	Disabling Injury Claim Rate	2.70	2.60	-3.7↓

- Estimated person-years for Alberta increased in two major sectors:
 - Agriculture and Forestry¹; and
 - Provincial and Municipal Government, Education and Health Services.
- From 2015 to 2016, lost-time claim rates increased in two major industry sectors:
 - Agriculture and Forestry; and
 - Business, Personal and Professional Services.
- Lost-time claim rates in two major industry sectors remained the same as previous year
 - Mining and Petroleum Development; and
 - Provincial and Municipal Government, Education and Health Services.
- Mining and Petroleum Development continued to have the lowest lost time claim rate in 2016 at 0.27. Agriculture and Forestry had the highest lost-time claim rate in 2016 at 2.24, followed by Provincial and Municipal Government, Education and Health Services at 2.08.
- The disabling injury rate declined for five of the eight major industry sectors from 2015 to 2016, but increased for the following three major industry sectors:
 - Agriculture and Forestry;
 - Business, Personal and Professional Services; and
 - Provincial and Municipal Government, Education and Health Services.
- Manufacturing, Processing and Packaging continued to have the highest disabling injury rate at 3.10 and Mining and Petroleum Development continued to have the lowest at 0.81.

¹ As of January 1, 2016, farms and ranches employing waged workers who are not business owners, or family members of business owners, are required to have a WCB account. It resulted in increased estimated person-years in Agriculture and Forestry.

2.3 Demographics

Table 3 - Lost-Time Claims, Injury Frequency Rate and Employment by Age Group, 2016

Age	Lost-time claims	% of lost-time claims	People in employment (thousands)	% in employment	Lost-time injury frequency rate
15 to 24 years	3,100	13.1%	303.2	13.4%	1.23
25 to 34 years	5,446	23.0%	569.0	25.1%	1.15
35 to 44 years	5,084	21.5%	514.7	22.7%	1.19
45 to 54 years	5,185	21.9%	452.4	20.0%	1.38
55 to 64 years	3,982	16.8%	336.4	14.9%	1.42
65 years and over	848	3.6%	88.1	3.9%	1.16
Other	4	0.0% ²	N/A	N/A	N/A
Total	23,649	100.0%	2,263.8	100.0%	1.25

- The risk of occupational injury and disease varied by age. Older workers (55 to 64 years old) had the highest lost-time injury frequency rate in 2016, at 1.42 per 100 person-years worked, while in 2015, young workers (15 to 24 years old) had the highest lost-time injury frequency rate.

Table 4 - Disabling Injury Claims, Injury Frequency Rate and Employment by Age Group, 2016

Age	Disabling injury claims	% of disabling injury claims	People in employment (thousands)	% in employment	Disabling injury frequency rate
15 to 24 years	6,516	14.6%	303.2	13.4%	2.58
25 to 34 years	11,407	25.6%	569.0	25.1%	2.41
35 to 44 years	9,721	21.8%	514.7	22.7%	2.27
45 to 54 years	9,118	20.5%	452.4	20.0%	2.42
55 to 64 years	6,557	14.7%	336.4	14.9%	2.34
65 years and over	1,219	2.7%	88.1	3.9%	1.66
Other	5	0.0% ³	N/A	N/A	N/A
Total	44,543	100.0%	2,263.8	100.0%	2.36

- Young workers (15-24 years old) continued to have the highest disabling injury frequency rates at 2.58 in 2016.

² The percentage is less than 0.05.

³ The percentage is less than 0.05.

Table 5 - Lost-Time Claims, Injury Frequency Rate and Employment by Gender, 2016

Gender	Lost-time claims	% of lost-time claims	People in employment (thousands)	% in employment	Lost-time claim injury frequency rate
Men	13,897	58.8%	1,233.5	54.5%	1.35
Women	9,750	41.2%	1,030.2	45.5%	1.14
Unspecified	2	0.0% ⁴	N/A	N/A	N/A
Total	23,649	100.0%	2,263.7 ⁵	100.0%	1.25

- The risk of occupational injury and disease varied by gender. Men had the higher lost-time injury frequency rate than women in 2016, at 1.35.

Table 6 - Disabling Injury Claims, Injury Frequency Rates and Employment by Gender, 2016

Gender	Disabling injury claims	% of disabling injury claims	People in employment (thousands)	% in employment	Disabling injury frequency rate
Men	28,668	64.4%	1,233.5	54.5%	2.79
Women	15,867	35.6%	1,030.2	45.5%	1.85
Unspecified	8	0.0% ⁶	N/A	N/A	N/A
Total	44,543	100.0%	2,263.7	100.0%	2.36

- In 2016, men had a disabling injury frequency rate of 2.79 and women had a disabling injury frequency rate of 1.85.

Table 7 - Occupational Fatalities (based on year of acceptance) by Type and Age group, 2016

Age	Motor Vehicle Incidents		Workplace Incidents		Occupational Disease		Total	
	Counts	%	Counts	%	Counts	%	Counts	%
15 to 24 years	1	25.0%	3	75.0%	0	0.0%	4	100.0%
25 to 34 years	10	71.4%	4	28.6%	0	0.0%	14	100.0%
35 to 44 years	5	38.5%	7	53.8%	1	7.7%	13	100.0%
45 to 54 years	5	38.5%	7	53.8%	1	7.7%	13	100.0%
55 to 64 years	4	13.3%	13	43.3%	13	43.3%	30	100.0%
65 years and over	4	5.7%	4	5.7%	62	88.6%	70	100.0%
Total	29	20.1%	38	26.4%	77	53.5%	144	100.0%

- Based on year of acceptance, workers aged 65 years and over experienced highest number of fatalities in 2016. The largest proportion (88.6 per cent) of the fatality incidents was occupational disease related, usually diagnosed many years after the initial or crucial exposure to the toxic substance.

⁴ The percentage is less than 0.05.

⁵ A difference of 0.1 as compared with the total people in employment in Table 4 is due to rounding.

⁶ The percentage is less than 0.05.

Table 8 - Occupational Fatalities (based on year of death) by Type and Age group, 2016

Age	Motor Vehicle Incidents		Workplace Incidents		Occupational Disease		Total	
	Counts	%	Counts	%	Counts	%	Counts	%
15 to 24 years	1	25.0%	3	75.0%	0	0.0%	4	100.0%
25 to 34 years	9	69.2%	4	30.8%	0	0.0%	13	100.0%
35 to 44 years	5	50.0%	4	40.0%	1	10.0%	10	100.0%
45 to 54 years	5	41.7%	6	50.0%	1	8.3%	12	100.0%
55 to 64 years	2	10.5%	8	42.1%	9	47.4%	19	100.0%
65 years and over	4	6.9%	3	5.2%	51	87.9%	58	100.0%
Total	26	22.4%	28	24.1%	62	53.4%	116	100.0%

- Based on year of death, workers aged 65 years and over experienced highest number of fatalities in 2016 and 87.9 per cent of the deaths were occupational disease related.

Table 9 - Occupational Fatalities (based on year of acceptance) and Employment by Age Group, 2016

Age	Occupational fatalities	% of occupational fatalities	People in employment (thousands)	% in employment	Fatality frequency rate
15 to 24 years	4	2.8%	303.2	13.4%	16
25 to 34 years	14	9.7%	569.0	25.1%	30
35 to 44 years	13	9.0%	514.7	22.7%	30
45 to 54 years	13	9.0%	452.4	20.0%	35
55 to 64 years	30	20.8%	336.4	14.9%	107
65 years and over	70	48.6%	88.1	3.9%	954
Total	144	100.0%	2,263.8	100.0%	76

- Based on the year of acceptance, workers aged 65 years and over had the highest fatality frequency rate in 2016, followed by those aged 55 to 64 years. Workers aged 15 to 24 years had the lowest fatality frequency rate in this reporting year.

Table 10 - Occupational Fatalities (based on year of death) and Employment by Age Group, 2016

Age	Occupational fatalities	% of occupational fatalities	People in employment (thousands)	% in employment	Fatality frequency rate
15 to 24 years	4	3.4%	303.2	13.4%	16
25 to 34 years	13	11.2%	569.0	25.1%	27
35 to 44 years	10	8.6%	514.7	22.7%	23
45 to 54 years	12	10.3%	452.4	20.0%	32
55 to 64 years	19	16.4%	336.4	14.9%	68
65 years and over	58	50.0%	88.1	3.9%	790
Total	116	100.0%	2,263.8	100.0%	62

- Based on year of death, workers aged 65 years and over continued to have the highest fatality frequency rate in 2016.

Table 11 - Occupational Fatalities (based on year of acceptance) and Employment by Gender, 2016

Gender	Occupational fatalities	% of occupational fatalities	People in employment (thousands)	% in employment	Fatality frequency rate
Men	136	94.4%	1,233.5	54.5%	132
Women	8	5.6%	1,030.2	45.5%	9
Total	144	100.0%	2,263.7	100.0%	76

- Based on year of acceptance, men were at a higher risk of experiencing an occupational fatality than women in 2016.

Table 12 - Occupational Fatalities (based on year of death) and Employment by Gender, 2016

Gender	Occupational fatalities	% of occupational fatalities	People in employment (thousands)	% in employment	Fatality frequency rate
Men	111	95.7%	1,233.5	54.5%	108
Women	5	4.3%	1,030.2	45.5%	6
Total	116	100.0%	2,263.7	100.0%	62

- Based on year of death, men continued to be at a higher risk of experiencing an occupational fatality than women in 2016.

2.4 Characteristics of injuries and diseases

Table 13 - Type of Event or Exposure, 2016

Type of Event or Exposure	Lost-Time Claims	%	Disabling Injury Claims	%
Bodily Reaction or Exertion	9,953	42.1%	20,635	46.3%
Overexertion	5,112	21.6%	10,568	23.7%
Bodily Reaction ⁷	3,005	12.7%	5,903	13.3%
Repetitive Motion	771	3.3%	1,980	4.4%
Other Bodily Reaction/Exertion	1,065	4.5%	2,184	4.9%
Contact with Objects or Equipment	5,021	21.2%	10,972	24.6%
Struck by Object	2,597	11.0%	5,474	12.3%
Struck against Object	1,018	4.3%	2,088	4.7%
Caught in Object	773	3.3%	1,987	4.5%
Rubbed or Abraded	173	0.7%	347	0.8%
Other Contact with Object/Equipment	460	1.9%	1,076	2.4%
Falls	4,517	19.1%	7,323	16.4%
Fall on Same Level	2,991	12.6%	4,978	11.2%
Fall to Lower Level	1,406	5.9%	2,122	4.8%
Other Falls	120	0.5%	223	0.5%
Exposure to Harmful Substances	1,834	7.8%	2,257	5.1%
Transportation Accidents	1,221	5.2%	1,749	3.9%
Assaults and Violent Acts	929	3.9%	1,229	2.8%
Assaults and Violent Acts by Person(s)	579	2.4%	764	1.7%
Other Assaults and Violent Acts	350	1.5%	465	1.0%
Fires and Explosions	38	0.2%	57	0.1%
Other Events or Exposures	104	0.4%	261	0.6%
Type of Event - Unknown	32	0.1%	60	0.1%
Total	23,649	100.0%	44,543	100.0%

- In 2016, bodily reaction or exertion was the most common cause for both lost-time and disabling injury claims in Alberta, and accounted for 42.1 per cent of the lost-time claims and 46.3 per cent of the disabling injury claims.

⁷ Bodily reaction: injuries or illnesses resulting from a single incident of free bodily motion that imposed stress or strain on some part of the body. Source: Z795 Coding of Work Injury or Disease, Canadian Standards Association (CSA).

Table 14 - Nature of Injury or Disease, 2016

Nature of Injury	Lost-Time Claims	%	Disabling Injury Claims	%
Traumatic Injuries and Disorders	21,677	91.7%	41,848	93.9%
Sprains/Strain	11,555	48.9%	23,526	52.8%
Superficial Wounds	2,245	9.5%	4,546	10.2%
Fractures and Dislocations	2,250	9.5%	3,371	7.6%
Open Wounds	1,708	7.2%	3,984	8.9%
Burns	586	2.5%	853	1.9%
Other Traumatic Injuries and Disorders	3,333	14.1%	5,568	12.5%
Systemic Diseases and Disorders	1,258	5.3%	1,900	4.3%
Infectious and Parasitic Diseases	194	0.8%	199	0.4%
Neoplasms, Tumors and Cancer	17	0.1%	18	0.0%
Abnormal Symptoms, Conditions and Disorders⁸	135	0.6%	178	0.4%
Multiple Diseases, Conditions and Disorders	1	0.0% ⁹	1	0.0%
Other Diseases, Conditions and Disorders	350	1.5%	365	0.8%
Nature of Injury - Unknown	17	0.1%	34	0.1%
Total	23,649	100.0%	44,543	100.0%

- In 2016, traumatic injuries and disorders continued to be the leading nature of injury accounting for 91.7 per cent of the lost-time claims and 93.9 per cent of the disabling injury claims.
- The three most common traumatic injuries and disorders in 2016 were:
 - sprains/strain;
 - other traumatic injuries and disorders; and
 - fractures and dislocations.

⁸ This category classifies symptoms, signs, or abnormal results from laboratory or investigative medical tests or procedures. It includes those ill-defined conditions that cannot be classified elsewhere. Source: Z795 Coding of Work Injury or Disease, CSA.

⁹ The percentage is less than 0.05.

Table 15 - Part of Body Injured, 2016

Part of Body Injured	Lost-Time Claims	%	Disabling Injury Claims	%
Trunk	8,797	37.2%	16,644	37.4%
Back, Including Spine, Spinal Cord	5,248	22.2%	9,723	21.8%
Other Trunk	3,549	15.0%	6,921	15.5%
Upper Extremities	4,734	20.0%	11,717	26.3%
Finger(s), Fingernail(s)	1,548	6.5%	4,260	9.6%
Wrist(s) and Hand(s) Except Finger(s)	1,867	7.9%	4,418	9.9%
Other Upper Extremities	1,319	5.6%	3,039	6.8%
Lower Extremities	4,825	20.4%	8,753	19.7%
Leg(s)	2,439	10.3%	4,355	9.8%
Ankle(s) and Foot (Feet) Except Toes	2,147	9.1%	3,977	8.9%
Other Lower Extremities	239	1.0%	421	0.9%
Head	2,482	10.5%	3,271	7.3%
Other Head Parts	1,989	8.4%	2,511	5.6%
Eye(s)	493	2.1%	760	1.7%
Multiple Body Parts	1,585	6.7%	2,470	5.5%
Neck, Including Throat	555	2.3%	957	2.1%
Body Systems	638	2.7%	689	1.5%
Part of Body - Unknown	33	0.1%	42	0.1%
Total	23,649	100.0%	44,543	100.0%

- Trunk was the most commonly injured body part, accounting for 37.2 per cent of the lost-time claims and 37.4 per cent of the disabling injury claims. This was followed by injuries to the upper extremities, 26.3 per cent of the disabling injury claims, and lower extremities, 19.7 per cent of disabling injury claims.

Table 16 - Source of Injury or Disease, 2016

Source of Injury	Lost-Time Claims	%	Disabling Injury Claims	%
Persons, Plants, Animals and Minerals	7,236	30.6%	12,851	28.9%
Person-Injured or Ill Worker¹⁰	4,284	18.1%	8,677	19.5%
Person-Other Than Injured or Ill Worker¹¹	1,966	8.3%	2,783	6.2%
Minerals - Metallic or Non-metallic (except fuel)	110	0.5%	174	0.4%
Other Persons, Plants, Animals and Minerals	876	3.7%	1,217	2.7%
Structures and Surfaces	4,687	19.8%	7,770	17.4%
Parts and Materials	1,995	8.4%	5,034	11.3%
Containers¹²	2,325	9.8%	5,048	11.3%
Vehicles	1,952	8.3%	3,242	7.3%
Tools, Instruments and Equipment	1,804	7.6%	4,066	9.1%
Hand Tools - Non Powered	762	3.2%	1,941	4.4%
Hand Tools - Powered	170	0.7%	434	1.0%
Other Tools, Instruments and Equipment	872	3.7%	1,691	3.8%
Machinery	985	4.2%	1,952	4.4%
Furniture and Fixtures	864	3.7%	1,548	3.5%
Chemicals and Chemical Products	303	1.3%	407	0.9%
Other Sources	1,459	6.2%	2,553	5.7%
Source of Injury - Unknown	39	0.2%	72	0.2%
Total	23,649	100.0%	44,543	100.0%

- The two primary sources of disabling injuries were persons, plants, animal and minerals (28.9 per cent), and structures and surfaces (17.4 per cent). These two sources also had the highest lost-time claims accounting for 30.6 per cent and 19.8 per cent, respectively.

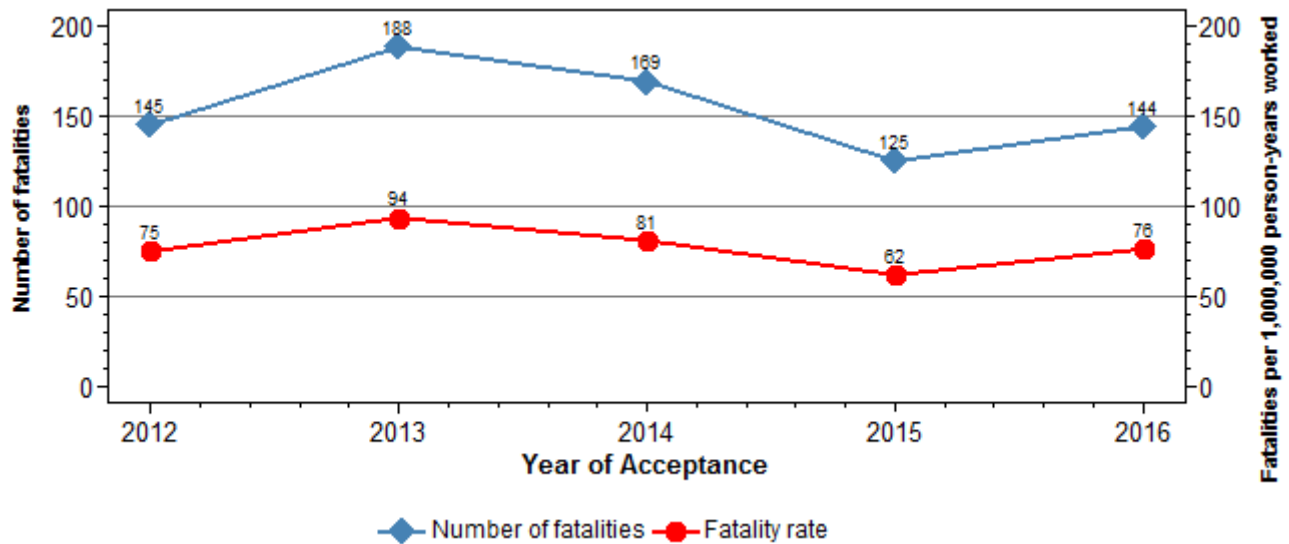
¹⁰ Person-injured or ill worker: classifies self-injured person, bodily conditions, and self-induced bodily motion injuries.

¹¹ 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.

¹² Containers: classifies receptacles that are commonly used to hold, store or carry materials (examples: dishes, cups and glasses, luggage, etc.). Source: Z795 Coding of Work Injury or Disease, CSA.

2.5 Occupational fatalities - by year of acceptance

Figure 3 - Occupational Fatality Claim and Fatality Rate by Year of Acceptance, 2012 to 2016



- The number of fatality claims increased by 15.2 per cent from 125 in 2015 to 144 in 2016.
- The estimated person-years in 2016 decreased by 6.2 per cent from 2,010,252 in 2015 to 1,885,552 (see Table 1).
- As a result, the estimated occupational fatality rate based on year of acceptance in 2016 was 76 fatalities per million person-years worked, a 22.6 per cent increase from 62 in 2015. The 2016 rate was slightly below an average rate over the last five years.
- The provincial average fatality rate over the past five years was 78 fatalities per million person-years worked with a downward trend between 2013 and 2015.

Table 17 - Occupational Fatalities by Year of Acceptance and Type, 2012 to 2016¹³

Year	Motor Vehicle Incidents		Motor Vehicle Latent Incidents		Workplace Incidents		Workplace Latent Incidents		Occupational Disease		Total	
	Counts	%	Counts	%	Counts	%	Counts	%	Counts	%	Counts	%
2012	35	24.1%	1	0.7%	42	29.0%	9	6.2%	58	40.0%	145	100.0%
2013	33	17.6%	4	2.1%	41	21.8%	11	5.9%	99	52.7%	188	100.0%
2014	27	16.0%	2	1.2%	47	27.8%	12	7.1%	81	47.9%	169	100.0%
2015	17	13.6%	6	4.8%	26	20.8%	10	8.0%	66	52.8%	125	100.0%
2016	26	18.1%	3	2.1%	29	20.1%	9	6.3%	77	53.5%	144	100.0%
5-year total	138	17.9%	16	2.1%	185	24.0%	51	6.6%	381	49.4%	771	100.0%

- In 2016, occupational disease continued to be the leading cause of worker death, accounting for 53.5 per cent of all occupational fatality claims, followed by workplace incidents at 26.4 per cent, and motor vehicle incidents at 20.2 per cent.
- Occupational disease is a major contributing factor to the increase of fatalities from 2015 to 2016.

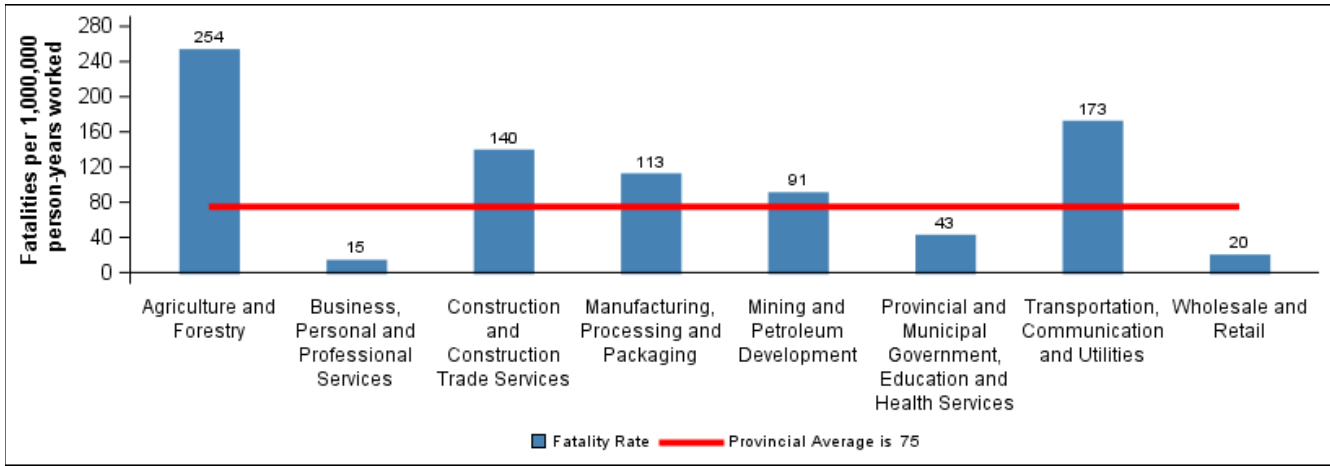
Table 18 - Occupational Fatalities by Year of Acceptance and Major Industry Sector, 2012 to 2016

Major Industry Sector	2012	2013	2014	2015	2016	Total	Percentage
Agriculture and Forestry	2	1	3	0	5	11	1.4%
Business, Personal and Professional Services	7	6	5	7	5	30	3.9%
Construction and Construction Trade Services	43	72	71	42	51	279	36.2%
Manufacturing, Processing and Packaging	11	33	21	19	19	103	13.4%
Mining and Petroleum Development	19	18	16	9	14	76	9.9%
Provincial and Municipal Government, Education and Health Services	19	26	21	19	15	100	13.0%
Transportation, Communication and Utilities	28	23	20	20	25	116	15.0%
Wholesale and Retail	10	5	11	8	7	41	5.3%
Unspecified	6	4	1	1	3	15	1.9%
Total	145	188	169	125	144	771	100.0%

- The Construction and Construction Trade accounted for 36.2 per cent of occupational fatalities over the last five years. In 2016, the sector accounted for 35.4 per cent of the fatalities.

¹³ A latent fatality consists of a worker who was 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.

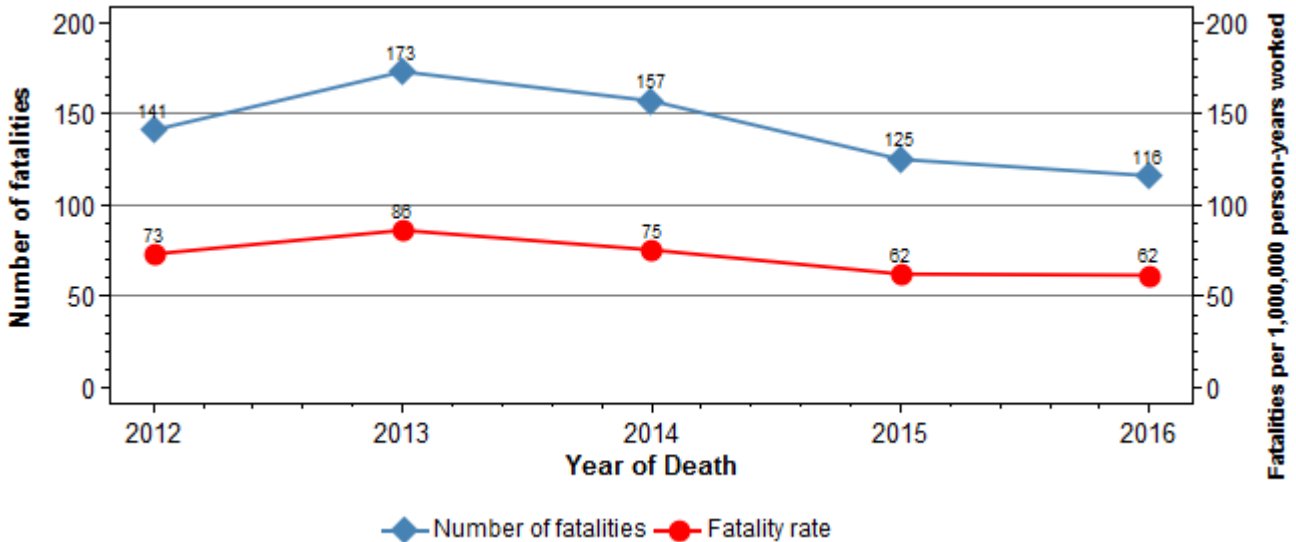
Figure 4 - Occupational Fatality Rate (based on year of acceptance) by Major Industry Sector, 2016



- In 2016, Agriculture and Forestry observed the highest fatality rate at 254 deaths per a million person-years compared to all major industry sectors
- Fatality rates continued to be lower than the provincial average in the following three major sectors:
 - Business, Personal and Professional Services;
 - Wholesale and Retail; and
 - Provincial and Municipal Government, Education and Health Services.

2.6 Occupational fatalities - by year of death

Figure 5 - Occupational Fatality Claim and Fatality Rate by Year of Death, 2012 to 2016¹⁴



- Based on the year of death, the number of fatality claims decreased by 7.2 per cent in 2016 from 125 in 2015.

¹⁴ The total number of fatalities is updated as of March 31, 2017 for accuracy/correctness.

- The provincial fatality rate based on year of death remained the same at 62 fatalities per million person-years in 2016.

Table 19 - Occupational Fatalities (based on year of death) by Type, 2012 to 2016

Year	Motor Vehicle Incidents		Motor Vehicle Latent Incidents		Workplace Incidents		Workplace Latent Incidents		Occupational Disease		Total	
	Counts	%	Counts	%	Counts	%	Counts	%	Counts	%	Counts	%
2012	30	21.3%	1	0.7%	41	29.1%	9	6.4%	60	42.6%	141	100.0%
2013	34	19.7%	2	1.2%	41	23.7%	10	5.8%	86	49.7%	173	100.0%
2014	26	16.6%	2	1.3%	44	28.0%	13	8.3%	72	45.9%	157	100.0%
2015	18	14.4%	6	4.8%	28	22.4%	9	7.2%	64	51.2%	125	100.0%
2016	24	20.7%	2	1.7%	26	22.4%	2	1.7%	62	53.4%	116	100.0%
5-year total	132	18.5%	13	1.8%	180	25.3%	43	6.0%	344	48.3%	712	100.0%

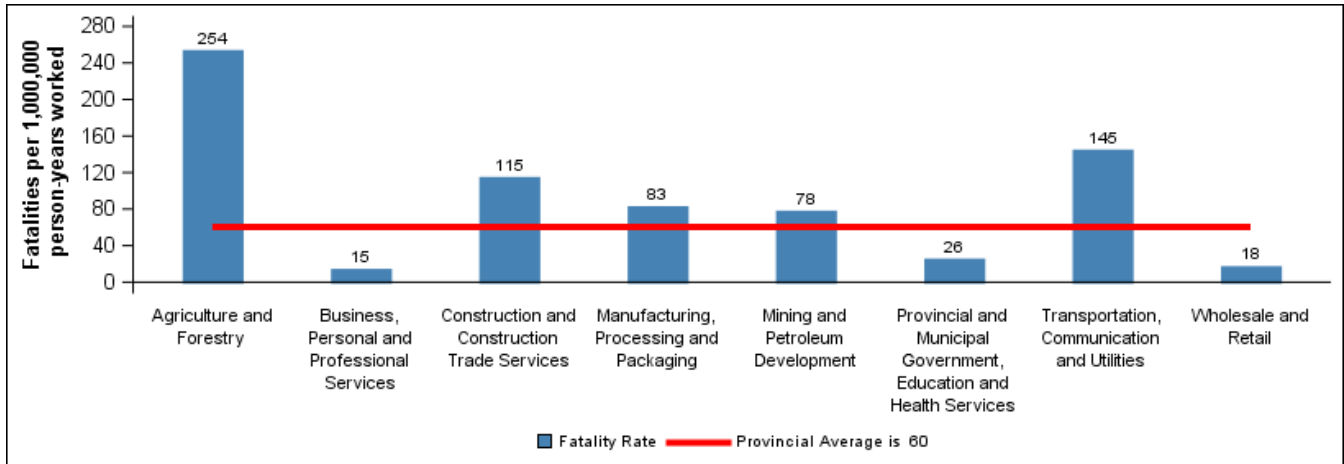
- Occupational disease (53.4 per cent) continued to be the leading cause of worker death in 2016, followed by workplace incidents at 24.1 per cent.

Table 20 - Occupational Fatalities by Year of Death and Major Industry Sector, 2012 to 2016

Major Industry Sector	2012	2013	2014	2015	2016	Total	Percentage
Agriculture and Forestry	2	1	3	0	5	11	1.5%
Business, Personal and Professional Services	7	5	4	7	5	28	3.9%
Construction and Construction Trade Services	42	67	68	40	42	259	36.4%
Manufacturing, Processing and Packaging	16	28	18	19	14	95	13.3%
Mining and Petroleum Development	20	15	21	5	12	73	10.3%
Provincial and Municipal Government, Education and Health Services	15	25	16	21	9	86	12.1%
Transportation, Communication and Utilities	23	27	17	22	21	110	15.4%
Wholesale and Retail	10	4	9	9	6	38	5.3%
Unspecified	6	1	1	2	2	12	1.7%
Total	141	173	157	125	116	712	100.0%

- The Construction and Construction Trade Services accounted for 36.4 per cent of occupational fatalities over the last five years. In 2016, this industry accounted for 36.2 per cent of fatalities.

Figure 6 - Occupational Fatality Rate by Year of Death and Industry Sector, 2016



- Based on the year of death, Agriculture and Forestry incurred the highest fatality rate of among all major industry sectors in 2016.
- Fatality rates were lower than that of the provincial average in both 2015 and 2016 for the following two major industry sectors:
 - Business, Personal and Professional Services; and
 - Wholesale and Retail.
- Fatality rate for Provincial and Municipal Government, Education and Health Services sector was below the provincial average in both 2015 and 2016.
- Fatality rate for Mining and Petroleum Development was above the provincial average in both 2015 and 2016.

3 Appendix: Terms and Definitions

Disabling injury 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.

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 and includes claim made for both lost-time and Modified work.

A **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. A **latent fatality** consists of a worker who was 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. Usually, other contributing factors also cause a latent fatality, although these contributing factors are the result of the initial injury or exposure.

The **fatality rate** is calculated by dividing the number of accepted fatalities by the person-years estimate and multiplying the result by one million. The result is expressed as fatalities per million person-years. For the purpose of this report, fatalities that are found under the jurisdiction of the Government of Canada are included in the calculation of the fatality rate.

The **injury/fatality frequency rates** presented in the report are calculated using different methodology and information than lost-time claim, disabling injury and fatality rates. Injury frequency rates for workers are calculated by applying the number of injury/fatality claims from workers of specific demographic to a proportion of WCB person-years worked figures. The proportion is determined using information available from the Labour Force Survey on workers employed.

A **lost-time claim** is a claim for an occupational injury or disease, which disables the worker beyond the day of injury. All claims receiving reimbursement of full or partial lost wages are included, as are payments for permanent loss of function.

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 rate represents the probability or risk of injury or disease to a worker during a one-year work period. Comparisons of LTC rates between industries, or between years, can be used to indicate increases, decreases, or differences in this risk.

A **modified work claim** is a claim for an occupational injury or disease where a worker had their normal work duties altered enabling them to remain in the workplace without losing time. Also included are claims where injured workers were helped back into the workplace with modified duties after time lost due to injury or disease.

The **people in employment** refer to those individuals in the working-age population who held jobs, regardless of employment status, in a reporting period. It is estimated by Statistics Canada through the Labour Force Survey.

One **person-year estimate** is equivalent to one full-time worker working for one year, and can be assumed to equal 2,000 hours worked.

The **workplace injury or disease codes** used in this report are provided by the WCB.