Cars that Kill? The Effect of Fuel Economy Standards on Vehicle Weight Dispersion and Safety

It is long been argued that fuel economy standards lead to vehicle weight changes that can potentially increase accident fatalities. Using unconditional quantile regressions, this paper is the first to document the effect of the Corporate Average Fuel Economy (CAFE) standard on vehicle weight dispersion. We find that CAFE increased dispersion, which increases fatalities, but also lowered mean weight, which will reduce fatalities. When combined, removing these weight changes from 17 million accidents, we find that on net CAFE actually saved more than 100 lives per year. Further, total lives saved increases if vehicle footprint is maintained, suggesting that outcomes could improve even further if the new footprint based standard effectively preserves vehicle size while allowing for weight changes according to precedent.

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Antonio Bento is an applied micro-economist with a research program in the areas of environmental, energy, urban, and public economics. Most of his work consists of theoretical and empirical assessments of major public policy issues, and his scholarly interests range widely both in topics and methods. Professor Bento contributed to the New York State Climate Change Action Plan, the New York State Biofuels Roadmap, the U.N. Scientific Committee on Problems of the Environment (SCOPE) Assessment Report on Biofuels, served as a contributing author to the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report, and was recently appointed as a lead author to the International Panel on Social Progress (IPSP). Bento received a BA in Economics from the Nova School of Business and Economics (Portugal) in 1996, and a PhD in Agricultural and Resource Economics (jointly with Economics) from the University of Maryland in 2000.