



# *Free Wheel, Free Will!* The Effects of Bikeshare Systems on Urban Commuting Patterns in the U.S.

## Background

- Traffic congestion is a critical problem in many US cities, for both quality of life and health consequences.
- The use of bikeshares is growing. There were 320,000 trips in 2010; nearly 30 million trips in 2016.
- Bikeshare programs are low-cost to users, remove the worry of theft, and remove parking concerns.

## Study Overview

- This paper examines the effectiveness of bike sharing systems, a key urban transportation policy, on commuting patterns using data from American Community Survey from 2008 to 2016.

## Learn More

- Xu, D. (2020), Free Wheel, Free Will! The Effects of Bikeshare Systems on Urban Commuting Patterns in the U.S. . J. Pol. Anal. Manage.. doi:10.1002/pam.22216
- <https://doi.org/10.1002/pam.22216>

## Key Takeaways

- Once cities introduced bikeshare systems, there was a significant increase in home-work commuting by bicycle. Automobile commuting declined.
- A mediating variable analysis showed approximately 10% of the effect of bikeshare programs was through the length of the bicycle lanes.
- The larger effects of bikeshare systems was on commutes between the work and home.
- Population density increased usage while the average time limit of 30 minutes prohibited longer trips. Commuters in the city core were more likely to use these systems.
- Bicycle commuting was positively associated with education attainment and the number of total commuters. It was negatively associated with females, marriage rate, and average age.