



Research Problem Statement

ODOT Research Section
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I. TITLE

17-046 Developing a RUC Policy for Oregon: Accounting for Regional Differences

II. PROBLEM

Oregon SB 810 creates a preliminary program that allows up to 5000 drivers to pay a flat mileage based road user fee (RUC) of 1.5 cents per mile in lieu of the current \$.30/gallon state fuel tax.

A major concern over the widespread adoption of a mileage based RUC has been that it could increase costs for rural households relative to urban households and have an adverse impact on households with lower income. Recent research suggests that, in general rural regions are not as much affected by such as change as households in urban areas. However, there is a wide diversity in the distribution of the impact across both different urban and rural areas in different parts of the state.

The problem for policymakers is to design a future RUC in a way that will help balance goals from such a policy (fiscal health for state highways) with regional and income distributional goals as well as goals for fuel efficiency. To do so requires more information on how and why these impacts differ across regions. This will allow policymakers to better design best practices, tools, and methods that increase understanding of outcomes and capacity to balance goals and objectives.

III. PROPOSED RESEARCH, DEVELOPMENT, OR TECHNICAL TRANSFER ACTIVITY

The proposed research would use the Oregon Household Travel Survey (OHAS) data to build on the research completed in (1) to delve into how and why driving behavior differs across regions and location types in the state of Oregon. Policymakers need to be aware of how different factors affect the impact of a change to a RUC so they can develop methods and practices that can be used to ameliorate adverse effects whether they are based on region/location or income groups.

Location specific models will be developed to evaluate local changes due to implementing a RUC. Past research on the determinants of vehicle miles traveled suggest that determinants are site specific and driving determinants differ even across different sized urban areas. The implication is that policy may have different impacts even in different urban locations. A RUC may impact driving behavior more in certain Oregon locations where, for instance, there are no substitutes for driving and households have longer commute distances and less in other areas---or where households may have different tastes and preferences towards driving. (For instance preliminary analysis (3) suggests that households owning hybrid vehicles in certain Oregon locations will actually drive more miles, whereas in other locations ownership of a hybrid vehicle is associated with driving fewer miles.)

Finally, the 1.5 cent per mile RUC included in SB 810 was not a revenue neutral fee (1). In the interests of showing an “apples to apples” comparison of the fuel tax to a RUC, this research will explore how to identify a revenue neutral fee and use this new rate in the RUC analysis.

IV. POTENTIAL BENEFITS

Benefits from this research project will be to inform policymakers regarding how and why driving behavior differs across regions. This will help policymakers and stakeholders understand how and why the impact of a RUC may differ across regions within the state. This will allow policymakers to better develop practices, tools, and methods for implementation of a RUC that can best balance ODOT and stakeholder goals. This project will help to support ODOT’s ongoing commitment to developing a sustainable approach to financing the transportation system while maintaining and promoting mobility.

V. IMPLEMENTATION

The results would be used to help policymakers design a RUC policy as well as other policies designed to reduce greenhouse gas emissions since all of these policies require more information on location specific determinants of driving behavior if they are to avoid unintended consequences.

VI. LIST OF REFERENCES *(optional)*

- (1) McMullen, Wang, and Ke "Road User Charge Economic Analysis", ODOT, SPR 774 (FY 2014-2015)
- (2) McMullen, B. Starr and Nathan Eckstein, "Determinants of VMT in Urban Areas: A Panel Study of 87 US Urban Areas: 1982-2009". *Journal of the Transportation Research Forum*, 52 (2), Fall 2013.
- (3) Ke, Yue "Economic Analysis of a Road user Charge", Masters thesis, Oregon State University, June 2015.

VII. CONTACT INFORMATION

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