# Occupational Fatalities in Oregon

ANNUAL REPORT



## **FACE**Definitions

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**

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
ОНА	Oregon Health Authority
OIICS	Occupational Injury and Illness Classification System
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 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 (until 2017).
- A fatal event that was solely the result of exposure to infectious disease (including COVID-19).

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/oshcfdef.htm

#### 2021

#### 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 2021, OR-FACE recorded 72 fatal occupational incidents resulting in worker deaths. The number represents a rate of 2.07 fatalities per 100,000 employed workers in the civilian labor force in Oregon. The national worker fatality rate in 2021 was 3.6 per 100,000 full-time equivalent workers.

#### The following notable trends occurred in 2021

- » The total number of fatalities was the third-highest recorded year in OR-FACE history. In 2006 and 2003, there were 78 and 76 worker deaths, respectively.
- » The transportation industry had the highest number of fatalities, followed by agriculture 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 contact with objects and equipment (non-motor vehicle), and violence and other injuries by persons or animals. Motor vehicle incidents have the highest number of cumulative events through 2021 (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 Oregon State Police (OSP)
- 6. Reports from 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 2021 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

		DA	DAYS MONTHS			T	OTAL		
		0-2	3-30	1-3	3-6	6-12	12+		
a	Google Alerts	3	2	0	0	0	0	5	6.94%
b	Oregon DCBS Analyst	1	0	0	0	0	0	1	1.39%
c	Oregon Emergency Response	1	0	0	0	0	0	1	1.39%
d	Oregon Health Authority	9	7	0	0	0	0	16	22.22%
e	Oregon OSHA	13	13	5	9	2	5	47	65.28%
f	Oregon State Police	1	1	0	0	0	0	2	2.78%
	Total	28	23	5	9	2	5	72	
	e						d		f a b c

#### 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. One investigation report was published in 2021 (see pg. 8).

#### **OUTREACH AND DOCUMENT DISTRIBUTION**

Due to COVID-19 and the subsequent restrictions and stay-at-home orders, 2021 outreach was limited.

FALLERS LOGGING SAFETY

to Corner LLC

CAN YOU IDENTIFY FATAL HAZARDS ON YOUR FARM OR RANCH? (SPANISH)

to ¡Salud!

CONSTRUCTION WORKER DIES WHEN HE LEANS OUT OF THE PROTECTIVE CAGE OF A SKID STEER FORKLIFT AND IS CRUSHED (SPANISH)

to ¡Salud!

OR-OSHA HEAT STRESS CARD (ENGLISH AND SPANISH)

to ¡Salud!

OSHA PROTECT YOUR WORKERS FROM HEAT AND HUMIDITY (ENGLISH)

to ;Salud!

SAIF HEAT EXHAUSTION VS. HEAT STROKE (SPANISH)

to ¡Salud!

OSHA PREVENT HEAT ILLNESS AT WORK (SPANISH)

to ¡Salud!

OR-OSHA HEAT ILLNESS PREVENTION PLAN

to ¡Salud!

FACE REPORT: FARM DRIVER OVERTURNS TRUCK IN IRRIGATION DITCH AND DROWNS (SPANISH)

to ¡Salud!

FACE REPORT: VINEYARD WORKER KILLED IN FALL FROM TRAILER (SPANISH)

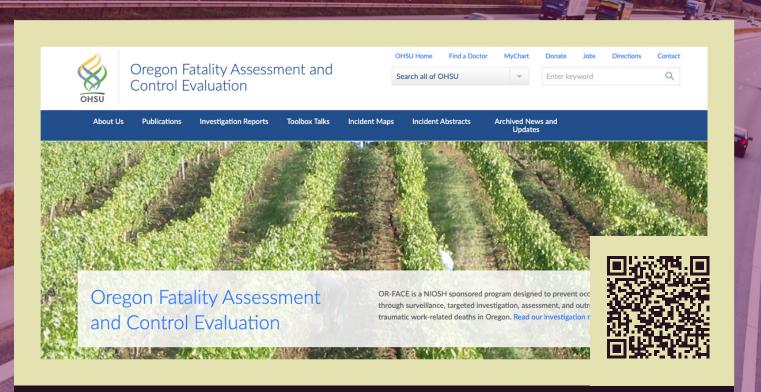
to ¡Salud!

#### **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

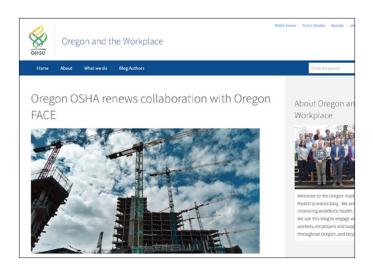
#### **BLOG POSTS**

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 (1,209 followers), Facebook (465 likes), and the Institute newsletter (7,962 subscribers).

OR-FACE contributed two blogs in 2021.

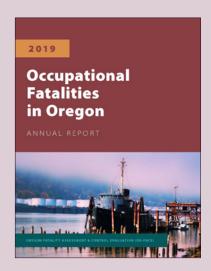
- OR-FACE publishes five new fatality reports in 2020 READ THE POST
- Oregon OSHA renews collaboration with Oregon FACE READ THE POST



#### **ANNUAL REPORTS**

OR-FACE published its 2019 Annual Report during the 2021 calendar year. In 2019, there were 53 recorded fatalities, with an overall rate of 2.61 per 100,000 employees.

 2019 Annual Report READ THE REPORT



#### **INVESTIGATIONS**

One investigation report was published in 2021.

 Farm Worker Crushed in ATV Rollover During Herbicide Application on a Hillside - Oregon

**OR 2020-10-1** | <u>READ THE REPORT</u>



#### **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).

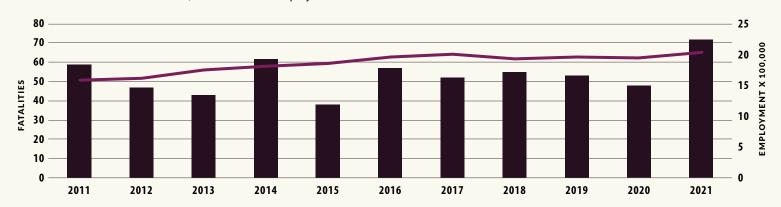
For occupation (SOC), Farming/Fishing/Forestry (code 45) is split into sub codes: Agriculture (code 45 2000), fishing and hunting (code 45 3000), forest/conservation (code 45 4010); and logging (code 45 4020).

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.

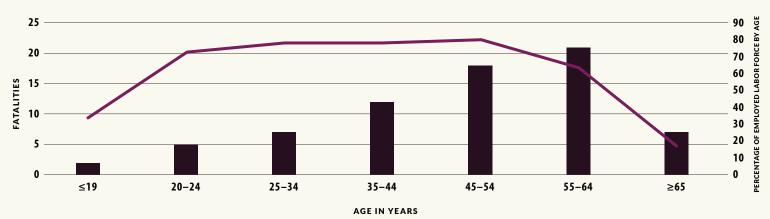
#### **Oregon Employment Rate vs. Occupational Fatalities**

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



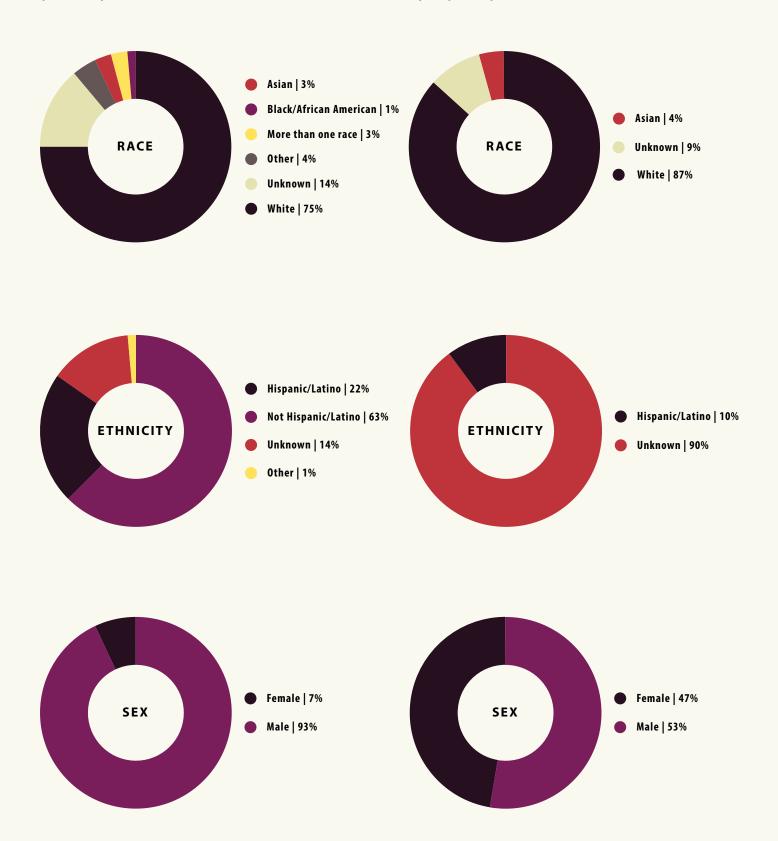
#### Occupational Fatalities in Oregon by Age Compared to Oregon Age Distribution of Labor Force, 2021

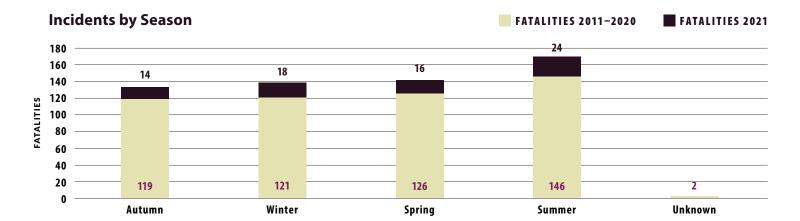
The bars below reflect fatal cases by age; the line reflects age distribution of labor force.



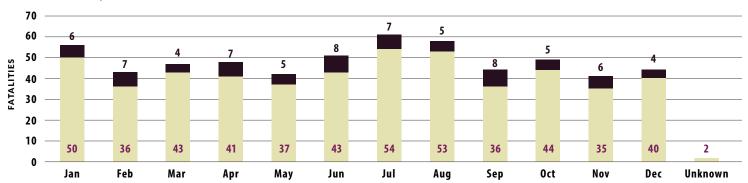
#### **Demographics of Occupational Fatalities** (72 total)

#### **Civilian Labor Force in Oregon** (BLS, 2021)

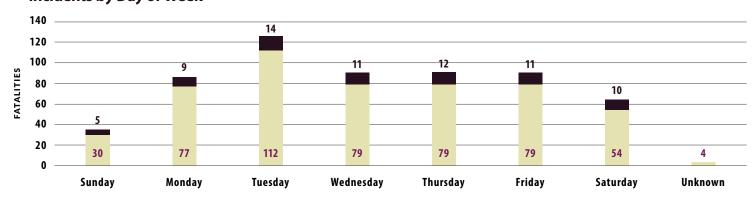




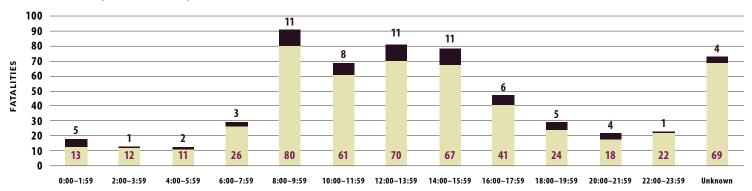
#### **Incidents by Month**

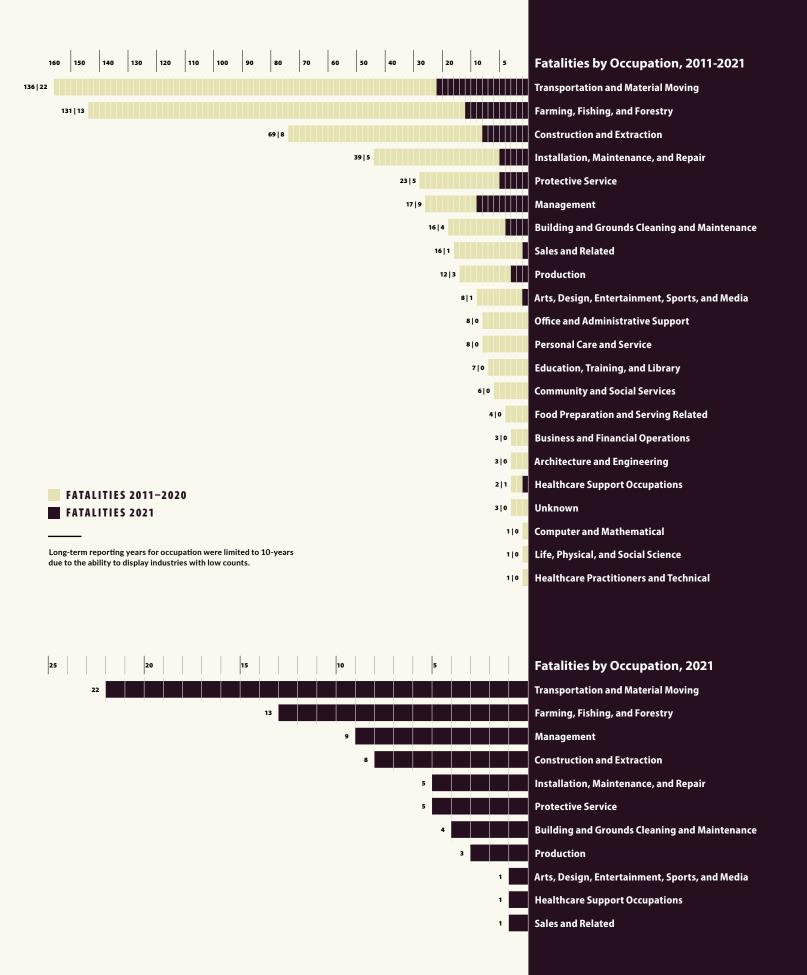


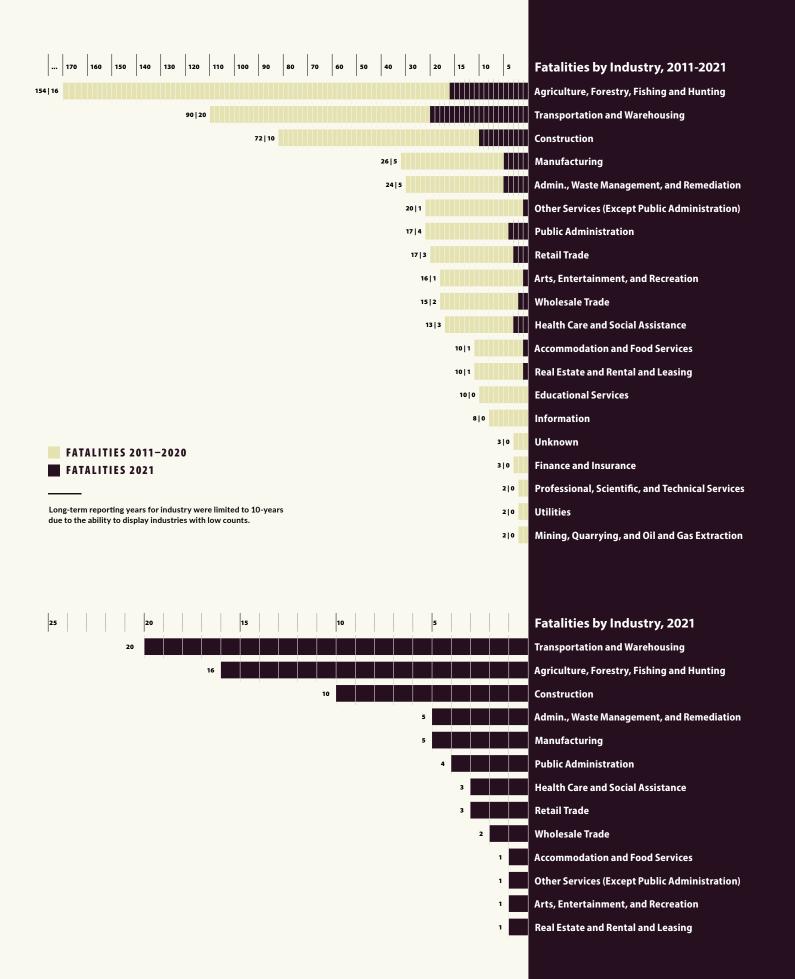
#### **Incidents by Day of Week**



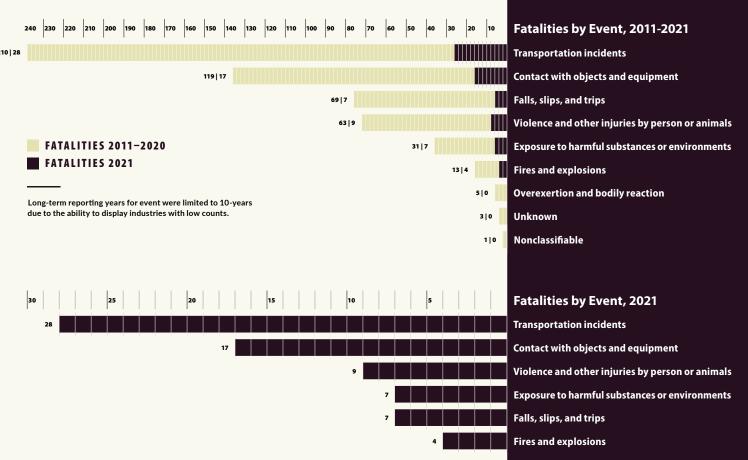
#### **Incidents by Time of Day**



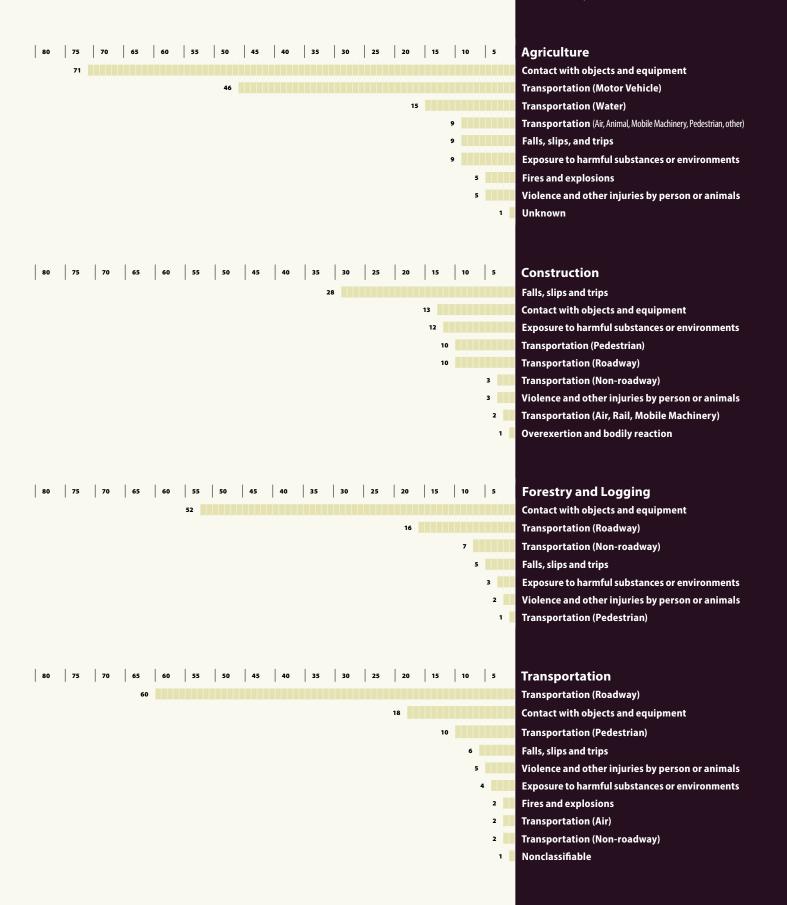


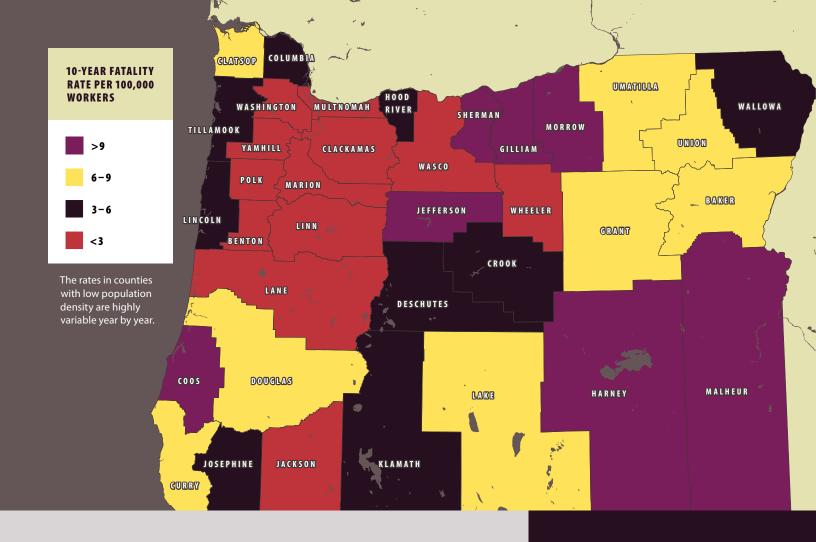






#### Fatalities by Select Industries, 2011-2021





#### Oregon county labor statistics, 10-year fatality trend, 2021 fatality count, and 10-year fatality rate.

	TOTAL POP.	LABOR FORCE	FATALITIES	FATALITIES	10-YR RATE
	2021	2021	2011-2020	2021	PER 100,000 WORKERS
Baker	16,910	7,083	3	2	7.05
Benton	94,665	45,683	10	0	2.09
Clackamas	426,515	212,018	34	5	1.82
Clatsop	39,455	18,284	11	1	6.18
Columbia	53,280	23,222	9	1	4.35
Coos	63,315	25,337	26	2	10.45
Crook	23,440	10,205	3	2	5.35
Curry	23,005	8,546	6	0	6.80
Deschutes	197,015	97,124	26	2	3.09

Table continues on following page >

2.62

2011-2021 OVERALL FATALITY **RATE PER 100,000 EMPLOYEES** 

2.07

**2021 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
	2021	2021	2011-2020	2021	10-YR RATE PER 100,000 WORKERS
Douglas	112,530	45,073	30	3	7.14
Gilliam	1,990	895	2	0	21.75
Grant	7,315	3,030	2	0	6.36
Harney	7,280	3,568	3	1	11.51
Hood River	25,640	13,758	7	0	4.76
Jackson	223,240	101,863	26	4	2.92
Jefferson	24,105	9,782	10	0	10.28
Josephine	86,560	34,710	13	1	4.07
Klamath	68,075	27,762	13	3	5.46
Lake	8,075	3,517	3	0	7.52
Lane	381,365	172,142	46	9	2.73
Lincoln	48,305	19,680	8	0	3.33
Linn	127,320	57,235	13	3	2.48
Malheur	32,105	12,163	13	5	12.00
Marion	349,120	158,910	25	8	1.83
Morrow	12,825	5,694	6	0	9.02
Multnomah	829,560	436,295	60	8	1.35
Polk	83,805	39,974	11	0	2.61
Sherman	1,795	922	2	0	19.54
Tillamook	26,530	11,469	5	2	5.29
Umatilla	81,495	35,718	30	2	7.70
Union	26,840	11,542	7	2	6.57
Wallowa	7,160	3,426	1	1	5.37
Wasco	27,295	12,968	4	0	2.61
Washington	620,080	313,135	28	4	0.91
Wheeler	1,440	702	0	0	0.00
Yamhill	108,605	52,704	14	1	2.56
Unknown			1	0	





#### **ABSTRACTS**

**Fatal occupational incidents in Oregon** by type of event in 2021

**Contact With Objects and Equipment** 

**Exposure to Harmful Substances or Environments** 

Falls, Slips, and Trips

**Fires and Explosions** 

Transportation

**Violence and Other Injuries by Persons or Animals** 

#### **CONTACT WITH OBJECTS AND EQUIPMENT**

DESCRIPTION	Caught in machinery	SEASON	Winter
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Coos
OCCUPATION	Farming, Fishing, and Forestry Occupations	OR-FACE NUMBER	OR 2021-06-1

A 39-year-old yarder operator was working underneath a yarder, which is a type of cable logging machine. While he was working, a piece of his clothing got caught in the driveline (the mechanical system of the equipment). As a result, the employee became entangled, resulting in his death.

DESCRIPTION	Struck by flywheel	SEASON	Winter
INDUSTRY	Transportation and Warehousing	COUNTY	Clatsop
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2021-11-1

A 56-year-old cargo ship crewman was painting the engine room when the captain started the engine. The captain didn't know that the crewman was in the engine room. It is believed that the flywheel struck him when the engine turned over.

DESCRIPTION	Pinned by dump truck	SEASON	Winter
INDUSTRY	Transportation and Warehousing	COUNTY	Clackamas
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2021-15-1

While dropping off product at the last drop spot, a 60-year-old truck driver was scraping out the last of the product behind the dump truck when the truck started to roll back. The employee attempted to get to the truck's cab to put the parking brake on, but before he could get to the cab, the truck overbalanced and tipped on its side, pinning the truck driver under the dump truck. The truck driver was airlifted to the hospital, where he later died.

DESCRIPTION	Struck by backhoe loader	SEASON	Winter
INDUSTRY	Construction	COUNTY	Clackamas
OCCUPATION	Construction and Extraction Occupations	OR-FACE NUMBER	OR 2021-17-1

A 28-year-old construction worker was struck and run over by a backhoe loader while working in a field. He died from multiple blunt force injuries.

DESCRIPTION	Struck by tree	SEASON	Spring
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Klamath
OCCUPATION	Farming, Fishing, and Forestry Occupations	OR-FACE NUMBER	OR 2021-21-1

Two workers were hired to cut down a dead tree. A 77-year-old landscaping worker was on the ground under a partially attached tree branch gathering the wood and limbs of the tree. The other worker was cutting pieces out of the partially attached branch when the partially attached branch hit the worker working on the ground.

DESCRIPTION	Crushed by dump truck	SEASON	Spring
INDUSTRY	Manufacturing	COUNTY	Clackamas
OCCUPATION	Installation, Maintenance, and Repair Occupations	OR-FACE NUMBER	OR 2021-22-1

A 52-year-old mechanic was working on a dump truck when the dump truck bed crushed his head.

DESCRIPTION	Crushed between equipment	SEASON	Spring
INDUSTRY	Construction	COUNTY	Linn
OCCUPATION	Construction and Extraction Occupations	OR-FACE NUMBER	OR 2021-29-1

A 50-year-old carpenter was caught between a forklift and a truck. He subsequently died from being crushed between two pieces of equipment.

DESCRIPTION	Struck by cut-off wheel	SEASON	Spring
INDUSTRY	Transportation and Warehousing	COUNTY	Crook
OCCUPATION	Management Occupations	OR-FACE NUMBER	OR 2021-30-1

A 61-year-old trucking company owner was cutting a piece of exhaust pipe using a pneumatic angle grinder fit with a cut-off wheel. The cut-off wheel broke into three pieces, and one struck the owner in the center of the neck. The owner had lacerations to his carotid arteries and trachea. He was pronounced dead on the scene.

DESCRIPTION	Crushed by wheel well	SEASON	Summer
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Columbia
OCCUPATION	Management Occupations	OR-FACE NUMBER	OR 2021-45-1

A 61-year-old farmer was attempting to fix a mechanical failure on a baler when the baler shifted. He was crushed by the wheel well and impaled by a fork from the machine.

DESCRIPTION	Pinned by dolly	SEASON	Summer
INDUSTRY	Transportation and Warehousing	COUNTY	Multnomah
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2021-47-1

A 56-year-old truck driver, driving in a team with one other driver, was hooking up a set of doubles (a semi-truck and two trailers). The 56-year-old truck driver got out of the truck while the second truck driver remained inside to back up the load. The driver backing up the load thought the 56-year-old driver that exited the truck had gone inside to use the restroom. After the driver backing the load finished, he got out of the truck to find that the 56-year-old driver was between the dolly and the trailer. She was pronounced dead at the scene.

DESCRIPTION	Struck by tree	SEASON	Summer
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Lane
OCCUPATION	Protective Service Occupations	OR-FACE NUMBER	OR 2021-48-1

A 56-year-old firefighter was fighting a wildland fire when he was struck by a tree that had fallen 600 feet above him and slipped downhill. He was crushed by the tree.

DESCRIPTION	Pinned by truck bumper	SEASON	Summer
INDUSTRY	Other Services (except Public Administration)	COUNTY	Deschutes
OCCUPATION	Installation, Maintenance, and Repair Occupations	OR-FACE NUMBER	OR 2021-49-1

A 57-year-old auto mechanic was working on a pickup truck raised with a jack when the rear bumper fell on him, pinning him against a cement slab. He died of asphyxiation (lack of air) by crushing of the upper chest and neck from a faulty jack release.

DESCRIPTION	Struck by tires	SEASON	Summer
INDUSTRY	Transportation and Warehousing	COUNTY	Baker
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2021-53-1

A Freightliner hauling a flatbed trailer had two tires detach. The tires flew into the air, bounced across the center concrete barrier of the interstate, and landed on a 50-year-old truck driver's windshield driving in the opposite direction. He was killed upon impact.

DESCRIPTION	Struck by log	SEASON	Autumn
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Washington
OCCUPATION	Farming, Fishing, and Forestry Occupations	OR-FACE NUMBER	OR 2021-58-1

A logging crew was moving logs from the felling location to the loading area using a yarder, a piece of equipment that uses elevated cables and a carriage to transport logs. During this process, the load of logs was slacked to the ground to shorten a long end of a log before sending the load of logs to the landing. While in the process of shortening the wire rope on one of the logs, another log slid, struck, and dragged a 32-year-old logger. He died en route to the hospital.

DESCRIPTION	Struck by tree	SEASON	Autumn
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Multnomah
OCCUPATION	Farming, Fishing, and Forestry Occupations	OR-FACE NUMBER	OR 2021-63-1

A 14-year-old volunteer was planting trees after a storm when a falling tree branch struck him. He was pronounced dead at the scene.

DESCRIPTION	Crushed by truck	SEASON	Autumn
INDUSTRY	Transportation and Warehousing	COUNTY	Lane
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2021-67-1

A 27-year-old driver was picking up and delivering vehicles across the United States. While delivering a truck in Oregon, the driver was unloading the truck from a trailer with a co-worker when the truck fell on him. The co-worker was unhooking the front of the truck, while the driver was underneath the truck unstrapping the back tires when the truck rolled on top of him. He died of compression asphyxia (lack of air due to an external force).

DESCRIPTION	Struck by pipe or hit head	SEASON	Autumn
INDUSTRY	Construction	COUNTY	Multnomah
OCCUPATION	Installation, Maintenance, and Repair Occupations	OR-FACE NUMBER	OR 2021-68-1

A 62-year-old millwright was found on the ground bleeding from his ears, nose, and mouth. Prior to being found on the ground, he was on the ladder's second rung. It is speculated that he was either struck by a 15-foot section of pipe that had come loose or he hit his head on the ground. He was transported to the hospital, where he died three days later.

#### **EXPOSURE TO HARMFUL SUBSTANCES OR ENVIRONMENTS**

DESCRIPTION	Exposure to carcinogens	SEASON	Winter
INDUSTRY	Public Administration	COUNTY	Washington
OCCUPATION	Protective Service Occupations	OR-FACE NUMBER	OR 2021-04-1

A 49-year-old fire captain died from brain cancer due to workplace exposure to carcinogens.

DESCRIPTION	Exposure to lack of oxygen	SEASON	Winter
INDUSTRY	Manufacturing	COUNTY	Yamhill
OCCUPATION	Production Occupations	OR-FACE NUMBER	OR 2021-12-1

A 39-year-old vineyard worker was alone cleaning out sludge from a tank used for fermentation. The vineyard worker opened one of the two access doors and entered the tank. He proceeded to clean the tank. However, unknown to the worker, the tank contained an oxygen deficient and nitrogen saturated atmosphere. When exposed to the lack of oxygen, the worker was incapacitated. He was pronounced dead at the scene.

DESCRIPTION	Electrocution	SEASON	Spring
INDUSTRY	Transportation and Warehousing	COUNTY	Malheur
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2021-24-1

A 58-year-old truck driver was working on an irrigation pump when he was electrocuted. The ground around the irrigation pump was wet and muddy, and an exposed electrical wire connected the pump to the power source. He was pronounced dead at the scene.

DESCRIPTION	Exposure to heat extremes	SEASON	Summer
INDUSTRY	Transportation and Warehousing	COUNTY	Umatilla
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2021-36-1

A 51-year-old warehouse worker was working in a distribution center on a hot day (high of 92°F). At the end of his shift, he began stumbling and slurring his words. 911 was called, and he was transported to a hospital, where he died of unspecified causes three days later. Upon further investigation, environmental heat could not be confirmed or eliminated as contributing to his death.

DESCRIPTION	Exposure to heat extremes	SEASON	Summer
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Marion
OCCUPATION	Farming, Fishing, and Forestry Occupations	OR-FACE NUMBER	OR 2021-37-1

A 38-year-old farm worker was working on a crew moving irrigation lines. At the end of his shift, he was found unresponsive in the field. The incident occurred during a heat dome event, where temperatures in the region were much higher than normal. The temperature reached a high of 105°F that day. He was transported to a hospital, where he was later pronounced dead. The medical examiner determined he died of exogenous hyperthermia and dehydration.

DESCRIPTION	Exposure to heat extremes	SEASON	Summer
INDUSTRY	Construction	COUNTY	Washington
OCCUPATION	Construction and Extraction Occupations	OR-FACE NUMBER	OR 2021-39-1

A 49-year-old carpenter was conducting a roofing inspection on an extremely hot day. Temperatures reached a record-breaking 115°F that day. Upon coming down from the roof, he became ill and collapsed. He was transported to the hospital, where he died of heat illness 11 days later.

DESCRIPTION	Electrocution	SEASON	Summer
INDUSTRY	Transportation and Warehousing	COUNTY	Multnomah
OCCUPATION	Installation, Maintenance, and Repair Occupations	OR-FACE NUMBER	OR 2021-50-1

An 18-year-old mechanic assistant was on a raised forklift changing an outdoor light fixture. While changing the light, he was electrocuted and subsequently fell off the forklift.

#### FALLS, SLIPS, AND TRIPS

DESCRIPTION	Slip	SEASON	Autumn
INDUSTRY	Wholesale Trade	COUNTY	Multnomah
OCCUPATION	Management Occupations	OR-FACE NUMBER	OR 2021-03-1

An 83-year-old general manager slipped on wet leaves and hit his head on the sidewalk. He had bleeding on the brain and underwent numerous surgeries but never fully recovered. Two years later, he had another ground-level fall and died of brain damage due to complications from his previous fall.

DESCRIPTION	Fall from roof	SEASON	Winter
INDUSTRY	Construction	COUNTY	Klamath
OCCUPATION	Construction and Extraction Occupations	OR-FACE NUMBER	OR 2021-14-1

Three employees were working on sheeting a roof when all three employees took a lunch break. Two employees left the job site for lunch, while one employee, a 40-year-old roofer, remained on the job site for lunch. While the other two employees were off-site for lunch, the 40-year-old roofer returned to the roof without a harness and fell approximately 12 feet to the ground, where the other two employees later found him.

DESCRIPTION	Fall to lower level	SEASON	Spring
INDUSTRY	Admin. Support and Waste Management and Remediation Services	COUNTY	Linn
OCCUPATION	Building, Grounds Cleaning, and Maintenance Occupations	OR-FACE NUMBER	OR 2021-25-1

A 43-year-old logger was trimming tree limbs at a private residence when he fell out of the tree onto a paved driveway. He was wearing a harness with ropes attached. Upon inspection of the accident scene, the rope attached to his harness had been cut. He died of massive blunt force head trauma.

DESCRIPTION	Slip	SEASON	Spring
INDUSTRY	Health Care and Social Assistance	COUNTY	Clackamas
OCCUPATION	Healthcare Support Occupations	OR-FACE NUMBER	OR 2021-31-1

A 45-year-old caregiver slipped on the floor at work and injured her knee. She sustained a meniscal root tear and underwent surgery to repair her knee three months after the accident. Approximately three weeks after the surgery, she was found unresponsive at home. The medical examiner determined she died of multiple thromboembolisms (circulating blood clots) as a result of being immobile due to her surgery.

DESCRIPTION	Fall to lower level	SEASON	Summer
INDUSTRY	Wholesale Trade	COUNTY	Lane
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2021-33-1

During an offload, a 63-year-old truck driver fell off the back of a semi-truck tractor, landing on his hip. He was transported to the hospital and underwent surgery for a broken hip. He died 18 days later from a pulmonary embolism.

DESCRIPTION	Fall to lower level	SEASON	Summer
INDUSTRY	Transportation and Warehousing	COUNTY	Marion
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2021-44-1

A 65-year-old truck driver was found deceased at a truck stop with a head injury. The medical examiner reported that it appeared that the truck driver fell from the driver's side of the semi-truck. The medical examiner determined he died of a multicompartment traumatic brain injury.

DESCRIPTION	Fall from roof	SEASON	Summer
INDUSTRY	Construction	COUNTY	Multnomah
OCCUPATION	Construction and Extraction Occupations	OR-FACE NUMBER	OR 2021-52-1

A 44-year-old construction worker fell 28 feet to the ground from a roof. He was not wearing a harness and wasn't tied off.

#### FIRES AND EXPLOSIONS

DESCRIPTION	Hemp extraction facility explosion	SEASON	Spring
INDUSTRY	Manufacturing	COUNTY	Marion
OCCUPATION	Management Occupations	OR-FACE NUMBER	OR 2021-05-1

A 66-year-old business owner was caught in an explosion at a hemp extraction facility and suffered a traumatic brain injury. One year later, he died from his injuries sustained during the blast.

DESCRIPTION	Grain elevator explosion	SEASON	Spring
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Marion
OCCUPATION	Farming, Fishing, and Forestry Occupations	OR-FACE NUMBER	OR 2021-20-1

A 43-year-old seed cleaner was refurbishing a grain elevator above a dust collector when an explosion and a subsequent fire occurred. It is speculated that the blast was caused by combustible dust from the seed processing and an unknown ignition source.

DESCRIPTION	Explosion	SEASON	Spring
INDUSTRY	Manufacturing	COUNTY	Jackson
OCCUPATION	Production Occupations	OR-FACE NUMBER	OR 2021-27-1

A 24-year-old consultant was visiting a workplace when an explosion and industrial fire occurred. He was transported to the hospital where he died the next day from extensive burn injuries.

DESCRIPTION	Hopper fire	SEASON	Summer
INDUSTRY	Manufacturing	COUNTY	Lane
OCCUPATION	Production Occupations	OR-FACE NUMBER	OR 2021-51-1

At a lumber products plant, a fire started in a hopper filled with sawdust, resulting in an explosion and the hopper falling to the ground. One of the plant's employees, a 68-year-old chipper operator, was fatally injured in this incident and was transported to the hospital, where he died two days later from his burn injuries.

#### TRANSPORTATION INCIDENTS

DESCRIPTION	Struck by vehicle	SEASON	Summer
INDUSTRY	Public Administration	COUNTY	Linn
OCCUPATION	Protective Service Occupations	OR-FACE NUMBER	OR 2021-02-1

A 61-year-old police sergeant was hit by a vehicle in the line of duty where he sustained paralysis and brain damage. Twenty years later, he died of his traumatic injuries.

DESCRIPTION	Struck by vehicle	SEASON	Winter
INDUSTRY	Construction	COUNTY	Clackamas
OCCUPATION	Construction and Extraction Occupations	OR-FACE NUMBER	OR 2021-07-1

A 50-year-old flagger was assisting with traffic control for another company repairing damaged power lines. A truck was being repositioned when it ran over the flagger, resulting in fatal blunt and crush injuries. She was pronounced dead at the scene.

DESCRIPTION	Motor vehicle accident	SEASON	Winter
INDUSTRY	Transportation and Warehousing	COUNTY	Jackson
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2021-08-1

A 44-year-old truck driver was driving a loaded log truck when he drove off the road. The log truck rolled upside down, resulting in the driver's death. There were no witnesses.

DESCRIPTION	Motor vehicle accident	SEASON	Winter
INDUSTRY	Health Care and Social Assistance	COUNTY	Harney
OCCUPATION	Management Occupations	OR-FACE NUMBER	OR 2021-09-1

While traveling for work in his personal vehicle, a 59-year-old community resource manager was involved in a single-car motor vehicle accident.

DESCRIPTION	Struck by front-end loader	SEASON	Winter
INDUSTRY	Transportation and Warehousing	COUNTY	Marion
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2021-10-1

A 55-year-old warehouse employee was walking in the warehouse where he worked when he was struck by a front-end loader backing up. The employee was knocked to the ground and run over by the front-end loader.

DESCRIPTION	Motor vehicle accident	SEASON	Winter
INDUSTRY	Transportation and Warehousing	COUNTY	Marion
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2021-13-1

A 51-year-old bus driver was struck head-on by an oncoming vehicle while driving a bus. The bus driver was transported to a local hospital, where she was pronounced dead.

DESCRIPTION	Capsized fishing vessel	SEASON	Winter
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Tillamook
OCCUPATION	Farming, Fishing, and Forestry Occupations	OR-FACE NUMBER	OR 2021-16-1

A 51-year-old commercial fisherman was aboard a crabbing boat crossing a bar on the Oregon Coast when the boat turned sideways and capsized. He was found by a rescue team and was pronounced dead on the scene.

DESCRIPTION	Capsized fishing vessel	SEASON	Winter
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Tillamook
OCCUPATION	Farming, Fishing, and Forestry Occupations	OR-FACE NUMBER	OR 2021-16-2

A 41-year-old commercial fisherman was aboard a crabbing boat crossing a bar on the Oregon Coast when the boat turned sideways and capsized. He was transported to the hospital, where he died the next day.

DESCRIPTION	Crushed by excavator	SEASON	Winter
INDUSTRY	Construction	COUNTY	Malheur
OCCUPATION	Construction and Extraction Occupations	OR-FACE NUMBER	OR 2021-19-1

A 57-year-old heavy equipment operator was standing on the tracks of an excavator when the stop bar was accidentally released, allowing the machine to start moving. The equipment operator lost his balance and fell under the path of the tracks and was crushed by the excavator. The operator's lunchbox had been left resting on the travel control levers, causing the machine to activate when the stop bar was accidentally released.

DESCRIPTION	Crushed by excavator	SEASON	Winter
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Malheur
OCCUPATION	Management Occupations	OR-FACE NUMBER	OR 2021-19-2

A 47-year-old ranch manager saw an equipment operator lose his balance and fall under the path of the tracks of an excavator. The ranch manager ran to the excavator to try and pull the heavy equipment operator free from the tracks when he got caught underneath the same track and was also crushed by the excavator.

DESCRIPTION	Motor vehicle accident	SEASON	Spring
INDUSTRY	Construction	COUNTY	Wallowa
OCCUPATION	Installation, Maintenance, and Repair Occupations	OR-FACE NUMBER	OR 2021-23-1

A 22-year-old lineman was a passenger in a company work truck driving back to a hotel from a job site on a narrow, steep, winding, and rough dirt road. The vehicle went off the road and rolled approximately 100 yards down a steep embankment. The lineman was not wearing a seatbelt and was ejected approximately 20 yards from the truck, receiving fatal injuries. He was pronounced dead on the scene.

DESCRIPTION	Motor vehicle accident	SEASON	Spring
INDUSTRY	Retail Trade	COUNTY	Multnomah
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2021-32-1

A 63-year-old newspaper delivery driver was delivering newspapers on his daily route when he failed to negotiate a curve. His car went off the road and down an embankment.

DESCRIPTION	Motor vehicle accident	SEASON	Summer
INDUSTRY	Transportation and Warehousing	COUNTY	Lane
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2021-38-1

A 57-year-old truck driver was driving uphill when his truck suddenly veered to the right. The truck then crashed into a guardrail and rolled approximately 150 feet down a steep embankment. The truck driver was fatally injured in the accident.

DESCRIPTION	Motor vehicle accident	SEASON	Summer
INDUSTRY	Administrative and Support and Waste Management and Remediation Services	COUNTY	Lane
OCCUPATION	Building and Grounds Cleaning and Maintenance Occupations	OR-FACE NUMBER	OR 2021-40-1

A 53-year-old landscaper was a passenger of a truck pulling a landscaping trailer when an oncoming vehicle failed to stop at an intersection and hit the truck. The truck was pushed at a 90-degree angle out of the lane it was traveling, into another vehicle's path. The second vehicle collided with the passenger door of the truck and pushed the truck about 60 yards off the road. He died of multiple blunt force injuries.

DESCRIPTION	Motor vehicle accident	SEASON	Summer
INDUSTRY	Administrative and Support and Waste Management and Remediation Services	COUNTY	Lane
OCCUPATION	Building and Grounds Cleaning and Maintenance Occupations	OR-FACE NUMBER	OR 2021-40-2

A 49-year-old landscaper was driving a truck pulling a landscaping trailer when an oncoming vehicle failed to stop at an intersection and hit him. The truck was pushed at a 90-degree angle out of the lane it was traveling, into another vehicle's path. The second vehicle collided with the passenger door of the truck and pushed the truck about 60 yards off the road. He died of multiple blunt force injuries.

DESCRIPTION	Motor vehicle accident	SEASON	Summer
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Klamath
OCCUPATION	Farming, Fishing, and Forestry Occupations	OR-FACE NUMBER	OR 2021-41-1

A 24-year-old farm worker was operating a truck and lost control. The truck subsequently went into a water canal and was upside down, trapping him in the cab.

DESCRIPTION	Forklift rollover	SEASON	Summer
INDUSTRY	Administrative and Support and Waste Management and Remediation Services	COUNTY	Lane
OCCUPATION	Management Occupations	OR-FACE NUMBER	OR 2021-42-1

A 57-year-old site superintendent was driving a forklift when it went off the road, rolled down an embankment, and pinned him underneath the forklift. He was transported to the hospital, where he died from his injuries.

DESCRIPTION	Motor vehicle accident	SEASON	Summer
INDUSTRY	Construction	COUNTY	Deschutes
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2021-46-1

A 25-year-old truck driver was driving on a highway to make a delivery when his truck was struck head-on by an oncoming vehicle.

DESCRIPTION	Motor vehicle accident	SEASON	Summer
INDUSTRY	Transportation and Warehousing	COUNTY	Malheur
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2021-55-1

A 38-year-old truck driver hit a cow while driving a semi-truck. The semi-truck left the road and rolled down an embankment. He died of multiple traumatic injuries.

DESCRIPTION	Motor vehicle accident	SEASON	Autumn
INDUSTRY	Transportation and Warehousing	COUNTY	Baker
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2021-56-1

A 49-year-old truck driver was driving a Freightliner pulling a set of double trailers when it left the roadway and overturned. The truck driver sustained fatal injuries and was pronounced dead on the scene.

DESCRIPTION	Struck by tractor	SEASON	Autumn
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Union
OCCUPATION	Farming, Fishing, and Forestry Occupations	OR-FACE NUMBER	OR 2021-57-1

A 58-year-old farm hand was operating a tractor towing a grain/seed drill to plant wheat. The farm hand had completed about half of his first pass on the field when the employee fell out of the cab and landed on the ground in front of the tires. The tractor ran the farm hand over, and then dragged him for approximately 180 feet by the grain/seed drill. The farm hand was pronounced deceased by Emergency Medical Services.

DESCRIPTION	Fertilizer buggy overturn	SEASON	Autumn
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Douglas
OCCUPATION	Farming, Fishing, and Forestry Occupations	OR-FACE NUMBER	OR 2021-59-1

A 41-year-old farm equipment operator was driving an open-cab fertilizer buggy in a field when the machine overturned, crushing the farm equipment operator underneath the fertilizer buggy. He was later found dead at the scene.

DESCRIPTION	Motor vehicle accident	SEASON	Autumn
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Umatilla
OCCUPATION	Farming, Fishing, and Forestry Occupations	OR-FACE NUMBER	OR 2021-60-1

A 42-year-old farm truck driver was traveling on a country road when he was struck by a train at an uncontrolled crossing. His vision was obstructed by another train that was parked on parallel tracks approximately 20 feet from the main line.

DESCRIPTION	Motor vehicle accident	SEASON	Autumn
INDUSTRY	Public Administration	COUNTY	Malheur
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2021-61-1

A 26-year-old truck driver was driving a dump truck along a road parallel to an irrigation canal. The road on the passenger side of the dump truck sloped down and away. As he was driving, the shoulder on the passenger side gave way, causing the truck to slide off the road and roll several times. The truck driver was ejected and struck by the dump truck, receiving fatal injuries.

DESCRIPTION	Motor vehicle accident	SEASON	Autumn
INDUSTRY	Transportation and Warehousing	COUNTY	Douglas
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2021-62-1

A 63-year-old tow truck driver was retrieving a vehicle on an interstate when a semi-truck failed to move over for the tow truck, striking him and the tow truck.

DESCRIPTION	Pinned by truck	SEASON	Autumn
INDUSTRY	Real Estate and Rental and Leasing	COUNTY	Multnomah
OCCUPATION	Construction and Extraction Occupations	OR-FACE NUMBER	OR 2021-64-1

A 52-year-old scaffold erector was unloading scaffolding from a truck when the truck driver backed up and pinned the scaffold erector between the truck and a tree. He was pronounced dead at the scene.

DESCRIPTION	Motor vehicle accident	SEASON	Autumn
INDUSTRY	Transportation and Warehousing	COUNTY	Union
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2021-65-1

A 51-year-old truck driver was driving on an interstate when he failed to negotiate a curve. The semi-truck rolled onto its left side, ejecting the truck driver from the semi-truck.

DESCRIPTION	Motor vehicle accident	SEASON	Autumn
INDUSTRY	Transportation and Warehousing	COUNTY	Jackson
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2021-66-1

A 58-year-old truck driver was driving a company vehicle after making a delivery when he encountered ice on the road, causing the vehicle to roll multiple times. The truck driver sustained multiple injuries and died 13 days later from his injuries.

#### **VIOLENCE AND OTHER INJURIES BY PERSONS OR ANIMALS**

DESCRIPTION	Complications from prior gunshot wound	SEASON	Summer
INDUSTRY	Public Administration	COUNTY	Douglas
OCCUPATION	Protective Service Occupations	OR-FACE NUMBER	OR 2021-01-1

A 65-year-old deputy sheriff was shot in the line of duty where he sustained a spinal injury and partial paralysis. He died 40 years later from his traumatic injuries.

DESCRIPTION	Gunshot wound	SEASON	Winter
INDUSTRY	Health Care and Social Assistance	COUNTY	Lane
OCCUPATION	Building and Grounds Cleaning and Maintenance Occupations	OR-FACE NUMBER	OR 2021-18-1

A 70-year-old volunteer property caretaker was fatally shot when he saw an unknown person on the property that he was taking care of.

DESCRIPTION	Gunshot wound	SEASON	Spring
INDUSTRY	Retail Trade	COUNTY	Marion
OCCUPATION	Sales and Related Occupations	OR-FACE NUMBER	OR 2021-26-1

Two employees were talking with one another when one of the employees pulled out their new gun to show it to the other employee. The gun went off, and one of the employees, a 21-year-old assistant manager, was fatally shot.

DESCRIPTION	Gunshot wound	SEASON	Spring
INDUSTRY	Administrative and Support and Waste Management and Remediation Services	COUNTY	Josephine
OCCUPATION	Protective Service Occupations	OR-FACE NUMBER	OR 2021-28-1

A 24-year-old farmer was volunteering at a local concert working security. He was escorting someone to their car when they pulled a gun out and shot him multiple times.

DESCRIPTION	Gunshot wound	SEASON	Spring
INDUSTRY	Transportation and Warehousing	COUNTY	Washington
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2021-34-1

A 51-year-old tow truck driver was moving cars for a paving project at an apartment complex when he was shot and killed.

DESCRIPTION	Gunshot wound	SEASON	Spring
INDUSTRY	Retail Trade	COUNTY	Coos
OCCUPATION	Management Occupations	OR-FACE NUMBER	OR 2021-35-1

A 47-year-old store manager was working with another employee when a suspect arrived in the parking lot where the store manager was working. The suspect had a firearm and proceeded to go into the store. The suspect started shooting inside the store when the store manager was shot. She died from the gunshot wounds.

DESCRIPTION	Thrown from horse	SEASON	Summer
INDUSTRY	Arts, Entertainment, and Recreation	COUNTY	Crook
OCCUPATION	Arts, Design, Entertainment, Sports, and Media Occupations	OR-FACE NUMBER	OR 2021-43-1

A 29-year-old jockey racing in a horse race was thrown from his horse onto the fence railing, hitting his head and fracturing his neck. He died from his injuries sustained in the fall.

DESCRIPTION	Gunshot wound	SEASON	Summer
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Marion
OCCUPATION	Farming, Fishing, and Forestry Occupations	OR-FACE NUMBER	OR 2021-54-1

A 31-year-old tree climber was working on a crew tasked with taking down two pine trees when a co-worker approached the tree climber and shot him.

DESCRIPTION	Assault	SEASON	Winter
INDUSTRY	Accommodation and Food Services	COUNTY	Jackson
OCCUPATION	Management Occupations	OR-FACE NUMBER	OR 2021-69-1

During a robbery of a hotel manager's office, a 60-year-old hotel owner was assaulted. He died from his injuries.

#### **DELAYED CASES** | Worker fatalities with a death delayed 48+ hours from the date of injury, 2021.

EVENT	CAUSE OF DEATH	INTERVAL	OR-FACE NUMBER
EXPOSURE TO HEAT EXTREMES	Probable heat illness	3 days	OR 2021-36-1
CONTACT WITH OBJECTS AND EQUIPMENT	Struck by pipe or hit head on ground	3 days	OR 2021-68-1
EXPOSURE TO HEAT EXTREMES	Heat illness	11 days	OR 2021-39-1
TRANSPORTATION INCIDENT	Multiple injuries from vehicle rollover	13 days	OR 2021-66-1
FALL	Pulmonary embolism	18 days	OR 2021-33-1
SLIP	Multiple thromboembolisms	140 days	OR 2021-31-1
EXPLOSION	Traumatic brain injury	1 year, 1 month	OR 2021-05-1
SLIP	Brain damage	2 yr, 4 mo, 17 days	OR 2021-03-1
EXPOSURE TO HARMFUL SUBSTANCES	Brain cancer	2 yr, 8 mo, 26 days	OR 2021-04-1
TRANSPORTATION INCIDENT	Paralysis and brain damage	19 yr, 7 mo, 30 days	OR 2021-02-1
VIOLENCE BY ANOTHER PERSON	Spinal injury and partial paralysis	40 yr, 6 mo, 30 days	OR 2021-01-1



#### **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 2023.** 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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