

# State bicycle survey reveals danger concerns, cycling perceptions

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Bicyclists in Dallas, Houston and San Antonio are more concerned with being involved in vehicle crashes compared to bicyclists in other Texas cities, according to a survey conducted by the Center for Transportation Research at The University of Texas at Austin.

"This is quite intuitive, given the high levels of traffic congestion in Houston, Dallas and San Antonio," said Professor Chandra Bhat, who spearheaded the survey and is one of the world's foremost authorities on travel behavior.

In addition, almost 70 percent of the survey respondents feel bicycling is "very dangerous" or "somewhat dangerous" in terms of traffic accidents. In contrast, only 21 percent of respondents feel bicycling is "somewhat

dangerous" or "very dangerous" in the context of crime.

The survey, sponsored by the Texas Department of Transportation and the Federal Highway Administration, was conducted entirely online. The results should help establish planning guidelines for the design of safe and efficient bicycle facilities and environments in Texas and around the country.

Respondents were 18 years or older living in more than 100 Texas cities. The sample included 1,605 bicyclists, of which 810 (or slightly more than 50 percent) used their bikes for commuting. The remaining 795 bicycled only for non-commuting purposes. Each group was presented with questions pertaining to their particular habits.

Bhat said the transportation sector accounts for about one-third of all human-generated greenhouse gas emissions. Within that sector, travel by personal vehicles accounts for nearly two-thirds of those emissions. And only 0.9 percent of all trips in the United States are made by bicycle, and the number drops to 0.4 percent for commute trips -- despite the fact that a significant amount of trips are deemed short-distance and can be made using a bike. A 2001 National Household Travel Survey revealed that 41 percent of all trips in 2001 were shorter than two miles and 28 percent were shorter than one mile.

Bhat's research attempts to understand the reasons for the low bicycling use and inform the development of appropriate and effective strategies to increase bicycling, thereby cutting down motorized vehicle use and carbon dioxide emissions while promoting a healthier, more physically active lifestyle.

One finding that may have immediate relevance is that individuals who have a more positive perception of the quality of bicycle facilities have a higher propensity to bicycle to work. In October, Congress passed the

Bicycle Commuter Act (as part of the bailout package), which starting in January will give companies a tax credit of up to \$20 a month per employee who bicycles to work.

However, only about 14 percent of commuter bicyclists report the presence of bicycle lockers or safe storage rooms at their work place, and 72 percent of commuter bicyclists indicate they travel on unsigned roadways during their commute.

"The frequency and use of bicycling to work can potentially be increased by having bicycle lockers, bicycle racks and showers at work," Bhat said.

He also said two other viable ways to increase bicycling include: land-use strategies to encourage compact developments to reduce commute distances and education/information campaigns to highlight the environmental, financial and health benefits of bicycling.

Bhat and his graduate students, Ipek Sener and Naveen Eluru, will present this research at the National Transportation Research Board Meeting on Jan. 12 in Washington, D.C. His research is supported by the Adnan Abou-Ayyash Centennial Professorship in Transportation Engineering.

Other survey findings:

- Individuals living in Austin, Bryan and Fort Worth are more satisfied with the quality of bicycle facilities than bicyclists living in the rest of the state.

- Bicyclists prefer no parking on their route, which is logical because parking reduces sight distance. If parking is necessary, they prefer angled parking over parallel parking.

- Men and young bicyclists perceive the bicycle facilities in their community to be better than do women and older bicyclists.
- The commute distance of those who bicycle to work ranges from one-fourth of a mile to 35 miles. The average is about 6.5 miles.
- Bicycling is more common for non-commute reasons than for commuting. Those who bicycle to work tend to be young and environmentally conscious. Also, men are more likely to bike than women, regardless of the purpose of the bicycle trip.
- Fitness and health concerns, followed by leisure, are the most compelling reasons for bicycling.

Source: University of Texas at Austin

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