Peer Effects in Electric Car Adoption: Evidence from Sweden

Sebastian Tebbe

NBER Environmental & Energy Economics

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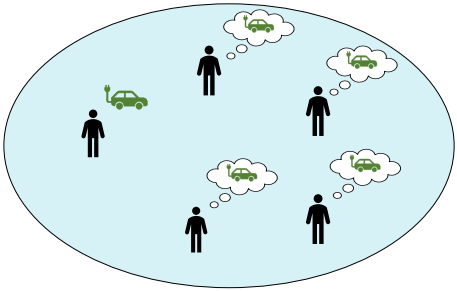
Contributions

Primary contribution:

- I provide causal estimates of peer effects in electric car adoption



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Ancillary contributions:

1. **Data & networks:**
   - → I merge multiple Swedish admin data sets, including all vehicle ownership data
   - → I construct peer groups based on workplaces, families, and neighborhoods

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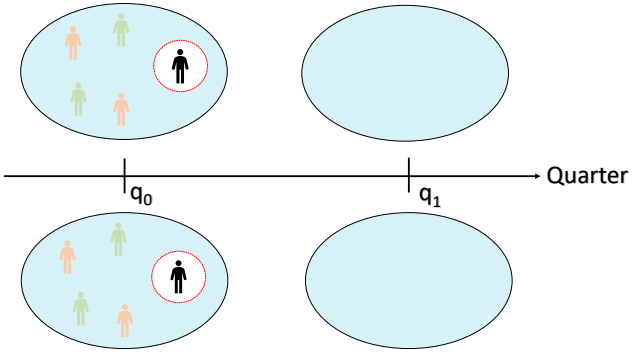
3. **Policy implication**:
   → I document how peer effects alter the level and dynamics of optimal subsidies

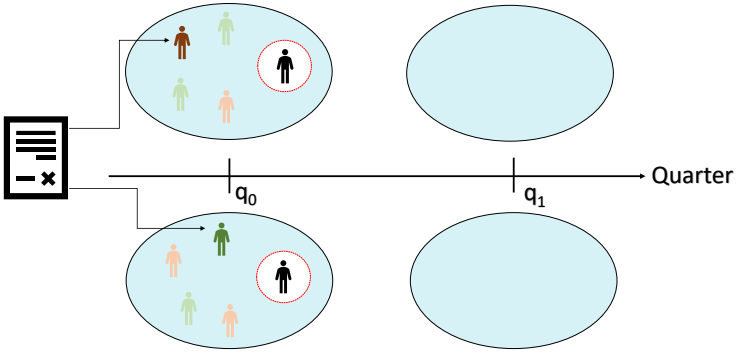
Network Example

Exogenous variation:



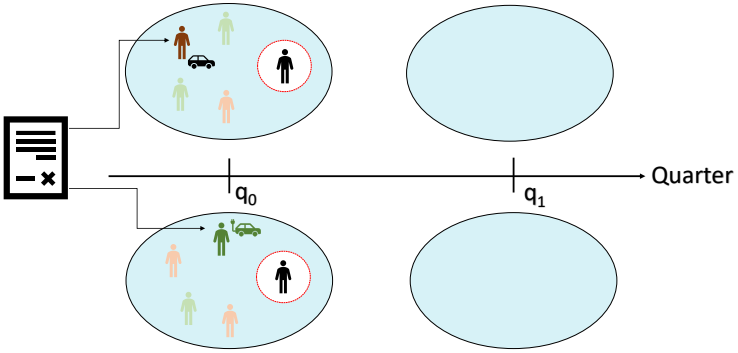
Network Example

Exogenous variation: *Timing of leasing renewal*



Network Example

Exogenous variation: *Timing of leasing renewal x Type of person at renewal*



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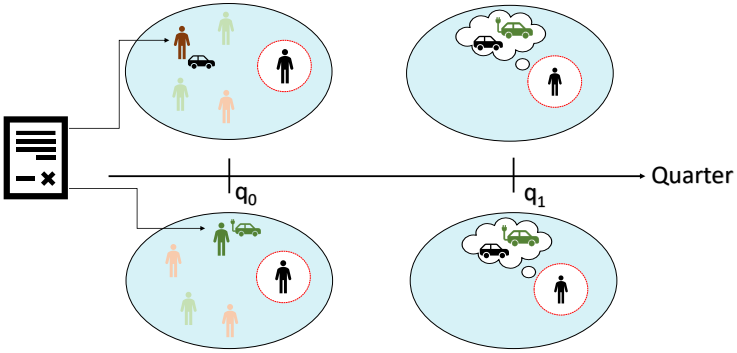
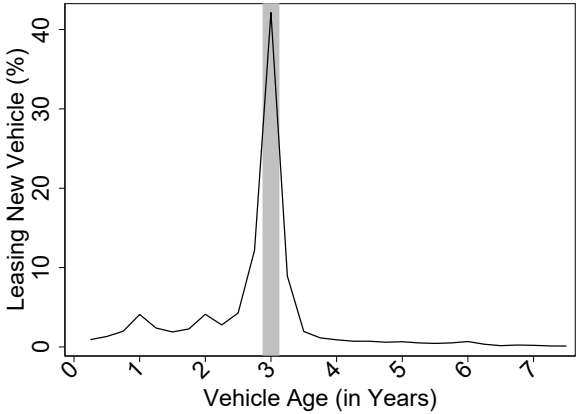


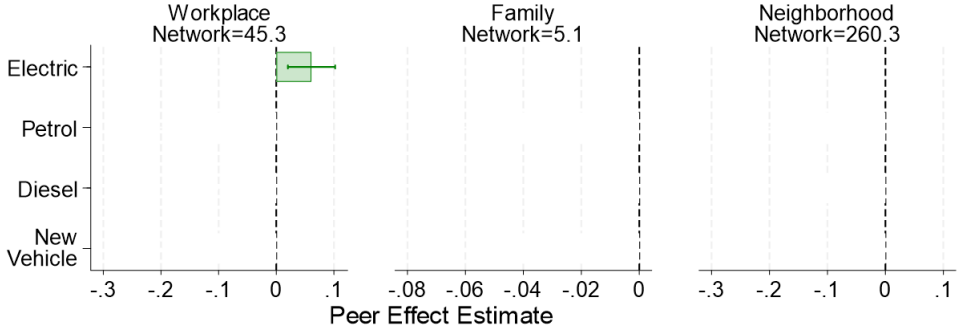
Car Leasing Market

Exogenous-component: Exploit timing of peers' car leasing renewals



Main Results

- One additional new peer EV triggers, in the next quarter:
  - → .061 EVs in the workplace



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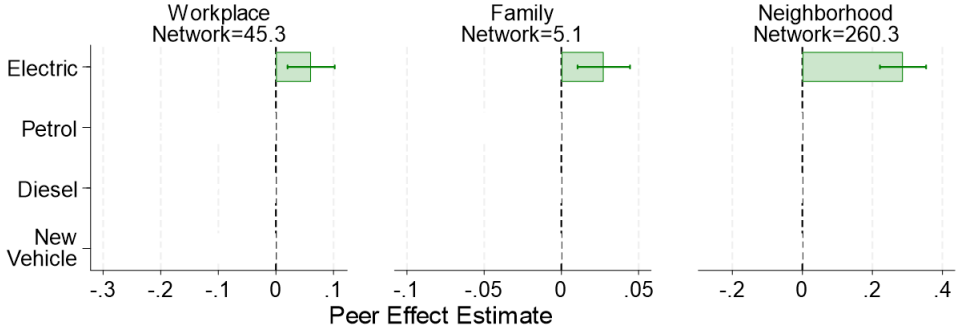
- One additional new peer EV triggers, in the next quarter:
  - → .061 EVs in the workplace (.0014 EVs per co-worker)
  - → .028 EVs in the family (.0037 EVs per relative)
  - → .287 EVs in the neighborhood (.0011 EVs per neighbor)



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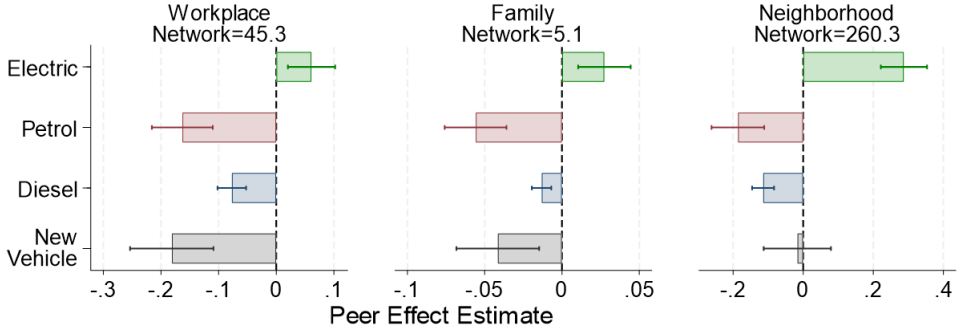
- Peer EVs crowd out diesel and petrol cars



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Policy implications:

- Optimal subsidy shifts upward in the presence of peer effects, but decreases along adoption curve