2022

Occupational Fatalities in Oregon

ANNUAL REPORT



OREGON FATALITY ASSESSMENT & CONTROL EVALUATION (OR-FACE)

FACE Definitions

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

program investigates work-related fatalities that are caused by a traumatic injury 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

2022 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

Oregon Institute of Occupational Health Sciences Oregon Health & Science University

FACE Staff (Publication Year)

- Jackie Boyd, MPH
- David Hurtado, ScD
- Rachel Madjlesi, MPH, CIH
- Gideon Potgieter, BA

Former FACE Staff

- Barb Epstien, MPH, CIH, FAIHA
- Barbara Hanley, PhD, MPH
- Layla Mansfield, PhD
- Amelia Monfared, BS
- Ryan Olson, PhD
- Nikolas Smart, MS

OR-FACE is supported by the National Institute for Occupational Safety and Health (grant #U60OH012411).

Principal Investigator

• David Hurtado, ScD*

* Became PI in 2022

CONTENTS

FACE Definitions	2
Introduction	4
Core Activities	5
Publications	7
Charts	9
Abstracts	18
Event Definitions	32

Contact Information

OR-FACE Program, Oregon Institute of Occupational Health Sciences, Oregon Health & Science University

3222 S.W. Research Drive Portland, OR 97239-3098

PHONE 503-494-2281 EMAIL orface@ohsu.edu



в www.ohsu.edu/or-face

INTRODUCTION

In 2022, OR-FACE recorded 56 fatal occupational incidents resulting in worker deaths. The number represents a rate of 2.68 fatalities per 100,000 employed workers in the civilian labor force in Oregon. The national worker fatality rate in 2022 was 3.7 per 100,000 full-time equivalent workers.

The following notable trends occurred in 2022

- » The total number of fatalities was lower compared to the previous year. In 2021, 72 worker deaths were recorded, which was the third-highest number in OR-FACE history.
- 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 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 2022 (see pg. 14).

R E P O R T H I G H L I G H T S

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

OR-FACE published 1 investigation report, 5 blogs, 1 annual report, and 1 peer-reviewed publication (see pg. 7–8).

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

Abstracts provide a brief description and contributing factors of each incident (see pg. 18–31).

About OR-FACE, online resources and provide feedback (see pg. 33 and back cover).

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)
- 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 2022 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).

		DA	YS		MON	тнѕ		т	DTAL
		0-2	3-30	1–3	3-6	6-12	12+		
а	Google Alerts	7	3	0	0	0	0	10	17.86%
b	Oregon DCBS Analyst	0	0	0	0	1	0	1	1.79%
c	Oregon Emergency Response	2	0	0	0	0	0	2	3.57%
d	Oregon Health Authority	0	0	3	3	1	3	10	17.86%
e	Oregon OSHA	12	11	3	2	0	0	28	50.00%
f	Oregon State Police	5	0	0	0	0	0	5	8.93%
	Total	26	14	6	5	2	3	56	
			•	•			· · · · · ·		
									f
	е			5			d		

NOTIFICATIONS | Timing of first notification following incident

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 2022 (see pg. 8).

OUTREACH AND DOCUMENT DISTRIBUTION

Due to COVID-19 and the subsequent restrictions and stay-at-home orders, 2022 outreach was limited.

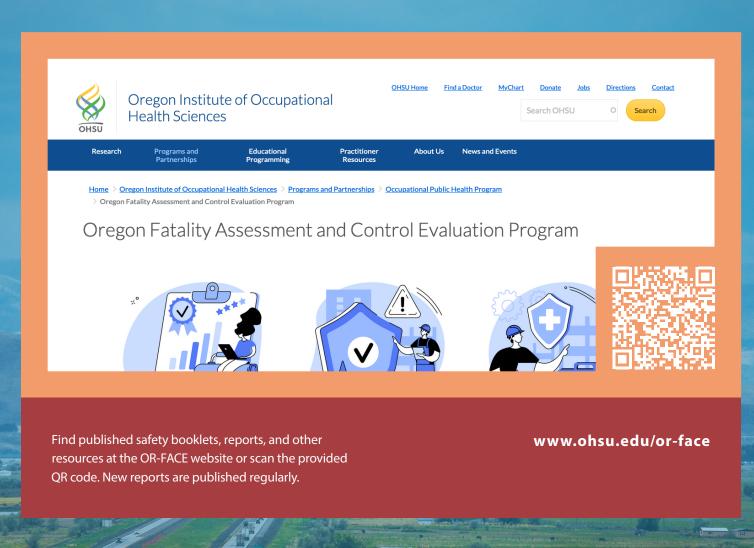
50 Can You Identify Fatal Hazards on Your Farm or Ranch?	FACE Report: Farm Worker Crushed in ATV Rollover During
(English)	Herbicide Application on a Hillside - Oregon (Spanish)
GIVEN TO OR-OSHA	GIVEN TO Orchard & Vineyard Supply
588 Can You Identify Fatal Hazards on Your Farm or Ranch? (Spanish) GIVEN TO Orchard & Vineyard Supply, OR-OSHA	Queensland Government Health and Safety Hazard Alert: Cutting Fuel Drums and Empty Containers - Explosion Hazard GIVEN TO Orchard & Vineyard Supply
FACE Report: Farm driver overturns truck in irrigation ditch	OR-FACE Toolbox Talk: Logger Killed Under Rigging When
and drowns (Spanish)	Carriage Drops
GIVEN TO Orchard & Vineyard Supply	GIVEN TO Orchard & Vineyard Supply
TO FACE Report: Vineyard worker killed in fall from trailer (Spanish) GIVEN TO Orchard & Vineyard Supply	OR-FACE Toolbox Talk: Excavation Worker Killed by Flying Rigging when Hook Fails GIVEN TO Orchard & Vineyard Supply
OSHA Work Poster: Tips to prevent heat-related illnesses at work (Spanish)	2020 Annual Report
GIVEN TO Orchard & Vineyard Supply	GIVEN TO OR-FACE List Serve/Mailing List
OSHA Agricultural Safety Fact Sheet: All-Terrain Vehicle	Study shows that texting toolbox talks to supervisors
Hazards during Farm Work	helps make safety meetings happen
GIVEN TO Orchard & Vineyard Supply	Featured on <i>Safety+Health</i> Magazine Website

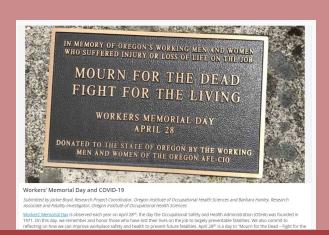
PUBLICATIONS

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).





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 (1,215 followers), Facebook (479 likes), and the Institute newsletter (10,654 subscribers).

OR-FACE contributed five blogs in 2022.

- My Work Experience with the OR-FACE team at OHSU
 <u>READ THE POST</u>
- Oregon Occupational Public Health Program Staff
 Spotlight: Alan Martinez
 <u>READ THE POST</u>
- Workers' Memorial Day and COVID-19
 <u>READ THE POST</u>
- Institute and OR-FACE Staff Spotlight: Jackie Boyd
 <u>READ THE POST</u>
- Northwest Occupational Health Conference 2022 Recap
 <u>READ THE POST</u>

PEER-REVIEWED PUBLICATION CITATION

Rice, S., Rimby, J., Hurtado, D. A., Gilbert-Jones, I., & Olson, R (2022). Does sending Safety Toolbox Talks by text message to Residential Construction Supervisors increase Safety Meeting Compliance? *Occupational Health Science*, 6, 313–332.





INVESTIGATIONS

One investigation report was published in 2022.

 Farm Worker Crushed in ATV Rollover During Herbicide Application on a Hillside - Oregon (Spanish)
 OR 2020-10-1 | READ THE REPORT



Occupational Fatalities in Oregon

NNUAL REPORT



ANNUAL REPORTS

OR-FACE published its 2020 Annual Report during the 2022 calendar year. In 2020, there were 48 recorded fatalities, with an overall rate of 2.46 per 100,000 employees.

READ THE REPORT

CHARTS

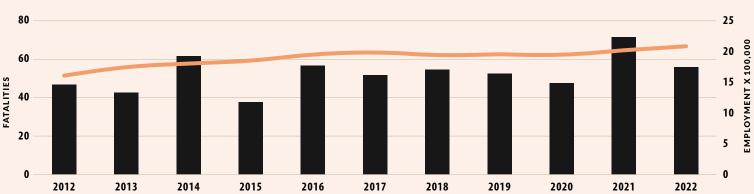
In the sections of Charts and Abstracts, OR-FACE highlights risk factors and patterns in fatalities. For these analyses, a few of the major two digit classification codes are split into sub codes.

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).

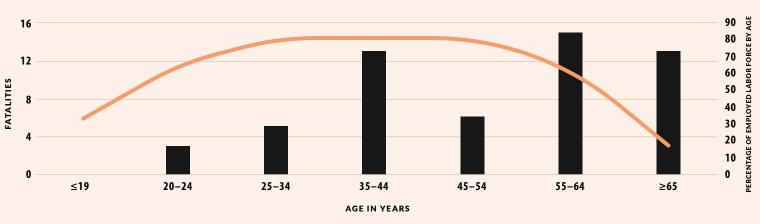
For descriptive purposes in response to industry interest in Oregon, OR-FACE further delineates motorized land vehicle events (codes 26 and 27) into motor vehicle and mobile machinery.

Oregon Employment Rate vs. Occupational Fatalities



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

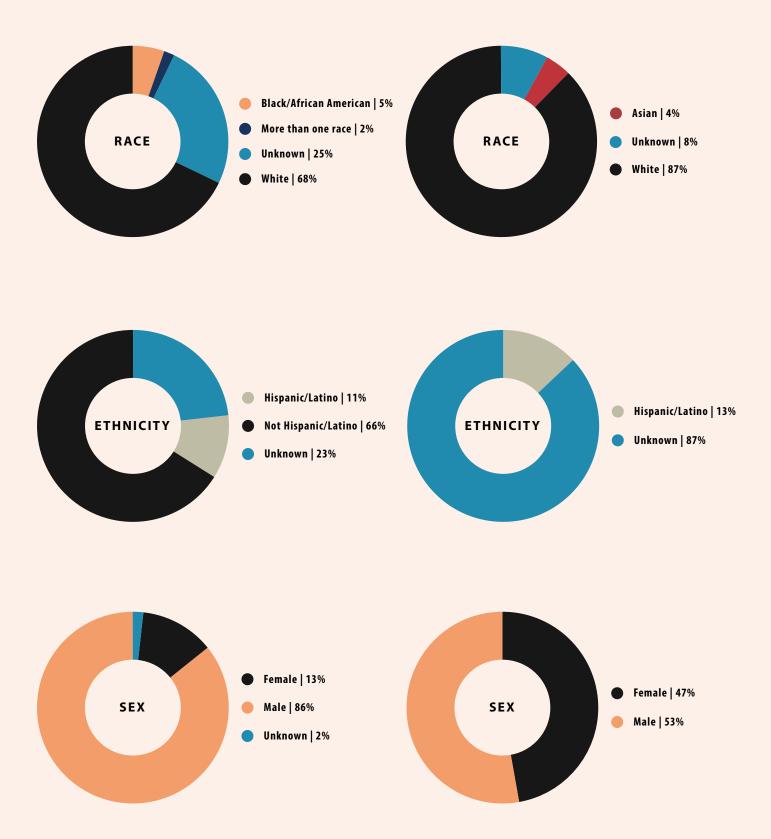
Occupational Fatalities in Oregon by Age Compared to Oregon Age Distribution of Labor Force, 2022



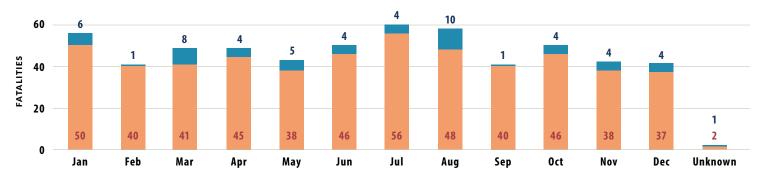
The bars below reflect fatal cases by age; the line reflects age distribution of labor force.

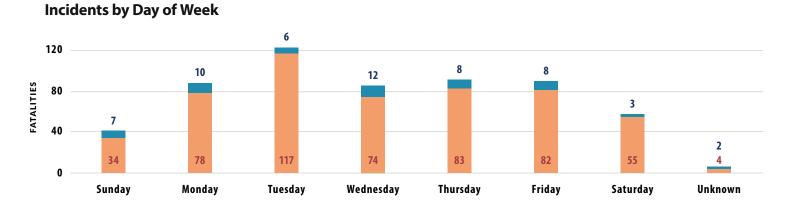
Demographics of Occupational Fatalities (56 total)

Civilian Labor Force in Oregon (BLS, 2022)

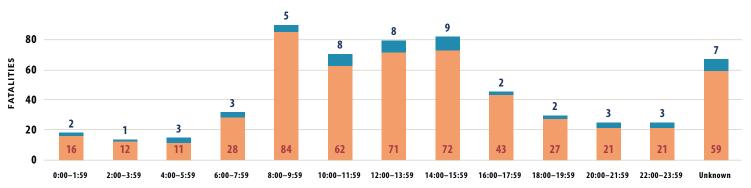


15 160 17 11 11 120 FATALITIES 80 40 2 122 2 122 131 150 0 Autumn Winter Spring Summer Unknown





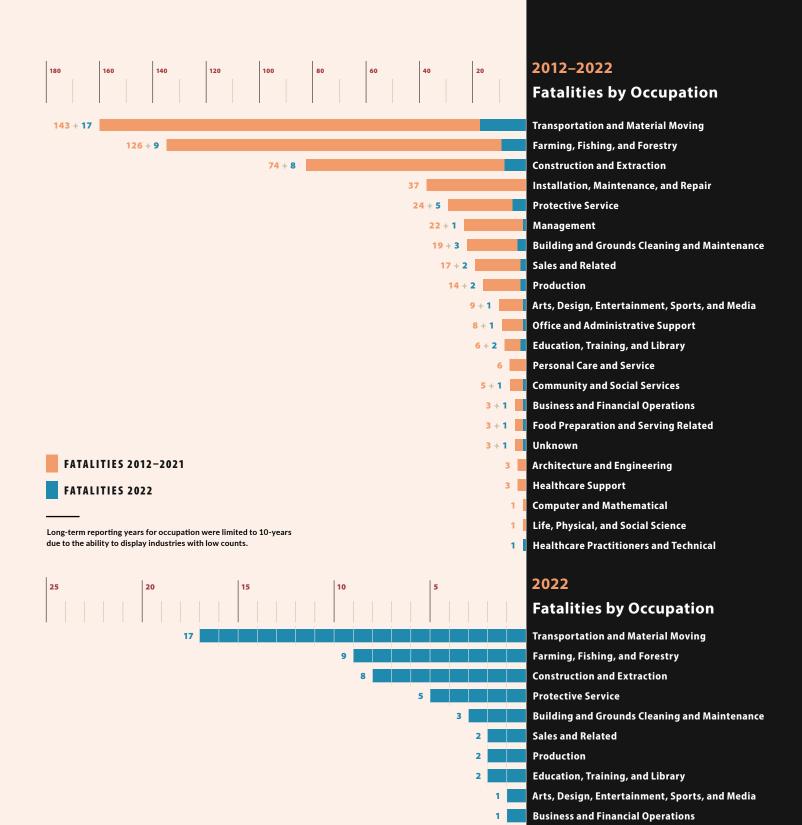




Incidents by Month

Incidents by Season

FATALITIES 2012-2021 FATALITIES 2022



Community and Social Services

Management

Unknown

Food Preparation and Serving Related Healthcare Practitioners and Technical

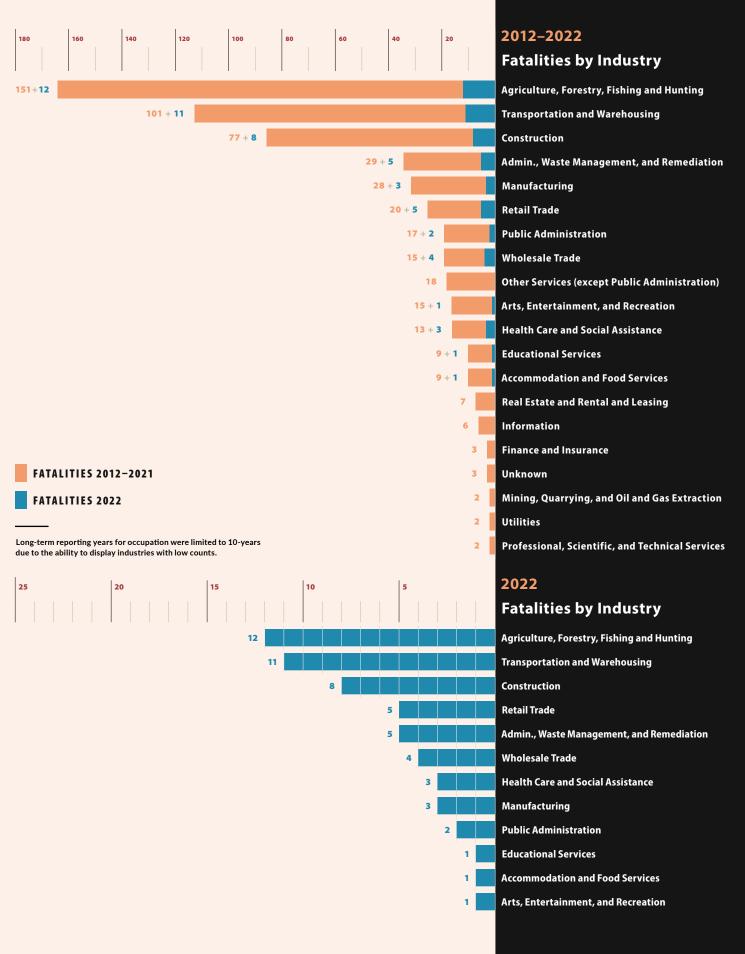
Office and Administrative Support

1

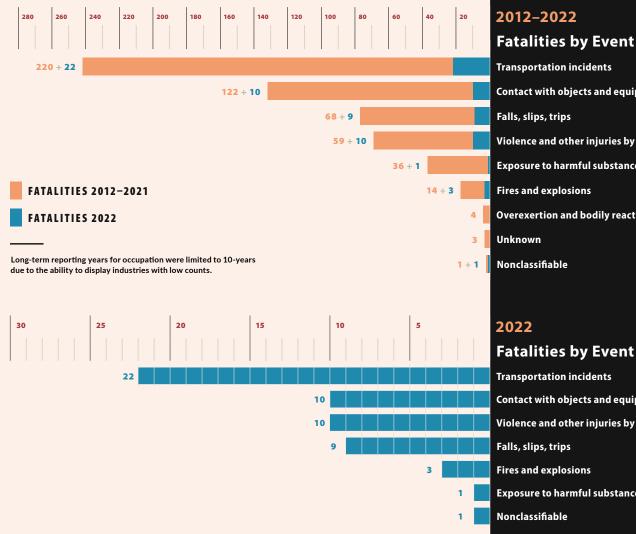
1

1

1







Transportation incidents Contact with objects and equipment Falls, slips, trips Violence and other injuries by person or animals Exposure to harmful substances or environments **Fires and explosions Overexertion and bodily reaction** Nonclassifiable

Fatalities by Event Transportation incidents Contact with objects and equipment

Violence and other injuries by person or animals

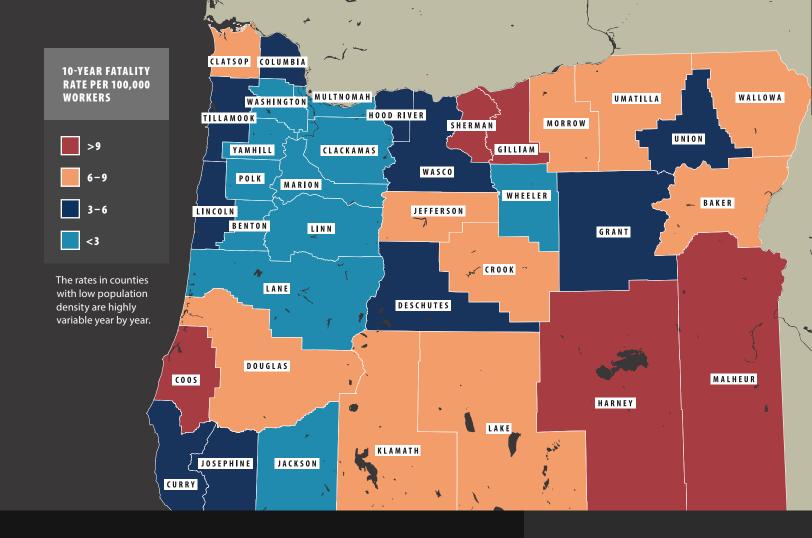
Falls, slips, trips

Fires and explosions

- Exposure to harmful substances or environments
- Nonclassifiable

Fatalities by Select Industries 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 Agriculture 66 Contact with objects and equipment **Transportation (Motor Vehicle)** 42 Transportation (Water) 16 9 Transportation (Air, Animal, Mobile Machinery, Pedestrian, other) 9 Falls, slips, and trips Exposure to harmful substances or environments 6 **Fires and explosions** 5 Violence and other injuries by person or animals Unknown 1 1 I Nonclassifiable 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 Construction Falls, slips and trips 14 **Contact with objects and equipment** 12 Exposure to harmful substances or environments 12 **Transportation (Pedestrian)** 11 Transportation (Roadway) 3 Transportation (Non-roadway) 2 Violence and other injuries by person or animals **Overexertion and bodily reaction** 11 Transportation (Air, Rail, Mobile Machinery) 1 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 **Forestry and Logging Contact with objects and equipment** 16 Transportation (Roadway) 6 Transportation (Non-roadway) 5 Falls, slips and trips 3 Exposure to harmful substances or environments 2 Violence and other injuries by person or animals 1 Nonclassifiable Transportation (Pedestrian) 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 **Transportation** Transportation (Roadway) 16 Contact with objects and equipment 12 Transportation (Pedestrian) Falls, slips and trips 6 Violence and other injuries by person or animals 4 Exposure to harmful substances or environments 2 **Fires and explosions** 2 Transportation (Air) 2 Transportation (Non-roadway) 1 Nonclassifiable

2012-2022



Oregon county labor statistics, 10-year fatality trend, 2022 fatality count, and 10-year fatality rate.

	TOTAL POP. 2022	LABOR FORCE 2022	FATALITIES 2012–2021	FATALITIES 2022	10-YR RATE Per 100,000 Workers
Baker	17,148	7,082	5	0	6.99
Benton	95,594	47,366	10	2	2.48
Clackamas	430,421	218,564	35	3	1.74
Clatsop	41,971	18,802	11	1	6.13
Columbia	53,156	23,973	9	0	3.86
Coos	65,112	25,196	24	2	9.69
Crook	26,162	10,607	5	1	6.26
Curry	23,897	8,715	4	1	5.63
Deschutes	207,561	98,937	23	5	3.00
		·	_		

Table continues on following page >

2.58

2012-2022 OVERALL FATALITY RATE PER 100,000 EMPLOYEES

2.68

2022 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. 2022	LABOR FORCE 2022	FATALITIES 2012-2021	FATALITIES 2022	10-YR RA1 Per 100,00 Worker	00
Douglas	111,716	45,215	32	6	8.16	
Gilliam	2,071	918	2	0	21.66	
Grant	7,337	3,016	1	0	3.17	
Harney	7,640	3,622	4	0	11.38	
Hood River	23,894	13,810	7	0	4.74	
Jackson	224,013	101,844	26	1	2.59	
Jefferson	25,404	9,735	8	0	8.11	
Josephine	88,695	34,760	12	1	3.73	
Klamath	70,848	28,496	16	3	6.46	
Lake	8,246	3,493	3	0	7.48	
Lane	383,958	175,024	52	4	2.76	
Lincoln	51,090	19,922	7	2	3.74	
Linn	131,194	58,834	13	1	2.14	
Malheur	32,095	12,126	16	0	10.66	
Marion	348,616	163,052	28	5	1.80	
Morrow	12,315	5,750	6	0	8.96	
Multnomah	810,242	450,658	63	7	1.37	
Polk	90,593	40,924	10	0	2.33	
Sherman	1,938	929	1	0	9.66	
Tillamook	27,868	11,625	6	1	5.24	
Umatilla	80,401	36,310	27	0	6.46	
Union	26,673	11,630	8	0	5.82	
Wallowa	7,541	3,419	2	1	7.98	
Wasco	26,794	12,923	4	1	3.26	
Washington	609,219	323,660	29	5	0.95	
Wheeler	1,436	715	0	0	0.00	
Yamhill	108,993	54,288	14	1	2.52	
Unknown			1	2		

ABSTRACTS

Fatal occupational incidents in Oregon by type of event in 2022

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	
Nonclassifiable	

CONTACT WITH OBJECTS AND EQUIPMENT

DESCRIPTION	Struck by excavator bucket	SEASON	Winter	
INDUSTRY	Construction	COUNTY	Clackamas	
OCCUPATION	Construction and Extraction Occupations	OR-FACE NUMBER	OR 2022-06-1	

Two employees were compacting gravel in a one-foot-deep trench in the roadway. While they were working, an excavator rolled downhill on wet pavement, and the excavator bucket struck both employees. As a result, the general laborer was killed. He died of head trauma.

DESCRIPTION	Crushed by mini train engine	SEASON	Winter
INDUSTRY	Arts, Entertainment, and Recreation	COUNTY	Klamath
OCCUPATION	Education, Training, and Library Occupations	OR-FACE NUMBER	OR 2022-08-1

A 71-year-old railroad museum volunteer was working on a mini train engine that weighed approximately 1,000 pounds. He was later found lying on the floor with the train engine on his head.

DESCRIPTION	Struck by shower enclosure	SEASON	Spring
INDUSTRY	Retail Trade	COUNTY	Washington
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2022-18-1

A 63-year-old order filler was working in a warehouse fulfilling internet orders. He was moving a shower enclosure when it fell and hit him on the head. He went to the hospital two days later and needed neurosurgery. He died five days after the incident occurred.

DESCRIPTION	Pinned by pocket carriage	SEASON	Spring
INDUSTRY	Manufacturing	COUNTY	Klamath
OCCUPATION	Production Occupations	OR-FACE NUMBER	OR 2022-19-1

A 36-year-old wood product grader was cleaning a pocket stacker and didn't lock out/tag out the equipment. She was found unresponsive, pinned between the pocket carriage and the ground. She was transported to the hospital, where she died the next day.

DESCRIPTION	Struck by tree	SEASON	Spring
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Douglas
OCCUPATION	Farming, Fishing, and Forestry Occupations	OR-FACE NUMBER	OR 2022-20-1

A 40-year-old timber faller was working at a logging site falling trees with another worker when a tree struck him. The tree had recently been cut and came free unexpectedly, pinning the timber faller until his co-worker could free him. He died on the scene.

DESCRIPTION	Crushed by tractor tire	SEASON	Spring	
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Benton	
OCCUPATION	Farming, Fishing, and Forestry Occupations	OR-FACE NUMBER	OR 2022-27-1	

An 86-year-old farmer was changing a tractor tire when the tractor tire fell on him. He died of asphyxiation (lack of air).

DESCRIPTION	Struck by tree branch	SEASON	Summer
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Douglas
OCCUPATION	Farming, Fishing, and Forestry Occupations	OR-FACE NUMBER	OR 2022-29-1

A 35-year-old timber faller was falling trees at a remote logging site when he was struck in the head by a large branch. He died at the scene.

DESCRIPTION	Pinned by riding lawn mower	SEASON	Summer
INDUSTRY	Admin., Waste Management, and Remediation Services	COUNTY	Deschutes
OCCUPATION	Building, Grounds Cleaning, and Maintenance Occupations	OR-FACE NUMBER	OR 2022-37-1

A 54-year-old landscaper was operating a riding lawn mower when he collided head-on with a fence. The mower got stuck on a fence post and pinned him between the fence and the mower. He died of asphyxiation (lack of air) from the weight of the lawn mower.

DESCRIPTION	Struck by tree	SEASON	Summer
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Washington
OCCUPATION	Farming, Fishing, and Forestry Occupations	OR-FACE NUMBER	OR 2022-43-1

A 39-year-old logger was falling a Douglas fir tree to drive another tree over, creating a domino effect. The Douglas fir sprang back and struck the victim in the head, resulting in skull fractures despite wearing a hard hat.

DESCRIPTION	Struck by tree limb	SEASON	Autumn
INDUSTRY	Admin., Waste Management, and Remediation Services	COUNTY	Multnomah
OCCUPATION	Building, Grounds Cleaning, and Maintenance Occupations	OR-FACE NUMBER	OR 2022-44-1

A 37-year-old arborist was on the ground assisting in tree removal by handling the lines to lower the limbs being cut by a worker above. It is speculated that the arborist lost control of the lines, resulting in a limb falling and striking him. He died on the scene.

EXPOSURE TO HARMFUL SUBSTANCES OR ENVIRONMENTS

DESCRIPTION	Electrocution	SEASON	Spring
INDUSTRY	Manufacturing	COUNTY	Deschutes
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2022-21-1

A 23-year-old truck driver was delivering large concrete blocks to a project site. While using a boom lift to help with the delivery, the boom of the truck touched overhead power lines, electrocuting the truck driver. He was pronounced dead at the scene.

FALLS, SLIPS, AND TRIPS

DESCRIPTION	Fall from roof	SEASON	Spring
INDUSTRY	Construction	COUNTY	Unknown
OCCUPATION	Construction and Extraction Occupations	OR-FACE NUMBER	OR 2022-03-1

A 28-year-old roofer was paralyzed when he fell 30 feet to asphalt from a roof. Thirty-three years later, he died of his traumatic injuries.

DESCRIPTION	Fall to lower level	SEASON	Winter
INDUSTRY	Transportation and Warehousing	COUNTY	Jackson
OCCUPATION	Construction and Extraction Occupations	OR-FACE NUMBER	OR 2022-05-1

A 58-year-old equipment operator fell from a front-end loader that had just been secured to a trailer. He had a suspected head injury from the fall. He was transported to the hospital, where he died three days later.

DESCRIPTION	Slip	SEASON	Winter
INDUSTRY	Wholesale Trade	COUNTY	Multnomah
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2022-09-1

A 62-year-old distribution center worker was walking across the parking lot when she slipped on ice and broke her femur. She was transported to the hospital, where she later died.

DESCRIPTION	Fall to lower level	SEASON	Winter
INDUSTRY	Retail Trade	COUNTY	Curry
OCCUPATION	Arts, Design, Entertainment, Sports, and Media Occupations	OR-FACE NUMBER	OR 2022-12-1

A 68-year-old art gallery owner fell from the eighth rung of a ladder, hitting her head on the ground. She was transported to the hospital, where she died later that day.

DESCRIPTION	Fall from roof	SEASON	Spring
INDUSTRY	Construction	COUNTY	Coos
OCCUPATION	Construction and Extraction Occupations	OR-FACE NUMBER	OR 2022-28-1

A 37-year-old contractor fell 26 feet from a rafter that was under construction. He died of blunt force head trauma.

DESCRIPTION	Fall to lower level	SEASON	Summer
INDUSTRY	Wholesale Trade	COUNTY	Multnomah
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2022-32-1

A 24-year-old Distribution Center Associate was operating an elevated work platform to pick orders when he fell approximately 20 feet to the ground. There were no witnesses to his fall. He was found unconscious moments after his fall by other employees. He was wearing a fall harness, and the lanyard was still attached to the elevated work platform. He was transported to the hospital, where he died five days later.

DESCRIPTION	Fall from roof	SEASON	Summer
INDUSTRY	Construction	COUNTY	Marion
OCCUPATION	Construction and Extraction Occupations	OR-FACE NUMBER	OR 2022-39-1

While working on the roof of a distribution center, a 52-year-old roofer accidentally struck a wasp nest with his hammer. Subsequently, several wasps started stinging him. In an attempt to prevent being stung, he was swatting away wasps when he accidentally stepped backward through a Styrofoam panel. He fell 25 feet below head-first onto a stack of boxes and then to the concrete floor. He died at the scene.

DESCRIPTION	Slip	SEASON	Autumn
INDUSTRY	Educational Services	COUNTY	Washington
OCCUPATION	Education, Training, and Library Occupations	OR-FACE NUMBER	OR 2022-47-1

A 57-year-old teacher underwent knee surgery after slipping on applesauce in the school hallway and breaking her kneecap. She died 35 days later from a pulmonary embolism.

DESCRIPTION	Fall to lower level	SEASON	Autumn
INDUSTRY	Construction	COUNTY	Washington
OCCUPATION	Construction and Extraction Occupations	OR-FACE NUMBER	OR 2022-51-1

A 70-year-old construction superintendent was filling a large construction debris trash container. While climbing down from the container, he fell and hit his head on the ground, knocking him unconscious. He was transported to the hospital, where he died 12 days later.

FIRES AND EXPLOSIONS

DESCRIPTION	Explosion	SEASON	Winter
INDUSTRY	Public Administration	COUNTY	Marion
OCCUPATION	Protective Service Occupations	OR-FACE NUMBER	OR 2022-11-1

A 30-year-old volunteer firefighter working a fire at a chicken farm was laying a hose straight when an explosion occurred. He was struck by a piece of debris and was transported to the hospital. He died shortly upon arrival at the hospital.

DESCRIPTION	Struck by tree	SEASON	Summer
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Douglas
OCCUPATION	Protective Service Occupations	OR-FACE NUMBER	OR 2022-34-1

A falling tree struck a 27-year-old wildland firefighter battling a fire. Despite lifesaving efforts from emergency medical services personnel, he died at the scene.

DESCRIPTION	Struck by tree	SEASON	Summer
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Josephine
OCCUPATION	Protective Service Occupations	OR-FACE NUMBER	OR 2022-38-1

A 25-year-old wildland firefighter had just arrived at the site of the fire and was checking in for his assignment when he was struck by a tree. The tree that fell appeared to be a live green tree, but had prior fire damage at its base. He died en route to the hospital. For more details, see OR-FACE investigation <u>2022-OR-01</u>.

TRANSPORTATION INCIDENTS

DESCRIPTION	Motor vehicle accident	SEASON	Unknown
INDUSTRY	Retail Trade	COUNTY	Deschutes
OCCUPATION	Sales and Related Occupations	OR-FACE NUMBER	OR 2022-01-1

A 30-year-old store owner was driving to a job site when he drove off the side of the road and was paralyzed due to a single motor vehicle accident. Forty-seven years later, he died of pneumonia.

DESCRIPTION	Struck by vehicle	SEASON	Winter
INDUSTRY	Construction	COUNTY	Yamhill
OCCUPATION	Construction and Extraction Occupations	OR-FACE NUMBER	OR 2022-10-1

A 60-year-old superintendent was on site with an excavation crew waiting for flaggers to arrive. The superintendent was walking alongside the highway cones that the excavation crew had set up on the road. While he was walking alongside the road, he was struck by a motor vehicle from behind.

DESCRIPTION	Motor vehicle accident	SEASON	Winter
INDUSTRY	Retail Trade	COUNTY	Clatsop
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2022-13-1

A 46-year-old truck driver driving a commercial motor vehicle towing a flatbed trailer crossed over the opposing lanes of traffic and went off the road. The truck struck a tree and rolled on its side. He was pronounced dead at the scene.

DESCRIPTION	Motor vehicle accident	SEASON	Spring
INDUSTRY	Health Care and Social Assistance	COUNTY	Marion
OCCUPATION	Community and Social Services Occupations	OR-FACE NUMBER	OR 2022-14-1

A 35-year-old outreach coordinator was driving on a freeway when he rear-ended a semi-truck towing a fully loaded trailer. He was pronounced dead at the scene.

DESCRIPTION	Capsized fishing vessel	SEASON	Spring
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Lane
OCCUPATION	Farming, Fishing, and Forestry Occupations	OR-FACE NUMBER	OR 2022-15-1

A 39-year-old fisherwoman was salmon fishing approximately 30 miles off the coast of Oregon when the boat she was on took on water and rolled. She died of saltwater drowning.

DESCRIPTION	Capsized fishing vessel	SEASON	Spring
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Lane
OCCUPATION	Farming, Fishing, and Forestry Occupations	OR-FACE NUMBER	OR 2022-15-2

A 68-year-old boat captain was salmon fishing approximately 30 miles off the coast of Oregon when his boat took on water and rolled. He was never found but has been presumed deceased.

DESCRIPTION	Struck by vehicle	SEASON	Spring
INDUSTRY	Construction	COUNTY	Clackamas
OCCUPATION	Construction and Extraction Occupations	OR-FACE NUMBER	OR 2022-22-1

A 41-year-old foreman was operating a screed when a dump truck loaded with asphalt was instructed to back up to the screed. As the dump truck was backing up, the foreman fell into the path of the dump truck. The foreman was struck and ran over by the dump truck.

DESCRIPTION	Motor vehicle accident	SEASON	Spring
INDUSTRY	Construction	COUNTY	Douglas
OCCUPATION	Unknown	OR-FACE NUMBER	OR 2022-25-1

A construction worker driving a vehicle was involved in a motor vehicle accident. As a result, his vehicle caught fire, and he was unable to exit it. He was pronounced dead at the scene.

DESCRIPTION	Motor vehicle accident	SEASON	Spring
INDUSTRY	Transportation and Warehousing	COUNTY	Lincoln
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2022-26-1

A 67-year-old truck driver was towing an unloaded chip trailer and heading east when he crossed over the eastbound shoulder before over-correcting and crossing the center line and the opposing lanes of traffic. The truck struck multiple trees on the westbound shoulder. He was pronounced dead at the scene.

DESCRIPTION	Grapple skidder overturn	SEASON	Summer
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Douglas
OCCUPATION	Farming, Fishing, and Forestry Occupations	OR-FACE NUMBER	OR 2022-31-1

A 54-year-old logging equipment operator was operating a grapple skidder (a type of tractor used to move logs) on a logging road when the skidder went off the roadway and rolled over 600 feet down an embankment before stopping. He died of crushing injuries.

DESCRIPTION	Struck by vehicle	SEASON	Summer
INDUSTRY	Transportation and Warehousing	COUNTY	Klamath
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2022-33-1

A 32-year-old tow truck driver was retrieving a vehicle from the side of a highway when he was struck and killed by another vehicle.

DESCRIPTION	Struck by vehicle	SEASON	Summer
INDUSTRY	Admin., Waste Management, and Remediation Services	COUNTY	Multnomah
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2022-35-1

While directing a truck to park in a large parking lot, a 71-year-old general laborer (driver) was struck by an SUV, causing him to fall to the ground and strike his head on a tire. He was transported to the hospital, where he died 42 days later.

DESCRIPTION	Motor vehicle accident	SEASON	Summer
INDUSTRY	Transportation and Warehousing	COUNTY	Lincoln
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2022-36-1

A vehicle driving southbound on a highway suddenly stopped. In response to the stopped vehicle, the vehicle behind it crossed the center line into the northbound lane, where a 69-year-old truck driver driving northbound struck the oncoming vehicle head-on. His truck rolled down an embankment. The truck driver was not wearing a seatbelt. He died at the scene.

DESCRIPTION	Motor vehicle accident	SEASON	Summer	
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Marion	
OCCUPATION	Farming, Fishing, and Forestry Occupations	OR-FACE NUMBER	OR 2022-40-1	

While driving an all-terrain vehicle (ATV), a 56-year-old berry picker was involved in a collision where a motorcyclist struck the side of his ATV head-on. The berry picker was transported to the hospital, where he died 31 days later from his traumatic injuries sustained in the accident.

DESCRIPTION	Motor vehicle accident	SEASON	Summer
INDUSTRY	Admin., Waste Management, and Remediation Services	COUNTY	Douglas
OCCUPATION	Building and Grounds Cleaning and Maintenance Occupations	OR-FACE NUMBER	OR 2022-41-1

A 56-year-old landscaper was driving on a highway when he veered off the road. The vehicle went into a ditch, through a fence, and crashed into a tree. He died at the scene.

DESCRIPTION	Motor vehicle accident	SEASON	Autumn
INDUSTRY	Transportation and Warehousing	COUNTY	Marion
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2022-45-1

A 70-year-old truck driver driving for over 13 hours was driving around a curve when he veered off the side of the road over an embankment. His truck caught on fire, and he died at the scene.

DESCRIPTION	Motor vehicle accident	SEASON	Autumn
INDUSTRY	Transportation and Warehousing	COUNTY	Lane
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2022-46-1

A 38-year-old truck driver lost control of his truck, flipping it on the driver's side. The truck slid for quite some distance before striking a guardrail. The truck continued to slide down the guardrail, pinning the driver inside the cab. He was extracted from the cab and was transported to the hospital, where he later died.

DESCRIPTION	Motor vehicle accident	SEASON	Autumn
INDUSTRY	Transportation and Warehousing	COUNTY	Linn
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2022-48-1

A 63-year-old truck driver hit a semi-truck that was stopped due to an accident on the interstate in front of him. As a result, his truck caught fire, and he was trapped inside the cab. He died at the scene.

DESCRIPTION	Motor vehicle accident	SEASON	Autumn
INDUSTRY	Health Care and Social Assistance	COUNTY	Coos
OCCUPATION	Business and Financial Operations Occupations	OR-FACE NUMBER	OR 2022-49-1

A 62-year-old financial consultant who works from home but travels to different facilities assisting with billing was driving home from a facility when she was involved in a motor vehicle accident.

DESCRIPTION	Motor vehicle accident	SEASON	Autumn
INDUSTRY	Transportation and Warehousing	COUNTY	Tillamook
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2022-53-1

A 42-year-old truck driver was driving a heavily loaded gravel truck on a logging road when he lost control of the truck. The truck rolled and struck a tree, killing the truck driver.

DESCRIPTION	Struck by vehicle	SEASON	Autumn
INDUSTRY	Transportation and Warehousing	COUNTY	Crook
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2022-54-1

A 59-year-old truck driver stopped his truck on the side of a highway. He proceeded to get out and attempted to cross five lanes of traffic on foot when he was struck and killed by a vehicle.

DESCRIPTION	Motor vehicle accident	SEASON	Winter
INDUSTRY	Transportation and Warehousing	COUNTY	Wasco
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2022-55-1

A 53-year-old truck driver was struck by a falling tree while driving due to hazardous weather conditions. He died at the scene.

VIOLENCE AND OTHER INJURIES BY PERSONS OR ANIMALS

DESCRIPTION	Cattle stampede	SEASON	Unknown
INDUSTRY	Agriculture, Forestry, Fishing and Hunting	COUNTY	Unknown
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2022-04-1

A 70-year-old cattle truck driver was stampeded by cattle while moving a load of cattle, sustaining a punctured bowel. Fifteen months later, he died from septicemia.

DESCRIPTION	Gunshot wound	SEASON	Winter
INDUSTRY	Wholesale Trade	COUNTY	Deschutes
OCCUPATION	Management Occupations	OR-FACE NUMBER	OR 2022-07-1

A 55-year-old business owner died of a self-inflicted gunshot wound.

DESCRIPTION	Gunshot wound	SEASON	Spring
INDUSTRY	Transportation and Warehousing	COUNTY	Multnomah
OCCUPATION	Transportation and Material Moving Occupations	OR-FACE NUMBER	OR 2022-16-1

A 39-year-old rideshare driver was murdered. He died of a gunshot wound at the scene.

DESCRIPTION	Gunshot wound	SEASON	Spring
INDUSTRY	Public Administration	COUNTY	Wallowa
OCCUPATION	Protective Service Occupations	OR-FACE NUMBER	OR 2022-17-1

A 48-year-old police officer was found dead in his patrol car. He died of a self-inflicted gunshot wound.

DESCRIPTION	Stab wound	SEASON	Spring
INDUSTRY	Manufacturing	COUNTY	Clackamas
OCCUPATION	Production Occupations	OR-FACE NUMBER	OR 2022-23-1

A customer walked into the main office of a manufacturing business and requested to speak with the manufacturing manager. The 60-year-old manufacturing manager stepped outside with the customer when the customer pulled out a knife and stabbed the manufacturing manager in the throat. He was transported to the hospital, where he died later that day.

DESCRIPTION	Gunshot wound	SEASON	Spring
INDUSTRY	Admin., Waste Management, and Remediation Services	COUNTY	Multnomah
OCCUPATION	Protective Service Occupations	OR-FACE NUMBER	OR 2022-24-1

While working at his regular post, a 22-year-old security guard had not been heard from in a bit. The security guard was then found in his vehicle deceased. He had been shot by another person.

DESCRIPTION	Asphyxiation (lack of air)	SEASON	Summer	
INDUSTRY	Wholesale Trade	COUNTY	Benton	
OCCUPATION	Office and Administrative Support Occupations	OR-FACE NUMBER	OR 2022-30-1	

Approximately two hours after clocking into work, a 36-year-old inventory specialist was found deceased in the parking lot. He died by suicide.

DESCRIPTION	Gunshot wound	SEASON	Summer
INDUSTRY	Retail Trade	COUNTY	Deschutes
OCCUPATION	Sales and Related Occupations	OR-FACE NUMBER	OR 2022-42-1

A gunman entered a grocery store and started shooting. A 66-year-old grocery store clerk engaged with the gunman to attempt to disarm him but was shot and killed.

DESCRIPTION	Struck by table	SEASON	Autumn
INDUSTRY	Health Care and Social Assistance	COUNTY	Washington
OCCUPATION	Healthcare Practitioners and Technical Occupations	OR-FACE NUMBER	OR 2022-50-1

A 57-year-old nurse was providing in-home care for a patient when the patient's son assaulted the nurse by hitting her on the head with a table. She was transported to the hospital, where she later died.

DESCRIPTION	Gunshot wound	SEASON	Autumn
INDUSTRY	Accommodation and Food Services	COUNTY	Multnomah
OCCUPATION	Food Preparation and Serving Related Occupations	OR-FACE NUMBER	OR 2022-52-1

A 26-year-old cook told the owner of the tavern he had to go home. He then proceeded to the rear of the establishment, where he died of a self-inflicted gunshot wound.

NONCLASSIFIABLE

DESCRIPTION	Unknown logging accident	SEASON	Winter
INDUSTRY	Agriculture, Forestry, Fishing, and Hunting	COUNTY	Lane
OCCUPATION	Farming, Fishing, and Forestry Occupations	OR-FACE NUMBER	OR 2022-02-1

A 46-year-old timber faller had a logging accident where he sustained traumatic injuries. Thirty-eight years later, he died of aspiration pneumonia. The sequence of events of the accident are unknown.

DELAYED CASES | Worker fatalities with a death delayed 48+ hours from the date of injury, 2022.

EVENT	CAUSE OF DEATH	INTERVAL	OR-FACE NUMBER
Fall	Head injury	3 days	OR 2022-05-1
Contact with objects and equipment	Struck by shower enclosure	5 days	OR 2022-18-1
Fall	Head trauma	5 days	OR 2022-32-1
Violence by another person	Head trauma	9 days	OR 2022-50-1
Fall	Head trauma	12 days	OR 2022-51-1
Transportation incident	Multiple traumatic injuries	30 days	OR 2022-40-1
Slip	Pulmonary embolism	35 days	OR 2022-47-1
Transportation incident	Head trauma	42 days	OR 2022-35-1
Violence by animals	Septicemia	1 year, 2 months, 28 days	OR 2022-04-1
Fall	Complications from paralysis	33 years, 11 days	OR 2022-03-1
Unknown logging accident	Aspiration pneumonia	38 years, 9 months, 13 days	OR 2022-02-1
Transportation incident	Pneumonia	47 years, 1 month, 6 days	OR 2022-01-1

EVENT DEFINITIONS

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

Adapted from US Bureau of Labor Statistics (2012), *Occupational Injury and Illness Classification Manual. US Department of Labor.* Accessed online (April 2023) https://www.bls.gov/iif/definitions/oiics-manual-2010.pdf

Assaults and Violent Acts

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

Bodily Reaction and Exertion

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

Contact With Objects and Equipment

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. OR-FACE is supported by a cooperative agreement with the National Institute for Occupational Safety and Health (NIOSH) (grant #U60OH012411) through the Occupational Public Health Program (OPHP) of the Public Health Division of the Oregon Health Authority.

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



WE WANT YOUR FEEDBACK

All OR-FACE publications are posted on the OR-FACE website. Let us know how you use them! A short survey on the website allows you to offer feedback. We appreciate your comments.

www.ohsu.edu/or-face

Published 2024. 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.

The material in this report is public information and may be freely copied and distributed.

This report is the product of OR-FACE and is presented here in its original form. The findings and conclusions of this report are those of OR-FACE and do not necessarily reflect the views or policy of the National Institute for Occupational Safety and Health.