Occupational Fatalities in Oregon

ANNUAL REPORT



FACEDefinitions

The Oregon Fatality Assessment and Control Evaluation (OR-FACE) program investigates work-related fatalities that are caused by a traumatic injury and that occurred within Oregon.

A **location** within Oregon means the incident, or some portion of the event or exposure, occurred 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 occurred (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

BL	.S	U.S. Bureau of Labor Statistics
C	c	Centers for Disease Control and Prevention
CF	01	U.S. Census of Fatal Occupational Injuries
N	AICS	North American Industry Classification System
NI	оѕн	National Institute for Occupational Safety and Health
N	ГЅВ	National Transportation Safety Board
N	VDRS	National Violent Death Reporting System
OI	на	Oregon Health Authority
OI	ICS	Occupational Injury and Illness Classification System
09	SHA	Occupational Safety and Health Administration
sc	c	Standard Occupational Classification
D	CBS	Department of Consumer and Business Services
OI	ERS	Oregon Emergency Response System

In Scope

- Self-employed, family, or volunteer workers, exposed to the same work
 hazards and performed the same duties or functions as paid employees, and
 that meet the work-relationship criteria.
- Suicides and homicides that occurred at a worksite (included in OR-FACE scope since 2011).
- Fatal events or exposures that occurred when a person was in travel status, if the travel was for work purposes, or was 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 occurred during a person's recreational activities that are not required by the employer.
- Fatal events or exposures that occurred 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 was solely the result of exposure to infectious disease.

2020

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.

Oregon FACE Program

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INTRODUCTION

In 2020, OR-FACE recorded 48 fatal occupational incidents resulting in worker deaths, as well as eight incidents that could not be determined due to insufficient information (e.g., natural causes vs. a work-related incident, was the decedent doing a work-related task, etc.). The number represents a rate of 2.46 fatalities per 100,000 employed workers in the civilian labor force in Oregon. The national worker fatality rate in 2020 was 3.4 per 100,000 full-time equivalent workers.

The following notable trends occurred in 2020

- » The total number of fatalities was lower compared to the previous four years. In 2016, 2017, 2018, and 2019, there were 57, 52, 55, and 53 worker deaths, respectively.
- » The agriculture industry had the highest number of fatalities, followed by transportation and construction. These three industries have been among the top four industries for fatalities in each year in the past decade (see pg. 13).
- » Fatal cases from transportation (motor vehicle) exceeded all other events, followed by slips/trips/falls, contact with objects, and incidents involving equipment (non-motor vehicle). Motor vehicle incidents have the highest number of cumulative events through 2020 (see pg. 14).



CORE ACTIVITIES

ASSESSMENT

When fatalities are identified as FACE cases, sufficient data are collected about each incident to analyze and develop 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 Health Authority (OHA)'s Vital Statistics of death certificates marked "at work"
- 3. Death certificate and Census of Fatal Occupational Injuries (CFOI) data from the 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 System (OERS)
- 7. Monitoring of programmed Google keyword alerts such as: 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 2020 the majority of first notifications regarding workrelated 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 MON		NTHS		TOTAL		
	0-2	3-30	1-3	3-6	6-12	12+	
Google Alerts	5	0	0	1	0	0	6
Oregon Emergency Response	2	0	0	0	0	0	2
Oregon OSHA	14	13	1	1	2	0	31
Oregon State Police	2	0	0	0	0	0	2
Oregon Health Authority	0	0	0	5	0	2	7
Oregon DCBS Analyst	0	0	0	0	0	0	0
Total	23	13	1	7	2	2	48
							4.17% Oregon Emergency Response
64.58% 14.58% 12.50% Oregon Health Authority Google Ale				oregon stat			

The sum of notifications may not equal 100% due to rounding

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. Cases are selected based on industries and occupations highly representative of Oregon, NIOSH areas of focus, and/or areas where there is a perceived gap in knowledge. 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.

Five investigation reports were published in 2020 (see pg. 8).

PRESENTATION CITATIONS



 The Center for Construction Research and Training (CPWR) Webinar (Sep. 2020). "Investigating Fall Fatalities and Injury Claims on Prevention Efforts."

OUTREACH AND DOCUMENT DISTRIBUTION

Due to COVID-19 and the subsequent restrictions and stay-at-home orders, 2020 outreach was limited.

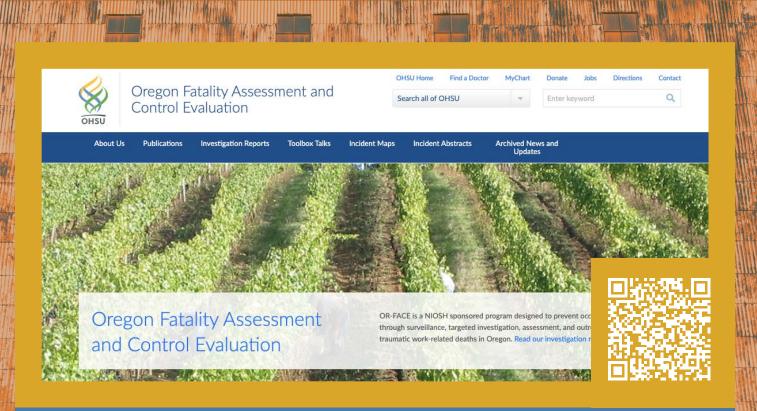
- 1	YARDING & LOGGING HANDBOOK, FALLERS GUIDEBOOK to Private Citizen
389	FACE REPORT: CRAB FISHING VESSEL CAPSIZES AND DROWNS THREE CREW MEMBERS to OR-FACE List Serve/Mailing List
389	2017 ANNUAL REPORT to OR-FACE List Serve/Mailing List
295	INVESTIGATING FALL FATALITIES AND INJURY CLAIMS ON PREVENTION EFFORTS to The Center for Construction Research and Training Webinar Series
	FACE REPORT: PIPEFITTER KILLED BY PRESSURIZED PVC PIPE Featured on Safety+Health Magazine Website
	FACE REPORT: WORKER ELECTROCUTED WHILE REPLACING LIGHT FIXTURE Featured on Safety+Health Magazine Website

PUBLICATIONS

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).



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

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 (1,158 followers), Facebook (428 likes), and the Institute newsletter (3,402 subscribers).

OR-FACE contributed four blogs in 2020.

- Oregon Occupational Public Health Program shares Story Maps READ THE POST
- Marking Workers' Memorial Day and OSHA's Anniversary READ THE POST
- Safety Stand-Down Week, 2020
 READ THE POST
- National Farm Safety and Health Week 2020 READ THE POST

INVESTIGATIONS



Five investigation reports were published in 2020:

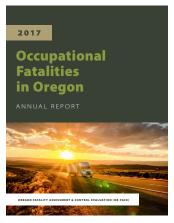
- Crab Fishing Vessel Capsizes and Drowns Three Crew Members
 OR 2016-06-1, 2, 3 | READ THE REPORT
- Crab Fishing Vessel Capsizes and One Crew Member Drowns
 OR 2016-07-1 | READ THE REPORT
- Pipefitter Struck by Pressurized Pipe and Killed
 OR 2018-10-1 | READ THE REPORT
- Newly Hired Lighting Technician Electrocuted While Working Night Shift

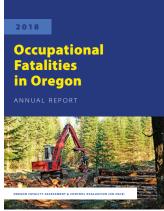
OR 2018-42-1 | READ THE REPORT

Forklift Operator Crushed by Full Pallet of Soft Drink Cans
 OR 2020-09-1 | READ THE REPORT

ANNUAL REPORTS

OR-FACE published its 2017 and 2018 Annual Reports during the 2020 calendar year. In 2017, there were 52 recorded fatalities, with an overall rate of 2.59 per 100,000 employees. While in 2018, there were 55 recorded fatalities, with an overall rate of 2.73 per 100,000 employees.





2017 Annual Report
READ THE REPORT

2018 Annual Report READ THE REPORT

MANUSCRIPTS CITATIONS

 Hurtado, D., Greenspan, L., Vogt, M., Mansfield, L., & Olson, R. (pub Jul 2020). Does experiencing an injury claim impact small construction company leaders' participation in a fall protection survey? <u>Annals of Work Exposures and Health</u>. Volume 64, Issue 6. https://doi.org/10.1093/annweh/wxaa060

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.

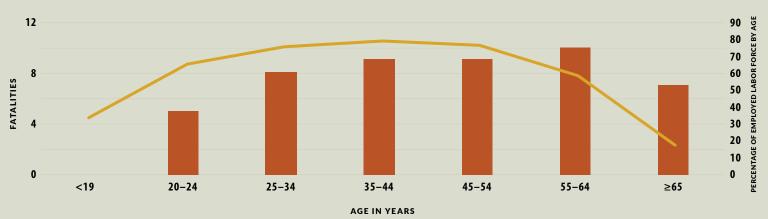
Oregon Employment Rate vs. Occupational Fatalities

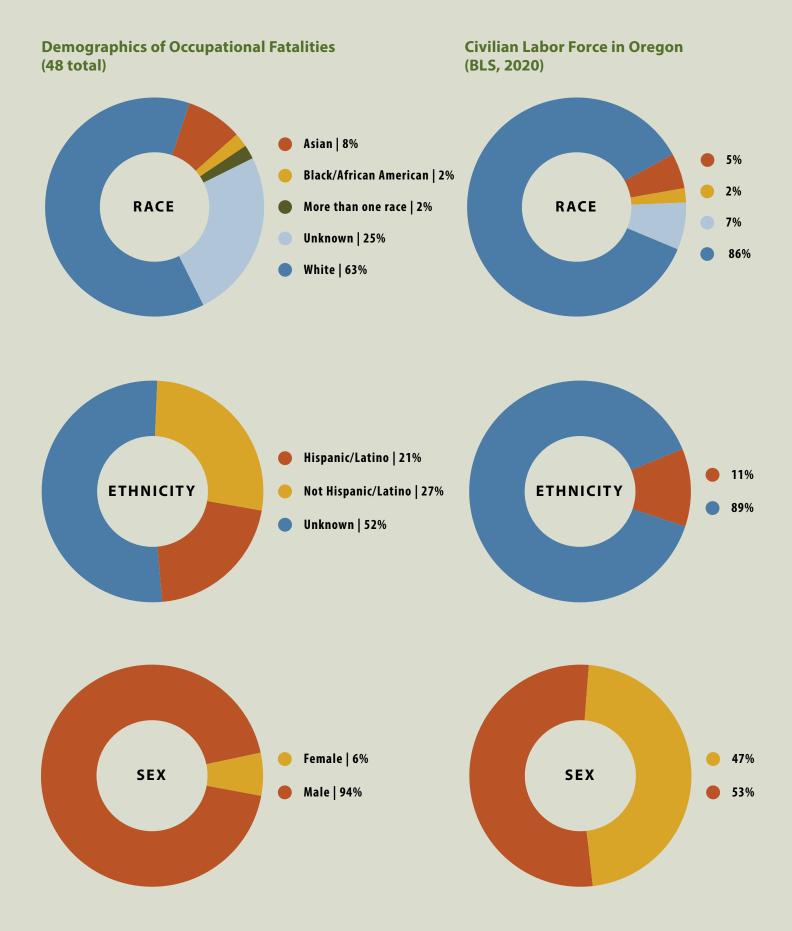
The bars below reflect fatalities; the line reflects employment rate.

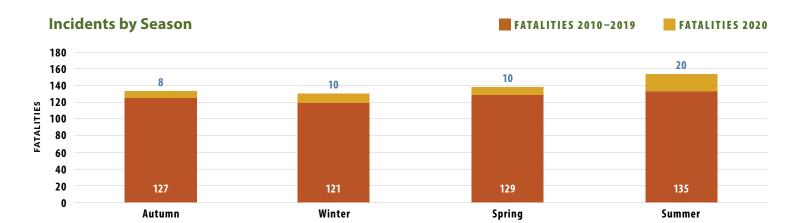


Occupational Fatalities in Oregon by Age Compared to Oregon Age Distribution of Labor Force, 2020

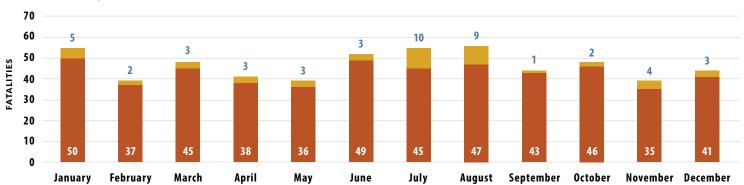
The bars below reflect fatal cases by age; the line reflects age distribution of labor force.



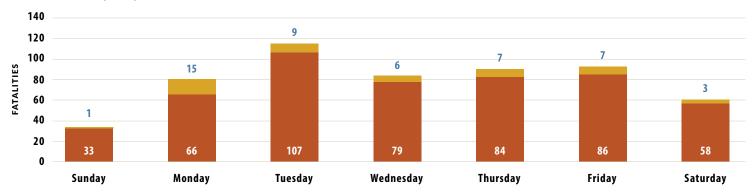




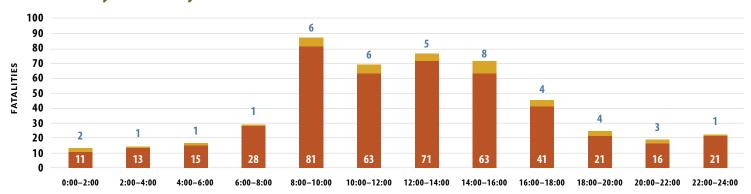
Incidents by Month

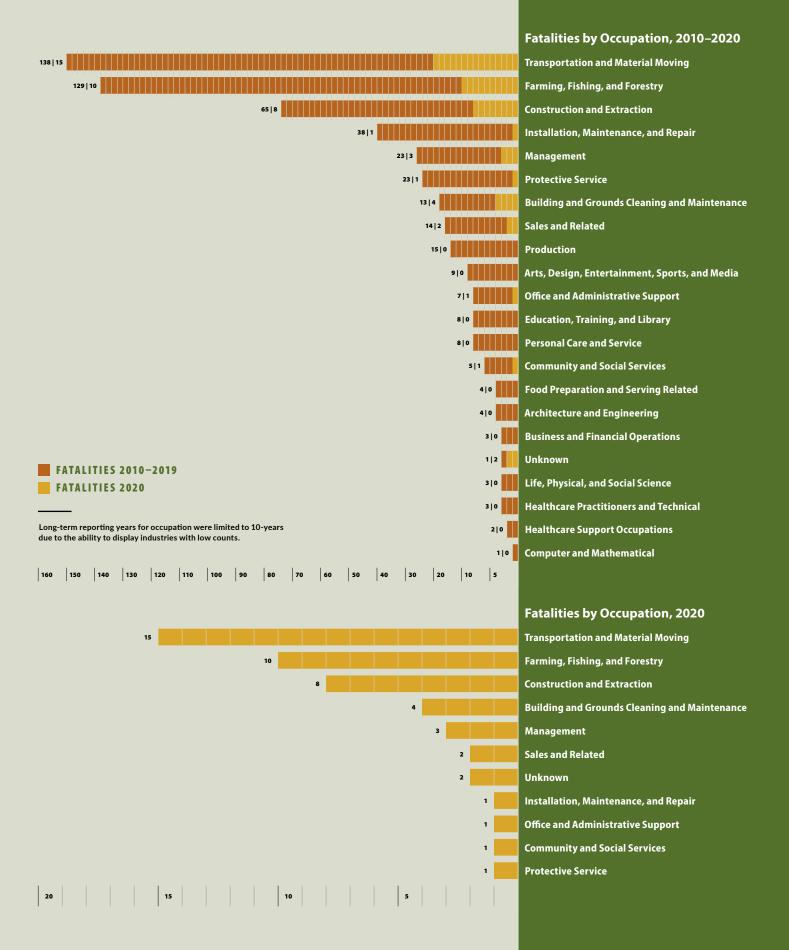


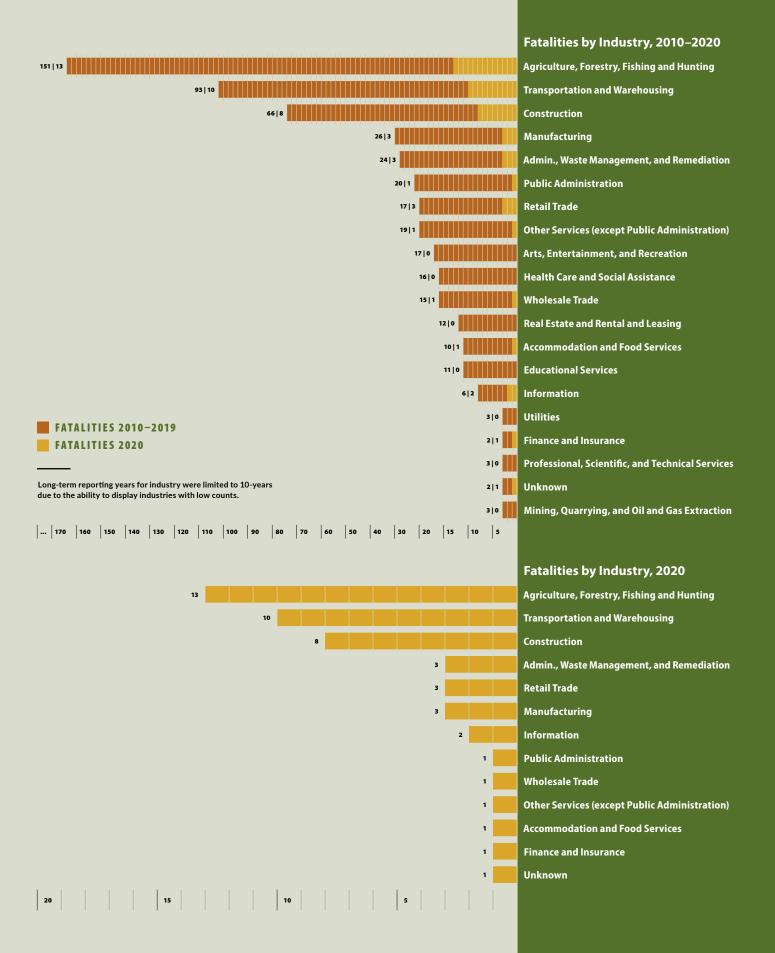
Incidents by Day of Week

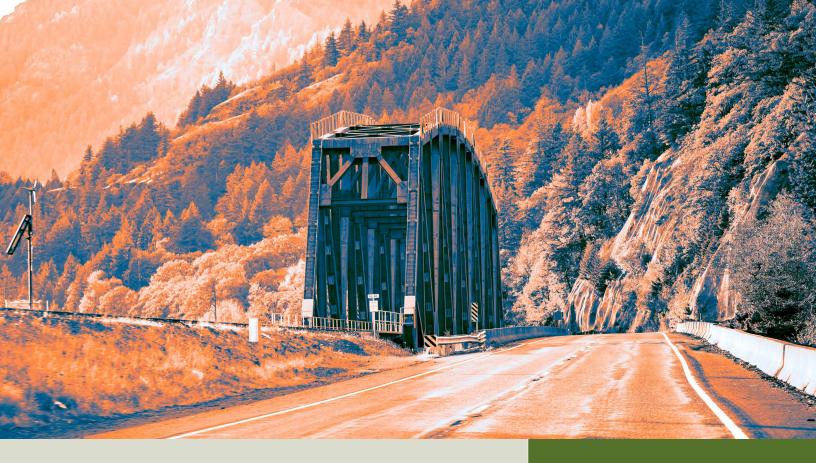


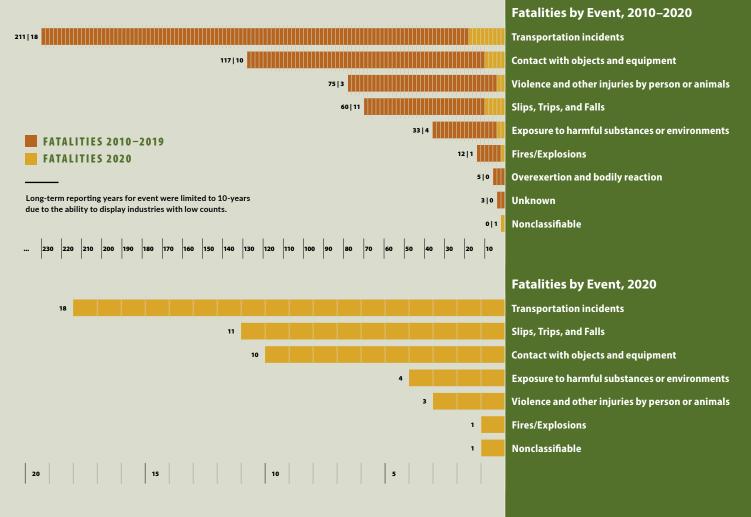
Incidents by Time of Day





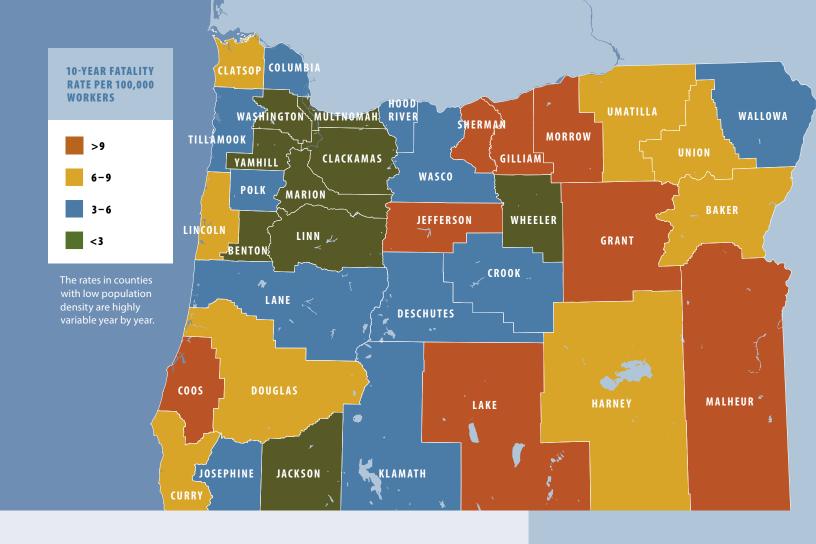






Fatalities by Select Industries, 2010–2020





Oregon county labor statistics, 10-year fatality trend, 2020 fatality count, and 10-year fatality rate.

	TOTAL POP.	LABOR FORCE	FATALITIES	FATALITIES	10-YR RATE
	2020	2020	2010-2019	2020	PER 100,000 WORKERS
Baker	16,910	6,763	5	0	7.10
Benton	94,665	43,645	11	1	2.52
Clackamas	426,515	202,243	31	5	1.70
Clatsop	39,455	17,261	12	0	6.22
Columbia	53,280	22,155	10	0	4.40
Coos	63,315	24,235	25	1	9.75
Crook	23,440	9,417	2	1	3.29
Curry	23,005	8,170	6	0	6.83
Deschutes	197,015	90,211	26	1	3.07

Table continues on following page >

2.73

2010-2020 OVERALL FATALITY **RATE PER 100,000 EMPLOYEES**

2.46

2020 OVERALL FATALITY RATE PER 100,000 EMPLOYEES

The employed Oregon labor force (as reported 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 dividing by the summed Oregon labor force across the 10 years.

	TOTAL POP.	LABOR FORCE	FATALITIES	FATALITIES	10 VD DATE
	2020	2020	2010-2019	2020	10-YR RATE PER 100,000 WORKERS
Douglas	112,530	43,757	28	3	6.77
Gilliam	1,990	936	2	0	21.81
Grant	7,315	2,944	3	0	9.57
Harney	7,280	3,454	3	0	8.70
Hood River	25,640	13,269	5	2	4.79
Jackson	223,240	96,937	25	3	2.76
Jefferson	24,105	9,482	9	1	10.44
Josephine	86,560	33,277	13	1	4.13
Klamath	68,075	26,957	13	0	4.44
Lake	8,075	3,441	4	0	11.42
Lane	381,365	164,364	52	3	3.07
Lincoln	48,305	18,355	12	1	6.14
Linn	127,320	54,251	14	0	2.47
Malheur	32,105	11,963	12	1	9.99
Marion	349,120	151,713	24	3	1.69
Morrow	12,825	5,422	4	2	10.19
Multnomah	829,560	418,070	55	10	1.42
Polk	83,805	37,566	12	1	3.51
Sherman	1,795	923	3	0	32.47
Tillamook	26,530	10,762	4	1	4.30
Umatilla	81,495	34,496	30	1	8.44
Union	26,840	11,109	7	1	6.59
Wallowa	7,160	3,227	1	0	3.02
Wasco	27,295	12,477	6	0	4.34
Washington	620,080	300,742	30	3	1.04
Wheeler	1,440	663	0	0	0.00
Yamhill	108,605	50,557	13	2	2.86
Unknown			1	0	





Contact With Objects and Equipment

Exposure to Harmful Substances or Environments

Falls, Slips, and Trips

Fires and Explosions

Nonclassifiable

Overexertion and Bodily Reaction

Transportation

Violence and Other Injuries by Persons or Animals

CONTACT WITH OBJECTS AND EQUIPMENT

DESCRIPTION	Struck by falling log	SEASON	Winter
INDUSTRY	Administrative and Support and Waste Management and Remediation Services	COUNTY	Polk
OCCUPATION	Building and Grounds Cleaning and Maintenance Occupations	OR-FACE NUMBER	OR 2020-04-1

A 61-year-old working on a team of three landscapers was on the ground, while the other two employees were up in the tree cutting down sections of the tree. The employee cutting the tree stopped using a chain saw and started using a hand saw to cut a tree section. While this was happening, the employee on the ground did not notice a section of the tree falling, which struck him in the head. As a result, he sustained multiple head and spinal injuries and was transferred to the hospital, where he was in a coma for two weeks before passing away.

DESCRIPTION	Pinned by excavator	SEASON	Winter
INDUSTRY	Construction	COUNTY	Lane
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2020-06-1

A 66-year-old construction truck driver was pinned between the counterweight of an excavator and a concrete traffic barrier. He was transported to the hospital with serious injuries, where he soon died.

DESCRIPTION	Crushed by slabs of marble	SEASON	Winter
INDUSTRY	Wholesale Trade	COUNTY	Multnomah
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2020-08-1

A 47-year-old warehouse laborer was working by himself at a stone supply company when two large pieces of marble fell and crushed him.

DESCRIPTION	Struck by loaded pallets	SEASON	Winter
INDUSTRY	Transportation and Warehousing	COUNTY	Clackamas
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2020-09-1

A 47-year-old forklift operator was pulling pallets of soft drink cans down from stacked pallets, which, unknown to the operator, destabilized the top row of pallets. The forklift operator was subsequently cleaning up some cases that had fallen off the pulled pallets. Suddenly, the destabilized top layer pallet fell onto the operator, causing blunt force trauma to the head and body, resulting in multiple internal injuries.

DESCRIPTION	Struck by building	SEASON	Spring
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Malheur
OCCUPATION	Farming, Fishing, and Forestry Occupations	OR-FACE NUMBER	OR 2020-15-1

A 72-year-old independent contractor was moving an excavator and was leaning out of the cab to check the clearance. While leaning out of the cab, he accidentally touched the control lever that caused the cab to rotate, resulting in a fatal injury when the rotation caused him to strike his head against a building.

DESCRIPTION	Crushed by tree	SEASON	Summer
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Josephine
OCCUPATION	Farming, Fishing, and Forestry Occupations	OR-FACE NUMBER	OR 2020-26-1

A 26-year-old logger (acting as a choker setter) cut a fallen tree into logs when he was thrown over a log and onto a hill. The tree then became unstable, rolled downhill, and crushed the logger (choker setter).

DESCRIPTION	Crushed by hay bales	SEASON	Summer
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Marion
OCCUPATION	Farming, Fishing, and Forestry Occupations	OR-FACE NUMBER	OR 2020-31-1

A 60-year-old agricultural worker was stacking hay bales. He was unrolling plastic sheeting to start a new row when the previous row fell over and fatally crushed him.

DESCRIPTION	Struck by tree	SEASON	Summer
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Tillamook
OCCUPATION	Farming, Fishing, and Forestry Occupations	OR-FACE NUMBER	OR 2020-39-1

A 30-year-old logger was felling an alder tree when the tree snapped. The logger fell while running to safety, and the tree hit him on the head. He was transported to the hospital, where he died two days later.

DESCRIPTION	Caught in machinery	SEASON	Autumn
INDUSTRY	Manufacturing	COUNTY	Douglas
OCCUPATION	Construction and Extraction Occupations	OR-FACE NUMBER	OR 2020-42-1

A 64-year-old electrician was working on a limit switch at a manufacturing press. The press was not locked out/tagged out when something moved and pinned the electrician in the press, resulting in his death.

DESCRIPTION	Crushed by tree	SEASON	Autumn
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Lane
OCCUPATION	Farming, Fishing, and Forestry Occupations	OR-FACE NUMBER	OR 2020-43-1

A 64-year-old logger was felling a tree when the tree crushed him. He died from compression asphyxia.

EXPOSURE TO HARMFUL SUBSTANCES OR ENVIRONMENTS

DESCRIPTION	Carbon monoxide poisoning	SEASON	Spring
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Jackson
OCCUPATION	Farming, Fishing, and Forestry Occupations	OR-FACE NUMBER	OR 2020-13-1

A 24-year-old agricultural worker and his brother were sleeping in a newly constructed greenhouse on a hemp farm. There was a propane generator installed and operating in the greenhouse. The brothers were both found unresponsive, and the 24-year-old died from carbon monoxide poisoning.

DESCRIPTION	Caught in grease trap	SEASON	Summer
INDUSTRY	Administrative and Support and Waste Management and Remediation Services	COUNTY	Clackamas
OCCUPATION	Building and Grounds Cleaning and Maintenance Occupations	OR-FACE NUMBER	OR 2020-24-1

A 68-year-old waste management company owner-operator was cleaning out a grease trap at a restaurant. After putting his upper body in the trap to clear the remaining grease, he could not remove himself from the trap. The medical examiner determined he died of positional asphyxiation (lack of air).

DESCRIPTION	Heat stroke	SEASON	Summer
INDUSTRY	Construction	COUNTY	Clackamas
OCCUPATION	Construction and Extraction Occupations	OR-FACE NUMBER	OR 2020-29-1

A 24-year-old grade setter (construction worker) was doing construction on a parking lot in 90+ degree heat when he died from heat stroke.

DESCRIPTION	Electrocution	SEASON	Summer
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Clackamas
OCCUPATION	Farming, Fishing, and Forestry Occupations	OR-FACE NUMBER	OR 2020-30-1

A 30-year-old agricultural worker was working on electrical piping in an electrical room when he was electrocuted. There were no witnesses and he was later found at the scene.

FALLS, SLIPS, AND TRIPS

DESCRIPTION	Electrocution	SEASON	Winter
INDUSTRY	Construction	COUNTY	Multnomah
OCCUPATION	Construction and Extraction Occupations	OR-FACE NUMBER	OR 2020-11-1

A 28-year-old gutter installer was holding a section of a metal gutter while standing on a metal ladder. The end of the gutter made contact with overhead power lines resulting in electrocution and the gutter installer falling three stories to his death.

DESCRIPTION	Fall from roof	SEASON	Summer
INDUSTRY	Construction	COUNTY	Deschutes
OCCUPATION	Construction and Extraction Occupations	OR-FACE NUMBER	OR 2020-33-1

A 38-year-old roofing technician was pulling a loaded cart on a sloped roof at a commercial construction site, when the cart lost control and pulled the roofing technician off of the roof. The roofing technician fell 40 feet to concrete and was pronounced dead at the scene.

DESCRIPTION	Drowning as a result of sandbar giving way	SEASON	Summer
INDUSTRY	Other Services (except Public Administration)	COUNTY	Hood River
OCCUPATION	Community and Social Services Occupations	OR-FACE NUMBER	OR 2020-34-1

A 44-year-old youth pastor was with a youth group on the Columbia River when several children started to walk along the edge of the sandbar. The edge began to give way, and the kids were pulled under the water by the undertow/strong currents. The youth pastor ran to help rescue the children: he got two to safety but was swept away by a current while helping a third. The youth pastor and the third child drowned.

DESCRIPTION	Fall to lower level	SEASON	Summer
INDUSTRY	Administrative and Support and Waste Management and Remediation Services	COUNTY	Washington
OCCUPATION	Building and Grounds Cleaning and Maintenance Occupations	OR-FACE NUMBER	OR 2020-35-1

A 51-year-old tree trimmer was climbing a dead tree to cut off the top of the tree. After making the first cut, the tree trunk below him split away, and he fell (still tied to the section of the tree) 30 feet into a creek. He was pronounced dead at the scene from severe head trauma.

DESCRIPTION	Fall to lower level	SEASON	Summer
INDUSTRY	Retail Trade	COUNTY	Multnomah
OCCUPATION	Sales and Related Occupations	OR-FACE NUMBER	OR 2020-36-1

A 66-year-old grocery store worker was walking when he slipped and fell to the ground, hitting his head and losing consciousness. He was transported to the hospital where he was diagnosed with head trauma. He never recovered and died nine days later.

DESCRIPTION	Fall to lower level	SEASON	Summer
INDUSTRY	Information	COUNTY	Marion
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2020-32-1

A 58-year-old product handler was unloading newspapers when the truck pulled away, causing him to lose his balance. He injured his leg on the safety chain on the truck and was unable to work after his injury. Afterward, he complained of shortness of breath and died three weeks later due to a blood clot in the lungs.

DESCRIPTION	Fall to lower level	SEASON	Summer
INDUSTRY	Construction	COUNTY	Multnomah
OCCUPATION	Construction and Extraction Occupations	OR-FACE NUMBER	OR 2020-37-1

During his first day on the job, a 25-year-old laborer was up 6 feet on a ladder doing a demolition job when he had an unwitnessed fall to concrete below. He was found unconscious with a crushed skull and was transported to the hospital, where he was taken off life-support 18 days later.

DESCRIPTION	Fall to lower level	SEASON	Autumn
INDUSTRY	Transportation and Warehousing	COUNTY	Morrow
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2020-45-1

A 37-year-old yard dog supervisor was working on a semi-truck when he cut his finger. He bandaged his finger and went back to work. Later, he was sitting on a stool repairing a hose when he passed out, fell off the stool, and hit his head. He was transported to the hospital and was put on life support for one day before succumbing to his injuries.

DESCRIPTION	Fall from roof	SEASON	Winter
INDUSTRY	Construction	COUNTY	Washington
OCCUPATION	Construction and Extraction Occupations	OR-FACE NUMBER	OR 2020-48-1

A 47-year-old roofer was attempting to tie off while changing anchor points on a roof, when he slipped on ice. As a result, the roofer fell 44 feet to the ground and died.

DESCRIPTION	Fall to lower level	SEASON	Spring
INDUSTRY	Transportation and Warehousing	COUNTY	Washington
OCCUPATION	Management Occupations	OR-FACE NUMBER	OR 2020-19-1

A 78-year-old general manager was climbing into the back of a rental truck to secure a hand truck to the wall of the truck when he slipped and fell backward off the truck, hitting his head on the pavement. He died of blunt force trauma.

DESCRIPTION	Drowning as a result of fall from dock into water	SEASON	Summer
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Coos
OCCUPATION	Farming, Fishing, and Forestry Occupations	OR-FACE NUMBER	OR 2020-23-1

A 63-year-old commercial fishing boat owner was rinsing a fishing tote when he had an unwitnessed fall from the dock and drowned.

FIRES AND EXPLOSIONS

DESCRIPTION	Truck fire	SEASON	Summer
INDUSTRY	Transportation and Warehousing	COUNTY	Multnomah
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2020-25-1

A 53-year-old delivery truck driver got into the truck's sleeper cab and lit a cigarette when a fire started. The truck driver escaped the fire but sustained significant burns. He was transported to the hospital, where he died of his injuries ten days later.

NON-CLASSIFIABLE

DESCRIPTION	Blunt force injury	SEASON	Spring
INDUSTRY	Transportation and Warehousing	COUNTY	Multnomah
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2020-02-1

A 35-year-old truck driver had a remote blunt force injury to his left foot at work. This injury led to a blood clot, approximately two years after the initial injury, resulting in his death.

TRANSPORTATION INCIDENTS

DESCRIPTION	Motor vehicle accident	SEASON	Winter
INDUSTRY	Transportation and Warehousing	COUNTY	Morrow
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2020-03-1

A 56-year-old truck driver was driving a loaded semi-truck when he hit the right-side guardrail. He lost control and the semi-truck traveled off the highway and down an embankment. He was found dead on the scene.

DESCRIPTION	Struck by vehicle	SEASON	Winter
INDUSTRY	Transportation and Warehousing	COUNTY	Crook
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2020-05-1

A 47-year-old tow-truck driver was accidentally run over by a tow-truck being driven in reverse by a co-worker. He was transported to the hospital and died the next day.

DESCRIPTION	Motor vehicle accident	SEASON	Winter
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Umatilla
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2020-07-1

A 44-year-old log truck driver was driving a loaded log truck when he drifted off the highway into the roadside ditch, resulting in the log truck tipping over and rolling. The driver was not wearing a seatbelt and was ejected from the truck. He was found dead on the scene.

DESCRIPTION	Crushed by ATV	SEASON	Winter
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Yamhill
OCCUPATION	Farming, Fishing, and Forestry Occupations	OR-FACE NUMBER	OR 2020-10-1

A 41-year-old vineyard technician was spraying pesticides in a vineyard using an all-terrain vehicle (ATV). The ATV had an improper load distribution, and when she encountered uneven terrain, it appears that the ATV rolled over on top of her. She died of blunt force trauma. For more details, see OR-FACE investigation 2020-OR-02 written in English and Spanish.

DESCRIPTION	Crushed by trailer	SEASON	Spring
INDUSTRY	Transportation and Warehousing	COUNTY	Multnomah
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2020-17-1

A 49-year-old distribution center dock worker was working at the door of a semi-trailer when another employee pulled the trailer away from the loading dock. As a result, the dock worker fell to the ground between the dock and the trailer. When the other employee realized he had moved the wrong trailer, he backed the trailer up again, crushing the dock worker on the ground.

DESCRIPTION	Drowning	SEASON	Spring
INDUSTRY	Information	COUNTY	Lincoln
OCCUPATION	Installation, Maintenance, and Repair Occupations	OR-FACE NUMBER	OR 2020-16-1

A 23-year-old powerline technician was driving back to the shop with a coworker at the end of the workday. The powerline technician went towards the shoulder, overcorrected, crossed traffic, and ended up in a small body of water. The coworker was able to free himself from the vehicle and tried to free the powerline technician but did not succeed. The powerline technician was passed out and unable to exit the vehicle, and subsequently drowned.

DESCRIPTION	Logging shovel overturn	SEASON	Summer
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Douglas
OCCUPATION	Farming, Fishing, and Forestry Occupations	OR-FACE NUMBER	OR 2020-21-1

Although he was not authorized to move this particular piece of equipment, a 54-year-old yarder operator was moving a logging shovel. The logging shovel rolled down a mountain approximately 20 times, resulting in a crushed cab and the death of the yarder operator.

DESCRIPTION	Drowning	SEASON	Summer
INDUSTRY	Transportation and Warehousing	COUNTY	Douglas
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2020-27-1

A 54-year-old truck driver was driving an empty log truck when he went over a 50-foot embankment and landed in the water. The truck was fully underwater, and the truck driver sustained fatal injuries and lost consciousness. He subsequently drowned.

DESCRIPTION	Helicopter crash	SEASON	Summer
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Hood River
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2020-38-1

A 40-year-old pilot was flying a helicopter hauling a water bucket to dump on a wildland fire. During the flight, the helicopter crashed, and the pilot died.

DESCRIPTION	Struck by vehicle	SEASON	Summer
INDUSTRY	Accommodation and Food Services	COUNTY	Multnomah
OCCUPATION	Management Occupations	OR-FACE NUMBER	OR 2020-40-1

A 36-year-old restaurant manager was outside the restaurant at an outdoor table when a driver under the influence hit another car, then hit the restaurant manager. The manager sustained fatal injuries.

DESCRIPTION	Pinned against steel beam	SEASON	Autumn
INDUSTRY	Manufacturing	COUNTY	Union
OCCUPATION	Unknown	OR-FACE NUMBER	OR 2020-41-1

A 56-year-old mill worker was driving a golf cart through the lumber mill and went around a corner. He became pinched/pinned against a stationary steel beam, resulting in his death.

DESCRIPTION	Motor vehicle accident	SEASON	Spring
INDUSTRY	Retail Trade	COUNTY	Jackson
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2020-20-1

A 64-year-old truck driver was driving a semi-truck when he veered onto the shoulder, hit a guardrail, and landed in a small creek. The truck driver sustained fatal injuries and was pronounced dead.

DESCRIPTION	Motor vehicle accident	SEASON	Winter
INDUSTRY	Unknown	COUNTY	Jackson
OCCUPATION	Unknown	OR-FACE NUMBER	OR 2020-18-1

A 25-year-old was driving a vehicle from one worksite to another worksite when he went off the road, struck a tree, and rolled down a 50-foot hill. He was found dead at the scene.

DESCRIPTION	Motor vehicle accident	SEASON	Autumn
INDUSTRY	Construction	COUNTY	Jefferson
OCCUPATION	Construction and Extraction Occupations	OR-FACE NUMBER	OR 2020-44-1

A 26-year-old construction laborer was driving to a job site, when he was struck head-on by an oncoming car, which caused both vehicles to collide with a truck the oncoming car was attempting to pass. The construction laborer was transported to the hospital, where he was pronounced dead. The others in the crash survived with serious injuries.

DESCRIPTION	Struck by vehicle	SEASON	Autumn
INDUSTRY	Manufacturing	COUNTY	Yamhill
OCCUPATION	Building and Grounds Cleaning and Maintenance Occupations	OR-FACE NUMBER	OR 2020-46-1

A 56-year-old grounds cleaner was blowing leaves along a road when a car struck him, and left the scene, i.e, a hit and run. The next day, a passerby noticed the grounds cleaner lying in a ditch and called emergency services.

DESCRIPTION	Motor vehicle accident	SEASON	Summer
INDUSTRY	Transportation and Warehousing	COUNTY	Benton
OCCUPATION	Office and Administrative Support Occupations	OR-FACE NUMBER	OR 2020-22-1

A 23-year-old mail carrier was driving a personal vehicle to deliver mail when she ran off the road, flipping her car. She sustained multiple traumatic injuries and was pronounced dead at the scene.

DESCRIPTION	Helicopter crash	SEASON	Summer
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Marion
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2020-28-1

A 65-year-old aerial application pilot was flying a helicopter to spray trees when he crashed into the trees. The aerial application pilot died from blunt force trauma.

DESCRIPTION	Motor vehicle accident	SEASON	Spring
INDUSTRY	Public Administration	COUNTY	Lane
OCCUPATION	Protective Service Occupations	OR-FACE NUMBER	OR 2020-01-1

A 58-year-old police officer was in an auto accident in the line of duty where he sustained a traumatic brain injury. 15 years later, he died of aspiration pneumonia.

VIOLENCE AND OTHER INJURIES BY PERSONS OR ANIMALS

DESCRIPTION	Gunshot wound	SEASON	Spring
INDUSTRY	Finance and Insurance	COUNTY	Multnomah
OCCUPATION	Management Occupations	OR-FACE NUMBER	OR 2020-12-1

A 31-year-old store manager was shot multiple times in front of the store he managed. Nearby people who heard the gunshots attempted first aid, and the store manager was transported to the hospital, but he later died.

DESCRIPTION	Gunshot wound	SEASON	Spring
INDUSTRY	Construction	COUNTY	Clackamas
OCCUPATION	Construction and Extraction Occupations	OR-FACE NUMBER	OR 2020-14-1

A 24-year-old maintenance worker working on a (remodeling or construction) crew was fatally shot by a co-worker.

DESCRIPTION	Gunshot wound	SEASON	Autumn
INDUSTRY	Retail Trade	COUNTY	Multnomah
OCCUPATION	Sales and Related Occupations	OR-FACE NUMBER	OR 2020-47-1

A 44-year-old marijuana dispensary employee was fatally shot during an armed robbery.

DELAYED CASES

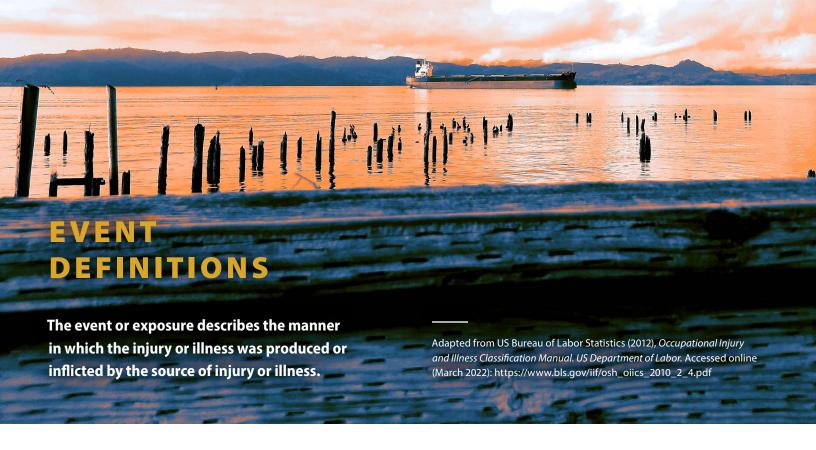
Worker fatalities with a death delayed 48+ hours from the date of injury, 2020.

EVENT	CAUSE OF DEATH	INTERVAL	FACE ID
CONTACT WITH OBJECTS AND EQUIPMENT	Head trauma	2 days	OR 2020-39-1
EXPOSURE TO HEAT EXTREMES	Heat stroke	2 days	OR 2020-29-1
CONTACT WITH OBJECTS AND EQUIPMENT	Head and spinal injuries	9 days	OR 2020-04-1
FIRE	Burns	10 days	OR 2020-25-1
FALL	Head trauma	11 days	OR 2020-36-1
FALL	Blunt force trauma	12 days	OR 2020-19-1
FALL	Crushed skull	18 days	OR 2020-37-1
FALL	Blood clot in the lungs	21 days	OR 2020-32-1
NON-CLASSIFIABLE	Blood clot	1 year, 11 months, and 5 days	OR 2020-02-1
TRANSPORTATION INCIDENT	Aspiration pneumonia	14 years, 5 months, and 6 days	OR 2020-01-1

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 2020, the following eight cases are considered undetermined, pending additional information.

DESCRIPTION	SEX	SEASON	NAICS CODE
FOUND DECEASED ON THE GROUND	Male	Spring	Transportation and Warehousing
FOUND UNRESPONSIVE	Male	Summer	Administrative and Support and Waste Management and Remediation Services
TWO CAR COLLISION	Female	Spring	Transportation and Warehousing
SINGLE CAR COLLISION INTO A TREE	Male	Summer	Transportation and Warehousing
SUICIDE	Male	Winter	Other services (except Public Administration)
SUICIDE	Male	Winter	Administrative and Support and Waste Management and Remediation Services
ASPHYXIA BY DROWNING	Male	Summer	Administrative and Support and Waste Management and Remediation Services
SUICIDE	Male	Spring	Accommodation and Food Services



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

This event applies 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

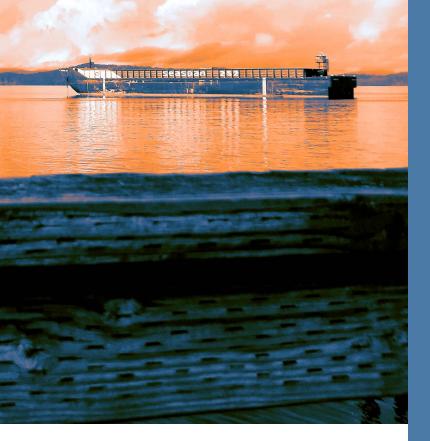
This event definition applies to cases in which the injury or illness resulted from contact with, or exposure to, a condition or substance in the environment. Cases of burns, heat stress, smoke inhalation, or oxygen deficiency resulting from an uncontrolled or unintentional fire are generally coded fire 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

This event definition applies 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 definition 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.



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.

Other Events or Exposures

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

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 accomplishes this mission 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.

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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.



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Published 2022. To ensure accurate fatality surveillance, each Annual Report has historically been published approximately 18 months after the end of a study year, as some cases need more time to properly be classified as workplace fatalities by the appropriate authorities.

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