



A Summary of the 2002 Dynamic Research Inc. Study:*

“An Assessment of the Effects of Vehicle Weight on Fatality Risk in Model Year 1985-98 Passenger Cars and 1985-97 Light Trucks”

Why was the study performed?

- Dynamic Research Inc. performed this study to update a 1997 study by a National Highway Traffic Safety Administration (NHTSA) researcher named Charles Kahane. The older study (Kahane) is cited by the NAS panel majority opinion on safety and by conservative anti-regulatory groups as showing that loss of life will result from vehicle weight reduction in response to an increase in the fuel economy standard.

What does the 2002 study show?

- Reducing vehicle weights by at least 100 lbs. across the fleet will have **no overall effect** on the number of fatalities caused by passenger car and light truck crashes.

Why is the 1997 Kahane study unscientific?

- The Kahane study did not take into account major improvements in vehicle safety made since 1993 – such as air bags in all new cars, new side impact dynamic test requirements, and head injury protection standards.
- The earlier study did not take into account the rapid growth of light trucks within the vehicle fleet – an influx that has cost thousands of lives as these unstable, heavy behemoths threaten their own drivers with crashworthiness problems and rollover propensity and annihilate other cars in crashes due to shoddy design and bulk.
- The 2002 study, performed using the same methodology as the Kahane study and containing more recent data on vehicles and crashes, accounts for both of these outdated assumptions in reaching its conclusions.

How is it that reducing weight has no effect on fatalities?

- Increases in fatalities in certain types of crashes would be offset by significant decreases in fatalities in other types of crashes. For example, fatalities in single vehicle crashes are expected to go up slightly, but fatalities in two car crashes will go down, as will fatalities in crashes between cars and pedestrians, bicyclists, and motorcycles.

What does the 2002 study fail to account for?

- The study (like the 1997 Kahane study) unrealistically assumes a 100-lb. weight reduction across all vehicles in the fleet. What is more likely, based on history, is a reduction in only the weight of the heaviest vehicles, especially light trucks, which would slant the results toward **a net reduction in fatalities**, as these vehicles would kill fewer people in crashes. The lightest vehicles did not get lighter under earlier CAFE standards, and it is highly unlikely they would do so under an updated standard.