

2017

Occupational Fatalities in Oregon

ANNUAL REPORT



OREGON FATALITY ASSESSMENT & CONTROL EVALUATION (OR-FACE)

FACE

Definitions

The Oregon Fatality Assessment and Control Evaluation (OR-FACE)

program investigates work- related fatalities that are caused by a traumatic injury when the injury occurs within Oregon.

A **location** within Oregon means the incident, or some portion of the event or exposure, occurs within the geographical boundaries of the state of Oregon, including the coastal waters, airspace, and subterranean portions of the state.

A **work relationship** exists if an incident occurs (a) on the employer's premises and the person was there to work, or (b) off the employer's premises and the person was there to work, or the event or exposure was related to the person's work or status as an employee.

Work is defined as duties, activities, or tasks that produce a product or result, are done in exchange for money, goods, services, profit, or benefit, and are legal activities.

Acronyms

BLS	U.S. Bureau of Labor Statistics
CDC	Centers for Disease Control and Prevention
CFOI	U.S. Census of Fatal Occupational Injuries
NAICS	North American Industry Classification System
NIOSH	National Institute for Occupational Safety and Health
NTSB	National Transportation Safety Board
NVDRS	National Violent Death Reporting System
OHA	Oregon Health Authority
OIICS	Occupational Injury and Illness Classification System Oregon
OSHA	Occupational Safety and Health Administration
SOC	Standard Occupational Classification
DCBS	Department of Consumer and Business Services
OERS	Oregon Emergency Response System

In Scope

- Self-employed, family, or volunteer workers, exposed to the same work hazards and perform the same duties or functions as paid employees, and that meet the work-relationship criteria.
- Suicides and homicides that occur at a worksite (included in OR-FACE scope since 2011).
- Fatal events or exposures that occur when a person is in travel status, if the travel is for work purposes, or is a condition of employment (excluding commute).

Out of Scope

- Institutionalized persons, including inmates of penal and mental institutions, sanitariums, and homes for the aged, infirm and needy, unless employed off the premises of their institutions.
- Fatal heart attacks and strokes, unless causally related to a traumatic injury or exposure.
- Fatal events or exposures that occur during a person's recreational activities that are not required by the employer.
- Fatal events or exposures that occur during a person's commute to or from work.
- Fatal events or exposures of those in a Military occupation. OR-FACE erroneously included some of these deaths in previous reporting years.
- A fatal event that is solely the result of exposure to infectious disease.

Adapted from Bureau of Labor Statistics (2001), *Census of Fatal Occupational Injuries: Definitions*. U.S. Department of Labor. Available online (April 13, 2017) <https://stats.bls.gov/iif/oshcdef.htm>

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ANNUAL REPORT

Oregon Fatality Assessment and Control Evaluation

This report is dedicated to the people in Oregon who have lost their lives as the result of traumatic workplace injuries, in the hope that better understanding of these fatal incidents may help to save the lives of other workers in similar situations.

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INTRODUCTION

In 2017, OR-FACE recorded 52 fatal occupational incidents resulting in worker deaths, as well as four incidents that could not be determined due to insufficient information. The number represents a rate of 2.59 fatalities per 100,000 employed workers in the civilian labor force in Oregon. The national worker fatality rate in 2017 was 3.5 per 100,000 full-time equivalent workers.

The following notable trends occurred in 2017

- » The transportation industry had the highest number of fatalities, followed by agriculture. These two industries have been among the top four industries for fatalities in all ten of the previous ten years (see pg. 12).
- » Fatal cases from transportation events (motor vehicle) exceeded all other events, followed by contact with objects and equipment Incidents. Motor vehicle incidents has the highest number of cumulative events through 2017 (see pg. 14).
- » The size of the workforce increased from 2016 in all but two counties (Curry and Harney).

REPORT HIGHLIGHTS

OR-FACE conducts surveillance, investigation, assessment, and outreach related to traumatic occupational fatalities in Oregon (see pg. 5–6).

OR-FACE published 8 blogs and 2 investigation reports. OR-FACE also published 4 toolbox talk guides (see pg. 7).

Characteristics of fatal events and the workers involved are quantified in charts (see pg. 9–17).

Abstracts provide a brief description of each incident and contributing factors (see pg. 18–33).

About OR-FACE, online resources and provide feedback (see pg. 35 and back cover).

CORE ACTIVITIES

ASSESSMENT

When fatalities are identified as FACE cases, sufficient data are collected about each incident for analysis and to produce case abstracts. Assessment data sources for each case include Oregon OSHA investigation reports, Medical Examiner reports, police reports, news reports, workers' compensation records, and occasionally other records such as business profiles, hospital or emergency response records, or investigation reports from other sources.

OR-FACE analyzes incident data to identify and summarize trends. Incidents are coded and analyzed by industry (NAICS), occupation (SOC), and event (OIICS), as well as by demographic and other variables, such as the specific source or setting of the injury. Incident abstracts are created to explain each fatality with the aim of preventing similar fatal incidents in the future.

SURVEILLANCE

The OR-FACE surveillance system is comprised of:

1. Fatality Intake Forms (FIF) supplied by OR-OSHA
2. Quarterly reports from Oregon Public Health Division's Vital Statistics of death certificates marked "at work"
3. Death certificate and Census of Fatal Occupational Injuries (CFOI) data from the Oregon Health Authority (OHA)
4. Consultations with a Department of Consumer and Business Services (DCBS) analyst
5. Reports from the Oregon State Police (OSP)
6. Reports from the Oregon Emergency Response (OERS)
7. Monitoring of programmed Google keyword alerts (Oregon, drowning, body found, killed, occupational safety and health, crash, suicide, coast guard, fatal, died, fisherman, work, fishing boat, death investigation, fall, occupational fatalities)

For 2017, the majority of first notifications regarding work-related fatalities originated from Oregon OSHA; other first notifications came from news media and other state agencies (see below).

NOTIFICATIONS | Timing of first notification following incident

	DAYS		MONTHS				TOTAL
	0-2	3-30	1-3	3-6	6-12	12+	
Google Alerts	6	6	0	0	0	0	12
Oregon Emergency Response	0	0	0	0	0	0	0
Oregon OSHA	16	13	0	0	0	0	29
Oregon State Police	4	0	0	0	0	0	4
Oregon Health Authority	0	0	0	9	0	1	10
Oregon DCBS Analyst	0	0	1	1	0	0	2
Total	26	19	1	10	0	1	57
Oregon OSHA (51%)			Google Alerts (21%)		Oregon Health Authority (18%)		Oregon State Police (7%) OR DCBS (4%)

INVESTIGATION

In-depth investigations of selected cases are conducted by an OR-FACE fatality investigator/outreach specialist. Investigations may be completed independently, in collaboration with OR-OSHA investigators, or with contractors with relevant industry-specific expertise, as needed.

Investigation reports are reviewed by professional safety experts and NIOSH prior to publication. Investigation reports seek to draw urgent attention to the root causes of fatal workplace incidents, and to provide recommendations for preventing similar fatal injuries.

Two investigation reports were published in 2017: OR-2014-42-1, OR 2015-12-1 (see page 9).

PRESENTATION CITATIONS

Chemeketa Wine Studies Center (Feb. 2017). "Oregon Fatality Assessment and Control Evaluation: Agriculture Social Network Study."

Governor's Occupational Safety and Health (GOSH) Conference (March 2017). "Oregon Fatality Assessment and Control Evaluation: Surveillance, Investigation, Research and Outreach."

American Industrial Hygiene Conference & Exposition (AIHce) (June 2017). "Analysis of Oregon occupational fatalities from surveillance, investigation, and assessment findings."

WestON Conference (Sept. 2017). "Partnering to Prevent Agricultural Fatalities in Oregon."

OUTREACH AND DOCUMENT DISTRIBUTION

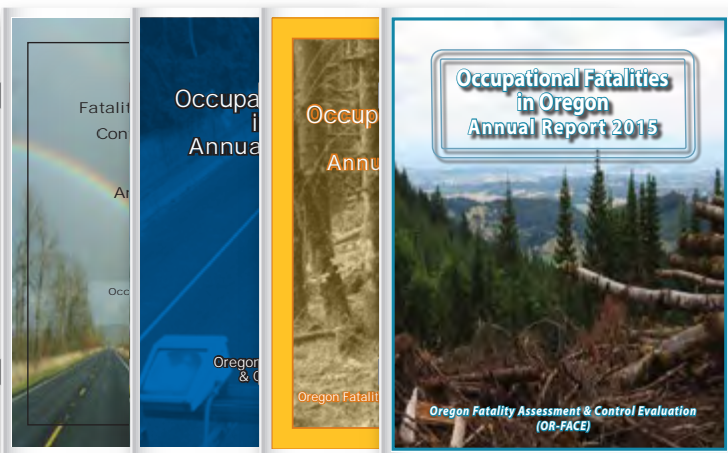
160 "Fallers Logging Safety" Booklets to State Street Saw Shop	50 "FATAL HAZARDS OF FARMS AND RANCHES" Pamphlets to OR-OSHA Tigard
160 "Fallers Logging Safety" Booklets to Oregon State University (OSU) College of Forestry	50 "PARTICIPATE IN WORKPLACE FATALITY PREVENTION" Brochures to Oregon OSHA
160 "Fallers Logging Safety" Booklets to California Loggers Association	25 "OCCUPATIONAL FATALITIES IN OREGON ANNUAL REPORT 2014" to Oregon OSHA
30 COPIES OF 7 DIFFERENT INVESTIGATIVE REPORTS at National Safety Stand-Down Event	5 "OCCUPATIONAL FATALITIES IN OREGON ANNUAL REPORT 2014" to Oregon Occupational Public Health Program Advisory Board
30 Pamphlets, Fact Sheets, and Informational Cards to OR-OSHA Construction Advisory Council	50 "YOUNG WORKERS STAY ALIVE ON THE JOB" to SAIF Corporation
50 Fall Prevention Fact Sheets; Plan, Provide, Train Pocket Cards; and Simple Cost-Free Plan to Get Started Pamphlets to American Society of Safety Professionals (ASSP) Columbia-Willamette and Santiam Section	300 "OCCUPATIONAL FATALITIES IN OREGON ANNUAL REPORT 2014", Investigation Report 2015-2-1, Hazard Alert, 5 Toolbox Talks Subscribers (digital distribution)

PUBLICATIONS

Oregon Fatality Assessment and Control Evaluation (OR-FACE) publications are for information, research, or occupational injury control only. OR-FACE is a research program, and has no legal authority to enforce state or federal occupational safety and health standards.

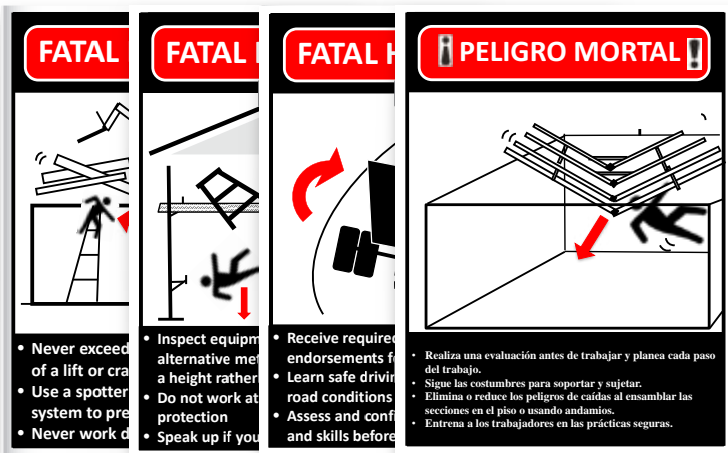
The identity of the decedent, employer, and witnesses are not included in reports or alerts.

FACE data are confidential under Oregon law (ORS 413.196).



ANNUAL REPORTS

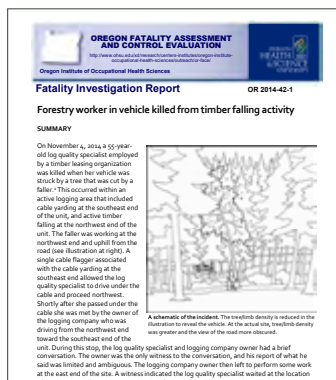
The OR-FACE 2015 annual report was published in July of 2017, 19 months after close of year (to ensure accurate fatality surveillance, each Annual Report is closed out and has historically been published approximately 18 months after the end of a study year). OR-FACE annual reports include analysis of the fatal incidents with charts for industry, event, age, gender, time, month, and more. These reports also include an abstract of each case. See our website (www.ohsu.edu/or-face) for a complete catalogue of annual reports and other useful materials, which date back to 2003 when the OR-FACE program began.



TOOLBOX TALK GUIDES

Four toolbox talk guides were produced in 2017. These guides are based on Oregon occupational fatality cases and are designed to help supervisors share fatal stories with their employees and discuss prevention recommendations. Two of the guides in 2017 were published in Spanish.

The front of each two-sided guide shows an image depicting the event with key prevention recommendations listed underneath. This side is shown to the workers and the other side provides text to help the supervisor tell the fatality story and identify preventive actions that can be taken at their own work-site.



INVESTIGATIONS AND HAZARD ALERTS

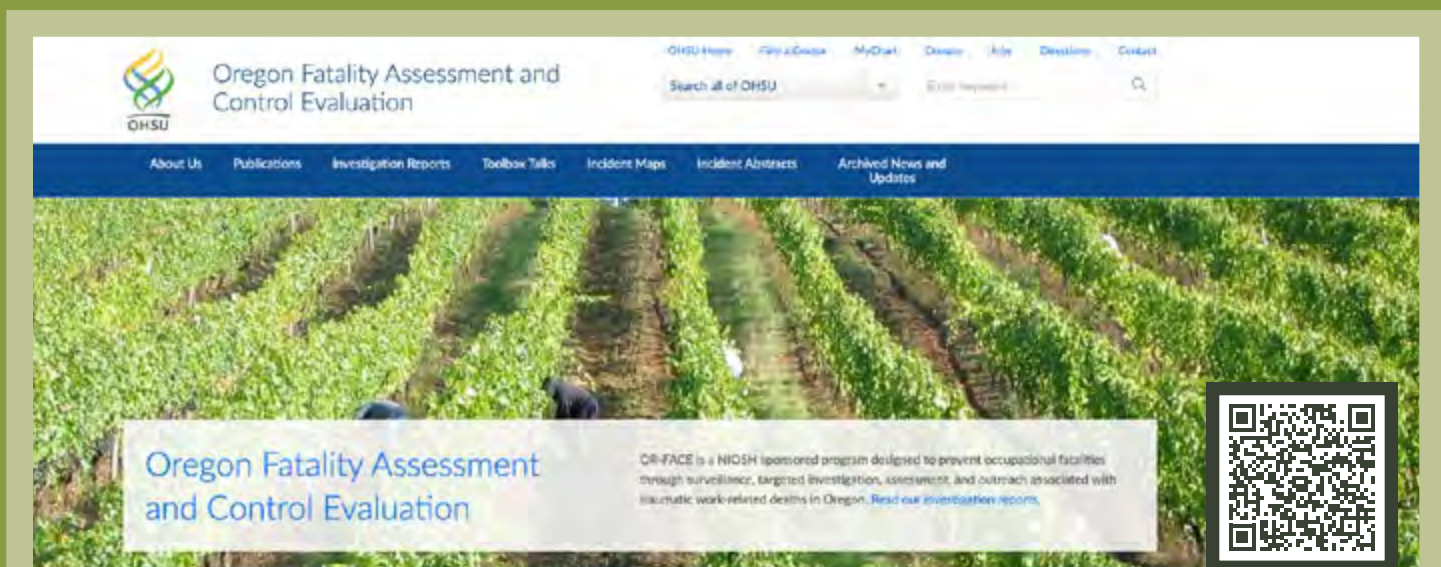
Two Investigation Reports and one Hazard Alert were published in 2017. The investigations were on a fall from a pump-jack scaffold, and a forestry worker struck by timber while in a vehicle. The hazard alert was titled “Can you identify fatal hazards on your farm or ranch?” and briefly covered several incidents in recent years that were related to agricultural workers. It was also published in Spanish. All three topics (falls, logging, and agriculture) are focus areas for OR-FACE.

BLOG POSTS

OR-FACE staff regularly publish contributions to the “Oregon and the Workplace” blog, which is part of the social media outreach of the Oregon Institute of Occupational Health Sciences.

Once a blog is published, it is shared through Twitter (868 followers), Facebook (346 likes), and the Institute newsletter (2100 subscribers).

OR-FACE contributed eight blogs in 2017.



Find published presentations, safety booklets, reports, and other resources at the OR-FACE website or scan the provided QR code. New reports are published regularly.

www.ohsu.edu/or-face

CHARTS

In the sections of Charts and Abstracts, OR-FACE highlights risk factors and patterns in fatalities. For these analyses, a few of the major two digit classification codes are split into sub codes.

For industry (NAICS): Agriculture/Forestry/Fishing/Hunting (code 11) is separated into sub codes: Agriculture (codes 111 112), forestry/ logging (code 113); and fishing/hunting/ trapping (code 114).

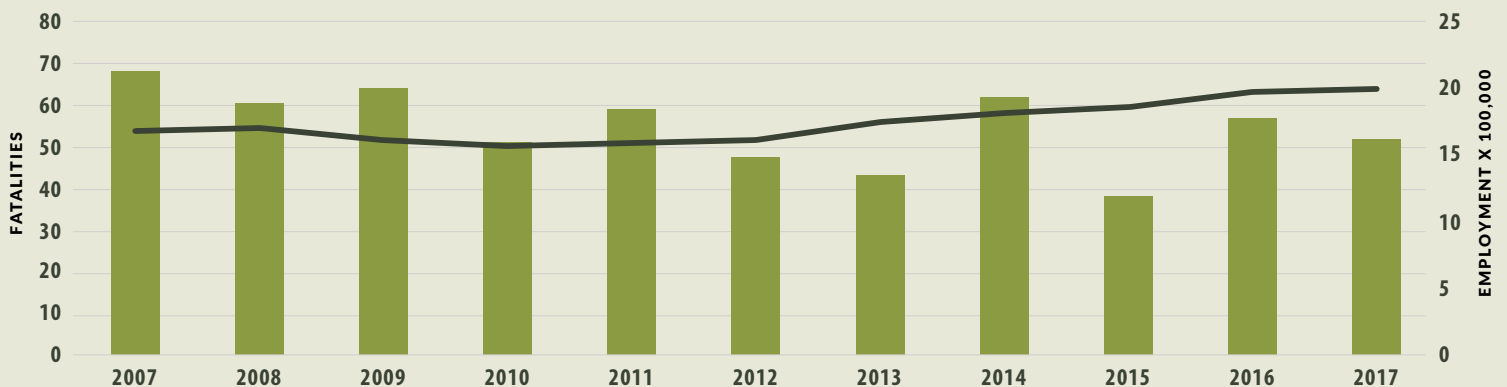
For occupation (SOC), Farming/Fishing/Forestry (code 45) is split into sub codes: Agriculture (code 45 2000), fishing and hunting (code 45 3000), forest/conservation (code 45 4010); and logging (code 45 4020).

For event (OIICS), Transportation is divided into the following codes: Aircraft (code 21), rail vehicle (code 22), animal/other non-motorized vehicle (code 23), pedestrian vehicular (code 24); and water vehicle (code 25).

For descriptive purposes in response to industry interest in Oregon, OR-FACE further delineates motorized land vehicle events (codes 26 and 27) into motor vehicle and mobile machinery.

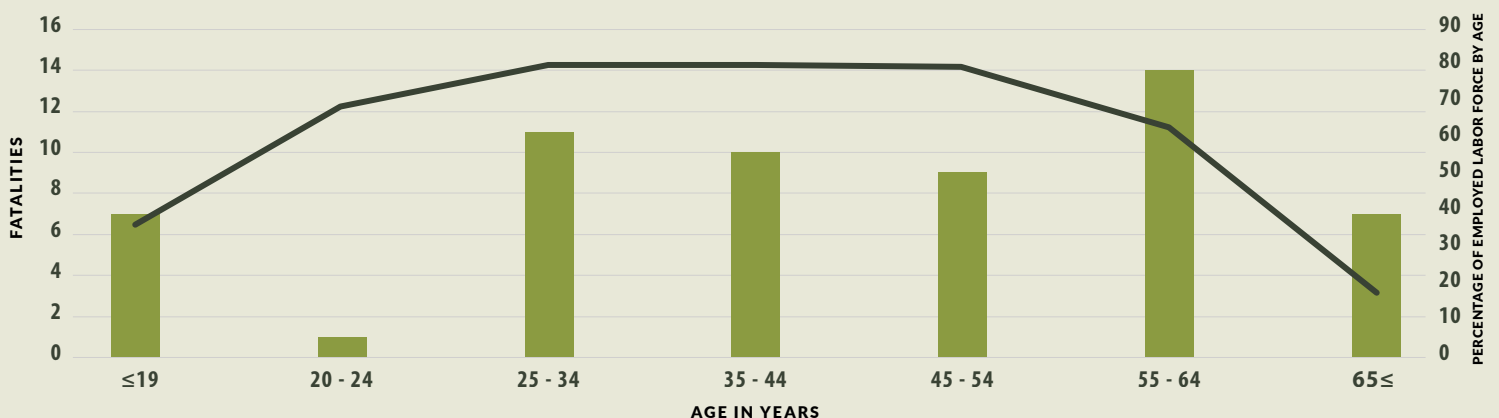
Oregon Employment Rate vs. Occupational Fatalities

2015 saw the lowest fatality count since OR-FACE began surveillance in 2003. The bars below reflect fatalities; the line reflects employment rate.

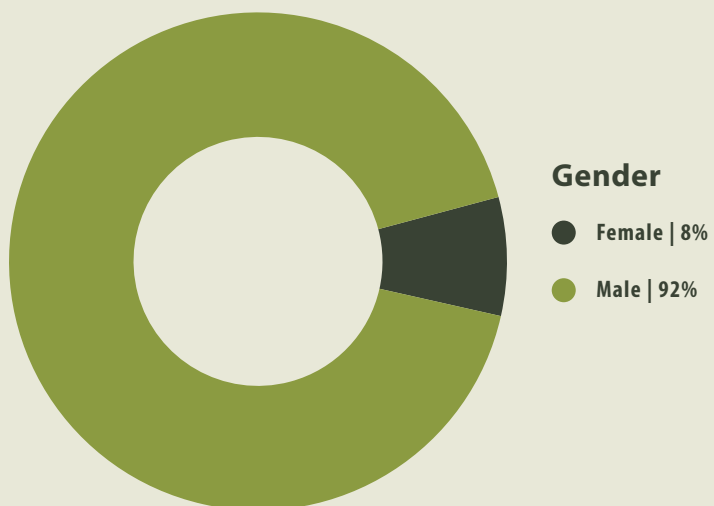
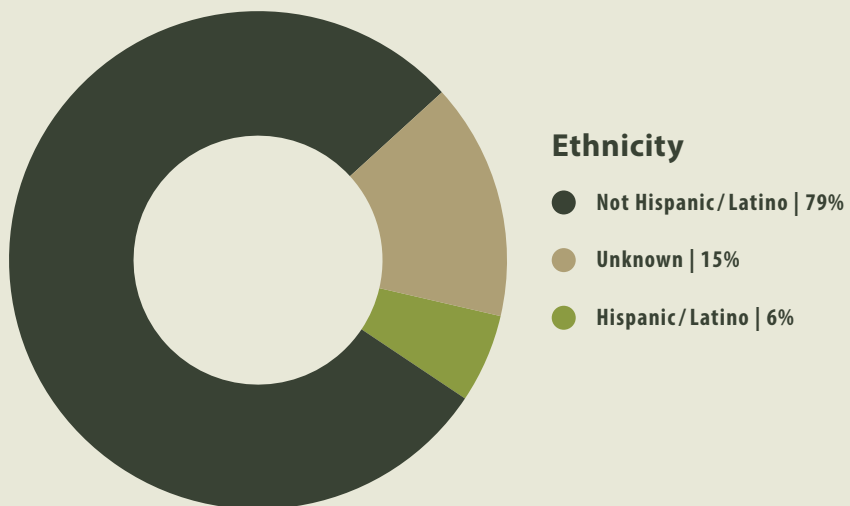
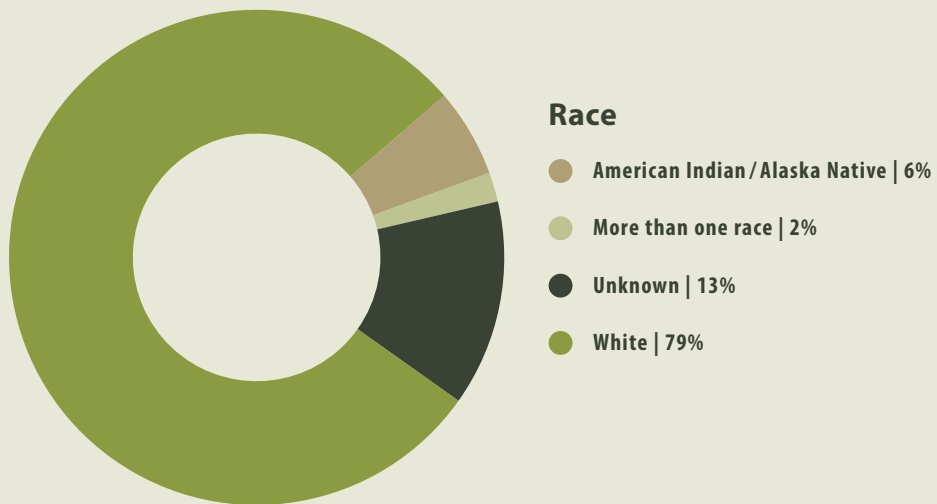


Occupational Fatalities in Oregon by Age Compared to Oregon Age Distribution of Labor Force, 2016

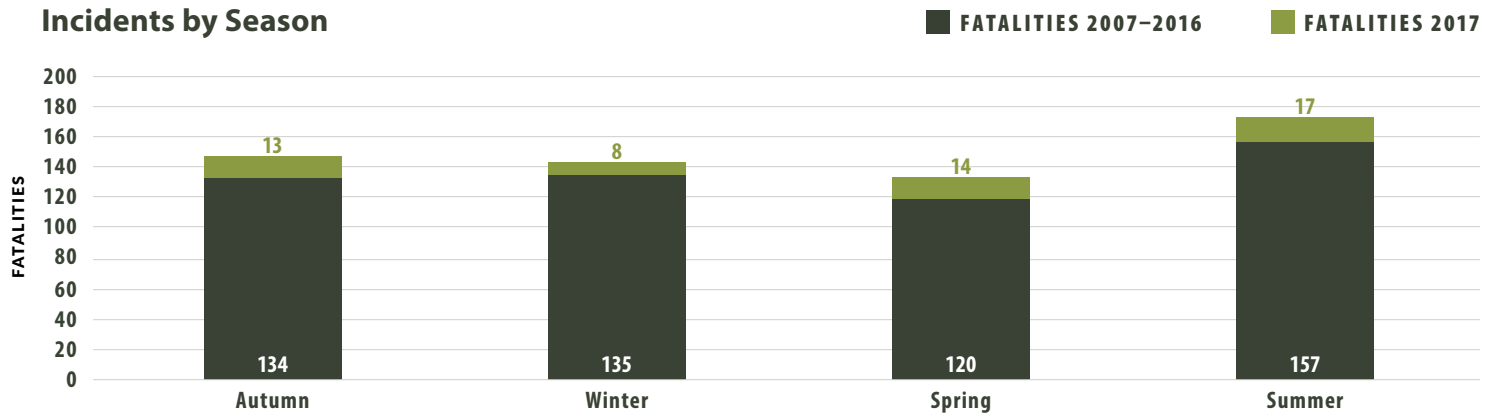
The bars below reflect fatal cases by age; the line reflects age distribution of labor force.



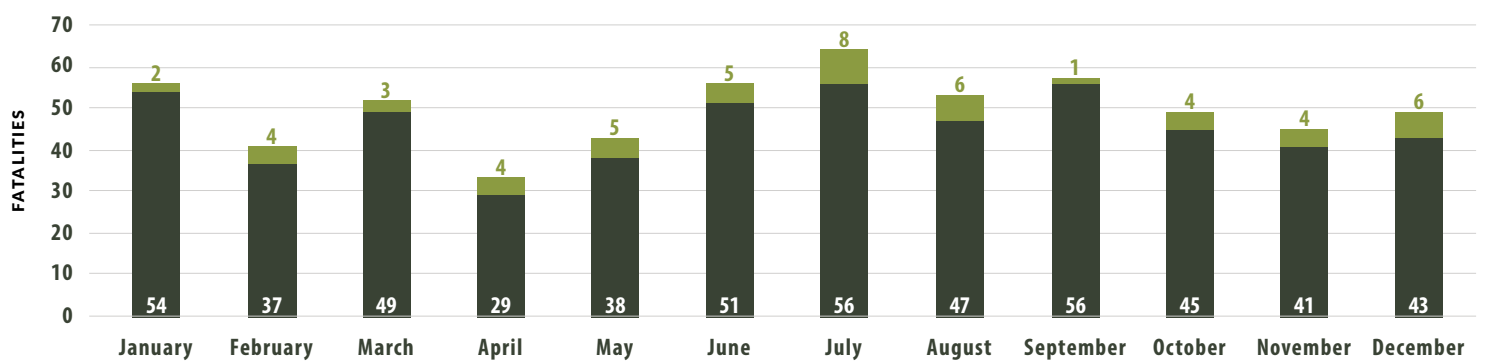
Demographics of Decedents in Occupational Fatalities (52 total)



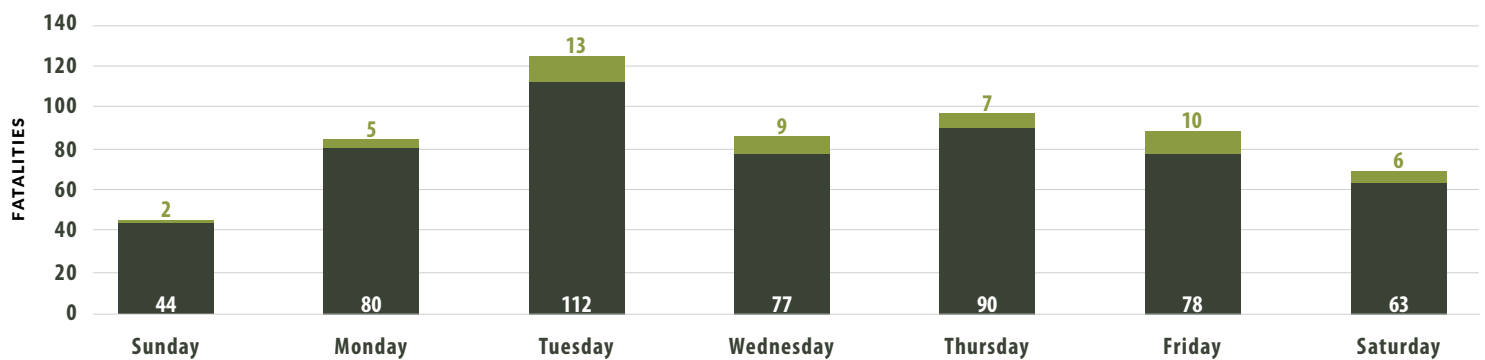
Incidents by Season



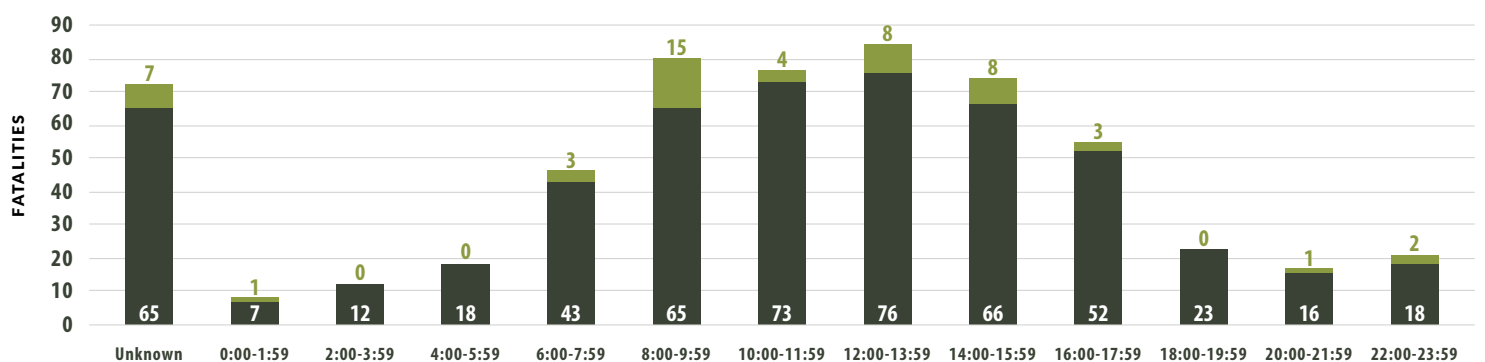
Incidents by Month



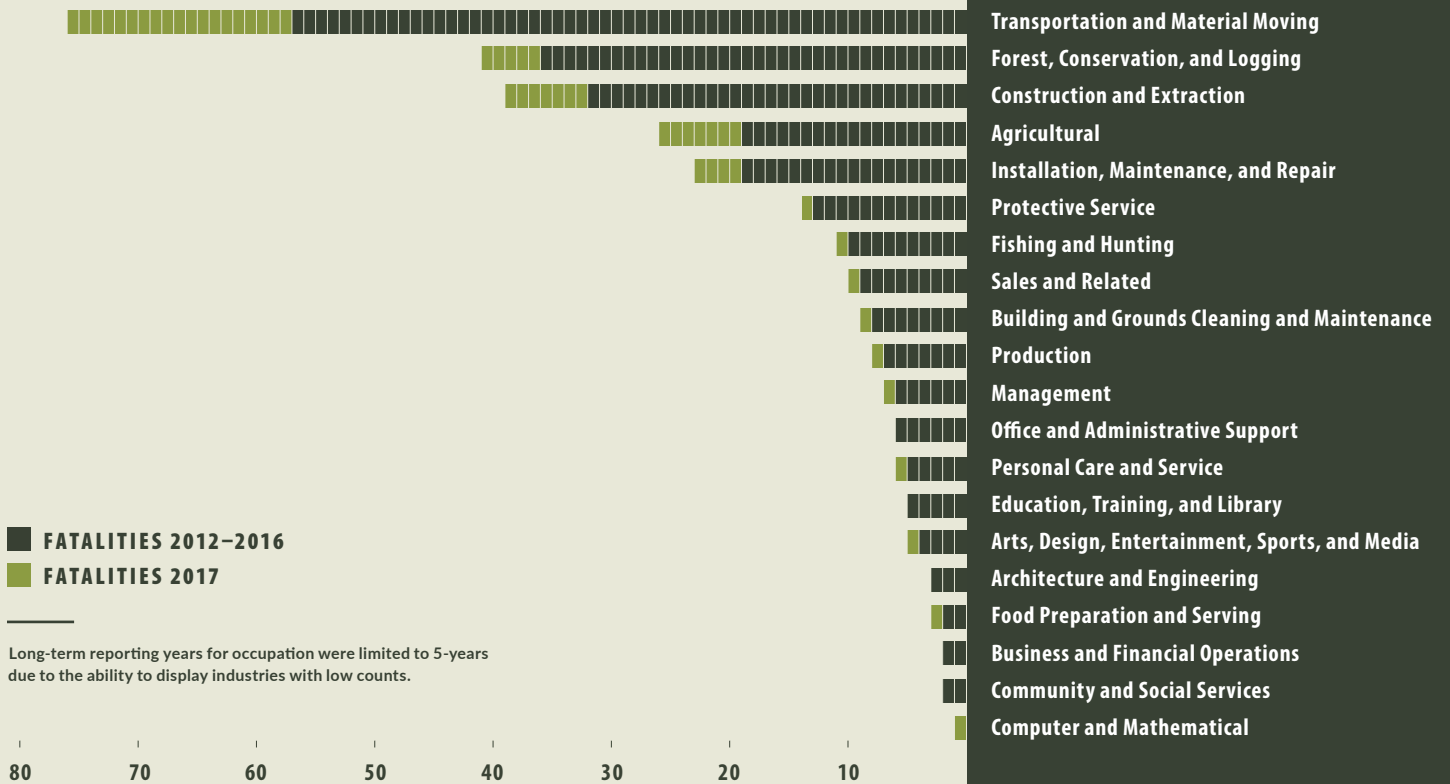
Incidents by Day of Week



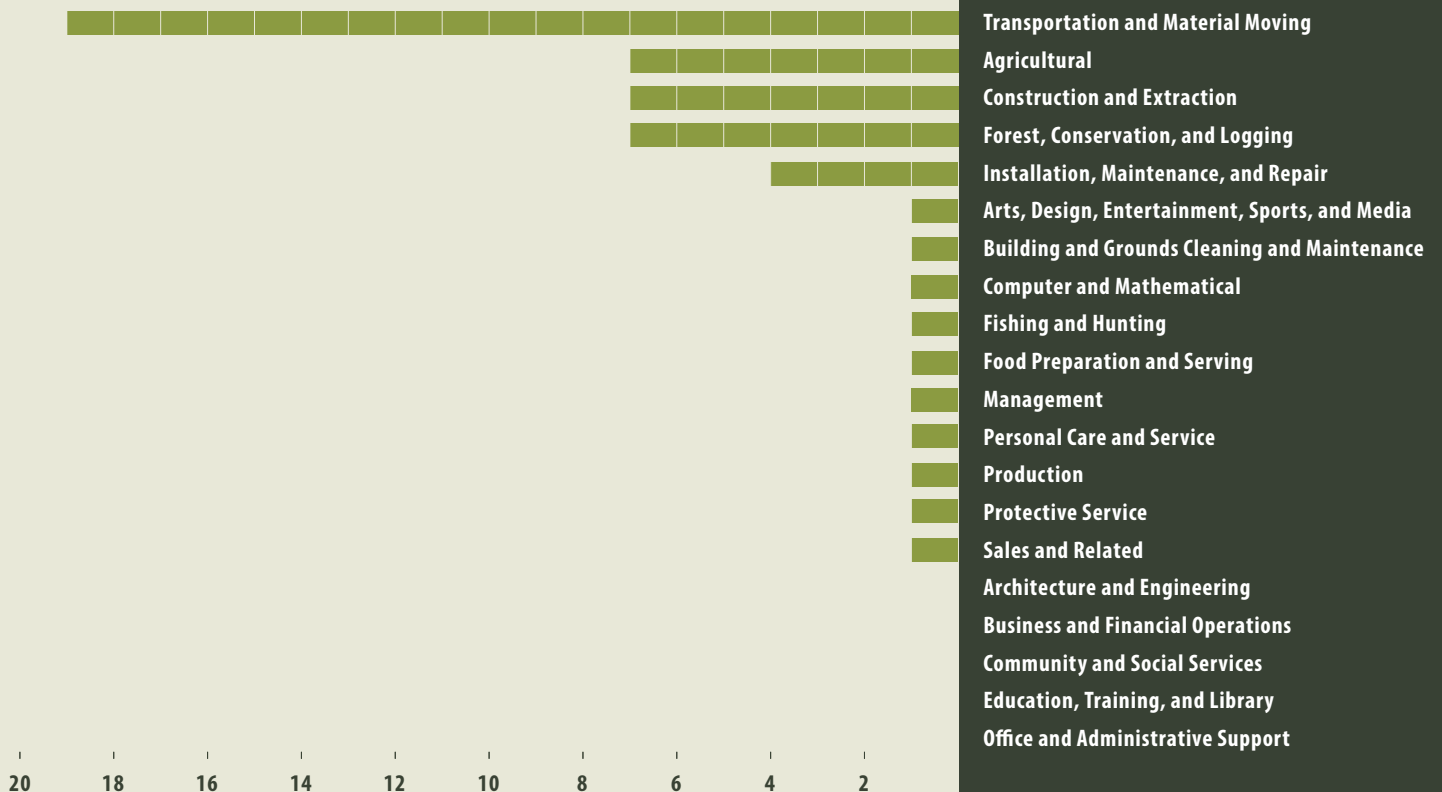
Incidents by Time of Day



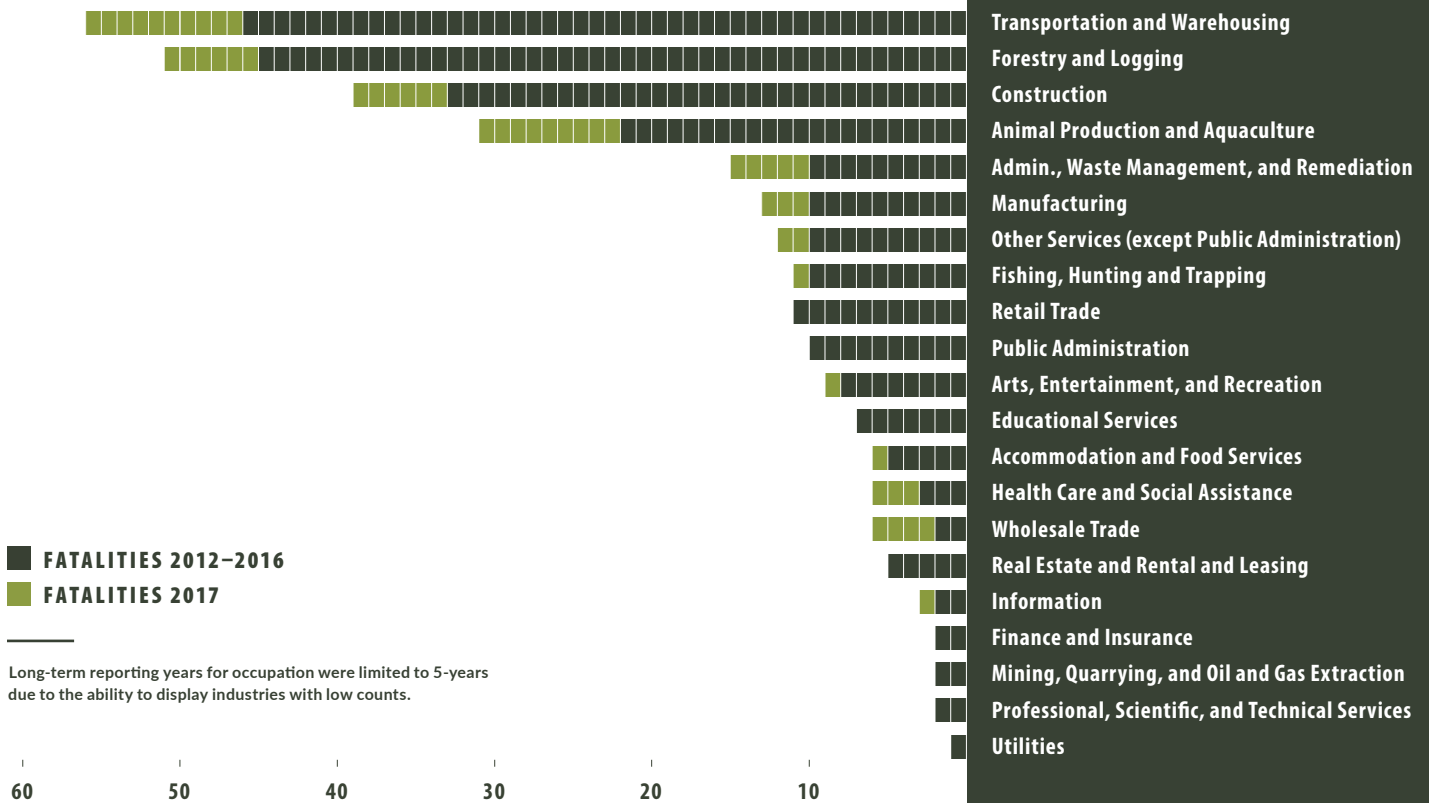
Fatalities by Occupation, 2012–2017



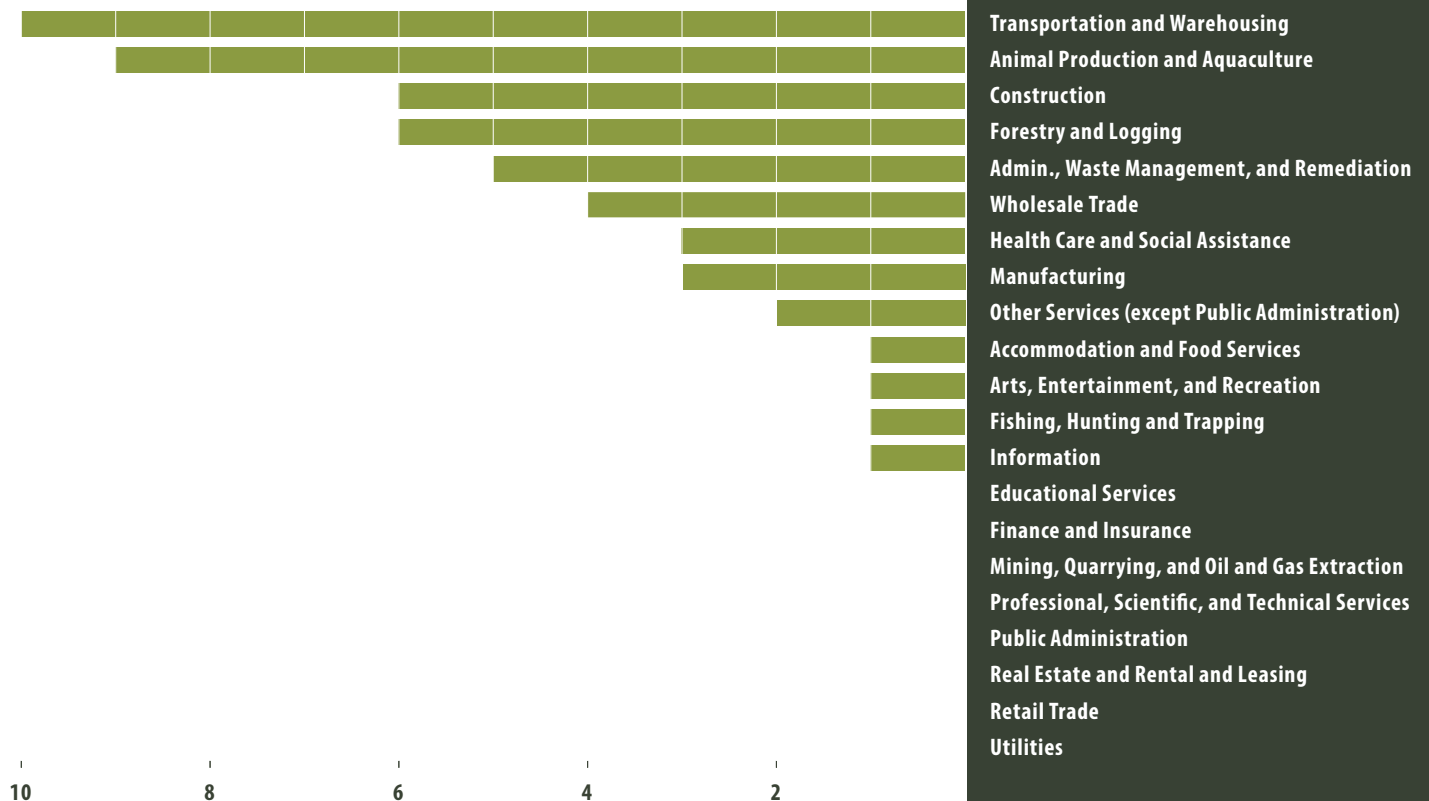
Fatalities by Occupation, 2017



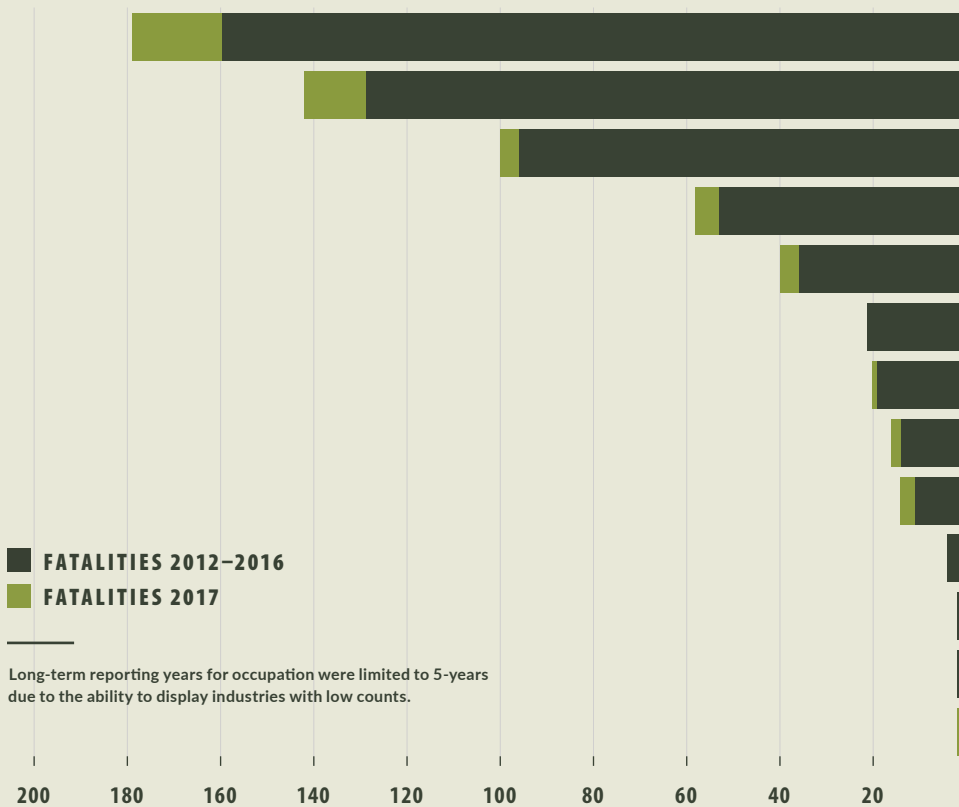
Fatalities by Industry, 2012–2017



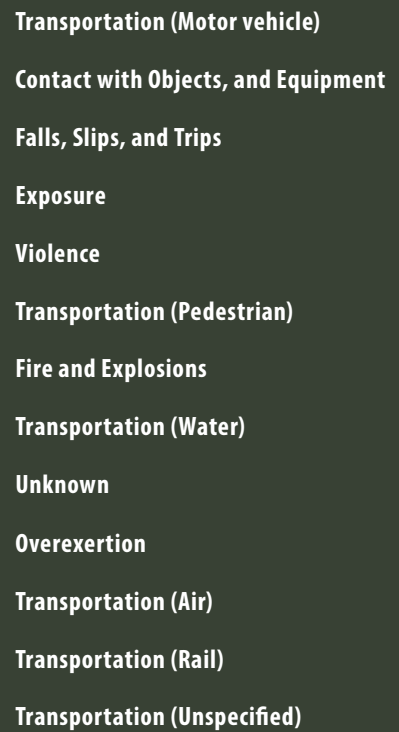
Fatalities by Industry, 2017



Fatalities by Event, 2007–2017

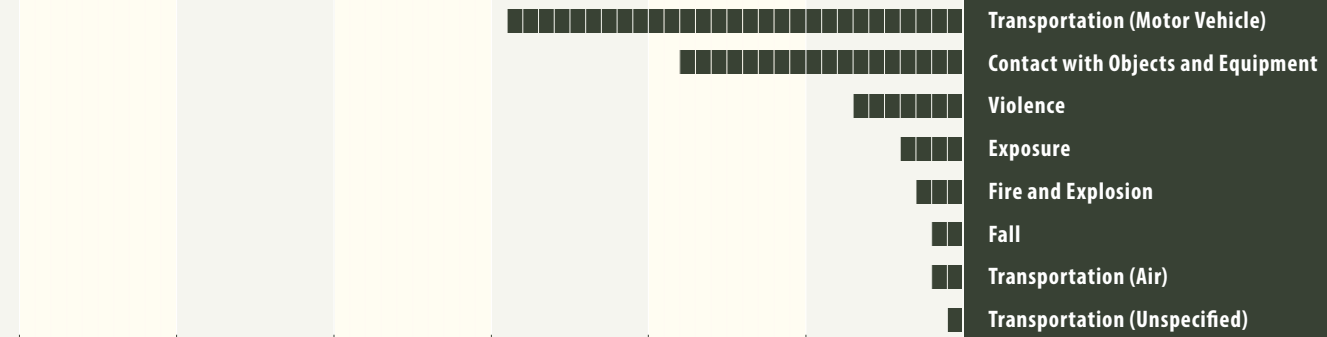


Fatalities by Event, 2017

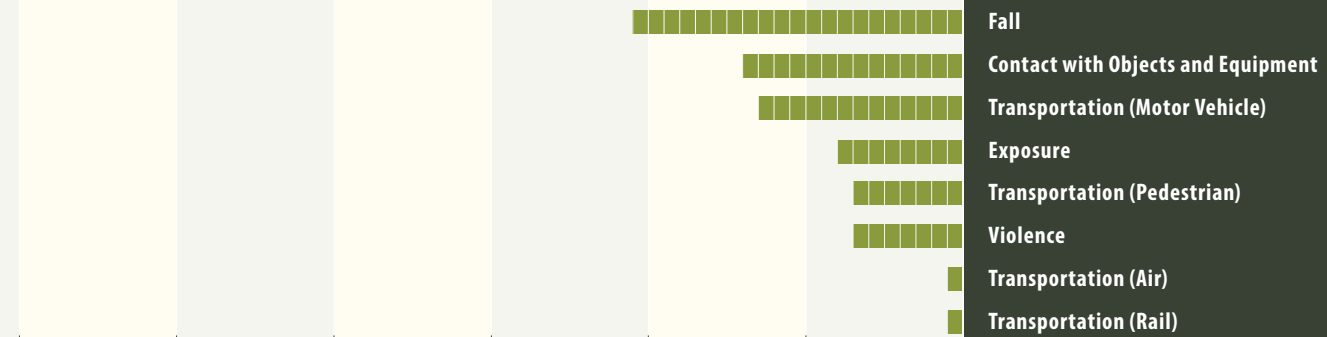


Fatalities by Select Industries, 2007–2017

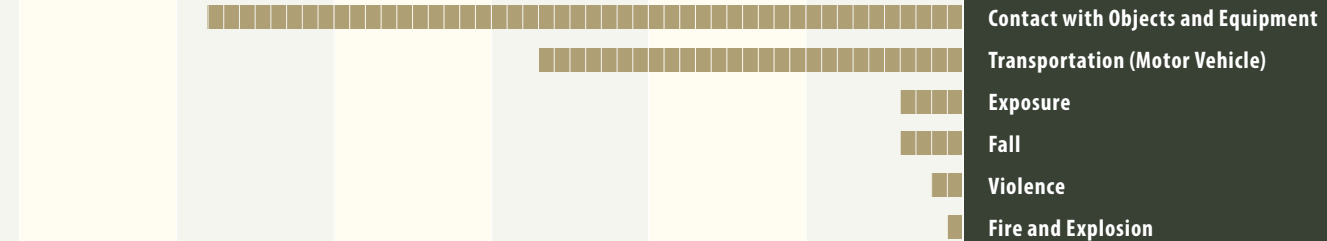
Agriculture



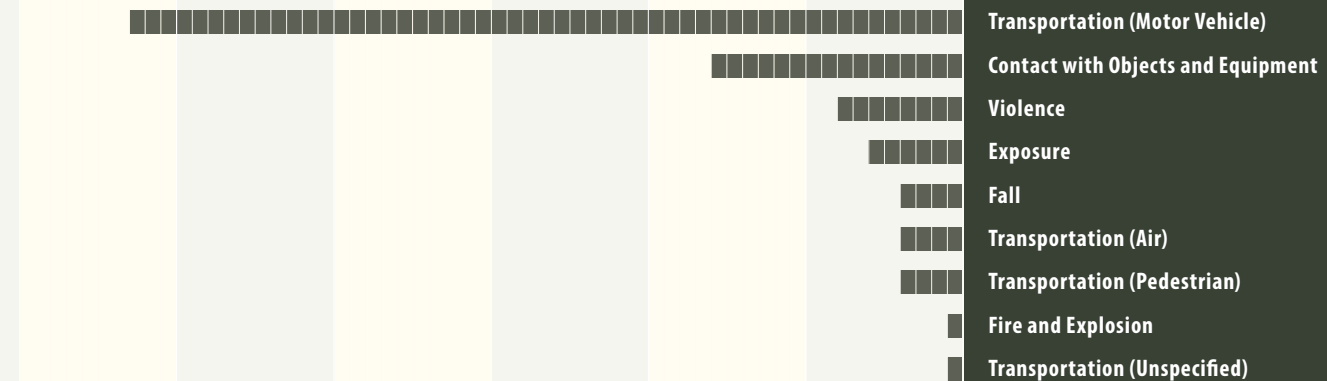
Construction

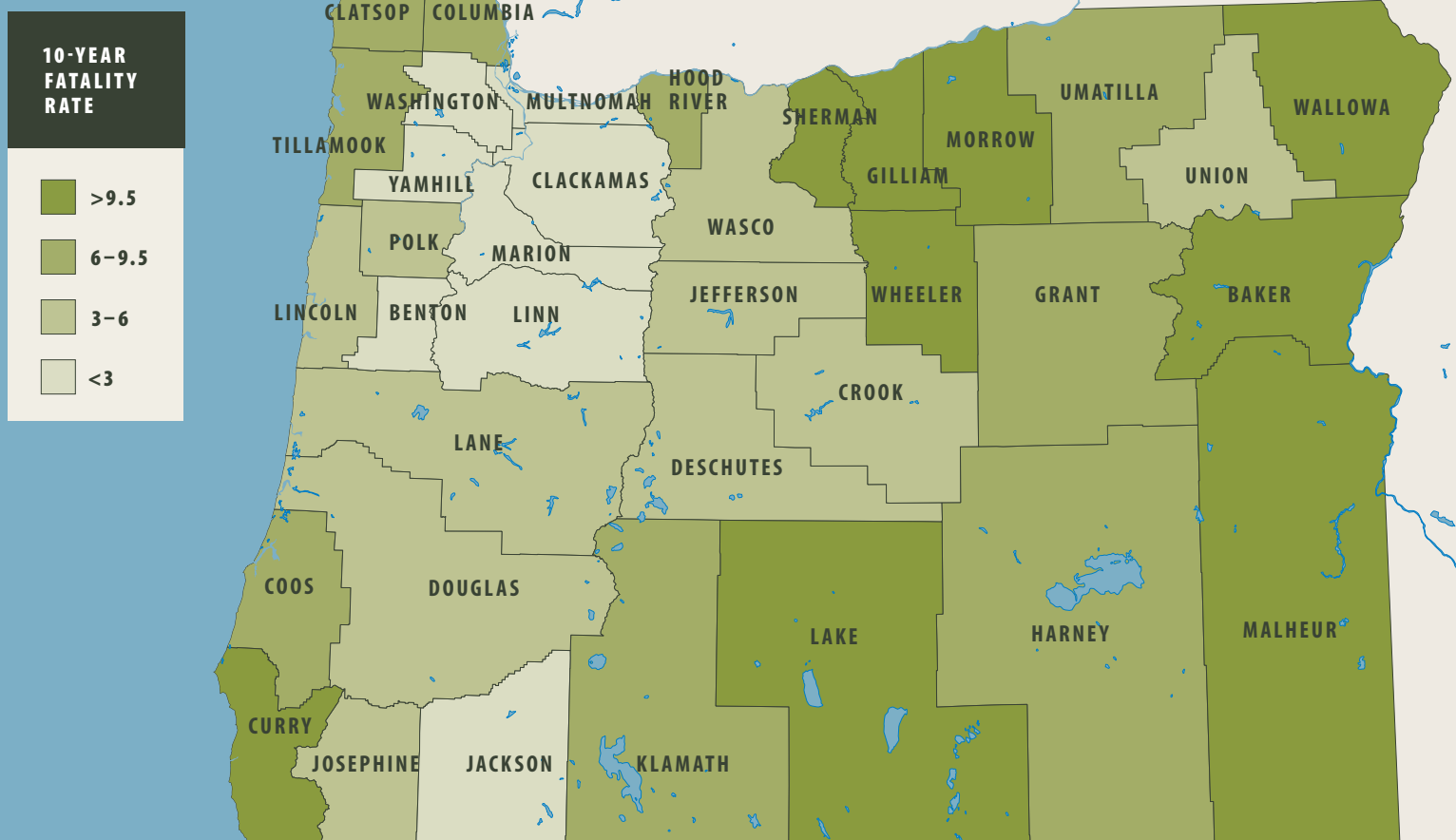


Forestry and Logging



Transportation





Oregon county labor statistics, 10-year fatality trend, 2017 fatality count, and 10-year fatality rate.

	TOTAL POP.	LABOR FORCE	FATALITIES	FATALITIES	10-YR RATE PER 100,000 WORKERS
	2017	2017	2007-2016	2017	
Baker	16,750	6,630	11	0	15.55
Benton	92,575	46,760	8	3	2.39
Clackamas	413,000	209,536	38	4	2.05
Clatsop	38,820	18,445	12	0	6.13
Columbia	51,345	23,026	15	0	6.67
Coos	63,310	25,029	25	0	9.27
Crook	22,105	8,829	5	0	5.60
Curry	22,805	8,429	10	1	12.40
Deschutes	182,930	89,366	28	3	3.75

Table continues on following page >

2.98

2007-2017 OVERALL FATALITY RATE PER 100,000 EMPLOYEES

2.59

2017 OVERALL FATALITY RATE PER 100,000 EMPLOYEES

The employed Oregon labor force (as report by BLS) is used as a denominator for the fatality rate. The figure is adjusted to represent a rate of 100,000 full-time employees. Thus, the 10-year fatality rate is calculated by adding up all fatalities from every year, multiplying by 100,000, and then divided by the summed Oregon labor force across the 10 years. The rates in counties with low population density are highly variable year by year.

	TOTAL POP.	LABOR FORCE	FATALITIES	FATALITIES	10-YR RATE PER 100,000 WORKERS
	2017	2017	2007-2016	2017	
Douglas	111,180	43,786	25	1	5.77
Gilliam	1,995	820	2	0	20.44
Grant	7,415	2,919	3	0	9.48
Harney	7,360	3,199	2	0	6.00
Hood River	25,145	13,843	8	1	6.31
Jackson	216,900	98,442	21	4	2.51
Jefferson	23,190	9,423	5	0	5.43
Josephine	85,650	33,317	17	0	5.12
Klamath	67,690	27,825	17	1	6.13
Lake	8,120	3,312	5	0	14.44
Lane	370,600	173,565	53	6	3.30
Lincoln	47,960	20,105	13	0	5.99
Linn	124,010	55,112	13	3	2.91
Malheur	31,845	11,974	8	6	10.77
Marion	339,200	153,304	26	4	1.92
Morrow	11,890	5,506	7	0	12.11
Multnomah	803,000	437,362	54	6	1.37
Polk	81,000	37,643	10	1	3.00
Sherman	1,800	857	3	0	32.22
Tillamook	26,175	11,259	10	1	9.31
Umatilla	80,500	34,963	30	2	8.71
Union	26,900	11,352	5	1	4.93
Wallowa	7,195	3,133	5	0	14.90
Wasco	27,100	13,240	6	0	4.35
Washington	595,860	309,537	33	3	1.18
Wheeler	1,480	705	1	0	14.51
Yamhill	106,300	52,027	12	1	2.60
	4,141,100	2,004,580	546	52	

Population data sources: Portland State University Population Research Center and BLS Local Area. Unemployment Statistics. Retrieved December 2019.

ABSTRACTS

Fatal occupational incidents in Oregon by type of event in 2017

Contact With Objects and Equipment

Exposure to Harmful Substances or Environments

Falls, Slips, and Trips

Fires and Explosions

Transportation (Motor Vehicle, Pedestrian, Water)

Violence and Other Injuries by Persons or Animals

CONTACT WITH OBJECTS AND EQUIPMENT

DESCRIPTION	Struck by bucket	SEASON	Winter
INDUSTRY	Construction	COUNTY	Lane
OCCUPATION	Construction/Extraction	OR-FACE NUMBER	OR 2017-01-1

A 53-year-old construction worker was part of a crew installing a dewatering system in preparation for excavating a utility trench. The bucket of an excavator was approximately 12 feet above the ground, directly over the worker's head, when a rupture in the hydraulic line occurred. This caused the bucket to drop onto the back of the worker's head and neck, knocking him to the ground. The crew had been working for about an hour when the incident occurred. It was reported that a pre-work inspection had not been completed before operating the excavator. The worker was transported to a hospital, where he died from multiple blunt-force injuries.

DESCRIPTION	Struck head on truck	SEASON	Winter
INDUSTRY	Agriculture	COUNTY	Lane
OCCUPATION	Agriculture	OR-FACE NUMBER	OR 2017-04-1

A 55-year-old truck driver was doing a pre-trip check on his truck when he bumped his head on the trailer. This caused a group of vessels to break in his brain, causing a brain aneurysm. He was taken to the hospital and underwent surgery. While on life support, he died of acute hypoxic respiratory failure.

DESCRIPTION	Struck by tractor	SEASON	Spring
INDUSTRY	Other Services	COUNTY	Clackamas
OCCUPATION	Repair and Maintenance	OR-FACE NUMBER	OR 2017-05-1

A 57-year-old owner of an agricultural equipment company died from crushing chest and abdominal injuries sustained while he was repairing a tractor that rolled over on him. He was transported from the agricultural site to the hospital, where he died 10 days later as a result of his injuries.

DESCRIPTION	Struck by equipment and felled tree	SEASON	Winter
INDUSTRY	Forestry/Logging	COUNTY	Lane
OCCUPATION	Forest/Conservation/Logging	OR-FACE NUMBER	OR 2017-06-01

A 29-year-old timber cutter died from multiple blunt force injuries after being swept down a hill by a tree that he felled. The deceased felled a 22-inch diameter tree across the stump. A small snag that was intertwined with the upper limbs of the tree came down with that tree as it was falling. As the result of either being struck by the snag or trying to avoid it as it was falling, the worker ended up positioned ahead (downhill) of the falling tree. The worker then either slipped and fell under the falling tree or was swept under it by the snag top. Then, the deceased was pushed down the hill by the tree he felled and was compressed between it and another log, causing massive head and upper body trauma.

DESCRIPTION	Crushed by cattle gate	SEASON	Winter
INDUSTRY	Transportation/Warehousing	COUNTY	Marion
OCCUPATION	Transportation/Material Moving	OR-FACE NUMBER	OR 2017-09-1

A 66-year-old truck driver died after he was crushed by a 500-pound cattle gate. The sequence of events that led to his injury is unknown. He died 5 days later of complications from a crushing pelvic fracture.

DESCRIPTION	Crushed by vertical parts carousal machine	SEASON	Summer
INDUSTRY	Wholesale Trade	COUNTY	Washington County
OCCUPATION	Installation/Maintenance/Repair	OR-FACE NUMBER	OR 2017-22-1

A 49-year-old field service technician working as a subcontractor was killed while performing service maintenance on a carousal machine designed to vertically rotate internal shelves used for parts storage. The technician was reinstalling a roller bar from inside the carousel machine that had fallen out. To accomplish this task, he removed one of the shelves, entered the energized machine, and positioned himself in a lying position in the parts shelf below the one he removed. Rotating the shelves in a de-energized state by using a hand-crank was possible, but the technician asked an apprentice co-worker to operate the external controls of the machine. It was reported that when the technician directed his coworker to rotate downward the shelf that he was lying in, the shelf unexpectedly rotated in the opposite direction, crushing the technician between the shelf he was laying in and the top of the machine. 911 was called, but the technician became unresponsive and died of compression asphyxia.

DESCRIPTION	Struck by log	SEASON	Summer
INDUSTRY	Forestry/Logging	COUNTY	Yamhill
OCCUPATION	Forest/Conservation/Logging	OR-FACE NUMBER	OR 2017-24-1

A 72-year-old logger died of blunt force trauma to the head after being struck by a large log from a truck. The sequence of events that lead to this fatal injury is unknown.

DESCRIPTION	Struck by baler	SEASON	Summer
INDUSTRY	Agriculture	COUNTY	Umatilla
OCCUPATION	Agriculture	OR-FACE NUMBER	OR 2017-30-1

A 35-year-old farm worker, after only one week on the job, died from a skull fracture injury. The deceased was operating a baler in an alfalfa field. He contacted his employer to inform him of a problem with the shear pin on the baler and was told to drive to the bottom of the field where they would repair it. The weather was clear with no reduced visibility. The farm worker drove the baler down the hill, and according to witnesses, was driving considerably faster than was normal. This suggested that the baler was out of control. When the farm worker was nearing the lower part of the hill, he jumped from the cab and was subsequently hit by the baler. He died at the scene.

DESCRIPTION	Struck by tree branch	SEASON	Summer
INDUSTRY	Forestry/Logging	COUNTY	Benton
OCCUPATION	Forest/Conservation/Logging	OR-FACE NUMBER	OR 2017-35-1

A 65-year-old logger died from a blunt force head injury after he was struck on the head by a large tree branch. The sequence of events of the accident are unknown.

DESCRIPTION	Forest landslide	SEASON	Summer
INDUSTRY	Admin./Support/Waste Management/Remediation Services	COUNTY	Curry
OCCUPATION	Construction/Extraction	OR-FACE NUMBER	OR 2017-36-1

A 31-year-old construction laborer was conducting drilling work on a forest road when a nearby hill/embankment landslide traveled approximately 600 feet and buried him. According to a coworker, the construction laborer saw the landslide and yelled "run." The coworker began running and did not see the construction laborer when he looked back. The construction laborer was buried by approximately 15,000 yards of debris, and his body was never recovered. He presumably died from blunt force trauma secondary to the forest landslide.

DESCRIPTION	Crushed between landing gear and stationary trailer	SEASON	Autumn
INDUSTRY	Transportation/Warehousing	COUNTY	Multnomah
OCCUPATION	Transportation/Material Moving	OR-FACE NUMBER	OR 2017-40-1

A 61-year-old commercial truck driver died of mechanical asphyxia while he was in the process of hooking up a set of dual semitrailers for his weekly route. According to security camera footage, after connecting the truck and first trailer to his second (rear) trailer, the truck driver left his cab without setting the parking brakes. He then raised the landing gear on the rear trailer, which caused a weight transfer to the entire truck and trailer set. The truck's wheels were not pointed straight ahead, but to one side. Ultimately, the truck and both trailers rolled backwards and pitched sideways. The driver was subsequently crushed between the victim's trailer and a separate parked trailer nearby.

DESCRIPTION	Caught by PTO shaft	SEASON	Autumn
INDUSTRY	Agriculture	COUNTY	Malheur
OCCUPATION	Agriculture	OR-FACE NUMBER	OR 2017-43-1

A 55-year-old farm worker was driving a dump truck filled with cow manure toward an open land storage site. Once the farm worker arrived, he unloaded his dump truck, backed the truck into place, and then climbed out of his truck. The truck was in park with the engine still running. For unknown reasons, the farm worker crawled under the truck and got his clothing caught on the power take off (PTO) shaft operating the hydraulic pump to the dump bed. The clothing on his left arm and shoulder were wrangled and twisted into the PTO shaft, causing tension on the clothing, which strangled and fractured the farm worker's neck, resulting in his death.

DESCRIPTION	Crushed by log	SEASON	Autumn
INDUSTRY	Forestry/Logging	COUNTY	Lane
OCCUPATION	Forest/Conservation/Logging	OR-FACE NUMBER	OR 2017-45-1

A 45-year-old logging crew lead worker died from blunt force chest trauma while working with four other choker setters at a logging site. While waiting for his turn to hook logs to the helicopter, the deceased stepped up onto a 47-foot-long log, which had been walked on multiple times beforehand. However, on this occasion, the log began to roll. The log rolled down a mild slope, and the worker was wound up with it. As the log continued rolling, it rolled over the top of another log and crushed the worker's chest and head. The worker was transported to a hospital via helicopter and was pronounced dead upon arrival.

EXPOSURE TO HARMFUL SUBSTANCES OR ENVIRONMENTS

DESCRIPTION	Drug overdose	SEASON	Summer
INDUSTRY	Construction	COUNTY	Multnomah
OCCUPATION	Construction/Extraction	OR-FACE NUMBER	OR 2017-21-1

A 35-year-old plumber with a past medical history of seizures died from the toxic effects of mitragynine (kratom). According to reports, the deceased collapsed while standing at work and died en route to the hospital.

DESCRIPTION	Electrocution	SEASON	Summer
INDUSTRY	Admin./Support/Waste Management/Remediation Services	COUNTY	Malheur
OCCUPATION	Installation/Maintenance/Repair	OR-FACE NUMBER	OR 2017-27-1

A 26-year-old laborer was electrocuted while moving irrigation pipes that contacted overhead power lines. The laborer was found dead at the scene.

DESCRIPTION	Electrocution	SEASON	Summer
INDUSTRY	Agriculture	COUNTY	Malheur
OCCUPATION	Agriculture	OR-FACE NUMBER	OR 2017-29-1

A 58-year old farmer, along with his son, was attempting to remove dirt from inside of a 40-foot irrigation pipe. The farmer's son was using his foot to steady the end of the pipe, and the farmer was manually lifting the pipe up to a vertical position. The pipe struck an overhead 12,000-volt electrical wire that was 22 feet above ground. Both parties were electrocuted; the farmer died at the scene, and his son was uninjured.

DESCRIPTION	Fall from elevated level	SEASON	Autumn
INDUSTRY	Manufacturing	COUNTY	Klamath
OCCUPATION	Construction/Extraction	OR-FACE NUMBER	OR 2017-44-1

A 28-year-old electrician apprentice died from severe chemical and thermal injuries while repairing a damaged electrical cord attached to a motor. The motor was located approximately 5 feet above a vat on I-Beams that were 40 inches wide. The vat contained a mixture of sodium hydroxide and water at approximately 170 degrees Fahrenheit. The employee fell, broke through a vat cover, and continued falling further into the vat. According to reports, there were no protections against falling, such as a guardrail system or safety nets.

FALLS, SLIPS, AND TRIPS

DESCRIPTION	Complications following fall injury	SEASON	Winter
INDUSTRY	Transportation/Warehousing	COUNTY	Marion
OCCUPATION	Computer/Mathematical	OR-FACE NUMBER	OR 2017-09-1

A 36-year-old application-support analyst died from a massive pulmonary embolism after a ground level fall. The deceased sustained a fracture to his foot after tripping on a stair at work. He was treated for the fracture. Approximately 10 days later, he died from a blood clot that traveled from his foot to his lungs.

DESCRIPTION	Fall from slip/trip	SEASON	Spring
INDUSTRY	Manufacturing	COUNTY	Multnomah
OCCUPATION	Transportation/Material Moving	OR-FACE NUMBER	OR 2017-12-1

A 74-year-old shipping and receiving clerk was walking through the yard of a manufacturing facility after a safety meeting when he fell as a result of either tripping on a curb or his knee giving out. The clerk's hardhat was knocked off during the fall, and he struck his forehead and nose on the ground. He was hospitalized and then died two days later from a traumatic fracture of the cervical spine.

DESCRIPTION	Fall injury	SEASON	Summer
INDUSTRY	Admin./Support/Waste Management/Remediation Services	COUNTY	Lane
OCCUPATION	Transportation/Material Moving	OR-FACE NUMBER	OR 2017-25-1

A 54-year-old delivery driver died from blunt force head and chest trauma. The delivery driver had completed the delivery of sod to a country club using a forklift and then proceeded to load the forklift back onto his trailer. He was later found injured on the ground next to the forklift. According to reports, it is unknown how he came to be found on the ground. He was pronounced dead on the scene due to a head injury.

DESCRIPTION	Fall to lower level	SEASON	Summer
INDUSTRY	Forestry/Logging	COUNTY	Tillamook
OCCUPATION	Forest/Conservation/Logging	OR-FACE NUMBER	OR 2017-26-1

A 32-year-old logging employee who was working as a chaser died after sustaining severe head trauma caused by being dropped from a sky car during the course of un-belling a turn of logs. The crew was working on a mobile logging operation where a sky car was being used to lower logs to a landing for a processor to buck them. At the time of the incident, the yarder engineer was positioned on a hill and was giving signals by radio to the sky car to drop the slack line so the chaser could unhook the chokers. As the yarder engineer saw sufficient slack line on the ground, he attempted to signal the sky car to stop slacking line. However, the sky car did not stop, and due to the loudness of the processor's engine, the chaser appeared not to hear that the sky car was still in operation. In addition, a warning whistle/signal was not given to let the chaser know that the sky car was continuing to slack line (such signals must be pre-arranged and may differ by company/crew). The yarder engineer made multiple attempts to halt the sky car; however, the sky car continued to slack line, and several feet of slack had piled to the ground. Eventually a loop of line was caught in the drum of the sky car, which caused the line to wind back on the drum and pick the turn of logs back up as the chaser was lying over them; this resulted in the chaser being lifted into the air. It is unclear if the chaser was pinched or tangled, but he did not attempt to jump down. Once lifted all the way to the sky car, the force exerted on the sky car cut the line (the OSHA report says "the power of the sky car immediately cut the cable off"). This caused the chaser to fall back down approximately 50 feet to the ground, which resulted in his immediate death. Of note, the sky car and its radio had been malfunctioning earlier that day and on prior occasions.

DESCRIPTION	Fall from stairway	SEASON	Autumn
INDUSTRY	Health Care/Social Assistance	COUNTY	Multnomah
OCCUPATION	Transportation/Material Moving	OR-FACE NUMBER	OR 2017-48-1

An 81-year-old hospital volunteer died during the course of assisting in the transport of patients to appointments. While assisting a patient with a walker to the transport van, the volunteer sidestepped down a set of stairs adjacent to the patient. The volunteer then lost his footing and fell down approximately six stairs, resulting in a blunt force head injury. The volunteer was transported to a hospital and admitted into the ICU for a cerebral hemorrhage and a wrist fracture. He died approximately 40 days after admission.

FIRES AND EXPLOSIONS

DESCRIPTION	Hot work explosion	SEASON	Spring
INDUSTRY	Agriculture	COUNTY	Marion
OCCUPATION	Agriculture	OR-FACE NUMBER	OR 2017-07-1

A 46-year-old Hispanic farm mechanic was using a plasma torch to remove the lid from an old 55-gallon metal drum that formerly contained a flammable brake wash fluid. The drum was empty but not cleaned; thus, it likely contained residual product and associated flammable vapors. The first cut with the torch caused a flash and an explosion that blew off the top of the drum and knocked the mechanic unconscious. The employer attempted first aid until emergency responders arrived. The mechanic was life-flighted to a hospital, where he died three months later of a traumatic head injury suffered in the explosion.

DESCRIPTION	Motor vehicle accident	SEASON	Autumn
INDUSTRY	Transportation/Warehousing	COUNTY	Linn
OCCUPATION	Transportation/Material Moving	OR-FACE NUMBER	OR 2017-50-1

During nighttime hours, a 58-year-old truck driver was driving a commercial tanker truck filled with gasoline when he lost traction on icy highway pavement and rolled over. The impact ruptured the fuel tank, which subsequently caught fire. The truck driver was pronounced dead on the scene from thermal injuries.

TRANSPORTATION (MOTORIZED LAND VEHICLE: MOTOR VEHICLE)

DESCRIPTION	All-terrain vehicle accident	SEASON	Winter
INDUSTRY	Agriculture	COUNTY	Lane
OCCUPATION	Agriculture	OR-FACE NUMBER	OR 2017-02-1

A 33-year-old laborer was operating an All-Terrain Vehicle (ATV) on a slippery path in a vineyard. Evidence suggests he was driving down a hill on a path with ice, snow, and mud when he slipped off the roadway and overturned the ATV. The laborer was found unresponsive under the ATV and declared dead after resuscitation attempts. Reports confirmed the deceased was operating the ATV without a safety belt, and noted that he was acutely intoxicated by alcohol (blood volatiles positive for ethanol at 0.287 g/dL).

DESCRIPTION	Head-on collision	SEASON	Spring
INDUSTRY	Wholesale Trade	COUNTY	Washington
OCCUPATION	Transportation/Material Moving	OR-FACE NUMBER	OR 2017-14-1

A 29-year-old delivery truck driver died from head and chest injuries sustained after crashing an Isuzu box truck he was driving. The delivery truck driver was negotiating a left-hand, uphill curve when he drifted across the double centerlines of the highway into an oncoming semi-tractor trailer truck. The delivery truck driver was pronounced dead at the scene. The semi-tractor trailer truck driver survived the collision with serious injuries. Evidence suggested that weather was not a factor; it was reported that the visibility was clear and that the pavement was dry at the time of the incident. It was also reported that the box truck driver was wearing a safety belt.

DESCRIPTION	Motorcycle raceway accident	SEASON	Spring
INDUSTRY	Arts/Entertainment/Rec.	COUNTY	Multnomah
OCCUPATION	Arts/Design/Entertainment/Sports/Media	OR-FACE NUMBER	OR 2017-15-1

A 24-year-old motorcycle racer died when she crashed into a wall at approximately 70 to 80 mph on the last turn of her last lap on a raceway. A nearby ambulance crew pronounced her dead at the scene. According to reports, the track was dry at the time of the race, and she was wearing all the required protective gear. Reports suggested that 70 to 80 mph was the typical speed for racers through the turn. The motorcycle racer died from a traumatic fracture of the cervical spine.

DESCRIPTION	Motor vehicle accident	SEASON	Spring
INDUSTRY	Forestry/Logging	COUNTY	Union
OCCUPATION	Transportation/Material Moving	OR-FACE NUMBER	OR 2017-16-1

A 41-year-old logging truck driver was departing from a timber sale when he jumped from his moving truck for unknown reasons. The weather was minimally windy with clear skies and the road surface was dry. After he jumped, the truck continued moving off the roadway and crashed into a stand of timber. The driver died at the scene after sustaining crushing abdominal injuries caused by impact with the gravel roadway and possibly by having been struck by the truck and trailer. Broken tree tops were also found partially resting on the deceased.

DESCRIPTION	Motor vehicle accident	SEASON	Spring
INDUSTRY	Transportation/Warehousing	COUNTY	Douglas
OCCUPATION	Transportation/Material Moving	OR-FACE NUMBER	OR 2017-18-1

A 55-year-old semi-truck driver drove off the road and into a ravine for unknown reasons. He died from blunt force neck trauma with exsanguination.

DESCRIPTION	Rear-end collision	SEASON	Spring
INDUSTRY	Construction	COUNTY	Marion
OCCUPATION	Construction/Extraction	OR-FACE NUMBER	OR 2017-19-1

A 57-year-old construction supervisor died while working on a nighttime paving project on a three-lane Interstate 5 north and southbound bridge. Originally, the company had ODOT approval to close the center and right lanes of northbound traffic while working; however, due to only having a single truck mounted attenuator (TMA), the supervisor decided to open up the center lane to traffic. The plan was to push the traffic control barrels into the right lane using an F-250 pickup truck mounted with a barrel mover; the TMA would trail behind the F-250 for protection. Prior to opening the center lane, both vehicles were parked straddling the line that divided the center and right lanes; the TMA sat 200 feet behind the F-250. The supervisor was driving the F-250 from this starting position into the middle of the center lane when he and another crew member in the truck were struck from behind by a vehicle driving at highway speed. It is unclear whether this vehicle was fully in the center lane prior to striking the F-250, although it did just barely miss the TMA that was positioned behind the F-250. Once struck, the F-250 rolled to the left (toward the southbound lanes) and onto the median. According to witnesses, the vehicle that struck the F-250 continued to drive northbound after the collision. The TMA was then positioned to close the left lane of northbound traffic and 911 was called. The supervisor and crew member were transported to a hospital, where the supervisor died a week later. The crew member recovered from and survived his injuries.

DESCRIPTION	Motor vehicle accident	SEASON	Spring
INDUSTRY	Transportation/Warehousing	COUNTY	Clackamas
OCCUPATION	Transportation/Material Moving	OR-FACE NUMBER	OR 2017-20-1

A 38-year-old sprinter-van driver died from blunt force injuries to the chest after a motor vehicle collision. The sprinter-van driver struck a minivan for unknown reasons. The deceased was wearing a safety belt.

DESCRIPTION	Struck by semi-truck	SEASON	Summer
INDUSTRY	Agriculture	COUNTY	Marion
OCCUPATION	Agriculture	OR-FACE NUMBER	OR 2017-28-1

A 48-year-old agricultural worker died while on the work platform of a berry harvester at nighttime. After reaching a full load, the harvester operator drove to a highway intersection with the decedent and another coworker both riding on the platform; the driver then proceeded to drive on the shoulder toward the offloading yard at a rate of 4 mph. While traveling at this pace, the harvester was struck from behind by a semi-truck. The harvester operator, the coworker, and the decedent were thrown from the harvester. After being knocked off of the left side of the work platform where he had been standing, the agricultural worker landed on the front of the semi-truck (which had continued moving forward for a short distance) and was subsequently thrown 80 feet away, landing on the road. The agricultural worker was pronounced dead at the scene by paramedics. The harvester operator and co-worker landed in a ditch and suffered serious injuries, but survived.

DESCRIPTION	Motor vehicle accident	SEASON	Summer
INDUSTRY	Construction	COUNTY	Benton
OCCUPATION	Transportation/Material Moving	OR-FACE NUMBER	OR 2017-31-1

A 58-year-old truck driver was driving a dump truck filled with dirt when the passenger side outside tire on the front drive axle blew out, causing the driver to steer the truck onto the right shoulder of the road. The truck came back onto the roadway almost sideways, then tipped onto its passenger side and rolled over one complete rotation before coming to a stop, landing on the passenger side. The driver was transported to a hospital where he died of blunt force head and chest injuries later that day. The driver was not found to be wearing a safety belt.

DESCRIPTION	Motor vehicle accident	SEASON	Summer
INDUSTRY	Construction	COUNTY	Linn
OCCUPATION	Construction/Extraction	OR-FACE NUMBER	OR 2017-33-1

A 26-year-old construction worker died while he was driving a company pickup. He was pulling a trailer loaded with concrete from a worksite with two other employees in the passenger seats. According to the passengers, the deceased was driving at approximately 40 to 45 MPH (although this speed was questioned by the county sheriff) at the time of the incident. The driver crested the top of a hill, where on the other side, backed up traffic was moving at 5 MPH due to a combine that was traveling on the road ahead. The passengers heard the driver of their vehicle scream and take evasive action, steering off the roadway and into the oncoming traffic lane. The vehicle continued through the oncoming lane and an embankment, finally hitting a tree. The driver died on the scene, and the passengers were transported to local hospitals with survivable injuries. The deceased was operating the pickup with a suspended driver's license and had not been trained on the trailer's brake system.

DESCRIPTION	Motor vehicle accident	SEASON	Summer
INDUSTRY	Information	COUNTY	Polk
OCCUPATION	Sales and related	OR-FACE NUMBER	OR 2017-34-1

A 57-year-old paper delivery worker died after a motor vehicle collision. The deceased was a front passenger in a vehicle driven by another employee. According to reports, they were traveling southbound on a highway, when for unknown reasons, they collided with another passenger vehicle being driven northbound.

DESCRIPTION	Motor vehicle accident	SEASON	Summer
INDUSTRY	Manufacturing	COUNTY	Washington
OCCUPATION	Production	OR-FACE NUMBER	OR-2017-37-1

While on a business trip in Oregon, a 32-year-old production supervisor from Minnesota was driving a rental car when an ambulance collided with the driver's side of the vehicle. The production supervisor was at a green left-turn traffic signal and was attempting to make the left turn when the ambulance, which had its lights and sirens on, struck her. The deceased was driving three other colleagues who sustained injuries but survived. According to her colleagues, they did not hear or see the ambulance until seconds before impact; they also noted that the supervisor was wearing a safety belt. Cause of death was head trauma.

DESCRIPTION	Overtaken truck	SEASON	Autumn
INDUSTRY	Transportation/Warehousing	COUNTY	Jackson
OCCUPATION	Transportation/Material Moving	OR-FACE NUMBER	OR 2017-41-1

A 73-year-old self-employed truck driver was operating a boom truck, which for unknown reasons, left the roadway on the passenger side, returned to and then crossed the roadway, and then rolled over one complete rotation before landing on its tires. The driver was ejected from the truck, as he was not wearing a safety belt. He died on the scene due to massive blunt force trauma.

DESCRIPTION	Crushed by tractor	SEASON	Autumn
INDUSTRY	Agriculture	COUNTY	Malheur
OCCUPATION	Agriculture	OR-FACE NUMBER	OR 2017-42-1

A 58-year-old farmer died from crush injuries to the chest and abdomen while working on his tractor. While attempting to jump-start the tractor in gear, it lurched forward, and the farmer was pinned underneath a tire. The farmer died on the scene.

DESCRIPTION	Motor vehicle accident	SEASON	Autumn
INDUSTRY	Wholesale Trade	COUNTY	Jackson
OCCUPATION	Transportation/Material Moving	OR-FACE NUMBER	OR 2017-46-1

A 43-year-old box truck driver died from multiple blunt force trauma sustained in a head-on collision. The box truck was 26 feet long and was loaded with tires. The road was dry, and the weather was clear. During a turn, the driver crossed over into a lane of oncoming traffic and struck a semi-truck head-on. The box truck driver was trapped in his vehicle until he was extricated by emergency personnel and transported to a hospital where he was pronounced deceased. The decedent was wearing a safety belt at the time of collision; the semi-truck driver was uninjured.

DESCRIPTION	Motor vehicle accident	SEASON	Autumn
INDUSTRY	Admin./Support/Waste Management/Remediation Services	COUNTY	Benton
OCCUPATION	Transportation/Material Moving	OR-FACE NUMBER	OR 2017-47-1

A 25-year-old truck driver died from blunt force head injuries during a collision while operating an 800-gallon tank service truck on a paved asphalt road. The road was dry, and the weather was clear. The truck driver was approaching a slight uphill grade with a slight left turn, when for unknown reasons, the vehicle left the roadway. The truck then traveled along the shoulder of a ditch, ran over a culvert, and then abruptly turned left back onto the roadway, after which the truck flipped with the cab striking the roadway. The truck driver was found hanging upside down and wearing a safety belt by emergency medical services personnel, who later pronounced him dead en route to the hospital. There were no skid marks on the roadway, and the truck had no apparent malfunction. However, it appears he was driving above the posted speed limit. Evidence suggests the truck driver may have been intoxicated, as open containers of alcohol were found inside of the cab.

DESCRIPTION	Motor vehicle accident	SEASON	Autumn
INDUSTRY	Health Care/Social Assistance	COUNTY	Deschutes
OCCUPATION	Installation/Maintenance/Repair	OR-FACE NUMBER	OR 2017-49-1

A 48-year-old maintenance worker was driving a company vehicle when for unknown reasons he turned or drifted in front of oncoming traffic and was struck by a passenger vehicle. According to reports, the deceased was wearing a safety belt at the time of the collision. He died on the scene from severe closed-head and chest injuries.

DESCRIPTION	Motor vehicle accident	SEASON	Winter
INDUSTRY	Transportation/Warehousing	COUNTY	Malheur
OCCUPATION	Transportation/Material Moving	OR-FACE NUMBER	OR 2017-51-1, 2

A 37-year-old truck driver and a 55-year-old truck driver both died of blunt force trauma and thermal injuries resulting from a head-on collision. They were driving commercial tractor trailers when the older driver crossed over into the lane of oncoming traffic and collided head-on with the younger driver's tractor trailer. This resulted in both of the vehicles bursting into flames, killing both the drivers and causing 400 gallons of diesel to spill onto the road. Winter weather and speed were believed to be contributing factors in the crash.

TRANSPORTATION (PEDESTRIAN)

DESCRIPTION	Stuck by vehicle	SEASON	Spring
INDUSTRY	Health Care/Social Assistance	COUNTY	Linn
OCCUPATION	Personal Care/Service	OR-FACE NUMBER	OR 2017-13-1

A 38-year-old caregiver was walking on a road when she was struck by a vehicle. She died from blunt force trauma to the chest and abdomen.

DESCRIPTION	Stuck by vehicle	SEASON	Spring
INDUSTRY	Construction	COUNTY	Clackamas
OCCUPATION	Construction/Extraction	OR-FACE NUMBER	OR 2017-17-1

A 48-year-old construction worker died of multiple blunt force injuries while working on a highway excavation project. He was preparing to cut through concrete between the dividing yellow lines separating the north and southbound lanes when he was fatally struck by an intoxicated driver of a passenger vehicle. The intoxicated driver continued north in the vehicle, injuring a flagger and another construction worker before driving into a ditch.

DESCRIPTION	Stuck by vehicle	SEASON	Summer
INDUSTRY	Admin./Support/Waste Management/Remediation Services	COUNTY	Clackamas
OCCUPATION	Protective Service	OR-FACE NUMBER	OR 2017-23-1

A 71-year-old traffic control flagger was walking behind a dump truck backing down a mild incline in a controlled construction zone, when he was struck, fell down, and then was pinned under the back wheels of the truck. Prior to the incident, the truck's driver could not start the engine, yet had decided to back the truck down the incline to move it out of the way of work. According to reports, the traffic control flagger was aware that the truck was going to back down the street and had alerted others. Additionally, he was aware that the truck had started its reverse move. The traffic control flagger died at the scene from crush injuries to the lower extremities, as well as to the trunk and pelvis.

TRANSPORTATION (WATER)

DESCRIPTION	Capsized fishing vessel, drowning	SEASON	Spring
INDUSTRY	Fishing/Hunting/Trapping	COUNTY	Hood River
OCCUPATION	Fishing/Hunting	OR-FACE NUMBER	OR 2017-11-1

A 56-year-old fishery technician was on a 26-foot research boat that capsized in the Columbia River. Specific details about how the incident occurred are not known, though there were high winds (30+ mph) most of that day. The technician and his three boat companions were wearing life vests. Cause of death for the technician was reported as drowning and/or hypothermia. Though they suffered from hypothermia, the three boat companions survived.

VIOLENCE AND OTHER INJURIES BY PERSONS OR ANIMALS

DESCRIPTION	Self-inflicted gunshot wound	SEASON	Winter
INDUSTRY	Transportation/Warehousing	COUNTY	Deschutes
OCCUPATION	Transportation/Material Moving	OR-FACE NUMBER	OR 2017-03-1

A 54-year-old school bus driver died from a self-inflicted gunshot wound to the head while at the workplace.

DESCRIPTION	Self-inflicted incision	SEASON	Spring
INDUSTRY	Other Services	COUNTY	Multnomah
OCCUPATION	Transportation/Material Moving	OR-FACE NUMBER	OR 2017-08-1

A 40-year-old automobile detailer working at a car dealership was found dead in a storage room from a self-inflicted razor-blade incision on his left antecubital fossa (inside of his elbow). Emergency medical services were called, and he was pronounced dead at the scene.

DESCRIPTION	Gunshot wound	SEASON	Autumn
INDUSTRY	Accommodation/Food	COUNTY	Jackson
OCCUPATION	Food Prep./Serving	OR-FACE NUMBER	OR 2017-38-1

A 40-year-old cook reported for his shift in the morning and was shot in the head and killed by a man who asked to use the business's phone. A coworker entered the kitchen later that day and found the cook unresponsive on the floor and in a pool of blood. The shooter stole the decedent's car and drove onto Interstate-5 where he crashed and then began shooting at oncoming traffic. He was ultimately struck and killed by an oncoming truck. It was later determined that there was no connection between the cook and the shooter.

DESCRIPTION	Self-inflicted gunshot wound	SEASON	Autumn
INDUSTRY	Wholesale Trade	COUNTY	Deschutes
OCCUPATION	Management	OR-FACE NUMBER	OR 2017-39-1

A 56-year-old petroleum wholesale manager died by self-inflicted gunshot wound to the forehead at his worksite.

DELAYED CASES

Worker fatalities with delayed death from date of injury (over 48 hours), 2017.

EVENT	CAUSE OF DEATH	INTERVAL	FACE ID
CONTACT	Subdural hematoma	13 days	OR 2017-04-1
CONTACT	Crushing chest and abdominal injuries	10 days	OR 2017-05-1
EXPLOSION	Traumatic head injury	87 days	OR 2017-07-1
CONTACT	Complication of crushing plevic fractures	5 days	OR 2017-09-1
FALL	Massive pulmonary thromboembolism	11 days	OR 2017-10-1
MOTOR VEHICLE COLLISION	Blunt force head injuries	7 days	OR 2017-19-1
NON-CLASSIFIABLE	Unknown	12 days	OR 2017-32-1
FALL	Blunt force head injuries	40 days	OR 2017-48-1

UNDETERMINED CASES

OR-FACE attempts to verify the details of fatalities through as many avenues as possible, to determine if a case meets our criteria of an occupational traumatic fatality. In cases with insufficient data, or when we cannot rule out a case, it is classified as “undetermined.” For 2017, the following four cases are considered undetermined, pending additional information.

EVENT	DESCRIPTION	SEX	SEASON	NAICS CODE
FALL	Unknown	Male	Winter	51 Information
SELF-INFLICTED GUNSHOT WOUND	Gunshot wound to head	Male	Spring	23 Construction
FALL	Subarachnoid hemorrhage	Female	Spring	23 Construction
UNKNOWN	Unknown	Male	Summer	48-49 Transportation/Warehousing

EVENT DEFINITIONS

The event or exposure describes the manner in which the injury or illness was produced or inflicted by the source of injury or illness.

Adapted from US Bureau of Labor Statistics (2012), *Occupational Injury and Illness Classification Manual*. US Department of Labor. Accessed online (April 2020): https://www.bls.gov/iif/osh_oivcs_2010_2_4.pdf

Assaults and Violent Acts

Assaults and violent acts include cases where a person was injured or made ill by assaults, or by violent, harmful actions regardless of intent. Included in this definition are assaults by others, injuries to oneself, and assaults by animals. This category includes injuries occurring in a hostile environment even though the person injured was not the intended victim, such as a teacher hit while breaking up a fight.

Bodily Reaction and Exertion

This event definition applies to cases, usually non-impact, in which injury or illness resulted from free bodily motion, from excessive physical effort, from repetition of a bodily motion, from the assumption of an unnatural position, or from remaining in the same position over a period of time.

Contact With Objects and Equipment

Codes apply to injuries produced by contact between the injured person and the source of injury except when contact was due to falls, transportation incidents, fires, explosions, assaults, or violent acts. Contact may be denoted by a statement that the injured person struck or was struck by an object, was caught in an object, rubbed against an object, or by words such as "hit by," or "hit," "bumped into," "crushed by," or "banged."

Exposure to Harmful Substances or Environments

Codes apply to cases in which the injury or illness resulted from contact with, or exposure to, a condition or substance in the environment. Cases of burns, heat stress, smoke inhalation, or oxygen deficiency resulting from an uncontrolled or unintentional fire are generally coded fire and explosions, unless a transportation incident or assault or violent act was involved.

Falls

Falls are events where the injury was produced by an impact between the injured person and an object or surface when the motion was generated by gravity.

Fires and Explosions

Codes apply to cases where the injury or illness resulted from an explosion or fire. Included are cases where the person fell or jumped from a burning building, inhaled a harmful substance, or was struck by or struck against an object as a result of an explosion or fire. This division also includes incidents where the worker was injured due to being trapped in a fire or whose respirator had run out of oxygen during a fire. Excluded from this category are injuries to firefighters resulting from lifting fire hoses and falls not related to the fire or explosion itself, such as falls in the parking lot of a burning building.



ABOUT

The Oregon Institute of Occupational Health Sciences at Oregon Health & Science University

The Oregon Institute of Occupational Health Sciences is dedicated to health and safety in the workforce. The Institute's mission is to promote health, and prevent disease and disability among working Oregonians and their families during their employment years and through retirement. The Institute does so through basic and applied research, outreach, and education.

Oregon Health & Science University (OHSU) is a nationally prominent research university and Oregon's only academic health center. It educates health professionals and scientists and provides leading-edge patient care, community service and biomedical research.

OR-FACE

The Oregon Fatality Assessment and Control Evaluation (OR-FACE) is a project of the Oregon Institute of Occupational Health Sciences at Oregon Health & Science University. OR-FACE is supported by a cooperative agreement with the National Institute for Occupational Safety and Health (NIOSH) (grant #2U60OH008472) through the Occupational Public Health Program (OPHP) of the Public Health Division of the Oregon Health Authority.

OR-FACE conducts surveillance, investigation, and assessment of traumatic occupational fatalities in Oregon, and produces safety materials to promote worker safety aimed at preventing similar injuries. OR-FACE investigations of fatal occupational incidents assess risk factors that include the working environment, the worker, activity, tools, energy exchange, and role of management.

Other Events or Exposures

This event definition applies to any event or exposure that is not classified or listed under any other division.

Transportation Incidents

This event definition applies to events involving transportation vehicles, powered industrial vehicles, or powered mobile industrial equipment where at least one vehicle (or mobile equipment) was in normal operation and the injury/illness was due to collision or other type of traffic accident, loss of control, or a sudden stop, start, or jolting of a vehicle regardless of the location where the event occurred. References to "vehicles" should be interpreted to include powered industrial vehicles and powered mobile industrial equipment unless otherwise noted. Cases classified under this event definition include pedestrians, roadway workers, or other non-passengers struck by vehicles, powered industrial equipment on or off the roadway (including indoor locations) when the incident meets these criteria:

- (a) at least one vehicle was in regular operation, and
- (b) the impact was caused by a traffic incident or forward/backward travel of the vehicle.



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