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## Survey of Owners of Electric and Hybrid Vehicles in Oregon

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## SURVEY OF OWNERS OF ELECTRIC AND HYBRID VEHICLES IN OREGON

What are the challenges and opportunities facing auto manufacturers and policymakers in the rapidly changing electric vehicle market? Researchers surveyed Oregonians who own electric or hybrid vehicles, to find out.

## EXECUTIVE SUMMARY AUGUST 2018

Survey of Oregon Electric Vehicle & Hybrid Owners (#2018-1259)

John MacArthur, Portland State University

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The market for electric vehicles (EVs) is changing dramatically in the United States. The state of Oregon has one of the highest per-capita EV sales markets in the country. However, much is to be done if Oregon is to reach its ambitious goal of complete electrification of the private automobile industry by 2050. The goal of this study was to illuminate some of the current challenges and opportunities facing EV automakers and policy decision-makers. The researchers analyzed survey results of 4,069 individuals who currently own or lease an EV or other low-carbon vehicle (such as a hybrid vehicle), and two significant findings emerged:

EV owners demonstrated a high level of satisfaction with their vehicles; however, most respondents were not satisfied with the quality of the public charging experience.

This study also indicates that EV owners in Oregon are predominately white, welleducated, and affluent.

If EVs are to gain widespread acceptance, there is a necessity to endorse educational programs in low-income and minority communities and provide incentives to support socioeconomically disadvantaged households.

The findings from this study can be a useful tool to inform hybrid owners and other populations who may be considering an EV that many of their concerns, such as battery range and longevity, charging time and costs, are unlikely to be realized. However, while some concerns may be ill-informed, others have more weight; such as concerns about public charging infrastructure and the resale value of the vehicle. These issues require the attention of local governments and EV distributors.

In order to increase the propensity to purchase an EV, there is a need to enhance the existing infrastructural conditions. Furthermore, public policies should promote programs which provide information, guidance, and support to consumers. The results of this study could also inform advocacy groups and educational programs.

This research was conducted by the Transportation Research and Education Center (TREC) at Portland State University, and funded through a grant from Metro's regional flexible funds through the Federal Highway Administration (FHWA) Congestion Mitigation/Air Quality Program, with additional support from Forth Mobility.

TREC is home to the National Institute for Transportation and Communities (NITC), the Initiative for Bicycle and Pedestrian Innovation (IBPI), and other transportation programs. We produce timely, practical research for transportation decision makers and support future professionals through curriculum development and student research.