

Paper Session #1: Empirical Research on New Mobility

CHAIR: GLORIA HELFAND, U.S. ENVIRONMENTAL PROTECTION AGENCY

DAVID RAPSON (UNIVERSITY OF CALIFORNIA, DAVIS) AND ERICH MUEHLEGGGER (UNIVERSITY OF CALIFORNIA, DAVIS). A *QUASI-EXPERIMENTAL ESTIMATE OF THE DEMAND ELASTICITY FOR ELECTRIC VEHICLES IN THE MASS MARKET.*

JONATHAN B. SCOTT (UNIVERSITY OF CALIFORNIA, BERKELEY). *ARMS RACE DYNAMICS IN VEHICLE PURCHASES.*

DISCUSSANT: TOM LYON, ROSS SCHOOL OF BUSINESS, UNIVERSITY OF MICHIGAN

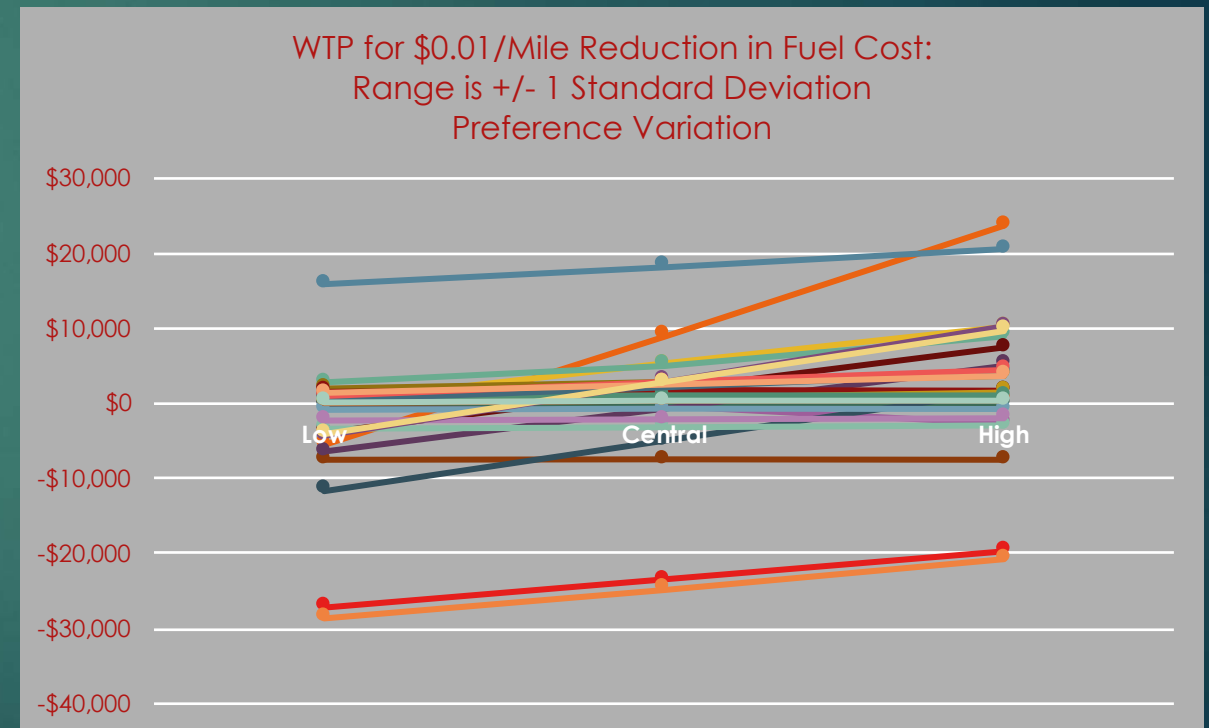
What Policy Analysts Want

- ▶ Our job:
 - ▶ To provide high-quality assessment of the expected impacts of policy actions
- ▶ What we seek:
 - ▶ Scientific consensus on key information
 - ▶ Including uncertainty – its sources and implications
- ▶ What we get from academic research:
 - ▶ Each paper provides its own estimates
- ▶ What we'd like:
 - ▶ Help in seeking deeper understanding
 - ▶ To make the best decisions possible with the information available

What we know about how people buy vehicles: lack of consensus

- ▶ Greene et al., “Consumer willingness to pay for vehicle attributes: What do we Know?” Transportation Research Part A 118 (2018): 258-279
 - ▶ Presented at TE3 2017
 - ▶ And underlying report, “Consumer Willingness to Pay for Vehicle Attributes: What is the Current State of Knowledge?” EPA-420-R-18-016, July 2018
- ▶ Out of 35 attributes:
 - ▶ Mean of trimmed sample > 1 s.d. for 22
 - ▶ Mean of trimmed sample > 2 s.d. for 9

Each line represents the range calculated for an observation of an estimate of WTP for a particular vehicle attribute (combination of study and model specification; a single study can have multiple observations).



From “Consumer Willingness to Pay for Vehicle Attributes: What is the Current State of Knowledge?” EPA-420-R-18-016, July 2018, Fig. 5-6.

These papers

- ▶ Muehlegger & Rapson:
 - ▶ How do EV subsidies affect EV take-up in lower-income households?
- ▶ Scott:
 - ▶ How do others' vehicle sizes affect my choice of vehicle?
- ▶ My challenge: will others get similar results when they study
 - ▶ Different places
 - ▶ Different data sources
 - ▶ Different specifications/identification strategies
 - ▶ Etc.
- ▶ We encourage researchers to grapple with the differences as well as the agreements, to achieve better understanding