Abstract:

My study examines the factors and incentives that are most likely to influence households' choice for Hydrogen fuel cell vehicles in Japan. Data collection is based on experimental design and stated choice methods through an internet survey. Choice alternatives included a conventional gasoline, a PHEV/Hybrid, and Hydrogen Fuel Cell vehicle. Each option is described by a varying set of vehicle attributes and economic incentives, customized per respondent. Controlling for individual, household and dwelling-location characteristics, parameters of a nested logit model indicates that reduced monetary costs, purchase tax relieves and zero emission rates would encourage household to adopt a Hydrogen Fuel cell vehicle. On the other hand, incentives such as free parking and permission to drive on expressways without paying the fee were quite significant. Furthermore, limited fuel availability is a concern when households considered the adoption of HFCV. Finally, willingness-to-pay extra for a HFCV is computed based on the estimated parameters.