



Background

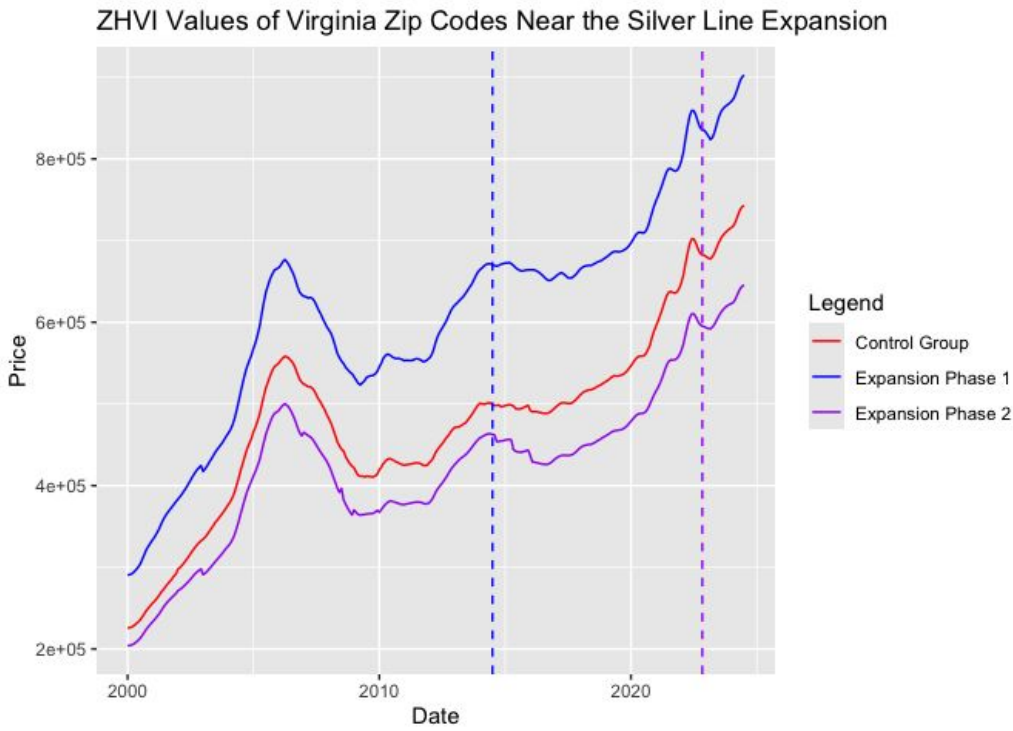
- The Silver Line is the newest rapid transit line of the Washington DC metro transit system.
- The line consists of existing Blue and Orange Line stations in Maryland and Washington DC with two expansions into Virginia: Phase 1, completed in 2014, and Phase 2, completed in 2022.
- With Phase 2, the Silver Line connects Dulles International Airport to the rest of the DC metro.

Hypothesis

The opening of both Silver Line phases will cause a statistically significant increase in nearby house prices.

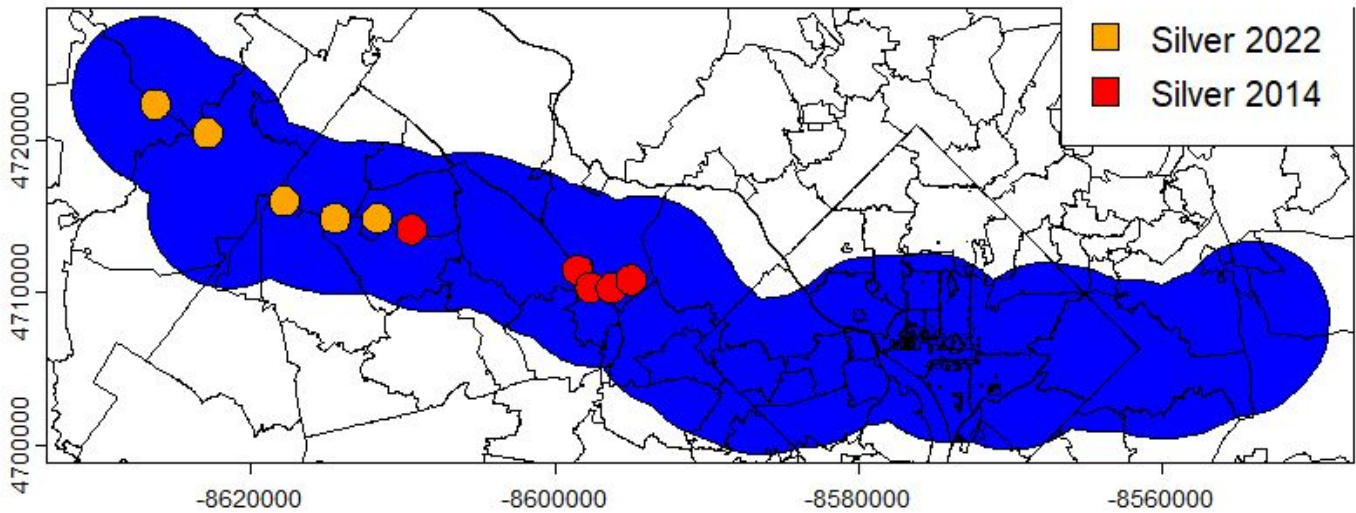
Methodology

We quantified the impact of the opening of the Silver Line on the rent prices by looking at the change in house prices over time and determining whether or not it can be attributed to the silver line. The differences in house prices during the openings of the different phases were compared and contrasted from one another.



Treated Area

- We extracted zip codes with centroids within 5 km from Silver Line stations in Fairfax County and Loudoun County as out treatment area.



Untreated Area

- We extracted the remaining zip codes of Fairfax County and Loudoun County that were not near the Silver Line.

References

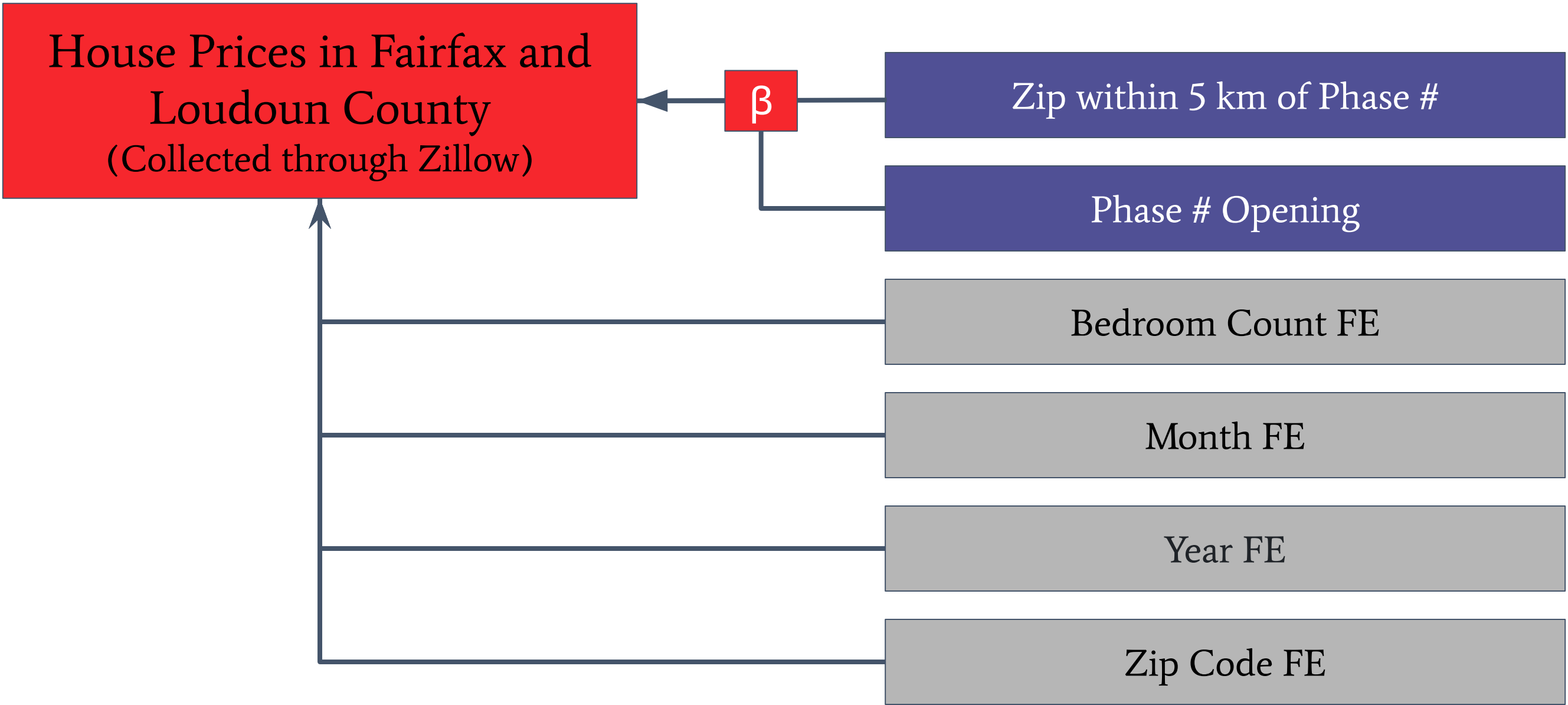
Forrest, D., Glen, J., & Ward, R. (1996). The impact of a light rail system on the structure of house prices: a hedonic longitudinal study. *Journal of Transport economics and Policy*, 15-29.

Girard, P. (2018). Urban Redevelopment and Housing Values: A Case Study of the Atlanta Beltline

Did the opening of the Silver Line increase house prices?

Raphael Coronel, Brian Huang, Joseph Tang, Taylor Woods
Faculty Leader: Thanicha Ruangmas

Data & Variables



Results

	Model 1	Model 2
zip_in_2014:open_2014	7011	-
zip_in_2022:open_2022	-59860***	-
2 Bedrooms:zip_in_2014:open_2014	-	42791**
3 Bedrooms:zip_in_2014:open_2014	-	66954***
4 Bedrooms:zip_in_2014:open_2014	-	67097***
5 Bedrooms:zip_in_2014:open_2014	-	41115*
2 Bedrooms:zip_in_2022:open_2022	-	-30217
3 Bedrooms:zip_in_2022:open_2022	-	-48262
4 Bedrooms:zip_in_2022:open_2022	-	-136469***
5 Bedrooms:zip_in_2022:open_2022	-	-205551***
Controls	Year FE, Month FE, Zip code FE	Year FE, Month FE, Zip code FE, Bedroom FE
Observations	11074	11074
R ²	0.8	0.88

Conclusion

House prices near the first phase stations rose by \$40k-\$60k across all bedroom counts after opening, while prices near the second phase stations dropped by an average of \$60k, except for two- and three-bedroom houses. The first phase price increase aligns with trends seen near transit lines, such as Atlanta's Beltline (Girard, 2018) and metro stations generally (Forrest et al., 1996). However, the second phase price drop contradicts national housing trends during the pandemic's later stages. Further research is needed to explore factors like mortgage rates, natural disasters, and crime rates that may explain this decline.