

# Road noise in the Netherlands



Estimating the willingness-to-pay for  
noise reduction



# Research questions

- What are households willing to pay (or paying) for noise reduction?
- What are (affected) households willing to pay for a sound barrier wall

# Data availability

Dataset	Content	Period
NVM	Housing prices, characteristics	2000-2013
Nat. Wegenbestand (NWB)	Highway ramps	2008-2015
Wegenlijst RWS	Roads	1999-2015
Weggegevens (geluidsbeperkingen)	Sound barrier objects	2005-2015

# State of affairs

- Cleaned data, removed outliers
- Calculated distances of houses to roads, ramps and soundbarriers.
  - If soundbarrier distance  $< 600$  meters AND soundbarrier distance  $<$  road distance then a house is affected
- Statistical tests show funny results:
  - Soundbarrier effect insignificant ( negative sign)
  - Accessibility effect positive?

# Challenges

- Proper model specification
  - When is a house sale ‘treated’
- Alternative accessibility parameter
  - Maybe ramp distance picks up on different things in urban and peripheral areas
- Clearer data on noise barriers
  - Look for soundbarrier construction instances by hand
- Find noise contourzone dataset for plan B

# Noise contour zones

