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New Tool for Gig Drivers Considering Going Electric

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# New Tool for Gig Drivers Considering Going Electric

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RESEARCH BRIEF

## Issue

Gig drivers who use their own vehicles to provide transportation and food delivery services face barriers to electric vehicle (EV) adoption including costs, access, and information. To move toward a sustainable transportation future, California is advancing regulations to accelerate electrification of high-mileage vehicles, such as those driven by gig workers for transportation network companies (TNCs) like Uber and Lyft. By 2030, the state is targeting 90% of passenger miles traveled on TNCs to be fueled by electricity. To support this objective, UC Davis researchers developed [an online tool](#) to help gig drivers understand their potential cost savings from EVs.

## Product

[EV Explorer 2.0](#) is a vehicle cost calculator (VCC) specially tailored to help gig drivers estimate and compare total costs of electric versus gas vehicle ownership. The tool has several unique features to address the gig driving use case. It improves on existing VCCs by: estimating gig driving income, including EV bonuses offered by Uber; more precisely estimating EV fueling and maintenance costs to better account for the impacts of higher mileage and public charging; and allowing users to evaluate costs for used cars.

As a result of these unique features, EV Explorer 2.0 can offer gig drivers a compelling account of the potential benefits of switching

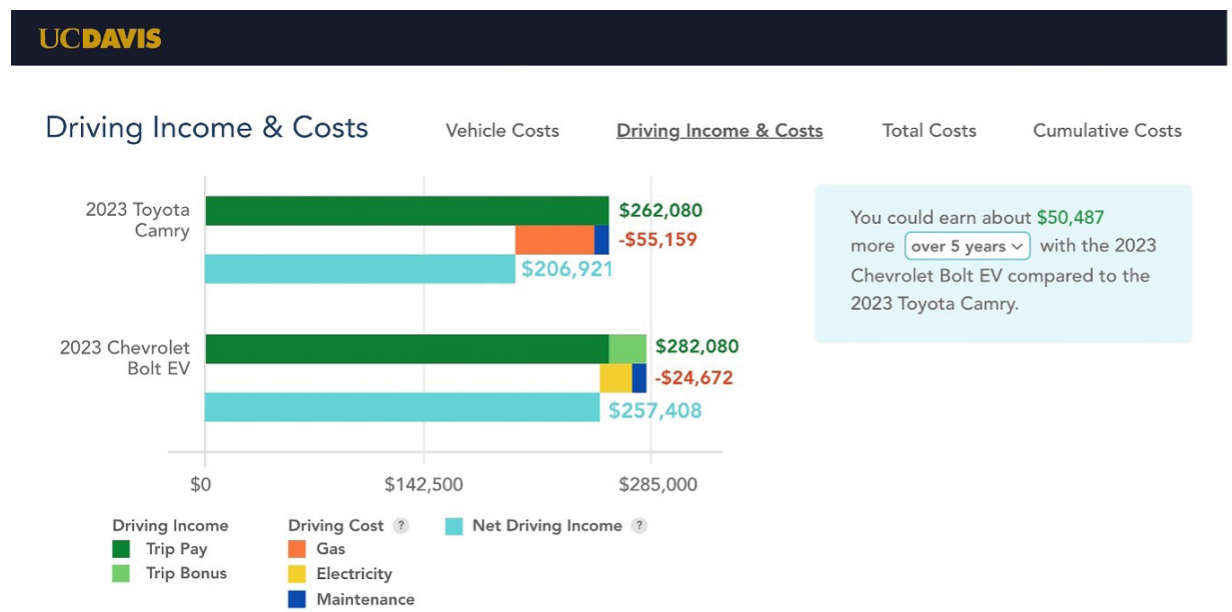


Figure 1. EV Explorer 2.0 Cost Comparison Output

## Social & Environmental Benefits

If you choose the Chevrolet Bolt EV instead of the Toyota Camry, you will save **12,097 gallons** of gas over the next 5 years, alleviating waterway pollution and harm to aquatic life from oil dribble and oil spills. [Learn more](#)

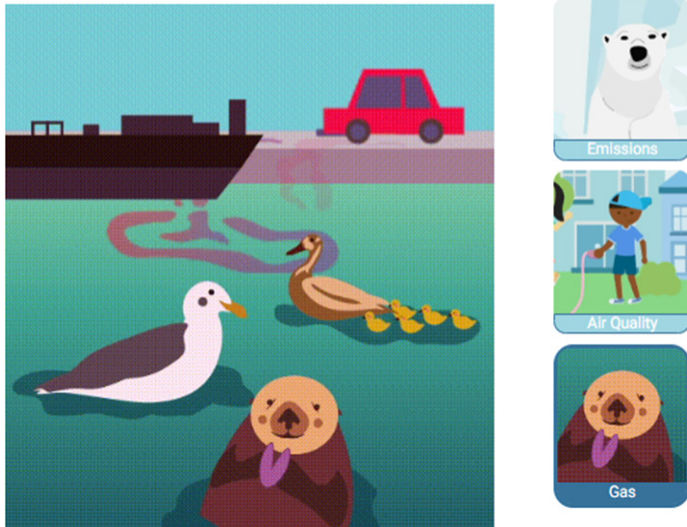


Figure 2. Animated Outputs Illustrating Social and Environmental Benefits of EVs.

to an EV. For example, Figure 1 shows that an Uber driver could increase their net earnings by over \$10,000 per year over five years by choosing an EV instead of a comparable gas car, due to savings on fuel and maintenance and EV trip bonuses. This outcome assumes about 50,000 annual ridehailing miles, home charging, and average California fuel costs.

EV Explorer 2.0 also emphasizes social and environmental impacts of vehicle choice more than other VCCs. It uses artistic animations to evoke an empathetic response in users regarding three types of detrimental consequences of gas cars: oil dribble (Figure 2), local pollutants from tailpipe emissions, and climate-altering GHG emissions.

## Project Contributions

Discerning potential savings with an EV compared to gas car is complex, so total costs of ownership calculations

are helpful. EV Explorer 2.0 and similar VCCs can empower gig drivers by informing them about potential total costs of ownership savings, higher earnings, and social and environmental benefits associated with EVs.

Information generated by the tool can encourage gig driving companies to continue developing programs to support their drivers in transitioning to zero-emissions services.

Transportation Network Companies, other gig driving companies, and advocacy groups are welcome to promote EV Explorer 2.0 to gig drivers. This might be accomplished via regular communication channels they may have with drivers (e.g., newsletters, emails) or during special events like ride-and-drives. Stakeholders in government and industry are invited to use the strategies and insights from this research to develop or improve their own VCCs.

## More Information

Datasets and models generated in the development of EV Explorer 2.0 are publicly available at <https://doi.org/10.25338/B8363M>

This research brief is drawn from “Developing a Vehicle Cost Calculator to Promote Electric Vehicle Adoption Among TNC Drivers,” a report from the National Center for Sustainable Transportation, authored by Dr. Angela Sanguinetti, Matthew Favetti, Kate Hirschfeld, Nathaniel Kong, Dr. Debapriya Chakraborty, Eli Alston-Stepnitz, and Howard Ma of the University of California, Davis. The full report can be found on the NCST website at <https://ncst.ucdavis.edu/project/developing-vehicle-cost-calculator-promote-electric-vehicle-adoption-among-tnc-drivers>.

For more information about the findings presented in this brief, contact Dr. Angela Sanguinetti at [asanguinetti@ucdavis.edu](mailto:asanguinetti@ucdavis.edu).

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