



**FOR IMMEDIATE RELEASE (11/12/2014)**

## **CLEAN AIR VEHICLE STICKERS POLICY IN CALIFORNIA CREATES SUBSTANTIAL WELFARE LOSSES**

A recent policy in Southern California aims to lower vehicle emissions by allowing single-occupant gas-electric hybrids with Clean Air Vehicle Stickers (CAVS) in high-occupancy vehicle (HOV) lanes. Policymakers tout the CAVS policy as a “free” way to lower emissions by encouraging the usage of highly fuel-efficient vehicles. However, a new study finds that the environmental benefits of the CAVS policy are greatly exceeded by its impact on congestion costs.

Authors Antonio Bento, Daniel Kaffine, Kevin Roth, and Matthew Zaragoza-Watkins find:

- Hybrid drivers benefit from the HOV lane exemption through quicker travel times during peak commuting periods. However, the increase in number of HOV lane users resulting from the CAVS policy and heavy pre-existing traffic congestion creates substantial time costs for existing carpoolers.
- The CAVS policy increased travel times and time costs the most during peak travel hours. While adding a single hybrid to any HOV lane at 2am creates zero social costs of congestion, **adding one daily hybrid driver at 7am on the I-10W generates \$4,500 in annual social costs.** The CAVS policy reduced welfare for the average carpooler by \$176 per year.
- The welfare gain from emissions savings associated with the increase in adoption of new hybrid vehicles is overwhelmingly dominated by the welfare losses associated with increased congestion costs. **Estimates imply a best-case statewide cost of \$124 per ton of reductions in greenhouse gases, \$606,000 per ton of nitrogen oxides reduction, and \$505,000 per ton of hydrocarbon reduction.**
- The CAVS policy is far from “free”. It costs carpoolers roughly \$3-\$9 for every \$1 of benefit transferred to hybrid drivers. According to **Kevin Roth**, co-author of the study and a faculty member at UCI, “Given the substantial cost of the CAVS policy, at a minimum it is worth considering alternative policies that can achieve similar goals at a lower cost. If, instead, a hybrid tax credit were implemented, the cost to taxpayers would have been only \$1.4 per dollar transferred. Therefore, tax credit incentives would be preferred to the CAVS policy.”

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#### **Contact Information**

David Neumark

[dneumark@uci.edu](mailto:dneumark@uci.edu)

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