Public Bikesharing In North America: Early Operator And User Understanding

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Public bikesharing—the shared use of a bicycle fleet—is an innovative transportation strategy that has recently emerged in North America.

> *Public bikesharing is growing rapidly in North America and is enhancing public transportation, improving connectivity, and increasing physical exercise.*

Bikesharing systems typically position bicycles at docking stations for immediate access. Trips can be one-way or round-trip. As of January 2012, 15 information technology (IT)-based, public bikesharing systems had emerged in the United States—accounting for 172,070 users and 5,238 bicycles, and four IT-based programs accounted for 44,352 users and 6,235 bicycles in Canada. This study documents the state of public bikesharing in the U.S. and Canada and informs:

- Key attributes and business models of these bikesharing operations;
- Economics of bikesharing and insurance issues in North America;
- Evolution of IT-based bikesharing in the U.S. and Canada;
- Impact of bikesharing on walking, bicycling, public transit, and exercise;
- Helmet use among users surveyed;
- Purpose of bikesharing trips, bikesharing system use, and user perceptions;
- Impact of public bikesharing on driving and vehicle ownership; and
- Role of commute distance in public bikesharing use and travel pattern impacts.
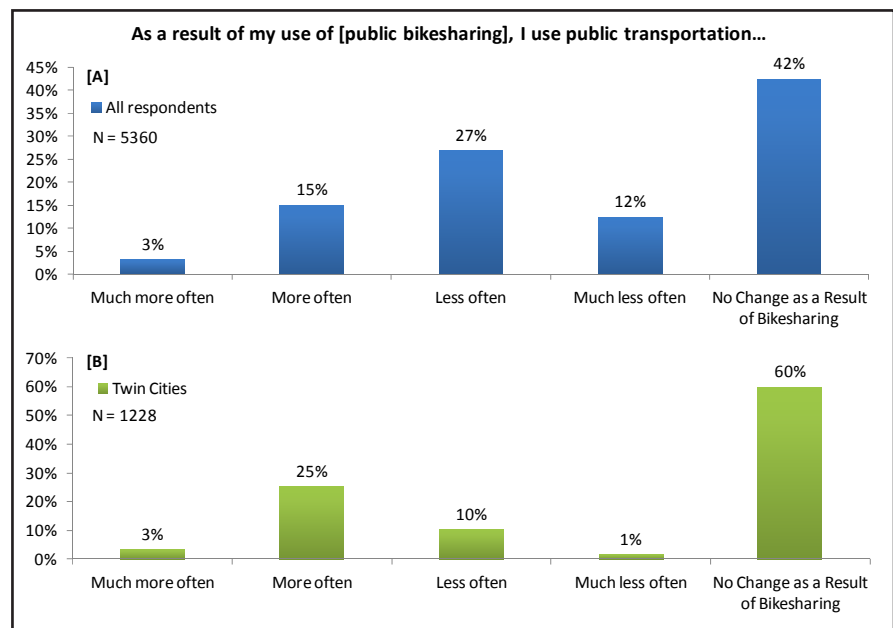
Study Methods

To answer these questions, this research project involved several methods.

- A literature review assessed the state of bikesharing in North America and worldwide.
- The project included 14 expert interviews with city and regional transportation personnel, public transit operators, policy makers, community bike coordinators, and bike vendors to gain a stronger understanding of public bikesharing from a variety of perspectives.
- An online member survey (n=10,661) of early public bikesharing systems was conducted in Montreal, Toronto, Washington DC, and the Twin Cities.
- We also analyzed operational data for the two U.S. operators from the survey.
- Expert interviews were conducted with all 19 operating IT-based bikesharing programs in the U.S. and Canada as of April 2012.
- Five interviews were completed with brokers, underwriters, and attorneys to gain a greater understanding of bikesharing insurance.

Findings

The researchers identified five active bikesharing business models in North America. More than 75% of operators interviewed received startup or operational funding. More than half of the operators indicated that the optimum distance between stations is between 300 yards and one-quarter of a mile. Over 40% of the operators reported that the typical trip is a round-trip. Theft, vandalism, and accidents were reported to be relatively minor challenges.

The member survey found that the most common trip purpose for bikesharing use was travel to work or school, followed by social entertainment and errands. These responses indicated that bikesharing systems were overwhelmingly used for practical travel and were more broadly used as an extension of the public transportation system. The majority of respondents felt that bikesharing was an enhancement to public transportation, improved connectivity, and increased exercise.

As a result of my use of [public bikesharing], I use public transportation…

[A] All respondents
N = 5360

Much more often	More often	Less often	Much less often	No Change as a Result of Bikesharing
3%	15%	27%	12%	42%

[B] Twin Cities
N = 1228

Much more often	More often	Less often	Much less often	No Change as a Result of Bikesharing
3%	25%	10%	1%	60%

Policy Recommendations

As public bikesharing operators and local/regional governments contemplate implementing bikesharing in their regions, the following policy questions are important to consider:

1. What types of system designs are most effective for promoting synergistic cooperation between public transit and public bikesharing?
2. Where will bike stations be located to enable space for the stations?
3. What type of fees (if any) should be assessed for accessing public rights-of-way?
4. What type of financial support (if any) is appropriate for the startup and ongoing operation of a public bikesharing program?
5. What ordinances and policies must a local government address before implementing public bikesharing?
6. How will public bikesharing operators document the social and environmental impacts of their organizations over time?
7. How will bikesharing insurance evolve, and how might operators work together to develop industry standards and reduce risk?

About the Authors

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For more details about the study, download the full report at *transweb.sjsu.edu/project/1029.html*