The Effects of School Proximity and the School Social Index on Housing Prices

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Agenda

1. **Motivation, Existing Literature & Research Question**

Why school proximity and social indices matter.

2. **Data & Methodology**

Data used and our empirical model.

3. **Results & Main Findings**

Presentation and interpretation of our findings.

4. **Limitations & Conclusion**

Limitations of our work and concluding thoughts.

Motivation, Existing Literature & Research Question

Motivation

- **Personal Interest**: Analyzing the real estate market's reaction to various factors is particularly interesting from an economic standpoint, as it offers insights into market dynamics. Additionally, the topic is personally intriguing, adding an extra layer of motivation to explore it further.
- **Academic and Practical Relevance**: Housing markets are influenced by various social and economic factors, and school quality is also cited as a underestimated determinant of property values, especially in research (Seo and Simons 2009).

Motivation

Understanding the relationship between school distance, school quality and property prices can provide valuable insights for researchers and individuals interested in the real estate market.

Related Literature Background

Several papers have examined the effect of proximity to schools on housing prices:

- **Empirical Strategies**: While hedonic models are the dominant approach to estimating housing price effects, alternative empirical strategies have also been proposed (see Black and Machin 2011)
- **Findings**: Empirical evidence suggests that proximity to schools positively affects housing prices (Rosiers, Lagana, and Theriault 2001; Huang and Hess 2018)

Related Literature Background

- **Other Factors**: Related work also documents capitalization effects of school reputation (Chin and Foong 2006), differences between public and private schools (Sah, Conroy, and Narwold 2016) and school quality (Edusei, Espey, and Lin 2007; Metz 2015)
- **Environment of studies**: Much of the literature focuses on settings with binding school catchment areas and measures school quality primarily through test scores rather than demographic composition.

Research Question

We study a setting *without binding school catchment areas* (NRW, Germany) and assess whether both *school proximity* and a *demographically based school social index* are capitalized into housing prices.

Research Question

Research Question: How do school proximity and school social indices affect the prices of detached houses, and do these effects differ between primary and secondary schools in North Rhine–Westphalia?

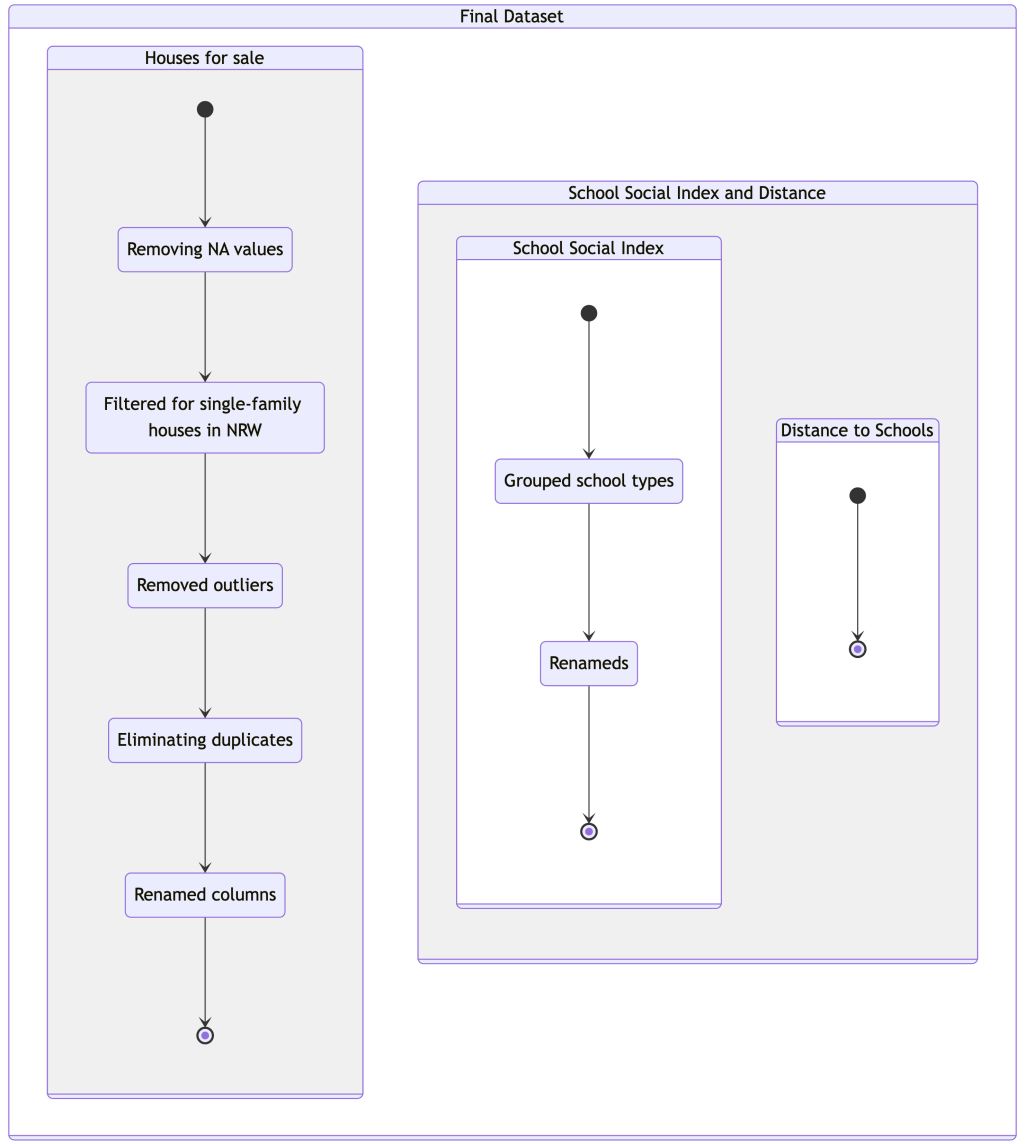
Data & Methodology

Data

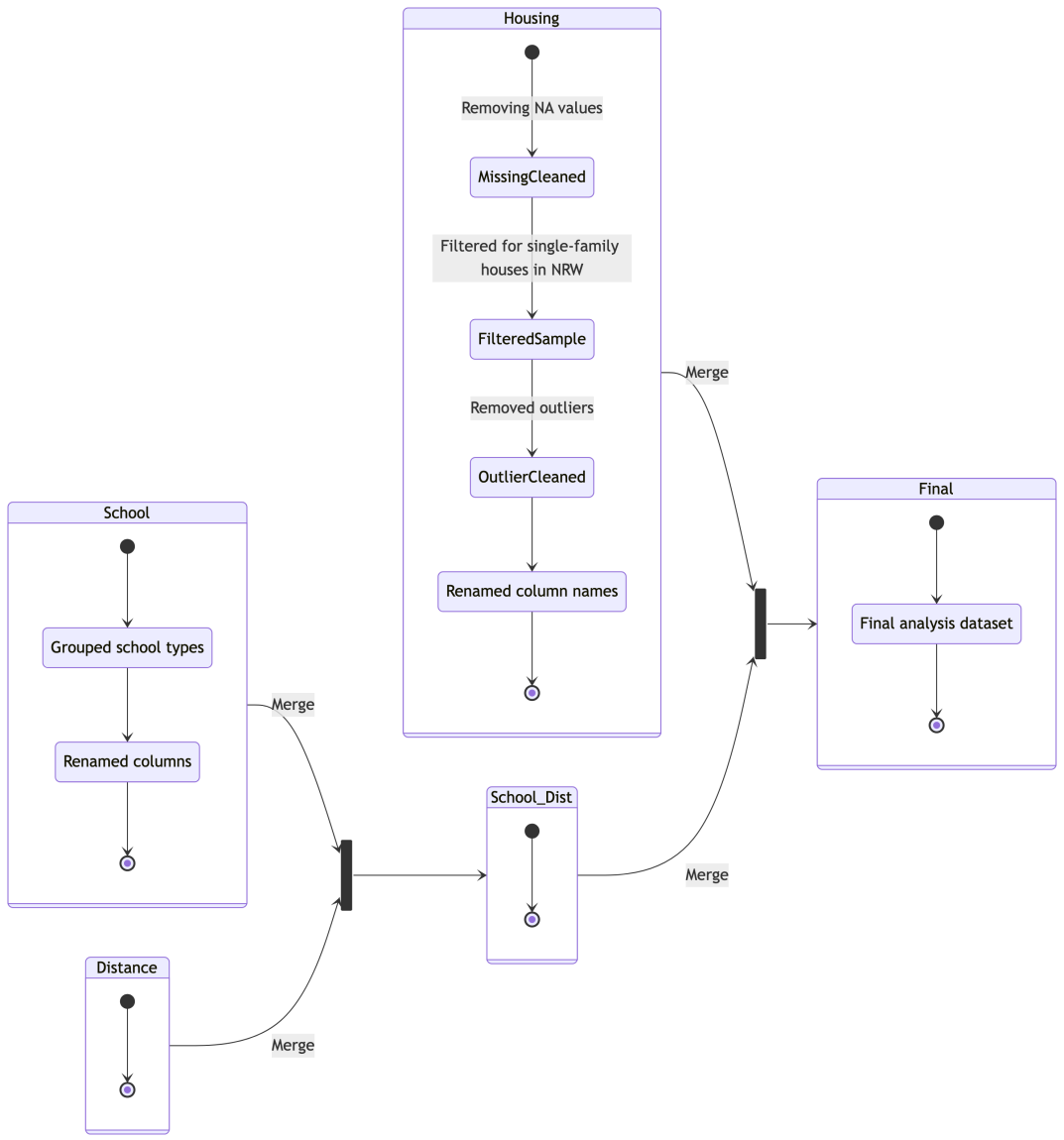
- **Housing Data**: Cross-section dataset for houses for sale published by the Research Data Center Ruhr (FDZ Ruhr) (RWI and ImmobilienScout24 2023).
- **School Data**: School social index dataset from North Rhine-Westphalias Ministry of Schools and Education (Ministerium für Schule und Bildung des Landes Nordrhein-Westfalen 2024).

Data used from both datasets refer to the year 2022.

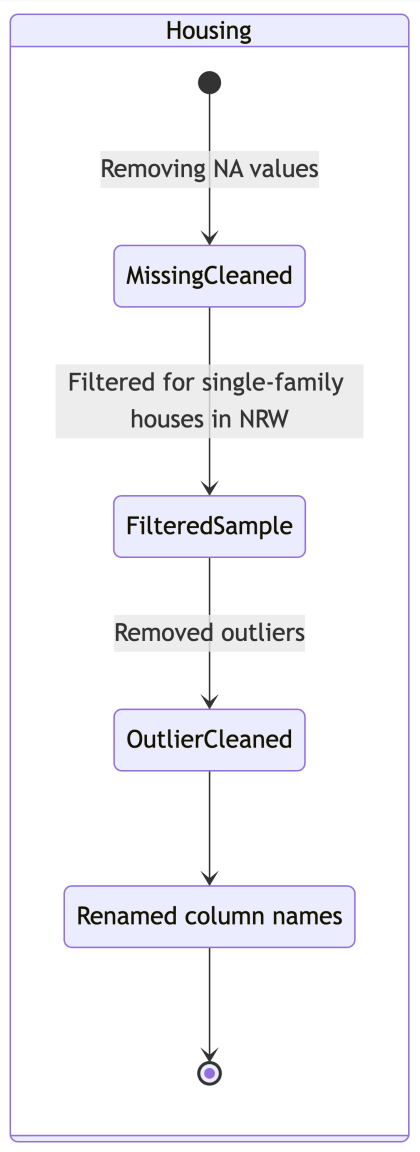
Pre-Processing of Data



Test Graphic

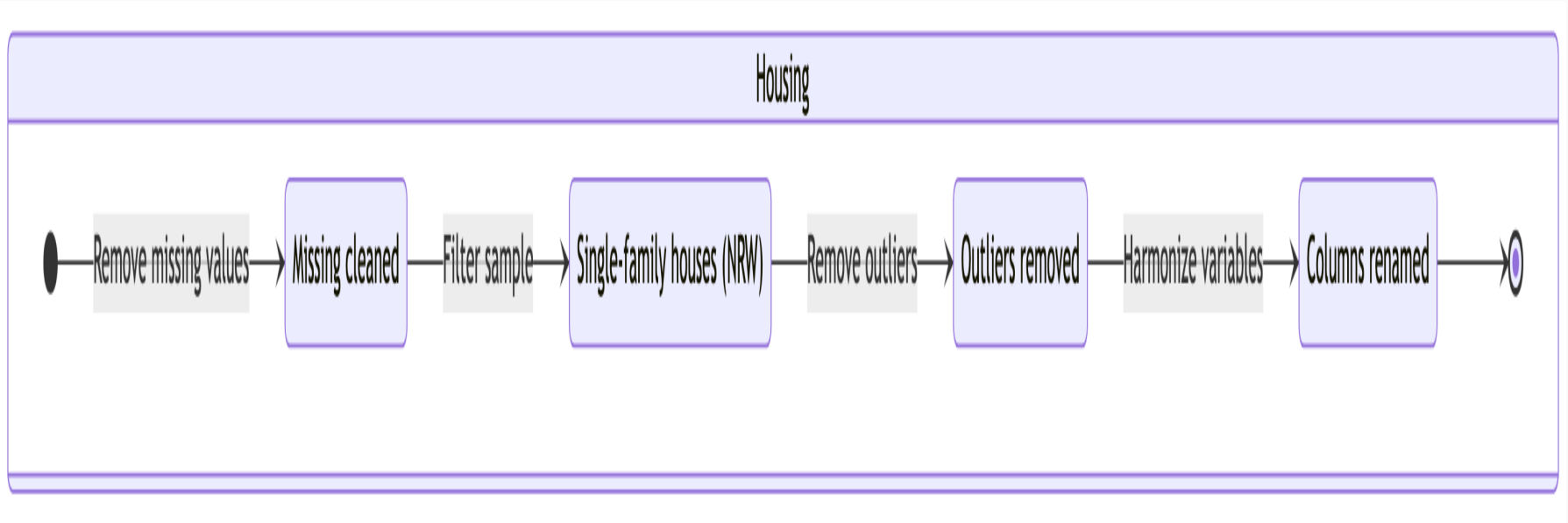


Another test graphic (Pillar)



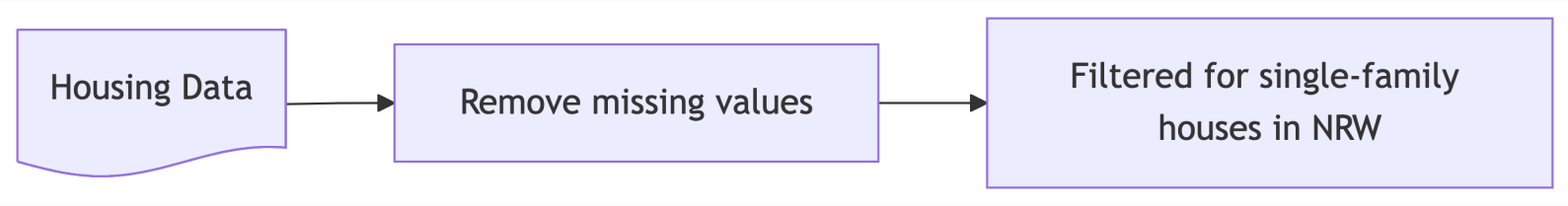
- Some bulletpoints explaining our process

Another test graphic (Left to right)



- Bulletpoints to explain processes

Flowchart Test



Pre-Processing of Data: Merging

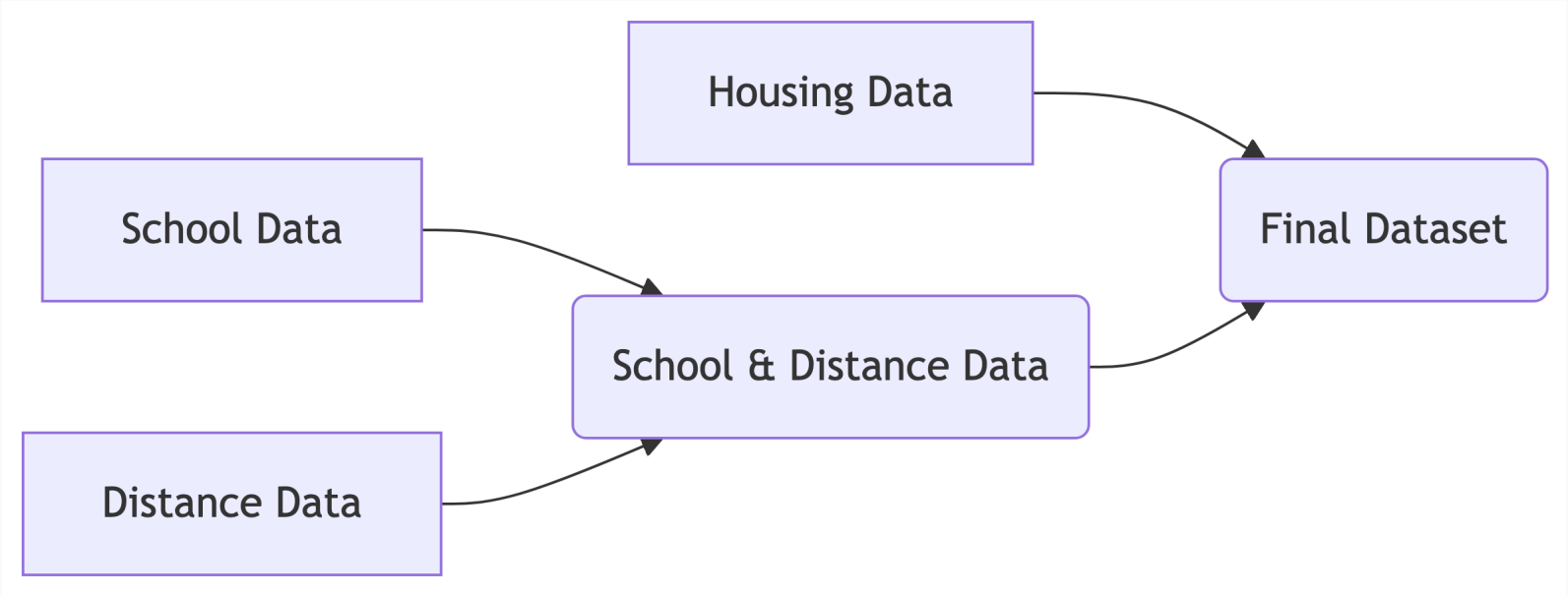


Figure 1

Empirical Framework

Results and Main Findings

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