

# **Seat Belt Usage by Commercial Motor Vehicle Drivers (SBUCMVD) 2016 Survey**

## **Executive Summary**

The Seat Belt Usage by Commercial Motor Vehicle Drivers (SBUCMVD) Survey is a nationally representative field data collection program that provides estimates of safety belt use by drivers and other occupants of medium and heavy duty commercial motor vehicles (CMVs). The work is conducted on behalf of the Federal Motor Carrier Safety Administration (FMCSA) under NHTSA contract DTNH22-13-D-0284. This survey of CMVs was conducted using the sample design and field data collection methodologies similar to those used in the National Occupant Protection Use Survey (NOPUS) of passenger vehicle occupants. Surveys were conducted for four consecutive years (2007 - 2010), in 2013, and again in 2016 after a three-year break. The surveys are based upon a statistically valid research design that includes medium duty, class 7, and class 8 CMVs observed from roadsides. Data collection sites were chosen from a randomly selected sample of Primary Sampling Units (PSUs, which are a county or group of counties) across the United States. In 2007, the SBUCMVD survey sample contained 22 PSUs. In 2008, the sample was increased to 28 PSUs, and in 2010, the sample was increased further to 34 PSUs. The same 34 PSUs were also used in 2013. In 2015, the NOPUS was redesigned, and therefore the SBUCMVD was updated as well. In 2016, 34 PSUs were selected from the PSU frame of the NOPUS 2015 Redesign.

Some additional changes occurred in the methodology of the SBUCMVD. For instance, the bus category underwent a change of nomenclature and an expansion of types of buses. The three categories observed in previous years (mini-bus, motorcoach, and school bus) were extended to five. The new bus categories included in 2016 were the 15 passenger van and transit buses. Other modifications of the protocol included extending the volume count from 15 to 25 minutes; dropping the observations of occupants' race; dropping the observation of fleet type for a vehicle; and dropping the observation of area type at the site.

The following are some highlights of the results from the study:

- A total of 39,319 CMVs, 39,319 drivers, and 2,451 other occupants were observed at 1,008 sites.
- The estimated overall safety belt usage rate for drivers of all medium and heavy-duty trucks and buses was 83.6% in 2013 and is now 86.1%.
- The estimated usage rate for CMV other occupants only (not including drivers) was 72.9% in 2013 and is 69.8% in 2016.

Observations on the use of safety belts were conducted on a sample of arterial roads (ART) and limited access highways (LAH) by trained Data Collectors. Slight changes were made to the data collection protocol since 2013. All data were collected on Google Nexus 7 Tablets utilizing a customized data collection program. Independent traffic counts were also recorded to help calibrate the estimates. Additional data items were collected, including:

- Type of CMV: e.g., straight van, articulated single tanker, hazmat carrier, commercial bus, etc.;
- Weather conditions: clear, light precipitation, or light fog;
- Speed of observed vehicles at a given site: 30 miles per hour (mph) or less, 31-50 mph, or over 50 mph;
- Drivers' and other occupants' characteristics: gender and approximate age;
- Driver use of cell phones and other handheld electronic devices; and,
- Time of day.

Precise schedules dictated that sites be visited between 7:00 AM and 6:30 PM on weekdays and weekend days, as was done in prior years. Half of the morning weekdays were scheduled to begin at 7:00 AM and half at 8:00 AM so as to accumulate more rush-hour observations.

The target population of the survey can be viewed as a 'snapshot' of all medium and heavy duty CMVs on the road at a particular point in time. This report describes the overall design of the study, the methods used to collect the data, and the estimation and tabulation processes. Highlights from the analyses are contained in the body of the report. Tables of the results of the study have been reported to the FMCSA separately.

To obtain a copy of the full report, Safety Belt Usage by Commercial Motor Vehicle Drivers (SBU CMVD) 2016, email [fmcsa.outreach@dot.gov](mailto:fmcsa.outreach@dot.gov).