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**TOP TEN CAMPAIGN: FOCUS GROUPS AND SURVEY  
OF DRIVER EDUCATION TEACHERS**

**Final Report for GHSP Project  
No. MCSAP-96-03-A**

**by**

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## INTRODUCTION

North Carolina ranks eighth in the nation for fatal crashes involving large trucks. This is attributable partly to the location of many major truck routes in the State and the rural character of much of the State. Table 1 indicates the increasing frequency with which large trucks have

**Table 1. Number of heavy trucks involved in crashes in North Carolina 1992-1995**

| <b>Crash Severity</b> | <b>1992</b> | <b>1993</b> | <b>1994</b> | <b>1995</b> |
|-----------------------|-------------|-------------|-------------|-------------|
| Injury                | 2,185       | 2,471       | 2,678       | 2,661       |
| Fatal                 | 108         | 145         | 132         | 124         |
| Total                 | 6,155       | 6,711       | 7,484       | 7,818       |

been involved in crashes of different severity levels in North Carolina. From 1992 to 1995, the number of trucks involved in crashes increased by over 27 percent, compared with an increase of only 15 percent for other vehicle types. On the other hand, the FHWA Office of Motor Carrier Analysis Division reports that 70 percent of all car/truck intersection crashes are **caused** by the passenger vehicle. This further points to the importance of providing better information and education to the traveling public about the unique risks of passenger vehicles and heavy trucks sharing the road.

The North Carolina Governor's Highway Safety Program (GHSP) is seeking to address the problem of heavy truck safety through their project "Educating the Motoring Public on Traffic Safety Issues Related to Sharing the Roadways with Large Trucks." One of the objectives of this portion of the project is to develop materials for public information and education efforts through a combination of focus groups involving crash participants (including both commercial motor vehicle operators and passenger car drivers), as well as polling driver education instructors on truck crash issues. This report focuses on the implementation and findings of the focus groups, and the polling of driver educators from across the State.

## FINDINGS

### Concerns of Driver Educators

Driver educators were asked two principal questions. First, they were asked **what they as experienced drivers and professionals in the field of driver education believed were the biggest risks associated with passenger cars and heavy trucks sharing the road.** Second, they were asked **what they believed to be the biggest risks student drivers take when sharing the road with heavy trucks.** The answers to these questions provide meaningful insight into not only the specific dangers of passenger cars and heavy trucks sharing the road, but what particular risks passenger car drivers are likely to take from the time they begin driving. The major responses to these questions are summarized in the matrices below for the three geographic regions of the State (Mountains, Piedmont and Coastal Plain). Because the driver educators were polled at a workshop held in Wilmington, NC, there are a considerably larger number of responses from the Coastal Plain.

**Table 2. What do driver educators believe are the biggest risks associated with passenger cars and heavy trucks sharing the road?**

| Concern                     | Total (N)   | Mountains    | Piedmont   | Coastal Plain |
|-----------------------------|-------------|--------------|------------|---------------|
| Following distance/ headway | 30.2%* (51) | 26.7%*       | 32.3%      | 29.7%         |
| Speed                       | 16.6% (28)  | 10.0%        | 15.4%      | 20.3%         |
| Stopping distance           | 8.9% (15)   | 10.0%        | 9.2%       | 8.1%          |
| Passing                     | 8.3% (14)   | 13.3%        | 10.8%      | 4.1%          |
| Fear or distraction         | 7.1% (12)   | 3.3%         | 3.1%       | 12.2%         |
| Rude or discourteous        | 6.5% (11)   | 10.0%        | 1.5%       | 9.5%          |
| Blind spots (No-Zone)       | 5.9% (10)   | 13.3%        | 7.7%       | 1.4%          |
| Size/weight difference      | 4.7% (8)    | 6.6%         | 6.2%       | 2.7%          |
| Truck turning radius        | 4.7% (8)    | 6.7%         | 4.6%       | 4.1%          |
| Visibility                  | 4.1% (7)    | 0.0%         | 4.6%       | 5.4%          |
| Merging                     | 1.8% (3)    | 0.0%         | 3.1%       | 1.4%          |
| Wind                        | 1.2% (2)    | 0.0%         | 1.5%       | 1.4%          |
| Total                       | 100% (169)  | 17.8%** (30) | 38.5% (65) | 43.8% (74)    |

\*Column percent.

\*\*Row percent.

The driver educators most consistently cited following distances and headways between passenger cars and heavy trucks as a safety concern (see Table 2). Specifically, driver educators expressed concern that heavy trucks tailgate too close to the rear of passenger cars, and would be unable to stop if the passenger car made a sudden stop. The educators also cited a concern with passenger car drivers following too closely behind heavy trucks without regard to the significantly higher risk of passenger car occupant injury in a rear end collision with the truck.

The second most frequently cited concern was the speed at which heavy trucks travel. This concern was often coupled with a concern that trucks are not able to stop or slow down as readily as passenger cars. Educators expressed concern that crashes occur because passenger cars stop, slow down or maneuver abruptly without realizing the limitations of the truck's ability to change speed and position. This was also a frequently mentioned concern about the dangers of passenger cars and large trucks passing and merging on highways.

Another major concern of the educators was the fear and distraction heavy trucks cause passenger car drivers. A number of educators indicated they believed passenger car drivers were so concerned about sharing the road with a heavy truck, they ignored other safety concerns on the road. Educators believe that many passenger car drivers travel far on the right hand side of their lane when being passed by a truck, or decelerate to stay behind a heavy truck to avoid passing or maneuvering near the heavy truck.

The lack of passenger car driver understanding of a truck's wider turning radius at intersections and a truck's many blind spots (or "No-Zones") were also frequently cited safety concerns of driver educators. A number of educators mentioned a general lack of courtesy and understanding among drivers of different types of vehicles as a concern they have about passenger cars and heavy trucks sharing the road.

Consistent with their general concerns about heavy trucks and passenger cars, driver educators most frequently (28.6% of comments) cited inadequate following distances as their students' greatest risk in this area (see Table 3). Educators observed students changing lanes in front of heavy trucks after passing without allowing enough distance for the truck driver to see the passenger car signal and move into the right lane. Many educators expressed frustration with the lack of distance the truck drivers allow when following student driver cars. A number of

**Table 3. What do driver educators believe are their students' biggest problems when sharing the road with heavy trucks?**

| Concern                    | Total (N)   | Mountains  | Piedmont | Coastal Plain |
|----------------------------|-------------|------------|----------|---------------|
| Following distance/headway | 29.1%* (37) | 30.0%*     | 27.7%    | 30.0%         |
| Fear or distraction        | 22.0% (28)  | 15.0%      | 19.1%    | 27.0%         |
| Passing                    | 11.0% (14)  | 20.0%      | 10.6%    | 8.3%          |
| Stopping distance          | 10.2% (13)  | 5.0%       | 12.8%    | 10.0%         |
| Blind spots (No-Zone)      | 9.5% (12)   | 15.0%      | 19.1%    | 0.0%          |
| Speed                      | 3.9% (5)    | 0.0%       | 4.3%     | 5.0%          |
| Visibility                 | 3.9% (5)    | 0.0%       | 2.1%     | 6.7%          |
| Size/weight difference     | 3.2% (4)    | 0.0%       | 0.0%     | 6.7%          |
| Truck turning radius       | 2.4% (3)    | 10.0%      | 0.0%     | 1.7%          |
| Merging                    | 2.4% (3)    | 0.0%       | 4.3%     | 1.7%          |
| Rude/discourteous          | 2.4% (3)    | 5.0%       | 0.0%     | 3.3%          |
| Wind                       | 0.0% (0)    | 0.0%       | 0.0%     | 0.0%          |
| Total                      | 100% (130)  | 15.8**(20) | 37.0(47) | 47.2% (60)    |

educators mentioned instances in which they felt truck drivers were intentionally tailgating in efforts to intimidate their students into pulling over and letting the truck pass.

Students' fear of heavy trucks was a major concern of many educators (22.0% of comments), especially in the eastern part of the State (26.7% of comments). The educators observed that students would go out of their way to avoid traveling anywhere near a heavy truck. Educators also expressed concern that students traveling near heavy trucks would drift to the opposite side of their lane from the side facing the heavy truck, even to the point of risking a crash with another vehicle.

Other unsafe maneuvers educators frequently observed regarding students' behavior with heavy trucks included unsafe passing -- specifically passes which involve unsafe lane changes in the "No-Zone" directly in front of or behind trucks, and a lack of awareness on the part of students to the need for greater stopping distances for trucks.

#### **Student vs. General Concerns**

Driver educators' comments about student problems with heavy trucks differed from their general concerns in some regards. The fear/distraction issue and the lack of awareness of the

truck's "No-Zone" were more frequently mentioned as concerns about student drivers than about sharing the road in general. The driver educators mentioned rude or discourteous driving, unsafe speeds and following distances less frequently when asked about student drivers (2.4%, 3.9% and 29.1% respectively) than when asked about their own general concerns with heavy trucks and passenger cars sharing the road, in which these topics comprised 6.5%, 16.6% and 30.2% of comments respectively.

### **Regional Distinctions**

As noted earlier, because the educators were polled at a meeting in Wilmington, NC, there was a disproportionately larger number of respondents from the Coastal Plain with the Mountain region the most underrepresented. There was some regional variation among the general concerns educators had about cars and trucks sharing the road. Speed was relatively less of a concern in the Mountains (10% of comments) than in other regions (where speed overall was mentioned in 16.6% of comments). The "No-Zone," and the safety of passing were mentioned less frequently by driver educators from the Coastal Plain. Educators from the Coastal Plain did mention the problems of fear or distraction (12.2% of comments) and driver courtesy (9.5% of comments) more frequently as concerns than did drivers from other parts of the State (7.1% and 6.5%, respectively).

Specific responses regarding student driving also varied somewhat from region to region. While fear and distraction were only frequent general concerns of educators in the Coastal Plain, fear and distraction were major concerns about student drivers in all three regions (22.0% of overall comments). Educators in the east did not mention the "No-Zone" as a problem for their students, though this was a problem frequently cited by educators in the Mountains and Piedmont. On the other hand, students' concern over the disproportionate size and weight of heavy trucks was mentioned frequently (6.7% of comments) in the Coastal Plain whereas it was not mentioned by educators from other regions.

### **Focus Groups**

Two focus groups were conducted at L & E research in Raleigh North Carolina on the night of May 1, 1997. One group was composed of passenger car drivers, the other of large truck drivers. Approximately half of the participants in each group had been in a crash involving a

truck/passenger car collision. The focus groups were facilitated by David Nerz, of MLN Research Ltd. Mr. Nerz used the appended moderator's guides (Appendices A and B) for the focus groups for car and truck drivers, respectively; his full report is included in Appendix C.

### **Concerns of Car Drivers**

General concerns of passenger car drivers in the focus groups regarding sharing the road with heavy trucks include the perception that truck drivers are insensitive to the needs of passenger car drivers because truck drivers are schedule-driven and trucks are much larger vehicles than passenger cars. Passenger car drivers also indicated they are very uncomfortable with trucks traveling with loads not properly secured, resulting in debris falling out of the payload and with trucks using retread tires, which are prone to blow out and litter the roadway (referred to as "alligators"). The most popular remedy for all these problems mentioned in this focus group was posting a large, readable 1-800 number on the trucks so that car drivers could report these and other problems to the trucking companies.

The specific maneuvers which are of the greatest concern to passenger car drivers when sharing the road with heavy trucks are those involving lane changes. The car drivers indicated they are very uncomfortable passing trucks, and will accelerate to very high speeds in order to pass quickly and leave the truck behind. The car drivers also expressed strong discomfort with trucks riding in the left hand "passing" lane -- leaving the car driver only the right hand lane in which to pass the truck. The idea of restricting trucks to travel only in the right hand lane(s) was very popular among car drivers, as was a lower speed limit for trucks. While car drivers indicated they were careful to avoid traveling in the heavy trucks' "blind spots", few could properly identify the complete "No-Zone" on a schematic. Car drivers felt it would be helpful if trucks bore signs indicating warnings such as "If you can't see my mirrors, I can't see you."

Car drivers also voiced frustration over passing and being passed by heavy trucks in hilly areas -- where the truck passes the car going downhill, then the car has to pass the slowing truck again going uphill. Other concerns included the blindness caused by the brightness and elevation of truck headlights, the vision obstruction created by truck splash and spray (which car drivers believe is somewhat alleviated by splash guards) and the unique dangers of construction, logging and garbage trucks (due to the risk of payload protruding out of the back or blowing/spilling off).



Participants who had been in crashes with heavy trucks related the conditions under which their crashes occurred and how their attitudes and behaviors were affected by these experiences. The various crashes mostly occurred at night, on wet roads, or when there was some form of object or vision obstruction involved. Many of the drivers also recalled that the road was more congested than usual at the time of the crash. Some drivers expressed frustration with the truck drivers' interest in blaming the passenger car driver for the accident or their perception that the truck driver was more interested in getting the police report done and out of the way than he was about the injury and damage to their car. On the whole, the crashes had reinforced car drivers' existing fear of heavy trucks which they attribute mainly to the size and speed of these vehicles. Consequently the car drivers who had been in crashes said they were more likely to drive defensively in the presence of heavy trucks or to try to avoid them entirely.

### **Concerns of Truck Drivers**

The general concerns of the focus group truck drivers about sharing the road with passenger cars were about car drivers' inexperience, their lack of focus on driving and their participating in other activities while driving. The truck drivers were appalled that motorists would attempt to use devices such as cellular phones or to attempt to apply makeup while operating their vehicles. The truck drivers were also generally concerned about the lack of stopping distances passenger cars allow them on the highway. Truck drivers complained that when they allow a sufficient following distance between themselves and the car in front of them, other passenger cars fill in that space.

Like the passenger car drivers, the truck drivers voiced the strongest concerns about sharing the road when passing or changing lanes. The truckers expressed a sense that passenger car drivers do not understand a truck's blind spots ("No-Zone"), do not use turning signals and headlights to adequately warn truck drivers when they plan to pass or change lanes and passenger car drivers pass too suddenly and abruptly as if in a "race" to beat the truck. The truck drivers noted a serious problem with passenger cars merging onto interstates from on-ramps (hence entering a truck's "No-Zone") while the truck was being passed by yet another car on the left -- leaving the truck caught between two cars which the truck driver may not be able to see. Truck

drivers were also very frustrated with passenger car drivers weaving as, for example, passing one car on the left, then passing the truck on the right.

The truck drivers also expressed concern about the problem of passenger cars tailgating or “drafting” behind them. In these cases, the truck driver feels he has the responsibility for not only the safety of his truck, but the safety of the car behind him if he has to maneuver or stop. This is due in part to the fact that those passenger car drivers tailgating large trucks cannot see around the truck, and partly because the passenger car’s speed and direction are influenced by the draft of the truck.

The truckers also voiced frustration with the general lack of knowledge passenger car drivers had about maintaining and operating the special vehicles they were driving. The truckers were very disturbed at the presence of non-professional drivers operating rental trucks and recreational vehicles and towing large trailers.

Truck operators were very troubled that passenger car drivers often speed, make sudden and abrupt maneuvers and run traffic control devices. This is especially a problem when a truck is proceeding at a green light facing a line of cars which are turning left at an intersection where the signal has long since changed to red. One trucker recalled a crash in which his truck struck a passenger car which was running a stop sign at 80 miles per hour, killing the 18 year old car driver.

Truckers were especially sensitive to the importance of weather and time of day in assessing the safety of sharing the road with passenger cars. Truckers felt as though during the morning and midday hours passenger car drivers created the biggest problems for them because during these times motorists were the least attentive to the dangers of driving. Truckers also felt as though snow, ice and rain contributed significantly to their difficulty in sharing the road with passenger cars, and were frustrated with the degree and rate at which passenger cars would decelerate, or even stop in the roadway during a thunderstorm.

It should be noted that further details from both focus group sessions including actual quotes from the participants can be found in the moderator’s summary report found in Appendix C.

## CONCLUSIONS

From the comments and observations of driver educators and the concerns of truck and passenger car drivers, it is clear that following distance, passing and merging in a truck's "No-Zone" and fear, distraction or inattention on the part of passenger car drivers are the most consistent and frequent concerns about these vehicles sharing the road in North Carolina. From the focus groups, it is clear that passenger car drivers would be most responsive to information about a truck's limited visibility and need for adequate following distance posted directly on the vehicle. Passenger car drivers would also be more responsive to television public service announcements with truck drivers as the speakers than any other channel of communication.

Another safety measure very popular among car drivers is the idea of 1-800 numbers posted on all heavy trucks enabling car drivers to report unsafe driving to the trucking company. General information targeted at passenger car drivers with the intent of increasing their focus on the act of driving while reducing their level of anxiety and distraction when driving near heavy trucks would also be very helpful.

Some information could be used to curtail passenger car drivers' anxiety and fear of trucks and encourage more understanding and courtesy among car and truck drivers. In the focus group, passenger car drivers were surprised at how few fatal crashes between cars and trucks were attributed to the truck, and sharply overestimated the percentage of truck accidents involving alcohol use by the truck driver. Passenger car drivers were also generally unaware of the rigorous training and safety standards to which truck drivers are subjected.

Information targeted at increasing passenger car drivers' awareness of the trucks' limited maneuverability, and inability to accelerate or decelerate quickly would address some of truck drivers' key concerns regarding passenger car driver behavior. Information regarding the importance of using headlights and turning signals as a means of communicating with heavy trucks could also be helpful in this respect.

Some improvements to vehicles were also discussed. Daytime running lights for all vehicles and tinted lights for motorcycles to make them distinctive were among the suggestions which emerged in the focus groups. Better splash and spray deflectors for large trucks (such as those found on UPS doubles) was a popular suggestion among car and truck drivers alike.

## Discussion Outline: Passenger Car Drivers

### 1. INTRODUCTION

- Explanation of purpose and overview of ground-rules.
  - > Purpose of the research;
  - > Nature of qualitative research: opinions and personal insight...no wrong answers...not seeking consensus;
  - > Moderator's role as independent facilitator...no agenda;
  - > Panelists' responsibility to give honest opinions;
  - > Panelists' responsibility to participate in the discussion;
  - > Speak one-at-a-time with identification;
  - > Any recording or listener disclosure;
  - > Time limit;
  - > Questions.
- Round-the-table introduction of moderator and panelists.

### 2. RELATIONSHIP WITH TRUCK DRIVERS

Now, we're going to focus our discussion on your road-relationship with truck drivers. Tell me...

- When I say truck driver, what image come to mind? What's the first thing you think? What else? Why do you say that?
- What are some of the positives that you associate with trucks and truck drivers? What else? (*create list on easel*)
- Has a truck driver ever offered you any kind of travel assistance? What did they do? Why do you think they did that?

- Now the negatives? What's the most irritating thing they do on the road? What frustrates you the most about the driving behavior of truck operators? *(Create new easel list. Once list is complete have each respondent individually rank top three perceived problems. Retrieve responses.)*
- **PROBE the following issues: Speed; Visibility; Control; Turning Radius; Operator Behavior; Brightness of Lights.**
- If there was one thing you could change about the way truckers drive their trucks, what would it be? Why would you change that?

### 3. SAFETY AND TRUCKERS

- Are there any special precautions you take or techniques you use when driving near trucks? What are those precautions? Why do you do that?
  - > What position on the road, relative to a truck, are you at the most risk? The least risk?
- Are there any special precautions that you feel trucks should be taking when driving along with passenger vehicles? What would that do?
  - > Compared to cars, do you feel it's more or less difficult for trucks to drive defensively? Why do you think that? *(PROBE: difficulty in slowing down; maneuvering when cut-off)*
  - > Do you feel that trucks drive any differently during wet driving conditions? *(If yes)* How do they drive differently?
- Are there times when you're on the road and you feel endangered by trucks?
  - > When are those times? What makes you feel in danger? How do you react? What do you do when faced with those situations?
  - > In general, do you think truck drivers drive too fast or too slow? Is it a problem? In what ways is it a problem?
  - > Have you ever been tailgated by a truck? How often does that happen?

- > Have you ever had your visibility or concentration impaired by splash/spray from a passing truck?
- > Have you ever felt unsafe because of gravel or other truck payload being bounced off the back of a truck?
- > Have you ever reported dangerous driving to the trucking company? Why/why not?
- How do you pass trucks? Do you pass trucks any differently than when you pass other passenger cars? *(If yes)* In what ways?
- Do you ever draft behind truckers? Why/why not?
- *(Show No Zone sketch. Ask respondents to give their impressions of where trucks may have blind spots. Reveal actual "sight-line" zones.)* Would knowing this affect the way that you drive? How?
- Do drivers of different types of heavy trucks differ in the way they drive? Specifically, how do they differ?
- Do you worry about double rigs? Have you ever had any problems with them?

#### 4. ACCIDENTS WITH TRUCKS

- Has anyone in this room ever been involved in an accident with a truck? Please give me the details of those incidents?
  - > What exactly caused the accident?
  - > Who was at fault?
  - > Was there any way the accident could have been avoided? How?
  - > What lessons did you learn from the accident?
  - > Because of the accident, have you changed your driving habits at all? How?
- Are some kinds of truck drivers more likely to be involved in accidents than others? *(If yes)* What kind of drivers are most likely to get into accidents?

- In most accidents involving heavy trucks and passenger vehicles, what are the factors that most likely contribute to the crash? (*PROBE: Terrain; Curves; Narrow Roads; Traffic Density; Construction*)
- What percentage of fatal accidents do you think can be attributed to truckers? (*Give actual percentages*) Are you surprised? Why/why not?
- In fatal auto/truck accidents, what's your guess on the percentage of truck drivers that were found to be intoxicated? What do you think is the percentage of auto drivers that were found to be intoxicated in a fatal crash? (*Give actual percentages*)

## 5. REACTIONS TO SAFETY IDEAS

- Have you ever heard of the term Splash and Spray Deflectors? (*If yes*) What are they? What do they do?
- (*If no, explain what they are and ask...*) What sort of impact would those have on you as a driver? How come?
- Are you familiar with the term underride crashes? What does it mean? (*Explain if necessary*) Are there any safety devices that prevent cars from riding under trucks in collisions? What are they called? How do they work? Where are they on the truck?
- Is there anything that you'd like to know about trucks or truck drivers that would be beneficial to you?

## 6. SUMMARY

- [*Retrieval of any additional comments.*]
- [*Thanks and dismissal.*]

## Discussion Outline: Truck Drivers

### 1. INTRODUCTION

0.00

- Explanation of purpose and overview of ground-rules.
  - > Purpose of the research;
  - > Nature of qualitative research: opinions and personal insight...no wrong answers...not seeking consensus;
  - > Moderator's role as independent facilitator...no agenda;
  - > Panelist confidentiality;
  - > Panelists' responsibility to give honest opinions;
  - > Panelists' responsibility to participate in the discussion;
  - > Speak one-at-a-time with identification;
  - > Any recording or listener disclosure;
  - > Time limit;
  - > Questions.
- Round-the-table introduction of moderator and panelists.

### 2. TRUCK DRIVING SPECIFIC

0:10

Most of our discussion today will center on your relationship with passenger car drivers. Before we do that, I'd like to understand a little more about what you do. First of all...

- What are some of the biggest challenges you face as truck drivers?
- Do you ever have the problem with payload blowing or being bounced off the back of your trucks? Is there any way to reduce or eliminate that?
- How many hours do you typically drive during the course of a week? What was the most hours you ever logged in one week?



- Do you regularly drive above the posted speed limit? Why?
- How would you describe the general experience level of truck drivers on the road today? Are they more or less experienced than ten years ago?
- Do you find that you are sometimes unable to stop or yield despite signals or signage indicating that you should? (If yes) What are the circumstances that make it difficult to stop?

### 3. RELATIONSHIP WITH PASSENGER CAR DRIVERS

0:30

Now, we're going to focus our discussion on your road-relationship with passenger car drivers. Tell me...

- What's the typical passenger car driver like? What image come to mind? What's the first thing you think? What else? Why do you say that? Are there any positives?
- Now the negatives...what's the most irritating about car drivers? What frustrates you the most about the way people drive? *(Create new easel list. Once list is complete have each respondent individually rank top three perceived problems. Retrieve responses.)*
- What are some of the things that car drivers don't seem to understand about truck driving? What else? *(PROBE the following issues: Visibility; Control; Turning Radius; Brightness of Lights.)*
- If there was one thing you could change about the way people drive their cars, what would it be? Why would you change that?

### 4. SAFETY AND PASSENGER CAR DRIVERS

0:55

- What are the main precautions that you feel cars should take when driving near trucks? Why should they do that?
  - > Are there certain road conditions where cars need to be particularly careful? When is that? Why should car drivers be more careful then?
- Are there times when you're on the road and you feel cars create dangerous situations?

- > When are those times? What makes you feel in danger? How do you react? What do you do when faced with those situations?
- > In general, do you think people drive too fast or too slow? Is it a problem? In what ways is it a problem?
- > Is your visibility ever impaired by car drivers using their high beams. Why do you think they do that?
- > How frequently do you see passenger cars risking accidents with you by running lights or stop signs or by refusing to yield?
- > How do cars pass you? How do you want cars to pass you?
- > How frequently do cars pass you on the right hand side of your truck?
- > Do you frequently get tailgated by a cars?
- > How often do cars draft behind you? How do you feel about that?
- > Do you think cars understand your No-Zone? Why do you feel they do/don't?
- Are there any special precautions you take or techniques you use when driving near cars? What are those precautions? Why do you do that?
  - > Compared to cars, do you feel it's more or less difficult for trucks to drive defensively? Why do you think that?  
(*PROBE: difficulty in slowing down; maneuvering when cut-off*)
  - > What efforts can truckers take to minimize the splash or spray that they cause for drivers on wet roads? What are your opinions of Splash and Spray deflectors, like the kind that are on UPS Trucks?

- > Are there any problems with underride guards at the rear of your trucks? What do you think of those anyway?
- Can anyone in this room recall a time when you felt yourself falling asleep behind the wheel? (If yes) What were the conditions? (*Probe: length of continuous driving; hours driving in one day; time of day; type of vehicle they were driving; payload; type of road*)
- Do drivers of different types of heavy trucks differ in the way they drive? Specifically, how do they differ?
- Does anyone in here drive double rigs? What are the driving and safety challenges that apply especially to double rigs?

## 5. ACCIDENTS WITH PASSENGER VEHICLES

1:30

- Has anyone in this room ever been involved in an accident with a passenger vehicle? Please give me the details of those incidents?
  - > What exactly caused the accident?
  - > Who was at fault?
  - > Was there any way the accident could have been avoided? How?
  - > What lessons did you learn from the accident?
  - > Because of the accident, have you changed your driving habits at all? How?
- How frequently do you have near misses with passenger cars? What usually causes these near misses?
- Has your truck ever jackknifed? What caused that to happen?
- Are some kinds of truck drivers more likely to be involved in accidents than others? (*If yes*) What kind of drivers are most likely to get into accidents?
- In most accidents involving heavy trucks and passenger vehicles, what are the factors that most likely contribute to a crash? (*PROBE: Terrain; Curves; Narrow Roads; Traffic Density; Construction*)

6. SUMMARY

1:55

- *[Retrieval of any additional comments.]*
- *[Thanks and dismissal.]*

# Toward a Better Understanding of the Relationship Between Car and Truck Drivers

A Qualitative Research Study  
conducted for:

The University of North Carolina  
Highway Safety Research Center



May 1997



MLN Research, Ltd.  
Raleigh, North Carolina

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# Study Background, Purpose, and Method

## **A. Background and Objectives**

On behalf of the Governor's Highway Safety Program, the University of North Carolina Highway Safety Research Center commissioned qualitative research to better understand the relationship between truck and auto drivers.

The primary objective of this research effort was to identify key areas of dissatisfaction among the two driver groups. This information will be utilized to develop communication efforts to build a stronger mutual understanding between the two driver groups with the ultimate objective of increasing the safety on North Carolina highways.

Sub-objectives of the research included an understanding of: each driver group's perceptions of the other; driving techniques that would promote highway safety; factors causing actual truck/passenger car accidents; and reactions to specific safety measures and communication.

## **B. Study Methodology**

A total of two focus groups were conducted: one with truck drivers and one with passenger car drivers. The groups were conducted at L&E Research, Raleigh, North Carolina, on May 1, 1997.

Within each group, approximately half of the respondent sample had been in an accident involving a truck/passenger car collision.

The research was coordinated by L&E Research, Raleigh, North Carolina. David Nerz, MLN Research, Ltd. moderated the group sessions and analyzed the research data. Representatives from the Governor's Highway Safety Program and the University of North Carolina Highway Safety Research Center attended the research work in observer/monitor roles. The groups were audiotaped and copies of these tapes have been handed over to the client.

**THIS REPORT IS CONFIDENTIAL, AND MAY NOT BE REPRODUCED WITHOUT THE EXPRESS WRITTEN CONSENT OF THE GOVERNOR'S HIGHWAY SAFETY PROGRAM, THE UNIVERSITY OF NORTH CAROLINA HIGHWAY SAFETY RESEARCH CENTER AND MLN RESEARCH, LTD.**

**AS IS THE CASE WITH ALL QUALITATIVE RESEARCH, THE FINDINGS MUST BE VIEWED IN THEIR PROPER CONTEXT, AND THE MORE IMPORTANT OF THEM VERIFIED QUANTITATIVELY.**

# Summary of Key Learnings

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## A. Overview

### 1. Truck Drivers' Impressions of Car Drivers

Of all the challenges that truck drivers deal with on roads and highways, car drivers are the most significant one. They divided problem-drivers into four major categories:

- **Careless Drivers:** Of the drivers who cause truckers difficulty, the largest number are the drivers who simply don't pay attention to traffic flow and driving conditions.

*"The biggest cause (of accidents and fatalities) is not paying attention. You're supposed to look ahead and have a way out in every case."*

*"They're in a hurry. 'Specially coming off of a ramp and merging into traffic. They expect everyone to get out of the way. They don't look at you. They're inattentive."*

- **Reckless Drivers:** Though not as prevalent as the careless driver, the most dangerous car driver is the one who incautiously challenges trucks and creates dangerous situations.

*"They got this thing, 'well I can beat this truck'. Then they get ahead and stop 500 to 1,000 feet ahead and say, 'I'm gonna turn in right here.' Well the (truck) driver is going to have his heart jumping out of his chest where he had to slow down real quick."*

*"On a two lane highway, they pass you like it's a game of chicken. It takes six seconds (of open road ahead) to pass a truck. If they see only three seconds of road, they'll still try to pass."*

- **Inexperienced drivers:** Truck drivers complained that some drivers of larger vehicles may not have the experience to effectively operate them:

*"Motor homes, (autos) pulling big trailers, Ryder trucks... you don't really need to have a lot of qualifications to drive those big vehicles. And then they push themselves for many miles,*



*10-14 hours of driving, and they're not used to doing that. You learn to watch and adjust for those kind of people."*

*"Truckers have a certain criteria that you have to meet... laws and regulations that you have to know or else the trucking industry don't want you on the road. Four wheelers don't have to deal with that."*

- **Discourteous Drivers:** Though not directly leading to accidents, but certainly adding to a level of road-animosity, many truck drivers are bothered by the poor driving manners of car drivers.

*"Many are not courteous. You get the old one-finger salute an awful lot."*

*"They got to give a truck driver a break, and they don't. We can't go over 65. They've got the speed to make up lost time."*

*"At construction zones, cars will go all the way to the barricade before they merge with traffic. This creates logjams. They'll even go down the shoulder at times."*

Some truck drivers attribute what is perceived to be poor driving courtesy on their part to irrational and discourteous behavior by cars.

*"If you're coming up on a slower vehicle and you're going to have to pass and you've had your turn signal on for two minutes when you come up they speed up and won't let you by. You either have to tailgate him or you just have to completely slow down and start the whole thing over again. It's just rude, crude, behavior. They just don't want to get behind that truck."*

Truck driving respondents did concede that a small minority of truck drivers do not drive as safely as they should and, subsequently, cast a shadow on the reputation of responsible drivers.

## **2. Car Drivers' Impressions of Truck Drivers**

On the positive side, car drivers perceive truck drivers as well trained professionals, alert and aware of what's going on the road. Respondents said that the good truck drivers understand and follow the law better than most passenger car drivers.

*"I don't see trucks as much of a problem as cars who aren't driving with concern for each other. If you asked me the biggest problem on the road I don't think the first thing that would come into mind is trucks."*

*"Operator behavior is a much greater issue in cars than in trucks."*

Some respondents had a good feeling about truckers because of roadside aid that they had received in the past. In fact, a number of research participants had been helped out at one time or another by truck drivers:

*"We were driving to Murphy, we broke down driver stopped and took me into the next town so I could call AAA."*

*"When my sister and I were coming from Ohio, a truck did stop when our van's tire blew off. One helped us get to the side of the road and the other stayed behind so traffic wouldn't come up on us. They called the state trooper and stayed with us until he got there which was nice because all we had were the two of us and the kids."*

However, one sensed that this positive view is beginning to erode. These panelists believe that the professionalism and helpfulness of truckers is diminishing. They also perceive more of an us-versus them mentality creeping into trucking ranks:

*"Back in the old school...they used to stop and help people with flat tires. You see a trend toward more negative things now."*

*"The older drivers seem to be more courteous than the younger drivers."*

*"There's a small element of meanness in some of these guys. Even when it's unnecessary, they'll get as close to your rear bumper as they can get, honk the horns."*

*"They think they own the road. It's like trucks give them a sort of power."*

This attitudinal shift is intensified by car drivers genuine fear of large trucks. Driving near trucks worries car drivers. A large truck's mass combined with fast speeds and sometimes hazardous driving conditions creates an environment in which four wheelers feel extremely vulnerable.

*"I hate driving next to one. I really tense up. I worry about whether I'm in their blind spot. I've always been petrified of big trucks. They kind of pull you when they're driving next to you."*

*"I'm the same way. I get very tense around a big truck."*

*"Since I got into my accident, I just feel like they're taking over. I feel like why should I even drive."*

*"From the moment I started driving I've been afraid of trucks."*

*"I don't like to get bottlenecked by trucks. It makes me feel uncomfortable."*

*"One bad experience with a truck lasts a long while. It's frightening."*

This fear of trucks was further demonstrated when drivers spoke of their passing techniques.

*"I'm going to tell you right now I speed past them. I get nervous...I start sweating...my hair goes straight back. I might be going 80 by the time I'm past."*

*"I pass quick, fast and in a hurry. I want to get on by him."*

*"I hang back until a car passes the truck and then I'll punch it because I know I've got a clean path and I want to get away from them as fast as I can."*

## **B. Specific Driver Concerns**

### **1. From the Perspective of Truck Drivers**

- **Lack of Driving Focus/Poor Driving Habits:** Truckers believe that many car drivers need to get more serious about their driving habits. Too frequently, they divide their attention between driving and other activities. Truckers complained that people take driving far too much for granted. As one noted, "It goes back to is it a right or a privilege to drive? Everyone (car drivers) thinks it's a right."

The following were mentioned as specific activities that concern truck drivers:

*"Businessmen on cellular phones with their notepad laid across the steering wheel and going 65 miles an hour...that's scary to me."*

*"Business people on cel-phones. They could be going 55 miles an hour and slow down to 40 miles an hour and they don't even know they're doing it. People can't talk and drive at the same time. I've seen them actually run off the road dialing a number."*

*"Reading a newspaper and driving. That goes back to inattentive behavior. They don't pay attention and they don't think they're going to get hurt."*

*"Women doing their make-up in the cars."*

*"Girls drive down the road with their legs crossed using their cruise control...they don't have their feet on the floor... There's just no reaction time if they run into something they don't expect."*

*"Playing loud music in the cars."*

- **Driving in the No-Zone:** A constant problem for truck drivers are cars that drive in their No-Zones.

*"Sitting in your truck, you can only see 25% of the space around you at any one time. But you have to keep track of the other 75%. The problem is that there's so many blind spots."*

*"A lot of time they'll stay in your blind spots. Either in the back or on the side of you."*

- Cars driving in the No-Zone in front of trucks create the potential for rear-end collisions. Truckers feel that when cars pass them and pull into their lanes they oftentimes fail to provide trucks an adequate cushion of road space.

*"Cars are probably least aware of the no-zone in front of the truck. It causes you to tailgate."*

*"If you have 80,000 pounds, if you're driving 55 to 60 mph its going to take you 500 feet to stop it. For a four-wheeler at 2000 lbs. it takes about 140 feet to stop. As good as our air-brakes are, we can't stop as quickly as cars and they have to realize that."*

*"A lot of time we create space, but it's taken away from us because a car pulls into that space and all-of-a-sudden you're tailgating. And we get the ticket."*

Truck operators worry about the right-hand No-Zone because it constitutes a huge volume of unseen space. In this area of the No-Zone, dangerous situations result from cars that: drive or pass in the right hand lane; enter the highway from on-ramps without properly yielding; do not allow a truck to change from the right-lane to the left-lane.

*"I've had times when I've passed a four wheeler and another one comes up and passes the same car and gets into the right lane and won't let me back in. What they don't seem to realize is that the safest place for my truck is in the right hand lane because it's a lot harder for me to see on the right hand side than on the left."*

*"The worst is when cars pass on the right hand side, you've got to figure out where the car is before you get back to the right."*

*"On-ramps are tough. When cars are coming onto the highway. Sometimes you can't see them and you wonder where they are. The right hand no-zone is a lot deeper and a lot further out."*

- **Turn Signals:** Truck drivers view turn signals as an extremely important method of roadway communication between drivers. They believe that far too many car drivers do not use or read turn signals adequately.

*"They don't use turn signals and they don't pay attention to your turn signal."*

*"No turn signals. It shows a lack of courtesy. Cars need to tell trucks what they're going to do because it's so much harder for us to maneuver."*

- **Planning Deficiencies:** Some drivers feel that much of the reckless driving they witness and confront could be avoided if cars took the necessary steps to plan ahead.

*"Cars don't plan their trips. Look at rush hour. Why is there a rush hour... because everyone waits until the last minute to go somewhere."*

*"They have no thinking ahead. I get into the lane that I need to be in and I don't change lanes back and forth."*

- **Tailgating/Drafting:** Truckers dislike the practice of intentional drafting or unintentional tailgating because of the vulnerable position that it placed cars and, consequently, their trucks.

*"When a car tailgates me, I have to drive my truck and that car. I have to plan my stop with them in mind because all they see is my taillights and nothing else. I've got to move my truck side-to-side in my lane to get a look at him. I have to tap my brake-lights to get their attention, get them to wake up. When I'm doing that it takes my attention away from other things I should be doing with my truck; I may miss out on other things that are more important."*

*"Yeah they draft...they'll get up as close as a car length away. What they should realize is that you still get the draft if you're 150 feet behind the truck."*

*"Once I kicked up an alligator and it went right through the windshield of a car that was following too close behind the truck. If she was a safe distance behind, she could have adjusted."*

*"The rule of thumb is that cars should be following trucks by four seconds, other cars by 2 seconds."*

- **Cars Driving at Inconsistent Speeds:** Passenger cars that drive fast are felt much more likely to make poor driving decisions. Those who drive too slow create traffic congestion. Those who drive at erratic speeds make it harder for

truck drivers to anticipate the traffic flow and make adjustments to their driving.

*"The general public drives at a reasonable speed, but there are a few that always have to be first. Speed contributes to carelessness which leads to recklessness. It reduces your reaction time to less than nothing."*

*"Any time everyone is doing a steady speed, someone who is driving slower will cause a lot of rapid lane changes with four-wheelers making all kind of sudden moves."*

- **No Cautionary Provision for Dangerous Cargo:** Cars don't seem to drive any more cautiously near trucks containing potentially harmful material.

*"They should understand what the placards on trucks are. It's dangerous and they've got to realize that if that truck gets into an accident, that truck driver's going to be dead."*

## **2. From the Perspective of Passenger Car Drivers**

Passenger car drivers are bothered by the following aspects of truck driving:

- **Pressure to Meet Scheduling Demands:** This was the most frequently voiced complaint among car drivers. It is considered especially troublesome because it leads to other perceived truck driving transgressions like: speeding, tailgating, driving while tired, and using stimulants to stay awake.

*"I don't think I'm the one who has to suffer because of their lack of ability to schedule properly."*

*"They're rushed a lot of times. They're schedule driven."*

*"Their schedule makes them drive too fast. They're always hell-bent for leather and somehow they've got to mellow down a little bit."*

*"(When I had my accident) all he wanted was for the trooper to give him a ticket so he could get moving."*

Even though car drivers believe that some restrictions on driving limits are in place, they also feel that such restrictions are oftentimes ignored and rarely enforced. As one respondent commented:

*"They say that they have limited hours. A lot of them cheated on that because it gets 'em more money on their paychecks."*

- **Perceived Use of Stimulants:** Driven by demanding schedules and a per-mile pay structure, it is believed that many drivers resort to stimulants that negatively affect their driving ability.

*"In some cases they drive without sleep and they're all hopped up on No-Doz. Their ability to think and function properly is greatly lessened."*

*"My father-in-law is a truck driver, and says the drug thing happens a lot more than people would think."*

- **Tailgating:** Car driver are unnerved by large trucks that get right behind them, especially at high speeds. Again, a rush to keep schedules is thought to be the root cause of this phenomenon.
- **Use of Turn Signals:** A number of drivers complained that truckers change lanes and hit their turn signals at the same time, not allowing for sufficient read-and-react time.
- **Tire Spray:** There was much agreement among respondents that tire spray during rainy weather was a major safety concern. However, they also felt that there is little that truck drivers can do to reduce this annoyance.
- **Inadequate or Missing Equipment:** Retreads and devices that prevent flying debris are the principal concerns here.

*"Sometimes they don't have the proper equipment. They don't have the covers on the top (of their payloads) or the mud-flaps over their tires."*

*"They use retreads they come off and they damage your car."*

*"The retread problem is bad. All that rubber and material is dangerous when its in the middle of the road."*

- **Lack of Visible Law Enforcement:** In the eyes of many car drivers, little is done by police or DMV officials to address truckers who violate the law.

*"I ran (an informal) survey...the last 1500 vehicles I've seen pulled over for speeding...not one of them was a truck."*

*"Drug testing should be increased."*



*"I think that law enforcement should be a bigger presence. Logs, equipment checks, mud-flaps, canopies."*

*"When they're weighed why not also check their log books."*

*"Around this area with all the dad-limbed building going on it seems like everywhere you look you got dry wall falling out...you got boxes everywhere. Anytime you're anywhere near a land fill there's stuff strewn everywhere. I could get a \$200.00 fine for throwing a cup out my window, but they get nothing."*

## **C. Other Findings: Truck Drivers**

### **1. Driving Challenges**

In addition to the challenge of dealing with careless, reckless or inexperienced drivers, other truck driving hazards include:

- Dealing with dangerous driving conditions such as rain, ice, and snow. Interestingly, though, some drivers noted that most accidents involving cars and trucks occur during optimum driving conditions.
- Contending with the changing road conditions and traffic bottlenecks caused by construction.
- Meeting demanding delivery timetables.

### **2. Perceived Media Bias**

Some truckers feel that they are portrayed unfairly by the media and, therefore, do not get respect from the car driving public. Moreover, they feel that they are unjustly credited as the cause of accidents between cars and trucks when, statistically, they are not.

### **3. Observing Posted Speed Limit**

None of the truck operators who were interviewed said that they exceed the speed limit on a regular basis. There are many practical reasons for this, including:

- **Limited Maneuverability:** *"Most time when you're in town you'll be right at the speed limit and mostly below it. That's because you often get yourself in tight situations with cars and there's a lot more going on in town."*
- **Potential Consequences:** *"There's no real advantage in going above the speed limit. It's not worth the risk. You might get a ticket or you might get into a wreck."*
- **Greater Relevance of Speed Limits to Trucks:** *"Speed limits on things like off-ramps are real important to trucks because you can't go around those things as fast as cars can."*
- **Engine Restrictions:** *"Most all trucks have 65-70 mph governors on their engines."*

- **Safety Concerns:** *"Speed is the number one cause of accidents and fatalities."; "The faster you go the harder it is to control a truck if you blow out the driving wheel."*
- **Stricter Enforcement of Trucks:** *"The DMV officer can write a ticket to a truck driver for speeding when he's doing a lot less than what the speed limit is. We've got to have our vehicle under control for any road conditions."*

#### 4. **Thoughts on the Professionalism Within the Trucking Industry**

In contrast to the perceptions of car drivers, who believe truck driving standards are slipping, there was a general feeling among the interviewed operators that truck drivers are more experienced and skilled today than they were ten years ago. This results from fewer independent drivers, mandatory drug screenings, on-the-spot drug testing, and more stringent entrance requirements. According to them, the proof of the accuracy of these perceptions are current statistics that indicate more truck driving miles and fewer highway fatalities.

#### 5. **Relationship With Law Enforcement**

When asked whether dealing with the State Police or Department of Motor Vehicle was a challenge, the answer was a definitive no. Truck drivers appreciate the help and assistance of these law enforcement groups. As one driver commented, "If the police and DMV are a challenge than you've got a problem. They help us!".

## **D. Other Findings: Car Drivers**

### **1. General Observations**

- The majority of the car drivers who were interviewed are most intimidated by eighteen-wheel tractor trailers.
- Automobile drivers are bothered by wide-loads, especially on two lane highways. Double rigs also concern them because they feel that piggy-backs are more likely to jackknife than single rigs.
- Interestingly, a majority of car driving panelists feel that they are at the greatest risk from trucks on interstate highways.
- Rain and night time driving are the conditions where car drivers are most uncomfortable around trucks. Contributing to their concerns during these driving conditions is their feeling that trucks drive just as aggressively in bad weather as they do in perfect driving conditions.

### **2. Awareness of the No Zone**

- While some respondents had heard of the No-Zone, most were completely surprised when they saw the range and volume of space that is blind to truck drivers. All unanimously agreed that knowing this information would affect they way in which they drive near trucks. One respondent requested a copy of the No-Zone literature to take home with her.
- A few car drivers remembered reading the bumper sticker warning, "If you can't see my mirror, I can't see you". This was considered very helpful advice regarding truck drivers' blind spots. Notably, their perception is that seeing the truck's mirror (rather than the driver's face in the mirror) assures that they are visible to the truck.

### **3. Reporting Dangerous Driving**

- Two respondents in the group had reported drivers, but only because the truck caused damage to their cars.
- A number of respondents said that they'd probably report poor driving more frequently if trucks had 800 numbers prominently placed on their trucks. However, they did wonder what agency one would call for independent truckers.

#### 4. Interest in Safety Information

- Respondents seem genuinely interested in finding out ways that they could drive more safely around trucks.
- The favored informational delivery is short and concise public service announcements on television.
- Interestingly, they seem to place a higher value on the information if truck drivers communicate it themselves.

## **E. Other Findings**

### **1. Reactions to Safety Devices on Trucks**

#### **a. Splash and Spray Deflectors**

Both driver groups believe that splash and spray deflectors (like those on UPS trucks) would improve dangerous driving conditions brought on by water spray from large tires. Truck drivers liked the idea, but hypothesized that trucking companies would not voluntarily undergo the expense of equipping their fleets. Car drivers are in favor of anything that may lessen the rain-spray problem.

#### **b. Underride Guards**

Since underride guards are required by law, do not impede the operation of trucks, and save lives, truck drivers have no problem with them. Interestingly, though, one driver was mildly resentful of them:

*"The thing is it's to save people that violate the law. Why should truck drivers have to go through the expense of putting those on when its to protect tailgaters."*

Truck drivers believe side or front guards are not essential and would not materially impact fatality statistics.

Most car drivers are not even aware of underride guards. Some thought their purpose was to allow a step-up into the rear of the trailer. After an explanation of their purpose, car drivers appreciated the additional safety measure, but acknowledged that it is a cold comfort. As one respondent put it:

*"It's like a guy walking in here with a gun with 100 bullets in it versus a gun with 10 bullets in it. You just don't want to encounter the situation."*

### **2. Viewpoints on Independent Truckers**

Both groups feel that the independent or "wildcat" drivers were the sub-segment of the truck driving industry that posed the greatest risk on roadways.

Truck drivers commented:

*"Independents have to push themselves a little harder. When you're making a \$1,700.00 to \$1,800.00 a month payment and*

*(also considering) fuel, tire wear, and engine, you have to put in longer driving hours."*

*"In the early '90's a lot of wildcatters started getting out of the business. They couldn't be profitable with only one license. It helped straighten out the business and corrected a lot of the wrongs of deregulation."*

And car drivers said:

*"I think you need to make a distinction between truck drivers. There's the guy who owns his own cab, he's got about \$100,000 in that thing and he's got to move it...he's got to bring in that revenue. Then you got the company driver, like Wal\*Mart, who is probably on a schedule, but doesn't have to bust his tail. They're going to drive a little safer."*

*"All Food Lion trucks always driving slowly than everyone else. I think they have a governor on them but they're always driving great."*

*"Independents get paid by the mile, so the more rest the less money they make."*

## **F. Accidents Between Cars and Trucks**

Near the end of each group discussion, truck and car drivers who had been involved in an accident were asked to recount the details of the accident, identify the causal factors, and indicate whether they have changed their driving habits as a result of the accident.

As recounted, the accidents were caused by a variety of careless or dangerous driving behavior.

Also noteworthy is the emotional toll such accidents take on car and truck drivers alike. Every driver who was involved in an accident suffered after-effects long after the time of collision. This was evident in what was said and, especially, the way in which the accounts were expressed by the involved parties during the focus groups.

### **1. Truck Drivers**

*"It was No-Zone. I hit a car that was on my left. I couldn't believe that a car could have been there for too long. It was daytime, dry road. Ultimately it was my fault, whether I caused it or not. I changed the way I drive. I look four times now before I change lanes."*

*"I was going around a curve and this guy pulled out in front of me about 75 feet and I was going about 50 mph. He got blinded by the sun and I hit him from behind. Even though they said it was his fault I'm a lot more careful now."*

*"Unfortunately, mine involved alcohol. He decided to run northbound in a southbound lane. (It was caused by) no focus and alcohol. It was 9:00 at night. I had a pickup-truck in front of me and a flatbed on the (right) side of me. Me and the pick-up truck was passing. My front bumper was at the rear tandem (of the flatbed). The pick-up moved out of the way and all I saw was headlights (coming at me) and I had less than 80 foot to get my nose out of the way. I put my front bumper into the trailer to avoid the head-on. I moved over far enough so he hit me in the side at the first tandem. (Afterwards) I just about quit. In fact I did quit for two months."*

*"Two eastbound lanes and two west bound lanes. I was in the right west bound lane and the four wheeler was in the far eastbound lane. It was 11:30 at night. I saw his lights go haywire then I saw him coming across the median. He ended up sliding all*



*the way across that side of the highway and he bounced off my two right tandems, bounced all the way across the median. He tried to keep going but they got him. Drunk driving was the cause. It made me think about how many highways don't have a guard rail in the middle."*

*"It was about 9:30 in the morning. I had a load on the flat bed that was heavy and (made it hard to) see out of the mirror. I looked over and seen the red car off at a distance. When I committed to the intersection, he done passed the stop sign, hit me, knocked the tandems from under the tractor, and jackknifed me into a bank. When I finally got stopped I looked back at the car and half of the car was disintegrated. I went to the boys funeral (and found out that the accident) was caused by his girlfriend saying he didn't want him no more. So he lost his focus and was driving reckless. Now, it just makes me jam on the brakes that much quicker. But for awhile, I didn't know if I wanted to do this any more."*

## **2. Car Drivers**

*"I saw a truck and he was pulling out and I say, 'Does he see me?' He was a half a block away. I slammed on the brakes and saw I was going to hit him and I decided to go into the third axle. He said he didn't see me but it was his fault. He said I should have had my lights on. But it was 9:00 in the morning. The only way that (the accident) could have been avoided was if I was going 20 miles an hour. When my son saw the car he cried. He said I could have died."*

*"My two boys were in the back seat, a 3 year old and a 6 month old. I was on US 1, just into Franklin county. I was stopped in the left straight lane. A truck came up behind me, put on his brakes, and started to slide. When he swerved and missed us I thought we lucked out. Then, the back of the truck slid and hit the car. Glass rained down on my boys, but they were alright. He was issued a ticket for going too fast. It doesn't change the way I drive as much as it changes the way I feel when I drive. When I went to get the accident report, I was in a construction zone giving the truck in front plenty of room. And a truck came in behind flashing his brights at me. That was actually more upsetting than the accident was."*

*"I was stopped at a stoplight. A truckload of steel was coming down the highway. I could tell he was going to hit us. And he did."*

*He didn't have enough stopping distance. Now I'm always very concerned about anyone coming up behind me."*

*"I was driving down I-95 North...7:30 at night...no rain. I moved into the left-hand lane to pass a truck on my right. Then the truck put his blinkers on and moved left instantaneously. He hit my car and blew out both tires immediately. I just missed the concrete abutment. I got the car under control on the side of the road. He hit me again and I landed on the other side of the median just out of the way of oncoming traffic. Completely totaled my car. When the police came, all he could say was 'How long is this going to take. I got a load. I got a deadline.' My nerves are like jelly just talking about it. That's why I'm not feeling too good about truck drivers right now. I don't second guess myself at all about what happened, but I have changed the way I drive."*

## G. Safety Ideas

At the end of each session, respondents were asked to articulate specific measures that might be taken to make the driving experience a safer one. The following thoughts were offered.

### 1. Truck Drivers

- **Daytime Running Lights:** Truck drivers are strongly in favor of a federal or state requirement that passenger vehicles operate with daytime running lights at all times. Visibility would be greatly improved, especially during rainy conditions where tire spray all but obscures cars without lights. One driver mentioned that Canada's law requiring daytime lights has resulted in a decrease in accidents and fatalities.
- **Tinted Lights for Motorcycles:** One truck driver felt that it would be helpful to have motorcycles equipped with a specially tinted light because of the speed with which motorcycles travel and switch lanes. It was also noted that collisions between trucks and motorcycles are much more likely to end in a fatality.
- **Broadly Communicated Safety Information:** Two truck driving respondents, who are actively involved in communication about the trucking industry, would like to see a wider dissemination of safe driving information to the general public. At present, their main impact is with driving-age high school students.
- **Greater Driving Training/Restrictions/Penalties for Younger Drivers:** One trucker suggested that the level of instruction obtained through driver education classes does not sufficiently teach principles of safe and defensive driving. Furthermore, it was felt that any penalties for major infractions by drivers under 21 should be harsh in order to provide sufficient disincentive to drive dangerously.

### 2. Car Drivers

- **Daytime Running Lights:** Respondents in the car driver group also welcome the idea of daytime running lights as a way to increase visibility and safety. Not one respondent objected to the idea. One offered the manufacturing suggestion that all that cars be equipped with lights that automatically turn on and off with the car's ignition.
- **How's My Driving Stickers:** Most everyone in the car driver groups feel that a clearly displayed and easily read and remembered 1-800 number to report bad driving would be a good idea. The numbers would facilitate

reports of poor driving and, they thought, would give the truck driver something to think about if that driver was considering a dangerous move.

- **Change Pay Structure:** A number of respondents believe that road safety could be furthered through an hourly pay structure for truckers instead of compensation by the mile.