Proxy Part

Housing Prices & School Quality in NRW

Daniel Jeffrey Tobien, Yanyi Ji, Luc Wichtmann

2026-01-10

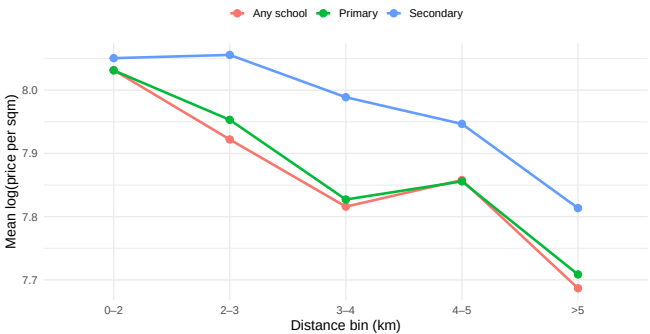
Descriptive Price Gradient

Key patterns

- Unit prices decline with distance
- Strongest gradient for **primary**
- Secondary is weaker

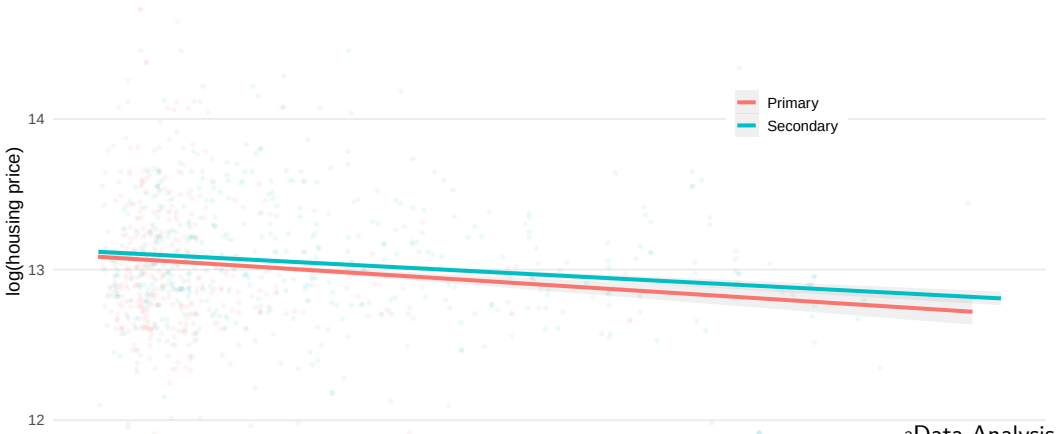
Note

- Outcome: log(price per sqm)
- Identical distance bins



Does School Type Matter?

- Housing prices decline more steeply with distance to **primary schools**
- Secondary school proximity shows a substantially weaker association



Empirical Strategy: Hedonic Models

We estimate a sequence of hedonic regressions:

- **(1) Naive**: distance to nearest primary school only
- **(2) Controls**: add housing characteristics
- **(3) Non-linear**: allow a quadratic distance effect
- **(4) Multi-school**: include secondary-school distance

	(1) Naive	(2) Controls	(3) Non-linear	(4) Multi-school
Outcome	log(housing price)	log(housing price)	log(housing price)	log(housing price)
Primary distance	Yes	Yes	Yes	Yes
Primary distance squared	No	No	Yes	No
Secondary distance	No	No	No	Yes
Housing controls	No	Yes	Yes	Yes

Regression Results

	(1) Naive	(2) Controls	(3) Non-linear	(4) Multi-school
Distance to Primary (km)	-0.038*** (0.005)	-0.066*** (0.005)	-0.056*** (0.014)	-0.037*** (0.005)
Distance Squared			-0.002 (0.002)	
Distance to Secondary (km)				-0.032*** (0.003)
Obs.	4491	3693	3693	3693
R^2	0.012	0.328	0.328	0.348
Adj. R^2	0.012	0.327	0.327	0.347

Notes: Dependent variable is log(housing price). Cells report coefficient with robust SE in parentheses.
* p<0.10, ** p<0.05, *** p<0.01.