

Montana Occupational Injuries and Illnesses



State of Montana
2015



Montana Department of
LABOR & INDUSTRY

Montana Occupational Injuries and Illnesses 2015

State of Montana

Steve Bullock, Governor

Department of Labor & Industry

Pam Bucy, Commissioner

Prepared by:

Research and Analysis Bureau
Peggy Coggeshall, Research Analyst
Susan Ryan, Research Technician

For more information contact:

Research and Analysis Bureau
P.O. Box 1728
Helena MT 59624-1728
(406) 444-2430
(800) 541-3904
www.lmi.mt.gov

Special thanks to all employers who responded to our survey.
Without their participation, this report would not have been possible.

**We will do our best to provide this information
in accessible format, on request, in compliance
with the Americans with Disabilities Act.**

CONTENTS

INTRODUCTION.....	4
SUMMARY FOR 2015	
Nonfatal Occupational Injuries and Illnesses.....	5
Incidence Rates by Major Industry.....	5
Private Industry Incidence Rates of Nonfatal Injuries and Illnesses	6
Montana vs. United States.....	6
LOST WORKDAY CASES	7
By Major Industry Sector.....	7
By Major Occupation Category	8
By Occupation.....	8
2015 CASE CHARACTERISTICS.....	9
By Gender	9
By Age Group	9
By Length of Service.....	9
By Race	9
By Event or Exposure.....	10
By Source of Injuries or Illnesses	10
By Part of Body	11
By Nature of Injuries and Illnesses	11
Industry Breakdown of Sprains and Strains.....	12
By Time of Day.....	12
By Days Away from Work	13
By Hours on the Job before Event Occurred.....	13
APPENDIX A: Incidence Rates of Nonfatal Occupational Injuries and Illnesses.....	16
Table A1: By selected injury or illness characteristics & major industry sector.....	14
Table A2: By selected characteristics, major occupational group, and selected parts of body.....	16
APPENDIX B: Number of Nonfatal Occupational Injuries and Illnesses.....	16
Table B1: By selected worker characteristics and major industry sector	18
Table B2: By major occupational group and major industry sector	19
Table B3: By selected worker occupations and major industry sector.....	20
Table B4: By selected injury or illness characteristics and major industry sector	21
Table B5: By time, hours on the job, day of week, and major industry sector	23
APPENDIX C: Percent Distribution of Nonfatal Occupational Injuries and Illnesses.....	16
Table C1: By Selected worker characteristics and major industry sector.....	24
Table C2: By selected injury or illness characteristics and major industry sector	25
Table C3: By worker characteristics and number of days away from work.....	27
Table C4: By major occupational group and number of days away from work.....	28
Table C5: By selected occupations and number of days away from work.....	29
Table C6: By major industry sector and number of days away from work.....	30
Table C7: By time, hours on the job, day of week, and major industry sector.....	31
Table C8: By time, hours on the job, day of week, and number of days away from work.....	32
APPENDIX D: GLOSSARY OF TERMS	33
APPENDIX E: SCOPE AND METHODOLOGY OF SURVEY	36
APPENDIX F: HOW TO COMPUTE INCIDENCE RATES FOR AN ESTABLISHMENT.....	40

INTRODUCTION

The Occupational Safety and Health Act of 1970 (OSHA Law) became an official part of the nation's labor laws in 1971. With its passage, Congress declared its intent "...to assure as far as possible every working man and woman in the Nation safe and healthful working conditions and to preserve our human resource."

In order to measure and evaluate the effectiveness of governmental efforts in reducing work related injuries and illnesses, a standardized system to collect, compile, and analyze the health and safety statistics was established and implemented. This standard system enables data users to identify those industries that need improvement, plan future monitoring and education programs, and allow employers to compare their incidence rates with other firms in the same industry.

Under this system, employers with more than 10 workers in non-exempt industries are required to keep records of all work-related deaths; any diagnosed occupational illness; and any occupational injury which involves loss of consciousness, restriction of work or motion, transfer to another job, or requires medical treatment beyond first aid. These employers maintain a log and summary of occupational injuries and illnesses (OSHA No. 300) and supplementary record (OSHA No. 301) of each incident or occurrence within the calendar year. These records are retained at the work site for five years and must be available for inspection by representatives of the U.S. Department of Labor, the U.S. Department of Health and Human Service, or the Montana Department of Labor and Industry.

Employers with 10 or fewer employees and those employers who conduct business in one of the low-hazard industries specified by OSHA in the Federal Register notice of Dec. 28, 1982, are generally exempt from these record-keeping requirements. Instead a sample of these employers is selected to participate in the survey. Participation requires each establishment to maintain records only for that year. The data derived from these records are used only for statistical purposes. Our 2015 sample surveyed 3,400 establishments.

The Montana Department of Labor and Industry, Research and Analysis Bureau has cooperated with the U.S. Department of Labor, Bureau of Labor Statistics in conducting this annual survey which has provided these essential work injury and illness statistics over the past 25 years.

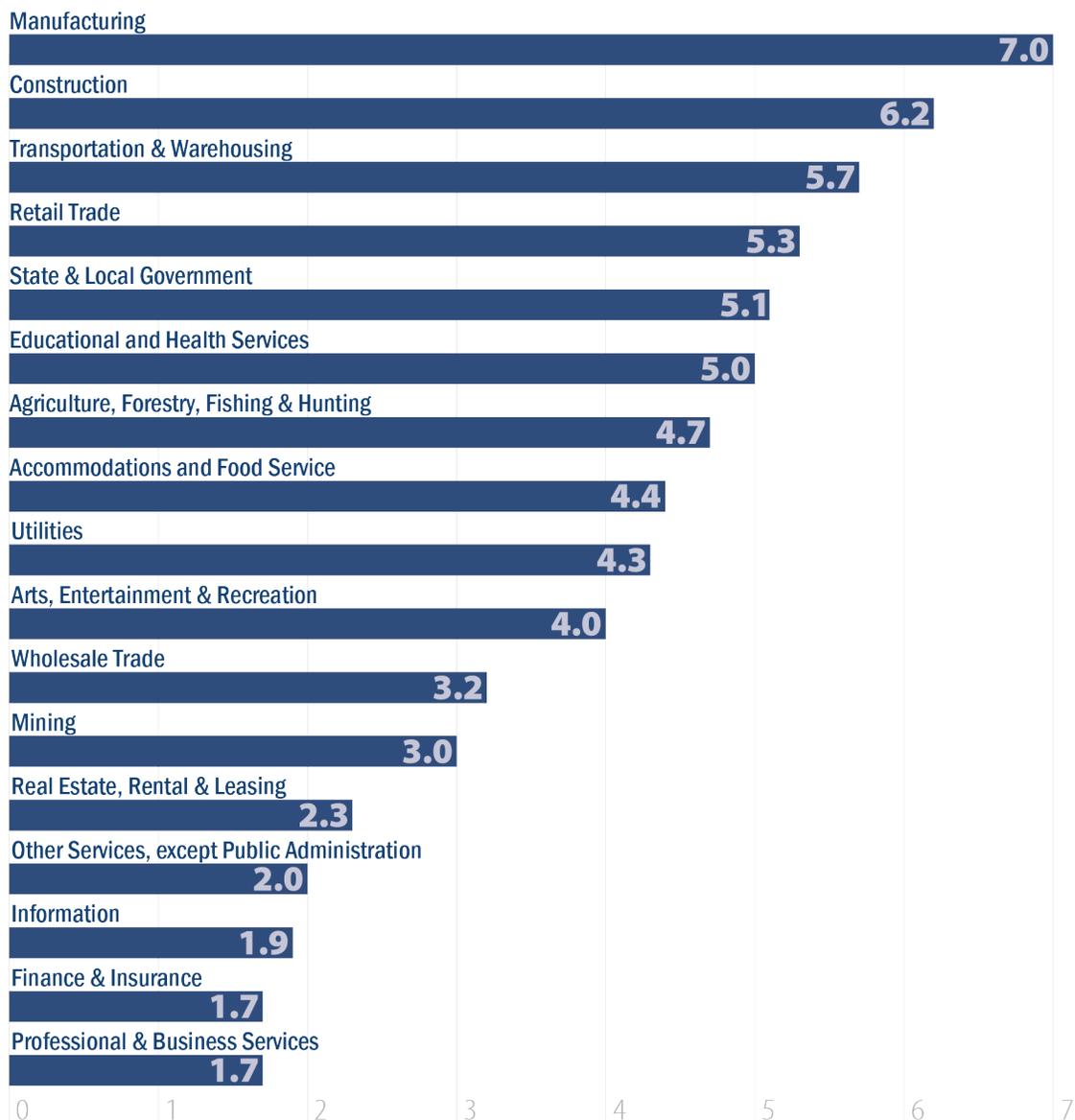
The material in this publication is in the public domain and may be reproduced without permission, as long as Research & Analysis Bureau, Montana Department of Labor & Industry and the Bureau of Labor Statistics are cited as the source.

SUMMARY FOR 2015

In 2015, employees of Montana businesses experienced a total of 14,400 OSHA recordable nonfatal occupational injuries and illnesses. This converts into an overall incidence rate of 4.4 injuries and illnesses per 100 full-time workers. Private industry only, had a rate of 4.3, injuries and illnesses per 100 full-time workers in 2015. The industries with the highest incidence rates per 100 full-time workers, were Manufacturing 7.0, Construction 6.2, Transportation and Warehousing with 5.7. The industries with the lower incidence rates were Finance and Insurance and Professional and business services, both with an incidence rate of 1.7 per 100 full-time workers. Below is a Comparison of overall incidence rates by major industry for Montana in 2015.

NONFATAL OCCUPATIONAL INJURIES AND ILLNESSES INCIDENCE RATES BY MAJOR INDUSTRY

Montana - 2015

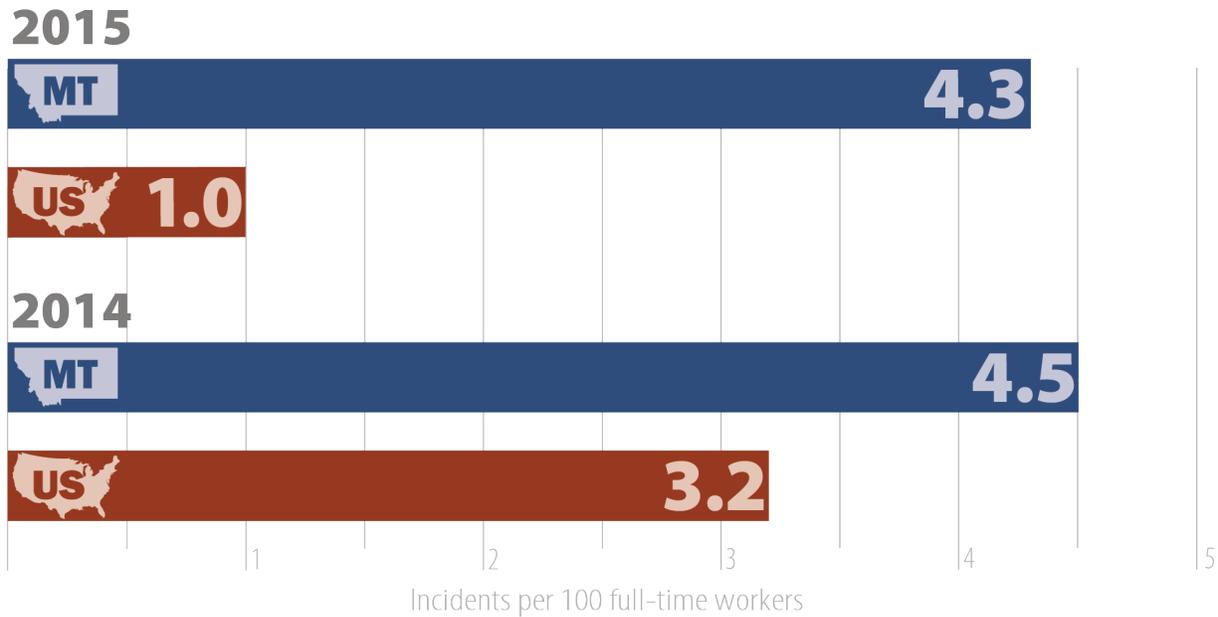


MONTANA OCCUPATIONAL INJURIES AND ILLNESSES 2015

Montana has consistently had higher rates than the national average. The national private industry incidence rate for 2015 was 3.0 injuries and illnesses per 100 full-time workers.

PRIVATE INDUSTRY INCIDENCE RATES OF NONFATAL INJURIES AND ILLNESSES **MONTANA vs. UNITED STATES**

2014 - 2015



The formula for computing the incidence rates is:

$$(N/EH)*200,000$$

N = Number of injuries and/or illnesses or lost workdays

EH = total hours worked by all employees during calendar year

200,000 = base for 100 full-time equivalent

(Workers working 40 hours per week, 50 weeks per year)

LOST WORKDAY CASES

Private Industry total lost workday cases involve days away from work, days of restricted activity, or both. This indicator is a measure of the injury or illness severity. Using this as a measure of severity, the injuries and illnesses reported in Montana are similar to those reported elsewhere. In Montana, an estimated 5,700 of the 12,000 cases were recordable injuries with 400 involving at least one day away from work.

INJURIES AND ILLNESSES BY MAJOR INDUSTRY SECTOR

MONTANA 2015

	NAICS Sector	Total Recordable Injuries	Total DAFW/DJTR Cases	Lost Workday Cases
Total all industries		14,400	6,400	4,600
Total private industries		12,000	5,700	4,000
Agriculture, forestry, fishing, and hunting	11	100	100	100
Mining	21	200	100	100
Utilities	22	100	100	*
Construction	23	1,500	800	600
Manufacturing	31-33	1,200	600	400
Wholesale Trade	42	500	300	200
Retail Trade	44-45	2,400	1,100	700
Transportation and warehousing	48-49	800	500	300
Information	51	100	*	*
Finance and Insurance	52	200	*	*
Real Estate, Rental and Leasing	53	100	100	100
Professional and business services	54-56	600	200	100
Educational Services	61	100	*	*
Health care and social assistance	62	2,300	100	700
Arts, entertainment, and recreation	71	200	100	100
Accommodation and food services	72	1,300	600	400
Other services, except public administration	81	200	100	100
State and Local Government		2,300	700	600

DAFW = Days Away From Work, DJTR = Days Job Transfer or Restriction, * = Data too small to be displayed

Notes: Total Recordable Injuries include those with restricted days, job transfer days, other recordable injuries, and/or lost workdays. Lost Workday Cases include only those that result in days away from work.

Totals include data for industries not shown separately.

Because of rounding, data may not sum to the totals.

OCCUPATIONS

The most hazardous major occupation categories in 2015 were the construction & extraction and the transportation and material moving occupations.

INJURIES AND ILLNESSES BY MAJOR OCCUPATION CATEGORY

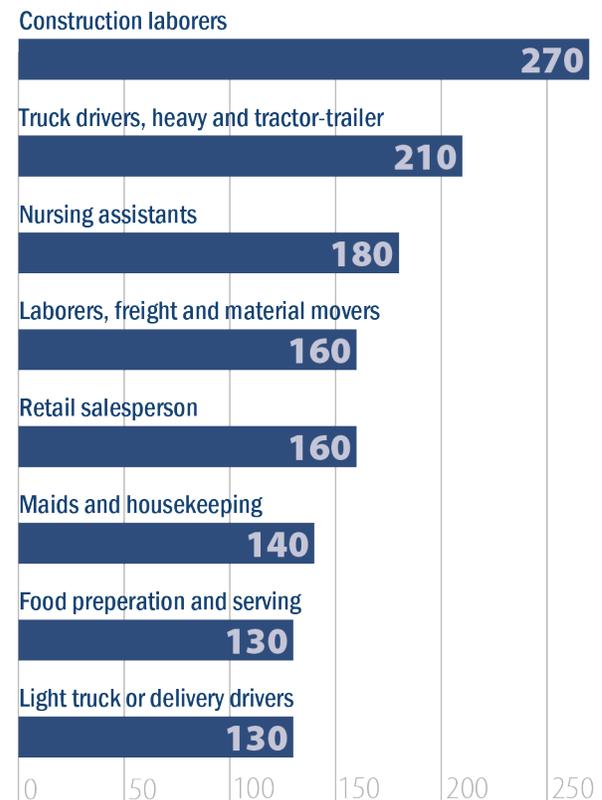
MONTANA - 2015



Construction laborers was the most injured occupation with 270 injuries in 2015. Truck drivers, heavy and tractor-trailer occupations were second with 210 injuries. Nursing assistants had 180 injuries while Retail salespersons and Laborers, freight & material movers accounted for 160 reported injuries each. Maids and housekeeping had 140; Light truck or delivery drivers and Food preparation and serving occupations had 130 injuries each.

INJURIES AND ILLNESSES BY OCCUPATION

MONTANA, 2015



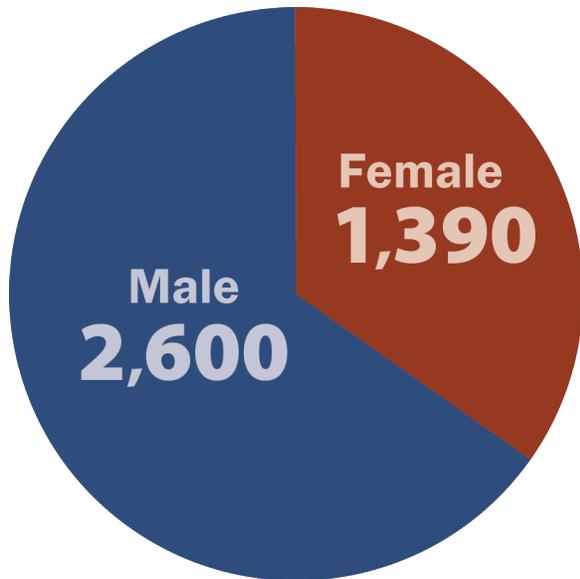
The median number of lost work days in 2015 was 6 days away from work. The occupation groups with the highest median number of lost work time were Transportation and material moving with 18 days and Farming, fishing & forestry, with 14 days away from work.

2015 CASE CHARACTERISTICS

Case characteristics are computed by using a total of 4020 reported lost workday cases. Because of rounding and/or data exclusions, components may not add to total.

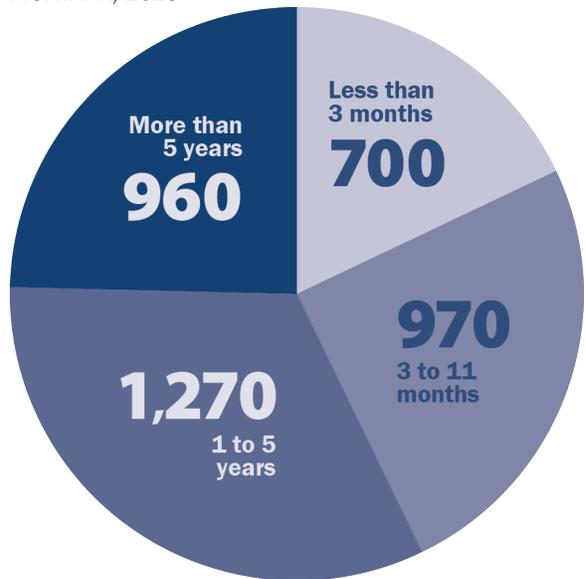
INJURIES AND ILLNESSES BY GENDER

MONTANA, 2015



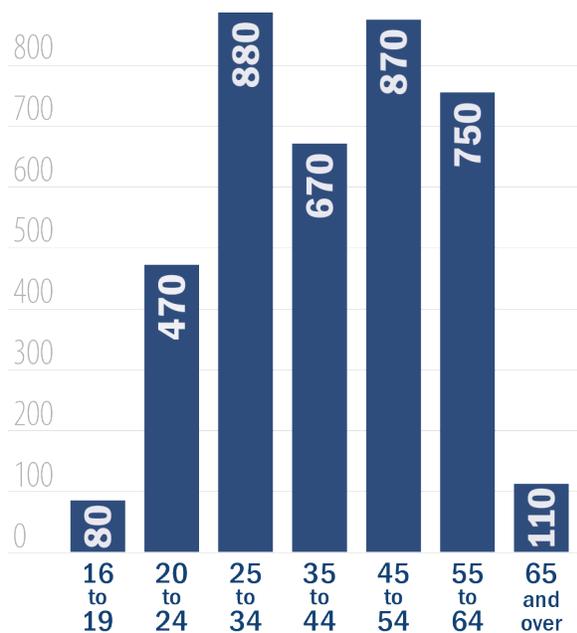
INJURIES AND ILLNESSES BY LENGTH OF SERVICE

MONTANA, 2015



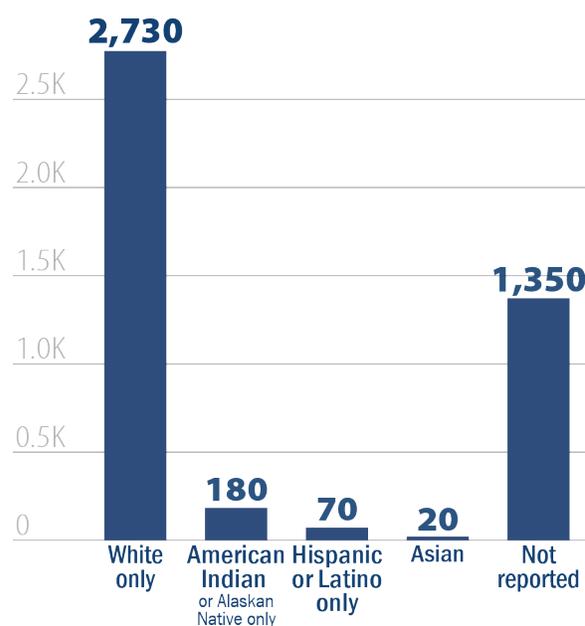
INJURIES AND ILLNESSES BY AGE GROUP

MONTANA, 2015



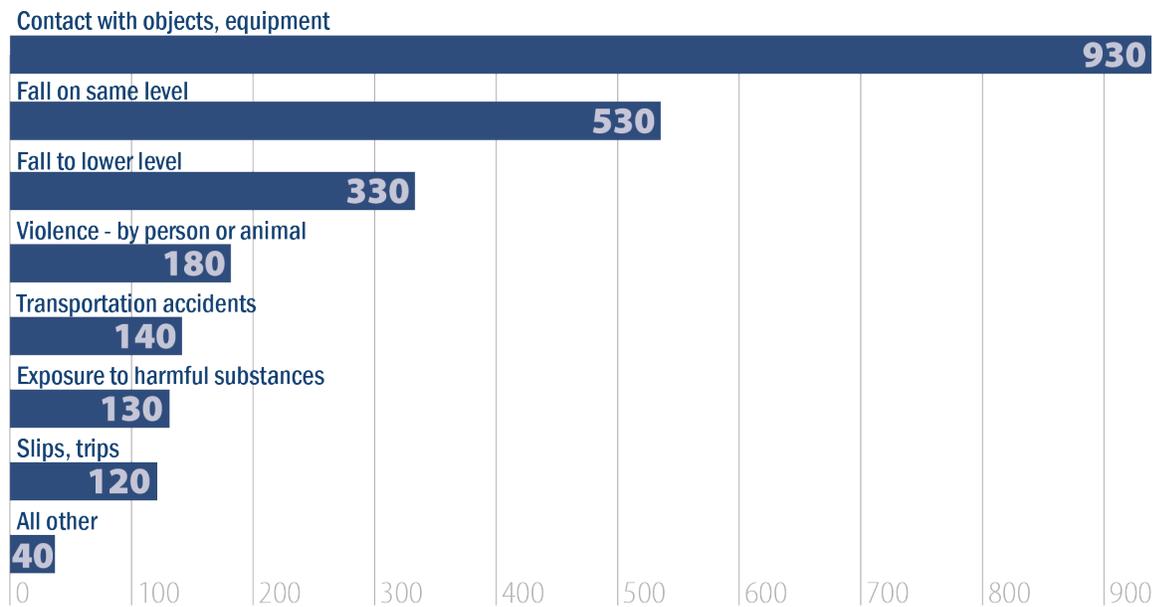
INJURIES AND ILLNESSES BY RACE

MONTANA, 2015



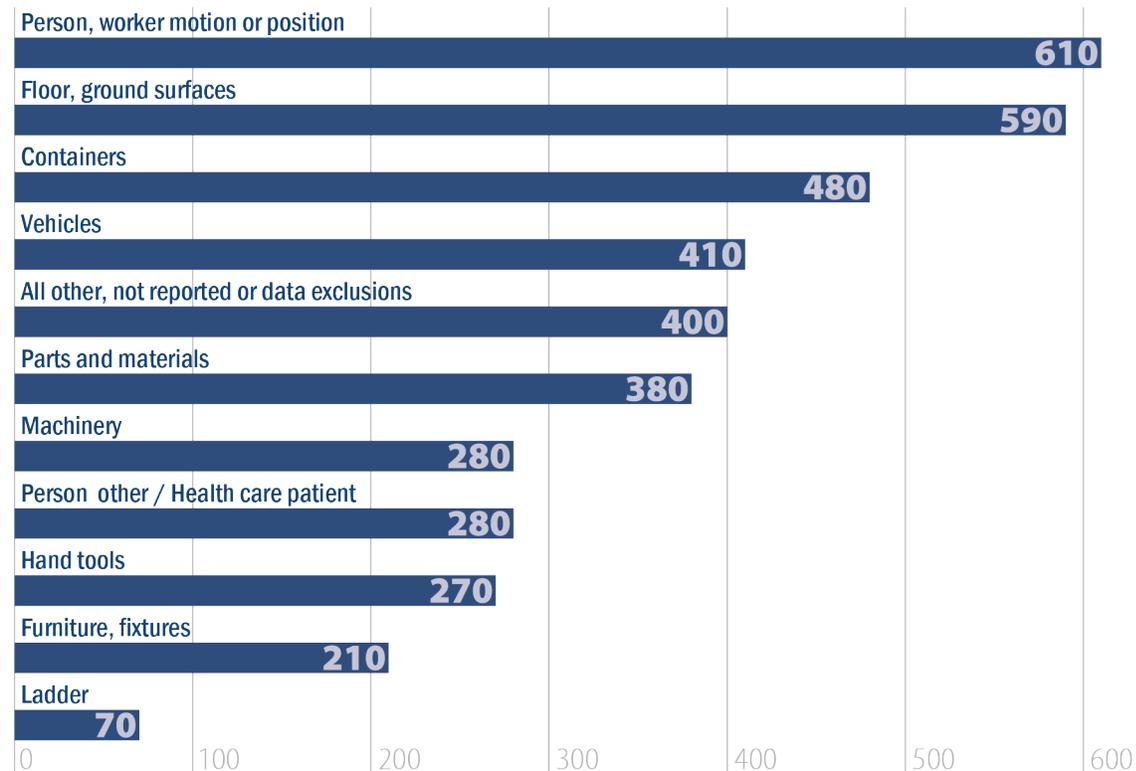
INJURIES AND ILLNESSES BY EVENT OR EXPOSURE

MONTANA, 2015



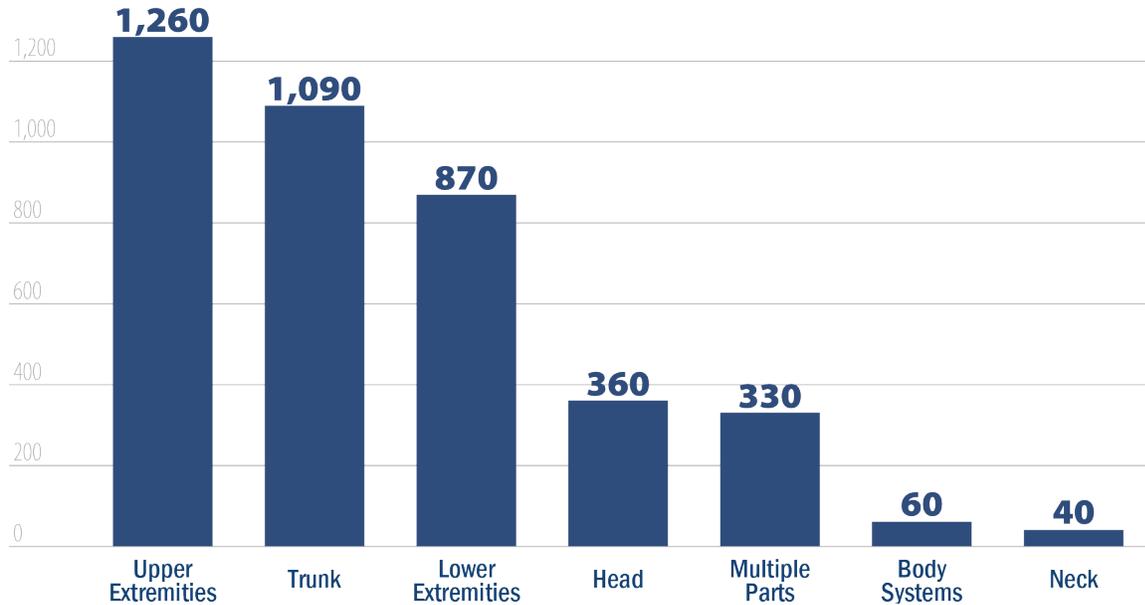
INJURIES AND ILLNESSES BY SOURCE OF INJURIES OR ILLNESSES

MONTANA, 2015



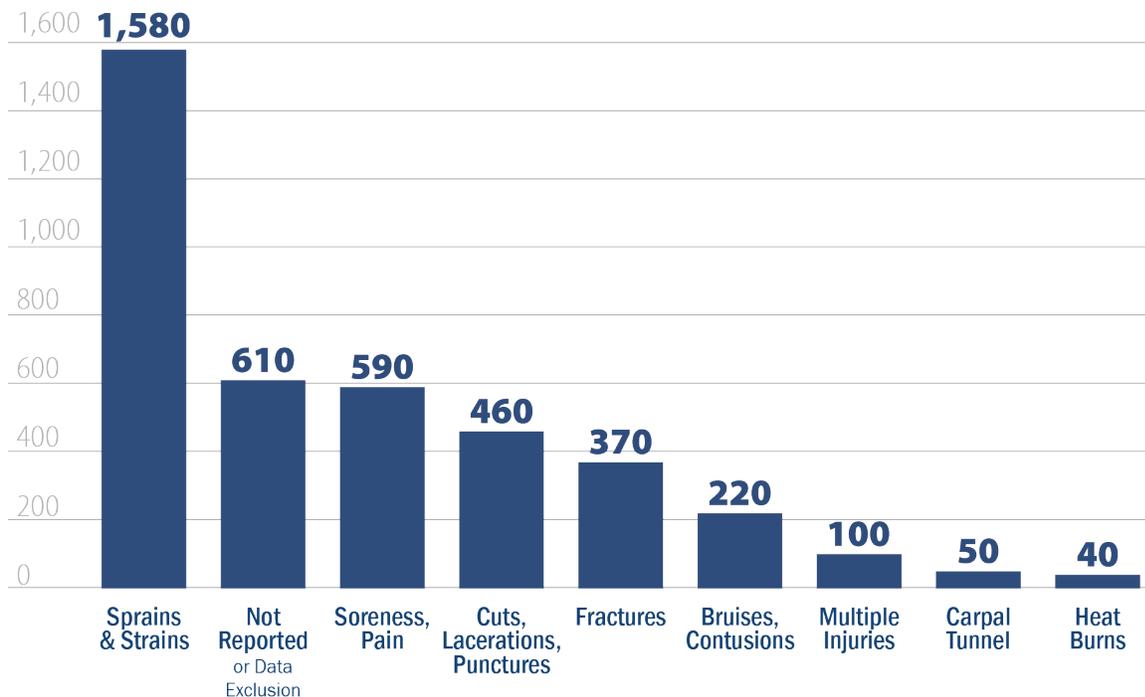
INJURIES AND ILLNESSES
BY PART OF BODY

MONTANA, 2015



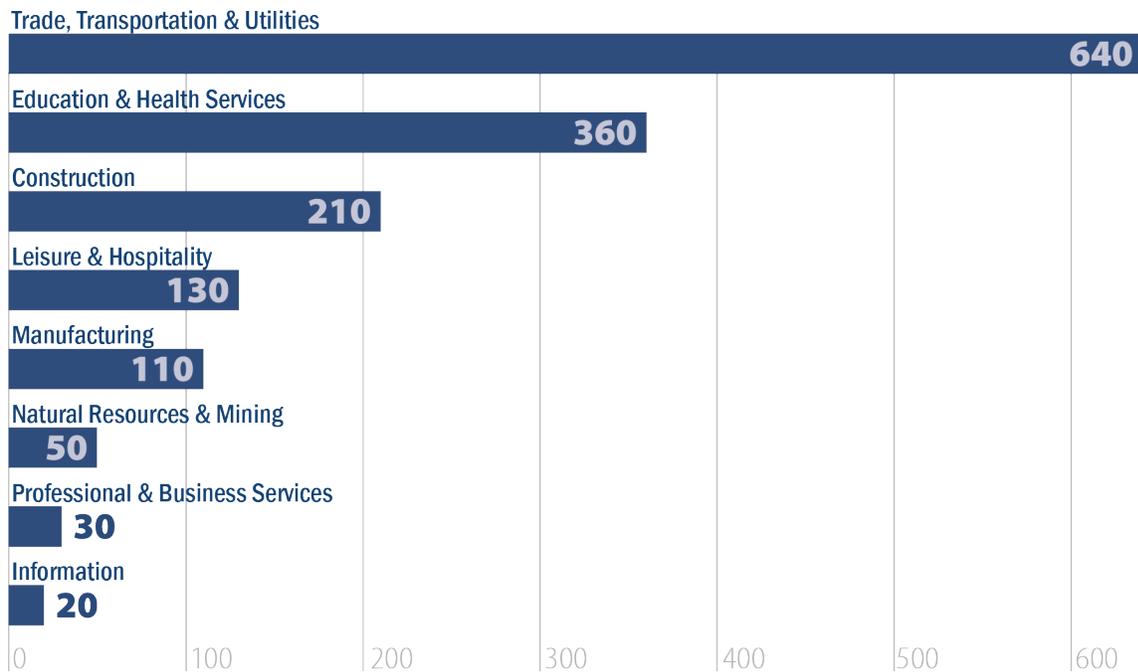
INJURIES AND ILLNESSES
BY NATURE OF INJURIES AND ILLNESSES

MONTANA, 2015



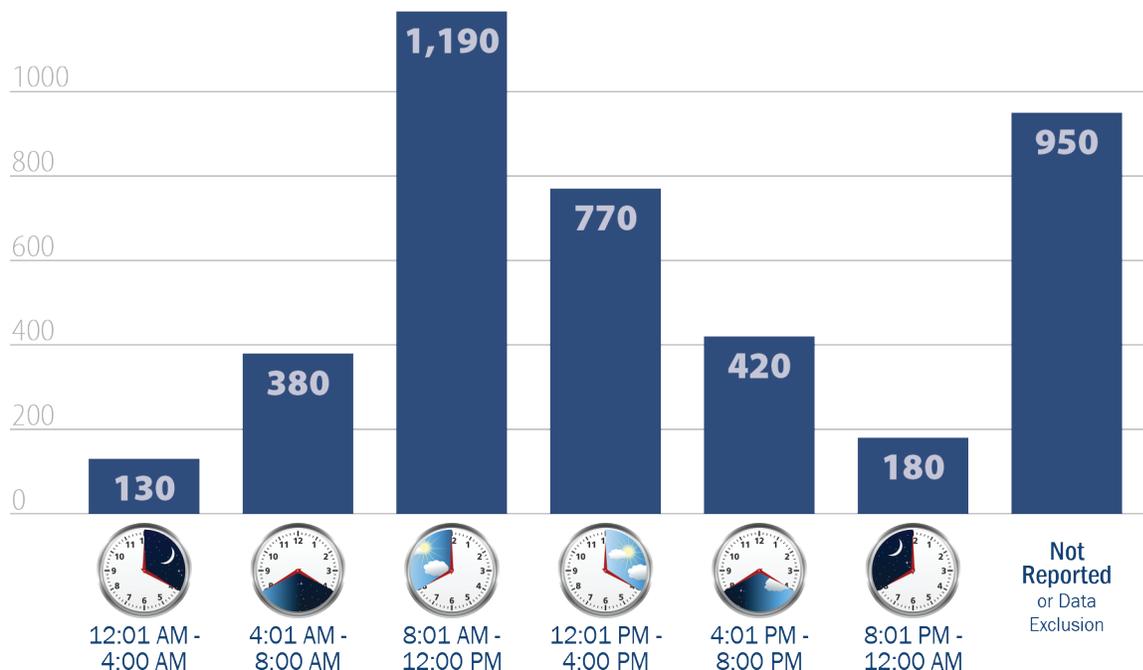
INDUSTRY BREAKDOWN OF SPRAINS AND STRAINS

MONTANA, 2015



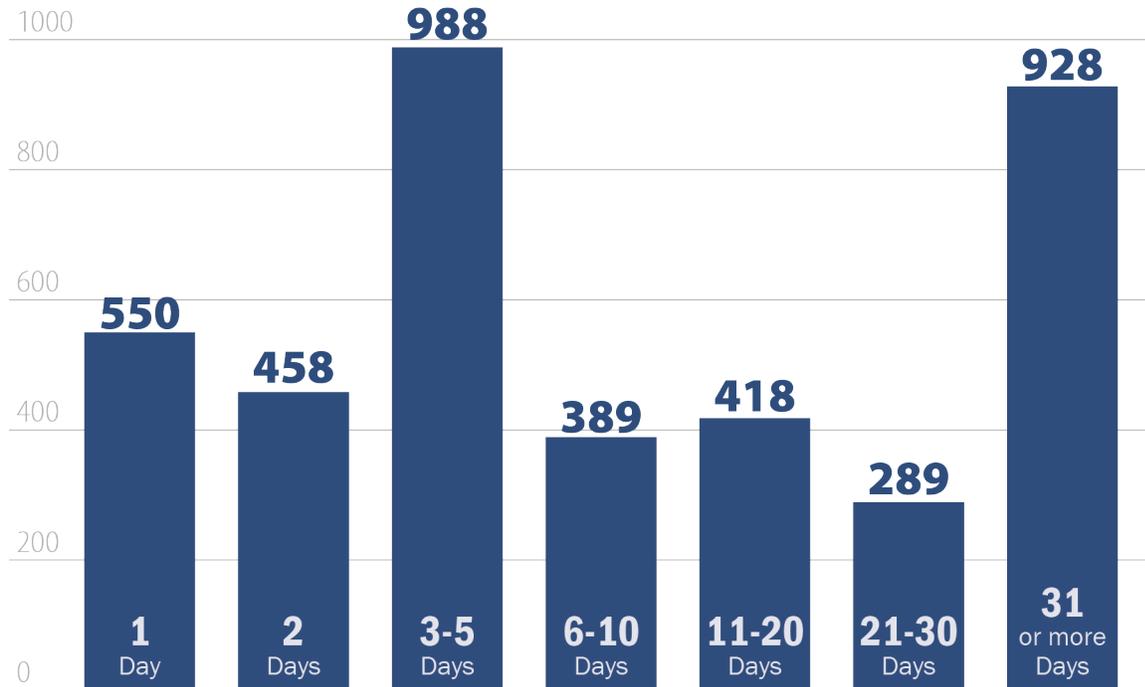
INJURIES AND ILLNESSES BY TIME OF DAY

MONTANA, 2015



INJURIES AND ILLNESSES
BY DAYS AWAY FROM WORK

MONTANA, 2015



INJURIES AND ILLNESSES
BY HOURS ON THE JOB BEFORE EVENT OCCURRED

MONTANA, 2015

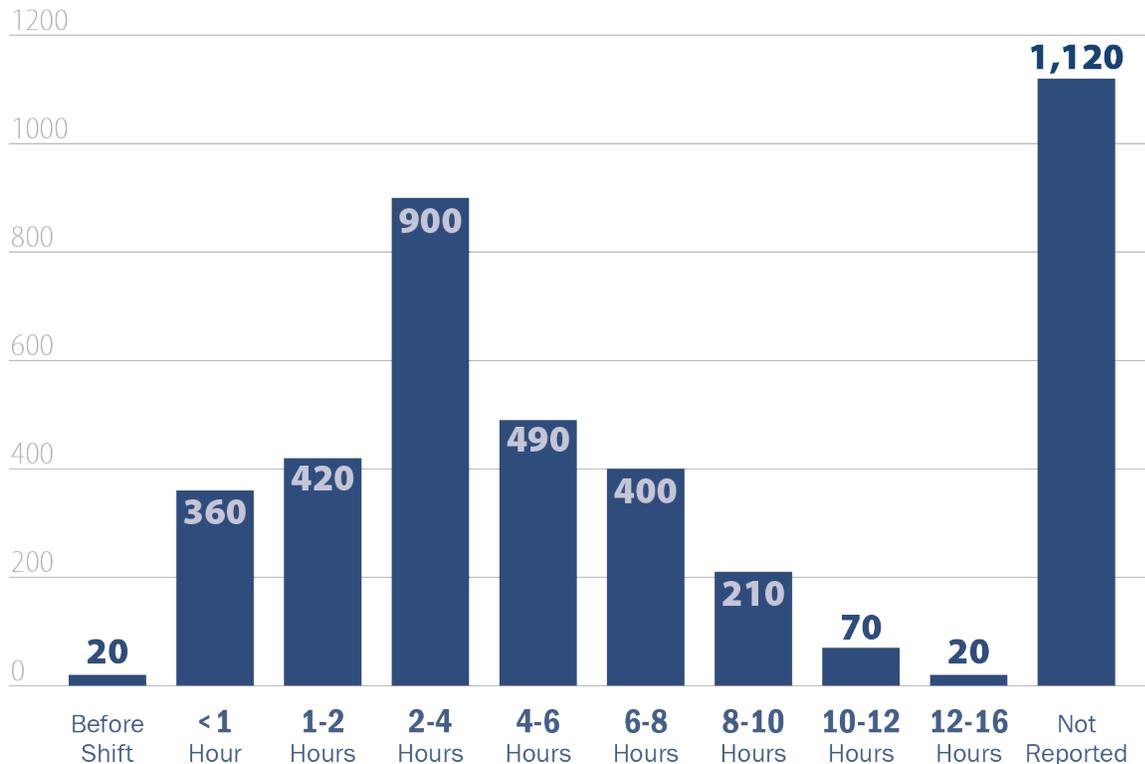


TABLE A1

APPENDIX A

INCIDENCE RATES OF NONFATAL OCCUPATIONAL INJURIES AND ILLNESSES INVOLVING DAYS AWAY FROM WORK¹
**BY SELECTED INJURY OR ILLNESS CHARACTERISTICS
 & MAJOR INDUSTRY SECTOR**

MONTANA, 2015

Characteristic	Private industry ^{2,3,4}	Goods producing				Service providing									
		Total goods producing	Natural resources and mining ^{2,3}	Construction	Manufacturing	Total service providing	Trade, transportation and utilities ⁴	Information	Financial activities	Professional and business services	Education and health services	Leisure and hospitality	Other services	Public Administration	
Total	3,970	880	210	290	380	3,080	1,150	30	100	190	900	440	280	--	
Nature of injury, illness:															
Fractures	440	110	50	40	20	330	160	--	--	20	40	30	80	--	
Sprains, strains, tears	1,580	280	50	110	110	1,310	500	--	70	40	490	160	--	--	
Amputations	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Bruise, contusions	290	60	--	30	--	230	100	--	--	--	60	--	--	--	
Chemical burns and corrosions	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Heat (thermal) burns	80	--	--	--	--	70	--	--	--	--	--	50	--	--	
Soreness, pain	500	100	20	20	50	410	130	--	--	20	140	80	30	--	
Cuts, lacerations, punctures	400	120	--	50	60	290	90	--	--	20	30	60	80	--	
Cuts, lacerations	340	100	--	50	50	250	80	--	--	--	20	60	70	--	
Punctures (except gunshot wounds)	60	20	--	--	20	40	--	--	--	--	--	--	--	--	
Carpal tunnel syndrome	30	--	--	--	--	--	--	--	--	--	--	--	--	--	
Tendonitis	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Multiple traumatic injuries	20	--	--	--	--	20	--	--	--	--	--	--	--	--	
With sprains and other injuries	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
With fractures and other injuries	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Part of body affected:															
Head	360	60	--	--	30	310	90	--	--	60	50	60	30	--	
Eye	140	20	--	--	20	110	--	--	--	50	--	30	--	--	
Neck	70	30	--	--	--	30	20	--	--	--	--	--	--	--	
Trunk	1,050	160	30	70	60	890	340	--	--	50	300	100	80	--	
Back	760	110	20	50	40	650	250	--	--	30	250	80	--	--	
Upper extremities	1,360	430	120	110	200	920	340	--	60	40	190	160	130	--	
Shoulder	360	110	40	20	60	250	120	--	--	--	70	60	--	--	
Arm	270	60	20	--	30	210	60	--	--	20	40	--	--	--	
Wrist	150	30	--	--	20	120	50	--	--	--	40	--	--	--	
Hand	530	230	50	80	100	300	90	--	--	--	30	70	100	--	
Lower extremities	860	160	40	50	60	700	310	--	--	20	240	110	--	--	
Knee	390	50	--	20	20	340	130	--	--	--	140	60	--	--	
Ankle	150	40	20	--	--	110	40	--	--	--	30	20	--	--	
Foot	170	40	--	--	20	130	80	--	--	--	30	--	--	--	
Toe, toenail	40	--	--	--	--	30	20	--	--	--	--	--	--	--	
Body systems	20	--	--	--	--	20	--	--	--	--	--	--	--	--	
Multiple	240	40	--	20	20	200	50	--	--	20	90	20	--	--	
Source of injury, illness:															
Chemical, chemical products	30	--	--	--	--	20	--	--	--	--	--	--	--	--	
Containers	440	70	--	40	30	370	200	--	--	--	40	110	--	--	
Furniture, fixtures	120	20	--	--	--	100	30	--	--	--	40	30	--	--	
Machinery	270	100	30	50	30	170	80	--	--	--	20	50	--	--	
Parts and materials	350	190	40	80	80	160	120	--	--	--	--	--	--	--	

TABLE A1 (continued)

APPENDIX A

Characteristic	Private industry ^{2,3,4}	Goods producing				Service providing								
		Total goods producing	Natural resources and mining ^{2,3}	Construction	Manufacturing	Total service providing	Trade, transportation and utilities ⁴	Information	Financial activities	Professional and business services	Education and health services	Leisure and hospitality	Other services	Public Administration
Person, injured or ill worker	21.7	35.1	--	43.6	39.9	18.7	27.7	--	--	--	23.9	17.3	--	--
Worker motion or position	20.9	35.1	--	43.6	39.9	17.7	27.3	--	--	--	21.4	16.7	--	--
Person, other than injured or ill workers	9.8	--	--	--	--	11.9	--	--	--	--	53.6	--	--	--
Health care patient	9.0	--	--	--	--	10.9	--	--	--	--	50.6	--	--	--
Floors, walkways, ground surfaces	20.7	29.5	--	51.9	9.7	18.8	18.9	--	--	7.3	23.9	33.5	--	--
Ladder	2.6	6.8	--	12.8	--	1.7	4.2	--	--	--	--	--	--	--
Handtools	9.4	18.3	--	13.1	33.8	7.5	3.1	--	--	--	--	21.4	--	--
Vehicles	14.7	18.6	66.6	--	8.6	13.8	27.8	--	--	--	5.2	--	45.9	--
Trucks	5.9	4.2	--	--	--	6.3	17.5	--	--	--	--	--	--	--
Cart, dolly, hand truck - nonpowered	.8	--	--	--	--	.9	--	--	--	--	--	--	--	--
Event or exposure:														
Violence and other injuries by persons or animal	6.2	9.9	--	--	19.8	5.4	--	--	--	--	22.1	--	--	--
Intentional injury by other person	2.1	--	--	--	--	2.6	--	--	--	--	12.2	--	--	--
Injury by person - unintentional or intent unknown	1.7	--	--	--	--	2.0	--	--	--	--	9.0	--	--	--
Animal and insect related incidents	2.4	9.9	--	--	19.8	.7	--	--	--	--	--	--	--	--
Transportation incidents	5.1	--	--	--	--	5.9	13.1	--	--	--	--	--	--	--
Roadway incidents involving motorized land vehicles	3.9	--	--	--	--	4.7	11.8	--	--	--	--	--	--	--
Fires and explosions	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Falls, slips, trips	35.5	65.0	80.8	93.9	17.3	29.0	33.3	--	--	10.6	31.1	38.9	49.8	--
Slips, trips without fall	4.4	8.8	--	16.5	--	3.5	4.8	--	--	--	5.1	--	--	--
Fall on same level	18.9	24.9	--	40.4	9.7	17.6	18.1	--	--	6.8	23.6	30.3	--	--
Fall to lower level	11.7	31.4	66.1	37.0	--	7.3	8.8	--	--	--	--	7.0	--	--
Exposure to harmful substances or environments	4.6	10.0	--	--	24.6	3.3	2.4	--	--	--	3.1	10.3	--	--
Contact with object, equipment	33.0	70.5	32.7	82.2	76.0	24.7	28.4	--	39.5	7.2	18.6	40.1	--	--
Struck by object or equipment	22.5	47.0	20.2	52.9	54.0	17.1	15.9	--	38.8	4.4	12.8	31.0	--	--
Struck against object or equipment	7.7	14.9	--	25.4	--	6.1	9.9	--	--	--	4.9	8.4	--	--
Caught in or compressed by object or equipment	1.9	6.8	--	--	15.0	.9	--	--	--	--	--	--	--	--
Overexertion and bodily reaction	57.2	78.6	54.1	84.5	84.4	52.5	75.3	--	--	16.6	70.7	52.4	--	--
Repetitive motion involving microtasks	3.7	14.0	--	17.3	17.6	1.4	2.9	--	--	--	--	--	--	--
Overexertion in lifting or lowering	17.2	12.7	22.7	9.9	10.8	18.2	28.1	--	--	9.5	16.8	22.6	--	--

¹ Incidence rates represent the number of injuries and illnesses per 10,000 full-time workers and were calculated as: (N/EH) x 20,000,000 where

N = number of injuries and illnesses

EH = total hours worked by all employees during calendar year

²⁰,000,000 = base for 10,000 equivalent full-time workers (working 40 hours per week, 50 weeks per year).

² Days-away-from-work cases include those that result in days away from work with or without job transfer or restriction.

³ Excludes farms with fewer than 11 employees.

⁴ Data for mining (Sector 21 in the North American Industry Classification System) include establishments not governed by the Mine Safety and Health Administration (MSHA) rules and reporting, such as those in oil and gas extraction and related support activities. Data for mining operators in coal, metal, and nonmetal mining are provided to BLS by the Mine Safety and Health Administration, U.S. Department of Labor. Independent mining contractors are excluded from the coal, metal, and nonmetal mining industries. These data do not reflect the changes the

Occupational Safety and Health Administration made to its recordkeeping requirements effective January 1, 2002; therefore estimates for these industries are not comparable to estimates in other industries.

⁵ Data for employers in rail transportation are provided to BLS by the Federal Railroad Administration, U.S. Department of Transportation. These data do not reflect the changes the Occupational Safety and Health Administration made to its recordkeeping requirements effective

January 1, 2002; therefore estimates for these industries are not comparable to estimates in other industries.

NOTE: Dashes indicate data that are not available. Because of rounding and data exclusion of nonclassifiable responses, data may not sum to the totals.

SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, Survey of Occupational Injuries and Illnesses in cooperation with participating state agencies, October 12, 2016

TABLE A2

APPENDIX A

INCIDENCE RATES¹ OF NONFATAL OCCUPATIONAL INJURIES AND ILLNESSES INVOLVING DAYS AWAY FROM WORK²
BY SELECTED CHARACTERISTICS, MAJOR OCCUPATIONAL GROUP, AND SELECTED PARTS OF BODY

PRIVATE INDUSTRY, MONTANA - 2015

Characteristic	Private industry ^{2,3,4}	Part of body affected by the injury or illness ³																	
		Head		Neck	Trunk		Upper extremities				Lower extremities				Body systems	Multiple parts	All other body parts		
		Total	Eyes		Total	Back	Total	Shoulder	Arm	Hand	Wrist	Total	Knee	Ankle				Foot	
Total	142.3	12.7	1.9	1.5	38.6	30.7	44.5	11.2	8.5	17.8	6.2	30.9	13.1	6.3	6.1	2.0	11.7	--	
Gender:																			
Male	162.5	15.9	3.0	1.4	45.1	36.4	48.4	11.5	8.9	21.3	5.9	37.9	16.1	6.4	7.8	2.6	11.1	--	
Female	115.4	8.4	--	1.6	30.3	23.6	39.2	10.6	8.0	13.0	6.8	21.6	9.3	6.1	3.9	--	12.6	--	
Age:																			
14 -15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
16 -19	85.2	--	--	--	22.2	--	26.5	--	--	--	--	17.0	--	--	--	--	--	--	
20 -24	167.1	10.6	--	--	41.9	37.2	59.9	6.5	17.5	34.6	--	31.3	--	8.1	6.6	--	20.6	--	
25 -34	143.0	19.8	4.0	--	41.8	34.3	43.0	13.9	2.8	22.8	3.5	25.8	15.0	6.2	2.5	2.5	9.6	--	
35 -44	124.2	5.1	--	2.9	35.5	30.8	41.2	9.8	5.6	13.3	11.4	24.5	11.0	6.1	5.3	--	12.9	--	
45 -54	161.0	4.2	--	--	41.5	32.8	63.0	11.6	17.5	23.0	10.3	38.3	17.2	3.5	13.3	--	10.4	--	
55 -64	152.5	25.5	--	--	35.1	23.1	35.2	12.9	8.7	7.0	5.0	38.7	14.6	10.0	6.6	--	11.6	--	
65 and over	84.3	--	--	--	23.7	--	15.9	--	--	--	--	26.8	11.5	--	--	--	12.9	--	
Major occupational group:																			
Management occupations	89.9	25.1	--	--	--	--	50.2	--	33.6	--	--	--	--	--	--	--	--	--	
Business and financial operations occupations	16.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Computer and mathematical occupations	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Architecture and engineering occupations	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Life, physical, and social science occupations	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Community and social service occupations	41.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Legal occupations	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Education, training, and library occupations	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Arts, design, entertainment, sports, and media occupations	82.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Healthcare practitioners and technical occupations	83.0	--	--	--	28.0	23.2	15.9	--	--	--	--	24.9	9.9	--	--	--	11.1	--	
Healthcare support occupations	341.0	--	--	--	122.6	96.2	74.6	31.2	--	--	--	84.7	36.0	--	32.1	--	34.3	--	
Protective service occupations	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Food preparation and serving related occupations	143.0	9.6	8.6	--	34.4	26.5	67.1	6.6	10.7	43.7	--	22.7	6.7	--	7.7	--	7.0	--	
Building and grounds cleaning and maintenance occupations	268.3	--	--	--	116.0	95.2	68.3	25.1	--	--	18.5	50.4	34.9	--	--	--	--	--	
Personal care and service occupations	177.4	--	--	--	35.1	24.2	44.2	25.2	--	--	--	46.9	--	--	--	--	26.1	--	
Sales and related occupations	89.9	7.5	--	--	20.5	16.3	20.0	6.0	4.0	8.2	--	36.0	24.0	6.8	--	--	4.5	--	
Office and administrative support occupations	43.6	4.3	--	--	11.3	10.0	14.8	6.3	--	5.5	--	6.5	--	--	--	--	4.7	--	
Farming, fishing, and forestry occupations	85.1	--	--	--	40.8	--	--	--	--	--	--	19.7	--	--	--	--	--	--	

TABLE A2 (continued)

APPENDIX A

Characteristic	Private industry ^{2,3,4}	Part of body affected by the injury or illness ³																
		Head		Neck	Trunk		Upper extremities				Lower extremities				Body systems	Multiple parts	All other body parts	
		Total	Eyes		Total	Back	Total	Shoulder	Arm	Hand	Wrist	Total	Knee	Ankle				Foot
Construction and extraction occupations	312.9	41.1	--	--	95.6	86.9	94.4	12.9	7.6	55.9	18.1	52.2	18.6	10.2	--	--	26.6	--
Installation, maintenance, and repair occupations	178.0	9.4	--	--	54.8	46.6	65.3	33.0	--	20.0	8.6	30.4	13.1	--	--	--	13.2	--
Production occupations	270.4	--	--	--	36.3	24.1	163.5	16.7	40.6	79.0	25.5	50.9	--	--	38.0	--	--	--
Transportation and material moving occupations	290.6	47.6	--	--	68.4	49.1	52.7	23.3	13.0	8.1	--	72.9	31.4	19.4	10.1	--	43.9	--

¹ Incidence rates represent the number of injuries and illnesses per 10,000 full-time workers and were calculated as: (N/EH) x 20,000,000 where N = number of injuries and illnesses
 EH = total hours worked by all employees during calendar year
 20,000,000 = base for 10,000 equivalent full-time workers (working 40 hours per week, 50 weeks per year).
² Days-away-from-work cases include those that result in days away from work with or without job transfer or restriction.

³ Based on the Occupational Injury and Illness Classification System 2.01 developed by the U.S. Bureau of Labor Statistics.
 NOTE: Dashes indicate data that are not available. Because of rounding and data exclusion of nonclassifiable responses, data may not sum to the totals.
 SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, Survey of Occupational Injuries and Illnesses in cooperation with participating state agencies, October 12, 2016"

TABLE B1

APPENDIX B

NUMBER OF NONFATAL OCCUPATIONAL INJURIES AND ILLNESSES INVOLVING DAYS AWAY FROM WORK¹

BY SELECTED WORKER CHARACTERISTICS AND MAJOR INDUSTRY SECTOR

PRIVATE INDUSTRY, MONTANA - 2015

Characteristic	Private industry ^{2,3,4}	Goods producing				Service providing								
		Total goods producing	Natural resources and mining ^{2,3}	Construction	Manufacturing	Total service providing	Trade, transportation and utilities ⁴	Information	Financial activities	Professional and business services	Education and health services	Leisure and hospitality	Other services	Public Administration
Total	4,020	1,210	180	630	400	2,810	1,200	30	120	130	730	530	80	--
Gender:														
Male	2,600	1,110	170	610	330	1,490	890	20	40	70	180	270	--	--
Female	1,390	100	20	--	70	1,290	280	--	80	60	550	260	50	--
Age:														
14 to 15	--	--	--	--	--	--	--	--	--	--	--	--	--	--
16 to 19	80	20	--	--	--	60	30	--	--	--	--	20	--	--
20 to 24	470	170	--	110	50	300	160	--	--	--	50	70	--	--
25 to 34	880	250	40	150	60	630	250	--	60	30	120	160	--	--
35 to 44	670	250	20	180	60	420	190	--	--	--	140	50	--	--
45 to 54	870	320	80	60	180	550	220	--	--	20	160	80	50	--
55 to 64	750	140	30	90	30	610	290	--	40	40	170	60	--	--
65 and over	110	--	--	--	--	110	40	--	--	--	40	--	--	--
Length of service with employer:														
Less than 3 months	700	280	20	140	120	410	160	--	50	30	60	100	--	--
3 to 11 months	970	250	20	160	80	720	330	--	--	20	160	180	--	--
1 to 5 years	1,270	340	50	170	130	920	380	20	40	50	280	110	60	--
More than 5 years	960	300	100	130	70	660	290	--	--	20	210	120	--	--
Race or ethnic origin⁵:														
White only	2,320	760	90	430	250	1,560	650	--	100	90	400	250	60	--
Black only	30	--	--	--	--	20	20	--	--	--	--	--	--	--
Hispanic or Latino only	60	--	--	--	--	50	30	--	--	--	--	--	--	--
Asian only	20	--	--	--	--	20	20	--	--	--	--	--	--	--
Native Hawaiian or other Pacific Islander only	20	--	--	--	--	--	--	--	--	--	--	--	--	--
American Indian or Alaskan Native only	110	--	--	--	--	100	30	--	--	--	30	30	--	--
Hispanic or Latino and other race	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Multi-race	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Not reported	1,450	410	90	180	140	1,040	460	20	--	40	270	230	--	--

¹ Days-away-from-work cases include those that result in days away from work with or without job transfer or restriction.

² Excludes farms with fewer than 11 employees.

³ Data for mining (Sector 21 in the North American Industry Classification System) include establishments not governed by the Mine Safety and Health Administration (MSHA) rules and reporting, such as those in oil and gas extraction and related support activities. Data for mining operators in coal, metal, and nonmetal mining are provided to BLS by the Mine Safety and Health Administration, U.S. Department of Labor. Independent mining contractors are excluded from the coal, metal, and non-metal mining industries. These data do not reflect the changes the Occupational Safety and Health Administration made to its recordkeeping requirements effective January 1, 2002; therefore estimates for these industries are not comparable to estimates in other industries.

⁴ Data for employers in rail transportation are provided to BLS by the Federal Railroad Administration, U.S. Department of Transportation. These data do not reflect the changes the Occupational Safety and Health Administration made to its recordkeeping requirements effective January 1, 2002; therefore estimates for these industries are not comparable to estimates in other industries.

⁵ Race and ethnicity data do not add to total. Some cases may be counted as both "Multi-race" and "Hispanic and other" race.

NOTE: Dashes indicate data that are not available. Because of rounding and data exclusion of nonclassifiable responses, data may not sum to the totals.

SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, Survey of Occupational Injuries and Illnesses in cooperation with participating state agencies, October 12, 2016"

TABLE B2

APPENDIX B

NUMBER OF NONFATAL OCCUPATIONAL INJURIES AND ILLNESSES INVOLVING DAYS AWAY FROM WORK¹

BY MAJOR OCCUPATIONAL GROUP AND MAJOR INDUSTRY SECTOR

PRIVATE INDUSTRY, MONTANA - 2015

Characteristic	Private industry ^{2,3,4}	Goods producing				Service providing									
		Total goods producing	Natural resources and mining ^{2,3}	Construction	Manufacturing	Total service providing	Trade, transportation and utilities ⁴	Information	Financial activities	Professional and business services	Education and health services	Leisure and hospitality	Other services	Public Administration	
Total	4,020	1,210	180	630	400	2,810	1,200	30	120	130	730	530	80	--	
Management occupations	130	--	--	--	--	130	--	--	--	--	--	60	50	--	
Business and financial operations occupations	20	--	--	--	--	20	--	--	--	--	--	--	--	--	
Computer and mathematical occupations	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Architecture and engineering occupations	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Life, physical, and social science occupations	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Community and social service occupations	20	--	--	--	--	20	--	--	--	--	20	--	--	--	
Legal occupations	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Education, training, and library occupations	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Arts, design, entertainment, sports, and media occupations	30	--	--	--	--	30	--	--	--	--	--	--	--	--	
Healthcare practitioners and technical occupations	160	--	--	--	--	160	--	--	--	20	140	--	--	--	
Healthcare support occupations	270	--	--	--	--	270	--	--	--	--	270	--	--	--	
Protective service occupations	40	--	--	--	--	40	--	--	--	--	--	--	--	--	
Food preparation and serving related occupations	380	--	--	--	--	370	60	--	--	--	30	230	--	--	
Building and grounds cleaning and maintenance occupations	260	20	20	--	--	240	20	--	--	30	70	110	--	--	
Personal care and service occupations	140	--	--	--	--	140	--	--	--	--	100	30	--	--	
Sales and related occupations	340	--	--	--	--	340	320	--	--	--	--	--	--	--	
Office and administrative support occupations	170	--	--	--	--	170	90	--	--	--	20	20	--	--	
Farming, fishing, and forestry occupations	70	40	40	--	--	20	--	--	--	--	--	--	--	--	
Construction and extraction occupations	720	680	100	580	--	40	30	--	--	--	--	--	--	--	
Installation, maintenance, and repair occupations	310	50	--	30	20	260	180	20	--	--	--	30	--	--	
Production occupations	350	250	--	--	250	100	70	--	--	--	--	--	--	--	
Transportation and material moving occupations	580	150	--	20	120	430	380	--	--	20	--	--	--	--	

¹ Days-away-from-work cases include those that result in days away from work with or without job transfer or restriction.

² Excludes farms with fewer than 11 employees.

³ Data for mining (Sector 21 in the North American Industry Classification System) include establishments not governed by the Mine Safety and Health Administration (MSHA) rules and reporting, such as those in oil and gas extraction and related support activities. Data for mining operators in coal, metal, and nonmetal mining are provided to BLS by the Mine Safety and Health Administration, U.S. Department of Labor. Independent mining contractors are excluded from the coal, metal, and non-metal mining industries. These data do not reflect the changes the Occupational Safety and Health Administration made to its recordkeeping requirements effective January 1, 2002; therefore estimates for these industries are not comparable to estimates in other industries.

⁴ Data for employers in rail transportation are provided to BLS by the Federal Railroad Administration, U.S. Department of Transportation. These data do not reflect the changes the Occupational Safety and Health Administration made to its recordkeeping requirements effective January 1, 2002; therefore estimates for these industries are not comparable to estimates in other industries.

NOTE: Dashes indicate data that are not available. Because of rounding and data exclusion of nonclassifiable responses, data may not sum to the totals.

SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, Survey of Occupational Injuries and Illnesses in cooperation with participating state agencies, October 12, 2016"

TABLE B3

APPENDIX B

NUMBER OF NONFATAL OCCUPATIONAL INJURIES AND ILLNESSES INVOLVING DAYS AWAY FROM WORK¹
BY SELECTED WORKER OCCUPATIONS AND MAJOR INDUSTRY SECTOR

PRIVATE INDUSTRY, MONTANA - 2015

Characteristic	Private industry ^{2,3,4}	Goods producing				Service providing								
		Total goods producing	Natural resources and mining ^{2,3}	Construction	Manufacturing	Total service providing	Trade, transportation and utilities ⁴	Information	Financial activities	Professional and business services	Education and health services	Leisure and hospitality	Other services	Public Administration
Total	4,020	1,210	180	630	400	2,810	1,200	30	120	130	730	530	80	--
Construction laborers	270	260	--	260	--	--	--	--	--	--	--	--	--	--
Heavy and tractor-trailer truck drivers	210	40	--	--	--	170	160	--	--	--	--	--	--	--
Nursing assistants	180	--	--	--	--	180	--	--	--	--	170	--	--	--
Retail salespersons	160	--	--	--	--	160	150	--	--	--	--	--	--	--
Laborers and freight, stock, and material movers, hand	160	70	--	--	70	90	70	--	--	--	--	--	--	--
Maids and housekeeping cleaners	140	--	--	--	--	140	--	--	--	--	50	80	--	--
Combined food preparation and serving workers, including fast food	130	--	--	--	--	130	30	--	--	--	--	50	--	--
Light truck or delivery services drivers	130	--	--	--	--	120	110	--	--	--	--	--	--	--
Personal care aides	90	--	--	--	--	90	--	--	--	--	90	--	--	--
Tire repairers and changers	80	--	--	--	--	80	80	--	--	--	--	--	--	--
Butchers and meat cutters	80	70	--	--	70	--	--	--	--	--	--	--	--	--
Janitors and cleaners, except maids and housekeeping cleaners	70	--	--	--	--	70	--	--	--	30	20	--	--	--
Cashiers	70	--	--	--	--	70	70	--	--	--	--	--	--	--
First-line supervisors of retail sales workers	70	--	--	--	--	70	70	--	--	--	--	--	--	--
Registered nurses	60	--	--	--	--	60	--	--	--	--	60	--	--	--
Plumbers, pipefitters, and steamfitters	60	60	--	60	--	--	--	--	--	--	--	--	--	--
Carpenters	60	60	--	60	--	--	--	--	--	--	--	--	--	--
First-line supervisors of construction trades and extraction workers	60	60	--	60	--	--	--	--	--	--	--	--	--	--
Cooks, restaurant	50	--	--	--	--	50	--	--	--	--	--	50	--	--
Maintenance and repair workers, general	50	--	--	--	--	50	--	--	--	--	--	30	--	--
Painters, construction and maintenance	50	50	--	50	--	--	--	--	--	--	--	--	--	--
Farmworkers, farm, ranch, and aquacultural animals	50	30	30	--	--	20	--	--	--	--	--	--	--	--
Stock clerks and order fillers	50	--	--	--	--	50	50	--	--	--	--	--	--	--
Chief executives	50	--	--	--	--	50	--	--	--	--	--	--	--	--
Food preparation workers	50	--	--	--	--	40	20	--	--	--	--	30	--	--
Licensed practical and licensed vocational nurses	40	--	--	--	--	40	--	--	--	--	30	--	--	--

¹ Days-away-from-work cases include those that result in days away from work with or without job transfer or restriction.

² Excludes farms with fewer than 11 employees.

³ Data for mining (Sector 21 in the North American Industry Classification System) include establishments not governed by the Mine Safety and Health Administration (MSHA) rules and reporting, such as those in oil and gas extraction and related support activities. Data for mining operators in coal, metal, and nonmetal mining are provided to BLS by the Mine Safety and Health Administration, U.S. Department of Labor. Independent mining contractors are excluded from the coal, metal, and non-metal mining industries. These data do not reflect the changes the Occupational Safety and Health Administration made to its recordkeeping requirements effective

January 1, 2002; therefore estimates for these industries are not comparable to estimates in other industries.

⁴ Data for employers in rail transportation are provided to BLS by the Federal Railroad Administration, U.S. Department of Transportation. These data do not reflect the changes the Occupational Safety and Health Administration made to its recordkeeping requirements effective

January 1, 2002; therefore estimates for these industries are not comparable to estimates in other industries.

NOTE: Dashes indicate data that are not available. Because of rounding and data exclusion of nonclassifiable responses, data may not sum to the totals.

TABLE B4

APPENDIX B

NUMBER OF NONFATAL OCCUPATIONAL INJURIES AND ILLNESSES INVOLVING DAYS AWAY FROM WORK¹

BY SELECTED INJURY OR ILLNESS CHARACTERISTICS AND MAJOR INDUSTRY SECTOR

PRIVATE INDUSTRY, MONTANA - 2015

Characteristic	Private industry ^{2,3,4}	Goods producing				Service providing								
		Total goods producing	Natural resources and mining ^{2,3}	Construction	Manufacturing	Total service providing	Trade, transportation and utilities ⁴	Information	Financial activities	Professional and business services	Education and health services	Leisure and hospitality	Other services	Public Administration
Total	4,020	1,210	180	630	400	2,810	1,200	30	120	130	730	530	80	--
Nature of injury, illness:														
Fractures	370	120	20	70	40	240	70	--	--	20	40	50	50	--
Sprains, strains, tears	1,580	370	50	210	110	1,200	640	20	--	30	360	130	--	--
Amputations	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bruise, contusions	220	50	--	20	--	170	70	--	--	--	60	40	--	--
Chemical burns and corrosions	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Heat (thermal) burns	40	--	--	--	--	40	--	--	--	--	--	20	--	--
Soreness, pain	590	170	60	40	80	420	130	--	--	40	120	110	--	--
Cuts, lacerations, punctures	460	210	--	140	70	250	110	--	--	--	20	40	--	--
Cuts, lacerations	450	200	--	140	60	240	110	--	--	--	20	40	--	--
Punctures (except gunshot wounds)	20	--	--	--	--	--	--	--	--	--	--	--	--	--
Carpal tunnel syndrome	50	40	--	40	--	--	--	--	--	--	--	--	--	--
Tendonitis	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Multiple traumatic injuries	100	40	--	--	--	60	30	--	--	--	--	--	--	--
With sprains and other injuries	30	--	--	--	--	30	--	--	--	--	--	--	--	--
With fractures and other injuries	40	40	--	--	--	--	--	--	--	--	--	--	--	--
Part of body affected:														
Head	360	110	--	90	--	250	140	--	--	--	30	70	--	--
Eye	50	20	--	20	--	30	--	--	--	--	--	20	--	--
Neck	40	--	--	--	--	30	--	--	--	--	20	--	--	--
Trunk	1,090	320	100	160	60	770	310	--	--	40	220	170	--	--
Back	870	280	80	140	50	590	250	--	--	40	170	120	--	--
Upper extremities	1,260	410	40	200	180	840	320	--	80	40	180	170	50	--
Shoulder	320	50	--	20	30	260	130	--	--	--	60	50	--	--
Arm	240	50	20	--	20	190	80	--	--	--	40	30	50	--
Wrist	180	70	--	40	20	110	30	--	--	--	30	20	--	--
Hand	500	240	--	120	110	260	80	--	60	--	40	60	--	--
Lower extremities	870	230	30	110	90	650	330	--	--	20	180	70	--	--
Knee	370	60	--	30	20	310	170	--	--	20	80	30	--	--
Ankle	180	40	--	20	20	140	70	--	--	--	40	--	--	--
Foot	170	60	--	--	50	110	40	--	--	--	40	20	--	--
Toe, toenail	30	--	--	--	--	20	--	--	--	--	--	--	--	--
Body systems	60	20	--	--	--	40	--	--	--	--	--	20	--	--
Multiple	330	110	--	60	50	220	80	--	--	--	90	30	--	--
Source of injury, illness:														
Chemical, chemical products	40	--	--	--	--	30	--	--	--	--	--	20	--	--
Containers	480	70	--	50	20	420	260	--	--	20	60	70	--	--
Furniture, fixtures	210	40	--	40	--	170	40	--	--	--	40	60	--	--
Machinery	280	120	--	60	60	160	70	--	--	--	20	50	--	--
Parts and materials	380	210	20	130	70	170	130	--	--	--	--	20	--	--
Person, injured or ill worker	610	180	--	100	70	430	210	--	--	--	120	60	--	--

TABLE B4 (continued)

APPENDIX B

Characteristic	Private industry ^{2,3,4}	Goods producing				Service providing								
		Total goods producing	Natural resources and mining ^{2,3}	Construction	Manufacturing	Total service providing	Trade, transportation and utilities ⁴	Information	Financial activities	Professional and business services	Education and health services	Leisure and hospitality	Other services	Public Administration
Worker motion or position	590	180	--	100	70	410	210	--	--	--	100	60	--	--
Person, other than injured or ill workers	280	--	--	--	--	280	--	--	--	--	260	--	--	--
Health care patient	250	--	--	--	--	250	--	--	--	--	250	--	--	--
Floors, walkways, ground surfaces	590	150	--	120	20	430	150	--	--	30	120	120	--	--
Ladder	70	30	--	30	--	40	30	--	--	--	--	--	--	--
Handtools	270	90	--	30	60	170	20	--	--	--	--	80	--	--
Vehicles	410	100	70	--	20	320	210	--	--	--	30	--	50	--
Trucks	170	20	--	--	--	140	140	--	--	--	--	--	--	--
Cart, dolly, hand truck - nonpowered	20	--	--	--	--	20	--	--	--	--	--	--	--	--
Event or exposure:														
Violence and other injuries by persons or animal	180	50	--	--	30	120	--	--	--	--	110	--	--	--
Intentional injury by other person	60	--	--	--	--	60	--	--	--	--	60	--	--	--
Injury by person - unintentional or intent unknown	50	--	--	--	--	50	--	--	--	--	40	--	--	--
Animal and insect related incidents	70	50	--	--	30	20	--	--	--	--	--	--	--	--
Transportation incidents	140	--	--	--	--	140	100	--	--	--	--	--	--	--
Roadway incidents involving motorized land vehicles	110	--	--	--	--	110	90	--	--	--	--	--	--	--
Fires and explosions	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Falls, slips, trips	1,000	330	80	220	30	670	260	--	--	40	150	140	50	--
Slips, trips without fall	120	40	--	40	--	80	40	--	--	--	20	--	--	--
Fall on same level	530	130	--	100	20	410	140	--	--	20	110	110	--	--
Fall to lower level	330	160	70	90	--	170	70	--	--	--	--	20	--	--
Exposure to harmful substances or environments	130	50	--	--	40	80	20	--	--	--	20	40	--	--
Contact with object, equipment	930	360	30	190	130	570	220	--	70	30	90	140	--	--
Struck by object or equipment	630	240	20	130	100	390	120	--	70	20	60	110	--	--
Struck against object or equipment	220	80	--	60	--	140	80	--	--	--	20	30	--	--
Caught in or compressed by object or equipment	50	30	--	--	30	20	--	--	--	--	--	--	--	--
Overexertion and bodily reaction	1,620	400	50	200	150	1,210	580	--	--	60	340	190	--	--
Repetitive motion involving microtasks	110	70	--	40	30	30	20	--	--	--	--	--	--	--
Overexertion in lifting or lowering	490	60	20	20	20	420	220	--	--	30	80	80	--	--

¹ Days-away-from-work cases include those that result in days away from work with or without job transfer or restriction.

² Excludes farms with fewer than 11 employees.

³ Data for mining (Sector 21 in the North American Industry Classification System) include establishments not governed by the Mine Safety and Health Administration (MSHA) rules and reporting, such as those in oil and gas extraction and related support activities. Data for mining operators in coal, metal, and nonmetal mining are provided to BLS by the Mine Safety and Health Administration, U.S. Department of Labor. Independent mining contractors are excluded from the coal, metal, and nonmetal mining industries. These data do not reflect the changes the Occupational Safety and Health Administration made to its recordkeeping requirements effective January 1, 2002; therefore estimates for these industries are not comparable to estimates in other industries.

⁴ Data for employers in rail transportation are provided to BLS by the Federal Railroad Administration, U.S. Department of Transportation. These data do not reflect the changes the Occupational Safety and Health Administration made to its recordkeeping requirements effective January 1, 2002; therefore estimates for these industries are not comparable to estimates in other industries.

NOTE: Dashes indicate data that are not available. Because of rounding and data exclusion of nonclassifiable responses, data may not sum to the totals.

SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, Survey of Occupational Injuries and Illnesses in cooperation with participating state agencies, October 12, 2016

TABLE B5

APPENDIX B

NUMBER OF NONFATAL OCCUPATIONAL INJURIES AND ILLNESSES INVOLVING DAYS AWAY FROM WORK¹

BY TIME, HOURS ON THE JOB, AND DAY OF WEEK AND MAJOR INDUSTRY SECTOR

PRIVATE INDUSTRY, MONTANA - 2015

Characteristic	Private industry ^{2,3,4}	Goods producing				Service providing								
		Total goods producing	Natural resources and mining ^{2,3}	Construction	Manufacturing	Total service providing	Trade, transportation and utilities ⁴	Information	Financial activities	Professional and business services	Education and health services	Leisure and hospitality	Other services	Public Administration
Total	4,020	1,210	180	630	400	2,810	1,200	30	120	130	730	530	80	--
Time of event:														
12:01 AM -4:00 AM	130	70	60	--	--	60	20	--	--	--	20	--	--	--
4:01 AM -8:00 AM	380	70	--	40	20	310	160	--	--	--	80	60	--	--
8:01 AM -12:00 PM	1,190	380	50	200	120	810	350	--	30	40	170	140	60	--
12:01 PM -4:00 PM	770	210	20	120	70	560	250	--	60	--	130	90	--	--
4:01 PM -8:00 PM	420	100	--	80	--	320	130	--	--	30	110	50	--	--
8:01 PM -12:00 AM	180	20	--	--	20	160	50	--	--	--	60	40	--	--
Not reported	950	360	30	180	150	590	240	--	--	30	160	140	--	--
Hours on the job before event occurred:														
Occurred before shift began	20	--	--	--	--	20	--	--	--	--	--	--	--	--
Less than 1 hour	360	100	--	40	60	260	100	--	60	--	60	30	--	--
1 -2 hours	420	110	60	20	30	310	120	--	--	30	70	60	--	--
2 -4 hours	900	240	20	170	50	660	310	--	--	--	160	100	50	--
4 -6 hours	490	120	20	60	30	370	170	--	--	--	100	80	--	--
6 -8 hours	400	120	--	60	50	280	130	--	--	--	70	50	--	--
8 -10 hours	210	90	--	80	--	130	50	--	--	--	50	20	--	--
10 -12 hours	70	--	--	--	--	50	20	--	--	--	--	--	--	--
12 -16 hours	20	--	--	--	--	20	--	--	--	--	--	--	--	--
More than 16 hours	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Not reported	1,120	410	70	190	150	710	280	--	--	40	190	180	--	--
Day of week:														
Sunday	330	20	--	--	--	320	150	--	--	--	60	100	--	--
Monday	750	310	110	100	110	440	210	--	--	30	100	70	--	--
Tuesday	670	160	--	110	30	510	270	--	--	--	140	70	--	--
Wednesday	700	270	--	190	70	440	140	--	--	40	110	110	--	--
Thursday	620	220	30	110	80	400	180	--	--	20	100	80	--	--
Friday	700	210	--	100	100	490	170	--	70	--	130	50	--	--
Saturday	240	20	--	--	--	220	80	--	--	--	70	50	--	--

¹ Days-away-from-work cases include those that result in days away from work with or without job transfer or restriction.

² Excludes farms with fewer than 11 employees.

³ Data for mining (Sector 21 in the North American Industry Classification System) include establishments not governed by the Mine Safety and Health Administration (MSHA) rules and reporting, such as those in oil and gas extraction and related support activities. Data for mining operators in coal, metal, and nonmetal mining are provided to BLS by the Mine Safety and Health Administration, U.S. Department of Labor. Independent mining contractors are excluded from the coal, metal, and non-metal mining industries. These data do not reflect the changes the Occupational Safety and Health Administration made to its recordkeeping requirements effective January 1, 2002; therefore estimates for these industries are not comparable

to estimates in other industries.

⁴ Data for employers in rail transportation are provided to BLS by the Federal Railroad Administration, U.S. Department of Transportation. These data do not reflect the changes the Occupational Safety and Health Administration made to its recordkeeping requirements effective January 1, 2002; therefore estimates for these industries are not comparable to estimates in other industries.

NOTE: Dashes indicate data that are not available. Because of rounding and data exclusion of nonclassifiable responses, data may not sum to the totals.

SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, Survey of Occupational Injuries and Illnesses in cooperation with participating state agencies, October 12, 2016⁵

TABLE C1

APPENDIX C

**PERCENT DISTRIBUTION OF NONFATAL OCCUPATIONAL INJURIES AND ILLNESSES INVOLVING DAYS AWAY FROM WORK¹
BY SELECTED WORKER CHARACTERISTICS AND MAJOR INDUSTRY SECTOR**

PRIVATE INDUSTRY, MONTANA - 2015

Characteristic	Private industry ^{2,3,4}	Goods producing				Service providing									
		Total goods producing	Natural resources and mining ^{2,3}	Construction	Manufacturing	Total service providing	Trade, transportation and utilities ⁴	Information	Financial activities	Professional and business services	Education and health services	Leisure and hospitality	Other services	Public Administration	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	--
Gender:															
Male	64.7	91.7	94.4	96.8	82.5	53.0	74.2	66.7	33.3	53.8	24.7	50.9	--	--	--
Female	34.6	8.3	11.1	--	17.5	45.9	23.3	--	66.7	46.2	75.3	49.1	62.5	--	--
Age:															
14 to 15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
16 to 19	2.0	1.7	--	--	--	2.1	2.5	--	--	--	--	3.8	--	--	--
20 to 24	11.7	14.0	--	17.5	12.5	10.7	13.3	--	--	--	6.8	13.2	--	--	--
25 to 34	21.9	20.7	22.2	23.8	15.0	22.4	20.8	--	50.0	23.1	16.4	30.2	--	--	--
35 to 44	16.7	20.7	11.1	28.6	15.0	14.9	15.8	--	--	--	19.2	9.4	--	--	--
45 to 54	21.6	26.4	44.4	9.5	45.0	19.6	18.3	--	--	15.4	21.9	15.1	62.5	--	--
55 to 64	18.7	11.6	16.7	14.3	7.5	21.7	24.2	--	33.3	30.8	23.3	11.3	--	--	--
65 and over	2.7	--	--	--	--	3.9	3.3	--	--	--	5.5	--	--	--	--
Length of service with employer:															
Less than 3 months	17.4	23.1	11.1	22.2	30.0	14.6	13.3	--	41.7	23.1	8.2	18.9	--	--	--
3 to 11 months	24.1	20.7	11.1	25.4	20.0	25.6	27.5	--	--	15.4	21.9	34.0	--	--	--
1 to 5 years	31.6	28.1	27.8	27.0	32.5	32.7	31.7	66.7	33.3	38.5	38.4	20.8	75.0	--	--
More than 5 years	23.9	24.8	55.6	20.6	17.5	23.5	24.2	--	--	15.4	28.8	22.6	--	--	--
Race or ethnic origin⁵:															
White only	57.7	62.8	50.0	68.3	62.5	55.5	54.2	--	83.3	69.2	54.8	47.2	75.0	--	--
Black only	.7	--	--	--	--	.7	1.7	--	--	--	--	--	--	--	--
Hispanic or Latino only	1.5	--	--	--	--	1.8	2.5	--	--	--	--	--	--	--	--
Asian only	.5	--	--	--	--	.7	1.7	--	--	--	--	--	--	--	--
Native Hawaiian or other Pacific Islander only	.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--
American Indian or Alaskan Native only	2.7	--	--	--	--	3.6	2.5	--	--	--	4.1	5.7	--	--	--
Hispanic or Latino and other race	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Multi-race	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Not reported	36.1	33.9	50.0	28.6	35.0	37.0	38.3	66.7	--	30.8	37.0	43.4	--	--	--

¹ Days-away-from-work cases include those that result in days away from work with or without job transfer or restriction.

² Excludes farms with fewer than 11 employees.

³ Data for mining (Sector 21 in the North American Industry Classification System) include establishments not governed by the Mine Safety and Health Administration (MSHA) rules and reporting, such as those in oil and gas extraction and related support activities. Data for mining operators in coal, metal, and nonmetal mining are provided to BLS by the Mine Safety and Health Administration, U.S. Department of Labor. Independent mining contractors are excluded from the coal, metal, and non-metal mining industries. These data do not reflect the changes the Occupational Safety and Health Administration made to its recordkeeping requirements effective January 1, 2002; therefore estimates for these industries are not comparable to estimates in other industries.

⁴ Data for employers in rail transportation are provided to BLS by the Federal Railroad Administration, U.S. Department of Transportation. These data do not reflect the changes the Occupational Safety and Health Administration made to its recordkeeping requirements effective January 1, 2002; therefore estimates for these industries are not comparable to estimates in other industries.

⁵ Race and ethnicity data do not add to total. Some cases may be counted as both "Multi-race" and "Hispanic and other" race.

NOTE: Dashes indicate data that are not available. Because of rounding and data exclusion of nonclassifiable responses, data may not sum to the totals.

SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, Survey of Occupational Injuries and Illnesses in cooperation with participating State agencies, October 06, 2016. October 12, 2016⁶

TABLE C2

APPENDIX C

PERCENT DISTRIBUTION OF NONFATAL OCCUPATIONAL INJURIES AND ILLNESSES INVOLVING DAYS AWAY FROM WORK¹
BY SELECTED INJURY OR ILLNESS CHARACTERISTICS AND MAJOR INDUSTRY SECTOR

PRIVATE INDUSTRY, MONTANA - 2015

Characteristic	Private industry ^{2,3,4}	Goods producing				Service providing									
		Total goods producing	Natural resources and mining ^{2,3}	Construction	Manufacturing	Total service providing	Trade, transportation and utilities ⁴	Information	Financial activities	Professional and business services	Education and health services	Leisure and hospitality	Other services	Public Administration	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	--
Nature of injury, illness:															
Fractures	9.2	9.9	11.1	11.1	10.0	8.5	5.8	--	--	15.4	5.5	9.4	62.5	--	--
Sprains, strains, tears	39.3	30.6	27.8	33.3	27.5	42.7	53.3	66.7	--	23.1	49.3	24.5	--	--	--
Amputations	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bruise, contusions	5.5	4.1	--	3.2	--	6.0	5.8	--	--	--	8.2	7.5	--	--	--
Chemical burns and corrosions	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Heat (thermal) burns	1.0	--	--	--	--	1.4	--	--	--	--	--	3.8	--	--	--
Soreness, pain	14.7	14.0	33.3	6.3	20.0	14.9	10.8	--	--	30.8	16.4	20.8	--	--	--
Cuts, lacerations, punctures	11.4	17.4	--	22.2	17.5	8.9	9.2	--	--	--	2.7	7.5	--	--	--
Cuts, lacerations	11.2	16.5	--	22.2	15.0	8.5	9.2	--	--	--	2.7	7.5	--	--	--
Punctures (except gunshot wounds)	.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carpal tunnel syndrome	1.2	3.3	--	6.3	--	--	--	--	--	--	--	--	--	--	--
Tendonitis	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Multiple traumatic injuries	2.5	3.3	--	--	--	2.1	2.5	--	--	--	--	--	--	--	--
With sprains and other injuries	.7	--	--	--	--	1.1	--	--	--	--	--	--	--	--	--
With fractures and other injuries	1.0	3.3	--	--	--	--	--	--	--	--	--	--	--	--	--
Part of body affected:															
Head	9.0	9.1	--	14.3	--	8.9	11.7	--	--	--	4.1	13.2	--	--	--
Eye	1.2	1.7	--	3.2	--	1.1	--	--	--	--	--	3.8	--	--	--
Neck	1.0	--	--	--	--	1.1	--	--	--	--	2.7	--	--	--	--
Trunk	27.1	26.4	55.6	25.4	15.0	27.4	25.8	--	--	30.8	30.1	32.1	--	--	--
Back	21.6	23.1	44.4	22.2	12.5	21.0	20.8	--	--	30.8	23.3	22.6	--	--	--
Upper extremities	31.3	33.9	22.2	31.7	45.0	29.9	26.7	--	66.7	30.8	24.7	32.1	62.5	--	--
Shoulder	8.0	4.1	--	3.2	7.5	9.3	10.8	--	--	--	8.2	9.4	--	--	--
Arm	6.0	4.1	11.1	--	5.0	6.8	6.7	--	--	--	5.5	5.7	62.5	--	--
Wrist	4.5	5.8	--	6.3	5.0	3.9	2.5	--	--	--	4.1	3.8	--	--	--
Hand	12.4	19.8	--	19.0	27.5	9.3	6.7	--	50.0	--	5.5	11.3	--	--	--
Lower extremities	21.6	19.0	16.7	17.5	22.5	23.1	27.5	--	--	15.4	24.7	13.2	--	--	--
Knee	9.2	5.0	--	4.8	5.0	11.0	14.2	--	--	15.4	11.0	5.7	--	--	--
Ankle	4.5	3.3	--	3.2	5.0	5.0	5.8	--	--	--	5.5	--	--	--	--
Foot	4.2	5.0	--	--	12.5	3.9	3.3	--	--	--	5.5	3.8	--	--	--
Toe, toenail	.7	--	--	--	--	.7	--	--	--	--	--	--	--	--	--
Body systems	1.5	1.7	--	--	--	1.4	--	--	--	--	--	3.8	--	--	--
Multiple	8.2	9.1	--	9.5	12.5	7.8	6.7	--	--	--	12.3	5.7	--	--	--
Source of injury, illness:															
Chemical, chemical products	1.0	--	--	--	--	1.1	--	--	--	--	--	3.8	--	--	--
Containers	11.9	5.8	--	7.9	5.0	14.9	21.7	--	--	15.4	8.2	13.2	--	--	--
Furniture, fixtures	5.2	3.3	--	6.3	--	6.0	3.3	--	--	--	5.5	11.3	--	--	--
Machinery	7.0	9.9	--	9.5	15.0	5.7	5.8	--	--	--	2.7	9.4	--	--	--

TABLE C2 (continued)

APPENDIX C

Characteristic	Private industry ^{2,3,4}	Goods producing				Service providing									
		Total goods producing	Natural resources and mining ^{2,3}	Construction	Manufacturing	Total service providing	Trade, transportation and utilities ⁴	Information	Financial activities	Professional and business services	Education and health services	Leisure and hospitality	Other services	Public Administration	
Parts and materials	9.5	17.4	11.1	20.6	17.5	6.0	10.8	--	--	--	--	3.8	--	--	
Person, injured or ill worker	15.2	14.9	--	15.9	17.5	15.3	17.5	--	--	--	16.4	11.3	--	--	
Worker motion or position	14.7	14.9	--	15.9	17.5	14.6	17.5	--	--	--	13.7	11.3	--	--	
Person, other than injured or ill workers	7.0	--	--	--	--	10.0	--	--	--	--	35.6	--	--	--	
Health care patient	6.2	--	--	--	--	8.9	--	--	--	--	34.2	--	--	--	
Floors, walkways, ground surfaces	14.7	12.4	--	19.0	5.0	15.3	12.5	--	--	23.1	16.4	22.6	--	--	
Ladder	1.7	2.5	--	4.8	--	1.4	2.5	--	--	--	--	--	--	--	
Handtools	6.7	7.4	--	4.8	15.0	6.0	1.7	--	--	--	--	15.1	--	--	
Vehicles	10.2	8.3	38.9	--	5.0	11.4	17.5	--	--	--	4.1	--	62.5	--	
Trucks	4.2	1.7	--	--	--	5.0	11.7	--	--	--	--	--	--	--	
Cart, dolly, hand truck - nonpowered	.5	--	--	--	--	.7	--	--	--	--	--	--	--	--	
Event or exposure:															
Violence and other injuries by persons or animal	4.5	4.1	--	--	7.5	4.3	--	--	--	--	15.1	--	--	--	
Intentional injury by other person	1.5	--	--	--	--	2.1	--	--	--	--	8.2	--	--	--	
Injury by person - unintentional or intent unknown	1.2	--	--	--	--	1.8	--	--	--	--	5.5	--	--	--	
Animal and insect related incidents	1.7	4.1	--	--	7.5	.7	--	--	--	--	--	--	--	--	
Transportation incidents	3.5	--	--	--	--	5.0	8.3	--	--	--	--	--	--	--	
Roadway incidents involving motorized land vehicles	2.7	--	--	--	--	3.9	7.5	--	--	--	--	--	--	--	
Fires and explosions	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Falls, slips, trips	24.9	27.3	44.4	34.9	7.5	23.8	21.7	--	--	30.8	20.5	26.4	62.5	--	
Slips, trips without fall	3.0	3.3	--	6.3	--	2.8	3.3	--	--	--	2.7	--	--	--	
Fall on same level	13.2	10.7	--	15.9	5.0	14.6	11.7	--	--	15.4	15.1	20.8	--	--	
Fall to lower level	8.2	13.2	38.9	14.3	--	6.0	5.8	--	--	--	--	3.8	--	--	
Exposure to harmful substances or environments	3.2	4.1	--	--	10.0	2.8	1.7	--	--	--	2.7	7.5	--	--	
Contact with object, equipment	23.1	29.8	16.7	30.2	32.5	20.3	18.3	--	58.3	23.1	12.3	26.4	--	--	
Struck by object or equipment	15.7	19.8	11.1	20.6	25.0	13.9	10.0	--	58.3	15.4	8.2	20.8	--	--	
Struck against object or equipment	5.5	6.6	--	9.5	--	5.0	6.7	--	--	--	2.7	5.7	--	--	
Caught in or compressed by object or equipment	1.2	2.5	--	--	7.5	.7	--	--	--	--	--	--	--	--	
Overexertion and bodily reaction	40.3	33.1	27.8	31.7	37.5	43.1	48.3	--	--	46.2	46.6	35.8	--	--	
Repetitive motion involving microtasks	2.7	5.8	--	6.3	7.5	1.1	1.7	--	--	--	--	--	--	--	
Overexertion in lifting or lowering	12.2	5.0	11.1	3.2	5.0	14.9	18.3	--	--	23.1	11.0	15.1	--	--	

¹ Days-away-from-work cases include those that result in days away from work with or without job transfer or restriction.

² Excludes farms with fewer than 11 employees.

³ Data for mining (Sector 21 in the North American Industry Classification System) include establishments not governed by the Mine Safety and Health Administration (MSHA) rules and reporting, such as those in oil and gas extraction and related support activities. Data for mining operators in coal, metal, and nonmetal mining are provided to BLS by the Mine Safety and Health Administration, U.S. Department of Labor. Independent mining contractors are excluded from the coal, metal, and non-metal mining industries. These data do not reflect the changes the Occupational Safety and Health Administration made to its recordkeeping requirements effective January 1, 2002; therefore estimates for these industries are not comparable to estimates in other industries.

⁴ Data for employers in rail transportation are provided to BLS by the Federal Railroad Administration, U.S. Department of Transportation. These data do not reflect the changes the Occupational Safety and Health Administration made to its recordkeeping requirements effective January 1, 2002; therefore estimates for these industries are not comparable to estimates in other industries.

NOTE: Dashes indicate data that are not available. Because of rounding and data exclusion of nonclassifiable responses, data may not sum to the totals.

SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, Survey of Occupational Injuries and Illnesses in cooperation with participating state agencies, October 12, 2016"

TABLE C3

APPENDIX C

PERCENT DISTRIBUTION OF NONFATAL OCCUPATIONAL INJURIES AND ILLNESSES INVOLVING DAYS AWAY FROM WORK¹
BY SELECTED WORKER CHARACTERISTICS AND NUMBER OF DAYS AWAY FROM WORK

PRIVATE INDUSTRY, MONTANA - 2015

Characteristic	Percent of cases involving								Median days away from work
	Total cases	1 day	2 days	3 to 5 days	6 to 10 days	11 to 20 days	21 to 30 days	31 days or more	
Total	100.0	13.7	11.4	24.6	9.7	10.4	7.2	23.1	6
Gender:									
Male	100.0	11.9	11.5	22.7	9.6	10.4	7.7	26.2	7
Female	100.0	16.5	11.5	28.1	9.4	10.1	6.5	16.5	5
Age:									
14 -15	--	--	--	--	--	--	--	--	--
16 -19	100.0	25.0	25.0	25.0	--	--	--	--	2
20 -24	100.0	14.9	19.1	40.4	6.4	10.6	4.3	8.5	3
25 -34	100.0	18.2	10.2	28.4	8.0	6.8	12.5	15.9	5
35 -44	100.0	13.4	10.4	17.9	11.9	20.9	4.5	19.4	9
45 -54	100.0	10.3	9.2	23.0	10.3	6.9	9.2	32.2	8
55 -64	100.0	10.7	10.7	17.3	9.3	10.7	5.3	37.3	12
65 and over	100.0	--	--	18.2	18.2	--	--	27.3	9
Length of service with employer:									
Less than 3 months	100.0	17.1	12.9	28.6	7.1	8.6	8.6	17.1	4
3 -11 months	100.0	10.3	12.4	26.8	10.3	8.2	8.2	23.7	5
1 -5 years	100.0	13.4	12.6	24.4	10.2	11.0	7.1	21.3	5
5 years or more	100.0	14.6	8.3	19.8	10.4	13.5	5.2	29.2	9
Race or ethnic origin²:									
White	100.0	12.5	11.2	25.9	9.1	10.3	7.3	23.7	6
Hispanic or Latino	100.0	--	--	33.3	--	--	--	--	5
Black or African American	100.0	--	--	--	--	--	--	--	6
Asian	100.0	--	--	--	--	--	--	--	7
American Indian or Alaska Native	100.0	18.2	18.2	27.3	--	18.2	--	18.2	5
Native Hawaiian or Other Pacific Islander	100.0	--	--	--	--	--	--	--	9
Multi-race	--	--	--	--	--	--	--	--	--
Hispanic and other	--	--	--	--	--	--	--	--	--

¹ Days-away-from-work cases include those that result in days away from work with or without job transfer or restriction.

² Race and ethnicity data do not add to total. Some cases may be counted as both Multi-race and "Hispanic and other" race.

NOTE: Dashes indicate data that are not available. Because of rounding and data exclusion of nonclassifiable responses, data may not sum to the totals.

SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, Survey of Occupational Injuries and Illnesses in cooperation with participating state agencies, October 12, 2016"

TABLE C4

APPENDIX C

PERCENT DISTRIBUTION OF NONFATAL OCCUPATIONAL INJURIES AND ILLNESSES INVOLVING DAYS AWAY FROM WORK¹
BY MAJOR OCCUPATIONAL GROUP AND NUMBER OF DAYS AWAY FROM WORK

PRIVATE INDUSTRY, MONTANA - 2015

Characteristic	Percent of cases involving								Median days away from work
	Total cases	1 day	2 days	3 to 5 days	6 to 10 days	11 to 20 days	21 to 30 days	31 days or more	
Total	100.0	13.7	11.4	24.6	9.7	10.4	7.2	23.1	6
Management occupations	100.0	30.8	--	46.2	--	--	--	--	5
Business and financial operations occupations	100.0	--	--	--	--	--	--	--	3
Computer and mathematical occupations	--	--	--	--	--	--	--	--	--
Architecture and engineering occupations	--	--	--	--	--	--	--	--	--
Life, physical, and social science occupations	--	--	--	--	--	--	--	--	--
Community and social service occupations	100.0	--	--	--	--	--	--	--	5
Legal occupations	--	--	--	--	--	--	--	--	--
Education, training, and library occupations	--	--	--	--	--	--	--	--	--
Arts, design, entertainment, sports, and media occupations	100.0	--	--	--	--	--	--	--	13
Healthcare practitioners and technical occupations	100.0	--	18.8	25.0	12.5	18.8	--	18.8	6
Healthcare support occupations	100.0	14.8	14.8	18.5	14.8	14.8	--	22.2	7
Protective service occupations	100.0	--	--	--	--	--	--	--	6
Food preparation and serving related occupations	100.0	34.2	15.8	18.4	5.3	5.3	10.5	7.9	2
Building and grounds cleaning and maintenance occupations	100.0	19.2	15.4	30.8	11.5	--	--	15.4	4
Personal care and service occupations	100.0	14.3	14.3	21.4	14.3	14.3	--	14.3	5
Sales and related occupations	100.0	11.8	14.7	26.5	8.8	11.8	5.9	17.6	5
Office and administrative support occupations	100.0	17.6	11.8	29.4	17.6	--	--	11.8	5
Farming, fishing, and forestry occupations	100.0	--	--	42.9	--	--	--	42.9	14
Construction and extraction occupations	100.0	6.9	5.6	29.2	8.3	11.1	6.9	31.9	11
Installation, maintenance, and repair occupations	100.0	9.7	9.7	25.8	12.9	12.9	12.9	19.4	7
Production occupations	100.0	8.6	25.7	8.6	5.7	11.4	5.7	31.4	11
Transportation and material moving occupations	100.0	8.6	3.4	19.0	10.3	10.3	8.6	37.9	18

¹ Days-away-from-work cases include those that result in days away from work with or without job transfer or restriction.

NOTE: Dashes indicate data that are not available. Because of rounding and data exclusion of nonclassifiable responses, data may not sum to the totals.

SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, Survey of Occupational Injuries and Illnesses in cooperation with participating state agencies, October 12, 2016

TABLE C5

APPENDIX C

PERCENT DISTRIBUTION OF NONFATAL OCCUPATIONAL INJURIES AND ILLNESSES INVOLVING DAYS AWAY FROM WORK¹
BY SELECTED OCCUPATIONS AND NUMBER OF DAYS AWAY FROM WORK

PRIVATE INDUSTRY, MONTANA - 2015

Characteristic	Percent of cases involving								Median days away from work
	Total cases	1 day	2 days	3 to 5 days	6 to 10 days	11 to 20 days	21 to 30 days	31 days or more	
Total	100.0	13.7	11.4	24.6	9.7	10.4	7.2	23.1	6
Construction laborers	100.0	--	7.4	51.9	11.1	--	--	18.5	5
Heavy and tractor-trailer truck drivers	100.0	--	--	19.0	9.5	--	--	52.4	45
Nursing assistants	100.0	11.1	11.1	22.2	16.7	16.7	--	16.7	7
Retail salespersons	100.0	12.5	12.5	37.5	--	12.5	--	12.5	5
Laborers and freight, stock, and material movers, hand	100.0	18.8	--	31.3	12.5	--	--	18.8	4
Maids and housekeeping cleaners	100.0	--	14.3	42.9	14.3	--	--	14.3	4
Combined food preparation and serving workers, including fast food	100.0	53.8	--	--	--	--	--	--	1
Light truck or delivery services drivers	100.0	--	--	15.4	--	15.4	--	46.2	28
Personal care aides	100.0	22.2	22.2	--	--	--	--	--	4
Tire repairers and changers	100.0	--	--	--	--	--	37.5	--	20
Butchers and meat cutters	100.0	--	37.5	--	--	--	--	50.0	5
Janitors and cleaners, except maids and housekeeping cleaners	100.0	28.6	--	28.6	--	--	--	--	3
Cashiers	100.0	--	28.6	--	--	--	--	28.6	9
First-line supervisors of retail sales workers	100.0	--	--	28.6	--	--	--	--	5
Registered nurses	100.0	--	--	33.3	--	--	--	--	5
Plumbers, pipefitters, and steamfitters	100.0	--	--	66.7	--	--	--	--	4
Carpenters	100.0	--	--	--	33.3	--	--	--	10
First-line supervisors of construction trades and extraction workers	100.0	--	--	--	--	--	--	66.7	80
Cooks, restaurant	100.0	--	--	40.0	--	--	--	--	4
Maintenance and repair workers, general	100.0	40.0	--	--	--	--	--	40.0	5
Painters, construction and maintenance	100.0	--	--	--	--	--	--	80.0	40
Farmworkers, farm, ranch, and aquacultural animals	100.0	--	--	40.0	--	--	--	40.0	14
Stock clerks and order fillers	100.0	--	--	--	--	--	--	--	7
Chief executives	100.0	--	--	100.0	--	--	--	--	5
Food preparation workers	100.0	40.0	--	--	--	--	--	--	3
Licensed practical and licensed vocational nurses	100.0	--	--	--	--	--	--	50.0	17

¹ Days-away-from-work cases include those that result in days away from work with or without job transfer or restriction.

SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, Survey of Occupational Injuries and Illnesses in cooperation with participating state agencies, October 12, 2016

NOTE: Dashes indicate data that are not available. Because of rounding and data exclusion of nonclassifiable responses, data may not sum to the totals.

TABLE C6

APPENDIX C

**PERCENT DISTRIBUTION OF NONFATAL OCCUPATIONAL INJURIES AND ILLNESSES INVOLVING DAYS AWAY FROM WORK¹
BY MAJOR INDUSTRY SECTOR AND NUMBER OF DAYS AWAY FROM WORK**

PRIVATE INDUSTRY, MONTANA - 2015

Industry Sector	Percent of cases involving								Median days away from work
	Total cases	1 day	2 days	3 to 5 days	6 to 10 days	11 to 20 days	21 to 30 days	31 days or more	
Private Industry ^{2,3,4}	100.0	13.7	11.4	24.6	9.7	10.4	7.2	23.1	6
Goods producing	100.0	8.3	9.9	26.4	7.4	9.9	8.3	29.8	10
Natural resources and mining ^{2,3}	100.0	--	--	22.2	--	11.1	--	50.0	21
Construction	100.0	6.3	6.3	33.3	11.1	9.5	6.3	25.4	7
Manufacturing	100.0	12.5	15.0	17.5	5.0	10.0	12.5	30.0	11
Service providing	100.0	16.0	12.5	23.8	10.3	10.7	6.8	19.9	5
Trade transportation and utilities	100.0	8.3	13.3	20.0	10.0	12.5	8.3	27.5	10
Information	100.0	--	--	--	--	--	--	--	5
Financial activities	100.0	50.0	--	--	--	--	--	--	1
Professional and business services	100.0	15.4	--	30.8	--	15.4	--	23.1	5
Educational and health services	100.0	15.1	13.7	20.5	13.7	13.7	5.5	19.2	6
Leisure and hospitality	100.0	26.4	15.1	30.2	7.5	5.7	7.5	7.5	4
Other services except public administration	100.0	--	--	62.5	--	--	--	--	5

¹ Days-away-from-work cases include those that result in days away from work with or without job transfer or restriction.

² Excludes farms with fewer than 11 employees.

³ Data for mining (Sector 21 in the North American Industry Classification System) include establishments not governed by the Mine Safety and Health Administration (MSHA) rules and reporting, such as those in oil and gas extraction and related support activities. Data for mining operators in coal, metal, and nonmetal mining are provided to BLS by the Mine Safety and Health Administration, U.S. Department of Labor. Independent mining contractors are excluded from the coal, metal, and non-metal mining industries. These data do not reflect the changes the Occupational Safety and Health Administration made to its recordkeeping requirements effective January 1, 2002; therefore estimates for these industries are not comparable to estimates in other industries.

⁴ Data for employers in rail transportation are provided to BLS by the Federal Railroad Administration, U.S. Department of Transportation. These data do not reflect the changes the Occupational Safety and Health Administration made to its recordkeeping requirements effective January 1, 2002; therefore estimates for these industries are not comparable to estimates in other industries.

NOTE: Dashes indicate data that are not available. Because of rounding and data exclusion of nonclassifiable responses, data may not sum to the totals.

SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, Survey of Occupational Injuries and Illnesses in cooperation with participating state agencies, October 12, 2016"

TABLE C7

APPENDIX C

PERCENT DISTRIBUTION OF NONFATAL OCCUPATIONAL INJURIES AND ILLNESSES INVOLVING DAYS AWAY FROM WORK¹
BY TIME, HOURS ON THE JOB, AND DAY OF WEEK AND MAJOR INDUSTRY SECTOR

PRIVATE INDUSTRY, MONTANA - 2015

Characteristic	Private industry ^{2,3,4}	Goods producing				Service providing									
		Total goods producing	Natural resources and mining ^{2,3}	Construction	Manufacturing	Total service providing	Trade, transportation and utilities ⁴	Information	Financial activities	Professional and business services	Education and health services	Leisure and hospitality	Other services	Public Administration	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	--
Time of event:															
12:01 AM -4:00 AM	3.2	5.8	33.3	--	--	2.1	1.7	--	--	--	2.7	--	--	--	--
4:01 AM -8:00 AM	9.5	5.8	--	6.3	5.0	11.0	13.3	--	--	--	11.0	11.3	--	--	--
8:01 AM -12:00 PM	29.6	31.4	27.8	31.7	30.0	28.8	29.2	--	25.0	30.8	23.3	26.4	75.0	--	--
12:01 PM -4:00 PM	19.2	17.4	11.1	19.0	17.5	19.9	20.8	--	50.0	--	17.8	17.0	--	--	--
4:01 PM -8:00 PM	10.4	8.3	--	12.7	--	11.4	10.8	--	--	23.1	15.1	9.4	--	--	--
8:01 PM -12:00 AM	4.5	1.7	--	--	5.0	5.7	4.2	--	--	--	8.2	7.5	--	--	--
Not reported	23.6	29.8	16.7	28.6	37.5	21.0	20.0	--	--	23.1	21.9	26.4	--	--	--
Hours on the job before event occurred:															
Occurred before shift began	.5	--	--	--	--	.7	--	--	--	--	--	--	--	--	--
Less than 1 hour	9.0	8.3	--	6.3	15.0	9.3	8.3	--	50.0	--	8.2	5.7	--	--	--
1 -2 hours	10.4	9.1	33.3	3.2	7.5	11.0	10.0	--	--	23.1	9.6	11.3	--	--	--
2 -4 hours	22.4	19.8	11.1	27.0	12.5	23.5	25.8	--	--	--	21.9	18.9	62.5	--	--
4 -6 hours	12.2	9.9	11.1	9.5	7.5	13.2	14.2	--	--	--	13.7	15.1	--	--	--
6 -8 hours	10.0	9.9	--	9.5	12.5	10.0	10.8	--	--	--	9.6	9.4	--	--	--
8 -10 hours	5.2	7.4	--	12.7	--	4.6	4.2	--	--	--	6.8	3.8	--	--	--
10 -12 hours	1.7	--	--	--	--	1.8	1.7	--	--	--	--	--	--	--	--
12 -16 hours	.5	--	--	--	--	.7	--	--	--	--	--	--	--	--	--
More than 16 hours	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Not reported	27.9	33.9	38.9	30.2	37.5	25.3	23.3	--	--	30.8	26.0	34.0	--	--	--
Day of week:															
Sunday	8.2	1.7	--	--	--	11.4	12.5	--	--	--	8.2	18.9	--	--	--
Monday	18.7	25.6	61.1	15.9	27.5	15.7	17.5	--	--	23.1	13.7	13.2	--	--	--
Tuesday	16.7	13.2	--	17.5	7.5	18.1	22.5	--	--	--	19.2	13.2	--	--	--
Wednesday	17.4	22.3	--	30.2	17.5	15.7	11.7	--	--	30.8	15.1	20.8	--	--	--
Thursday	15.4	18.2	16.7	17.5	20.0	14.2	15.0	--	--	15.4	13.7	15.1	--	--	--
Friday	17.4	17.4	--	15.9	25.0	17.4	14.2	--	58.3	--	17.8	9.4	--	--	--
Saturday	6.0	1.7	--	--	--	7.8	6.7	--	--	--	9.6	9.4	--	--	--

¹ Days-away-from-work cases include those that result in days away from work with or without job transfer or restriction.

² Excludes farms with fewer than 11 employees.

³ Data for mining (Sector 21 in the North American Industry Classification System) include establishments not governed by the Mine Safety and Health Administration (MSHA) rules and reporting, such as those in oil and gas extraction and related support activities. Data for mining operators in coal, metal, and nonmetal mining are provided to BLS by the Mine Safety and Health Administration, U.S. Department of Labor. Independent mining contractors are excluded from the coal, metal, and non-metal mining industries. These data do not reflect the changes the Occupational Safety and Health Administration made to its recordkeeping requirements effective January 1, 2002; therefore estimates for these industries are not comparable to estimates in other industries.

⁴ Data for employers in rail transportation are provided to BLS by the Federal Railroad Administration, U.S. Department of Transportation. These data do not reflect the changes the Occupational Safety and Health Administration made to its recordkeeping requirements effective January 1, 2002; therefore estimates for these industries are not comparable to estimates in other industries.

NOTE: Dashes indicate data that are not available. Because of rounding and data exclusion of nonclassifiable responses, data may not sum to the totals.

SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, Survey of Occupational Injuries and Illnesses in cooperation with participating state agencies, October 12, 2016"

TABLE C8

APPENDIX C

PERCENT DISTRIBUTION OF NONFATAL OCCUPATIONAL INJURIES AND ILLNESSES INVOLVING DAYS AWAY FROM WORK¹

BY TIME, HOURS ON THE JOB, AND DAY OF WEEK AND NUMBER OF DAYS AWAY FROM WORK

PRIVATE INDUSTRY, MONTANA - 2015

Characteristic	Percent of cases involving								Median days away from work
	Total cases	1 day	2 days	3 to 5 days	6 to 10 days	11 to 20 days	21 to 30 days	31 days or more	
Total	100.0	13.7	11.4	24.6	9.7	10.4	7.2	23.1	6
Time of event:									
12:01 AM -4:00 AM	100.0	--	--	--	--	--	--	61.5	31
4:01 AM -8:00 AM	100.0	10.5	10.5	31.6	5.3	7.9	5.3	31.6	5
8:01 AM -12 noon	100.0	10.9	7.6	31.9	9.2	9.2	11.8	19.3	5
12:01 PM -4:00 PM	100.0	20.8	13.0	15.6	10.4	10.4	5.2	26.0	6
4:01 PM -8:00 PM	100.0	14.3	9.5	19.0	11.9	19.0	4.8	23.8	10
8:01 PM -12 midnight	100.0	16.7	16.7	22.2	22.2	--	--	11.1	5
Time not reported	100.0	13.7	16.8	25.3	8.4	10.5	6.3	17.9	5
Hours on the job before event occurred:									
Before shift began	100.0	--	--	--	--	--	--	--	5
Less than 1 hour	100.0	22.2	5.6	25.0	5.6	8.3	11.1	22.2	5
1 - 2 hours	100.0	14.3	11.9	26.2	7.1	9.5	7.1	26.2	5
2 - 4 hours	100.0	10.0	7.8	32.2	7.8	8.9	8.9	23.3	6
4 - 6 hours	100.0	14.3	8.2	16.3	14.3	12.2	4.1	32.7	10
6 - 8 hours	100.0	15.0	15.0	20.0	12.5	7.5	7.5	20.0	5
8 - 10 hours	100.0	--	9.5	14.3	14.3	23.8	--	28.6	14
10 - 12 hours	100.0	--	--	--	28.6	--	--	28.6	7
12 - 16 hours	100.0	--	--	--	--	--	--	--	6
More than 16 hours	--	--	--	--	--	--	--	--	--
Hours not reported	100.0	14.3	16.1	25.0	8.9	10.7	6.3	18.8	5
Day of week:									
Sunday	100.0	21.2	21.2	27.3	6.1	6.1	6.1	12.1	4
Monday	100.0	10.7	10.7	20.0	12.0	12.0	9.3	26.7	9
Tuesday	100.0	13.4	7.5	23.9	9.0	7.5	7.5	29.9	8
Wednesday	100.0	8.6	17.1	28.6	11.4	11.4	2.9	20.0	4
Thursday	100.0	8.1	11.3	25.8	8.1	11.3	8.1	29.0	8
Friday	100.0	17.1	7.1	24.3	8.6	12.9	8.6	20.0	7
Saturday	100.0	29.2	12.5	25.0	8.3	--	--	16.7	4

¹ Days-away-from-work cases include those that result in days away from work with or without job transfer or restriction.

SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, Survey of Occupational Injuries and Illnesses in cooperation with participating state agencies, October 12, 2016

NOTE: Dashes indicate data that are not available. Because of rounding and data exclusion of nonclassifiable responses, data may not sum to the totals.

APPENDIX D

GLOSSARY OF TERMS

Annual summary

Consists of a copy of the occupational injury and illness totals for the year from the OSHA No. 300, and the following information: the calendar year covered, company name, establishment address, certification signature, title, and date.

Annual survey

Each year the Bureau of Labor Statistics conducts an annual Survey of Occupational Injuries and Illnesses to produce national statistics. The OSHA injury and illness records maintained by employers in their establishments serve as the basis for this survey.

Cooperative program

A program jointly conducted by the states and the federal government to collect occupational injury and illness statistics.

Employee

One who is employed in the business of his or her employer affecting commerce.

Employer

Any person engaged in a business affecting commerce that has employees.

Establishment

A single physical location where business is conducted or where services or industrial operations are performed; the place where the employees report for work, operate from, or from which they are paid.

Exposure

The reasonable likelihood that a worker is or was subject to some effect, influence, or safety hazard; or in contact with a hazardous chemical or physical agent at a sufficient concentration and duration to produce an illness.

Federal Register

The official source of information and notification on OSHA's proposed rulemaking, standards, regulations, and other official matters, including amendments, corrections, insertions, or deletions.

First aid

Any one-time treatment and subsequent observation of minor scratches, cuts, burns, splinters, and so forth, which do not ordinarily require medical care. Such treatment and observation are considered first aid even though provided by a physician or registered professional personnel.

First Report of Injury

A worker's compensation form, which may qualify as a substitute for the supplementary record OSHA No. 301.

Hours worked

The total hours worked by all employees during the report period. Includes all time on duty, but does not include vacations, holidays, sick leave, and all other non-work time even though paid.

Incidence rate

The number of injuries, illnesses, or lost workdays related to a common exposure base of 100 full-time workers. The common exposure base enables one to make accurate inter-industry comparisons, trend analysis over time, or comparisons among firms regardless of size.

Log and summary

(OSHA No. 300) The OSHA record-keeping form used to list injuries and illness, also to note the extent of each case.

Lost workday cases

The injury or illness cases that involve days away from work, days of restricted work activity, or both.

Lost workdays

The number of workdays (consecutive or not) beyond the day of injury or onset of illness the employee was away from work or limited to restricted work activity because of an occupational injury or illness.

Lost workdays-away from work

The number of workdays (consecutive or not) on which the employee would have worked but could

GLOSSARY OF TERMS *(continued)*

not because of occupational injury or illness. The number of days away from work or days of restricted work activity does not include the day of injury or onset of illness.

Lost workdays-restricted work activity

The number of workdays (consecutive or not) on which, because of injury or illness: (1) the employee was assigned to another job on a temporary basis; or (2) the employee worked at a permanent job less than full time; or (3) the employee worked at a permanently assigned job but could not perform all duties normally connected with it. The number of days away from work or days of restricted work activity does not include the day of injury or onset of illness.

Low-hazard industries

Selected industries in retail trade, finance, insurance, and real estate; and services which are regularly exempt from OSHA record-keeping. To be included in this exemption, an industry must fall within a NAICS sector not targeted for general schedule inspections and must have an average lost workday case injury rate for a designated three-year measurement period at or below 75 percent of the U.S. private sector average rate.

Medical treatment

Includes treatment of injuries administered by physicians, registered professional personnel or lay persons (i.e., non-medical personnel). Medical treatment does not include first aid treatment (one-time treatment and subsequent observation of minor scratches, cuts, burns, splinters, and so forth, which do not ordinarily require medical care) even though provided by a physician or registered professional personnel.

North American Industry Classification System (NAICS)

A classification system that groups establishments into industries based on the activities in which they are primarily engaged. NAICS classifies all economic activities into 20 sectors. Each establishment is assigned an industry code for its major activity, which is determined by the product or group of products produced or services rendered. The structure of NAICS is hierarchical. Establishments may be classified in two-digits (designates the sector), three-digits (designates the subsector), four-digits (designates the industry group), five-digits (designates the NAICS industry),

or six-digits (designates the national industry).

Occupational illness

Any abnormal condition or disorder, other than one resulting from an occupational injury, caused by exposure to environmental factors associated with employment. It includes acute and chronic illnesses or diseases, which may be caused by inhalation, absorption, ingestion, or direct contact.

Occupational skin diseases or disorders

Examples are: contact dermatitis, eczema or rash caused by primary irritants and sensitizers or poisonous plants; oil acne; chrome ulcers; chemical burns or inflammations; etc.

Dust diseases of the lungs

Examples are: silicosis, asbestosis and other asbestos-related diseases, coal worker's pneumoconiosis, byssinosis, siderosis and other pneumoconiosis.

Respiratory conditions due to toxic agents

Examples are: pneumonitis, pharyngitis, rhinitis or acute congestion due to chemicals, dusts, gases, or fumes, farmer's lung, etc.

Poisoning

Systemic effects of toxic materials. Examples are: poisoning by lead, mercury, cadmium, arsenic or other metals; poisoning by carbon monoxide, hydrogen sulfide or other gases; poisoning by benzol, carbon tetrachloride or other organic solvents; poisoning by insecticide sprays such as parathion and lead arsenate; poisoning by other chemicals such as formaldehyde, plastics and resins; etc.

Disorders due to physical agents other than toxic materials.

Examples are: heatstroke, sunstroke, heat exhaustion, and other effects of environmental heat; freezing, frostbite, and effects of exposure to low temperatures; caisson disease; effects of ionizing radiation (isotopes, X-rays, radium); effects of non-ionizing radiation (welding flash, ultraviolet

GLOSSARY OF TERMS *(continued)*

rays, microwaves, sunburn), etc.

Disorders associated with repeated trauma

Examples are: noise-induced hearing loss; synovitis, tenosynovitis, and bursitis; Reynaud's phenomena; and other conditions due to repeated motion, vibration, or pressure.

All other occupational illnesses

Examples are: anthrax, brucellosis, infectious hepatitis, malignant and benign tumors, food poisoning, histoplasmosis, coccidioidomycosis, etc.

Occupational injury

Any injury such as a cut, fracture, sprain, amputation, etc., which results from a work accident or from a single instantaneous exposure in the work environment. Note: Conditions resulting from animal bites, such as insect or snakebites, and from one-time exposure to chemicals are considered to be injuries.

Occupational Safety and Health Administration (OSHA)

OSHA is responsible for developing, implementing and enforcing safety and health standards and regulations. OSHA works with employers and employees to foster effective safety and health programs which reduce workplace hazards.

Recordable cases

All work-related deaths and illnesses and those work-related injuries which result in loss of consciousness, restriction of work or motion, transfer to another job, or require medical treatment beyond first aid.

Regularly exempt employers

Employers regularly exempt from OSHA record-keeping include, but are not limited to, employers in retail trade; finance, insurance, and real estate; services industries; and all employers with no more than 10 full or part-time employees at any one time in the previous calendar year. (Note: Some state safety and health laws may require these employers to keep OSHA records.)

Restriction of work or motion

Occurs when the employee, because of the result

of a job-related injury or illness, is physically or mentally unable to perform all or any part of his or her normal assignment during all or any part of the workday or shift.

Supplementary Record (OSHA No. 301)

The form (or equivalent) on which additional information is recorded for each injury and illness entered on the log.

Usable units

Those units for which all reported data have been manually and mechanically screened and found acceptable.

Volunteers

Workers who are not considered to be employees under the act when they serve of their own free will without compensation.

Work environment

Consists of the employer's premises and other locations where employees are engaged in work-related activities or are present as a condition of their employment. The work environment includes not only physical locations, but also the equipment or materials used by the employee during the course of his or her work.

APPENDIX E

SCOPE AND METHODOLOGY OF SURVEY

Scope

The Survey of Occupational Injuries and Illnesses provides annual estimates of the frequency (incidence rates) and number of occupational injuries and illnesses based on logs kept by private industry employers. These logs reflect the year's injury and illness incidents and the employers' understanding of which cases were work related, under current record-keeping guidelines provided by the U.S. Department of Labor. The number of injuries and illnesses reported in any given year may be influenced by changes in the level of economic activity, working conditions and work practices, number of hours worked, and worker experience and training.

The survey includes the following industry sectors: Agriculture, Forestry, Fishing and Hunting, NAICS 11; Mining, NAICS 21; Utilities, NAICS 22; Construction, NAICS 23; Manufacturing, NAICS 31-33; Wholesale Trade, NAICS 42; Retail Trade, NAICS 44-45; Transportation and Warehousing, NAICS 48-49; Information, NAICS 51; Finance and Insurance, NAICS 52; Real Estate and Renting and Leasing, NAICS 53; Professional, Scientific, and Technical Services, NAICS 54; Management of Companies and Enterprises, NAICS 55; Administrative and Support and Waste Management and Remediation Services, NAICS 56; Educational Services, NAICS 61; Health Care and Social Assistance, NAICS 62; Arts, Entertainment, and Recreation, NAICS 71; Accommodations and Food Service, NAICS 72; and Other Services (except Public Administration) NAICS 81, Public Administration NAICS 92. Excluded from the survey are self-employed individuals; farms with fewer than 11 employees; and employers regulated by other federal safety and health laws.

Data conforming to definitions of recordable occupational injuries and illnesses for coal, metal and nonmetal mining, and railroad transportation are provided by the Mine Safety and Health Administration, Department of Labor, and the Federal Railroad Administration, Department of Transportation.

The Occupational Safety and Health Administration is responsible for the collection and compilation of comparable data for federal agencies. State and local government agencies are not surveyed for national estimates. Several states have legislation that enables them to collect data for this sector; Montana is not one of these states. Montana does, however, survey state and local government on a volunteer basis.

Sample

A two-stage sample selection process generates the survey estimates. The first stage involves selecting establishments. The second stage involves selecting the sample of cases involving days away from work, which is derived from the sample establishments.

Because the survey is a federal-state cooperative program and the data must meet the needs of participating state agencies, an independent sample is selected for each state. The sample is selected to represent all private industries in the state. The sample size for the survey is dependent upon (1) the characteristics for which estimates are needed, (2) the industries for which estimates are desired, (3) the characteristics of the population being sampled, (4) the target reliability of the estimates, and (5) the survey design employed.

SCOPE AND METHODOLOGY OF SURVEY *(continued)*

For the establishment selection process, the total number of lost workdays is used as the base for the sample design. The sample design is based on lost workday cases because it is considered the most important characteristic of the sample.

The important features of the sample design are its use of stratified random sampling with a Neyman allocation and a ratio estimator. The characteristics used to stratify the establishments are the North American Industry Classification System code and employment. Because these characteristics are highly correlated with an establishment's number and rate of reported injuries and illnesses, stratified sampling provides greater precision and, thus, results in a smaller sample size than simple random sampling. The Neyman allocation produces the minimum sample size which will provide an estimate with a fixed sampling variance. For the largest employment size classes, the allocation procedure places all of the establishments of the frame in the sample; as employment decreases, smaller and smaller proportions of establishments are included in the sample. The certainty strata are usually the size groups with 1,000 employees or more. The precision of the sample is further improved, permitting reduction in sample size by using the ratio estimator, which in turn uses employment data that are correlated with the characteristics that are to be measured.

The sample of cases involving days away from work is derived from the sampled establishments. For each sample unit, an expected number of cases involving days away from work is calculated based on the industry and employment size in which that establishment resides. If the expected number of cases is greater than 15, the establishment is requested to provide demographically detailed case characteristics information, and the number of workdays missed for cases occurring at specified time intervals (for example, certain days of the month, only certain months). For those establishments with an expected case load less than or equal to 15, the employer is requested to provide case information for all cases involving days away from work occurring in the survey year. Either way, employers are permitted to attach supplementary forms that answer questions about individual days-away-from-work cases.

Estimating procedures

Sample unit weighting. By means of a weighting procedure, sample units represent all units in their size class for a particular industry. The weight is determined by the inverse of the sampling ratio for the industry employment-size class from which the unit was selected. Because a small proportion of survey forms were not returned, weights of responding employers in a sampling cell are adjusted to account for the nonrespondents. The respondents are then shifted into the estimating cell determined by the employment reported. Data for each unit are multiplied by the appropriate weight and nonresponse adjustment factor. The products are then aggregated to obtain a total for the estimating cell.

Industry Benchmarking. Because the universe file that provides the sample frame is not current to the reference year of the survey, it is necessary to adjust the data to reflect current employment levels. In the survey, all estimates of totals are adjusted by the benchmark factor at the estimating cell level. The benchmarking procedure requires a source of accurate employment data that can be converted into an annual average employment figure for the cell level in which separate estimates are desired. Because industry/employment size data are required for national estimates, benchmark factors are calculated using both industry level employment data and size class level employment data. The benchmark factors are applied to the size class estimates.

SCOPE AND METHODOLOGY OF SURVEY *(continued)*

Weighting cases involving days away from work. Each case involving days away from work is weighted by the sample unit weight with which it is associated and the industry benchmark factor in which the associated sample unit resides. In addition, each case is weighted to adjust for case subsampling and case nonresponse for those establishments which did not provide information on all cases with days away from work which occurred in their establishment in the survey year.

Federal-state cooperation

To eliminate duplicate reporting by respondents and to ensure maximum comparability of estimates, survey respondents complete one reporting form, which is then used for national and state estimates.

Industrial classification

Reporting units are classified into industries by their principal product or activities in which they are primarily engaged, based on the 2012 revised edition of the North American Industry Classification System (NAICS). The data are tabulated according to this NAICS scheme.

Reliability of estimates

The survey estimates of occupational injuries and illnesses are based on a scientifically selected probability sample, rather than a census of the entire population. These sample-based estimates may differ from the results obtained from a census of the population. The sample used was one of many possible samples, each of which could have produced different estimates. The variation in the sample estimates across all possible samples that could have been drawn is measured by the relative standard error. The relative standard error is used to calculate a “confidence interval” around a sample estimate.

The 95-percent confidence interval is the interval centered at the sample estimate and includes all values within two times the estimate’s standard error. If several different samples were selected to estimate the population value (for example, injury and illness incidence rates), the 95-percent confidence interval would include the true population value approximately 95 percent of the time.

The relative standard errors for the rate of injuries and illnesses are calculated for national estimates only. They are not available at the state level.

Non-sampling error

Although not measured, non-sampling error will always occur when statistics are gathered. The inability to obtain information about all cases in the sample, mistakes in recording or coding the data, and definitional difficulties are general examples of non-sampling error in the survey. The Bureau of Labor Statistics has implemented quality assurance procedures to reduce non-sampling error in the survey, including a rigorous training program for state coders, mechanical edits that identify questionable entries, and a continuing effort to encourage survey participants to respond fully and accurately to all survey elements.

Publication guidelines

The estimating procedure generates occupational injury and illness estimates for many hundreds of NAICS codes. This publication, however, excludes estimates for industry codes if one of the following situations occurred:

- The industry had fewer than six employees or the industry estimates were based on reports from fewer than three companies. In addition, if three or more companies reported data from the industry, one firm could not employ more than 60 percent of the workers.
- Annual average employment for the industry in 2010 was less than 10,000. However, data for an industry with an annual average employment of less than 10,000 were published if the majority of the employment was reported in the survey.
- The relative standard error on total lost workday cases for the industry exceeds a specified limit.
- The benchmark factor for the industry was less than 0.90 or greater than 1.49.
- The publication might disclose confidential information.

Data for an unpublished industry are included in the total for the broader industry level of which it is a part. Also, selected items of data are suppressed for publishable industries if the sampling error for the estimate exceeds a specified limit, typically 60 percent at the national level.

For the case characteristics and demographic data, items of data were suppressed at a national level if one of the following situations occurred:

- The number of cases was less than five.
- The number of cases was greater than five and less than or equal to 20 and the sampling error for the estimate was unusually high, typically exceeding 60 percent.
- The number of cases was greater than 20 and the sampling error was unusually high, typically exceeding 40 percent.

APPENDIX F

HOW TO COMPUTE INCIDENCE RATES FOR AN ESTABLISHMENT

Incidence rates for an individual establishment or firm may be calculated by using the same formula that is used to calculate industry wide rates from the annual Occupational Injury and Illness Survey. The formula requires: (a) the number of injuries and illnesses; and (b) the total number of hours actually worked by all employees during the reference period. The reference period is usually the calendar year.

The formula for computing the incidence rate is as follows:

$(N/EH) \times 200,000$, where

N = number of injuries and or illnesses or lost workdays

EH = total hours worked by all employees during calendar year, and

200,000 = base for 100 full-time equivalent workers working 40 hours per week, 50 weeks per year.

An employer may compute the incidence rate for injuries only, illnesses only, lost work cases and nonfatal cases without lost workdays. Simply replace the number of injuries and illnesses in the numerator with the measure with which the rate is being computed.

Additional questions regarding case rates, their calculation, or use may be answered by contacting the Research and Analysis Bureau, Occupational Safety and Health Statistics Program, Montana Department of Labor and Industry at (800) 541-3904.



Montana Department of LABOR & INDUSTRY

Research and Analysis Bureau

P. O. Box 1728

Helena, MT 59624-1728

Phone: (406) 444-2430

Toll-free: (800) 541-3904

www.lmi.mt.gov

50 copies of this public document were produced at an estimated cost of \$0.97 per copy, for a total cost of \$48.50, which includes \$48.50 for printing and \$0.00 for distribution.

Occupational Injuries and Illnesses -2015