CCD Safety Action Plan

Oregon Department of Transportation

MAY 2024

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Copies of the CCD Safety Action Plan and other safety materials can be found on CCD's web page: https://www.oregon.gov/odot/MCT/Pages/TruckSafety.aspx

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EXECUTIVE SUMMARY

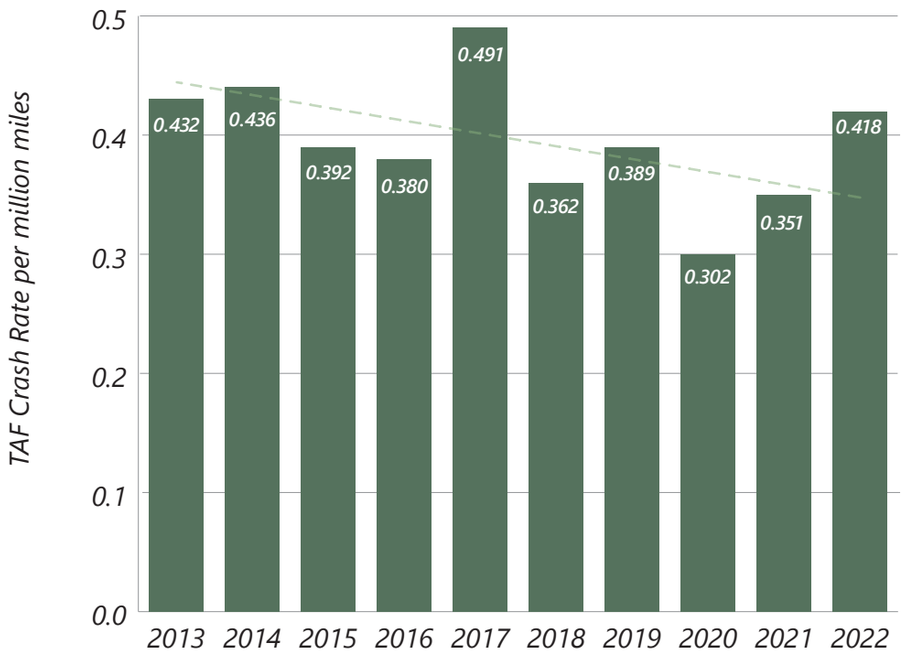
The Commerce and Compliance Division's (CCD) 2024 Safety Action Plan takes a look at calendar year 2022's crash numbers and the Division's effort to reduce them. Nationally, the Federal Motor Carrier Safety Administration (FMCSA) reports that the number of fatalities as a result of Commercial Motor Vehicle (CMV) crashes dropped from 5,998 to 5,241 in 2022. Oregon experienced the same number of fatal crashes in 2021 and 2022 (63), but the number of fatalities resulting from those crashes increased from 65 to 74.

WHY IS A SAFETY ACTION PLAN NEEDED?

The Department seeks to reduce accidents involving commercial motor vehicles and to reduce injuries and fatalities resulting from accidents involving commercial motor vehicles.

CCD has also developed this Safety Action Plan to educate and raise awareness about current safety issues and find the best ways to address them. The goal of CCD is to reduce truck and bus crashes through a multi-faceted program of driver/vehicle inspections, traffic enforcement, compliance reviews, public education and awareness campaigns, data collection, and other safety related activities. CCD envisions a year over year reduction of 1% per year reduction fatal truck crashes through the end of 2026.

Graph 1: **Oregon TAF Crash Rate**



Oregon's 2022 crash numbers reflect a sharp increase in truck-at-fault accidents with a TAF crash rate of .418 per million truck miles traveled. The rate is the highest it has been since 2017 when the TAF crash rate was .491 per million truck miles traveled. CCD works to lower this rate and identify the factors that led to an increase in TAF crashes.

CHALLENGE AREAS

Driver Behavior

As is the case throughout the country, driver behavior continues to be the primary cause of crashes. Distracted driving, speeding (for passenger vehicles as well as CMVs), and a growing proportion of new CDL holders are just some of the challenges affecting driver competence and transportation safety.

The top five CMV driver behaviors in Oregon that led to truck-at-fault crashes were speed, failing to remain in lane, following too close, inattention, and failing to yield right of way. These factors are consistently in the top five causes of truck-at-fault crashes.

Likewise, the top five driver behaviors that led to other vehicle at-fault crashes were failure to remain in lane, following too close, failing to yield right of way, failing to obey a traffic signal, and driving too fast for conditions.

Winter Weather

Oregon regularly experiences winter weather conditions that cause serious and extended interstate closures as a direct result of crashes caused by a growing number of CMV drivers who are either unaware of Oregon's chain laws or deliberately refuse to chain up. Oregon's chain laws are moving violations and enforcement action is taken when drivers fail to carry the correct number of chains for their combinations or when drivers fail to apply chains when mandatory use is posted.

Roadside Enforcement

Nationally, state and local governments have struggled to recruit law enforcement officers. Oregon has experienced the same problem. With fewer officers overall, law enforcement agencies need to be selective in which safety grant programs they participate. CCD relies on law enforcement partners to conduct CMV stops based on driving behavior. CCD compensates these agencies for all aspects of training and enforcement related to CMV traffic stops and inspections, but finding agencies willing to partner with CCD has been a struggle.

INTRODUCTION

CCD seeks to promote a safe, efficient and responsible commercial transportation industry. CCD continually develops innovative strategies to simplify regulatory processes and improve the way we do business in Oregon. Through our permitting and enforcement procedures, we help ensure that commercial vehicles traveling across our state's transportation system are compliant with all safety regulations. Our programs also help to ensure the safety and integrity of Oregon's infrastructure by protecting roads, bridges and rails from unnecessary damage and wear and tear.

Why does CCD have a Safety Action Plan?

Oregon Revised Statute 825.248 states: "The Department of Transportation shall develop an annual commercial motor vehicle safety plan. The goal of the plan is to reduce accidents involving commercial motor vehicles and to reduce injuries and fatalities resulting from accidents involving commercial motor vehicles. The priority for each year's plan shall be determined on the basis of accurate and timely data. The department shall use performance measures to determine the success of an annual plan and to develop the subsequent plan."

Our Role in Safety

CCD is the lead agency for Oregon's Commercial Motor Vehicle (CMV) Safety Program. Oregon deploys a multi-faceted program of driver and vehicle inspections, traffic enforcement, compliance reviews, public education and awareness campaigns, data collection and other safety-related activities, all aimed at reducing truck and bus crashes in Oregon.

How does CCD's SAP work with ODOT's other plans?

CCD's safety action plan (CCDSAP) is integrally connected to the Transportation Safety Action Plan (TSAP). The TSAP demonstrates Oregon's commitment to the safety of all road users. CCDSAP is the portion of the TSAP that is focused on the commercial transportation industry. Both plans focus on driver behavior in CMVs and passenger vehicles.

Oregon's Transportation Plan (OTP) and one of its primary elements the Oregon Freight Plan, define the long-range transportation policy through the year 2050 for the movement of people and goods across the state. The OTP focuses on the users and uses of the transportation system, balancing diverse needs and guiding investments, programs, and processes. It identifies a vision and actionable direction for all entities delivering transportation services including state agencies, regional and local governments, transit agencies, and more. The OTP directs the work of the Oregon Department of Transportation and was adopted by the Oregon Transportation Commission. This work directly affects the movement of freight and passengers throughout Oregon (CCD's primary customer base). These plans guide the Division's long range planning efforts around the safe transportation of freight and passengers through elements outside of CCD's direct efforts by setting goals and policies related to the maintenance and improvement of the freight transportation system around infrastructure investment, safety, and congestion.

Our People

CCD employs 40 Safety Compliance Specialists and 73 Motor Carrier Enforcement Officers (MCEOs). CCD works with law enforcement agencies to certify their officers to conduct truck inspections. These law enforcement officers conduct roadside stops based on observed behavior.

Safety Compliance Specialists are CCD's safety investigators. Their primary job functions are to conduct safety CRs, SAs, and CMV inspections.	**Motor Carrier Enforcement Officers** (MCEOs) enforce CMV size, weight, tax, and registration requirements. They are certified CMV inspectors that work at fixed and mobile scale locations.	**Law Enforcement Agencies** are contracted to conduct roadside CMV inspections based on driver behavior. These agencies are the only ones that stop CMVs on highway.

PARTNERS IN SAFETY

The Federal Motor Carrier Safety Administration (FMCSA)

The FMCSA's primary mission is to prevent commercial motor vehicle-related fatalities and injuries. FMCSA activities contribute to ensuring safety in motor carrier operations through strong enforcement of safety regulations, targeting high-risk carriers and commercial motor vehicle drivers, improving safety information systems and commercial motor vehicle technologies, strengthening commercial motor vehicle equipment and operating standards, and increasing safety awareness. FMCSA works hand-in-hand with CCD.

Industry

CCD works with industry through the Motor Carrier Transportation Advisory Committee (MCTAC), whose purpose is to confer, collaborate, advise and advocate. CCD implemented the Oregon Trusted Carrier Partner Program as a way for a company to display its commitment to excellence based on its operational history. CCD staff work with the Oregon Trucking Association and the Northwest Motorcoach Association to provide outreach.

One ODOT

CCD works with multiple groups that utilize commercial transportation services. This is a regular part of doing business in Oregon to make sure Oregon has a safe and efficient transportation system. ODOT – CCD also relies on internal ODOT partners as well. The Crash Analysis & Reporting Unit provides motor vehicle crash data through database creation, maintenance and quality assurance, information and reports, and limited database access. Our agency maintains ten years of crash data at all times. Vehicle crashes include those coded for city streets, county roads and state highways.

DMV Program Services ensures that drivers of CMVs are correctly licensed and meet federal and state qualification requirements. This a key component to the Motor Carrier Assistance Program (MCSAP).

Highway Division staff assist CCD with special enforcement operations by providing variable message signs and other safety equipment needed to work at roadside locations including weight restricted bridges. Additionally, they are partners in CCD's chain enforcement operations.

CCD continues to work closely with the Transportation Safety Division to create public education and awareness campaigns, employing various brochures and public service announcements. These efforts are directed at both CMV and non-CMV drivers. CCD staff participates in developing ODOT's Transportation Safety Action Plan. CCD staff are also represented on Oregon's Traffic Records Coordinating Committee.

SAFETY ACTION PLAN HISTORY AND DEVELOPMENTS IN SAFETY

This year's SAP focuses on crash data compiled from 2022, reports on goals and benchmarks from 2023, and lays out future goals and benchmarks for 2024 and beyond. Accurate data takes time to collect. This is especially true for crash data. CCD has been working with the DMV through a civil complaint process to ensure motor carriers submit crash reports timely. Quality data is essential to finding the best solutions to improve safety on Oregon's roadways and highways. Oregon leads the nation in the collection of CMV crash data, with data gleaned from multiple sources.

The FMCSA provides CCD with access to national crash data that is generally two years old. This allows for a comparison between Oregon and National efforts.

THE COMMERCIAL VEHICLE SAFETY PLAN AND MOTOR CARRIER SAFETY ASSISTANCE PROGRAM

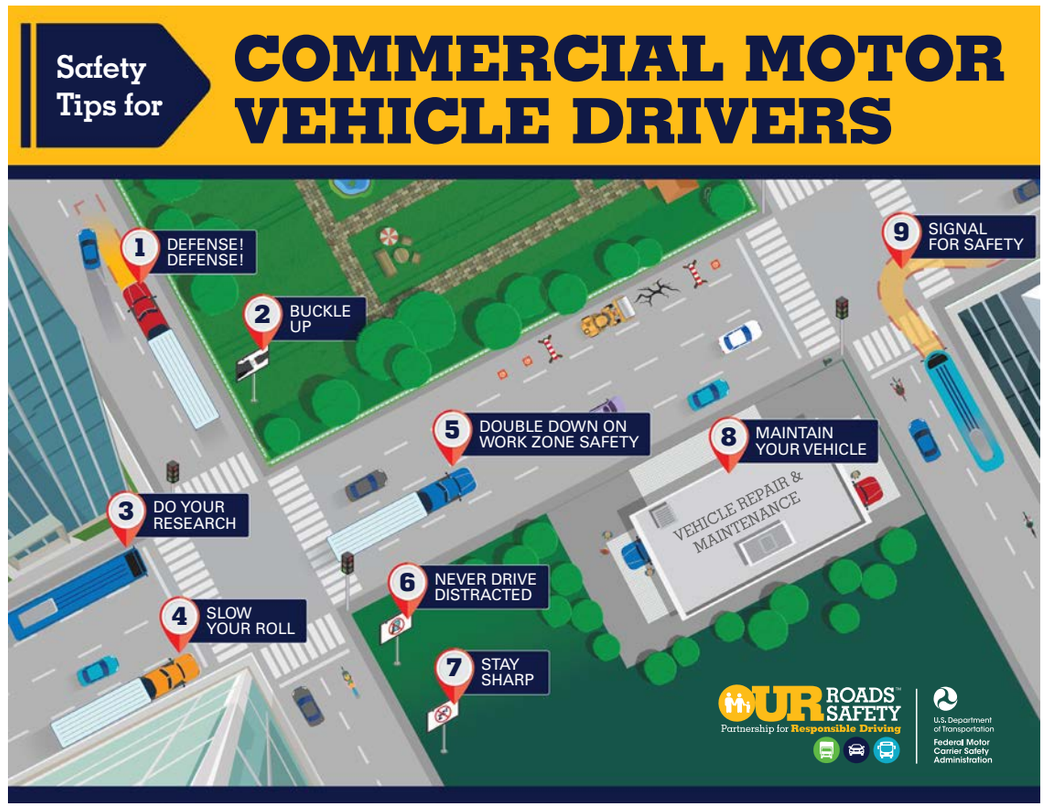
In addition to the Safety Action Plan, CCD prepares a **Commercial Vehicle Safety Plan (CVSP)** as part of the Division's Motor Carrier Safety Assistance Program (MCSAP) grant requirements. What is MCSAP? MCSAP is a Federal grant program that provides financial assistance to states to reduce the number and severity of crashes and hazardous materials incidents involving commercial motor vehicles (CMVs). The goal of MCSAP is to reduce CMV-involved crashes, fatalities and injuries through consistent, uniform and effective CMV safety programs.

MCSAP is the FMCSA's largest grant program that supports state and local law enforcement agencies to utilize over 12,000 enforcement officers to increase enforcement and safety activities nationwide.

What does MCSAP do for Oregon? Federal goals established through the CVSP program align closely with state goals and enhance National goals. The full coordination with our Federal partners through the MCSAP program provides for an exchange of data that Oregon can use to better identify crash reduction goals.

The MCSAP program also brings new regulatory requirements such as the requirement to perform Safety Audits (SAs) as part of the New Carrier Entrant Program. The New Carrier Entrant Program introduces new interstate motor carriers to Federal safety standards and regulations. When a carrier registers and receives a U.S. Department of Transportation (USDOT) number, it is a New Entrant. CCD conducts a SA within 12 months after the New Entrant begins operations. The FMCSA has promoted and established that motor carrier interventions such as SAs reduce truck accidents.

To qualify for the MCSAP, Oregon must have a CVSP. The CVSP is a breakdown of Oregon's CMV safety objectives, strategies, activities and performance measures that cover a three-year period. Think of the CVSP as Oregon's Safety Action Plan for the FMCSA. Both documents share the same safety objectives, strategies, activities and performance measures.



SAFETY BY THE NUMBERS

CCD's Safety Action Plan relies on true and accurate data. CCD receives its crash data through the ODOT Crash Analysis & Reporting Unit. This plan is based on data collected from 2013-2022, though certain data may go back further for the purpose of establishing data trends.

UNDERSTANDING CRASH DATA

By regulation, motor carriers are required to report fatal crashes as soon as possible. However, they have 30 days to report non-fatal crashes. Despite Oregon's legal mandates, many carriers take months to report crashes. Oregon maintains an exemplary CMV crash database. However, this database is only as accurate, complete and timely as the crash reports submitted by motor carriers, commercial and noncommercial drivers, and law enforcement agencies..

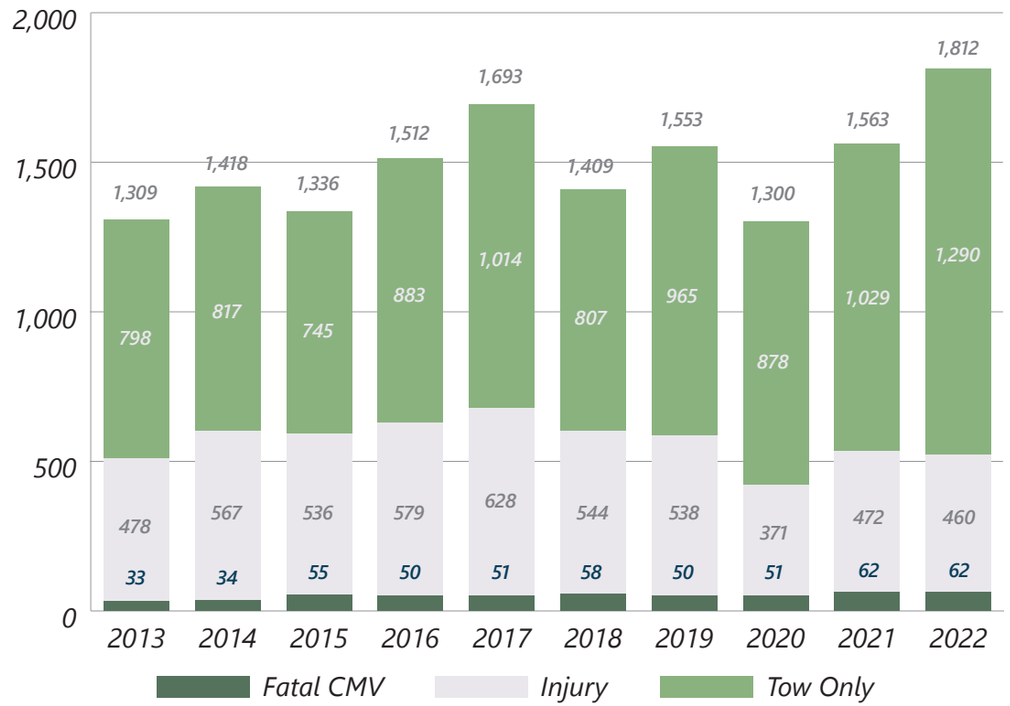
What is a crash?

Truck crash totals include incidents involving a fatality, injury requiring treatment away from the scene or disabling damage requiring a vehicle to be towed from the scene.

Crash Outcomes:

- The same number of fatal CMV crashes occurred in 2021 and 2022 (62), however the rate of fatal crashes increased due to fewer CMV miles traveled.
- Oregon's crash involvement rate (Crashes resulting in injuries or fatalities) increased slightly from .251 per million miles traveled to .252 per million miles traveled.
- 2022 reflects a 2.7% decrease in heavy truck traffic, while all-vehicle traffic remained steady with a reduction of .73%. The decrease in traffic volume has resulted in a truck at-fault rate that has increased over 19%. This is a substantial increase from previous years.

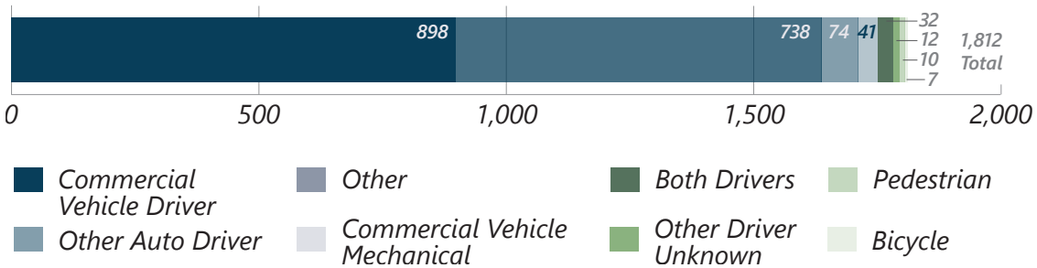
Figure 2: **Outcomes: CMV Involved Crashes**



CAUSATION AND AT-FAULT: TRUCK VS. CAR

Automobile drivers were at-fault in 40% of the crashes involving a CMV in 2022. This represents a downward trend from its high point during COVID-19 in 2020, when automobile drivers were at-fault in the majority of crashes. During the COVID-19 pandemic in 2020, Oregon highways experienced lower traffic volumes and automobiles averaged higher speeds. Speeding is perennially one of the major causes of crashes.

Figure 3: **2021 At-Fault Crashes**



CRASH HISTORY

CCD tracks multiple categories of crashes involving CMVs. This allows Division staff to concentrate efforts where needed.

- Truck crashes are more likely to result in lane closures. This is a function of the size and function of commercial vehicles. An overturned or jackknifed truck trailer can block many more lanes than a normal passenger vehicle. Moreover, if a truck's cargo spills, this can also spread over a larger area and close more lanes.
- Truck crashes close off roadways for a longer duration than non-truck crashes. This is a function of both the added lane closings, the need to clean up spilled cargo (and occasionally hazardous waste), and the added difficulty of clearing a larger vehicle and often its trailer from the roadway.
- Over 12% of Oregon's 2022 crash fatalities involved a CMV. This is an increase of 3% over 2021. The majority of reportable crashes involve tractor/semi-trailer combinations. Of those reportable crashes, the majority of injuries and fatalities also involve tractor/semi-trailer combinations. CCD breaks down crash monitoring into combination-specific categories and allows CCD to focus efforts where needed.

Figure 4: **Reportable Crash Outcomes by Configuration**

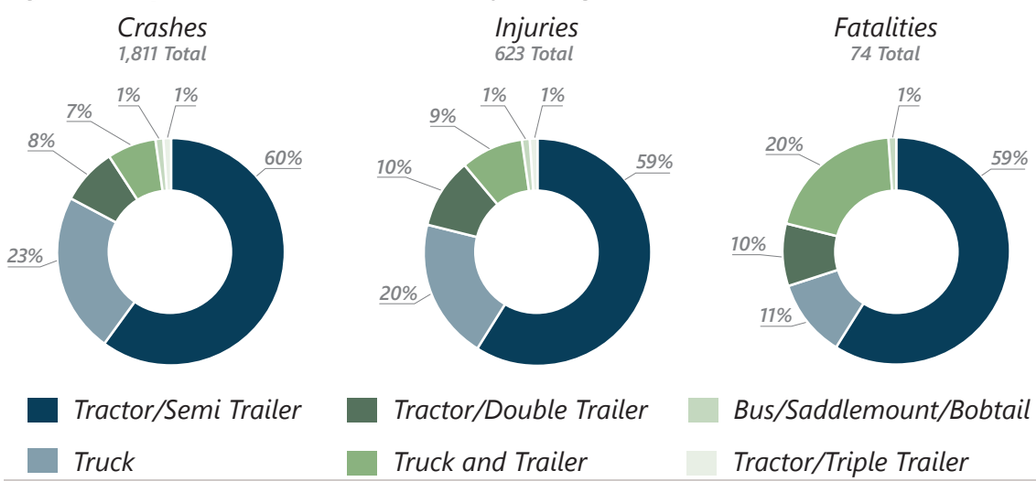


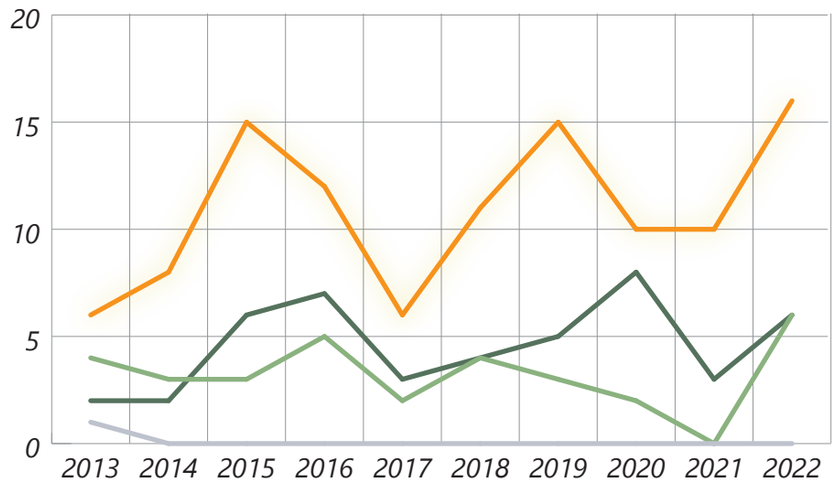
Table 1: **Crash History 2012-2021**

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Truck Crashes	1,309	1,418	1,336	1,512	1,693	1,409	1,553	1,300	1,566	1,812
Injuries	478	567	536	579	628	544	538	371	472	623
Deaths	33	34	55	50	51	58	50	51	65	74
Hazmat Crashes	21	38	28	36	33	26	36	31	31	31
Hazmat Spill/ Release	3	6	4	11	7	2	4	5	5	4
Other Load Spills	47	79	66	59	72	55	56	39	37	45
Oregon Carrier Crashes	709	733	710	817	850	786	806	679	806	910
Foreign Carrier Crashes	600	685	626	695	843	623	747	621	760	902
Single Vehicle Crashes	308	337	337	391	470	322	357	328	360	475
Single Vehicle Crashes	330	308	337	337	391	470	322	357	328	360

Triple-Trailer Combinations are only permitted in Arizona, Colorado, Idaho, Indiana, Kansas, Montana, Nebraska, Nevada, North Dakota, Oklahoma, Oregon, South Dakota and Utah. CCD monitors triple-trailer combinations as part of an on-going effort to make sure that the combination remains safe to operate on Oregon highways.

Historically, triple-trailer combinations have maintained a consistent safety record. Unfortunately, the 16 triple-trailer crashes in 2022 are the most in over a decade. The crash rate of .523 crashes per million miles is the second highest crash rate in ten years, falling just short of the .558 crash rate in 2019.

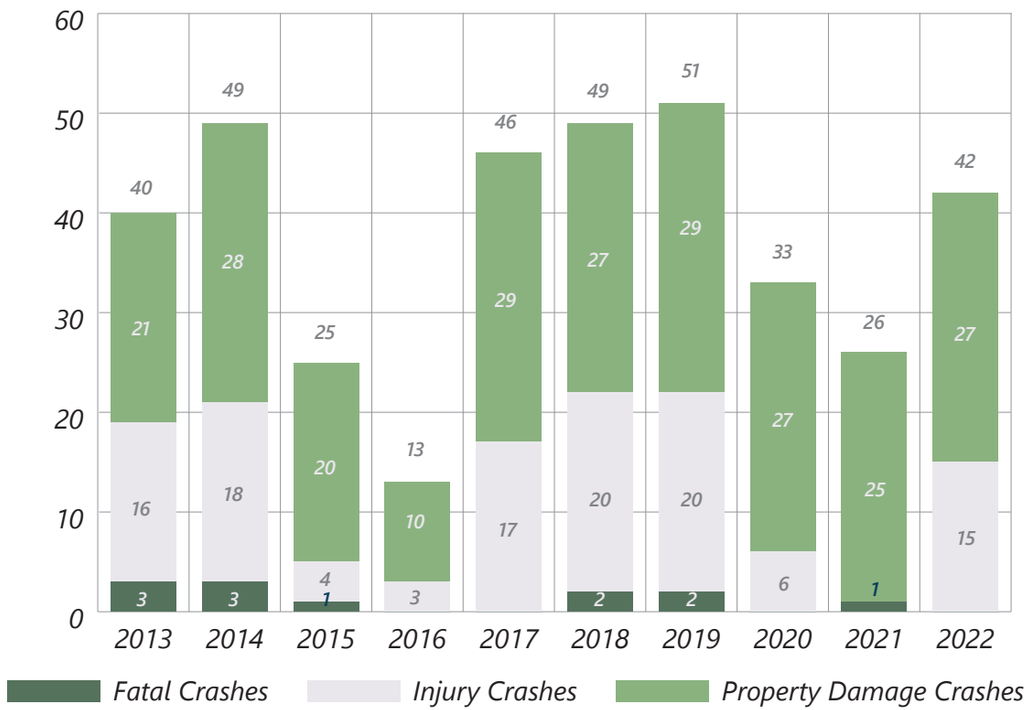
Figure 5: **Triple Trailer Combination Details**



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Total Crashes	6	8	15	12	6	11	15	10	10	16
TAF Crashes	2	2	6	7	3	4	5	8	3	6
Injuries	4	3	3	5	2	4	3	2	0	6
Deaths	1	0	0	0	0	0	0	0	0	0

Heavy Farm Trucks with Oregon "F-Plates" F-Plates" were involved in 42 crashes in 2022. This represents 2% of the total CMV crashes in Oregon.

Graph 6: **Farm Plated Truck Crashes**

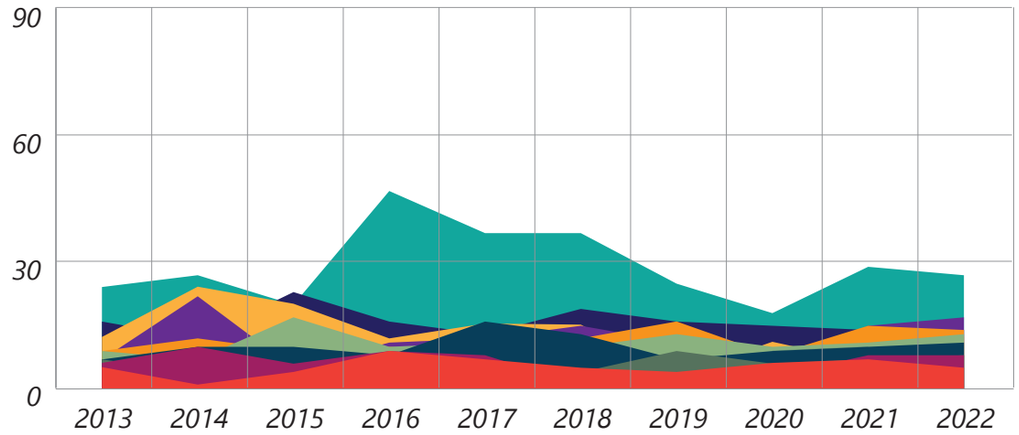


Safety officials focus enforcement efforts on 268 road miles in 10 parts of the State that are plagued by crashes.

Driver behavior mixed with high traffic density can lead to high crash rates. For this reason, CCD works with law enforcement partners to concentrate their inspection efforts on probable-cause roadside stops in **"Truck Safety Corridors."**

I-5 between Tualatin and the Marquam Bridge continues to be the truck safety corridor with the most crashes. This corridor has almost twice the number of CMV crashes than the next closest corridor.

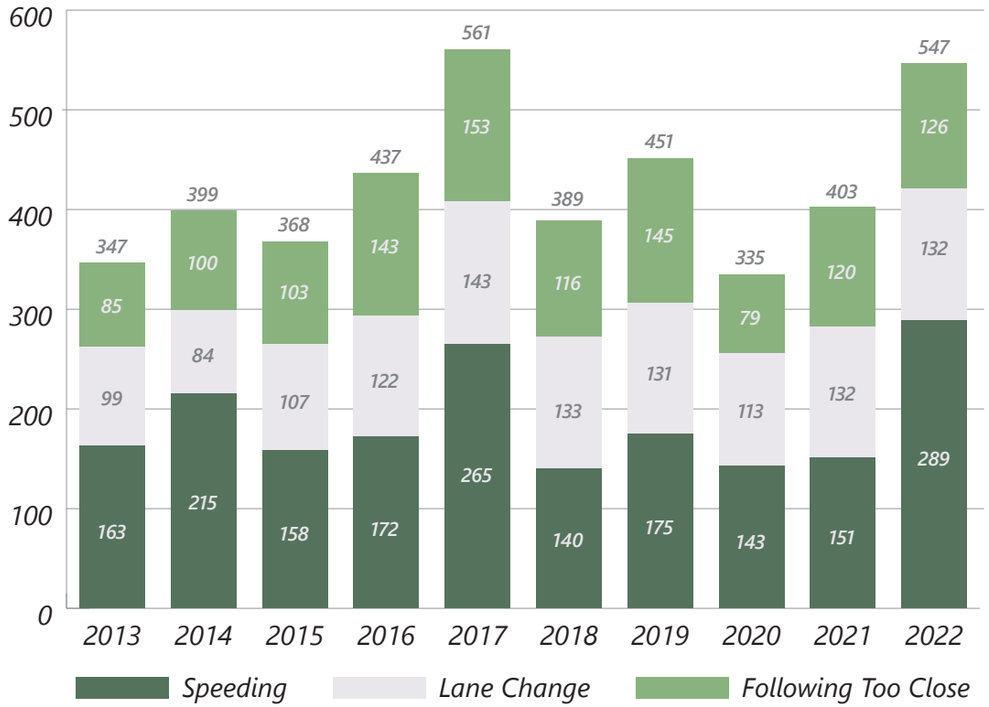
Driver behavior mixed with high traffic density can lead to high crash rates. For this reason, CCD works with law enforcement partners to concentrate efforts on probable-cause roadside stops.



Graph 7: **Truck Safety Corridor Crashes**

Siskiyou Summit: *I-5, MP 2 thru 9*	7	10	10	8	16	13	7	9	10	11
Weaver to Roberts Mt: *I-5, MP 108 through 117*	7	4	4	5	5	4	9	6	7	8
Salem: *I-5, MP 252 thru 260*	9	7	17	10	11	10	13	10	11	13
Tualatin to Portland Marquam Bridge: *I-5, MP 289 thru 300*	24	27	20	47	37	37	25	18	29	27
West Linn to Clackamas: *I-205, MP 8-14*	16	12	23	16	13	19	16	15	14	14
Emigrant Hill (Cabbage Hill): *I-84, MP 219 thru 278*	7	22	5	11	12	15	11	5	15	17
Ladd Canyon: *I-84, MP 270 thru 278*	6	10	6	9	8	1	4	3	8	8
Nelson Point to Weatherby: *I-84 MP 331 thru 340*	5	1	4	9	7	5	4	6	7	5
Eugene: *I-5, MP 180 thru 199*	9	12	9	10	9	12	16	8	15	14
Terrebonne to Wasco: *US97, MP 110-9*	12	24	20	12	15	15	3	11	6	12

Graph 8: **Crashes Based on Driver Behavior**



Driver Behavior is the leading cause of truck-at-fault crashes in Oregon. The same three behaviors are perennially at the top of the list: speeding, failing to remain in lane, and following too close.

There were an additional 151 truck-at-fault crashes in 2022. Of those additional crashes, 138 were speed related.

CCD focuses its efforts on addressing driver behavior to facilitate change.

Table 2: **Crash Causation Table**

	1st	2nd	3rd	4th	5th
2012	Speed	Failing to remain in lane	Following too close	Fail to yield	Inattention
2013	Speed	Failing to remain in lane	Following too close	Fail to yield	Improper lane change
2014	Speed	Following too close	Failing to remain in lane	Improper Turn	Failure to yield
2015	Speed	Failing to remain in lane	Following too close	Fail to yield	Improper turn
2016	Speed	Following too close	Failing to remain in lane	Improper lane change	Failure to yield
2017	Speed	Following too close	Failing to remain in lane	Fail to yield	Inattention
2018	Speed	Following too close	Failing to remain in lane	Inattention	Failure to yield
2019	Speed	Following too close	Failing to remain in lane	Fail to yield	Inattention
2020	Speed	Failing to remain in lane	Following too close	Improper Lane Change	Failure to yield
2021	Speed	Failing to remain in lane	Following too close	Inattention	Failure to yield
2022	Speed	Failing to remain in lane	Following too close	Inattention	Improper Lane Change

EMPHASIS AREAS

INSPECTIONS

What makes an inspection?

There are six levels of inspections that may be performed by Oregon Department of Transportation inspectors.

- **LEVEL 1:** The most thorough driver/vehicle inspection is a 37-step procedure that includes a check of the driver's license and endorsements, medical examiner's certificate, possible use of alcohol and drugs, hours of service, seat belt, annual vehicle inspection report, brakes, coupling devices, exhaust, frame, fuel system, turn signals, lights, lamps on loads, load securement, steering, suspension, tires, trailer bodies, wheels and rims, wipers, emergency exits on buses, and hazardous materials requirements, as applicable.
- **LEVEL 2:** A "walk-around" inspection that includes a check of each of the items in a Level 1 inspection, but not items that require the inspector to physically get under the truck.
- **LEVEL 3:** An inspection of just the driver-related items in a Level 1 inspection.
- **LEVEL 4:** A special inspection, typically a one-time examination of a particular item for a safety study, or to verify or refute a suspected trend.
- **LEVEL 5:** An inspection of just the truck-related items in a Level 1 inspection.
- **LEVEL 6:** An inspection for select radiological shipments which include inspection procedures, enhancements to the Level 1 inspection, radiological requirements, and the out-of-service criteria for transuranic waste and highway route controlled quantities of radioactive material.

CCD utilizes several compliance tools to meet the Division's goal of reducing truck-at-fault crashes by 1%.

Safety Inspection Decals

Vehicles that pass a Level 1 or Level 5 inspection receive a Commercial Vehicle Safety Alliance (CVSA) decal valid for three consecutive months. Vehicles displaying a decal generally will not be subject to another inspection in that three-month period. A vehicle qualifies for a decal if the inspection reveals no defects in the brake system, coupling devices, exhaust system, frame, fuel system, turn signals, brake lamps, lamps on the tail, head, and projecting loads, load securement, tires, suspension, mechanism, wheels and rims, van and open-top trailer bodies, windshield wipers, and emergency exits for buses.

CVSA decals have a large number at the top that indicates the year of the inspection. For example, inspections from 2020 displayed a "0" on their decals. The decal color indicates which quarter the inspection took place.

First Quarter
Green

Second Quarter
Yellow

Third Quarter
Orange

Fourth Quarter
White

The upper corners of the decal indicate the month of the inspection. Decals issued in the first month of a quarter have both upper corners removed. Decals issued in the second month of the quarter have the upper right corner removed. Decals issued in the last month of a quarter have no corners removed.

The North American Standard **Out-of-Service Criteria (OOS)** is the pass-fail criteria for inspections. The North American Standard Out-of-Service Criteria identifies critical vehicle inspection items and details the criteria that can prohibit a motor carrier or driver from operating a commercial motor vehicle for a specified period of time or until the condition is corrected.

The CVSA is an organization of federal, state and provincial government agencies working with the private industry in the United States, Canada and Mexico to establish uniform safety inspection standards and practices. Certified government employees who successfully complete approved training programs perform inspections according to CVSA standards.

ADDRESSING DRIVER BEHAVIOR THROUGH INSPECTIONS AND TRAFFIC ENFORCEMENT

Crash reduction remains CCD's primary focus. To achieve that goal, CCD works with local law enforcement to reduce truck-at-fault crashes by identifying and focusing on unsafe CMV driver behaviors that cause truck crashes in high-crash locations and conducting truck/driver inspections. CCD is also committed to tracking traffic stops, citations and warnings issued for violations such as speeding, following too close and improper lane change.

AMERICAN ECONOMY

U.S. Department of Transportation
Office of Public Affairs
Washington, D.C.
www.dot.gov/affairs/briefing.htm

FMCSA 02-06
Thursday, March 23, 2006

NEWS

New Study Concludes Driver Behavior Causes Most Truck Crashes

WASHINGTON - Drivers of large trucks and other vehicles involved in truck crashes are ten times more likely to be the cause of the crash than other factors, such as weather, road conditions, and vehicle performance according to a new study released by the Federal Motor Carrier Safety Administration (FMCSA).

The *Large Truck Crash Causation Study* was commissioned by FMCSA to review the causes of, and contributing factors to, crashes involving commercial motor vehicles. While previous data focused on specific crashes and/or individual causes of crashes, this study was the first nationwide examination of all pre-crash factors.

"This study makes it clear that we need to spend more time addressing driver behavior, as well as making sure trucks and buses are fit for the road," FMCSA Administrator Annette M. Sandberg said. . .

The FMCSA last conducted a large truck crash causation study in 2006. That causation study concluded:

"An action or inaction by the drivers of the truck or the other vehicles involved were important reasons leading to crashes in a large majority of the cases. Driver recognition and decision errors were the type of driver mistakes coded by crash investigators or law enforcement officials most often for trucks and passenger vehicles. Truck drivers, however, were coded less frequently for both driving performance errors and nonperformance problems (e.g., asleep, sick, incapacitated) than passenger vehicle drivers. In crashes between trucks and passenger vehicles, driving too fast for conditions and fatigue were important factors cited for both drivers. However, fatigue was coded twice as often for passenger vehicle drivers and speeding more often for truck drivers."

While this study took place over 15 years ago, a recent study, **"Predicting Truck Crash Involvement: 2022 Update,"** conducted by the American Transportation Research Institute (ATRI) found some interesting correlations between driver behavior and crashes that support the earlier FMCSA crash causation study:

- "Failure to Yield Right-of-Way" violations had the largest impact on future crash involvement. Drivers with a Failure to Yield Right-of-Way violation were 141% more likely to be involved in a crash. Failure to Signal violations were also associated with a significant increase in future crash probability, increasing crash likelihood by 116%. Eight other violation categories

Table 3: **Driver Behavior and Associated Increase in Future Crash Probability**

Rank	2005	2011	2018	2022
1	Reckless Driving violation *(325%)*	Failure to Use/Improper Signal conviction *(96%)*	Reckless Driving violation *(114%)*	A Failure to Yield Right-of-Way violation *(141%)*
2	Improper Turn violation *(105%)*	Past Crash *(88%)*	Failure to Yield Right of Way violation *(101%)*	Failure to Use/Improper Signal conviction *(116%)*
3	Improper or Erratic Lane Change conviction *(100%)*	Improper Passing violation *(88%)*	Failure to Keep in Proper Lane conviction *(83%)*	Past Crash *(113%)*
4	Failure to Yield Right-of-Way conviction *(97%)*	Improper Turn conviction *(84%)*	Failure to Use/Improper Signal conviction *(82%)*	Reckless Driving violation *(104%)*
5	Improper Turn conviction *(94%)*	Improper or Erratic Lane Change conviction *(80%)*	Past Crash *(74%)*	Failure to Obey Traffic Sign conviction *(85%)*
6	Failure to Keep in Proper Lane conviction *(91%)*	Improper Lane/Location conviction *(68%)*	Improper Lane/Location conviction *(72%)*	Failure to Keep in Proper Lane conviction *(78%)*
7	Past Crash *(87%)*	Failure to Obey Traffic Sign conviction *(68%)*	Improper Pass conviction *(70%)*	Improper or Erratic Lane Change conviction *(77%)*
8	Improper Lane Change violation *(78%)*	Speeding More Than 15 Miles over Speed Limit conviction *(67%)*	Reckless/Careless/ Inattentive/Negligent Driving conviction *(69%)*	Reckless/Careless/ Inattentive/Negligent Driving conviction *(62%)*
9	Failure to Yield Right-of-Way violation *(70%)*	Any conviction *(65%)*	Improper or Erratic Lane Change conviction *(66%)*	Improper Lane/Location conviction *(61%)*
10	Driving Too Fast for Conditions conviction *(62%)*	Reckless/Careless/ Inattentive/Negligent Driving conviction *(64%)*	Improper Lane Change violation *(63%)*	Failure to Obey Traffic Signal/Light conviction *(55%)*

In Top 10 in 4 ATRI Crash Predicator Models *In Top 10 in 3 ATRI Crash Predicator Models*

had a statistically significant relationship with future crashes. Five of the remaining violation categories increased future crash probability by 77% to 113%, and the remaining three violation categories increased crash probability by 55% to 62%."

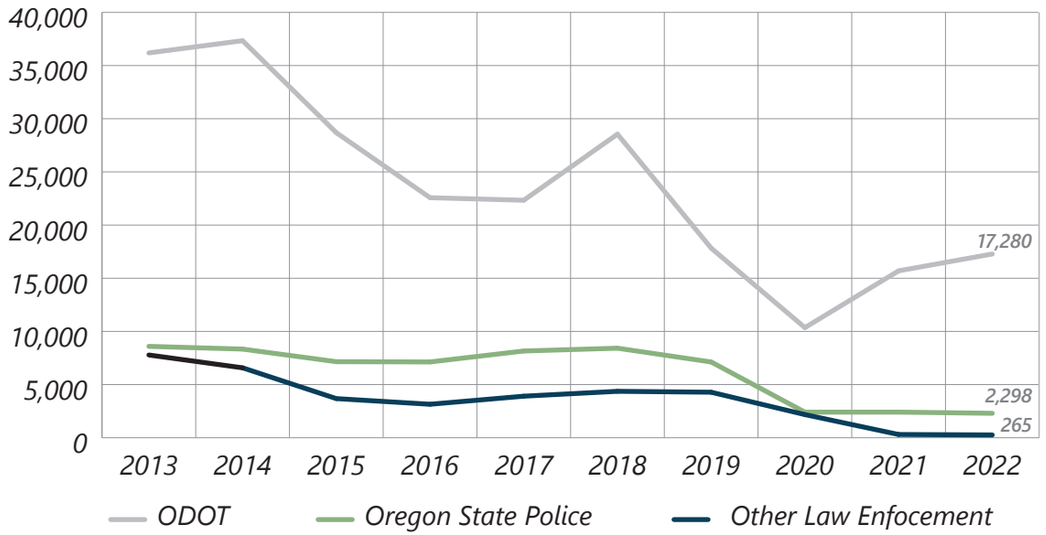
Failure to Yield Right-of-Way, Failure to Use / Improper Signal, and Reckless Driving violations were strong indicators of future crash likelihood. All three increased crash likelihood by more than 100 percent. Comparing findings from the 2018 Crash Predictor report to this year's analysis:

- A Failure to Yield Right-of-Way violation increased crash likelihood by 141 percent, a 39.6 percent increase from 2018 to 2022;
- A Failure to Use / Improper Signal conviction increased crash likelihood by 116 percent, a 41.5 percent increase from 2018 to 2022; and
- Reckless Driving violation increased crash likelihood by 104 percent, an 8.8 percent decrease from 2018 to 2022.

Inspections of trucks and drivers at weigh stations, destination locations, roadside locations and terminals are some of the enforcement tools used to reduce crashes, particularly those caused directly or indirectly by driver fatigue.

Graph 9 demonstrates one of CCD's challenges in conducting inspections. The graph shows inspections completed by law enforcement officers based on probable cause stops. Law enforcement agencies continue to face budget shortfalls and competing priorities. In 2019, CCD had 25 law enforcement partners (including OSP) that had certified inspectors. In 2020, that number dropped to 15. Additionally, the FMCSA in partnership with CVSA changed inspector certification requirements. The result of that change was the decertification of hundreds of OSP troopers. With new certification requirements and more demands of OSP troopers, only a handful of certified troopers remain. CCD continues to focus on recruiting more law enforcement partners and as of the beginning of 2023, CCD has seven active compensated law enforcement partners.

Graph 9: **Law Enforcement Inspections**



SAFETY THROUGH NEW CARRIER ENTRANT SAFETY AUDITS

Interstate motor carriers must undergo a New Entrant Safety Audit (SA) within the first 12 months of their operations to complete the New Entrant Program. An SA is a review of a motor carrier's records designed to verify that a carrier has basic safety management controls in place to ensure compliance with applicable Federal Motor Carrier Safety Regulations (FMCSRs), Hazardous Materials Regulations (HMRs) and related record-keeping requirements.

FMCSA-certified investigators conduct audits at the carrier's place of business, or electronically, with motor carriers submitting relevant documents to investigators online or via mail or fax. During the SA, carriers submit documentation that verifies that they have established effective safety management controls. Investigators may request documents related to drivers and vehicles, as well as general operating procedures and record-keeping requirements. Egregious violations may result in a failed SA.

What happens when a carrier passes or fails a Safety Audit (SA)?

Once the SA is complete, the investigator will review the findings with the carrier. Within 45 days, the carrier will receive written notification from FMCSA confirming that they have passed or failed.

The carrier's safety performance will continue to be closely monitored for the remainder of the 18-month New Entrant period. If no subsequent safety problems are found, the carrier will be granted permanent operating authority and continue to be monitored under the FMCSA's Compliance, Safety, and Accountability (CSA) program.

The investigator will provide the carrier written documentation detailing the violations that caused the carrier to fail and the requirements for developing a Corrective Action Plan (CAP). The CAP must explain the actions the carrier will take to address the violations identified. CAPs must be submitted to the FMCSA Service Center within the number of days specified on the failure notification. Failure to either submit a CAP or implement the corrective actions will result in loss of FMCSA registration (Federal Out-of-Service).

SAFETY THROUGH COMPREHENSIVE COMPLIANCE REVIEWS

CCD investigators conduct **Comprehensive Compliance Reviews (CR)** on Oregon-based motor carriers. Similar to an SA, a CR is a review of a motor carrier's records to verify that a carrier has basic safety management controls in place. However, a CR is a much more in-depth look.

A CR looks at a motor carrier's entire operation and is broken down to six factors:

- **Factor One – General:** A review of general motor carrier requirements including financial responsibility, false statements, and crash reporting / recordkeeping requirements, and vehicle marking.
- **Factor Two – Driver:** A review of driver qualifications, drug and alcohol testing and documentation, motor vehicle records and licensing; driver file completeness, medical qualification, road tests; and all driving suspensions/ revocations documentation.
- **Factor Three – Operational:** Encompasses a motor carrier's operations, including adherence to hours-of-service regulations and violations that occur on highway (possession of alcohol, texting, speeding, etc.).
- **Factor Four – Vehicle:** Looks to make sure inspection and maintenance records are current and accurate; vehicle files exist and are accurate; a recurring maintenance program exists and is enforced; driver vehicle inspections are conducted and documented; violations and out-of-service records are documented; and that the motor carrier has qualified technicians for vehicle maintenance.
- **Factor Five – Hazardous Materials:** This factor only applies to motor carriers that transport hazardous materials. It is a review of compliance with hazardous materials regulations regarding hazmat security permits, shipping records maintenance and accuracy, and driver training.
- **Factor Six – Accidents:** This is a rate calculated per million miles and compared to industry average.

Investigators critique reviews and work with motor carriers on the **Safety Management Cycle (SMC).** The SMC is a tool used by the Federal Motor Carrier Safety Administration (FMCSA) to help identify and address motor carrier safety and compliance issues. Motor

carriers can also use the SMC within their own businesses to determine which of the Safety Management Processes (SMPs) they may need to improve by looking at the processes, management and controls associated with each SMP.

The SMC is used to systematically assess SMPs in six areas: 1. Policies and Procedures, 2. Roles and Responsibilities, 3. Qualification and Hiring, 4. Training and Communication, 5. Monitoring and Tracking, and 6. Meaningful Action. By periodically reviewing each process, there is an opportunity to identify and correct breakdowns in SMPs before safety and compliance issues are identified or crashes occur. The SMC can also be used after safety and compliance issues or crashes have taken place to assist in determining which SMPs need attention.

The SMCs for each BASIC can be found in the Information Center on the SMS Website at **http://ai.fmcsa.dot.gov/sms**.

The Safety Management Cycle, or SMC, consists of the six Safety Management Processes outlined in the graphic above.

Based on the cumulative score in each factor, a motor carrier will be assigned a **Safety Rating** by the FMCSA:

- **Satisfactory:** A Satisfactory rating means that a motor carrier has in place functioning and satisfactory safety management controls to meet safety fitness standards. Safety management controls are adequate.
- **Conditional:** This rating means a motor carrier does not have adequate safety management controls in place to ensure compliance with safety fitness standards.
- **Unsatisfactory:** An unsatisfactory rating means a motor carrier doesn't have adequate safety management controls in place to ensure compliance with safety fitness standards and may end up under a Federal Out-of-Service determination from the FMCSA. If placed out-of-service by FMCSA, the motor carrier won't be allowed to operate.

In addition to the safety rating issued by the FMCSA, CCD may take civil enforcement actions on violations deemed serious in nature. Civil penalties may include findings, monetary penalties, and suspension or revocation of authority to operate in Oregon.

Over the last couple years, CCD engaged in a CR Process Project aimed at streamlining investigations in such a way as to positively impact customers while increasing CCD's capacity to conduct more investigations with existing personnel. Staff focused on "thinking outside the box" and questioning assumptions while taking a detailed look at all investigational procedures and evaluating ways technology could make the process easier and faster. One unexpected side discovery revealed that some web-based tools developed by FMCSA could also be incorporated to facilitate the electronic collection and recording of basic carrier program information before any face-to-face meetings took place. The overall project eventually resulted in transforming a previously manual, hard-copy process into a fully electronic one from the first point of contact to the culmination of the investigation. The end result sped up all steps in the process to some degree and produced the added bonus of eliminating the time and expense previously devoted to mailing investigations all across the state to Lead Workers, Managers and the Complaint Resolution Department.

THE CIEM MODEL SAFETY AUDITS AND COMPLIANCE REVIEWS

The Carrier Intervention Effectiveness Model (CIEM) provides ODOT and the FMCSA with a tool for measuring the safety benefits of carrier interventions conducted under the Compliance, Safety, Accountability (CSA) enforcement program (SAs and CRs). The new enforcement program was designed to improve the level of safety in the operation of commercial motor vehicles. The CIEM incorporates both CR and additional intervention types when assessing safety benefits. Additional intervention types include warning letters, off-site investigations, on-site focused investigations, and on-site comprehensive investigations.

The Model incorporates statistical significance testing and considers only size group changes in crash rates that are statistically significant. Statistically significant results, measured in terms of crashes prevented, injuries prevented, and lives saved are then extrapolated to incorporate carriers that received interventions but were not included in the initial model calculations due to missing or inaccurate data. Overall, the set of FMCSA intervention types specified in the model are shown to have reduced motor carrier crash rates in FY 2016 (as in prior years). Consistent with prior years' results, crash rate reductions are generally more pronounced for the smaller carrier size groups.

Table 4: **Net percent reductions in crash rates after a carrier received an intervention:**[1]

By Carrier Size Group	FY 2014	FY 2015	FY 2016
1 (1-5 power units)	47.0%	53.4%	47.7%
2 (6-20 power units)	35.5%	37.2%	34.5%
3 (21-100 power units)	20.9%	22.4%	19.2%
4 (100+ power units)	0.2%*	1.2%*	1.1%*

Note: Negative crash rate reductions indicate increases in crash rates.
*Non-statistically significant net reductions.

SAFETY THROUGH TECHNOLOGY

The **PRISM** (Performance and Registration Information Systems Management) program encompasses two major processes, registration and enforcement, which are integrated to identify motor carriers and hold them responsible for the safety of their operations. The performance of unsafe carriers is improved through a comprehensive system of identifications, education, data gathering, safety monitoring, and treatment.

Oregon became a PRISM state beginning with the 2021 Federal Fiscal Year. The PRISM program is a cooperative federal and state safety program developed to reduce commercial vehicle accidents. PRISM utilizes the commercial vehicle registration process of the states to improve motor carrier safety in two ways:

- By determining the safety fitness of the motor carrier prior to issuing license plates; and
- By motivating the carrier to improve its safety performance through either an improvement process or the application of registration sanctions.

The source of PRISM motor carrier data is the FMCSA Headquarters' MCMIS database. The MCMIS database contains records for over three million entities, both active and inactive. Entities include motor carriers, hazardous material carriers, shippers, entities that are a carrier and a shipper, intermodal equipment providers, and brokers. SAFETYNET is a program that allows states to enter information concerning enforcement actions, accidents and inspections of motor carrier vehicles. This information is transmitted to FMCSA and used to update the accident, law enforcement and inspections files. FMCSA uses information from these files to update the MCMIS database.

1 "FMCSA Safety Program Effectiveness Measurement: Carrier Intervention Effectiveness Model (CIEM), Version 1.2 Report for (FY) 2016 Interventions", October 2020.

REDUCING TRUCK CRASHES IS OUR GOAL

2024 PROBLEMS, OBJECTIVES, AND PERFORMANCE MEASUREMENTS

Crash Reduction – Chain/Traction Device Enforcement

Problem Statement

Extreme Weather: Weather conditions vary from year to year. In bad weather years, Oregon experiences increased numbers of crashes, particularly at the higher elevations of I-5 and I-84. The impact of climate change may increase the frequency and severity of extreme and hazardous road conditions. To decrease crashes caused by bad weather (one of the main causes of CMV-involved crashes in Oregon), chain enforcement operations will take place during every major storm.

Performance Objective

To decrease crashes caused by bad weather (one of the main causes of CMV-involved crashes in Oregon), chain enforcement operations will take place during every major storm.

2024 Performance Measurement

ODOT Motor Carrier Enforcement Officers will conduct enforcement operations and record violations and take enforcement actions when drivers are operating without the proper number of chains required for their configurations. Officers will assist our Highway partners in keeping trucks moving to prevent backups at chain-up area chokepoints which pose serious dangers to approaching traffic.

Progress Update from 2023

CCD Motor Carrier Enforcement Officers devoted over 668 staff hours conducting chain enforcement operations.

7,246 trucks were checked for chain/traction device compliance. This resulted in 787 enforcement actions.

CCD's Complaint Resolution unit issued 104 Level 1 (first complaint) civil complaint notices to motor carriers with multiple drivers in violation of Oregon chain laws. The unit also issued 19 Level 2 complaints (second complaint within a year of the first) against motor carrier's whose drivers again operated in Oregon in violation of the state's chain laws. Oregon will continue to issue civil penalties to companies that fail to require their drivers to carry or use chains when posted.

Crash Reduction – Driver Behavior

Problem Statement

As is the case across most of the country, Oregon has been experiencing escalating levels of truck crashes and fatalities post covid. Driver behavior continues to be the overwhelming reason.

Performance Objective

Reduce CMV crashes through state-wide Special Hours of Service Operations that focus on Level 3 driver inspections while law enforcement partners perform inspections in high crash corridors.

2024 Performance Measurement

In addition to performing day to day inspections, special Hours of Service Operations will be conducted each year, running for 5 to 6 consecutive days each, involving 20 to 30 of the State's top inspectors working around the clock staffing alternating weigh-stations in 13 key locations. Oregon State Police and local law enforcement agencies will be invited to join these operations.

Progress Update from 2023

Oregon met its goal of conducting a total of five special hours of service operations in FFY 2023. Two thousand, seven hundred and one (2,701) drivers were inspected and six hundred (600) of those were placed OOS, resulting in a 22% driver out of service rate. Oregon's overall average DOOS rate for all inspections performed statewide in FFY2023 stands at 17.94%.

Oregon's law enforcement partners completed 1503 compensated inspections in high visibility / high-risk locations and corridors and 211 non-compensated inspections. While exceeding the total number law enforcement inspections forecasted, the relatively small overall number of inspections reflects the lack of available law enforcement resources

Inspections

Problem Statement

Driver behavior continues to be the number one cause of truck at fault crashes. Oregon maintains a constant focus on that element during all Level I, II, and III inspection.

Performance Objective

To maintain a robust roadside inspection program that combines the efforts of ODOT CCD Safety and Motor Carrier Enforcement Officers along with Law Enforcement partners throughout the state.

2024 Performance Measurement

Oregon CCD inspection objectives are to complete the following numbers of inspections in FFY 2024:

- 4,510 Level I inspections
- 6,705 Level II inspections
- 11,616 Level III inspections
- 217 Level V inspections

Progress Update from 2023

Oregon's inspection numbers for FFY 2023 reflect that the State exceeded all annual inspection goals.

- 4,685 Level I (147% of goal)
- 6,900 Level II (112% of goal)
- 11,464 Level III (163% of goal)
- 293 Level V (139% of goal)

Roadside Inspections – Traffic Stops Based on Driver Behavior

Problem Statement

Oregon law enforcement agencies were not previously compensated via the MCSAP program. Nevertheless, 404 officers across the state were conducting CMV probable cause traffic enforcement stops accompanied by inspections prior to FFY2021. Due to the budget and staffing shortfalls that all Oregon agencies have been experiencing over the last couple years, only 41 law enforcement officers are currently conducting traffic enforcement with inspections. Law enforcement numbers are also subject to change based on how quickly officers can attend training and become re-certified.

Performance Objective

To maintain a robust traffic enforcement inspection program that combines the efforts of multiple Law Enforcement partners throughout the state.

2024 Performance Measurement

825 inspections by MCSAP compensated law enforcement partners in high visibility, high risk corridors, and 2000 inspections by other non-compensated law enforcement partners.

Progress Update from 2023

1,503 inspections were completed by MCSAP compensated law enforcement partners in high visibility, high risk corridors, and 211 inspections were completed by other non-compensated law enforcement partners.

Oregon did exceed the total inspection number goal.

Recruiting law enforcement agencies to participate in CCD's inspection program continues to be difficult.

Investigations – Comprehensive Compliance Reviews

Problem Statement

Oregon's investigational capacity has been severely impacted in recent years by a wave of retirements which caused the Division to lose many veteran investigators and required remaining investigators to take a great deal of time away from their own work to train new employees. While still rebuilding, we have now filled our current openings and are intensely training new hires. As a result, Oregon is increasing its 2024 interstate investigation goal by 20% over 2023's projections and will continue raising the goal by an additional 20% for 2025. Further retirements are on the horizon as 30% of ODOT's workforce is eligible for retirement. This may make these goals too aggressive, but the state has always believed in the primacy of these investigations and will work to do as many as possible.

Performance Objective

Oregon's objective is to complete 252 interstate and 30 intrastate compliance investigations during FFY2024.

2024 Performance Measurement

Oregon has 30 investigators conducting comprehensive investigations as part of the state's efforts to reduce truck at fault crashes by 3% over the course of the 2024-2026 grant cycle. Depending on position and extra duties (i.e., New Hire training), investigators will be required to complete specific numbers of investigations per year. Investigator performance will be measured by whether goals are met. Investigations and NCE Audits will be tracked in the CCD database to monitor progress. Totals are available at all times. The Division's four Lead workers carefully review all investigators' AIM documents for errors before closeouts/critiques are held with carriers and the finalized documents are uploaded to the FMCSA. The unit's two managers monitor both production and quality.

Progress Update from 2023

CCD worked hard to ensure new investigators were well trained and prepared to complete Comprehensive Compliance Reviews. As a result of that training and the high motivation of its new investigators, CCD exceeded it's 2023 FFY year goals of 210 (235) interstate and 30 (57) intrastate reviews.

Investigations – New Entrant Safety Audits

Problem Statement

Oregon will continue to meet or exceed the FMCSA challenge of a 20% decrease in overdue audits. It should be noted that the State typically has very few to no audits in the past due category. Overwhelmingly, the only reason overdue numbers show up is because of audits converting to full Comprehensive Reviews. Although the reviews are still completed on time, they continue to show as overdue in NEWS because the carrier's safety rating response window is still open. Regardless, Oregon's overdue list is extremely small and will remain so.

Performance Objective

Performance of NCE Audits will be measured by how many audits are completed by each investigator quarterly and annually. Oregon tracks both the audits that go through to completion and the ones that have non-audit resolutions.

2024 Performance Measurement

CCD's goal for FFY2024 is 460 NCE audits.

Progress Update from 2023

CCD completed 501 NCE Safety Audits and exceeded its FFY 2023 goals by 25%.

Public Education and Outreach

Problem Statement

Oregon investigators find that a large number of the carrier officials are not well versed in the FMCSRs and typically unaware of many steps they need to take to become compliant in various safety areas.

Performance Objective

CCD will perform the following:

- Provide detailed educational outreach/training during every investigation.
- Upon request, CCD staff present CMV safety talks to large groups such as the Oregon Trucking Association, motor carriers, and other industry stakeholders focused on compliance.
- Meetings of the ODOT Motor Carrier Transportation Advisory Committee are held every other month. These meetings include representatives from various sectors of Oregon's trucking community and are open to all interested parties.
- The Division also hosts regular Open Houses around the state where CCD Safety, Registration, and Motor Carrier Enforcement staff are on hand to answer industry questions regarding safety regulations, size and weight laws, registration issues, and over-dimension requirements.

2024 Performance Measurement

Motor carrier safety talks will be measured by the number of speaking engagements completed before large carrier audiences and the number of investigations & safety audits conducted. State trucking association presentations will be tracked and reported. Open Houses and Anti-Human Trafficking outreach events will also be tracked.

Progress Update from 2023

Investigation related outreach reached 803 for the federal fiscal year. Educational presentations were also made at ODOT open houses, Oregon Trucking Association (OTA) events, truck stops, and carrier's place of business and accounted for an additional 22 outreach events.

Reduce the Number of Impaired Drivers

Problem Statement

The FMCSA reports that in 2020, just over six percent (6.3%) of drivers of large trucks tested after fatal crashes were positive for at least one drug. According to the December 2022 FMCSA Drug & Alcohol Clearing House Monthly Summary Report, the Clearing House received 53,514 reports of positive drug tests in 2020, 55,223 reports in 2021, and 68,639 in 2022. FMCSA notes in a March 31, 2023 policy directive that there are more than 120,000 prohibited drivers in the Clearinghouse. Further, inspection data gathered by the FMCSA over a one-year period indicates that over 5,000 motor carriers used prohibited drivers to operate CMVs. Drug use is clearly a large and growing safety threat within the trucking industry.

Performance Objective

Educate staff to recognize signs of drug impaired drivers: Train all ODOT certified truck inspectors in techniques used to recognize drug impairment. New hires will be trained within one year of date-of-hire. Refresher training will also be required every other year. When drug impairment is suspected, inspectors will call law enforcement to intervene and ensure appropriate action is taken to remove drivers from the road in conformance with state law and federal regulation. ODOT's Commerce and Compliance Safety and Enforcement managers will work with the Agency's Traffic Safety staff and law enforcement Drug Recognition trainers to deliver training across the state annually.

2024 Performance Measurement

Train 100% of CCD truck inspectors.

Progress Update from 2023

This is a new objective for 2024.


OUR ROADS SAFETY
Partnership for Responsible Driving
U.S. Department of Transportation
Federal Motor Carrier Safety Administration
Meet the Voices of Safety.
"It takes the length of two football fields for my truck to stop."
– Ingrid, Truck Driver
"My car can't safely pass a turning bus."
– Ed, Experienced Driver
"There's a lot I can't see around my bus."
– Keith, Bus Driver
Hear Their Stories at www.ShareTheRoadSafely.gov