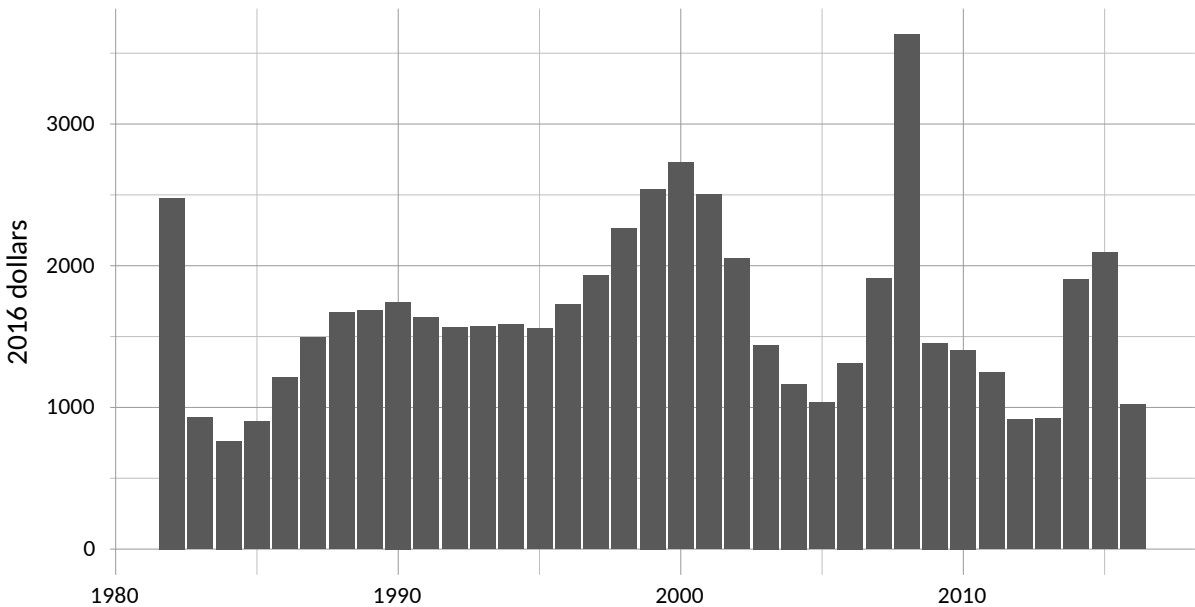# Cars in Alaska

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March 9, 2017

- ‣ Context
  - ‣ Alaskan cars
- ‣ Questions
  - ‣ Income effects
- ‣ Setup
  - ‣ DD
  - ‣ Caveats!
- ‣ Results
  - ‣ Small(ish)

Alaska Permanent Fund payments, per individual

Questions

- ‣ Is the purchase of expensive durable goods sensitive to large, anticipated income shocks?
    - ‣ (Think permanent income hypothesis / consumption smoothing)
- ‣ Several margins:
    - ‣ Count sold
    - ‣ Value of vehicles sold
    - ‣ Efficiency of vehicles

Data

- Timing and amount of Permanent Fund payments
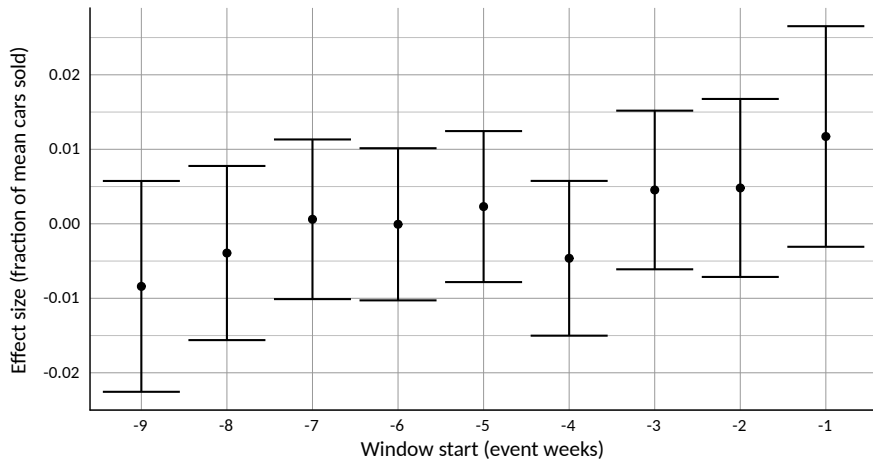- Wholesale auto auctions, with buyer, seller and auction-site zip codes

Difference-in-differences setup

- ‣ Pick control states
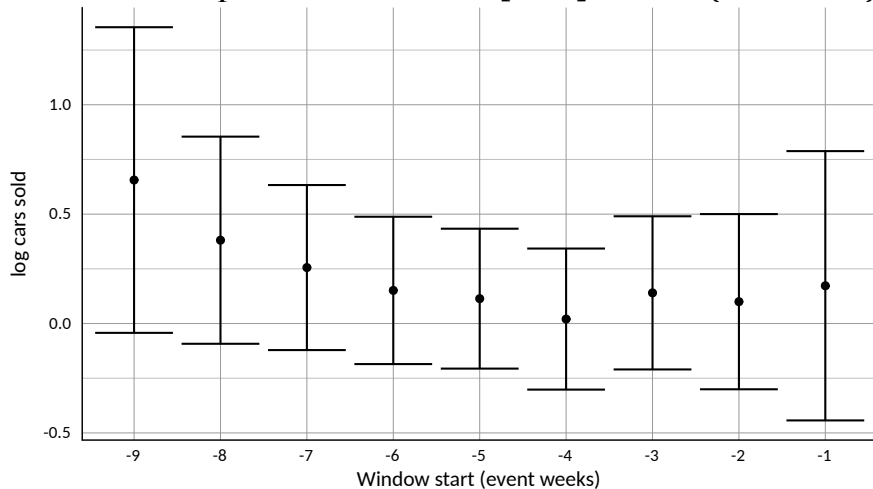- ‣ Collapse to state-by-week observations
- ‣ Consider different windows
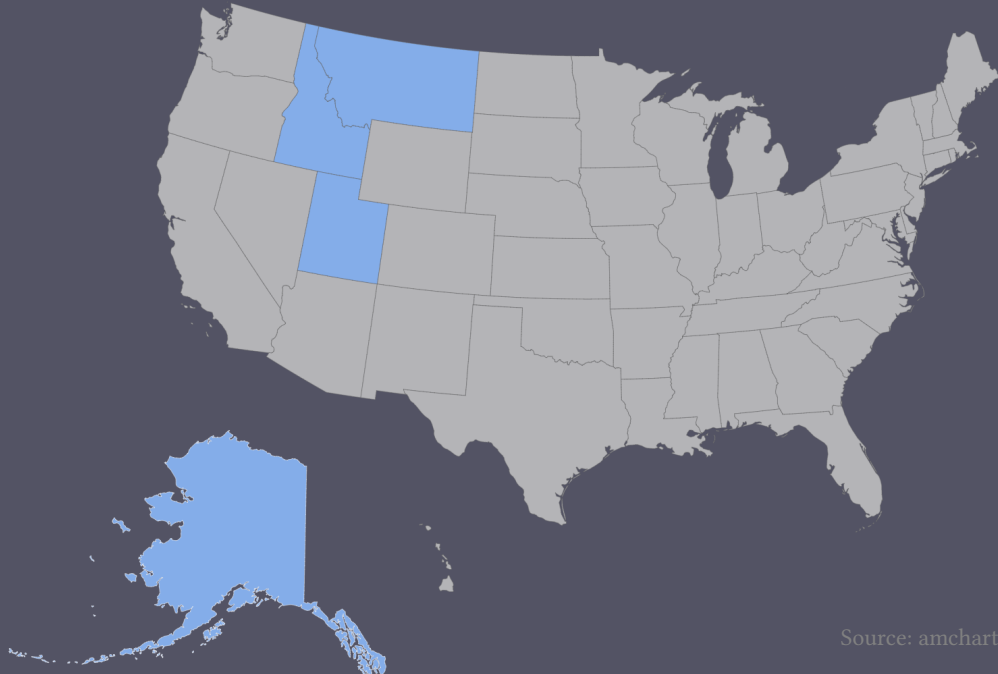
Source: amcharts.com

Sales counts anticipation widows of $[i, -1]$ for $i \in \{-9, \ldots -1\}$
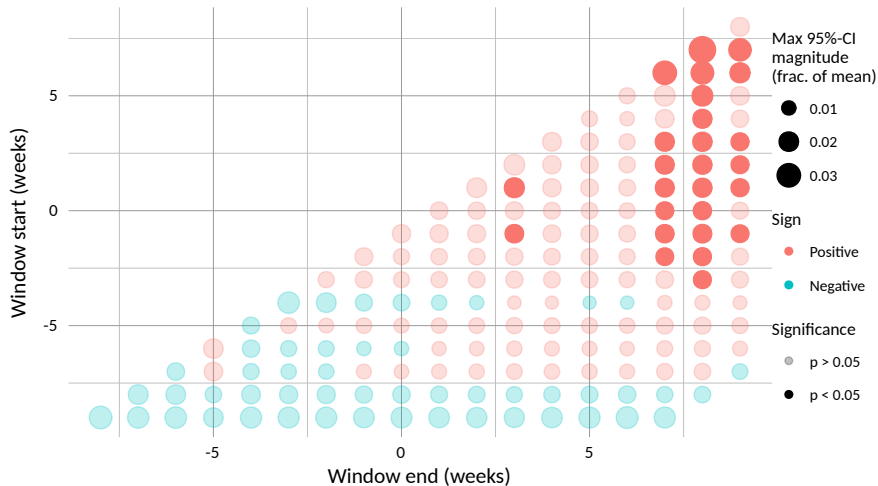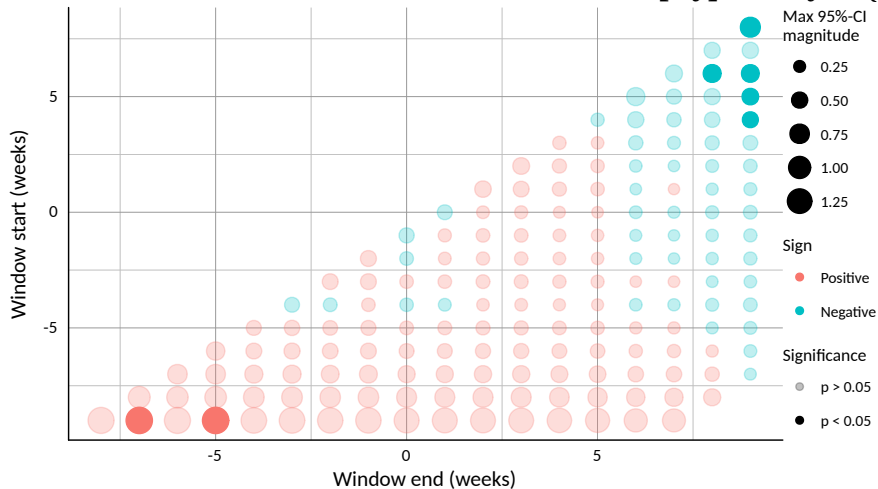
Log sales counts anticipation widows of $[i, -1]$ for $i \in \{-9, \ldots -1\}$
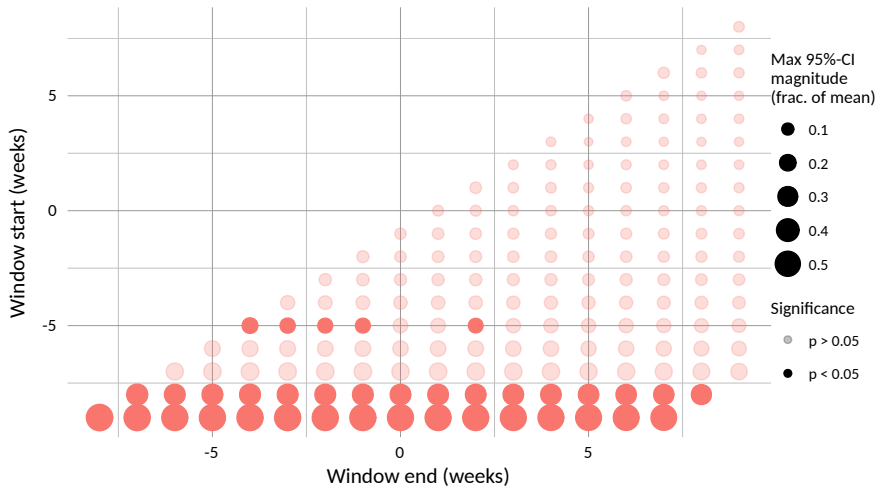
Sale counts max. detectable effects, widows of $[i, j]$ for $i, j \in \{-8, \ldots, 9\}$
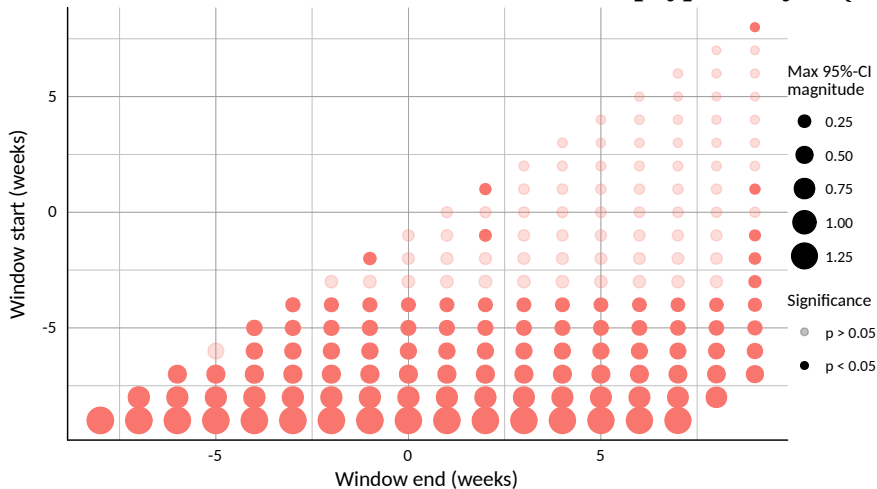
Log sale counts max. detectable effects, widows of $[i, j]$ for $i, j \in \{-8, \dots, 9\}$

Fuel cons. max. detectable effects, widows of $[i, j]$ for $i, j \in \{-8, \ldots 9\}$

Log fuel cons. max. detectable effects, widows of $[i, j]$ for $i, j \in \{-8, \ldots 9\}$

Questions

- ▸ Vehicle count: probably no effect
- ▸ Fuel consumption: can't rule out smallish effects
- ▸ (Vehicle value: can't rule out smallish effects)

Next steps

- ‣ Better control selection
- ‣ Better standard errors
- ‣ Suggestions?

Thanks!