

# **Impacts of Bicycle Facilities on Residential Property Values in 11 US Cities**

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## **ACKNOWLEDGEMENTS**

We thank Sean Lim and Daniel Harrington for their assistance in processing and compilation of bicycle facility data.

Data provided by Zillow through the Zillow Transaction and Assessment Dataset (ZTRAX). More information on accessing the data can be found at <http://www.zillow.com/ztrax>. The results and discussion in this paper are those of the authors and do not reflect the position of Zillow Group.

## **CONTRIBUTION STATEMENT**

The authors confirm their contribution to the paper as follows: study conception and design: A Dahir, HTK Le; data and software: A Dahir; analysis and interpretation of results: A Dahir, HTK Le; manuscript preparation – original writing: A Dahir, HTK Le; manuscript preparation – reviewing and editing: A Dahir, HTK Le; project supervision: HTK Le.

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## Highlights

- This quasi-experimental study quantifies the impacts of bike facilities on property values.
- We analyzed data from 11 US cities from 2000 to 2019.
- We found a mix of increase, decrease, and null effects on property values near on-street and off-street facilities.
- Negative impact was more prevalent for single-family properties than multifamily properties

## Abstract

Bicycle infrastructure has been found to increase nearby residential property values, however, most evidence for this economic impact is limited to a single city. This study investigates the pre- and post-treatment effects of different types of bicycle facilities on the values of single-family and multifamily homes in 11 cities in the United States from 2000 to 2019. We utilize a quasi-experimental approach with matching techniques and hedonic models to track down the changes in the sales price of residential properties over time within an 800-meter buffer of bicycle facilities. We found a mixed impact of property value appreciation, depreciation, and no change in the sales price by different types of bicycle infrastructure including on-street and off-street facilities on single-family and multifamily residential properties across the 11 cities. Single-family and multifamily properties near off-street-only facilities experienced appreciation in Los Angeles, Minneapolis, and Cleveland. Meanwhile, single-family homes near on-street-only facilities tended to decrease their values in Columbus, Eugene, Philadelphia, and Tucson, and increase only in Minneapolis. All properties within 800m of both on-street and off-street facilities saw their values increase in Columbus and Minneapolis. However, we did not find a statistically significant effect of bicycle infrastructure on housing values in Portland, San Francisco, and Seattle. Findings from our study will inform decision-making and planning for bicycle infrastructure while ensuring the equitable distribution of these facilities and affordable housing for disadvantaged populations.

**Keywords:** *bicycling, built environment, quasi-experimental study, housing price, bike network, bike lane*