

Green Drivers or Free Riders: An Analysis of Tax Rebates for Hybrid Vehicles

WEAI Meetings

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General Comments

- A really nice paper—and I believe the results
 - Authors provide convincing evidence that subsidies increased the market share of hybrids \approx 30%
 - And that this is at expense of intermediate cars and SUVs, also high-performance compacts
- Natural experiment is nice
 - Variation in subsidy across provinces and within provinces over time

Limitations

- Authors don't have data on many covariates besides rebates
 - Most convincing results are those with FE for
 - Province/segment
 - Segment/year
 - Also results that interact rebate with segment dummies
 - Given market shares sum to 100% what declined in market share is important
 - I put my faith in column 4 of Table 8

What I Would Like to See

- Data on fuel economy of various classes of vehicle
 - How did this change over time?
 - How did gas prices change over time?
- Some discussion of the cost-effectiveness of hybrids without the rebate
 - When do hybrids pay for themselves, as a function of miles driven and discount rate?
- More discussion of possible rationale for rebates
 - Presumably not just for CO₂ reduction

Re: HEVs – Don't Forget Lifecycle Emissions

- Tailpipe emissions are < 30% of life-cycle emissions for CO2 and criteria air pollutants
- Lifecycle damages from criteria pollutants in USA (2005):

– Conventional gasoline	1.34 cents/VMT
– Grid independent hybrids	1.22 cents/VMT
– Plug-in hybrids	1.89 cents/VMT
– Electric vehicles	3.24 cents/VMT