

## Four Types of Cyclists Survey Methodology

This document includes the questions and methods used for assigning respondents to one of the four types of cyclists. This is the method used in the following paper:

Dill, J., & McNeil, N. (2016). Revisiting the four types of cyclists: findings from a national survey. *Transportation research record*, 2587(1), 90-99. <https://doi.org/10.3141/2587-11>

If you use the questions and method, please cite that source.

### *Survey Questions*

Shown below are the questions used in the national survey for categorizing each respondent into one of the four types. The original survey was fielded as a phone and on-line survey. Therefore, the format was not identical to what is shown below. In addition, for the phone survey, the introductory wording for the questions was different, as it was written as a script. For some questions the statements were placed in random order. In addition, there were other questions between these on the survey.

Q: The following questions about your preferences regarding your daily travel. For each statement, indicate whether you agree or disagree.

I like riding a bike,  
I like taking transit.  
I like driving.  
I like walking.

I drive because I don't have a lot of options.

I would like to travel by bike more than I do now. **[THIS IS THE QUESTION USED IN THE TYPOLOGY]**

1 = Strongly agree  
2 = Somewhat agree  
3 = Somewhat disagree  
4 = Strongly disagree

Q: Which of the following statements best fits you?

1. I am physically able to ride a bicycle and I know how to do so.
2. I am physically able to ride a bicycle but I don't know how.
3. I am physically unable to ride a bicycle.

Q: If 3, is this a temporary condition like a sprained ankle or is it a permanent condition that makes you physically unable to ride a bicycle?

Temporary condition  
Permanent condition

**NOTE: If the condition was not permanent, the respondent was asked to answer the following questions.**

Q: In the past thirty days, how many days did you ride a bicycle outside, including bicycling for exercise?

Enter number \_\_\_\_

Q: For each of the following places you could ride a bike, please indicate whether you would be comfortable or uncomfortable biking there.

- 1 = Very comfortable
- 2 = Somewhat comfortable
- 3 = Somewhat uncomfortable
- 4 = Very uncomfortable

A path or trail separate from the street

A quiet residential street with traffic traveling at speeds of twenty to twenty-five miles per hour

A quiet residential street with traffic traveling at speeds of twenty to twenty-five miles per hour that also had bicycle route markings, wide speed humps, and other things to discourage and slow down car traffic

A major urban or suburban street with four lanes, on-street parking, traffic speeds of thirty to thirty-five miles per hour and no bike lane

A major urban or suburban street with four lanes, on-street parking, traffic speeds of thirty to thirty-five miles per hour and a striped bike lane

A major urban or suburban street with four lanes, on-street parking, traffic speeds of thirty to thirty-five miles per hour and a wide bike lane physically separated from traffic by a raised curb, planters, or parked cars

### *Categorization*

The typology developed by Geller is based primarily on people's stated comfort level bicycling in different environments, in addition to their interest in riding, rather than their current bicycling behavior. To break this national sample down into different cyclist types, we used several questions to first identify the respondents' level of comfort bicycling in certain situations and their interest in bicycling. The question about comfort levels on various types of streets asked respondents rate "places you could ride a bike" and indicate "how comfortable you would feel biking there." The list of places included:

A path or trail separate from the street

A quiet residential street with traffic traveling at speeds of twenty to twenty-five miles per hour

A quiet residential street with traffic traveling at speeds of twenty to twenty-five miles per hour that also had bicycle route markings, wide speed humps, and other things to discourage and slow down car traffic

A major urban or suburban street with four lanes, on-street parking, traffic speeds of thirty to thirty-five miles per hour and no bike lane

A major urban or suburban street with four lanes, on-street parking, traffic speeds of thirty to thirty-five miles per hour and a striped bike lane

A major urban or suburban street with four lanes, on-street parking, traffic speeds of thirty to thirty-five miles per hour and a wide bike lane physically separated from traffic by a raised curb, planters, or parked cars

The categorization method is summarized in the table below. Following a method similar to our previous work, people who indicated that they would be "very comfortable" on the major street without a bike lane were categorized as strong and fearless – people who will ride on a street regardless of bicycle specific infrastructure. Of the remaining respondents, those who indicated that they would be "very comfortable" on the same street but with a striped bike lane were categorized as enthused and confident. Of the remaining respondents, other questions allowed us to separate the interested but concerned from the no way no how. First, people who indicated that they are physically unable to ride a bicycle (and not due to a temporary condition) were placed in the no way no how group. Similarly, those who indicated that they would be "very uncomfortable" on a path or trail separate from the street were placed in the no way no how group. We also asked respondents to indicate their level of agreement with the statement "I would like to travel by bike more than I do now." Those who indicated that they "strongly disagree" with this statement were placed into the no way no how group. Those who did not strongly disagree or responded with "I don't know" were placed into the interested but concerned category. As a result, the interested but concerned group initially includes anyone who:

- is physically able to ride; and
- feels uncomfortable (very or somewhat) or only “somewhat comfortable” biking on a major street without or with a bike lane; and
- is interested in riding more, only “somewhat disagrees” that they want to ride more, or doesn’t know if they want to ride more.

As a last check, a few people who had been previously categorized as no way no how, but nonetheless indicated that they had ridden a bicycle in the past 30 days, were recategorized into interested but concerned. This was 2.6% of the sample (80 out of 3,000).

**TABLE Summary of Categorization Method**

<b>Level of Comfort</b>	<b>Interest in riding more</b>	<b>Cyclist Type</b>
Very comfortable on non-residential street without bike lanes	Any response	Strong and Fearless
Very comfortable on non-residential street with bike lanes	Any response	Enthusied and Confident
Less than very comfortable on non-residential street with or without bike lanes	Strongly agree, somewhat agree, somewhat disagree, I don’t know	Interested but Concerned
	Strongly disagree	No Way No How <sup>a</sup>
Very uncomfortable on path or trail separate from the street	Any response	No Way No How <sup>a</sup>
Physically unable to ride a bicycle or don’t know how to ride a bicycle	Any response	No Way No How <sup>a</sup>

<sup>a</sup> respondents who were originally classified as No Way No How but who had ridden a bicycle in the past 30 days were moved to Interested but Concerned.