



Electrical Transmission & Distribution Partnership

Continuing Education Training

Presenter Guide – Q4 – Motor Vehicle Safety – Defensive Driving and Merging into Traffic

Introduction:

This **Defensive Driving and Merging into Traffic** Refresher course is a presenter lead (supervisor, safety professional) process. The presenter may choose to augment the material with videos, handouts, or other media to enhance the learning experience. The presenter may want to incorporate visual aids to enhance the presentation.

Using this material in combination with practical experience, good presentation skills and knowledge of adult learning techniques, the presenter has a greater opportunity to deliver the information.

Edgar Dale stated that 2 weeks after a learning event, adult learners remember:

- 10% of what they read
- 20% of what they hear
- 30% of what they see
- 50% of what they see and hear
- 70% of what they say
- 90% of what they say while performing a task

Microsoft® PowerPoint® combined with good instructional skills and instructor/student dialogue work strongly in the fifty to seventy percent range. PowerPoint® presents the information to the attendee and the instructor summarizes the content of the slides. It is critical to engage and involve the attendee in the process. Ask open-ended questions that will elicit conversation and discussion but be cautious to maintain control of the discussion.

Conversation and scenarios are good but can cause the discussion to run long. If it seems like the group is losing focus during the course, the presenter can direct the group back on track by using comments like "Good discussion, but let's get back to the subject at hand".

Another tool is the "Parking Lot" which is simply a newsprint chart or dry erase board or note pad where the presenter records questions/discussion points not answered or addressed during the meeting and that may require more research. It is vital to capture any ongoing discussions or questions on the "Parking Lot" and follow up when the information is known.

Deliver this refresher during the second quarter of 2024. Delivery time is approximately 45 minutes to 1 hour, in one setting or divided-up into three, 15-to-twenty-minute settings. The presenter may deliver the topic in a formalized meeting room setting using the PowerPoint slide deck or by using the three, key point sheets (located at the end of each session) as in a tailgate safety talk. **It is critical that the facilitator makes him or herself familiar with the material prior to delivery.**



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CONTINUING EDUCATION

OSHA ELECTRICAL TRANSMISSION & DISTRIBUTION PARTNERSHIP

Motor Vehicle Safety

Defensive Driving and Merging Into Traffic

PARTNERSHIP
An OSHA Cooperative Program

4th QUARTER 2024



OBJECTIVES

Upon completion of this continuing education module, you should be able to:

- ☑ Define defensive driving
- ☑ Practice defensive driving techniques
- ☑ Describe how to respect all drivers on the road while taking defensive actions to protect yourself
- ☑ Best practices while merging into traffic and roundabouts



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Explain that this is the Q4 topic. Explain the objectives of this course and the duration.



Defensive Driving



Q4 2024 – MOTOR VEHICLE SAFETY

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As traffic congestion continues to grow, motorists commuting to and from work and traveling for work purposes often find themselves caught up in bottlenecks and significant delays, wasting time and reducing their productivity. This situation creates a high level of frustration and can spark aggressive driving among these overwhelmed drivers. To protect against aggressive driving, remember that your primary responsibility is to drive focused, stay safe and be defensive.

Are You a Defensive Driver?

- Do you always drive the posted speed limit regardless of what the traffic is doing and how fast it is going?
- Do you plan for weather conditions and construction hazards when planning your daily routes?
- Do you alert other drivers to your actions using your turn signals?
- Are you aware of what the drivers around you are doing on the road?



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Say: Think about this morning's commute or last weekend. Did someone cut you off? Did you cut someone off? How many times did you hastily hit your breaks while traffic was moving?

Ask: Let's test your driving behaviors. Go over each question and allow for responses from the participants. Add discussion which will allow you to gage the temperature of the audience.

Seat Belt:

Seat belts are the single most effective means of reducing deaths and serious injuries in traffic crashes. As the most effective safety device in vehicles, they save nearly 12,000 lives and prevent 325,000 serious injuries in America each year. During a crash, anyone not wearing a seat belt will slam into the steering wheel, windshield, or other parts of the interior, or be ejected from the vehicle.

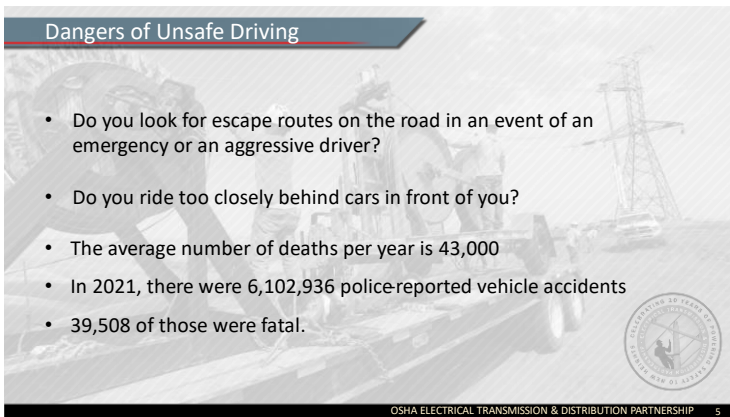
After last question lead into the next set of slides.

Say after the responses: Let's get into understanding what being a defensive driver means and how we can become more efficient at doing so.



Dangers of Unsafe Driving

- Do you look for escape routes on the road in an event of an emergency or an aggressive driver?
- Do you ride too closely behind cars in front of you?
- The average number of deaths per year is 43,000
- In 2021, there were 6,102,936 police-reported vehicle accidents
- 39,508 of those were fatal.



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After last question lead into the follow bullet points.

Say after the responses: Let's get into understanding what being a defensive driver means and how we can become more efficient at doing so.

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The average number of deaths due to vehicle accidents is 43,000. There were 6,102,936 reported vehicle accidents in 2021, 39,508 of those were fatal. There were 117 fatal vehicle accidents per day in 2022.

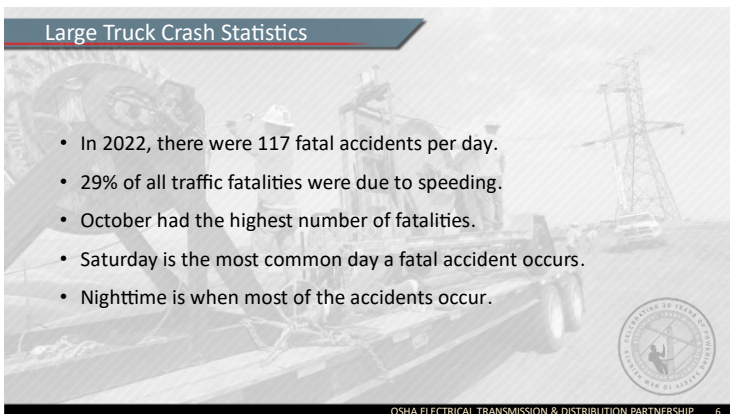
Speeding was responsible for 29% of all fatal traffic accidents.

The month of October had the highest number of fatalities and Saturday is the day with the most fatalities during the week.

Nighttime between 9-10PM saw the most fatalities.

Large Truck Crash Statistics

- In 2022, there were 117 fatal accidents per day.
- 29% of all traffic fatalities were due to speeding.
- October had the highest number of fatalities.
- Saturday is the most common day a fatal accident occurs.
- Nighttime is when most of the accidents occur.



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Large trucks are defined as any medium or heavy truck, not including buses and motor homes, with a gross vehicle weight rating greater than 10,000 pounds. Both commercial and non-commercial vehicles are included.

These statistics come from the National Safety Council and will include Bucket Trucks, Digger Derricks, Crane Trucks, and any combination vehicle weighing 10,000 or more pounds.

When involved in an accident, trucks are more likely to be involved in a rollover due to their higher ground clearance.

Large Truck Crash Statistics

- 5,700 large trucks were involved in fatal crashes in 2021, an 18% increase from 2020.
- A total of 5,788 people died in large truck crashes in 2021. Most of the deaths were from occupants of the other vehicle.
- Large trucks accounted for 9% of all vehicles involved in fatal crashes:
 - 45% of crashes occurred in rural areas
 - 74% were on non-interstate roadways
 - 36% occurred in the daytime
 - 94% did not occur in work zones.
- In 2021, 117,300 large trucks were involved in crashes resulting in an injury, a 12% increase from 2020.



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Large trucks are defined as any medium or heavy truck, not including buses and motor homes, with a gross vehicle weight rating greater than 10,000 pounds. Both commercial and non-commercial vehicles are included.

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When involved in an accident, trucks are more likely to be involved in a rollover due to their higher ground clearance.

Cost of an Accident

- The average crash costs an employer more than \$16,000
- When a worker has an on-the-job crash that results in an injury, the cost to their employer jumps to more than \$70,000
- Costs can exceed \$500,000 when a fatality is involved



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The Network of Employers for Traffic Safety, the National Highway Traffic Safety Administration and the Occupational Safety & Health Administration produced a report indicating the average crash costs an employer more than \$16,000. Furthermore, when a worker has an on-the-job crash that results in an injury, the cost to their employer jumps to more than \$70,000. Costs can exceed \$500,000 when a fatality is involved, according to the report.

Bottom line: No organization can afford to ignore traffic safety because of the impact on personnel and budget.



Defensive Driving Tips

- ✓ Plan Your Trip
- ✓ Anticipate Other Drivers' Actions
- ✓ Keep a Safe Following Distance
- ✓ Avoid Distractions
- ✓ Recognize Road Hazards
- ✓ Stay Alert for Distracted Drivers

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Take the time to describe defensive driving tips.
Explain the importance of each tip and ask how these tips can keep them safe on the road.

Aggressive Driving – Road Rage

The best offense is a solid defense:

- Give yourself space and separation
 - Maintain a safe distance from an aggressive driver. Allow yourself time to react to, or escape from, a potential accident.
- Anticipate other drivers' actions
 - Pay attention to how others are driving and acting on the road. Make sure you are aware of a dangerous situation before you're involved in one.

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Being a defensive driver is the best way to handle an aggressive driver. Being defensive means that you are taking actions to make sure you are safe regardless of the situation.
Explain to the class that you will not be able to control everything on the road, but you will be able to control how you handle yourself and your vehicle. If you are properly prepared when a potential accident comes, you have a better chance of avoiding it.



Safe Following Distance

Passenger Vehicles – Bucket / Digger Trucks

Vehicle Type	Vehicle Length	Seconds Behind
Passenger Vehicles:	20 Feet	2
Line Trucks:	Up to 30 Feet	3
Trucks:	31 to 40 Feet	4
	41 to 50 Feet	5
	51 to 60 Feet	6

Allow additional space for larger vehicles, when pulling a trailer and in inclement weather!

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The Safe Following Distances listed on the slide are only examples. Some professional driver training programs recommended a 4 second following distance for all vehicles at any speed. Please follow your company’s Defensive Driving Program requirements. It is also important to discuss with the participants to add additional following/stopping distance when pulling a trailer. The additional weight of the trailer and the load will push the vehicle forward. This will also be a good opportunity to discuss the requirements of properly adjusting and inspecting the trailer brake systems.

What do you see?

Traffic is flowing at 45 mph.

Adjusting Speed to Maintain Safe Following Distance

Tailgating

Safe Following Distance

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Talk about each item.

Point out AT RISK behaviors.

Show the 10 – 11 car lengths.

RULE OF THUMB

- Dashes are 10 feet long.
- Space between Dashes = 20 feet



Distracted Driver Tendencies

- Lingering at Intersections
- Drifting Lanes
- Braking Suddenly
- Tailgating
- Erratic Speed
- Cell Phone Use



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Pay attention to unsafe driving behaviors by other drivers and create additional space between your vehicle and theirs. Distracted drivers are everywhere. Some may be late to work; some may be on a phone call or fooling with the radio. It is important to know what you're looking for so that you can take steps to keep space from them.

Proper Reactions Prevent Accidents



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Video

Maintain situational awareness to properly respond to a driver that might not be paying attention.

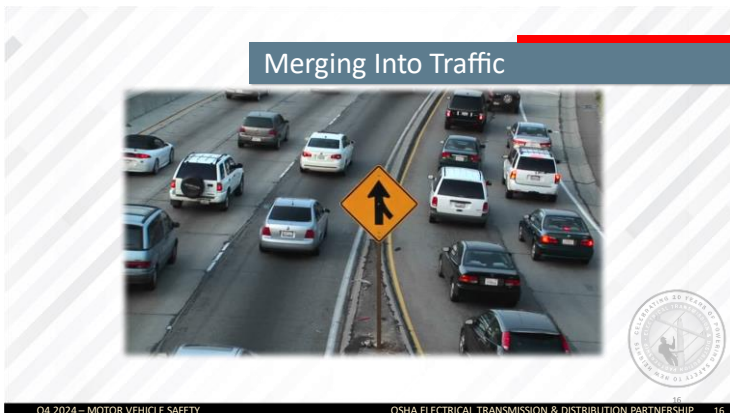
Knowledge Check

1. Do most large truck accidents occur on interstate or non-interstate roadways?
2. T/F: Anticipating other drivers' actions is considered aggressive driving.
3. T/F: Erratic speed is a sign of a distracted driver.
4. Who is more likely to be killed in an accident involving a large truck?



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1. Non-interstate Roadways
2. False
3. True
4. Occupants of the other vehicle



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As traffic congestion continues to grow, motorists commuting to and from work and traveling for work purposes often find themselves caught up in bottlenecks and significant delays, wasting time and reducing their productivity. This situation creates a high level of frustration and can spark aggressive driving among these overwhelmed drivers. To protect against aggressive driving, remember that your primary responsibility is to drive focused, stay safe and **DO NOT TAILGATE**.

Safely Merging Onto The Highway

- Be sure to signal to other drivers before merging into traffic
- Adjust your speed to match the flow of traffic before entering the roadway.
- Yield to drivers on the freeway but avoid stopping unless absolutely necessary.
- Find a three to four second gap in traffic to merge.
- Try to match the speed of traffic in the lane you want to merge into.
- Make sure you have enough space



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In most cases, you will merge onto the highways using an on-ramp or a controlled access road unless there are lane closures. In this case, the rules of the road give the existing traffic the right of way, which means drivers who have been traveling on the highway before you merged. Vehicles on the ramp must wait for an opening to safely merge into oncoming traffic.



Safely Merging – Continued

- Check your blind spot before merging to make sure the lane is empty.
- Scan your mirrors and blind spot to find a gap in traffic
- Once you find a gap in traffic, safely move into the new lane
- Once you've safely positioned in your lane, turn off your signal and continue at the legal speed limit
- Change lanes or adjust your speed to allow others to enter the highway safely.



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Roundabouts



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Roundabouts

Roundabouts can replace signals, two-way stop controls, and all-way stop controls. Roundabouts are an effective option for managing speed and transitioning traffic from high-speed to low-speed environments, such as freeway interchange ramp terminals, and rural intersections along high-speed roads.



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Roundabouts are becoming more common in high traffic, rural and urban areas. The good thing is roundabouts are the safest type of intersection in the world. They are quicker and safer when compared to traditional intersections. The roundabouts are designed so that the traffic flows in a counterclockwise direction.



Why are Roundabouts Safe?

- Increased visibility for drivers and pedestrians
- Fewer accidents
- Fewer points of impact
- Removes possibility of head on collisions
- No running red lights
- Slower speeds



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Roundabout Safety

- Yield to all vehicles already within the roundabout
- Check your lane
- Look for gaps in traffic
- Slow down and be prepared to stop and wait for a safe gap in traffic
- Use your turn signal



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- **Yield to all vehicles already within the roundabout**, whether they are merging or following the circle to an exit.
- **Check your lane** and make sure you are in the correct lane for your exit.
- **Look for gaps in traffic** before entering the roundabout.
- **Slow down and be prepared to stop and wait for a safe gap in traffic** before merging onto the roundabout.
- **Use your turn signal** to indicate your intention to enter the roundabout.



When is a roundabout more dangerous?

Roundabouts can be dangerous when drivers fail to follow general safety rules.

Here are some examples:

- Distracted driver
- Heavy traffic
- Aggressive driving- road rage
- Inclement weather
- Poor road conditions



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Knowledge Check

1. T/F: You should always signal and match your speed when merging into traffic?
2. What is the safest type of intersection control?
3. Why are Roundabouts safe?
4. T/F: Changing lanes inside the roundabout is acceptable and signaling is optional when entering and exiting?



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1. True
2. Roundabouts
3. They provide increased visibility for drivers and pedestrians along with the following:
 - a. Fewer accidents
 - b. Fewer points of impact
 - c. Removes possibility of head on collisions
 - d. No running red lights
 - e. Slower speeds
4. False. You should never change lanes once you are inside the roundabout but rather go back around if you miss your exit point. Also, it is always a good practice to signal when entering and exiting the roundabout to let others know your intentions.



Drivers Checklist (1 of 2)

- ✓ Are you physically and mentally fit to operate the vehicle?
- ✓ Do you have the correct Driver License and/or endorsements to operate the motor vehicle?
- ✓ CDL holders – Do you have a current Medical Certificate and registered per your State's regulations?
- ✓ CDL holders – Are you registered within the FMCSA's Clearinghouse?
- ✓ Have you completed the daily inspection of vehicle?
- ✓ Have you ensured proper cargo securement?



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Discuss the different elements of the Drivers Checklist with the participants. This is not an all-inclusive list.

- Are you physically and mentally fit to operate the vehicle – Long work hours causes driver fatigue. As many as one in five fatal crashes in the general population involved driver fatigue
- Tefft BC [2014]. Prevalence of motor vehicle crashes involving drowsy drivers, United States, 2009-2013. AAA Foundation for Traffic Safety.
- Ensure drivers have the correct Driver's License and/or endorsement to operate the motor vehicle. Some states issue restrictions to Commercial Drivers License's. Example manual and automatic transmissions.
- All Commercial Driver's License holders should have a current Medical Certificate and registered per your State's Requirements. Some States require that CDL holder register their Medical Certificate with the DMV.
- All Commercial Driver's License holders need to register with the Drug & Alcohol Clearinghouse
- Specific company mandates may require all drivers to complete a daily inspection of the vehicle they are operating. Drivers of Commercial Motor Vehicles are required by the Federal Motor Carriers Safety Administration to complete a documented pre-trip inspection of the vehicle prior to operating.
- Ensure drivers have taken the time to secure and/or remove loose items from the vehicles that could fall from the vehicle during transit.



Drivers Checklist (2 of 2)

- ✓ Have you ensured loose items within the cab of the vehicle are removed/secured?
- ✓ Are the vehicle's mirrors properly adjusted to mitigate/eliminate blind spots?
- ✓ Have you mitigated / eliminated distractions?
- ✓ Is your SEATBELT ON?
- ✓ Towing a trailer? Be sure to maintain plenty of following distance for braking and maneuvering.
- ✓ Plan your route. Think ahead about how to minimize lane-changing on the route.

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Discuss the different elements of the Drivers Checklist with the participants. This is not an all-inclusive list. (part 2 of 2):

- Remove/secure loose items within the cab of the vehicle. If involved in a motor vehicle accident, loose item can attribute to additional injuries to the driver or occupants.
- Encourage drivers to take the time before operating any vehicle to properly adjust all mirrors to eliminate/mitigate blind spots around the vehicle.
- Drivers of Commercial Motor Vehicles must use one touch hands free devices. Please refer to your company specific requirement on cell phone / electronic use while driving.
- SEAT BELTS SAVE LIVES!! It's the LAW!
- Pay attention to trailers, plan for a different way of driving since you'll need to allow more space between vehicles on the road.
- Plan the route and think about how you can reduce the amount of lane changes.

Thank You!

