

Updated Mass-Size-Safety Databases: MY 2003-2010 vehicles for CY 2005-2011

NHTSA prepared a new preliminary report on fatality risk, mass, and footprint¹ in June 2016 as the first component of an update of NHTSA analysis resulting in a November 2011 preliminary report and August 2012 final report. Consistent with the November 2011 and August 2012 reports, the June 2016 report used databases of fatal crash involvements and induced-exposure crash involvements, but advanced three years. The basic SAS files used in the new report are fatal-involvement file `farscs4_2005_2011.sas7bdat`, and VMT-weighted induced-exposure crash involvements, `stcs_6_2005_2011.sas7bdat`.

Both new database files are now also available for public use at ftp://ftp.nhtsa.dot.gov/CAFE/2016_mass_size_safety/ obtainable through <http://www.nhtsa.gov/fuel-economy>.

The two new database files are:

- `Stcs_6_2005_2011.sas7bdat`, the new induced-exposure file. The file includes induced-exposure crash data for 13 States (2,255,398 records), with registration years and VMT allocated across MY 2003-MY 2010 vehicles for CY 2005-CY2011; and
- `Farscs4_2005_2011.sas7bdat`, the new fatal-involvement file. The file includes 85,890 records of vehicle incidents resulting in at least one fatality in MY 2003-2010 vehicles in FARS calendar years 2005-2011.

NHTSA has also made two additional files available at ftp://ftp.nhtsa.dot.gov/CAFE/2016_mass_size_safety/:

- `Ststop_6_2005_2011.sas7bdat` is the induced-exposure file limited to the vehicles that were stopped before the crash. The crash-involvement cases are a subset of the cases on `stcs_6_2005_2011.sas7bdat`. However, the values of `REGWTFA` and `VMTWTFA` are quite different, because these weight factors must still add up across the file to national totals for each `MMP-CGP-BOD2-HIFAT_ST-MY-CY` combination, but using only about ¼ as many crash-involvement cases.
- `Farsstop_2005_2011.sas7bdat` is the fatal involvement file to be used with `ststop_6_2005_2011.sas7bdat`. It is very similar to `farscs4_2005-2011.sas7bdat`, except there are only 85,862 cases, because when the data are limited to stopped vehicles there are just a few more low-sales `BOD2-HIFAT_ST-MY-CY` combinations that are completely unrepresented on `ststop_6_2005_2011.sas7bdat`.

For more information on the files, see “Relationships between Fatality Risk, Mass, and Footprint in Model Year 2003-2010 Passenger Cars and LTVs – Preliminary Report.” (Docket No. NHTSA-2016-0068).

¹ Puckett, S.M., and Kindelberger, J.C. (2016). Relationships between Fatality Risk, Mass, and Footprint in Model Year 2003-2010 Passenger Cars and LTVs – Preliminary Report. (Docket No. NHTSA-2016-0068). Washington, DC: National Highway Traffic Safety Administration.