Fuel-economy standards and anti-pollution policies rank among today’s most contentious political issues. As director of the USC Center for Sustainability Solutions, Price School Professor Antonio Bento is relied upon internationally for his leadership in providing evidence-based answers to urgent questions surrounding environmental and energy economics.

**EQUITY AND THE ENVIRONMENT**

When concerns about the costs of carbon offsets hampered negotiations at the United Nations, Bento responded by measuring the expense, distributional effects and environmental impact of various policy options for mitigating greenhouse gas emissions. Citing the 1990 Clean Air Act, he found the benefits to be progressive: Households in the lowest quintile of income distribution received annual benefits more than twice as large as those in the highest quintile.

“We are now trying to measure the climate penalty in the local economy by understanding how future trends in climate may actually completely wipe out the benefit we have gotten by regulating local air pollution,” explains Bento, who is a frequent consultant for the World Bank and served as a contributing author to the Intergovernmental Panel on Climate Change and lead author to the International Panel on Social Progress.

**CAFE SAFETY**

In response to arguments that Corporate Average Fuel Economy (CAFE) standards have led to more fatalities from automobile accidents because of vehicle weight changes, Bento and colleagues produced research demonstrating that the opposite was true.

They analyzed data from vehicles sold between 1954 and 2005 to note the weight changes after CAFE implementation in 1975. Then they examined police reports on 17 million auto accidents in 13 states from 1989 to 2005 to gauge the weight of vehicles involved in fatalities. They found that reductions in overall average weight may actually result in fewer deaths from crashes. For example, there is much less risk if lighter cars collide than if a heavier vehicle is involved. Thus, in addition to lowering pollution, CAFE standards ultimately help make the roads safer.

Bento’s paper was the first to empirically examine the distributional changes to vehicle weight resulting from CAFE. Based on the EPA’s estimate of compliance costs, the study suggested that CAFE earned its continuation based on the benefits of lives saved alone — before even factoring in the environmental advantages.

When the current presidential administration attempted to use this research to justify rolling back Obama-era efficiency standards, Bento was asked by numerous media outlets to share his expertise. In *The New York Times*, the *Washington Post* and other outlets, he noted that federal officials “cherry-picked” results that would support the conclusion they sought to reach, “deliberately scaling down benefits and inflating costs.”

**DIFFUSION OF HYBRID VEHICLES, CARPOOLS AND CONGESTION**

Even with good intentions, not all methods of encouraging the purchase of low-emission vehicles yield positive results. Bento found that, when no price is placed on traffic congestion, allowing hybrid cars with only one occupant to use carpool lanes worsens traffic congestion. Examining California’s Clean Air Vehicle Stickers policy, he found that such policies generate nearly $4,500 in costs per automobile annually for added pollution and lost time.

Bento suggested that instead of letting solo-driver hybrids into rush-hour carpool lanes, California should provide a tax credit for hybrid vehicles, or institute congestion pricing.