

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

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## **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*