



# Issue Brief

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## How Bike Paths and Lanes Make a Difference

- Nearly half (46%) of the driving-age adults (16 years or older) have access to a bicycle, and 54% with access used it the month immediately preceding the survey.
- Bicyclists riding in areas without bike paths or lanes are nearly twice as likely to feel endangered (mostly by motorists) as bicyclists with paths or lanes, and more than four times as likely to be dissatisfied with how their community is designed for making biking safe.
- Frequent bicyclists tend to have a strong preference for more bike lanes over more bike paths, while infrequent bicyclists display no marked preference for either.

### Those Who Have Access to a Bicycle are Likely to Ride It

Nearly half (46%) of the adult population<sup>1</sup> have access to a bicycle, and more than half with access (about 52 million) rode their bikes in the 30 days prior to answering the survey.<sup>2</sup> Another five million people rode a bike during that time period even though they didn't have direct access to one (presumably by renting or borrowing a bike) for a total of 57 million bicyclists each summer month. Of these, 58% (33 million) were infrequent bicyclists, riding one to five times per month, while 42% (24 mil-

lion) were frequent bicyclists, riding more than five times per month. Thus, 12% of the adult population, or one in eight adults, rides a bicycle more than five days per month during the summer period (see Figure 1).

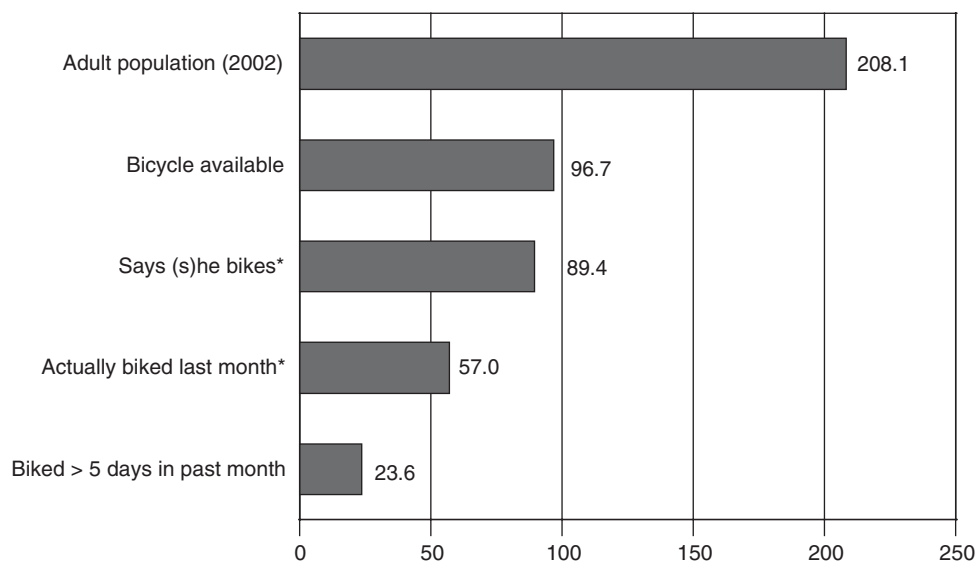
### Availability of Bike Paths and Lanes

Bike paths and lanes are the chief infrastructure features that might be expected to affect bicycling. The availability of bike paths and lanes are shown in Table 1. About a quarter of the population have both bike paths and lanes available in the areas where they live or ride,

<sup>1</sup> For purposes of this research, an adult is defined as 16 years of age or older.

<sup>2</sup> The survey was conducted during the summer of 2002. For survey description, see end of this issue brief.

**Figure 1. Bicycling in the United States During the Summer (in millions)**



\* Includes those who biked but did not have regular access to a bicycle.

SOURCE: *National Survey of Pedestrian and Bicyclist Attitudes & Behaviors*, Bureau of Transportation Statistics and National Highway Traffic Safety Administration, U.S. Department of Transportation, Washington, DC, 2002.

**Table 1. Distribution of Bike Paths and Lanes**

Bicycle infrastructure available	Population (percent)	Population size
Both bike paths and lanes	26.3	52.4 million
Bike paths but not lanes	24.1	48.0 million
Bike lanes but not paths	6.5	12.9 million
Neither bike paths nor lanes	43.0	85.7 million

SOURCE: *National Survey of Pedestrian and Bicyclist Attitudes & Behaviors*, Bureau of Transportation Statistics and National Highway Traffic Safety Administration, U.S. Department of Transportation, Washington, DC, 2002.

and approximately 3 out of 10 adult Americans have access to one or the other. Forty-three percent of adult Americans live in communities that don't have bike paths or bike lanes. As a rule, bike *paths* are specially created pathways away from the main roads, typically in recreational areas. Bike *lanes* provide the bicyclist his or her own lane on a road shared with motorists and typically provide direct routes for travelers wanting to get to work or school. The presence of bike paths and lanes does not appear to have a significant effect on whether

people ride bicycles or on how frequently they ride. Instead, the significance of biking facilities—paths and lanes—lies in the increased sense of personal safety.

### Presence of Bike Paths and Lanes and the Perception of Biking Safety

Nearly one out of eight (13%) people surveyed who rode one or more times during the previous month said they felt threatened for their personal safety at least once. In areas where both bike paths and lanes were available, the percent of bicyclists feeling threatened for their personal safety dropped to 10%.<sup>3</sup> When neither bike paths nor lanes were available, the percentage increases to 17%. When only one is available, either bike paths or bike lanes, the percentage fearful lies in between at about 12% (see Table 2). Not surprisingly, the most often

<sup>3</sup> All percent differences are statistically significant at the  $p < 0.05$  level. This means there is less than a 5% probability that the difference could have occurred by chance.

**Table 2. Sense of Endangerment and Dissatisfaction with Community Design for Making Biking Safe, by Infrastructure**

Bicycle infrastructure available	Percent feeling endangered	Percent dissatisfied with community design
<b>OVERALL</b>	<b>13</b>	<b>32</b>
1. Both bike paths and lanes	10	11
2. Bike paths but not lanes OR Bike lanes but not bike paths	12	29
3. Neither bike paths nor lanes	17	48

SOURCE: *National Survey of Pedestrian and Bicyclist Attitudes & Behaviors*, Bureau of Transportation Statistics and National Highway Traffic Safety Administration, U.S. Department of Transportation, Washington, DC, 2002.

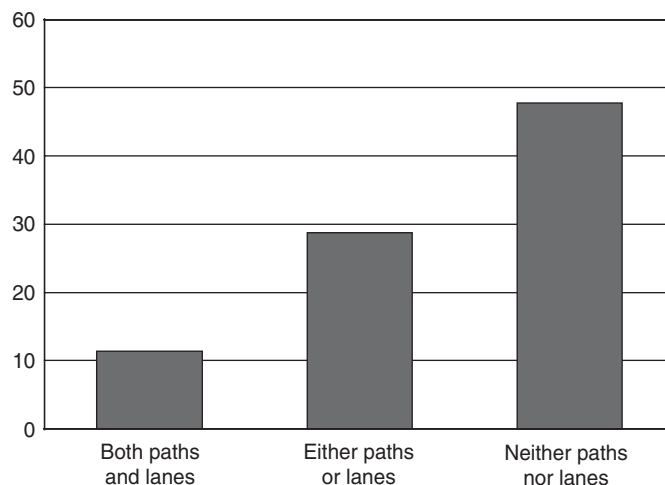
mentioned source of their unease is from motorists. Of the bicyclists who felt endangered, 87% referred to feeling threatened by motorists. Thus, where lanes and paths are absent, bicyclists become more concerned for their personal safety (see Table 2).

Nearly one-third of the population (32%) is dissatisfied with their community designs for making biking safe. When this dissatisfaction was analyzed by the bicycle infrastructure available (i.e., bike paths and lanes), a very strong relationship between infrastructure and satisfaction is found. When both bike paths and lanes are available, the percent dissatisfied with the community design for making biking safe is only about 11%. When only one is available—either bike paths or bike lanes, but not both—the percent dissatisfied rises to 29%. In communities where neither bike paths nor bike lanes are available, the percent dissatisfied is almost half the adult population at 48% (see Figure 2 and Table 2).

### Community Needs and Bicycle Activity

In general, bicyclists expressed a stronger preference for more bike lanes over more bike paths, but this difference is due solely to a preference on the part of frequent bicyclists. Frequent bicyclists expressed a preference for more bike lanes

**Figure 2. Dissatisfaction with Community Design for Making Biking Safe, by Availability of Bike Paths and Lanes**

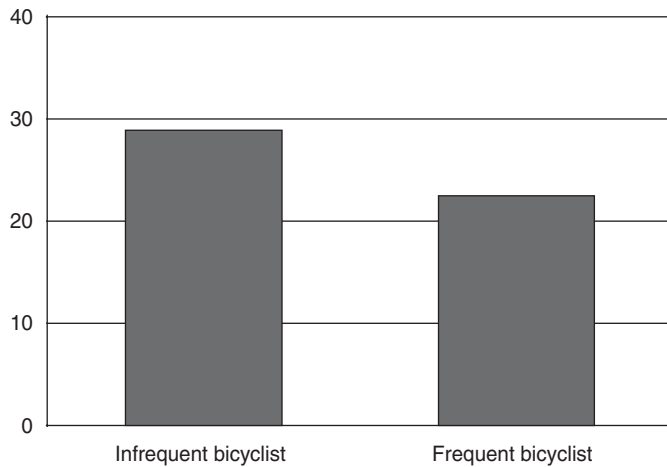


SOURCE: *National Survey of Pedestrian and Bicyclist Attitudes & Behaviors*, Bureau of Transportation Statistics and National Highway Traffic Safety Administration, U.S. Department of Transportation, Washington, DC, 2002.

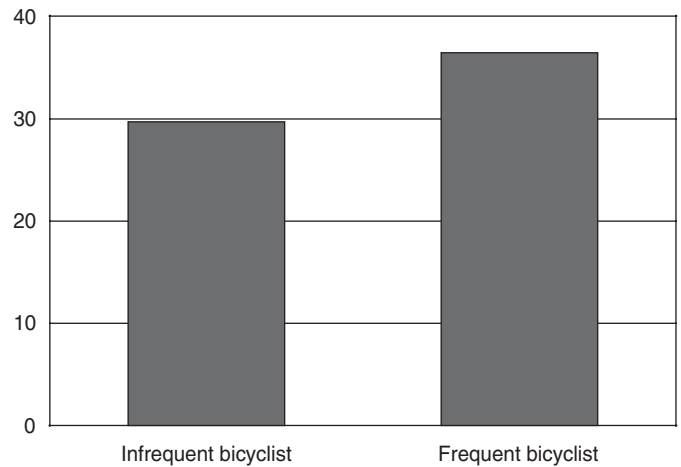
over more bike paths by a 36% to 22% margin, but there is virtually no difference in preference for the infrequent bicyclists. More of the frequent bicyclists mention wanting bike lanes than do the infrequent bicyclists (36% vs 30%), while more of the infrequent bicyclists want more bike paths than do the frequent bicyclists (29% vs 22%) (see Figures 3 and 4). These findings are consistent with the commonly held belief in the bicycle community that as bicyclists ride more frequently they “graduate” from bike paths to bike lanes. According to this view, infrequent bicyclists want more bike paths for recreational reasons and perhaps for safety as well; later, as experienced, more confident bicyclists, they want more bike lanes that they can use for shopping and commuting.

*Background information for the data presented in this paper.* A national survey of adults was conducted in the summer of 2002 for the Bureau of Transportation Statistics and the National Highway Traffic Safety Administration. The sample size was 9,616. The objective of this survey was

**Figure 3. Bicyclist's Activity and Desire for more Bike Paths**



**Figure 4. Bicyclist's Activity and Desire for more Bike Lanes**



SOURCE for Figures 3 and 4: *National Survey of Pedestrian and Bicyclist Attitudes & Behaviors*, Bureau of Transportation Statistics and National Highway Traffic Safety Administration, U.S. Department of Transportation, Washington, DC, 2002.

to determine the magnitude of bicycle and pedestrian activity in the nation and the public's behavior and attitudes regarding biking and walking. This survey—the first national survey of its kind—sheds light on the effect of bike paths, bike lanes, and sidewalks on attitudes and behavior towards biking and walking.

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