



**OTREC**  
OREGON TRANSPORTATION RESEARCH  
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## ACTIVE TRAVELERS, COMPETITIVE CONSUMERS

A project measures the spending habits of people who use active travel modes.

### The Issue

As cities around the country invest in infrastructure that supports active travel modes, such as biking and walking, some members of the business community have shown resistance. Business owners, particularly those with a business model built around the use of the automobile, are concerned that investments and policies that encourage cycling, walking and transit may inhibit automobile use and thus, interfere with their profits.

There is little evidence from rigorous, objective studies to prove that these fears are unfounded. OTREC researcher Kelly Clifton and a team of graduate students from Portland State University set out to find empirical evidence to inform business owners and decision-making bodies on the consumer spending behaviors for each travel mode.

### The Research

Researchers studied 89 businesses in the Portland, Ore. metropolitan area. Four business types were examined: high-turnover sit-down restaurants, convenience stores without gas stations, drinking establishments, and supermarkets. Researchers chose these business types because they are found throughout the region and have similar price points, all relating to food and drink. Convenience stores and supermarkets sell goods that often need to be carried off-site and could thus impact customers' mode choice. Restaurants and drinking establishments do not have that constraint, as food is consumed on-site.

From June to October of 2011, students developed two (similar but different) tablet surveys. They conducted an intercept survey to patrons leaving restaurants, drinking establishments and convenience stores. The other survey was given to grocery store employees, who administered the survey to customers checking out or leaving the store. Data were collected during peak customer traffic times, usually between 5 and 7 p.m.

The surveys collected trip, spending, and demographic information, including the number of bikes, transit passes and automobiles in the consumers' households. Survey

### THE ISSUE

Some members of the business community have expressed doubts about policies promoting active travel, fearing the effect it may have on their bottom line. OTREC researchers set out to gather evidence about the spending behaviors of active travelers.

### THE RESEARCH

Researchers collected site information and customer surveys at 89 businesses in the Portland, Ore., area. Surveys recorded:

- Trip information (how customers got there);
- Spending information (how much they spent there);
- Demographic information (age, gender, etc.).

### THE IMPLICATIONS

The results of this study indicate that active travelers are competitive consumers, spending more per month at many establishments than those who drive. The study suggests that business owners may be able to increase their revenue from this mode share by adding amenities like bicycle parking.

Photo: On-street bicycle parking provided for patrons in front of a restaurant.

## PROJECT INFORMATION

TITLE: Examining Consumer Behavior and Travel Choices

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PROJECT NUMBER: 2011-411

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MORE INFORMATION  
<http://otrec.us/project/411>

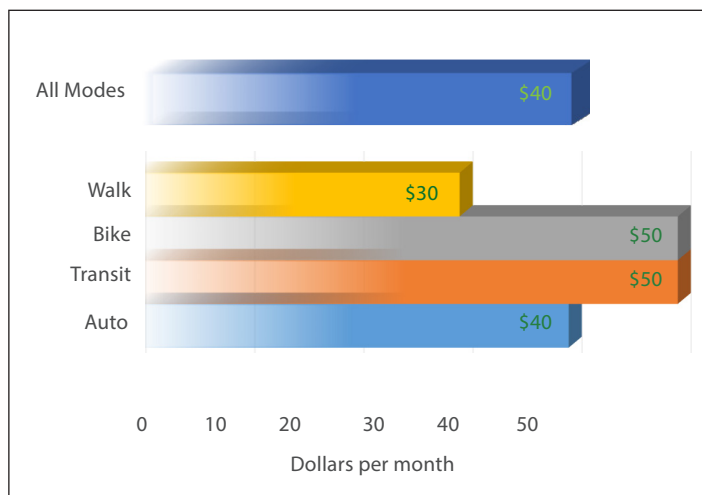
results indicated that people arriving by bus, bike or on foot average more trips per month to convenience stores, supermarkets, drinking establishments and restaurants than do people arriving by car. They also spend more per month at all types of establishments except supermarkets, where the auto users' greater spending per trip balances out their fewer trips.

The greater number of trips means that many of these active travelers are regular customers, returning to the establishment often. Clifton's final report suggests that managers and business owners may have untapped opportunities to get to know this segment of their market and cater to this constituency, for example by adding more bicycle amenities.

## Implications

This study of consumer spending and travel choices has some compelling findings that suggest some key spending and frequency differences by mode of travel that will likely invigorate the discussion of the economic impacts of these modes.

The first key finding is that bicyclists, pedestrians and transit riders are competitive consumers. When demographics and socioeconomic factors are controlled for, mode choice does not have a statistically significant impact on consumer spending at convenience stores, drinking establishments and restaurants. When trip frequency is accounted for, the average monthly expenditures by customer modes of travel reveal that bicyclists, transit users and pedestrians, for all businesses except supermarkets, spend more on average than those who drive.



### Estimated average spending per month at high-turnover restaurants

This graph shows how much consumers spent each month at high-turnover restaurants, broken down by mode choice. The monthly average is estimated as the average expenditure per trip multiplied by the number of trips per month.

The second key finding is that the built environment matters. In agreement with other published work on the topic, researchers found that residential and employment density, the proximity to rail transit, and the amount of automobile and bicycle parking are all important factors determining consumer mode choice. In particular, bike parking and bike corrals are significant predictors of bike mode share at the establishment level.

Cities and other public agencies can use this research to better understand how businesses might be affected by changes to the built environment and to transportation infrastructure. Business owners themselves can use this information to better understand their customer markets.