Appendix H: MSBAB Selection and Methodology

Sample Selection

The survey was conducted based upon a random sample of telephone numbers for the city of Milwaukee. This sample was purchased from Genesys Sampling Systems of Fort Washington, Pennsylvania. The telephone numbers were called by interviewers working in a supervised facility at the Institute for Survey & Policy Research at the University of Wisconsin-Milwaukee. If the number called is determined not to be a residential number, it is discarded and another number is randomly selected from the remaining sample. If the number called is a residence, the interviewer randomly selects a respondent by asking to speak with the person living in the household who is age 16 or older and who had the most recent birthday. This selection process ensures that every member of the household who is age 16 or older has an equal chance of being included in the survey. No substitutions are allowed. If the randomly selected person is not at home when the household is first contacted, the interviewer cannot substitute someone else who happens to be available at the time. Instead, attempts are made to call back when the randomly selected person is at home. In this way, respondent selection bias is minimized.

Response Rates and Sampling Error

Interviewing for the Milwaukee Survey of Bicyclist Attitudes and Behaviors (MSBAB) was conducted from August 11, 2008 to August 26, 2008. Calling times were Monday through Thursday evenings from 4:30 to 8:00 P. M. and Saturday and Sunday afternoons from 1:30 to 5:30 P.M. in order to maximize participation by all demographic subgroups. A total of 3,919 phone numbers were called from the Milwaukee sample. Table 25 displays the frequency of each type of outcome for the contact attempts.

Table 25: Dialing Outcomes for the MSBAB

Type of Outcome	Frequency
Completed Interviews	434
Disconnected/Non-working Numbers	333
Non-Residential Numbers	422
Not Appropriate Geographic Area	143
Unable to Reach Household/Respondent	1,225
Unable to Interview Due to Language, Hearing or Illness	118
Refusals	1,244
TOTAL	3,919

There are different ways of calculating the response to a telephone survey, but they all require that ineligible numbers be excluded from the total number of attempted contacts. These ineligible numbers include disconnected/non-working numbers, non-residential numbers, and numbers that are not within the appropriate geographic area. The remaining (presumed eligible) numbers include those that the interviewers were unable to contact as well as actual contacts. The contact rate is the ratio of the number of actual contacts to the number of presumed eligible contacts. The contact rate for this survey was 0.59. A second way of measuring response is to calculate the cooperation rate, the ratio of completed interviews to the number of actual contacts. The cooperation rate was 0.24. Finally, the refusal rate is the ratio of the number of refusals to the number of presumed eligible contacts. For this survey, the refusal rate was 0.41.

To minimize the number of refusals and increase participation, the most experienced interviewers attempted to re-contact those who initially refused to participate in the study to see if they would agree to be interviewed. Altogether, 39 of these "refusal conversion" interviews (9% of the total 434 interviews) were conducted after an initial refusal. The responses of these "refusal conversions" were compared to the responses of all other respondents on the measures of bicycle access, bicycling frequency, and attitudes regarding bicycling. On all of these measures the differences between the two groups of respondents were small and statistically insignificant. It is generally assumed that "refusal conversions" are similar to non-respondents and that we can estimate the extent of nonresponse error by comparing those who initially agree to be interviewed to those who initially refuse. Based upon this assumption, it appears that the survey respondents are closely comparable to the rest of the sample with regard to the key measures of bicycling attitudes and behaviors. The MSBAB, like all sample surveys, is also subject to random sampling error. For an interview sample of this size (n = 434), the margin of error is less than + 5% at the 95% confidence level.

Weighting of the Data

The sample of Milwaukee residents interviewed here was weighted to reflect the number of adults relative to the number of telephone lines in each household. In addition, the samples were weighted to adjust for the over- or under-representation of various gender and age groups due to non-response to the telephone survey and

to the fact that some households do not have a listed telephone number. To adjust for this over- and under-representation the sample was weighted to reflect the gender and age composition of the city of Milwaukee, based on the Census Bureau's 2006 American Community Survey which was released on July 1, 2007.

Appendix I: Recommendations for Survey Modifications

Recommendations for Survey Modifications

The 2008 Milwaukee Survey of Bicyclist Attitudes and Behaviors contains questions drawn primarily from the 2002 National Survey of Pedestrian and Bicyclist Behaviors. As the Milwaukee survey does not include questions about the number and mode of trips taken by respondents, it is difficult to use this data to obtain a clear picture of bicycle use in relation to other modes. The following list of strategies can help retool the survey to capture information about cycling mode split and trip purpose, should this survey be conducted again. The suggestions range from small changes aimed at gathering a minimal amount of new data to a trip diary that would provide additional data about each trip taken by an individual. Increasing the amount of data gathered will add to the time required to conduct each survey and analyze the completed results. The city could consider conducting this survey in partnership with another entity looking for similar or related information in order to decrease the overall investment of time and resources.

- Add a question about the number of trips taken during the day the respondent last rode their bike. This would provide a way to measure the amount of bicycle travel in the city.
- Ask questions about overall travel behavior drawn from the National Housing Travel Survey (NHTS). This survey contains questions about the overall number of trips taken by each user. Information about the total number of all trips taken and the total number of bike trips taken within a specific timeframe would provide the information necessary to calculate bike mode share. This could be further refined by asking questions about the number of trips taken by other modes (e.g., car, public transit and by foot) to create a more comprehensive picture bike use in relation to other uses. Mode split characteristics could then be compared by people who cycle with varying levels of frequency.
- Include a trip diary component to the survey. Travel surveys can include a trip log or trip diary to obtain a picture of respondents travel patterns. Trip logs capture:
    - Trip start and end point
    - Trip mode
    - Trip purpose
    - Trip length (in length or duration)

Trip logs are not 100% accurate as the user may forget to record trips, purposely omit trips from the record or record a day of completely atypical travel resulting in skewed data results. Trip logs most often capture 1-3 days of travel. Distinction should be made between weekday/weekend trips as travel patterns frequently differ. This suggestion would provide more information about travel patterns but would require greater reporting time than questions taken from the NHTS.