

**THE EFFECT OF GAS PRICES ON DRIVER BEHAVIOR
IN THE CAPITAL REGION**

By

Ashley Elizabeth Corker

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Approved:

Satish Ukkusuri
Thesis Advisor

Rensselaer Polytechnic Institute
Troy, New York

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ABSTRACT

Decreasing the vehicle miles traveled (VMT) by Americans is an important aspect of mitigating the negative environmental impacts associated with transportation, namely through emissions. In order to determine if the gas price spike during the summer of 2008 induced a reduction in VMT, a survey was implemented in the New York State Capital Region to gather data on participants' basic driving behavior through out the year. In addition to collecting demographic information, the survey asked respondents how they changed certain behaviors throughout the year, the average number of trips they made each week before, during and after the price spike, and how many trips they expected to make at various theoretical gas prices. Discrete choice models were formulated gain insight on how driver behavior changes as a result of fluctuating gas prices. A measure of pseudo-elasticity was devised to determine how the number of trips people make each week, using various modes, was affected by gas price. It was discovered that most people did indeed reduce VMT during the period of elevated gas prices by forgoing trips, and both carpooling and walking more often. While many of these people then increased VMT once fuel prices fell, they did not increase driving back to pre-spike levels. This study finds that drivers are willing to decrease driving, and the implementation of alternative programs, such as ridesharing will assist drivers in reaching this objective.