



U.S. Department of Transportation
Federal Motor Carrier Safety Administration

OFFICE OF ANALYSIS, RESEARCH, AND TECHNOLOGY

FMCSA Truck and Bus Crash Facts March 11, 2009

Webinar Transcript

Presenters

- Ralph Craft, Senior Transportation Specialist, FMCSA Office of Analysis, Research, and Technology (ART)

Speakers (optional)

- Kirse Kelly, Web Conference Host, FMCSA ART

Description:

Truck and bus crash trends over the past 10 years indicate that fatalities in large truck crashes have consistently declined during this period despite an increase of the number of large trucks on our Nation's highways. Speaker Dr. Ralph Craft has managed the Large Truck Crash Causation Study since its beginning in 2000. His dynamic presentation includes the number of truck crashes, fatalities, crash rates, truck types, crash types, and limited data on non-truck crashes, and he will take questions from the audience at the end. Don't miss this opportunity to learn more about truck and bus crash trends over the past 10 years!

PRESENTATION—TRUCK AND BUS CRASH FACTS

PRESENTATION TITLE SLIDE: 2007 NATIONAL TRUCK AND BUS CRASH PICTURE

Fran (Operator):

Welcome and thank you for standing by. At this time all participants are in a listen-only mode. To ask a question during the question and answer session over the telephone, please press *1 on that touch-tone phone. Today's conference is being recorded. If you have any objections you may disconnect now. I would like to turn the call over to your Web Conference Host, Kirse Kelly. You may begin.

Kirse Kelly (Web Conference Host, FMCSA ART):

Thank you very much Fran. Thanks to all of you who are participating in our webinar on FMCSA Truck and Bus Crash Facts, The 2007 National Truck and Bus Crash Picture Webinar, which is part of a series that's put on by the FMCSA Office of Analysis, Research and Technology. As Fran mentioned, time permitting, all questions will be answered at the end of the call. You'll actually be able to submit questions in the **Q&A Box** which is on the left side of your screen, throughout the presentation. At the end of the call you will be able to both submit questions online and ask questions over the phone line. Once again, that will be at the end of the call. Also note, you will be able to download a copy of the presentation at the end of the webinar. If you have to leave early you can return to this Website at a later time and the slides will be available. That's actually a favorite question of a lot of people. They will also be available on our Website later, as well as the audio; it should be available in two or three weeks.

Members of the trade or local media who are participating today are asked to contact the FMCSA office of communications at 202-366-9999 at the conclusion of the webinar if you have any questions.

Finally, for anyone who may have a smaller screen and the virtual meeting room is on the upper left-hand side of your screen, you may want to try full screen which can be accessed by clicking on **Meeting** that's at the very top left side of your screen and you choose **Manage My Settings** in the list and then click on **Full Screen**.

Let me go ahead and turn you over to Dr. Ralph Craft of the FMCSA Analysis Division.

SLIDE 2: FATAL LARGE TRUCK CRASHES IN 2007

Ralph Craft (Senior Transportation Specialist, FMCSA ART):

Good morning. Let's go right to the second slide. When talking about crash data, it's important to remember that there are three levels of data. We have to--whenever someone mentions statistics to you, think—about whether they're talking about people, such as the 4,808 people killed in large truck crashes in 2007. Maybe they're talking about the trucks involved in crashes.

In 2007 there were 4,584 large trucks involved in those fatal crashes, or are they talking about the crashes themselves. There were 4,190 fatal crashes involving at least one large truck. The reason for the difference, of course, is in some of the fatal crashes there's more than one truck. The truck number is always higher than the crashes. Of course there are usually more people killed than there are crashes. The people number is almost always higher. In 2007—this is fairly typical—fatalities were 15 percent higher than crashes.

The American Trucking Association always uses the “crashes” number. Why do they do that? It's the smallest number. Now the Federal Motor Carrier Safety Administration, we always use the “number of people” which is the largest number. Why do we use the largest number when we talk about crashes? That's because that's the number that Congress is interested in and the American people are interested in. They want to know how many people die. So we always use the largest number. Now the most important number to us is actually the one in the middle, “trucks.” It is our job to keep large trucks from having crashes.

Of those 4,190 fatal crashes or those 4,584 trucks involved in crashes, FMCSA is only responsible for about two-thirds of them. We regulate interstate motor carriers and intrastate carriers that carry hazardous materials.

In 2006, the latest data that's available from the University of Michigan Transportation Research Institute—their trucks involved in fatal accidents survey that they do for us—interstate motor carriers were represented in 63 percent of crashes. In other words, slightly under two-thirds of the crashes were actually interstate motor carriers. Twenty-five percent were intrastate carriers and then the others were either personal use large trucks, government owned (trucks), or daily rental trucks like U-Hauls.

SLIDE 3: FATALITIES IN LARGE TRUCK CRASHES

Let's look at fatalities over the past about 15 years. This is done in three-year averages; which was the idea of a previous office director that we had because the year-by-year number often jumps around. When you look at the three-year average for the three-year periods, for the latest period 2005-2007; then going back to 1993-1995; there's been a decline from the 1996-1998 period to the 2005-2007 period of about 5.4 percent. The chart makes it look like it's a huge decline, but of course remember the chart is starting at 4,800 and goes up to 5,300. The percentage is actually, if you did this on a per-year basis, it's about a drop of half-a-percent a year.

SLIDE 4: TRUCK OCCUPANT DEATHS

Let's look at truck occupant deaths. Over the years, over the past, from 2001 to 2007 the number of truck occupants killed in fatal truck crashes has gone up—slightly, but it's gone up. The blue is the single-vehicle total. You would expect that to be most of the people that died in single-vehicle crashes. That's exactly what it is. That is about two-thirds of the number. The total is now up to about 800 a year. If the number of truck occupants dying in crashes is going up, while the total number of people killed in truck crashes is going down, it means that a larger percentage

of the people killed are now occupants of trucks. In 2001, 13.8 percent of the fatalities in large truck crashes were occupants of the large truck. In 2007, the number increased to 16.8 percent.

SLIDE 5: MOTOR VEHICLES IN CRASHES, 2007

You notice that we're talking about 2007 data here and now it's 2009. How come we don't have 2008 data? We depend on the Fatality Analysis Reporting System of the National Highway Traffic Safety Administration to give us our final numbers for (deaths) in a year. Those numbers do not come out until summer or early fall. Right now the most recent data we have available is from 2007.

Let's put truck crashes in some sort of perspective. In 2007, there were 4,584 large trucks involved in fatal crashes as you've seen; 54,679 other vehicles. Trucks represented eight percent of the vehicles involved in fatal crashes; three percent of the vehicles involved in injury crashes and four percent of the vehicles involved in property-damage-only crashes. Out of the total 10,417,000 vehicles—actually 10.8 million total vehicles involved in crashes, 441,000 were large trucks and 10,400,000 were other vehicles. These were just police-reported crashes. Nobody has data on non-police-reported crashes. If you have a little fender-bender with somebody and you both stop and exchange insurance information—neither one of you calls the cops—that's not going to make it into the data collected by us or by the National Highway Traffic Safety Administration. There are probably a lot more than 10,800,000 vehicles involved in crashes, but a lot of them only the insurance companies hear about.

SLIDE 6: FATALITIES IN CRASHES

Let's look at fatalities in crashes over the last five years. Put trucks in a different perspective here. The first column is the fatalities in large truck crashes. The second column is the number of fatalities in cars—by that I mean passenger vehicles, which include passenger cars, pickup trucks, vans and sport utility vehicles. The third column is motorcycles and the fourth are the total fatalities.

I have highlighted the truck figure, which goes from 5,036 in 2003 to 4,808 in 2007—a slight decline. Look at the motorcycle column. It goes from 3,771 in 2003 to 5,250 in 2007. This is the big new phenomenon in fatal crash data. It's a huge increase. Over this period of five years fatalities in large truck crashes were down about five percent. Fatalities in passenger vehicles were down about seven percent and fatalities in motorcycle crashes were up 39 percent. What this means is now motorcycles have passed up trucks as being responsible for the (second) highest number of deaths on the highway. The good news for motorcycles is their property damage only crash rate is very low. We're trying to figure out why that's true.

Another thing about this table you'll notice, is if you add up the first three columns—trucks, cars and motorcycles—it adds up to more than the last column. For example, in 2007, if you add up the first three columns, it comes to 46,325, but the total number of people that died that year was 41,059. That's because, of the people that are killed in truck crashes, a lot of them were also in passenger vehicles. The “truck figures” include the people that died inside the truck, the passenger vehicles and motorcycles. The “cars figure” covers the people that died in passenger

vehicles, but also those that died in passenger vehicle crashes with trucks or motorcycles, etcetera, etcetera. Remember when you're looking at the numbers for any type of vehicle, you're double counting some people because the vehicles crashed with each other.

SLIDE 7: VEHICLE INVOLVEMENT RATES: FATAL CRASHES

Let's look at another way to look at trends over time. This is a 10-year period from 1997 to 2007. This is comparing the "passenger vehicle fatal crash rate" with the "fatal crash rate of large trucks." This is the number of "fatal crashes per hundred million vehicle miles traveled" by these vehicles.

FMCSA has been criticized recently because we started to count our rate in terms of the number of miles traveled by all vehicles. Some people accuse us of doing it that way to make it look like it's a smaller number. Well this is the old-fashioned way that we've been doing it for a long time and we continue to do it this way. We're also doing it the new way too, but I am talking about the way we have done it ever since I joined FMCSA 16 years ago. If you notice the "large truck fatal crash rate" is always higher than the "passenger vehicle rate." It's higher in the range of 10-25 percent each year. In 2002 it was only ten percent higher. In 2000 and in 2007 it was about 25 percent higher.

Before we go on, on the left-hand side, these are the number of deaths per hundred million of miles traveled. It ranges there from about 1.5 to 2.5.

SLIDE 8: VEHICLE INVOLVEMENT RATES: INJURY CRASHES

These are the number of injuries in a large truck and passenger vehicle crashes. Notice the numbers range from about 40 all the way up to 160—much higher than the fatalities. Thank goodness for both passenger vehicles and large trucks that fatal crashes are a small percentage of the (crashes).

When we look at the crash rates for passenger vehicles and large trucks in injury crashes it's startlingly different than from the fatality rate. The "passenger vehicle crash rate" is always about three times higher than the "large truck rate." That's been true over time. In 2006, the "passenger vehicle crash rate" was exactly three times higher than large trucks. In 2007 it's a little over three times as high.

SLIDE 9: TOTAL CRASH RATES, 2007

So we look at the next slide, which is the "total crash rate per million vehicle mile traveled" for passenger vehicles versus large truck. There's a "fatality rate" which is those two very, very small bars on the left-hand side of the chart; then the "injury rate" which you can clearly see the passenger vehicle is higher than the trucks; then the "property damage only rate" where the "passenger vehicle rate" is also higher than the trucks; and the "total rate." The "total crash rate" for passenger vehicles is about twice as high as that of large trucks—a little less than twice as high as large trucks.

SLIDE 10: VEHICLE CONFIGURATION, 2007

Now let's look at a little bit about the trucks involved in crashes. In terms of vehicle registration of trucks, there are two basic types of trucks: combination trucks and single unit trucks. Combination trucks are where you have a tractor pulling a semi trailer, two trailers, three trailers, or the truck tractor operating by itself. That's classified as a combination truck because it almost always travels pulling something. It very rarely travels without pulling a trailer and it's manufactured and designed to pull trailers. My friends at the University of Michigan Transportation Research Institute are always telling me that the most dangerous vehicle on the road is a truck tractor that's not pulling anything because it's not supposed to be not pulling anything. It's supposed to be pulling something, so when it operates by itself, it's unstable and overpowered.

Now combination trucks make up, there were 2.2 million combination trucks registered in 2007 and 6.8 million single-unit trucks—these range from a pretty big trash hauler down to a UPS or FedEx delivery trucks. Three-quarters of the trucks registered were single-unit trucks.

Now look down at the bottom of the slide, the last slide—"involvement in fatal crashes." Combination trucks make up about three-fourths of the trucks involved in fatal crashes. So, while combination trucks make up only about one-fourth of the total number of vehicles registered, they make up three-fourths of the trucks involved in fatal crashes. One of the reasons is the figures in the middle—the vehicle miles traveled. Combination trucks drove a total of 145,008 million miles, in other words, 145 billion miles, in (2007), whereas single-unit trucks drove only 81.9 billion miles of travel. That's one reason for the difference. An average combination truck drives an awful lot more than an average single-unit truck.

SLIDE 11: CRASH TYPE, ALL TRUCKS – FATALS, 2007

Now let's look at the types of crashes that trucks are involved in. In 2007, "collision with another vehicle in transport"—75 percent of the "fatal truck crashes" involved "collision with another vehicle in transport." That's in stark contrast with passenger vehicles. In passenger vehicles, only 58 percent of the fatal crashes were crashes with another vehicle. What we know about crashes with passenger vehicles is it's a lot of people who are out alone, late at night after drinking or partying and not getting enough sleep, running off of the road and hitting a tree or something; not running into another vehicle. Most truck crashes occurred during the daytime because trucking is after all, a business where you deliver things

and businesses are usually open during the day. Of the 75 percent—and these numbers here add up to 75 percent. I'm taking the percentage is a portion of the 75 percent—those numbers will not add up to 100.

"Angle crashes" which are the mostly intersection crashes, represent 35 percent of the crashes; "rear-end crashes," 18 percent; "Head-on crashes," 15 percent and "side swipes"—like when you're moving on to an interstate or moving off, six percent of the 75 percent. "Collisions with fixed objects" represent nine percent of the fatal crashes; "collision with a pedestrian," seven percent; "rollovers," five percent—a lot of cases, the truck's involved in collisions with another

vehicle will rollover. “Rollover” here means, in the five percent of fatal crashes, the first thing that happened was the truck rolled over; and then “other types of crashes.”

SLIDE 12: LARGE TRUCK-PASSENGER VEHICLE CRASHES, 2007

Using FARS data, let’s look at a couple of these types of fatal crashes. FARS, the Fatality Analysis Reporting System of The National Highway Traffic Safety Administration does not collect data on who’s at-fault in crashes, but when you look at certain types of data, you can figure out fault. There’s no excuse for one vehicle to hit another vehicle in the rear end. If we assume—well, there is an excuse, someone cuts you off and stops quickly. This is a complaint of truck drivers; that passenger vehicles are always cutting and front of them, then stopping quickly and with the larger truck, they have difficulty stopping. When we listen to people in the industry talk about “rear-end crashes,” we think there must be a lot of crashes were trucks hit passenger vehicles and not many the other way around. Instead, it’s just the opposite. In “rear-end crashes” in 2007, in 16 percent of fatal crashes, a passenger vehicles struck a large truck in rear-end. In only five percent of the cases, did the large truck strike the passenger vehicle. We can assume that in “rear-end crashes,” most of the time—and these numbers have been pretty steady over the years—the passenger vehicle is at-fault in these types of fatal crashes.

Now let’s look at “head-on crashes.” Seventeen percent of the fatal crashes were “head-on crashes.” In almost all of those cases, in 16, 17 percent a passenger vehicle crossed the center line and hit the truck. In one percent the large truck crossed the center line and hit the passenger vehicle. These two types of crashes account for, let’s see 16, 32, 33 about 38 percent, a little over a third of the “fatal crashes.”

Another type, of course, is the “single-vehicle crash,” which we saw on the previous slide—“rollovers;” “collisions with fixed objects” These are not—in those cases, we can, here again—we can pretty much assume that the vehicle involved is at-fault: in this case, the truck. Still, even adding up the “rear-end,” the “head-on” and the “single-vehicle crashes,” it only comes to 50 percent of crashes. Most of the other crashes are crashes like at intersections/side swipes where somebody has the right of way and somebody doesn’t; the vehicle that does not have the right of way could be considered at-fault. FARS does not collect data on which vehicles have the right of way, so it’s difficult to tell from that data.

SLIDE 13: DRIVER RELATED CRASH FACTORS, 2007

We’ve done another study, a study that I directed. The Large Truck Crash Causation Study found that in an overwhelming percentage of the cases, the critical reason for the crash was something the driver did or did not do. When trucks were given the critical reason, 88 percent of the time it was assigned to the truck driver. In crashes with passenger vehicles where the passenger vehicle was assigned a critical reason; 92 percent it was something that the driver did. FARS does collect data on driver related crash factors. These are the figures from two-vehicle fatal crashes—truck and passenger vehicles. In crashes between a single-large truck and a single-passenger vehicle, 38 percent of the time the large truck driver was coded with one or more crash related factors. Sixty-seven percent of the time, 67.5 percent of the time, the passenger vehicle driver was coded with one or more crash related factors. You notice that 38 and 67 add up to more than a 100, but

that's because it's possible in the crash that the large truck driver and the passenger vehicle driver were both coded with crash related factors.

If you look at the order of the selected factors, it's very similar. For example, "ran off the road or out of the traffic lane into another traffic lane" was number one for both large trucks and passenger vehicles—much higher for passenger vehicles, but number one for both. "Driving in excess of the posted maximum speed," here again it was the second factor for trucks and second factor for passenger vehicles—much higher for the passenger vehicles. The same thing with attentiveness/failure to yield right-of-way. You sort of go down the list. The list is ordered in order that the truck drivers were coded with factors, except right down at the bottom—"overcorrecting" which is a driver mistake much more prevalent among passenger vehicle drivers. Passenger vehicle drivers were also more bothered by "bad road conditions," than truck drivers.

Down at the bottom, I noticed some other things. I noticed the last one down here, "overcorrecting"—1.6 by truck drivers, which means that all of the factors cited in that notation at the bottom were less for truck drivers. For passenger vehicle drivers, 14.9 percent were coded with "driving under the influence of alcohol, drugs or medication," 3.4 percent were coded with "driving erratically or recklessly," and two percent were coded as a "hit and run." In other words, leaving the scene of the crash after the crash.

SLIDE 14: HAZMAT AND BUSES, 2007

Let's go on to a little bit about hazardous materials and buses. The two types of cargo that we worry most about at the Federal Motor Carrier Safety Administration are naturally, hazardous materials and passengers. With regard to hazardous materials, in 2007, four percent of the vehicles involved in fatal crashes were carrying hazardous materials; one percent of those in non-fatals. Our non-fatal data comes from a General Estimate System which is also a National Highway Traffic Safety Administration data collection system.

Of those four percent of the trucks carrying hazardous materials in fatal crashes, 36 percent of the time they were released, there was a release of the hazardous materials. The release of hazardous materials does not count fuel in the tank of the vehicle. It has to be something coming from the cargo compartment. This means, although a lot of people when you say hazardous materials think it's going to be some substance which will immediately evaporate if they collide with the truck carrying it. In most cases the hazardous material doesn't leave the truck. People killed in crashes with hazardous materials are killed in the old-fashioned way, by the two vehicles colliding in a manner in which somebody in one of the vehicles dies. Very rarely are people involved in crashes with trucks killed by exposure to hazardous materials. The release of hazardous materials in non-fatal crashes is even smaller. Only 12 percent of the time in non-fatal crashes hazardous material released from a cargo department of the trucks.

In terms of the types of flammable liquids—everybody is afraid of exotic hazardous materials. In most cases, it's flammable liquid such as gasoline and oil, things that almost all of us pump into our cars. Some of us use it to fill up our lawn mowers. We're very used to handling this kind of material. That's the kind of stuff that is usually involved in releases of flammable liquids. Most

of this is gasoline trucks taking gasoline to your local friendly service station. Flammable liquids are 62 percent of the materials released and fatal crashes and 43 percent in non-fatal crashes.

Looking at bus crashes in perspective, in terms of vehicles involved in crashes as we've seen, there were 4,584 large trucks involved in fatal crashes in 2007. There were only 278 buses involved in crashes. Only 35 of them were Cross Country/Intercity Buses—which are mostly the type we regulate. Most of the buses involved in fatal crashes are school buses or transit buses. Federal Motor Carrier does not regulate those buses. Recently there have been a number of sort of spectacular bus crashes that have made the news. Jim Hall who used to head the National Highway Traffic Safety Administration said there's an epidemic of bus crashes; about six people a month have died in the last six months. That means, that maybe, when all of the data from 2008's in, there might be maybe 70 or 80 people killed in bus crashes. That's still an awful lot less than the 4,584—the 35 of course is only one percent of 4,584. We might creep up to maybe one and a half percent when the 2008 data is in.

When speaking about the 2008 data, we don't have final data yet. We won't get that for a number of months. It looks like it's going to be a good year for truck crashes. We think they'll drop considerably in 2008. We think passenger-vehicle crashes will also be down considerably. This proves that if you ruin the economy and raise the price of gasoline and diesel, you're going to save lives. Of course, that means you have to deal with the ruined economy and very high fuel prices, but those two factors are probably going to be the reason. There were less trucks on the road last year and less passenger vehicles on the road, so those numbers are going to be down. They're probably were the same numbers of Cross Country/Intercity Buses going to casinos last year. The Cross Country/Intercity Bus number will probably will not be down. I think in times of a bad economy, maybe more people visit casinos.

SLIDE 15: CONTACT INFORMATION

Okay. That's about it. I'll be available to answer questions, but in addition, we put out annual reports on truck and bus crashes. They are available from our Website, fmcsa/ai.dot.gov click on crash statistics and national statistics. Our 2007 summary of crashes is already up there. The 2007 complete report should be up in a week or two, if you want to look at a lot of the data that we've covered today and a lot of other data. The large annual summary that we put out has both trends in it and data for the year. There are about 60 tables of data, so there's a lot more than what we can cover in this hour.

So we are available for questions right now.

[32:14]

QUESTIONS AND ANSWERS

Kirse Kelly: This is Kirse Kelly. Thank you very much, Ralph. We're now open for questions. If you'd like to ask a question, you can submit questions in the **Q&A Box** which is on the left side of your screen, or to ask questions over the phone, you just press

*1 and state were name to the recorded message. When your line is open Fran, who's our phone operator, will announce you by name. Please state your name clearly for proper pronunciation. Questions will be answered in the order that they are received.

As mentioned at the beginning of the call, please note that you'll be given the opportunity to download a copy of the presentation at the end of the webinar. It will also be available on our Website later today or tomorrow. If you have to leave early, you can return to this Website at a later time and the slides will be available or go to our Website tomorrow. I will go ahead and start reading the questions that we have gotten.

Brian Tefft: *In the case of rear-end crashes that are fatal, it is indeed evident that passenger-vehicle drivers are more likely to be at fault, i.e. striking the rear of the truck rather than the reverse. I wouldn't dispute that it's reasonable to conclude that car drivers are more likely to rear-end trucks than the reverse, however it seems it would also be plausible that a crash is more likely to be fatal when a car rear-ends a truck than when a truck rear-ends a car. In other words, I do believe your conclusion is probably right, but it's not the only way to look at the data. The center-line crossing data on the other hand pretty much speaks for itself.*

Kirse Kelly: Do you have any comments?

Ralph Craft: You're right. It's much clearer in head-on crashes who's at fault. The rear-end crashes, there can be extenuating circumstances. For the clearest example is when a passenger vehicle cuts in front of the truck. Even though the truck hits the passenger vehicle in the rear, trucks of course can't stop as quickly as passenger vehicles. The other way around, it's just hard to figure out how come cars run into trucks so much in the rear end. We've talked about that a lot here. We don't have any solid reasons for it. Clearly, no matter how quickly a truck stops, a passenger vehicle can stop quicker—they just don't in a lot of cases. There are lots of theories that we have about why this happens, but there really isn't any good data

Charles

Rottmund: *Aren't rollovers a result of an action such as going too fast for conditions or loss of control?*

Ralph Craft: Yes, you're absolutely right. The vehicle has to take some action to make it rollover. They don't rollover if you're going straight down the highway. That classification that was on the slide is a classification of the first harmful event. While a truck might swerve, if it doesn't rollover there's nothing harmful. If it's speeding and doesn't rollover it's not a harmful situation. If it goes out of control, but the driver can catch it before it rolls over, clearly there has to be something before it, but the first thing that is harmful to the vehicle the vehicle involved and/or the drivers or pedestrians is what's coded in that slide.

Roger Drissel: *Do you have a fatal motorcycle rate per mile?*

Ralph Craft: We don't. This has not been traditionally collected because up until very recently motorcycles were a very small part of the whole crash problem. There's talk about how we can get a good vehicle miles traveled data on motorcycles, but we haven't figured that out yet.

Kirse Kelly: Fran, are there any questions on the phone line?

Fran: No. Presently we have no questions on the phone line.

Scott Ennen: *Do you believe that the new hours of service rules implemented in 2004 had any effect on the large truck crashes from 04-07?*

Ralph Craft: We'd like to know the answer to that, but we do not have any good data on that. It's very difficult to determine. Obviously, when you have complex things, such as crashes where lots of factors are involved, it's very difficult to point out single things that might cause it. It's easy in those, like going across the center line, which vehicle's at fault. The reasons why vehicles go across the center line, for example, could be all kinds of things that could happen. To get data on that is very difficult.

Dominic Paul Piamonte:

Among active safety systems for large trucks, which do you think can bring higher benefits based on the crash pattern?

Ralph Craft: That's a good question. I'm going to have to pass. Amy Houser, who is in our Technology Division who's a trained professional engineer, handles projects where we are working with trucking companies and manufacturers and vendors to look at rear-end crash avoidance, warnings, and vehicle stability control, all that kind of thing. If you send me an e-mail, I could get you a contact to talk about that.

Kirse Kelly: We will be providing Ralph's contact information at the end of this webinar. It's just Ralph.Craft@dot.gov.

Billy DiGregory: *What is the leading cause of fatalities in bus crashes?*

Ralph Craft: It's very similar. We did a Bus Crash Causation Study which I did webinar on last year, I believe. It was only 39 crashes over a two-year period in the state of New Jersey. We could not do as many crashes as the truck study. There are just not as many bus crashes around. It was much the same thing in all, but I think three of the crashes, the critical reason for the crash was an action by the driver of the vehicle. In about half of the cases it was an action by the bus driver and in about half the cases, an action by the passenger-vehicle driver that collided with the bus. It's a lot of the same types of things—inattention, it's traveling or going too fast. When we say going too fast for conditions, we don't necessarily mean that you're speeding. It just means that you were

driving too fast for whatever kind of conditions existed at the time of the crash. It's a lot of the same types of things that we found in the truck study.

Tom Anderson: *Do any of the crash statistical trends catch the attention of FMCSA for possible regulatory changes?*

Ralph Craft: That's a good question. What's discouraging to me in looking at crash data is that a lot of the mistakes that are made are things that we don't regulate and would be very, very difficult to regulate. We find that a lot of crashes are caused by inattention; by inadequate surveillance; by distraction, either coming from outside the vehicle or inside the vehicle. A lot of these things we don't regulate and would be very, very difficult to regulate. Even fatigue—we can regulate how many hours a truck driver drives. Of course, nobody regulates how many hours passenger-vehicle drivers drive, but even there, we find that in a lot of crashes, fatigue is coded within a couple of hours after a driver starts work. I know if I eat a huge breakfast and then start driving, I get tired right away. What we're really going to have to do, in addition to all the things we do to try to regulate vehicles and truck drivers and bus drivers and the motor carriers that operate them, is that people just have to take greater responsibility to be in good shape when they get ready to drive a vehicle and pay attention to what they're doing.

Kirse Kelly: Fran, are there any questions on the phone at this time?

Fran: One presently, Michael Smith, your line is open. You may ask your question.

Michael Smith: *Ralph, I was wondering if NHTSA and FHWA are looking at this data that's been developed by the FMCSA in regards to the passenger vehicles and their at-fault accidents with a large trucks?*

Ralph Craft: I hope so. The data for the large truck—the Large Truck Causation Study that we did, we did with NHTSA. We used NHTSA's field people to collect the data, so they're very much aware of that. We talk a lot to Federal Highways and I always try to make the case that we have to look at driver factors more, when I talk to my colleagues at NHTSA and Federal Highways. I don't know what kinds of actions they would have taken. NHTSA did a follow-up study after they finish working with us on The Large Truck Crash Causation Study. They did a study of light vehicle crashes, in other words, cars, vans, SUVs etcetera, using the same type of data collection that we did. They certainly would have been aware of a lot of the same types of things that we found in the study they did, but what kind of action they've taken, I'm really not sure.

Walter Spiegel: *In Maryland the Motor Carrier Safety Program did a truck parking study a few years ago. It seems to be their position that cars running into the rear end of parked trucks is a serious concern. So this could be a significant contribution to cars rear ending trucks.*

Ralph Craft: That's a good point. I don't know how many of those rear-end crashes were situations where the truck was parked. That is a problem. One of the problems is that truck drivers often stop along highways to get rest because they're fatigued, which is perfectly legal in most states. Then they get hit behind by people who aren't paying attention to what I lane they're in. Another problem that we have people here working on is making sure there are enough rest stops for truck drivers to be able to pull over and get some sleep off the highways, instead of parking on the shoulders of highways. That could be a significant percentage of those cases, where cars hit trucks in the rear end. I'm just not sure. We haven't looked at the data that way.

Tom Hewer: *Early in the presentation, regarding overall crash statistics, there was a large increase in accident; approximately 95. Why was this?*

Kirse Kelly: Tom, if we are looking at the wrong slide, just get on the phone. Dial *1 and let us know.

Ralph Craft: I am not sure about the data going back to 1995. Since the turn of the century, basically crashes have come down. I am trying to look...quickly here. Are you talking about the slide of total crashes, total crash rates going from 5 to 95?

Kirse Kelly: Those are fatal to injury. Tom, why don't you get on the phone and ask us. Fran let us know when Tom gets on the phone.

Fran: We do have him. Sir your line is open now.

Tom Hewer: *This slide I was referring to was the three year cumulative crash statistics.*

Ralph Craft: Okay. Right.

Tom Hewer: *Why the increase from 93-95 to 96-98?*

Ralph Craft: Remember that increase looks a lot bigger than it is. You're basically talking about an average of—it looks like about 4,975 to 5,310, or something like that, so it's an increase of maybe 300 over a three-year period. That means it's an increase of about 100 per year. It's not really that large of an increase. The economy was booming back then, which meant that of course, that truck traffic was up. When we got into 2000, 2001, there's a little recession that started truck crashes going downhill, but that decrease did continue. I am not certain what happened during those years. The chart sort of exaggerates the increases and decreases, but my guess would be the booming economy in the middle of the 1990's was partially responsible for that.

Tom Hodgson: *Does your group have a position on the benefits of using speed governors on trucks and how they might reduce fatal crashes?*

Ralph Craft: The answer is no. We have been petitioned by the American Trucking Association to require speed governors. We have looked at it. We've done

some research. We're doing more research. We're thinking about it. We have no position on it right now. I don't know if we will—I just don't know what's going to happen with that. We have no position on it right now.

Tom McConnell: *Is it possible that fatality crashes where the CMV driver is completely not at fault, be considered to be removed from the per million mile rate when a company goes through a compliance review?*

Ralph Craft: The answer is yes. The project that I'm working on now... We are trying to figure out a way where we can not remove the crashes from a carrier's record, but note particular crashes where the carriers should not be held accountable for certain crashes—where it seems obvious the critical reason be assigned to the other vehicle. That's going to take a long time for us to do. This was an initiative of John Hill, the last administrator of FMCSA that he had us start working on, and we've been working on it. Once we get a new head of FMCSA, we don't know whether that work will continue or not, but we are currently working on a way of doing just that—noting that a carrier is not responsible for a certain number of the crashes that are on their record.

Phyllis Wells: *Is there any information regarding the type of trailers involved in large truck crashes, i.e. Vans, flatbeds, tankers?*

Ralph Craft: Yes there are. This is one of the tables of statistics that we include in our overall reports, the yearly reports. We do have that data. If you wait just a second... table number 48 in the 2007 edition and also would be the 2006 edition, there are large truck crashes by cargo-body type.

Scott Ennen: *Do you collect information on time of day, day of week or location i.e. rural highway, urban highway in the data collection?*

Ralph Craft: Yes we do. We have data on time of week, the type of road it occurs on; these are other tables in our annual report. The 2006 one is up on the Web and we hope the 2007 one will be on in a couple of weeks.

Jim Haberkorn: *Because the number of motorcycle fatalities is so high, do we know how many motorcycles are on the road in comparison to the number of trucks?*

Ralph Craft: That's a good question. NHTSA—the National Highway Traffic Safety Administration—may have data on that. We only collect data on large trucks. We get the passenger vehicle data from NHTSA. NHTSA has not yet begun a regular—I don't think they have done a regular collection of trying to figure out how many motorcycles are on the road or not. Maybe they have. The concerns we've always dealt with are the crashes between trucks and passenger vehicles.

Kirse Kelly: Fran are there any questions on the phone lines?

Fran: Yes, two at this time.

Kirse Kelly: Okay, thanks.

Fran: Steve Johnson your line is open; you may ask your question.

Steve Johnson: *This relates to one of the previous questions. On slide 13 it indicates that eight percent of the large truck crashes were associated with exceeding the posted maximum limit. I guess my question is, do you have any feeling Ralph, for what percentage of that or what proportion of that was related to speed limits that are at 65 miles an hour or more? In other words, rural interstates that would be associated with the advantage of speed limiters—what percentage of the 8.4 was on rural interstates?*

Ralph Craft: We have that in our data. In other words we divide interstate roads and rural interstates and urban interstate roads. We have the number of crashes that are on those types of roads. You could look at those types of crashes on those types of roads and see if driving in excess of posted maximum was part of that. I just don't have those numbers here in front of me. That would be available. You might try to ask NHTSA to run the data for you. They have a way of asking questions involving FARS data. If you ask them, taking all of the large truck crashes on rural interstates, what percentage of the drivers in those crashes were coded as being above the maximum speed limit, they should be able to answer that.

Kirse Kelly: Next, Fran?

Fran: Our next is from Michael Smith. Your line's open.

Michael Smith: *Ralph, I was wondering with the data that's been collected on passenger vehicles being involved in rear-end collisions with large trucks, if FMCSA is considering looking into the rear configuration or the rear construction of van-type and a flatbed-type trailers?*

Ralph Craft: That's a good question. I don't know the answer to that. I believe that would be a question for NHTSA. We regulate the drivers and vehicles. NHTSA regulates the manufacturing standards for vehicles. I don't know if they've looked at that. If you wanted a contact, Tim Johnson at NHTSA is their truck safety person. He used to work for us and he went up to work for NHTSA. You could probably find him through, try Tim.Johnson@dot.gov. He might know if NHTSA is doing anything in that area.

Kirse Kelly: Fran, any others?

Fran: No. No further.

Doug Morris: *It's obvious that driver fatigue is a main cancer for large truck crashes. A lot of money has been spent studying fatigue and truck parking. So, will FMCSA address the lack of the truck parking before they begin programs*

enforcing driver fatigue, such as is happening in several states utilizing MCSAP funds and CFRs to enforce driver fatigue on large trucks?

Ralph Craft: We've got one project where we are trying to allow truckers to automatically, while they are driving down the road, find out if there are open spots at rest areas in front of them. I know that AASHTO, the (American Association of State Highway and Transportation Officials), has looked at the lack of parking spaces at truck rest areas and stops. There are some things going on, but I am not sure of all of the things going on.

Charles

Rottmund: Can you separate the stats between part private carriers versus common carriers?

Ralph Craft: Yes we can, but it takes us about a year longer than it does looking at FARS data. The reason is, as I mentioned, NHTSA is concerned with the construction and manufacturer of vehicles. They really don't care about motor carriers. We're supposed to look out for that. We rely on the University of Michigan's Transportation Research Institute to produce that data, which I mentioned earlier, which says that about 63 percent of the crashes are interstate motor carriers. Another thing that they collect data on is whether it's a private or for-hire carrier. We have that data, but for example, I'm presenting to you the 2007 national picture based on data from NHTSA, FARS and GES. We won't get the 2007 trucks involved in fatal accidents report from UMTRI until sometime later this year, but we can do that with that data.

Roger Drissel: Instead of crashes per 100 million miles, have you considered using GPS routing systems to count the loads traversed rather than miles traveled? This would better balance the risk that various types of trucking operations are exposed to.

Ralph Craft: That's a very interesting suggestion. Right now an awful lot of trucks, maybe not most, have GPS systems. There are companies that track the travel of their vehicles, and there are companies that do this on a contract basis for truckers. I think what you're getting at is that long-haul truckers that operate mainly interstate highways are driving on very safe roads; whereas short-haul trucks operating within cities which have to go through a lot of intersections, which is obviously a more dangerous environment. That's possible, but boy, we'd have to really have everybody automated and agreed to how we would do that. That's pretty far off in the future, I think.

Kirse Kelly: Are there any questions on the phone line, Fran?

Fran: No, we have none.

[59:31]

Kirse Kelly: This looks like that was our last question, so we're going to go ahead and move on to our evaluation section. Please, before you sign off, complete the evaluation you see on the screen. We welcome your comments about this webinar and your suggestions for future webinars. Simply type comments in the space at the bottom of the pod and click the return arrow. The comments submitted here can be viewed by all other participants in the meeting room, so if you'd like to remain anonymous, click on **Everyone** and choose **FMCSA Host**. As you can see, I'm putting up new contact information for Ralph Craft. I apologize; we had the incorrect address for the A&I Website in that previous contact information. You may download a PDF version of the presentation at this time. Just highlight the document in the download presentation pod and click **Save to My Computer**.

As a reminder, members of the trade or local media participating in today's webinar should contact the FMCSA office of communications at 202-366-9999 if you have any questions.

If you have any other questions of Ralph Craft, simply send him an e-mail at Ralph.Craft@dot.gov.

Our next webinar, "An Overview of the Analysis Division of the Office of Analysis, Research and Technology" given by the Analysis Division Chief, Bill Banister and members of the Analysis team will be held in two weeks. We will be confirming the date and posting registration information on our Website. We'll also be sending out announcements of this and other webinars. We have quite a few coming up in the next month. If you are not yet on our e-mail list, please contact the web conference coordinator at Kirse.Kelly@dot.gov and request that your name be added to the list.

That concludes this webinar. Once again, thank you very much for participating. Thanks also to Fran, our phone operator. Goodbye.

[1:02:36]