



The Survey of Occupational Injuries and Illnesses for Wyoming, 2017

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“Your Source for Wyoming Labor Market Information”

Who We Are

Research & Planning (R&P) functions as an exclusively statistical entity within the Wyoming Department of Workforce Services. R&P collects, analyzes, and publishes timely and accurate labor market information (LMI) meeting established statistical standards. We work to make the labor market more efficient by providing the public and the public’s representatives with the information needed for evidence-based, informed decision making.



Survey of Occupational Injuries and Illnesses for Wyoming, 2017

by: *Christine McGrath, Senior Statistician*

Wyoming's nonfatal occupational injury and illness incidence rate for all industries in 2017 was 3.7, compared to 3.6 in 2016, according to the Survey of Occupational Injuries and Illnesses (SOII). Incidence rates represent the number of injuries and illnesses per 100 full-time workers. The Research & Planning (R&P) section of the Wyoming Department of Workforce Services conducts the SOII for Wyoming in cooperation with the U.S. Bureau of Labor Statistics (BLS) annually as part of a nationwide data collection effort.

These estimates are all recordable nonfatal occupational injuries and illnesses which include: days away from work cases, days of job transfer or restriction cases, and other recordable cases. For example, Wyoming had an estimated 2,070 occupational injury and illness cases with days away from work in private industry in 2017. Non-recordable cases include, but are not limited to, first aid cases, such as an adhesive strip on a cut, or a water flush of an eye to remove a foreign object. For further information on recordable and non-recordable cases, visit <https://www.bls.gov/iif/oshdef.htm>.

This publication is intended to introduce the reader to the data available for Wyoming from the Survey of Occupational Injuries and Illnesses. For additional information, please see <http://doe.state.wy.us/LMI/OSH/toc.htm>.

Methodology

The Occupational Injuries and

Illnesses form is a mandatory survey that was sent out in January 2018. Wyoming employers were notified of their required participation in early 2017 and asked to maintain a log and summary of work-related injuries and illnesses using the OSHA 300 form and supplementary record with the 301 form. The data collection periods lasted approximately seven months, after which data and results were reviewed by state, regional, and national BLS staff and incidence rates were calculated.

Data were reported by employers on the basis of a single incident or occurrence. If an employee experienced more than one nonfatal work-related injury or illness during the calendar year, each incident was reported separately and is referred to as a case. If an incident injured more than one employee, each employee was reported separately on the questionnaire. For a work-related injury/illness to be categorized as a recordable case, it must result in any of the following:

- death
- days away from work
- restricted work or transfer to another job
- medical treatment beyond first aid, or loss of consciousness
- a significant injury or illness diagnosed by a physician or other licensed health care professional, even if it does not result in death, days away from work, restricted work, or job transfer.

For additional information see the OSHA Recordkeeping Rules online.

Table 1: Number of Nonfatal Occupational Injuries and Illnesses Involving Days Away From Work¹ by Selected Worker Occupations and Selected Major Industry Sector, Private Industry, Wyoming, 2017

Occupation	Private industry 2,3,4	Goods-Producing				Service-Providing			
		Total	Nat. res. & mining 2,3	Const.	Manufact.	Total	Trade, transp. & utilities ⁴	Edu. & health serv.	Leisure & hosp.
Total	2,070	740	160	450	130	1,330	570	270	300
Heavy & tractor-trailer truck drivers	140	--	--	--	--	120	120	--	--
Construction laborers	130	120	--	120	--	--	--	--	--
Nursing assistants	90	--	--	--	--	90	--	90	--
Laborers & freight, stock, & material movers, hand	90	--	--	--	--	60	50	--	--
Carpenters	90	90	--	90	--	--	--	--	--
Maids & housekeeping cleaners	60	--	--	--	--	50	--	--	40
Automotive service technicians & mechanics	60	--	--	--	--	50	30	--	--
Personal care aides	60	--	--	--	--	60	--	60	--
General & operations managers	50	40	--	--	--	--	--	--	--
Light truck or delivery services drivers	50	--	--	--	--	50	30	--	--
Maintenance & repair workers, general	50	--	--	--	--	30	--	--	--
Stock clerks & order fillers	50	--	--	--	--	50	50	--	--
First-line supervisors of construction trades & extraction workers	40	30	--	--	--	--	--	--	--
Electricians	40	30	--	--	--	--	--	--	--
Bartenders	30	--	--	--	--	30	--	--	30
Food preparation workers	30	--	--	--	--	30	--	--	20
Plumbers, pipefitters, & steamfitters	30	--	--	--	--	--	--	--	--
Farmworkers, farm, ranch, & aquacultural animals	30	--	--	--	--	20	--	--	--
Cashiers	30	--	--	--	--	30	20	--	--
First-line supervisors of retail sales workers	30	--	--	--	--	30	30	--	--
Landscaping & groundskeeping workers	30	--	--	--	--	30	--	--	--
First-line supervisors of food preparation & serving workers	20	--	--	--	--	20	--	--	20
Roofers	20	--	--	--	--	--	--	--	--
Coaches & scouts	20	--	--	--	--	20	--	--	20
Janitors & cleaners, except maids & housekeeping cleaners	20	--	--	--	--	20	--	--	--
Retail salespersons	20	--	--	--	--	20	20	--	--

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

²Excludes farms with fewer than 11 employees.

³Data 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.

⁴Data 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, December 13, 2018.

Glossary

Case of job transfer: An injured or ill employee was assigned to a job other than his or her regular job for part of the day other than the day of injury or illness.

Case of restricted duty: An employee was kept from performing one or more routine functions (work activities the employee performed at least once per week) of his or her job, or was kept from working a full workday, or a licensed health care professional recommended either of the above.

Cases with days away from work: Severe cases that counted the day after the injury or onset of the illness, which may or may not include days of job transfer or restriction. Up to 180 days away from work (and/or days of job transfer or restriction) are counted for each injury.

Event or exposure: The manner in which the injury or illness was produced or inflicted, such as falls, overexertion, or repetitive motion.

Incidence rate: Represents the number of injuries and illnesses per 100 full-time workers, calculated as $(N/EH) \times 200,000$ where:

- N = number of injuries and illnesses
- EH = total hours worked by all employees during the calendar year
- 200,000 = base for 100 equivalent full-time workers (working 40 hours per week, 50 weeks per year).

Mandatory survey: Participation by private sector employers is required by Public Law 91-596 by the Bureau of Labor Statistics (BLS). Participation by public sector employers is required by law by Wyoming OSHA, as Wyoming is a State Plan State. If an employer receives a survey from the BLS, even if they are partially exempt by OSHA due to having less than 11 employees for example, they must still complete the survey.

Nature of injury or illness: The physical characteristics of the disabling injury or illness, such as cuts, fractures, or sprains.

Other recordable cases: Cases not involving days away from work or days of job transfer or restricted duty but requiring medical treatment beyond first aid. Other recordable cases include, for example, stitches, prescription medication, a concussion, loss of consciousness, medical removal from job site, musculoskeletal disorders, or other significant diagnosed injury or illness.

Part of body: The part of the body directly linked to the nature of injury or illness cited, such as back, finger, or eye.

Source of injury or illness: The object, substance, exposure, or bodily motion that directly caused the disabling condition, such as chemical, vehicle, or machinery.

Incidence Rates for Wyoming and the U.S.

As shown in Figure 1, the incidence rate for Wyoming’s private sector in 2017 was 3.5, higher than the U.S. private sector of 2.8, but lower than Wyoming’s public sector rate of 4.2. Since 2011, the incidence rate for Wyoming’s private sector has remained between 3.3 and 3.6.

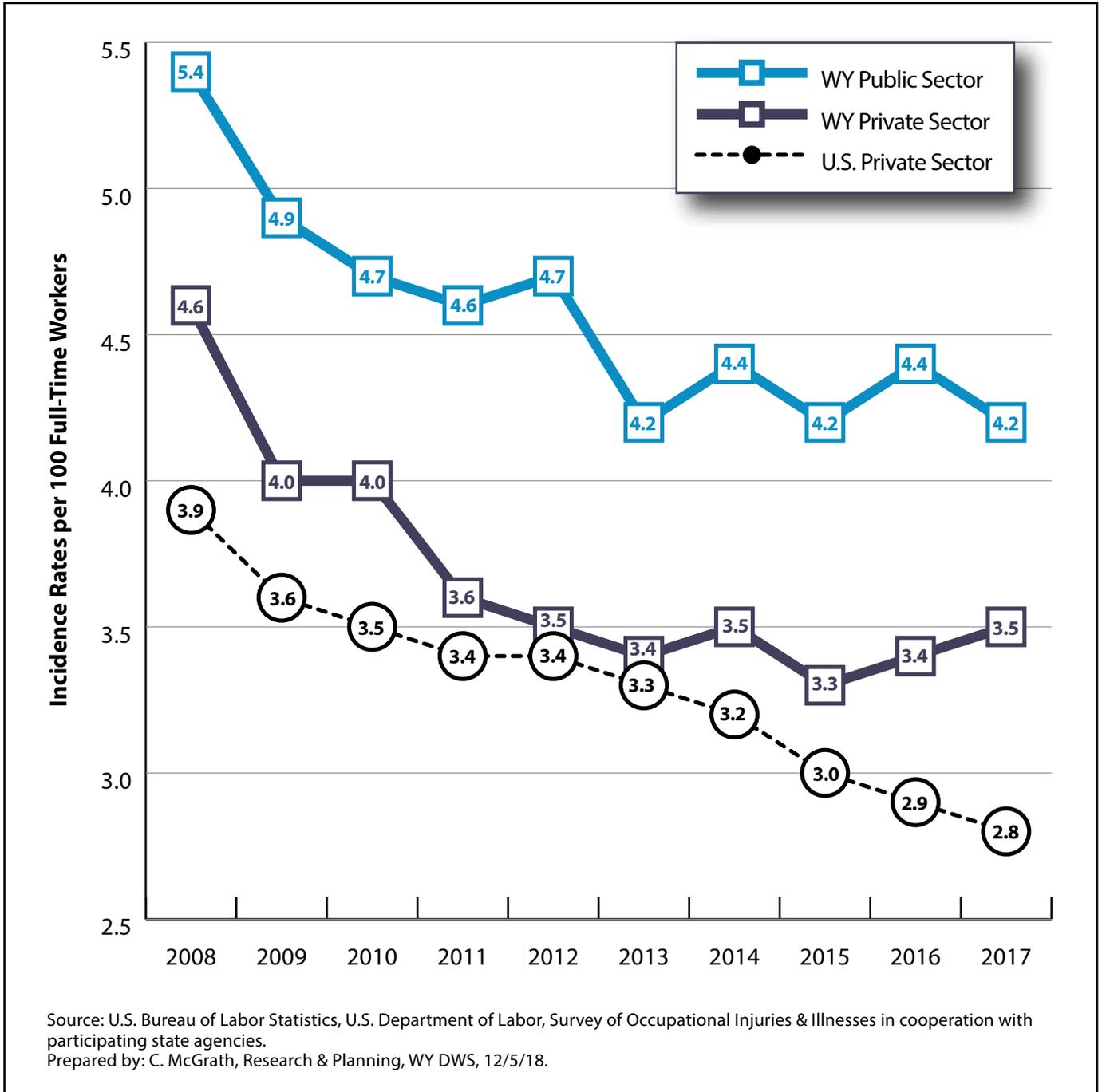


Figure 1: Incidence Rates per 100 Full-Time Workers for Total Nonfatal Occupational Injuries and Illnesses, Wyoming and the U.S., 2008-2017

Incidence Rates by Major Industry Sector, WY and U.S.

Figure 2 shows incidence rates by major industry sector for Wyoming and the United States. Construction and manufacturing are two industries that typically have a high incidence rate in Wyoming. In 2017, Wyoming had incidence rates of 4.3 and 4.6 in construction and manufacturing, respectively, while the incidence rates for the United States were 3.1 for construction and 3.5 for manufacturing.

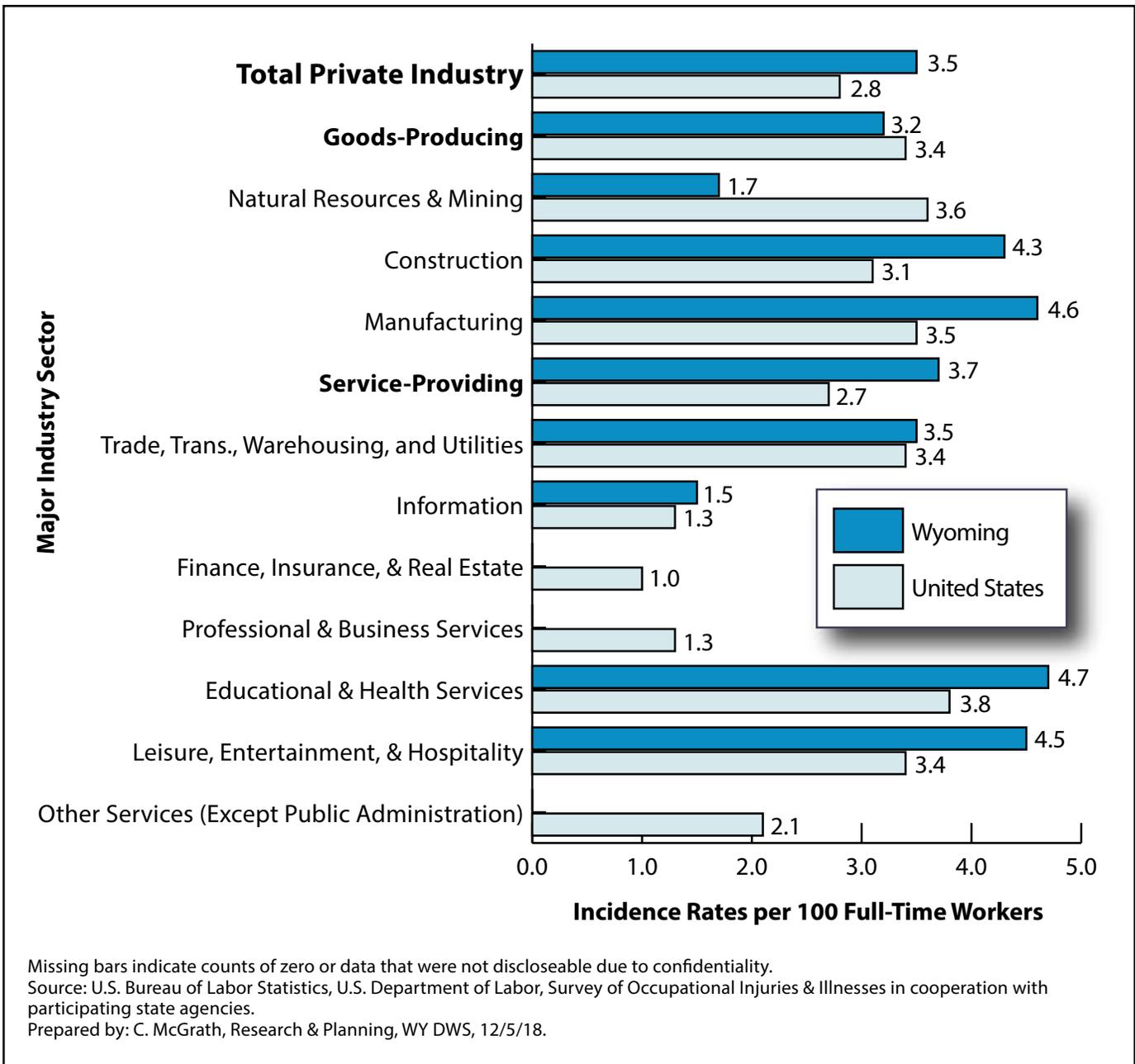


Figure 2: Incidence Rates per 100 Full-Time Workers for Total Nonfatal Occupational Injuries and Illnesses by Major Industry Sector, Wyoming and the U.S., 2017

Incidence Rates by Major Industry Sector in WY

Goods-producing industries include agriculture, mining, construction and manufacturing. Within private industry, Wyoming’s goods-producing sectors had an incidence rate of 3.2, compared to 3.0 in 2016 (see Figure 3). Incidence rates in goods-producing sectors in 2017 ranged from 1.7 in natural resources & mining to 4.6 in manufacturing. Construction had an incidence rate of 4.3 in 2017, compared to 4.5 in 2016.

The service-providing sectors — such as trade, transportation, warehousing, & utilities, and educational & health services — had an incidence rate of 3.7 in 2017 compared to 3.6 in 2016. Incidence rates in service-providing sectors in 2017 varied from 1.5 in information to 4.7 in educational & health services (see Figure 3).

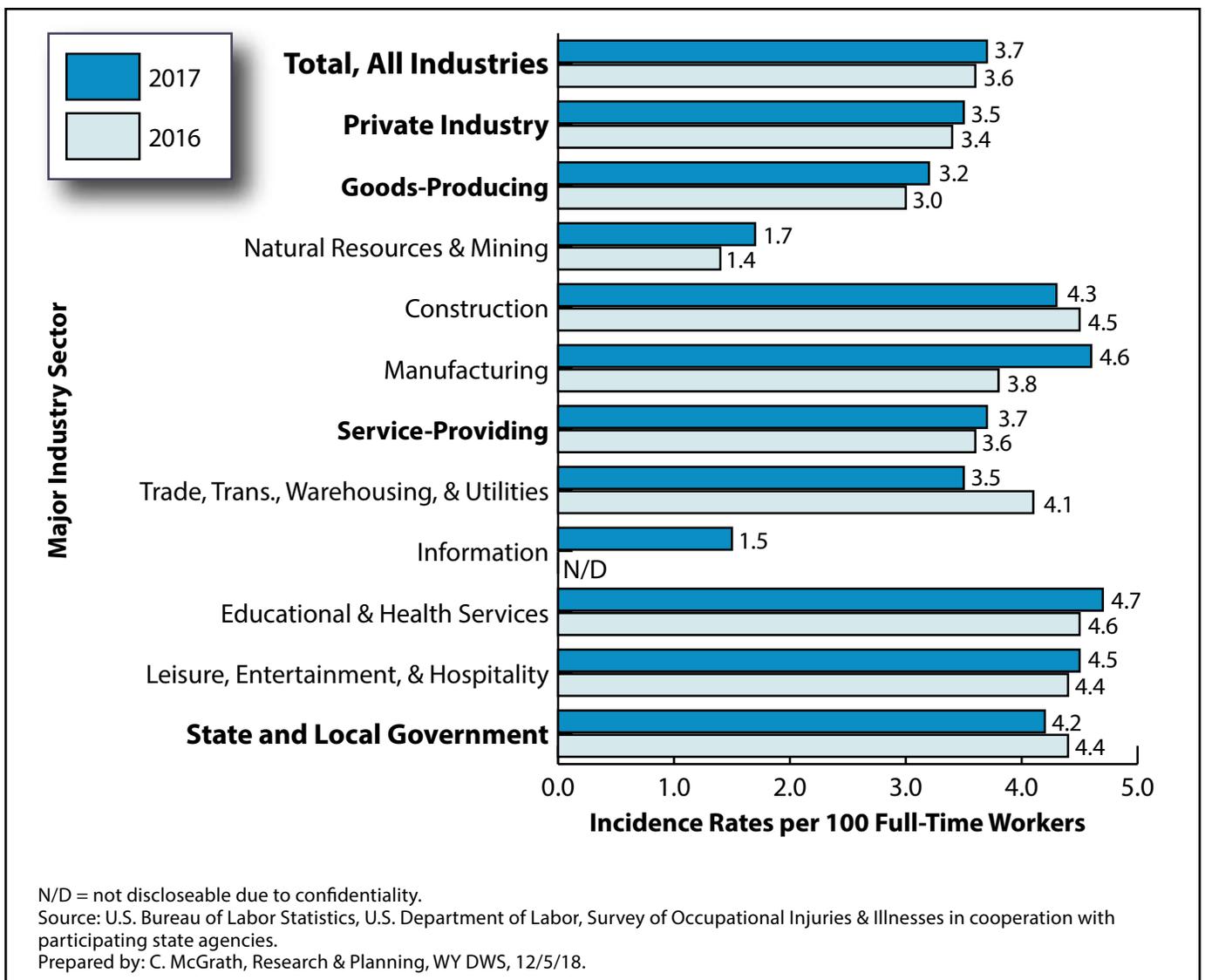


Figure 3: Incidence Rates per 100 Full-Time Workers for Total Nonfatal Occupational Injuries and Illnesses by Major Industry Sector in Wyoming, 2016 and 2017

Industry Subsectors with the Highest Incidence Rates

At the NAICS three-digit subsector level in Wyoming, private industry animal production & aquaculture had an incidence rate at 12.0 (see Figure 4), followed by private industry and state government nursing (9.6) and residential care facilities (8.4).

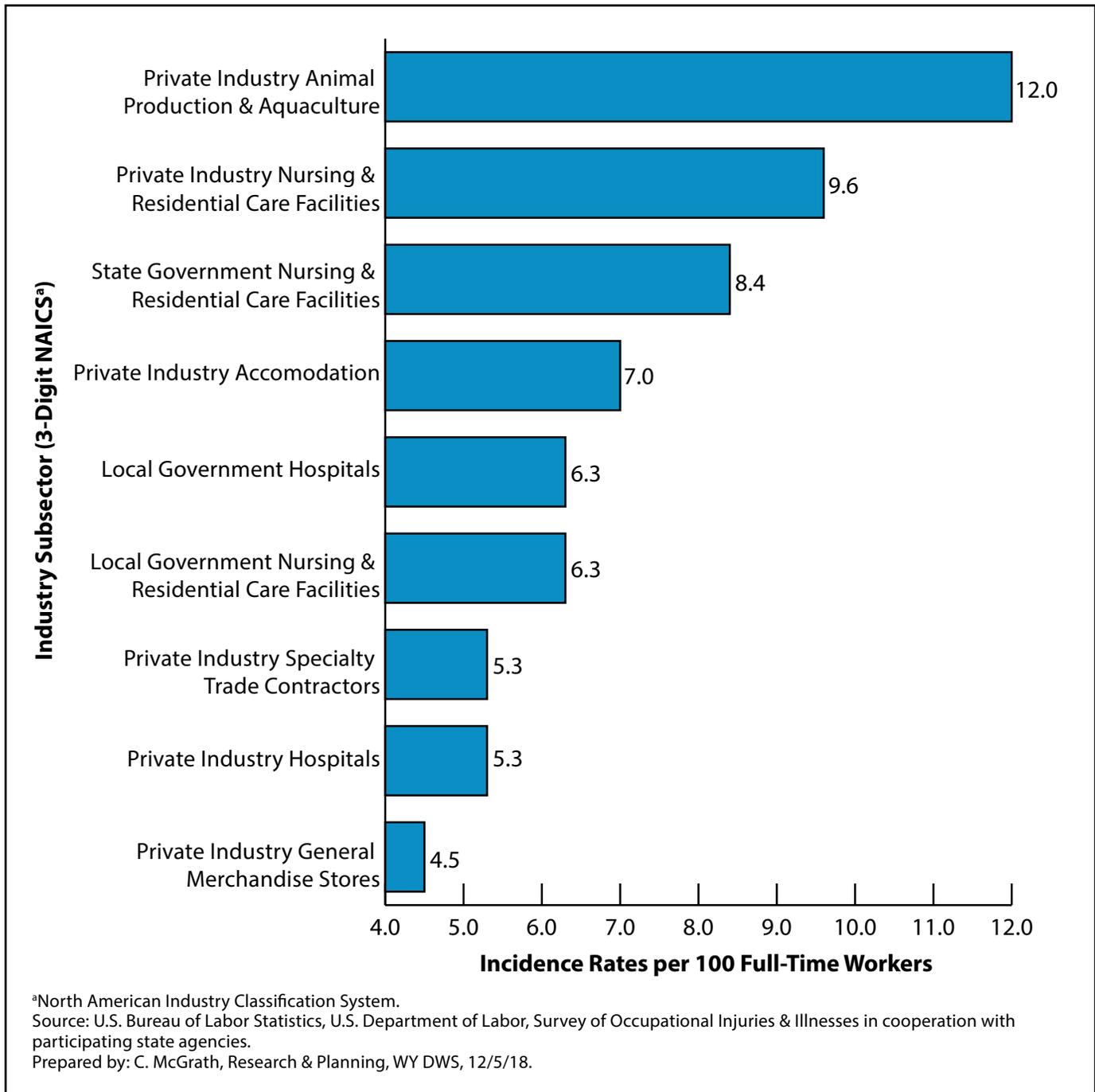


Figure 4: **Subsectors (3-Digit NAICS) with the Highest Incidence Rates of Total Nonfatal Occupational Injuries and Illnesses in Wyoming, 2017**

Incidence Rates by Employer Size Class

Table 2 shows incidence rates for Wyoming and the U.S. by employer class size from 2013 to 2017. In Wyoming, employers with 250 to 999 employees had the highest incidence rate at 4.2, followed by employers with 50 to 249 employees at 3.7 (see Figure 5).

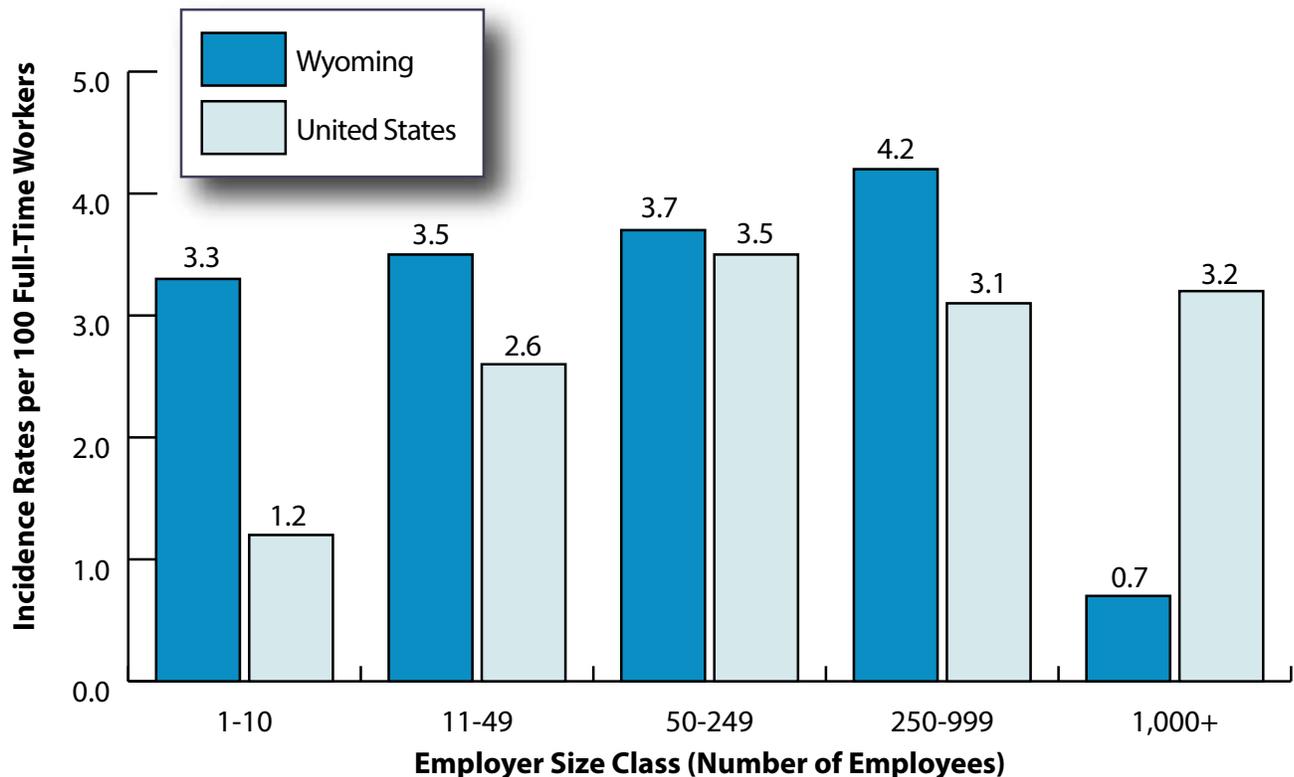
Table 2: Incidence Rates per 100 Full-Time Workers for Total Nonfatal Occupational Injuries and Illnesses by Employer Size Class in Wyoming and the U.S., 2013-2017

Year	Number of Employees									
	1-10		11-49		50-249		250-999		1,000+	
	WY	U.S.	WY	U.S.	WY	U.S.	WY	U.S.	WY	U.S.
2013	2.2	1.7	3.7	3.1	4.1	4.0	3.2	3.5	1.7	3.6
2014	3.1	1.5	3.6	2.9	4.0	3.9	3.2	3.3	1.8	3.5
2015	2.7	1.4	3.5	2.8	3.8	3.7	3.6	3.3	2.0	3.3
2016	2.8	1.4	3.6	2.7	3.5	3.6	N/D	3.2	N/D	3.3
2017	3.3	1.2	3.5	2.6	3.7	3.5	4.2	3.1	0.7	3.2

N/D = not discloseable due to confidentiality.

Source: U.S. Bureau of Labor Statistics, U.S. Department of Labor, Survey of Occupational Injuries & Illnesses in cooperation with participating state agencies.

Prepared by: C. McGrath, Research & Planning, WY DWS, 12/5/18



Source: U.S. Bureau of Labor Statistics, U.S. Department of Labor, Survey of Occupational Injuries & Illnesses in cooperation with participating state agencies.

Prepared by: C. McGrath, Research & Planning, WY DWS, 12/5/18.

Figure 5: Incidence Rates per 100 Full-Time Workers for Total Nonfatal Occupational Injuries and Illnesses by Employer Size Class in Wyoming and the U.S., 2017

Incidents by Major Occupation Group (Men)

Figure 6 shows the number of occupational injuries and illnesses for men by major occupation group in private industry in Wyoming for 2016 and 2017. Construction & extraction occupations had the highest number of injuries and illnesses with 510 in 2016 and 430 in 2017. Transportation & material moving occupations followed with 420 in 2016 and 300 in 2017, and installation, maintenance, & repair occupations had 260 in 2016 and 200 in 2017.

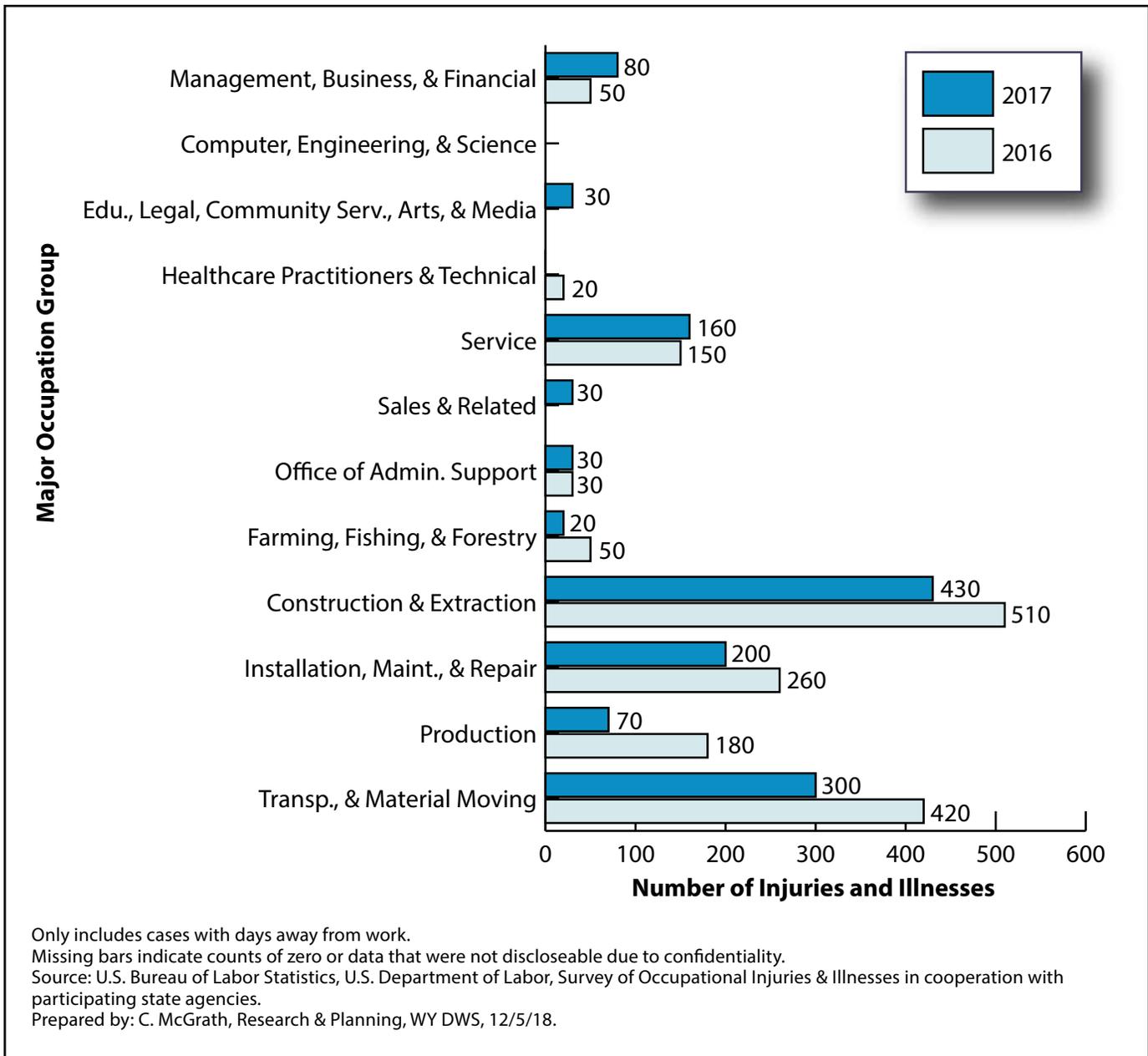


Figure 6: Number of Injuries and Illnesses for Men by Major Occupation in Private Industry in Wyoming, 2016 & 2017

Incidents by Major Occupation Group (Women)

Figure 7 shows the number of occupational injuries and illnesses for women by major occupation group in private industry in Wyoming for 2016 and 2017. In 2016, women working in service operations had the greatest number of injuries and illnesses (290), followed by sales and related (90) and production occupations and transportation & material moving occupations (80 each). In 2017, service occupations had 310 injuries and illnesses, followed by administrative support occupations and healthcare practitioners & technical occupations (80 each).

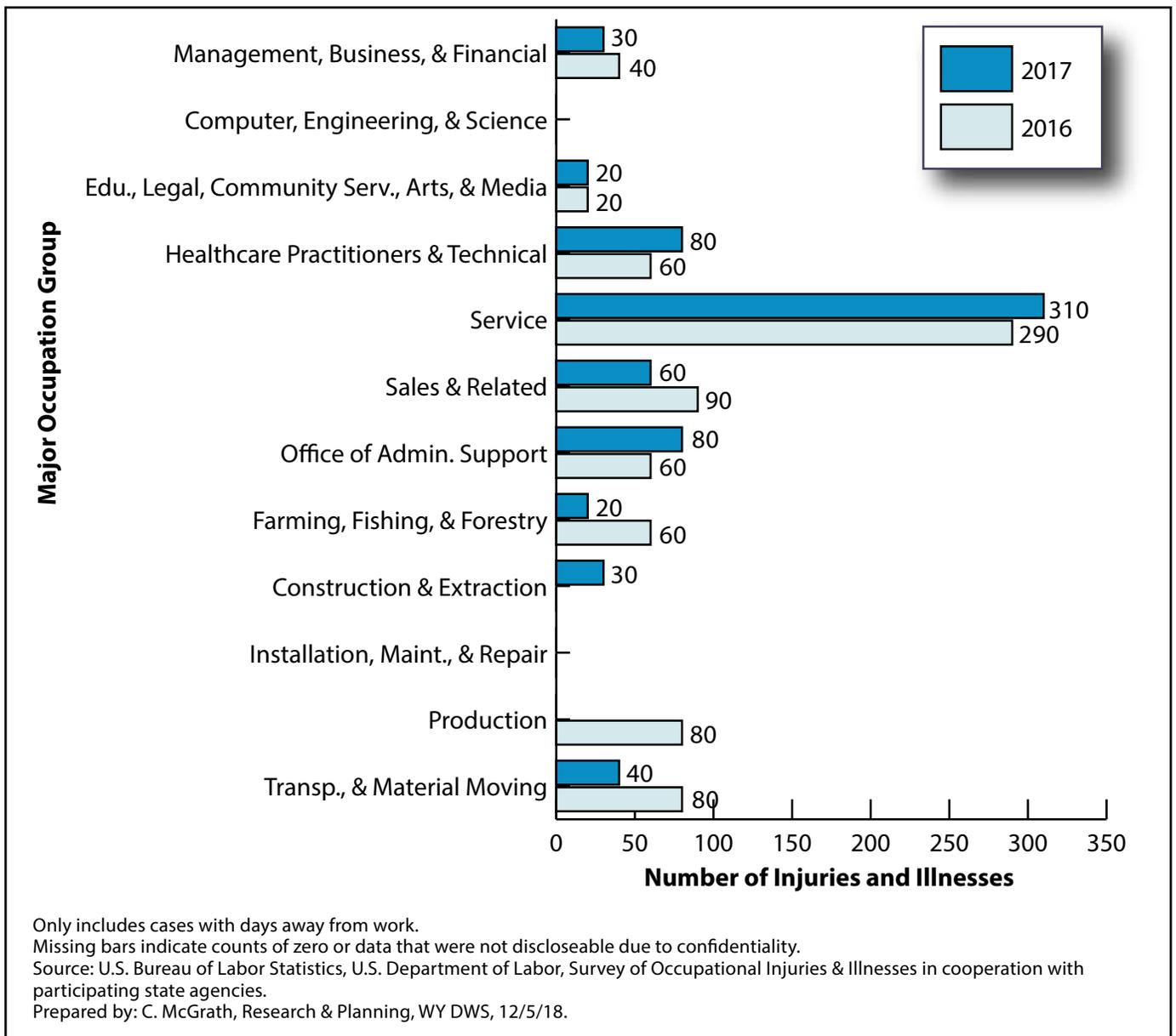


Figure 7: Number of Injuries and Illnesses for Women by Major Occupation in Private Industry in Wyoming, 2016 & 2017

Days Away From Work

Figure 8 shows the median number of days away from work by age in private industry in Wyoming in 2016 and 2017. In 2017, individuals ages 45-54 and 55-64 had the most days away from work (15), while those ages 16-19 had the fewest (two).

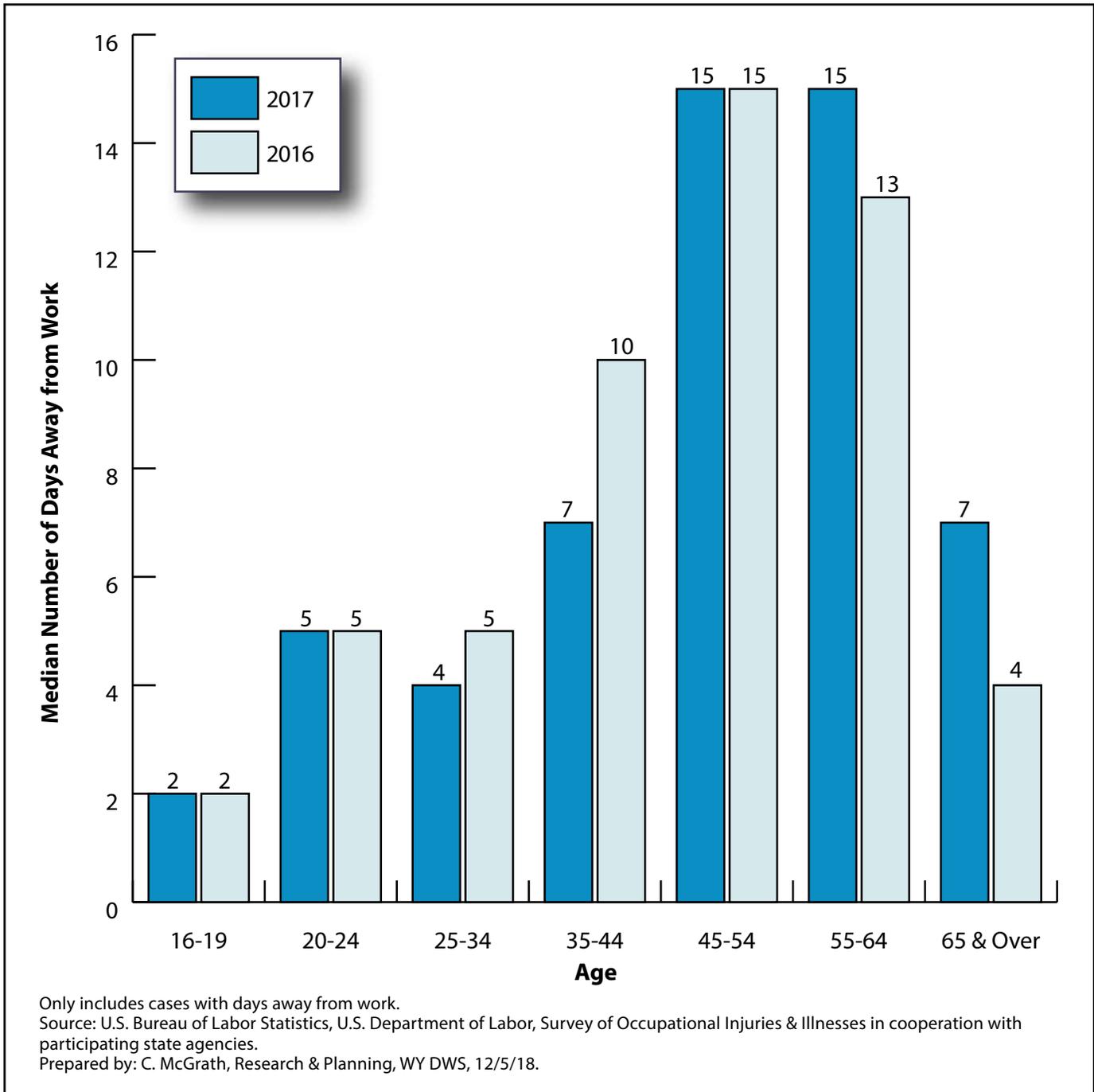


Figure 8: Median Number of Days Away from Work Due to Injuries and Illnesses in Private Industry in Wyoming 2016 & 2017

Length of Service

Figure 9 shows the proportion of injuries and illnesses by length of service and gender in private industry in Wyoming in 2017. Of the 1,360 injuries and illnesses reported for men, approximately one-third (33.8%) occurred among men who had been with an employer for five years or longer. The distribution was somewhat more even for women, with 29.0% of the 690 reported injuries and illnesses occurring among those who had been with an employer for one to five years.

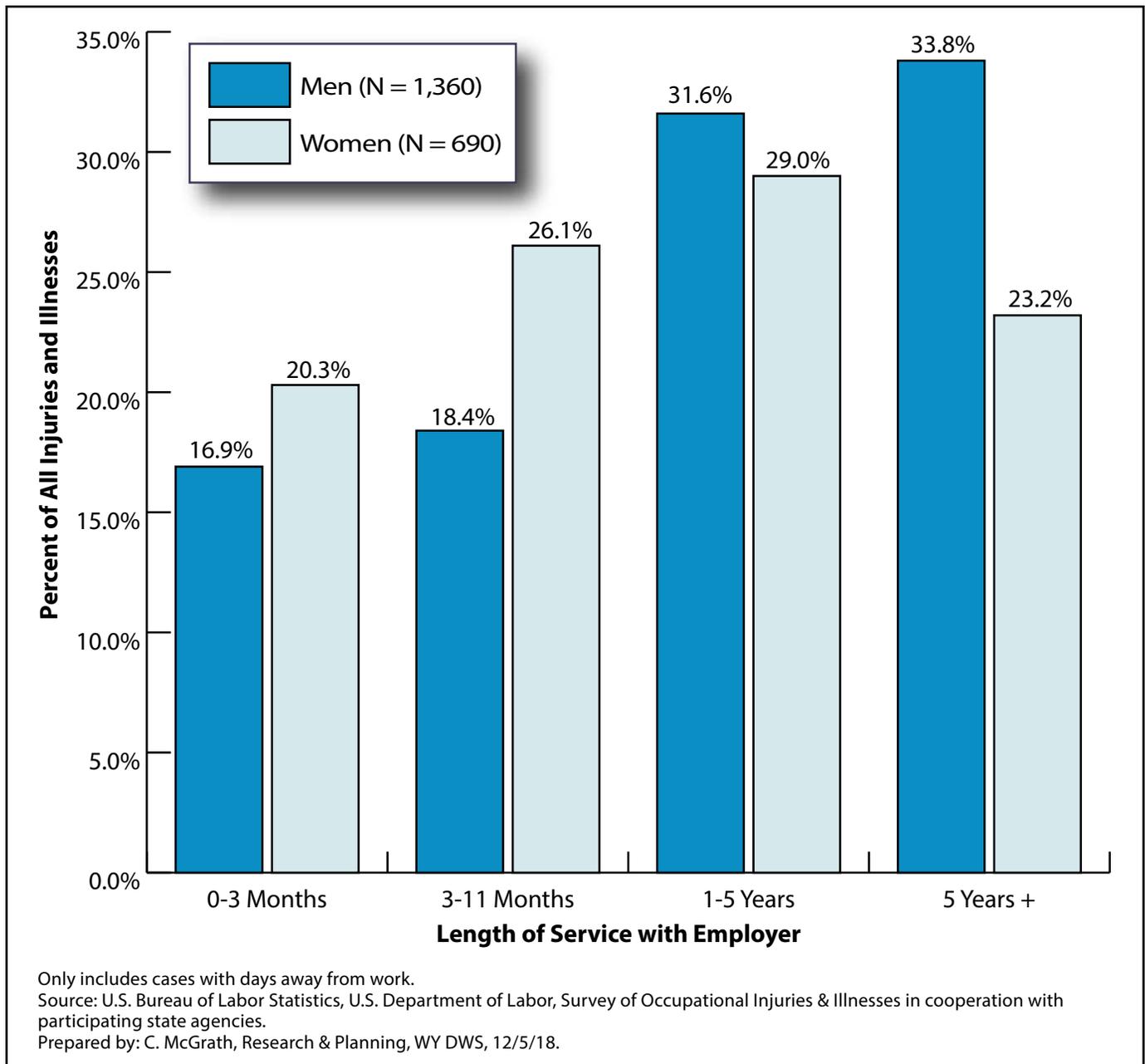


Figure 9: Proportion of Injuries and Illnesses by Length of Service and Gender in Private Industry in Wyoming, 2017

Nature of Injury or Illness

The *nature of injury or illness* refers to the physical characteristics of the disabling injury or illness, such as cuts, fractures, or sprains. Figure 10 shows that in 2017, 31.4% of the 2,070 cases of nonfatal occupational injuries or illness in private industry in Wyoming resulted in sprains, strains, or tears, and 22.7% caused soreness or pain. Cuts, lacerations, & punctures accounted for 10.6% of the nature of injury or illness.

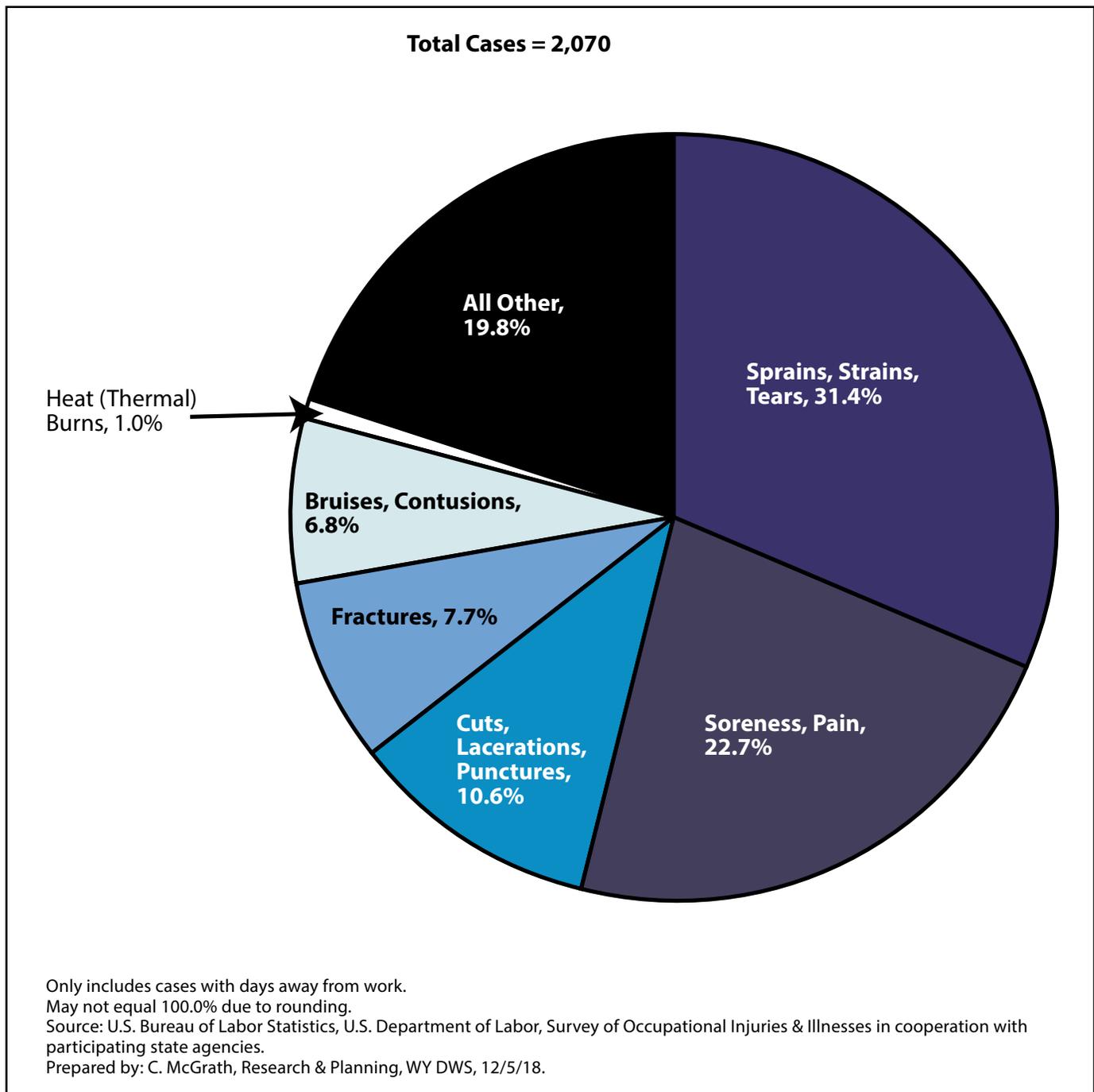


Figure 10: **Distribution of Injuries and Illnesses by Nature in Private Industry in Wyoming, 2017**

Part of the Body

The *part of the body* is directly linked to the nature of injury or illness cited, such as back, finger, or eye. Figure 11 shows that upper extremities had 730 injuries and illnesses, or 35.3% of the total 2,070 cases. The category titled upper extremities includes the elbow, arm, wrist, fingers, hand, and shoulder. There were 520 (25.1%) injuries and illnesses related to trunk, which includes the back, hip, pelvis, groin, abdomen, and chest in 2017.

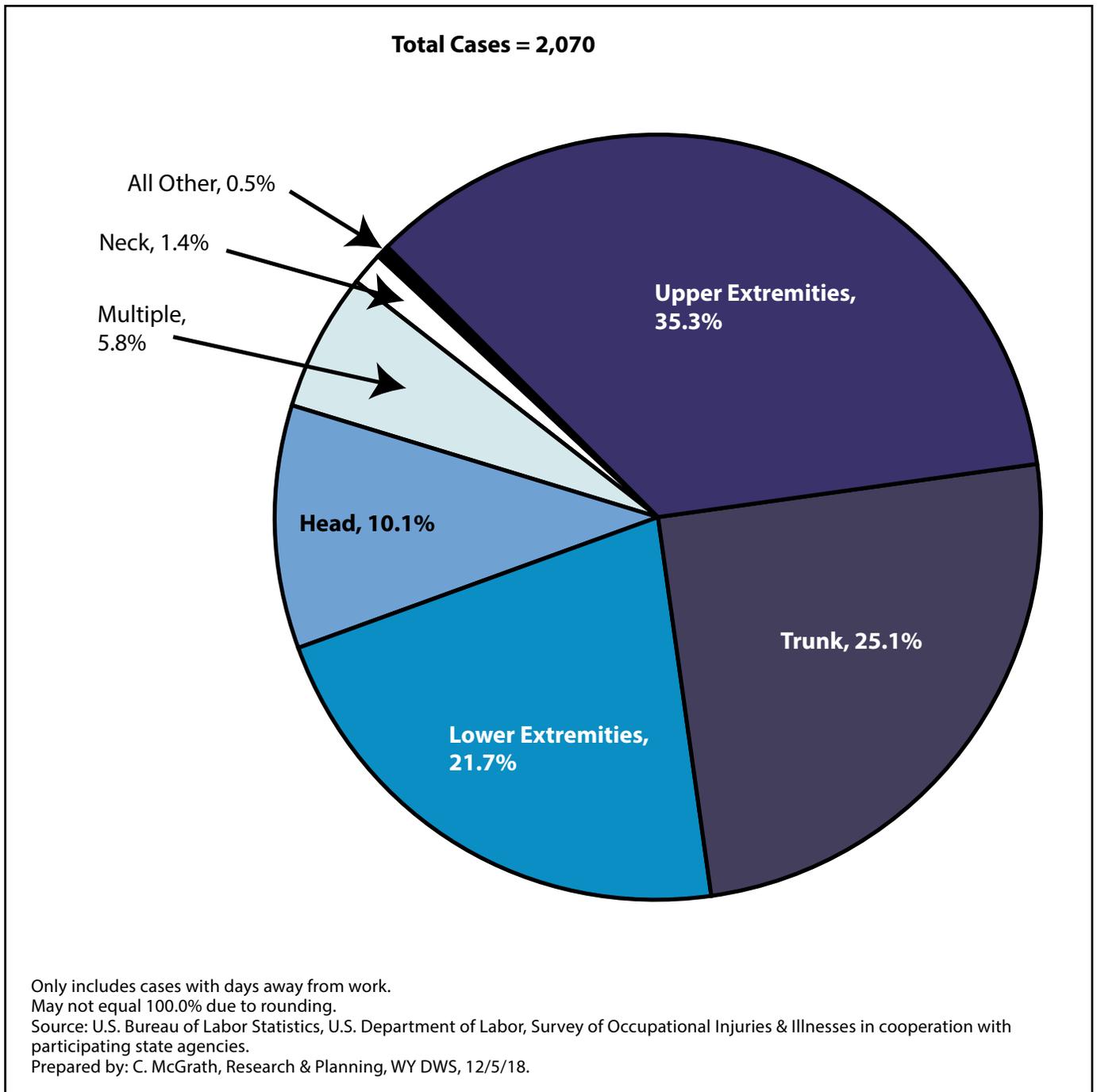


Figure 11: **Distribution of Injuries and Illnesses by Part of Body in Private Industry in Wyoming, 2017**

Event or Exposure

The *event or exposure* in a case is the manner in which the injury or illness was produced or inflicted, such as falls, overexertion, or repetitive motion. Figure 12 shows that in 2017, falls, slips, trips, and contact with object, equipment each accounted for 400 injuries or illnesses, the most among men. Overexertion and bodily reaction accounted for 390 cases. The top event or exposure for women was overexertion and bodily reaction (290), followed by falls, slips, trips (190).

An example of an injury or illness that would be produced by overexertion and bodily reaction would be a job that required excessive amounts of physical exertion, such as standing, climbing, kneeling, bending, or stepping, which resulted in the injury or illness. Falls, slips, trips is a much broader category and includes falls on the same level, falls and jumps to lower levels, slips and trips on uneven surfaces, a substance, hole, etc. The injuries or illnesses inflicted in contact with object, equipment category are a result of contact between the injured person and the source. Examples would be an employee being cut by a slipping knife or an employee caught under collapsing material.

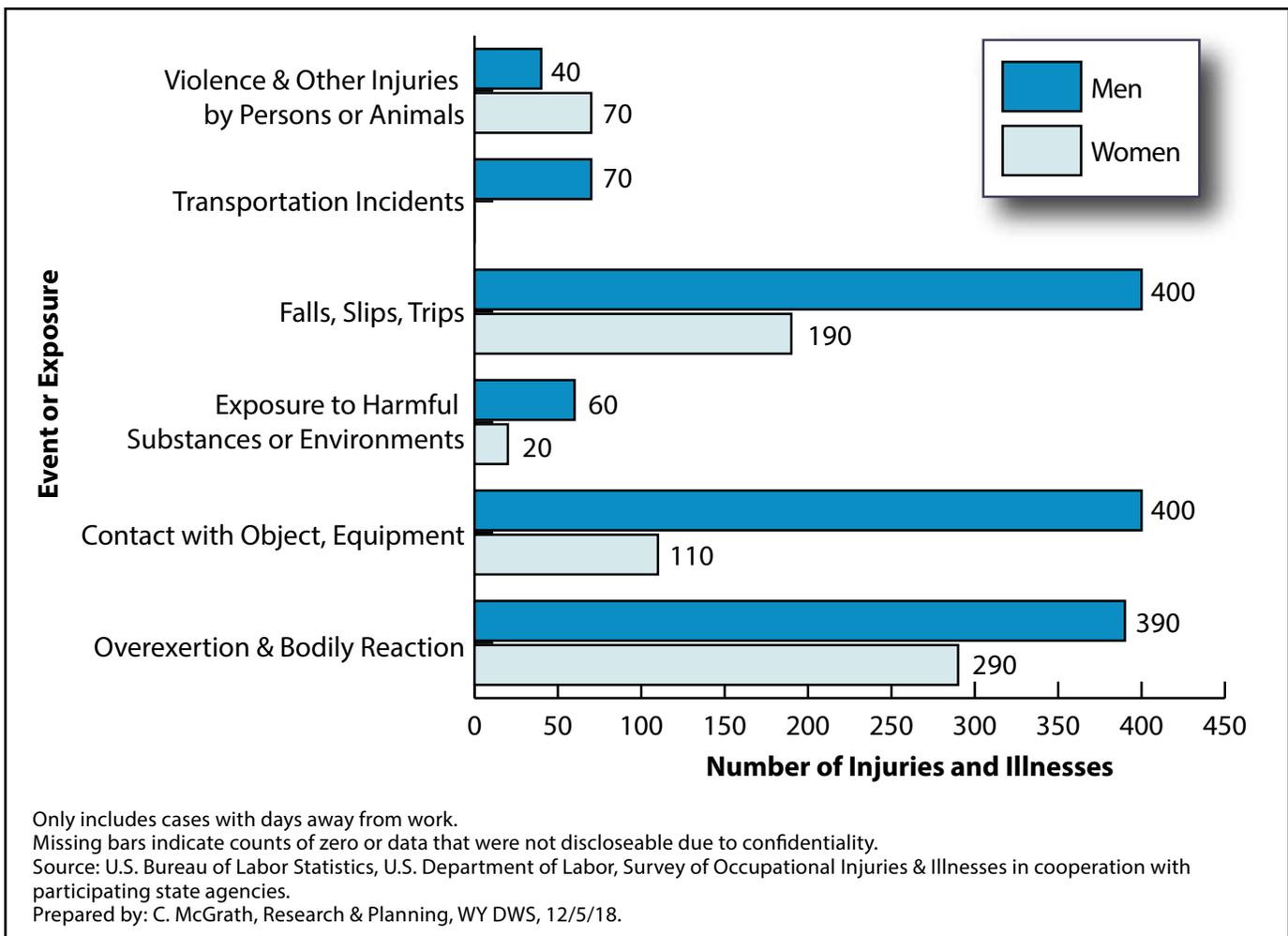


Figure 12: Distribution of Injuries and Illnesses by Event or Exposure in Private Industry in Wyoming, 2017

Source of Injury or Illness

The *source of a nonfatal occupational injury or illness* is the object, substance, exposure, or bodily motion that directly caused the disabling condition, such as chemical, vehicle, or machinery. Figure 13 illustrates the distribution of injuries and illnesses by source for private industry in Wyoming in 2017. Of the 2,070 total cases, floors, walkways, ground surfaces was the source for the greatest proportion (19.8%) of all cases. Person, injured or ill worker and containers followed with 250 cases each, or 12.1%. If an employee was injured when slipping on ice in a parking lot or sidewalk, the source would be the parking lot or sidewalk and would be included in the category floors, walkways, ground surfaces. In one example of when the injured or ill worker is the source of an injury, it involved an incident with a slip or trip without falling. If a worker trips over a box on the floor and suffers a sprain, the source is the employee and the box is the secondary source.

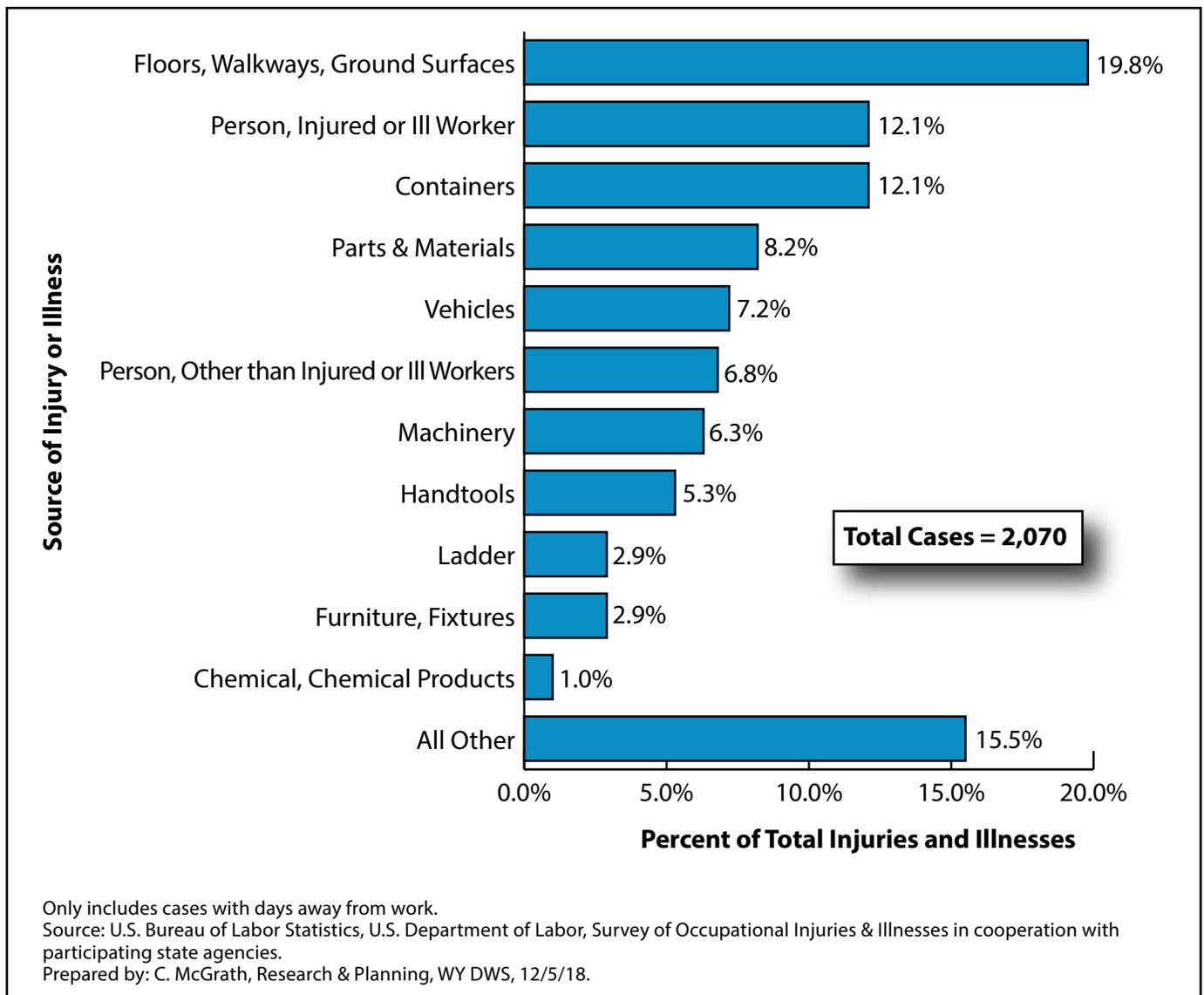


Figure 13: Distribution of Injuries and Illnesses by Source in Private Industry in Wyoming, 2017



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