

# 2017 Bicycle Opinion Survey Report of Results

October 2017



2955 Valmont Road, Suite 300• Boulder, CO 80301 • 303-444-7863 • www.n-r-c.com

# Contents

Survey Highlights	1
Survey Background	
Bicycling Behavior	6
Frequency of Bicycling	6
Riding a Bicycle for Transportation or Recreation	
Classifying Transportation and Recreation Bicycling Behavior	
Helmet Use	
Perceived Barriers to Bicycling	16
Feelings of Safety and Comfort Bicycling	
"The Four Types of Cyclists"	
Perception of Community and Neighborhood Bicycling Infrastructure	
Perceived Bicycle-Friendliness of Neighborhood	
Perceived Lack of Bicycle Facilities in Communities	
Perceived Importance of Community Improvements to Bicycle Access	
Distance from a Bicycle Facility	
References	
Appendix A: Responses to Survey Questions	
Appendix B: Crosstabulations of Survey Results by Respondent Characteristics	
Selected Survey Results by SubArea within NCTCOG Region	
Selected Survey Results by Age of Respondent	
Selected Survey Results by Race and Gender of Respondent	
Selected Survey Results by Annual Household Income	115
Selected Survey Results by "Four Type" Category and Current Cycling Behavior	131
Appendix C: Survey Methodology	154
Appendix D: Interview Script	168

# **Figures**

Figure 1: Percent Who Biked in Past Year by Region, Age, Sex, Race/Ethnicity, Annual Household Income, Comfort Riding a Bicycle ("Four Types") and Current Bicycling Behavior	7
Figure 2: Frequency of Bike Riding Among Those Who Had Ridden in Last 12 Months	
Figure 3: Frequency of Bike Riding, All Respondents	
Figure 4: Frequency of Bike Riding by Season among Respondents Who Ride	
Figure 5: Percent of All Respondents Who Ride At Least a Few Times a Month by Region, Age, Sex, Race/Ethnicity, Annual Household Income, Comfort Riding a Bicycle ("Four Types") and Current Bicycling Behavior	
Figure 6: Frequency of Bike Riding for Transportation, All Respondents	10
Figure 7: Frequency of Bike Riding for Fun or Exercise, All Respondents	10
Figure 8: Percent of All Respondents Who Had Ridden a Bicycle for Transportation in Last 30 Days by Region, Age, Sex, Race/Ethnicity, Annual Household Income, Comfort Riding a Bicycle("Four Types") and Current Bicycling Behavior	11
Figure 9: Percent of All Respondents Who Had Ridden a Bicycle for Fun or Exercise in Last 30 Days by Region, Age, Sex, Race/Ethnicity, Annual Household Income, Comfort Riding a Bicycle("Four Types") and Current Bicycling Behavior	12
Figure 10: Current Bicycling Behavior	13
Figure 11: Bicycle Rider Helmet Use	14
Figure 12: Percent Who Always or Almost Always Wear a Helmet (Only asked of those who had biked in the last year or were a current rider) by Region, Age, Sex, Race/Ethnicity, Annual Household Income, Comfort Riding a Bicycle ("Four Types") and Current Bicycling Behavior	15
Figure 13: Want to Travel by Bike More Than Do Now	16
Figure 14: Wanting to Bike More by Current Bicycling Status	
Figure 15: Percent Who Agree They Would Like to Bicycle More by Region, Age, Sex, Race/Ethnicity, Annual Household Income, Comfort Riding a Bicycle("Four Types") and Current Bicycling Behavior	17
Figure 16: Bicycling Barriers	18
Figure 17: Percent Who Feel Very or Somewhat Safe Riding a Bicycle in Their Community	19
Figure 18: Percent Who Feel Very or Somewhat Safe Riding a Bicycle in Their Community (Only asked of those who had biked in the last year) by Region, Age, Sex, Race/Ethnicity, Annual Household Income, Comfort Riding a Bicycle("Four Types") and Current Bicycling Behavior	20
Figure 19: Level of Comfort Cycling on Various Facilities	22

Figure 20: Four Types of Bicyclists, Compared to Austin, TX; Portland, OR; and National Metro Areas	24
Figure 21: Four Types of Bicyclists by Sub-Region within the NCTCOG Region	25
Figure 22: General Cycling Behavior by Type of Cyclist, NCTCOG Region Compared to the Portland, OR and National Metro Studies	27
Figure 23: Gender and Age by Four Types	28
Figure 24: Race/Ethnicity and Annual Household Income by Four Types	28
Figure 25: Perceived Bicycle-Friendliness of Neighborhood	30
Figure 26: Perceived Bicycle-Friendliness of Neighborhood by Region, Age, Sex, Race/Ethnicity, Annual Household Income, Comfort Riding a Bicycle ("Four Types") and Current Bicycling Behavior	31
Figure 27: Percent Rating the Amount or Availability of Different Kinds of Facilities for Bicycles as "Too Few"	32
Figure 28: Percent Rating the Amount or Availability of Different Kinds of Facilities for Bicycles as "Too Few" by County of Residence	32
Figure 29: Percent Rating Facilities as "Too Few" by Type of Cyclist	33
Figure 30: Percent Rating Facilities as "Too Few" by Current Bicycling Behavior	33
Figure 31: Importance of Community Involvement in Improving Bicycle Access	34
Figure 32: Ratings of Importance of Community Involvement in Improving Bicycle Access by Region, Age, Sex, Race/Ethnicity, Annual Household Income, Comfort Riding a Bicycle ("Four Types") and Current Bicycling Behavior	35
Figure 33: Distance from Bicycle Facility	36
Figure 34: Percent of Respondents Who Had Bicycled in Last 12 Months by Distance from Bicycle Facilities	36
Figure 35: Percent of Respondents Rating Bicycle Facilities as "Too Few" by Distance from Bicycle Facilities	37
Figure 36: Target Geography for the NCTCOG Bicycle Opinion Survey	154

# **Survey Highlights**

# **Survey Background**

The North Central Texas Council of Governments (NCTCOG) commissioned a survey of residents to capture the views of the public-at-large about bicycle use across the region to help guide future bicycle plans and projects that affect bicyclists.

The NCTCOG Bicycle Opinion Survey was conducted by telephone with adults from within the 6 areas of the region: Collin County, Denton County, Dallas County, Rockwall County and Tarrant County) and a sixth area comprised of the seven other more rural counties (Ellis County, Hood County, Hunt County, Johnson County, Kaufman County, Parker County and Wise County). A total of 1,250 interviews were conducted with roughly equal numbers of adult residents within each of these six areas. Additional interviews were conducted with residents of the cities of Denton, Frisco, Garland and Plano so that just over 200 total interviews were completed in each of these cities. All told, 1,910 residents were interviewed. Survey results were weighted so that respondents' gender, age, race, ethnicity and jurisdiction of residence were represented in the proportions reflective of the region.

# **Key Findings**

### **Frequency of Bicycling**

#### > About one-third, 36%, of respondents had bicycled at least once in the past 12 months.

Those under age 25 and those between the ages of 45 to 54 years were more likely to bicycle than were those of other ages. Among those who had bicycled in the last year, 61% had ridden at least a few times a month.

#### Spring was the most popular time of year for bicycling, while winter was the least likely time for bicyclists to go for a ride.

Among those who had ridden a bicycle at least once in the past 12 months, 95% rode at least one to or two days during the spring season (March, April, May), and 45% rode at least once or twice a week during the spring. The frequency of bicycling was less during the warmer summer and fall seasons, however more than eight in ten bicyclists rode at least one or two days during those seasons (84% in the summer and 85% in the fall). Only 47% of those who had ridden a bicycle at least once in the past 12 months reported riding at least one or two days during the winter season.

#### **Bicycling for Transportation or Recreation**

# > In the previous 30 days, 13% of all respondents had bicycled for transportation, such as to get to work or to school, to go shopping or to get to another destination.

Young adults under the age of 25 were most likely to ride a bicycles for transportation, with 24% having done so, while adults ages 45-54 years had the second highest proportion of respondents bicycling for transportation at 16%.

#### > In the previous 30 days, 26% of respondents reported riding for fun or exercise.

Approximately one-third of all respondents between the ages of 18-54 bicycled in the past month for exercise, while respondents older than 55 were less likely to bicycle for recreation.

### **Perceived Barriers to Bicycling**

#### Lack of various types of bicycle facilities were the reasons most often identified among all respondents as the top obstacles to bicycling or bicycling more often.

About one-half of respondents named the lack of biking lanes, trails and paths; the lack of connections between biking lanes, trails and paths; or not having showers or a place to freshen up at the destination as impediments to using a bicycle or using one more often.

# > In fact, the closer respondents lived to bicycle facilities the more likely they were to report riding a bicycle.

Respondents who lived within one-half mile of a bicycle facility were more likely to have bicycled within the last 12 months than those who lived further than one-half mile from a bicycle facility. Forty-five percent of respondents who lived within one-half mile of a bicycle facility (off-street path and/or on-street bikeway) rode a bicycle in the past year, while 34% who lived more than one-half mile of a bicycle facility reported bicycling in the past year.

#### However, a majority of respondents indicated that there are "too few" bicycle facilities in their communities.

Survey participants were asked their opinions about the amount or availability of various bicycle facilities in their community, and whether they thought there were too many, about the right amount, or too few of each. The proportion reporting they felt there were too few of each type of facility was:

- 62% too few off-street bicycle paths and trails,
- 63% too few bicycle-friendly streets,
- 73% too few on-street dedicated bike lanes, and
- 75% too few places to park bicycles such as bike racks and storage locations.

# > Those who lived more than one-half mile from a bicycle facility were somewhat more likely to feel there were too few bicycle facilities than were those who lived within one-half mile of a bicycle facility.

About seven in ten respondents who lived more than one-half mile from a bicycle facility felt there were too few off-street bicycle paths and trails (68%), too few on-street dedicated bike lanes (77%), and too few bike-friendly streets (69%). Among those who lived within one-half mile from a bicycle facility, the proportions who felt there were too few of each type of facility was lower, but still a majority of respondents (too few off-street bicycle paths and trails, 55%; too few on-street bicycle lanes, 67%; and too few bike-friendly streets, 54%).

#### Weather conditions and the distance to destinations were other reasons for North Texans not bicycling more often.

Hot weather conditions was given as reason for not riding or riding more often by 64% of respondents, while cold weather was cited by fewer respondents, 27%. The distance to destinations was a barrier for a majority of rural respondents (60%) as well as nearly half of respondents in more urban areas (46%).

## **Bicycle Access**

#### ➢ A majority of respondents considered improvements to increase bicycle access to be "essential" or "very important" for their community.

More than half of respondents considered the following to be essential or very important:

- Providing traffic signals or crossing beacons at intersections and crossings to warn drivers of bike and trail users crossing the road, 72%
- Providing bike lanes separated from vehicles so bikes and cars do not have to share the same lane, 70%
- Providing bike trails separated from roadways, 56%

Half of respondents (50%) considered it essential or very important for their community to lower traffic speeds on community roadways to improve the safety of pedestrians and bicyclists sharing the road.

Four aspects were thought to have a negative impact on bike access in their neighborhood by a majority of respondents: drivers exceeding neighborhood speed limits (66% of respondents agreed with this), lack of access to bike lanes (64%), volume of traffic on nearby streets (59%) and speed of traffic on nearby streets (58%).

Respondents were asked to rate a total of nine aspects of the bike-friendliness of their neighborhood. While four of these aspects were rated negatively, several were rated positively, including crime rates, street maintenance and access to quiet streets. Items that roughly half of respondents felt were positive for bike-access and roughly half thought were negative (between 45% and 55%) included access to off-street bike trails or paved paths and traffic volume on the street where they lived.

# > The type of bike facility design, location, and traffic volumes were significant influences on respondents' level of comfort bicycling.

Those interviewed for this project were asked how comfortable they would feel bicycling in various scenarios. Overall, respondents felt the most comfortable riding a bike on an off-street path (85% reported feeling "very" or "somewhat comfortable") or using a major urban street that had two lanes of traffic in each direction with speeds of 30 to 35 miles per hour with on-street bike lanes separated from traffic by a raised curb (86% comfortable).

Bicyclists' level of comfort riding on a street increased significantly if the street was described as having designated bike facilities and safety improvements including measures to slow traffic speeds. For example, only 9% of respondents indicated feeling comfortable riding on a major street with several lanes of traffic with speeds of 35 to 40 miles per hour, but 50% indicated feeling at least somewhat comfortable on the same street if it had a striped bike lane, and 78% indicated they would feel at least somewhat comfortable if the street had a wide bicycle lane separated from traffic by a raised curb.

## Helmet Use

#### About 50% of bicycle riders said they wear a helmet at least half of the time, but usage varied by age of rider.

Overall, 43% of bicycle riders reported always or almost always wearing a helmet, and 58% said they wore a helmet at least some of the time, but 42% said they never wear a helmet. Reported near constant helmet use was highest among bike riders aged 65 and older (61%) and lowest among riders aged 18 to 24 years (20%).

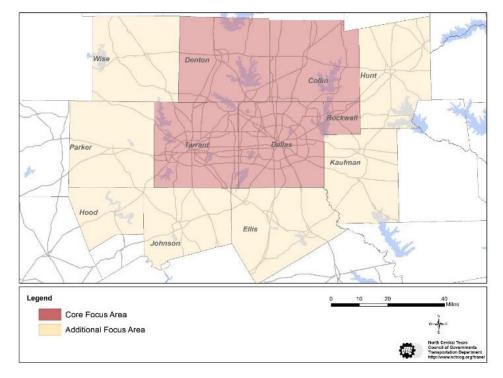
# **Survey Background**

#### Background

The North Central Texas Council of Governments (NCTCOG) commissioned a survey of residents to capture the views of the public-at-large about bicycle use across the region to help guide future bicycle plans and projects that affect bicyclists.

#### How the Survey Was Administered

The NCTCOG Bicycle Opinion Survey was conducted by telephone. The target population for the survey was all adults 18 years of age or older who live in the 12 county region served by NCTCOG. NCTCOG desired to have an adequate number of surveys from six areas within this region for reporting: each of the five core counties (Collin County, Denton County, Dallas County, Rockwall County and Tarrant County) and a sixth area comprised of the seven other more rural counties (Ellis County, Hood County, Hunt County, Johnson County, Kaufman County, Parker County and Wise County) as shown below. A total of 1,250 interviews were conducted with roughly equal numbers of adult residents within each of these six areas:. Additional interviews were conducted with residents of the cities of Denton, Frisco, Garland and Plano so that just over 200 total interviews were completed with these residents. All told, 1,910 residents were interviewed. The response rate was 3.0%. The interview script was translated into Spanish, and interviewers that could not complete interviews in English at a number they dialed made a note about the language barrier, and these numbers were later called by interviewers bilingual in English and Spanish. A total of 32 interviews were conducted in Spanish. Survey results were weighted so that respondents' gender, age, race, ethnicity and jurisdiction of residence were represented in the proportions reflective of the region. More information about the survey methodology can be found in Appendix C: Survey Methodology. A copy of the interview script is in Appendix D: Interview Script.



#### How the Results Are Reported

For the most part, frequency distributions (the percent of respondents giving each possible response to a particular question) or the percent who used one or two of the response categories are presented in the body of the report; for example, the percent who responded they somewhat or strongly agreed with an item (as opposed to somewhat or strongly disagreeing with the item). The full set of responses to every survey question can be found in *Appendix A: Responses to Survey Questions*. When a table or a figure for a question that only permitted a single response does not total to exactly 100%, it is due to the customary practice of rounding percentages to the nearest whole number. When the total exceeds 100% in a table for a multiple-response question in which the respondent can choose more than one category, it is because some respondents are counted in multiple categories.

Selected survey results were compared by geographic area and demographic characteristics of respondents. Tables displaying these comparisons are presented in *Appendix B: Crosstabulations of Survey Results by Respondent Characteristics*. Some of these analyses are also discussed in the body of the report. In addition, tables of responses to each survey question have been provided in separate documents for each of the six areas sampled within NCTCOG (Collins County, Dallas County, Denton County, Rockwall County, Tarrant County and the seven Rural Counties). Survey results are often broken down by those living in the "Core Counties" compared to those in the "Rural Counties. The Core Counties are the aggregated results from the five individual counties that were sampled: Collins County, Dallas County, Denton County, Rockwall County and Tarrant County.

One of the goals of the study was to classify NCTCOG residents into one of the Four Types of Cyclists using a typology developed by Roger Geller with the City of Portland's Bureau of Transportation and tested and further studied by Jennifer Dill and Nathan McNeil from Portland State University. They completed a study of residents in metro Portland and reported survey results for all respondents as well as for those who lived in the City of Portland, OR or who lived in the rest of the metro Portland, OR area. They also conducted a study of randomly selected residents from 50 Metro Areas within the United States. The City of Austin, TX conducted a comparable survey in 2013. Where possible, NCTCOG survey results are compared to the results from these other studies.

# **Bicycling Behavior**

Those interviewed for the NCTCOG Bicycle Survey were asked a number of questions about how much they ride a bicycle, for what purposes, and how their riding behavior varied by season.

# **Frequency of Bicycling**

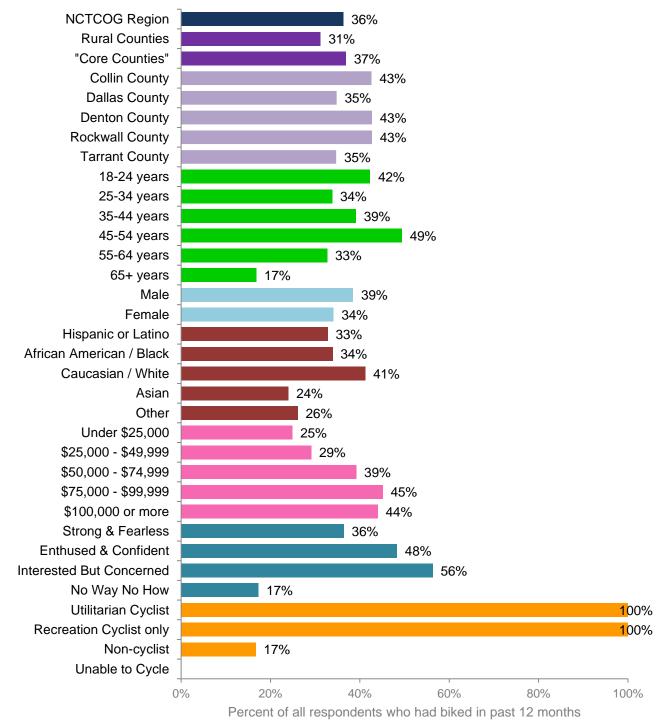
Just over a third, 36%, of respondents had bicycled at least once in the last 12 months (see Figure 1 on the next page). A slightly greater proportion of those in the "core" counties of the NCTCOG region had bicycled in the past year, 37%, compared to those in the rural counties, 31%. Those under age 25 and those between the ages of 45 to 54 years were more likely to bicycle than were those of other ages. Among those age 65 and older, 17% had biked in the previous 12 months. Those with higher annual household incomes were more likely to have ridden a bicycle than were those of lower annual household income.

Among those who had bicycled in the last year, 61% had ridden a few times a month or more, while the other 39% had ridden just a few times a year or less (see Figure 2 on page 8). Looking at all respondents, 22% had ridden a bicycle a few times a month or more in the previous 12 months (see Figure 3, also on page 8, as well as Figure 5 on page 9). A significantly smaller proportion of respondents in the rural counties rode as frequently as a few times a month, 13%, compared to the core counties, 23% (see Figure 5). Respondents who identified as White or Hispanic were somewhat more likely to be somewhat regular bike riders than were respondents who identified as Black/African American, Asian or some other race or ethnicity. Those with higher household income were somewhat more likely to bike at least a few times a month compared to those of lower income.

Frequency of ridership did vary, on average, with the season. Spring was the most popular time of year for bicycling, with 95% of those who were current riders saying they rode at least once during that season (see Figure 4 at the bottom of page 8). Winter was the least likely time for bicyclists to go for a ride; less than half (47%) said they rode at least once during the winter season. The proportion riding in the in the summer and fall were somewhat lower than in the spring, but much higher than in winter.

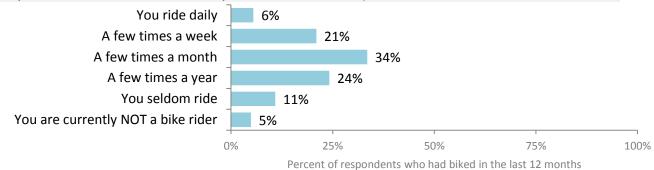
#### Figure 1: Percent Who Biked in Past Year by Region, Age, Sex, Race/Ethnicity, Annual Household Income, Comfort Riding a Bicycle ("Four Types") and Current Bicycling Behavior

Did you ever ride a bicycle, even once, in the past 12 months?



#### Figure 2: Frequency of Bike Riding Among Those Who Had Ridden in Last 12 Months

Thinking about the past year, which of the following BEST describes your bicycle-riding behavior? (Only asked of those who had ridden a bicycle in the last 12 months.)



#### Figure 3: Frequency of Bike Riding, All Respondents

Thinking about the past year, which of the following BEST describes your bicycle-riding behavior? (Those who had not ridden in last 12 months considered "Not a rider.")

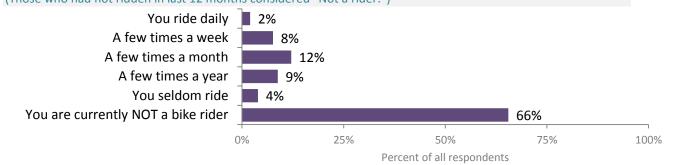


Figure 4: Frequency of Bike Riding by Season among Respondents Who Ride

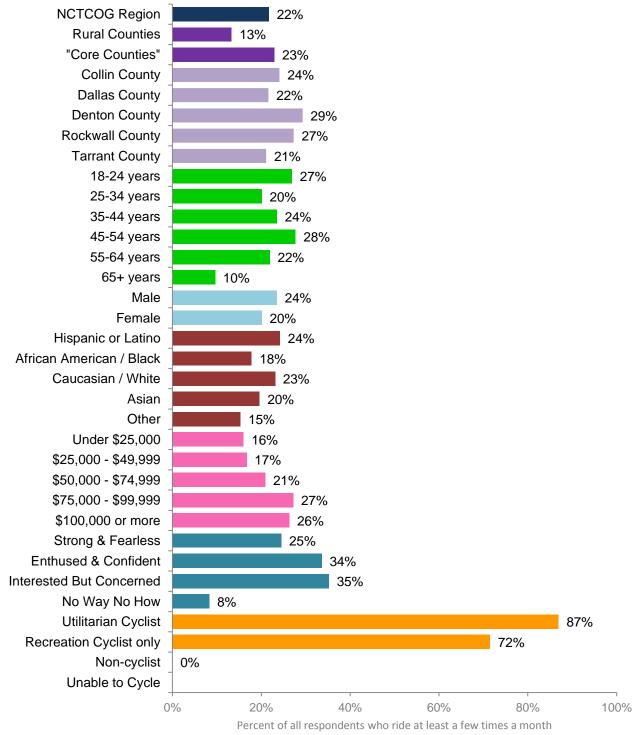
Over the past year, on average, how many days did you ride your bicycle during each of these seasons? Only asked of those who had ever bicycled in last 12 months and were currently a rider

■ 5+ days/week ■ 3 to 4 days/week ■ Once or twice a week ■ 1 to 4 days a month ■ One or two days per season ■ Never in this season

Spring, (March, April and May)	14%	13%	19%	23	%	27%	5%
Summer, (June, July and August)	9%	13%	18%	18%	25	5%	17%
Fall, (September, October and November)	9%	12%	19%	17%	28	%	15%
Winter, (December, January and February)	4% 6%	10% 1	.1% 16%	6	Į	53%	
C	)%		5% respondents	50% who had bil		75% ast 12 mon	100% ths

and were currently a rider

#### Figure 5: Percent of All Respondents Who Ride At Least a Few Times a Month by Region, Age, Sex, Race/Ethnicity, Annual Household Income, Comfort Riding a Bicycle ("Four Types") and Current Bicycling Behavior



Note: More information about how respondents were grouped into the categories related to comfort riding a bicycle and current bicycling behaviors can be found in the report sections Feelings of Safety and Comfort Bicycling and "The Four Types of Cyclists" beginning on page 19.

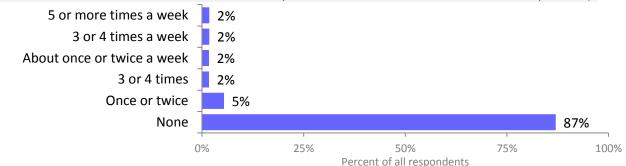
#### **Riding a Bicycle for Transportation or Recreation**

Bicycles can serve as a form of transportation to get to and from destinations to which people might also travel by other modes such as a private vehicle or transit. Bicycles can also be ridden for fun or exercise, where the purpose of the ride is not to travel to a specific destination, but to ride for exercise or to enjoy the activity of riding itself. Those completing the survey were asked whether and how frequently they had ridden a bicycle for each of these purposes in the previous 30 days. About 1 in 10 respondents (13%) had ridden a bicycle for work, school, shopping or to get to another destination in the last 30 days; in other words, using their bicycle as a means of transportation (see Figure 6), while about a quarter (26%) had ridden a bicycle for fun or exercise (see Figure 7).

There were a few differences in the demographic patterns of those who used a bicycle for transportation compared to those who used a bicycle for recreation. (It should be noted that nearly all respondents who had ridden a bicycle for transportation in the past 30 days had also ridden a bicycle for fun or exercise in the past 30 days). Younger people under age 25 were more likely to have ridden a bicycle for transportation than were those age 25 and over (Figure 8 on the next page), while all those under age 55 were about equally likely to have bicycled for recreation (see Figure 9 on page 12). Persons identifying as Hispanic were more likely to have ridden for transportation in the previous 30 days than were respondents identifying as any other race or ethnicity, but were as equally likely to have ridden for fun or exercise as were people identifying as White. All income groups were about equally likely to have bicycled for transportation, but higher income individuals were more likely to have bicycled for fun or exercise in the previous 30 days compared to lower income individuals.

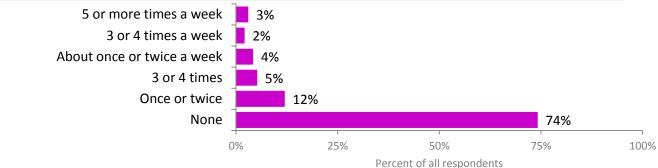
#### **Figure 6: Frequency of Bike Riding for Transportation, All Respondents** In the last 30 days, about how often, if at all, did you bicycle for work, school, shopping or to get to another destination?

(Those who had not biked in last 12 months or were not currently a rider were considered to have not biked for transportation.)

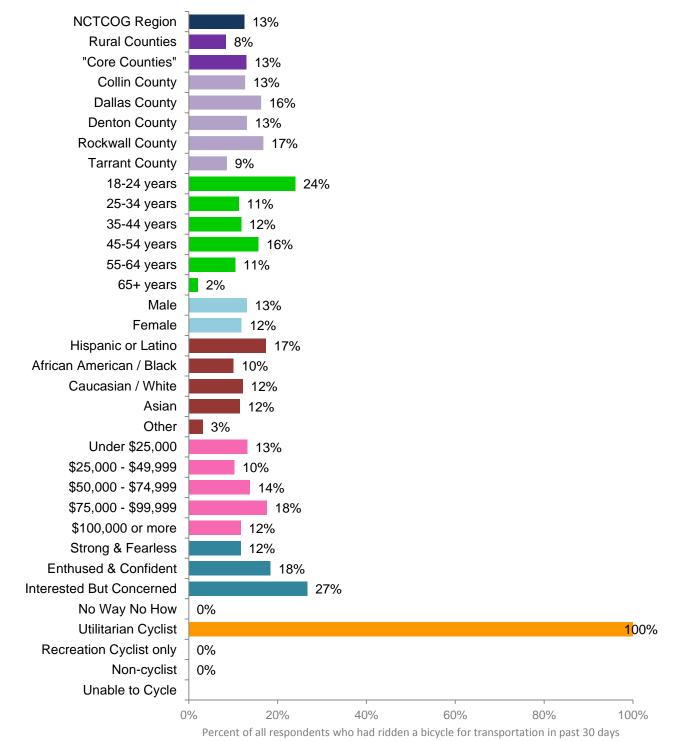




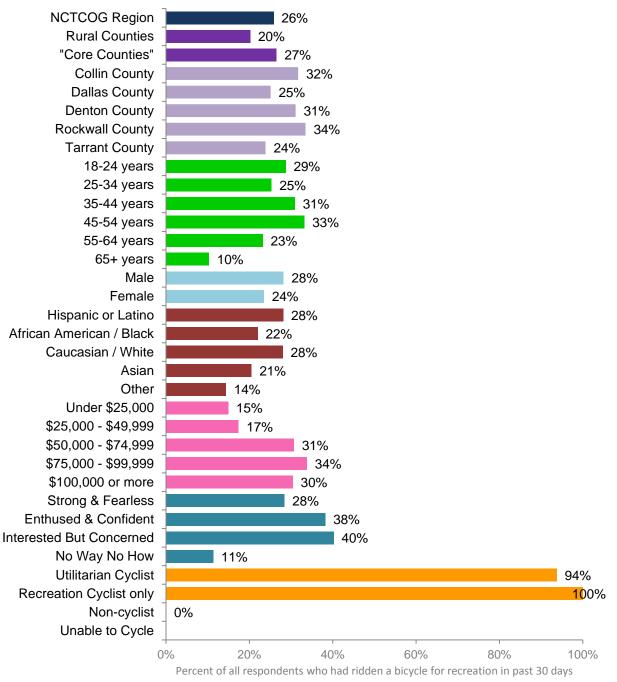
In the last 30 days, about how often, if at all, did you bicycle for fun or exercise? (Those who had not biked in last 12 months or were not currently a rider were considered to have not biked for fun or exercise.)



#### Figure 8: Percent of All Respondents Who Had Ridden a Bicycle for Transportation in Last 30 Days by Region, Age, Sex, Race/Ethnicity, Annual Household Income, Comfort Riding a Bicycle("Four Types") and Current Bicycling Behavior



#### Figure 9: Percent of All Respondents Who Had Ridden a Bicycle for Fun or Exercise in Last 30 Days by Region, Age, Sex, Race/Ethnicity, Annual Household Income, Comfort Riding a Bicycle("Four Types") and Current Bicycling Behavior



# **Classifying Transportation and Recreation Bicycling Behavior**

One of the goals of the NCTCOG Bicycle Opinion Survey was to classify respondents into the Four Types originally proposed by Roger Geller with the City of Portland's Bureau of Transportation and tested by Jennifer Dill and Nathan McNeil from Portland State University.

Dill & McNeil also categorized individuals by their general cycling behavior, and this classification was also used for the NCTCOG survey. Utilitarian cyclists were those who had ridden a bicycle at least once in the past 30 days for transportation. Recreation-only cyclists were those who had ridden a bicycle in the past 30 days for fun or exercise, but had not ridden to work, school, shopping or another destination in the last 30 days. Non-cyclists were those who had not ridden a bicycle in the last 30 days for either reason, although they may have ridden a bicycle at least once in the last 12 months. Those unable to ride were those who said they do not ride more because they are physically unable and had not ridden in the last 12 months.

Compared to the Portland region from the Dill & McNeil study, those in the NCTCOG region were much less likely to be categorized as utilitarian or recreation cyclists; these two categories represented 27% of the adult population in the NCTCOG region, compared to 55% in Metro Portland (see Figure 10). Bicycling rates were highest in Collin, Denton and Rockwall Counties, and lowest in the Rural Counties.

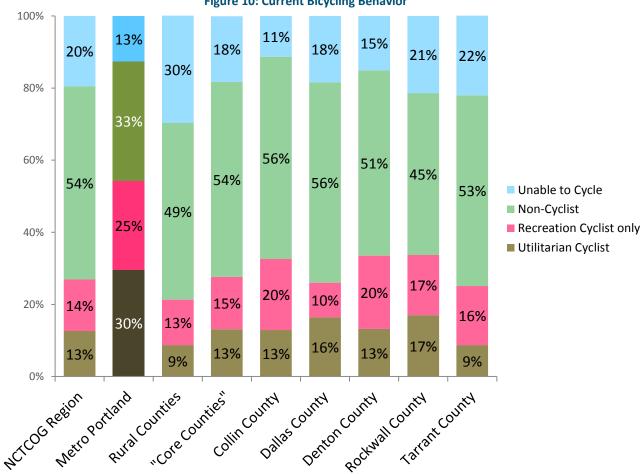
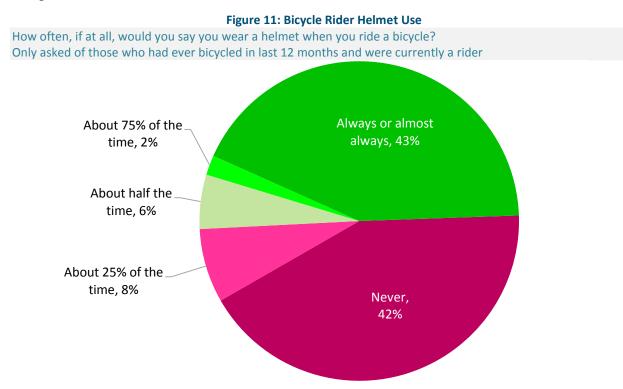


Figure 10: Current Bicycling Behavior

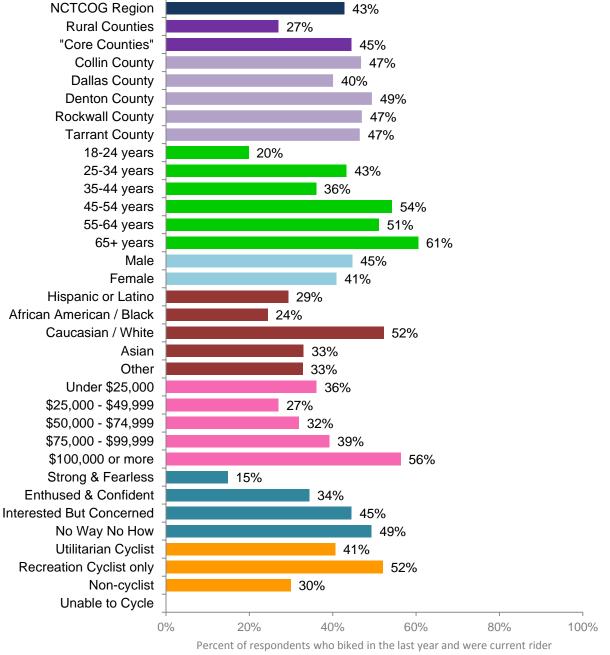
# Helmet Use

Bicyclist helmet use was assessed through the survey. Overall, 43% of bike riders reported that they always or almost always wear a helmet (see Figure 11). Nearly as many reported that they "never" wear a helmet. The remaining 16% said they wore a helmet 25% to 75% of the time.

Helmet use was lowest among riders aged 18 to 24 years old, and highest among those age 65 and older (see Figure 12 on the next page). Only about a quarter of riders in the Rural Counties reported always or almost always wearing a helmet. Recreation only cyclists were more likely to wear a helmet than were the utilitarian cyclists. Rates of helmet use were higher among Whites compared to those who identified as other race/ethnicities.



#### Figure 12: Percent Who Always or Almost Always Wear a Helmet (Only asked of those who had biked in the last year or were a current rider) by Region, Age, Sex, Race/Ethnicity, Annual Household Income, Comfort Riding a Bicycle ("Four Types") and Current Bicycling Behavior



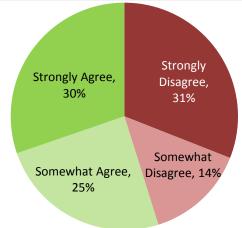
who always or almost always wear a helmet

## **Perceived Barriers to Bicycling**

All respondents, regardless of whether they had bicycled in the last 12 months or not, were asked to what extent they agreed or disagreed that they would like to travel by bike more than they currently did. Just over half, 55%, at least somewhat agreed that they would like to travel by bicycle more than they do, and nearly a third (30%) strongly agreed.

#### Figure 13: Want to Travel by Bike More Than Do Now

Would you say you strongly agree, somewhat agree, somewhat disagree or strongly disagree with the following statement: "I would like to travel by bike more than I do now."



There was a strong desire to ride a bike more often, including among respondents who were currently not a bike rider. Forty-four percent of those who were not currently a bike rider agreed that they wanted to bike more and 70% to 80% of those who seldom ride or ride up to a few times a week felt they wanted to ride more. Even among those who said they ride daily, nearly 60% wanted to ride more than they do (see Figure 14).

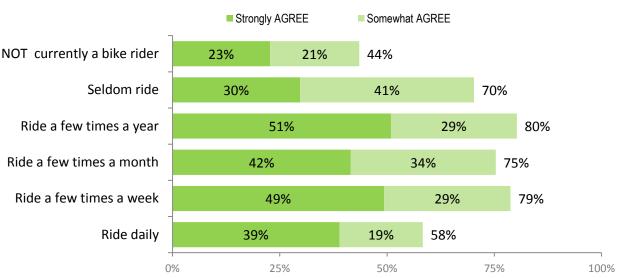
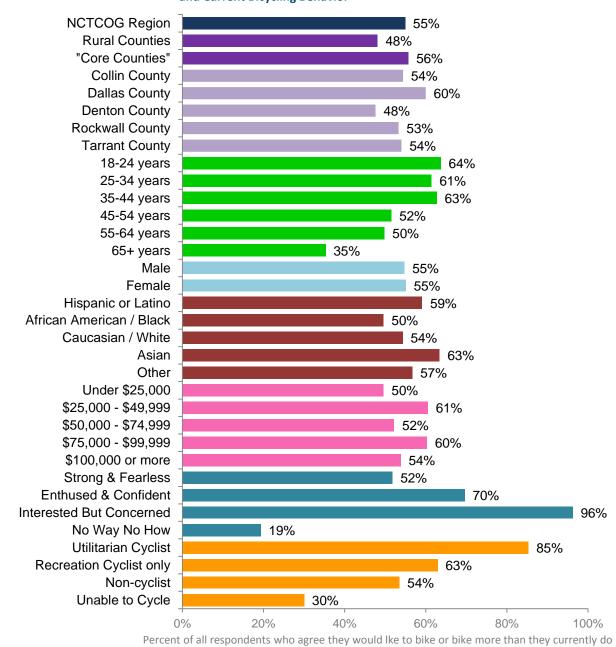


Figure 14: Wanting to Bike More by Current Bicycling Status

Percent of all respondents who agree they would lke to bike or bike more than they currently do

Nearly two-thirds of the recreation-only cyclists agreed they wanted to bike more, while 85% of the utilitarian cyclists did. Even among respondents categorized as "No Way No How" who reported they would be uncomfortable riding a bicycle in most situations, 19% said they would like to ride more. Over 60% of those under age 45 agreed they wanted to bike more, while about half of those aged 45 to 64 years old did. Among those aged 65 and older, about a third wanted to bike more than they currently do.

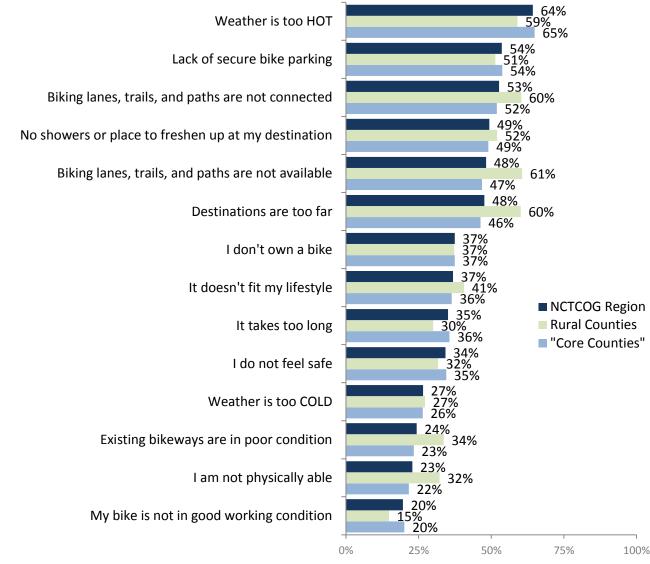
#### Figure 15: Percent Who Agree They Would Like to Bicycle More by Region, Age, Sex, Race/Ethnicity, Annual Household Income, Comfort Riding a Bicycle("Four Types") and Current Bicycling Behavior



When asked what prevented them from riding a bicycle more often than they currently do, the primary reason given, cited by about two-thirds of respondents, was hot weather, a barrier not easy to ameliorate. However, many of the top obstacles identified by respondents were related to a lack of bicycle facilities. About half of respondents named the lack of biking lanes, trails and paths; the lack of connections between biking lanes, trails and paths; or not having showers or a place to freshen up at the destination as impediments to using a bicycle or using it more often. About half also noted that they felt destinations were too far for them to use a bicycle. About a third of respondents did not bicycle because they did not own a bike, and nearly a quarter said they were not physically able to bike or bike more often. Those in the Rural Counties were more likely to cite the distances to destinations and the lack of bicycling facilities or lack or connections than those in the core counties.

#### Figure 16: Bicycling Barriers

Do any of the following prevent you from riding a bike more often than you currently do:



Percent of all respondents indicating each is a barrier

# **Feelings of Safety and Comfort Bicycling**

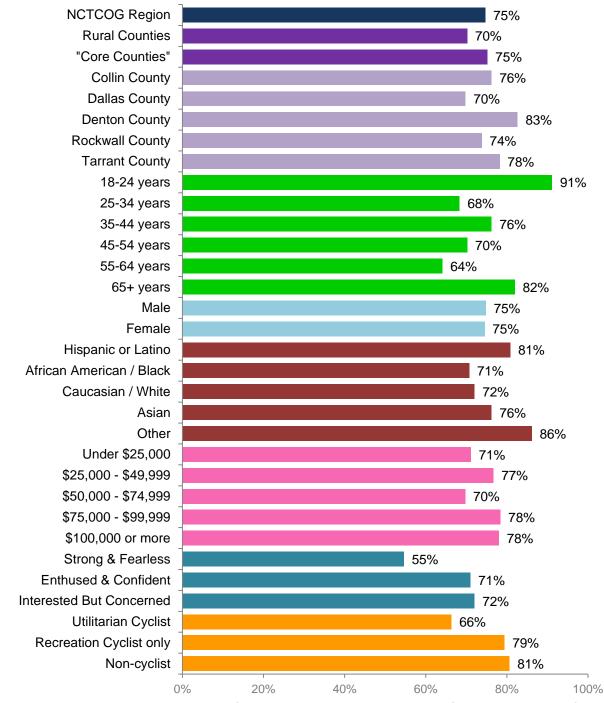
Three-quarters of bike riders reported feeling somewhat or very safe when they ride a bicycle in their community, with about 4 in 10 feeling very safe (see Figure 17).



Interestingly, recreation cyclists and non-cyclists (those who had not bicycled for transportation or recreation in the last 30 days, but had ridden a bike in the previous 12 months) felt safer than did utilitarian cyclists (see Figure 18 on the next page). It may be that these riders keep to paths, trails and lanes away from busy streets, while utilitarian riders are more likely to interact with vehicle traffic while riding. (No questions were included on the survey asking in what types of environments cyclists had ridden, so this is a speculative statement.)

Riders under age 25 were more likely to feel safe than were riders aged 25 to 64. Riders age 65 or older also felt safer; ridership rates are lower in this age group, and perhaps those who do ride are those that feel safe doing so. Riders in Denton County were most likely to feel safe (83%), while those in Dallas County or the Rural Counties had the lowest proportion feeling safe, although there were still 70% reporting they felt somewhat or very safe from these areas. Males and females were equally likely to feel safe riding a bicycle in their community.

#### Figure 18: Percent Who Feel Very or Somewhat Safe Riding a Bicycle in Their Community (Only asked of those who had biked in the last year) by Region, Age, Sex, Race/Ethnicity, Annual Household Income, Comfort Riding a Bicycle("Four Types") and Current Bicycling Behavior



Percent of respondents who bicycled in last year who feel very or somewhat safe

Interviewers asked those participating in the survey how comfortable or uncomfortable they would feel riding a bicycle in a variety of different situations. Respondents were invited to rate each scenario on a scale of 1 to 4, where 1 meant they would be "Very Uncomfortable", 2 meant they would be "Somewhat Uncomfortable", 3 meant "Somewhat Comfortable", and 4 mean "Very Comfortable". The scenarios ranged from situations of biking on a path or trail separate from a street to riding on a major street with two or three traffic lanes in each direction with no bike lanes.

Figure 19 on the next page displays the percent of respondents reporting they would feel very or somewhat comfortable bicycling in each of the scenarios presented. As might be expected, one of the situations with the highest comfort rating was riding on a path or trail that is separate from the street (85% feeling very or somewhat comfortable). However, high comfort levels were also reported for being on a major urban street with two traffic lanes in each direction with a wide bicycle lane separated from traffic by a raised curb (86%).

Respondents were more uncomfortable than comfortable riding on residential, commercial, urban or major streets with no separation from traffic, with comfort levels decreasing as traffic speeds and number of traffic lanes increased, from 44% comfortable on residential streets to only 9% comfortable on major streets with traffic speeds of 35 to 40 miles per hour.

Adding bicycle lanes to commercial, urban and major streets increased comfort levels such that 50% or more were comfortable on each type of street with a bicycle lane. Adding physical separation from traffic with a raised curb raised comfort levels even more.

#### Figure 19: Level of Comfort Cycling on Various Facilities

I'm going read a list of places you could hypothetically ride a bike. For each place, please tell me how comfortable you would feel biking there using a scale of 1-4, with 1 meaning you would be "Very Uncomfortable", 2 meaning you are "Somewhat Uncomfortable", 3 meaning you are "Somewhat Comfortable", and 4 meaning you would be "Very Comfortable".\*

٦

A path or trail that is separate from a street.						:	85%
A residential street with one traffic lane in each direction, with traffic speeds of 25 to 30 miles per hour, some on street parking and no bike lane				44%			
What if that street also had bicycle route markings, speed humps, and other things that slow down car traffic						799	%
A neighborhood commercial shopping street with one traffic lane in each direction, with traffic speeds of 25 to 30 miles per hour, with on- street parking and no bike lane	- - -		28%				
The same street if a striped bicycle lane was added						77%	
A major urban street with two traffic lanes in each direction, speeds of 30 to 35 miles per hour and no bike lane		15%					
The same street with a striped bike lane added					62%		
What if it also had a wide bicycle lane separated from traffic by a raised curb	;						86%
A major street with two or three traffic lanes in each direction, traffic speeds of 35 to 40 miles per hour, and no bike lane	-	9%					
The same street with a striped bike lane added				50%			
What if it also had a wide bicycle lane separated from traffic by a raised curb	;					78%	6
	0%			609 pondents what com	rating as		100%
egend:							
Residential street with senaration from vehicles		Path or r	esidential	l street with	n senarati	on trom	trattic

Residential street with separation from vehicles
 Path or residential street with separation from traffic
 Commercial, urban or major street with no separation from vehicles
 \* Those who had said that they do not ride a bike or ride a bike more because they were physically unable were not asked this question.

# "The Four Types of Cyclists"

One of the important survey outcomes of the NCTCOG Bicycle Opinion Survey was to classify respondents into the Four Types originally proposed by Roger Geller with the City of Portland's Bureau of Transportation and tested by Jennifer Dill and Nathan McNeil from Portland State University. This typology places individuals into four categories determined in large part by their comfort cycling on the different kinds of facilities shown in the figure on the previous page. It is important to remember that this typology is based on a person's stated comfort level bicycling in different environments and not on their current bicycling behavior.

The Four Types hypothesized by Geller and studied further by Dill & McNeil can be briefly described as follows:

Strong & Fearless: Will ride a bicycle regardless of the conditions

**Enthused & Confident:** Somewhat comfortable sharing the roadway with vehicle traffic, but prefer to have bike-specific facilities.

Interested But Concerned: Curious about bicycling, like riding, but afraid to ride.

**No Way No How**: Not interested in bicycling or comfortable doing so, or physically unable to do so.

As Geller described them, the separation between the groups is "not generally as clear-cut . . there is likely quite a bit of blurring." (Geller, page 3).

The criteria used to categorize respondents to the NCTCOG survey into one of the four types is explained fully starting on page 164 in *Appendix C: Survey Methodology*. Figure 20 on the next page shows the proportion of individuals in the NCTCOG region in each of the Four Type categories, compared to the proportions found in other studies.

The NCTCOG region had a very small proportion in the Strong & Fearless category, about 2%. This was similar to what was seen in in the City of Austin, TX and the non-City part of the Portland region and. The City of Portland had 6% in the Strong & Fearless category, while the National Survey of Metro Areas had 7%.

The Enthused & Confident group comprised 14% of the population in the NCTCOG region, similar to what was seen in the City of Austin, TX and higher than in the other comparison study areas.

The Interested But Concerned group represented 37% of the adult population in the NCTCOG region, similar to the City of Austin, TX, but much smaller than in the other study areas.

Finally, the No Way No How group was nearly half of the respondents in the NCTCOG region at 48%, the largest representation of this group in any of the study areas, but similar to the City of Austin, TX.

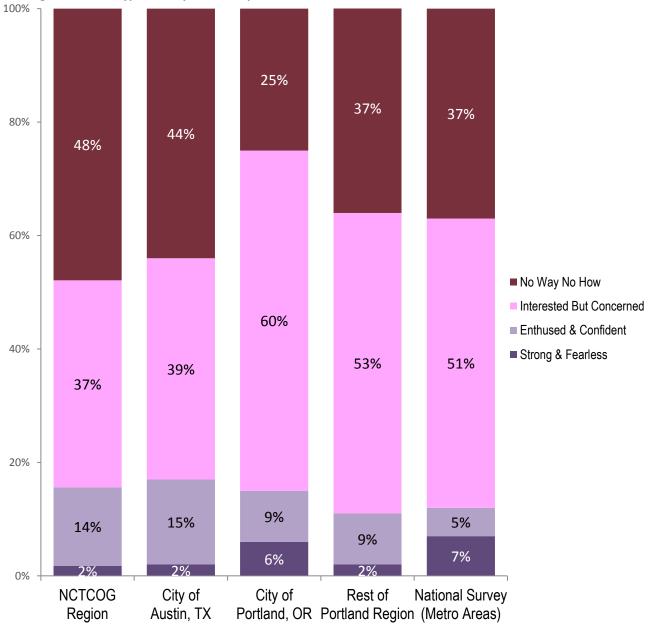


Figure 20: Four Types of Bicyclists, Compared to Austin, TX; Portland, OR; and National Metro Areas

Some variability was seen in the proportion of the population in each of the Four Type categories across the NCTCOG region. The Rural Counties had the largest proportion of the population, 59%, in the No Way No How group compared to the core area, 47%. Within the core, Denton County had the highest proportion in the No Way No How group, 54%, while Dallas County had the lowest proportion, 42%.

The proportion in the Strong but Fearless group was about 2% in all the areas, ranging from 1% to 3%. The Rural Counties had only 10% in the Enthused but Confident group, while the core counties had 14%.

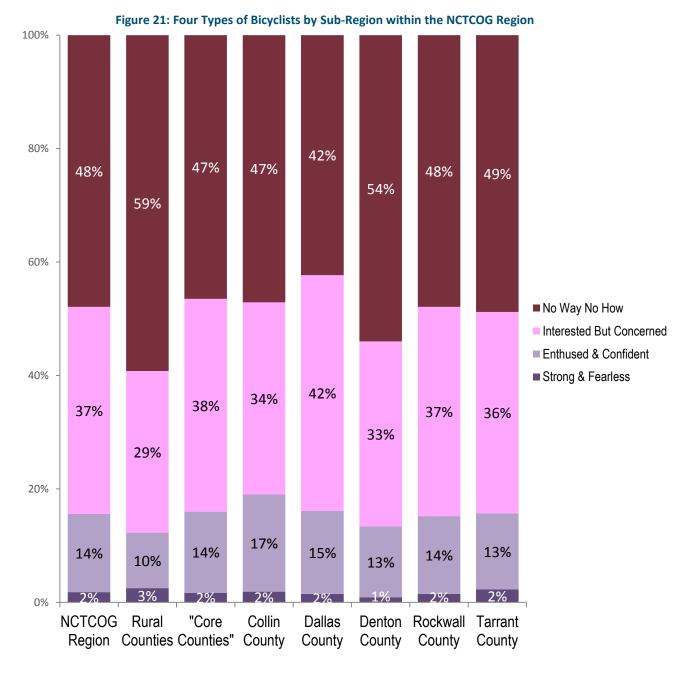


Figure 22 on the next page displays the proportion of respondents who are utilitarian cyclists, recreation-only cyclists or non-cyclists within each of the Four Type Categories. Comparisons are made to the Portland and National Metro studies.

In all three studies, few or none of the individuals in the No Way No How group were current bicyclists, as would be expected.

It could be hypothesized that the Strong & Fearless would have the highest rates of bicycle ridership, since they are comfortable bicycling in a variety of situations. However, in all three studies this was not what was observed; the proportion within the Strong & Fearless group that bicycled was smaller than the proportion within the Enthused & Confident group.

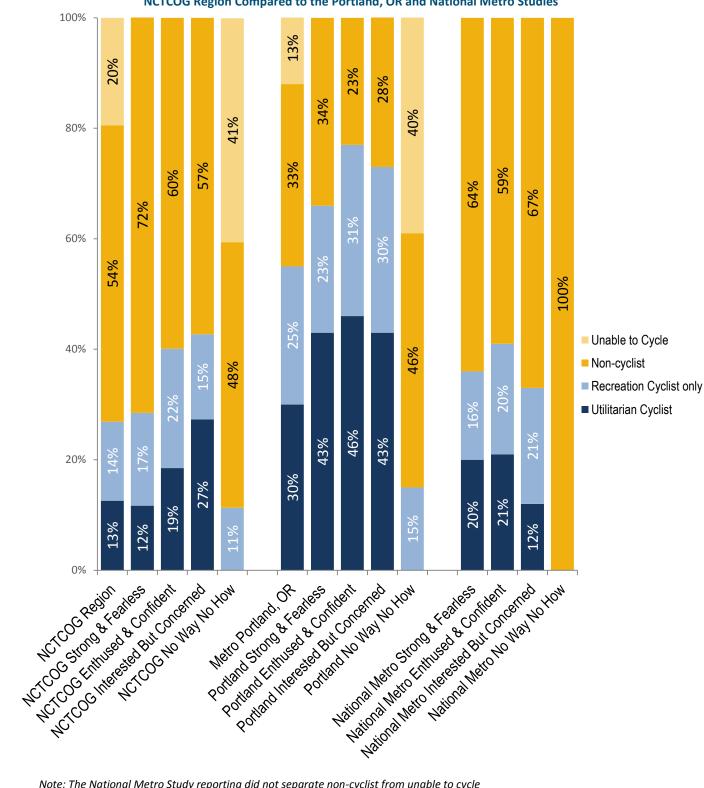
After that, though, the pattern observed in the NCTCOG region is somewhat different than observed in the Portland and National Metro surveys. In the NCTCOG region, the proportion of current cyclists in the Interested But Concerned group is higher than either the Strong & Fearless or Enthused But Confident groups, while in the other two studies the proportion is similar to or below the other two groups.

It is not clear why a different pattern would be observed in the NCTCOG region compared to these other areas. There may be unique characteristics of the built environment or the resident population that contributes to these differences. Certainly, in the NCTCOG region, bicycle ridership was lower than in Portland (27% were utilitarian or recreation-only cyclists in the NCTCOG region, about half as much compared to the 55% in Portland), and fewer respondents were placed in the Strong & Fearless, Enthused & Confident or Interested But Concerned Groups.

Perhaps exposure to the actual types of bicycling environments in the NCTCOG region makes respondents less likely say they feel riding in them, so that bicyclists in this region are then being classified at the levels of lower comfort and enthusiasm in the typology model.

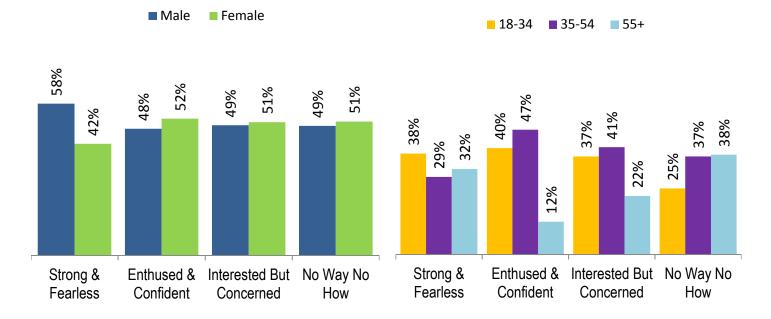
The figures on page 28 show some of the demographic characteristics of the Four Types in the NCTCOG region. Some of the key features of these groups are highlighted below.

<ul> <li>Strong &amp; Fearless</li> <li>More likely to be male, while other types were about evenly split</li> <li>More likely to be Asian or Hispanic compared to the other types.</li> <li>More likely have an income below \$50,000 or above \$100,000 than the other types.</li> </ul>	<ul> <li>Enthused &amp; Confident</li> <li>Less likely to be over age 55 than the other types.</li> <li>A greater proportion of individuals identifying as Black than the other types.</li> </ul>
<ul> <li>Interested But Concerned</li> <li>No "stand-out" features compared to the other types; the demographic profile of this type was very similar to the overall demographic profile of the region.</li> </ul>	• This was the oldest of the four types, with the lowest proportion of 18-34 year olds and the highest proportion of those aged 55+.



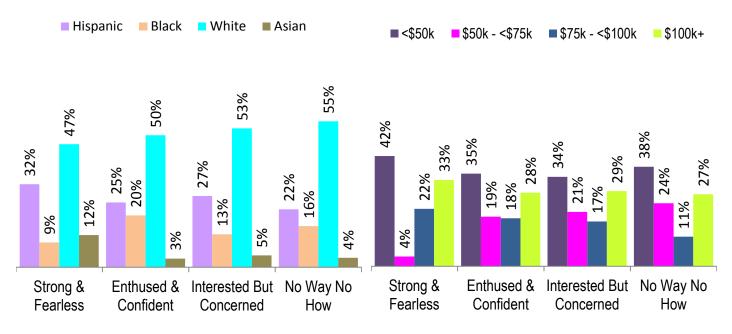
#### Figure 22: General Cycling Behavior by Type of Cyclist, NCTCOG Region Compared to the Portland, OR and National Metro Studies

Note: The National Metro Study reporting did not separate non-cyclist from unable to cycle



#### Figure 23: Gender and Age by Four Types

Figure 24: Race/Ethnicity and Annual Household Income by Four Types



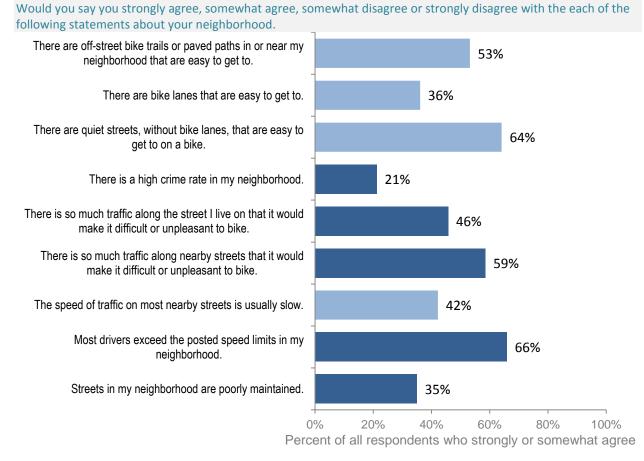
# Perception of Community and Neighborhood Bicycling Infrastructure

Survey participants were asked several questions about their perceptions of features of their neighborhood that would might make it more or less conducive to bicycling, their perception of the amount of bicycle infrastructure in their community, and the importance they placed on future bicycle-related improvements in their community.

## **Perceived Bicycle-Friendliness of Neighborhood**

All of those interviewed for the NCTCOG Bicycle Opinion Survey, whether or not they were current bicyclists, were asked whether they agreed or disagreed with various statements about their neighborhood. About half of these items were phrased positively (e.g. There are bike lanes that are easy to get to) and about half were phrased negatively (e.g., There is a high crime rate in my neighborhood). Figure 25 below shows the percent who somewhat or strongly agreed with each item, but to clearly show those items where low agreement signifies a more positive response, darker blue bars are used for those items negatively phrased. (E.g., agreeing that there are bike lanes that are easy to get to means the neighborhood is **more** bike-friendly; agreeing there is a high crime rate means the neighborhood is **less** bike-friendly.)

Items that a majority of respondents felt were positive for bike-friendliness in their neighborhood included crime rates, street maintenance and easy access to quiet streets. Items that roughly half of respondents felt were positive for bike-access and roughly half thought were negative (between 45% and 55%) included access to off-street bike trails or paved paths and traffic volume on the street where they lived. Those items viewed as having a negative impact on bike access in the neighborhood by a majority of respondents included volume of traffic on nearby streets, traffic speeds on nearby streets drivers exceeding neighborhood speed limits, and lack of access to bike lanes.

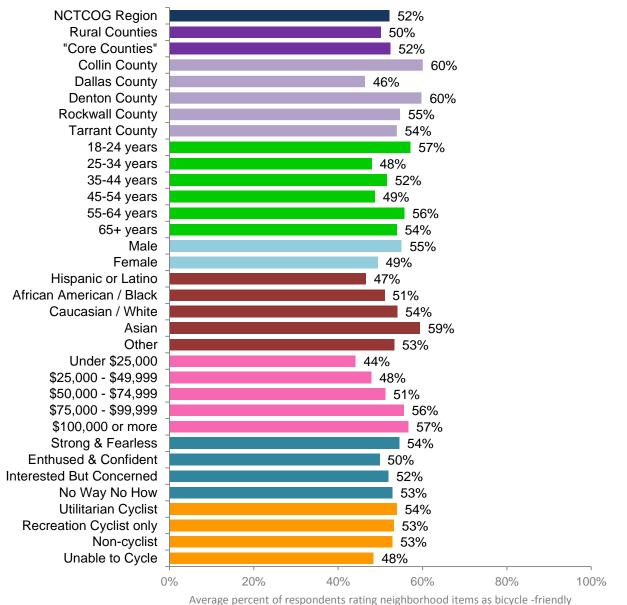


#### Figure 25: Perceived Bicycle-Friendliness of Neighborhood

Legend:

Positive statement; agreement indicates greater bicycle-friendliness
 Negative statement; agreement indicates lesser bicycle-friendliness

Figure 26 below displays the average percent of respondents the neighborhood items positively (agreeing with positive statements or disagreeing with negative statements) by respondent characteristics. Dallas County residents gave the least positive ratings on average, while the most positive ratings were given by those in Collin and Denton Counties. Males gave somewhat more positive ratings than did females. Those with higher annual household incomes gave more positive ratings to their neighborhoods than did those with lower annual household incomes. Those assigned to the Strong & Fearless type gave more positive ratings than those assigned to the other types. Interestingly, no difference was observed between regular cyclists and the non-cyclists, although those unable to cycle did give slightly lower ratings.

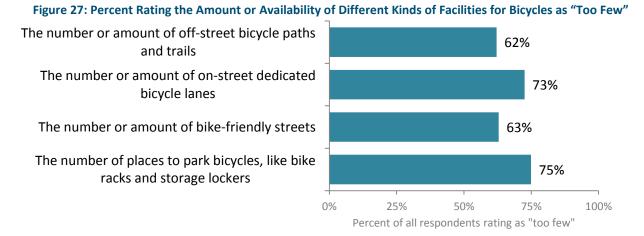


#### Figure 26: Perceived Bicycle-Friendliness of Neighborhood by Region, Age, Sex, Race/Ethnicity, Annual Household Income, Comfort Riding a Bicycle ("Four Types") and Current Bicycling Behavior

# **Perceived Lack of Bicycle Facilities in Communities**

Interviewers solicited survey participants' opinions about the amount or availability of various bicycle amenities in the community, asking whether they thought there were too many, about the right amount, or too few of each. Only a handful of respondents though there were too many of these types of amenities (see Table 19 in *Appendix A: Responses to Survey Questions*).

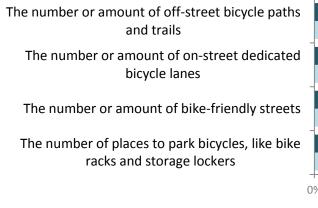
About 6 in 10 respondents thought there were too few off-street bicycle paths and trails or bikefriendly streets. About 7 in 10 respondents thought there were too few on-street dedicated bicycle lanes or places to park bicycles (see Figure 27).

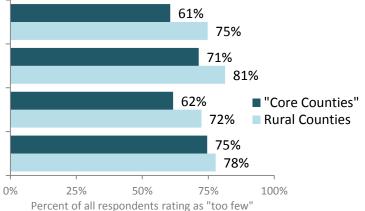


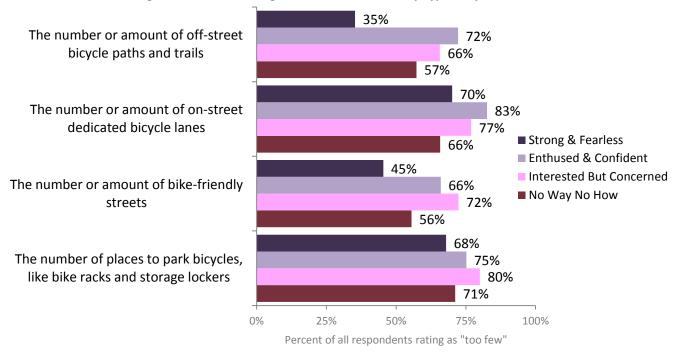
Those in the Rural Counties were more likely to feel there were too few off-street bicycle paths and trails, on-street dedicated bicycle lanes or bike-friendly streets than did those in the core counties (see Figure 28 below).

Those in the Enthused & Confident or Interested But Concerned type were more likely to think there were too few bicycle amenities in their community than were those in the Strong & Fearless or No Way No How types (see Figure 29 on the next page). There was not a great deal of variability, however, in the proportions deeming the amount of facilities as too few among cyclists versus non-cyclists (see Figure 30 on the next page).



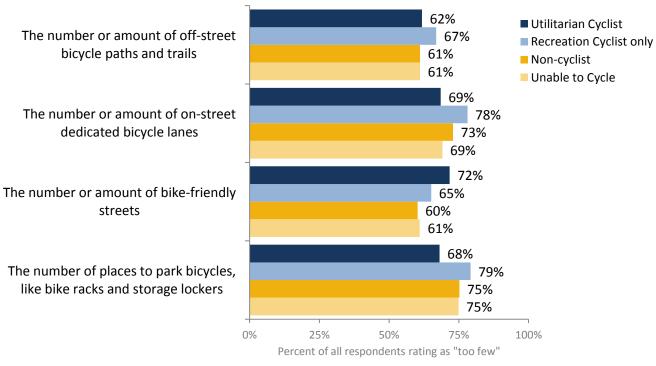






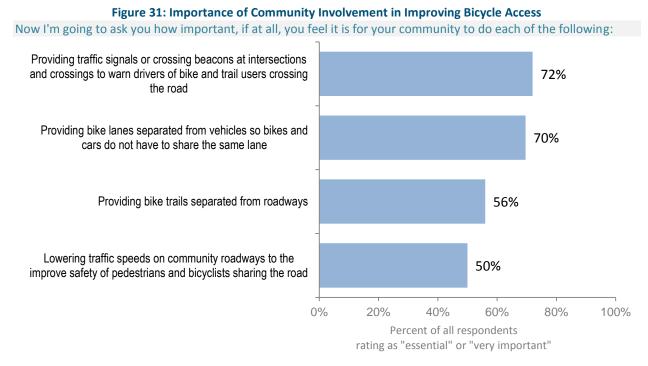
#### Figure 29: Percent Rating Facilities as "Too Few" by Type of Cyclist

#### Figure 30: Percent Rating Facilities as "Too Few" by Current Bicycling Behavior



### **Perceived Importance of Community Improvements to Bicycle Access**

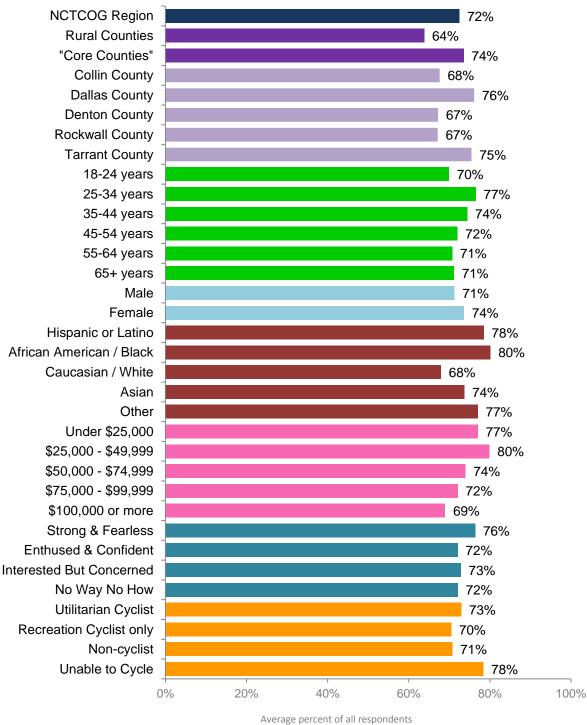
A majority of respondents considered improvements to increase bicycle access to be "essential" or "very important" for their community. About 70% thought it was essential or very important to provide traffic signals or crossing beacons at intersections or to provide bike lanes separated from traffic. More than half (56%) thought it was essential or very important to provide bike trails that are separated from roadways, while exactly half thought traffic speeds should be lowered on community roadways to improve the safety of bicyclists and pedestrians.



On average, the percent of respondents rating each of the four items as essential or very important was higher in the core counties (74%) than in the rural counties (64%, see Figure 32 on the next page)). In the core counties, a greater proportion of respondents in Dallas and Tarrant Counties thought it was important to improve bicycle access than in the other core counties.

A somewhat greater proportion of those in lower income households thought these improvements were important compared to those in higher income households. Hispanic and Black respondents were somewhat more likely to think these improvements were important compared to Whites, Asians and those of another racial/ethnic identity.

# Figure 32: Ratings of Importance of Community Involvement in Improving Bicycle Access by Region, Age, Sex, Race/Ethnicity, Annual Household Income, Comfort Riding a Bicycle ("Four Types") and Current Bicycling Behavior



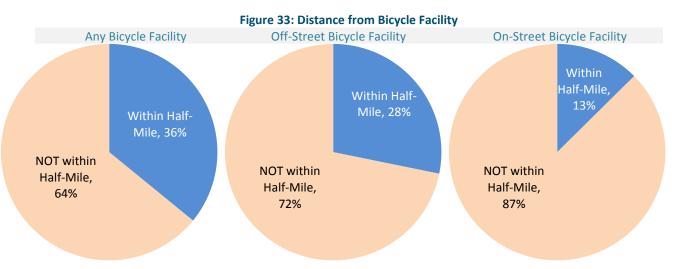
rating as "essential" or "very important"

Note: More information about how respondents were grouped into the categories related to comfort riding a bicycle and current bicycling behaviors can be found in the report sections "The Four Types of Cyclists" on page 23 and Classifying Transportation and Recreation Bicycling Behavior on page 13.

## **Distance from a Bicycle Facility**

Those participating in the survey were asked if they would be comfortable providing their home address or the nearest cross-street to their home so that survey results could be examined by the area in which they lived. Over 8 in 10 respondents were comfortable doing so, and provided geographic information that could be geocoded. These geographic points were then examined to see if there were any on-street bicycle facilities, such as bike lanes or off-street bicycle facilities such as paths or trails, within a half mile.

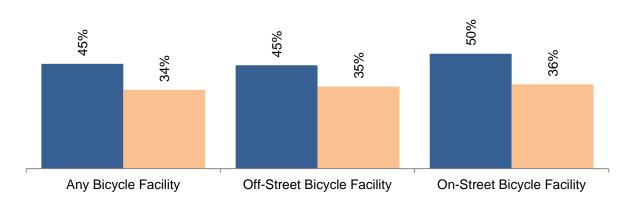
About a third of respondents were within a half mile of any bicycle facility (off- or on-street), while 28% were within a half mile of an off-street facility and 13% were within a half mile of an on-street bicycle facility.



Those who lived within a half mile of bicycle facility were more likely to have bicycled within the last 12 months than were those who lived further than a half mile from a bicycle facility. This was even more pronounced for those who lived within a half mile of an on-street bicycle facility.

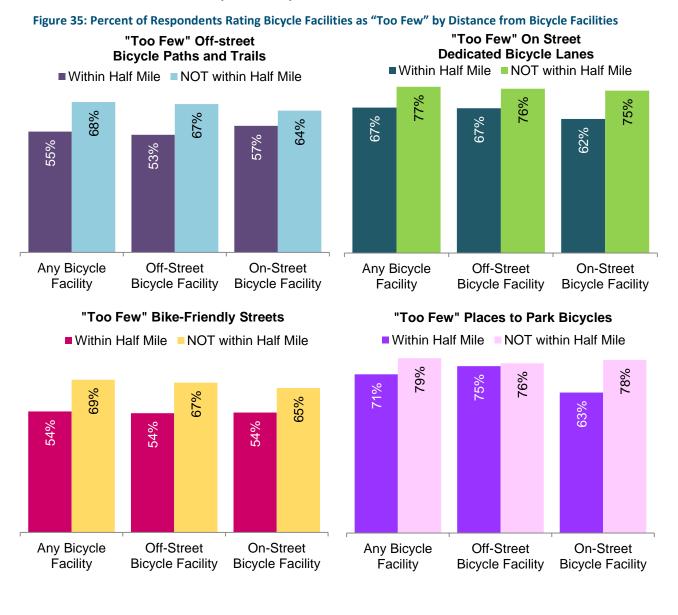


Percent of Respondents Who Rode a Bicycle in Last 12 Months



Within Half Mile NOT within Half Mile

While a majority of those who lived within a half mile of a bicycle facility thought there were "too few" bicycle facilities, they were generally less likely to think that than those who lived more than half a mile from a bicycle facility.



### References

- Carmines EG, Zeller RA. (1979) *Reliability and Validity Assessment*. Newbury Park: Sage Publications.
- Dill, J. (2012). Categorizing Cyclists: What do we Know? Insights from Portland, OR Presentation to Velo-City Global 2012, Vancouver, BC, June 26, 2012.
- Dill, J. (2015). Four Types of Cyclists NITC Webinar, August 11, 2015 Portland, OR: Portland State University.
- Dill, J., & McNeil, N. (2012). Four Types of Cyclists? Testing a Typology to Better Understand Bicycling Behavior and Potential. Portland State University.
- Dill, J., & McNeil, N. (2013). Four Types of Cyclists? Examination of Typology for Better Understanding of Bicycling Behavior and Potential Transportation Research Record: *Journal of the Transportation Research Board* No. 2387 (pp. 129-138). Washington, D.C.
- Dill, J., & McNeil, N. (2016). Revisiting the Four Types of Cyclists: Findings from a National Survey. *Transportation Research Record: Journal of the Transportation Research Board*, No. 2587 (pp. 90-99). Washington, D.C.
- Litwin MS. (1995). *How to Measure Survey Reliability and Validity*. Thousand Oaks: Sage Publications.
- Maus, J. What Type of Cyclist Are You? BikePortland.Org, Dec. 7, 2006. <u>https://bikeportland.org/2006/12/07/what-type-of-cyclist-are-you-2650</u>. Accessed July 10, 2017.
- Geller, R. Four Types of Cyclists. Portland Bureau of Transportation, Portland, Ore., 2006, updated 2009 <u>https://www.portlandoregon.gov/transportation/article/264746</u>. Accessed July 10, 2017.
- Roberts, D., & Durbin, L. (2013). City of Austin Urban Trails Master Plan Telephone Study: Report of Findings: Customer Research International, Inc.

### **Appendix A: Responses to Survey Questions**

The following tables show the complete set of responses for each question on the survey. For some of the questions, two tables are provided, one that includes the "don't know" responses and one that excludes the "don't know" responses. For a few of the questions, only a handful of respondents refused to answer the question or answered "don't know;" in these cases, only one table is shown with a note that states how many respondents had refused to answer the question, could not recall the information or had no opinion. Each of the tables in this appendix shows the number of respondents giving a response, and the percent of respondents giving a response or the average response of those answering the question. These numbers and percents/averages are based on the weighted dataset.

Did you ever ride a bicycle, even once, in the past 12 months?	Percent	Number
No	63.7%	N=1217
Yes	36.3%	N=692
Total	100.0%	N=1909

Table 1: Question #1

Note: One respondent answered "don't know" and no respondents refused to answer the question.

#### Table 2: Question #2

Thinking about the past year, which of the following BEST describes your bicycle-riding behavior: Only asked of those who answered that they rode a bicycle in the last 12 months	Percent	Number
You ride daily	5.5%	N=38
A few times a week	21.0%	N=146
A few times a month	33.5%	N=232
A few times a year	24.2%	N=168
You seldom ride	10.9%	N=75
You are currently NOT a bike rider	4.9%	N=34
Total	100.0%	N=692

#### Table 3: Question #2

Thinking about the past year, which of the following BEST describes your bicycle-riding behavior: Those who had answered they had not ridden a bicycle in the last 12 months are included in the "NOT a bike		
rider" category.	Percent	Number
You ride daily	2.0%	N=38
A few times a week	7.6%	N=146
A few times a month	12.1%	N=232
A few times a year	8.8%	N=168
You seldom ride	3.9%	N=75
You are currently NOT a bike rider	65.5%	N=1250
Total	100.0%	N=1909

Table 4: Question #3	
----------------------	--

In the last 30 days, about how often, if at all, did you bicycle for work, school, shopping or to get to another destination?		
Only asked of those who had ever bicycled in last 12 months and were currently a rider	Percent	Number
None	63.8%	N=420
Once or twice	15.7%	N=103
3 or 4 times	5.0%	N=33
About once or twice a week	5.0%	N=33
3 or 4 times a week	5.2%	N=34
5 or more times a week	5.1%	N=34
Total	100.0%	N=658

Table 5: Question #3									
In the last 30 days, about how often, if at all, did you bicycle for work, school, shopping or to get to another destination? Those who had not bicycled in last 12 months or were currently not a rider considered "None"	Percent	Number							
None	87.5%	N=1671							
Once or twice	5.4%	N=103							
3 or 4 times	1.7%	N=33							
About once or twice a week	1.7%	N=33							
3 or 4 times a week	1.8%	N=34							
5 or more times a week	1.8%	N=34							
Total	100.0%	N=1908							

#### Table 6: Question #4

In the last 30 days, about how often, if at all, did you bicycle for fun or exercise? Only asked of those who had ever bicycled in last 12 months and were currently a rider	Percent	Number
None	25.2%	N=166
Once or twice	33.1%	N=218
3 or 4 times	14.9%	N=98
About once or twice a week	12.1%	N=79
3 or 4 times a week	6.0%	N=39
5 or more times a week	8.7%	N=57
Total	100.0%	N=659

Note: One respondent refused to answer the question.

#### Table 7: Question #4

In the last 30 days, about how often, if at all, did you bicycle for fun or exercise? Those who had not bicycled in last 12 months considered "None"	Percent	Number
None	74.2%	N=1416
Once or twice	11.4%	N=218
3 or 4 times	5.2%	N=98
About once or twice a week	4.2%	N=79
3 or 4 times a week	2.1%	N=39
5 or more times a week	3.0%	N=57
Total	100.0%	N=1909

Note: One respondent refused to answer the question.

Over the past year, on average, how many days did you ride your bicycle during each of these seasons? What about Only asked of those who had ever bicycled in last 12 months and were currently a rider	Never this se	ride in eason	Ride a one o days c this se	r two luring	Ride a one o days a durin sea	r four month g this	Ride a once o a w durin sea	r twice eek g this	Ride al or 4 d week ( this se	lays a during	Ride more week ( this se	days a during	(DO KNC		То	tal
What about in the Spring, the months of March, April and May?	4.8%	N=32	26.2%	N=173	22.1%	N=146	17.9%	N=118	12.2%	N=80	13.0%	N=86	3.8%	N=25	100.0%	N=659
What about in Summer, the months of June, July and August?	15.9%	N=105	24.4%	N=161	17.8%	N=117	17.0%	N=112	12.7%	N=84	9.0%	N=59	3.2%	N=21	100.0%	N=659
What about in the Fall, the months of September, October and November?	14.8%	N=98	27.1%	N=178	16.4%	N=108	17.8%	N=117	11.7%	N=77	8.2%	N=54	4.0%	N=26	100.0%	N=659
What about in the Winter, the months of December, January and February?	51.4%	N=339	15.5%	N=102	10.7%	N=71	9.7%	N=64	6.0%	N=39	4.0%	N=26	2.7%	N=18	100.0%	N=659

Table 8: Question #5 with don't know responses

Note: No respondents refused to answer this question

Over the past year, on average, how many days did you ride your bicycle during each of these seasons? What about Only asked of those who had ever bicycled in last 12 months and were currently a rider	Never this se		Ride about oneRide about oneRide aboutor two daysor four days aonce or twiceduring thismonth duringweek duringseasonthis seasonthis season		twice a during	Ride about 3 or 4 days a week (during this season)		Ride 5 or more days a week (during this season)		Tot	tal			
What about in the Spring, the months of March, April and May?	5.0%	N=32	27.3%	N=173	23.0%	N=146	18.6%	N=118	12.7%	N=80	13.5%	N=86	100.0%	N=634
What about in Summer, the months of June, July and August?	16.5%	N=105	25.2%	N=161	18.4%	N=117	17.6%	N=112	13.1%	N=84	9.3%	N=59	100.0%	N=638
What about in the Fall, the months of September, October and November?	15.4%	N=98	28.2%	N=178	17.1%	N=108	18.6%	N=117	12.2%	N=77	8.5%	N=54	100.0%	N=632
What about in the Winter, the months of December, January and February?	52.8%	N=339	15.9%	N=102	11.0%	N=71	10.0%	N=64	6.1%	N=39	4.1%	N=26	100.0%	N=641

Over the past year, on average, how many days did you ride your bicycle during each of these seasons? What about Those who had not bicycled in last 12 months or were not currently riders considered "Never"	Never ride in this season		Ride about one or two days during this season		or four	during	s a once or twice a ng week during		Ride about 3 or 4 days a week (during this season)		days a (durin	Ride 5 or more days a week (during this season)		tal
What about in the Spring, the months of March, April and May?	68.0%	N=1282	9.2%	N=173	7.7%	N=146	6.2%	N=118	4.3%	N=80	4.5%	N=86	100.0%	N=1884
What about in Summer, the months of June, July and August?	71.8%	N=1355	8.5%	N=161	6.2%	N=117	5.9%	N=112	4.4%	N=84	3.1%	N=59	100.0%	N=1888
What about in the Fall, the months of September, October and November?	71.6%	N=1348	9.5%	N=178	5.7%	N=108	6.2%	N=117	4.1%	N=77	2.9%	N=54	100.0%	N=1883
What about in the Winter, the months of December, January and February?	84.0%	N=1589	5.4%	N=102	3.7%	N=71	3.4%	N=64	2.1%	N=39	1.4%	N=26	100.0%	N=1891

Table 10: Question #5 without don't know and refused responses

How many miles is your AVERAGE bicycle ride? Only asked of those who had ever bicycled in last 12 months and were currently a rider	Percent	Number
less than a mile	9.9%	N=65
one mile	9.0%	N=59
two miles	12.0%	N=79
3 to 4 miles	21.7%	N=143
5 miles	14.7%	N=97
5 to 10 miles	13.1%	N=87
11 to 15 miles	5.1%	N=34
16 to 20 miles	2.5%	N=17
more than 20 miles	5.1%	N=33
(DON'T KNOW)	6.6%	N=43
(REFUSED)	0.4%	N=3
Total	100.0%	N=659

#### Table 11: Question #6 with don't know and refused responses

### Table 12: Question #6 without don't know and refused responses

How many miles is your AVERAGE bicycle ride? Only asked of those who had ever bicycled in last 12 months and were currently a rider	Percent	Number
less than a mile	10.6%	N=65
one mile	9.7%	N=59
two miles	12.9%	N=79
3 to 4 miles	23.3%	N=143
5 miles	15.8%	N=97
5 to 10 miles	14.1%	N=87
11 to 15 miles	5.5%	N=34
16 to 20 miles	2.7%	N=17
more than 20 miles	5.5%	N=33
Total	100.0%	N=613

On the days you ride a bicycle, about how many miles on average do you ride? Only asked of those who had ever bicycled in last 12 months and were currently a rider	Percent	Number
less than a mile	9.6%	N=63
one mile	9.8%	N=64
two miles	12.0%	N=79
3 to 4 miles	16.3%	N=108
5 miles	14.7%	N=97
5 to 10 miles	13.2%	N=87
11 to 15 miles	7.6%	N=50
16 to 20 miles	2.2%	N=14
more than 20 miles	3.7%	N=24
(DON'T KNOW)	10.2%	N=67
(REFUSED)	0.8%	N=5
Total	100.0%	N=659

#### Table 13: Question #7 with don't know and refused responses

### Table 14: Question #7 without don't know and refused responses

On the days you ride a bicycle, about how many miles on average do you ride? Only asked of those who had ever bicycled in last 12 months and were currently a rider	Percent	Number
less than a mile	10.8%	N=63
one mile	11.0%	N=64
two miles	13.5%	N=79
3 to 4 miles	18.4%	N=108
5 miles	16.5%	N=97
5 to 10 miles	14.8%	N=87
11 to 15 miles	8.5%	N=50
16 to 20 miles	2.4%	N=14
more than 20 miles	4.1%	N=24
Total	100.0%	N=586

#### Table 15: Question #6 and #7 Averages

Average miles ridden on bicycle Only asked of those who had ever bicycled in last 12 months and were currently a rider	Average	Median	Number
How many miles is your AVERAGE bicycle ride?	7.45	4.00	N=613
On the days you ride a bicycle, about how many miles on average do you ride?	6.09	5.00	N=586

#### Table 16: Question #8

How often, if at all, would you say you wear a helmet when you ride a bicycle? Only asked of those who had ever bicycled in last 12 months and were currently a rider	Percent	Number
Never	42.3%	N=278
About 25% of the time	7.5%	N=49
About half the time	5.5%	N=36
About 75% of the time	2.0%	N=13
Always or almost always	42.8%	N=282
Total	100.0%	N=658

Note: One respondent refused to answer, no respondents answered "don't know"

#### Table 17: Question #9

How safe or unsafe do you feel when you ride a bicycle in your community? Only asked of those who had ever bicycled in last 12 months and were currently a rider	Percent	Number
Very unsafe	9.0%	N=59
Somewhat unsafe	16.3%	N=106
Somewhat safe, or	35.5%	N=231
Very safe?	39.2%	N=256
Total	100.0%	N=652

Note: One respondent refused to answer, 5 answered "don't know"

Now I want to ask you about the amount or availability of different kinds of facilities for bicycles in your community. For each, I want you to tell me if you think there are too many, about the right amount, or too few. What about	Too many		right ar	About the right amount, or		few	(DON'T KNOW) (REFUSED)		(REFUSED)		То	tal
The number or amount of off-street bicycle paths and trails	1.3%	N=25	32.9%	N=629	56.1%	N=1072	9.5%	N=181	0.2%	N=3	100.0%	N=1910
The number or amount of on-street dedicated bicycle lanes	3.7%	N=70	21.9%	N=418	67.3%	N=1285	6.9%	N=132	0.3%	N=5	100.0%	N=1910
The number or amount of bike-friendly streets	4.0%	N=76	30.6%	N=584	58.5%	N=1118	6.7%	N=127	0.3%	N=5	100.0%	N=1910
The number of places to park bicycles, like bike racks and storage lockers	1.1%	N=22	21.5%	N=411	67.8%	N=1295	9.2%	N=176	0.3%	N=6	100.0%	N=1910

Table 18: Question #10 with don't know and refused responses

Tab	ole 19: Questi	on <mark>#10 witho</mark>	ut don't know	and refused r	responses			
Now I want to ask you about the amount or availability of different kinds of facilities for bicycles in your community. For each, I want you to tell me if you think there are too many, about the right amount, or too few. What about	Too r	About the right many amount, or Too few Tota				Total		
The number or amount of off-street bicycle paths and trails	1.4%	N=25	36.5%	N=629	62.1%	N=1072	100.0%	N=1726
The number or amount of on-street dedicated bicycle lanes	3.9%	N=70	23.6%	N=418	72.5%	N=1285	100.0%	N=1773
The number or amount of bike-friendly streets	4.3%	N=76	32.9%	N=584	62.9%	N=1118	100.0%	N=1778
The number of places to park bicycles, like bike racks and storage lockers	1.3%	N=22	23.8%	N=411	74.9%	N=1295	100.0%	N=1728

Would you say you strongly agree, somewhat agree, somewhat disagree or strongly disagree with the each of the following statements about your neighborhood.	Stro AGI	01	Some AGI		Some DISA		Stro DISA	ngly GREE	•	(DON'T KNOW) (REFUSED)		(REFUSED)		(REFUSED)		(REFUSED)		tal
There are off-street bike trails or paved paths in or near my neighborhood that are easy to get to.	26.2%	N=500	25.0%	N=477	15.8%	N=301	29.3%	N=560	3.6%	N=69	0.2%	N=4	100.0%	N=1910				
There are bike lanes that are easy to get to.	17.0%	N=325	18.1%	N=345	17.2%	N=329	44.6%	N=852	2.8%	N=53	0.3%	N=5	100.0%	N=1910				
There are quiet streets, without bike lanes, that are easy to get to on a bike.	31.1%	N=594	31.0%	N=593	13.3%	N=253	21.5%	N=411	3.0%	N=57	0.1%	N=2	100.0%	N=1910				
There is a high crime rate in my neighborhood.	11.7%	N=224	8.8%	N=169	19.8%	N=378	56.9%	N=1087	2.5%	N=49	0.2%	N=3	100.0%	N=1910				
There is so much traffic along the street I live on that it would make it difficult or unpleasant to bike.	28.7%	N=549	16.6%	N=317	21.4%	N=409	32.3%	N=617	0.9%	N=16	0.1%	N=3	100.0%	N=1910				
There is so much traffic along nearby streets that it would make it difficult or unpleasant to bike.	34.3%	N=655	23.4%	N=446	20.3%	N=388	20.6%	N=393	1.3%	N=26	0.2%	N=3	100.0%	N=1910				
The speed of traffic on most nearby streets is usually slow.	17.3%	N=330	24.4%	N=465	24.7%	N=471	32.5%	N=620	1.0%	N=20	0.2%	N=3	100.0%	N=1910				
Most drivers exceed the posted speed limits in my neighborhood.	40.7%	N=778	23.9%	N=456	18.3%	N=350	15.1%	N=289	1.8%	N=34	0.2%	N=4	100.0%	N=1910				
Streets in my neighborhood are poorly maintained.	21.2%	N=405	13.5%	N=258	24.3%	N=463	40.0%	N=764	0.8%	N=15	0.2%	N=4	100.0%	N=1910				

Table 20: Question #11 with don't know and refused responses

'Would you say you strongly agree, somewhat agree, somewhat disagree or strongly disagree with the each of the following statements about your neighborhood.	Strongly AGREE		Somewhat AGREE		REE Somewhat DI		Strongly DISAGREE		Tot	tal
There are off-street bike trails or paved paths in or near my neighborhood that are easy to			25.201						100.004	
get to. There are bike lanes that are easy to get to.	27.2%	N=500 N=325	26.0% 18.6%	N=477 N=345	16.4% 17.8%	N=301 N=329	30.5% 46.0%	N=560 N=852	100.0%	N=1837 N=1851
There are quiet streets, without bike lanes, that are easy to get to on a bike.	32.1%	N=594	32.0%	N=593	13.7%	N=253	22.2%	N=411	100.0%	N=1851
There is a high crime rate in my neighborhood.	12.1%	N=224	9.1%	N=169	20.4%	N=378	58.5%	N=1087	100.0%	N=1859
There is so much traffic along the street I live on that it would make it difficult or unpleasant to bike.	29.0%	N=549	16.7%	N=317	21.6%	N=409	32.6%	N=617	100.0%	N=1891
There is so much traffic along nearby streets that it would make it difficult or unpleasant to bike.	34.8%	N=655	23.7%	N=446	20.6%	N=388	20.9%	N=393	100.0%	N=1881
The speed of traffic on most nearby streets is usually slow.	17.5%	N=330	24.7%	N=465	25.0%	N=471	32.9%	N=620	100.0%	N=1887
Most drivers exceed the posted speed limits in my neighborhood.	41.6%	N=778	24.3%	N=456	18.7%	N=350	15.4%	N=289	100.0%	N=1872
Streets in my neighborhood are poorly maintained.	21.4%	N=405	13.6%	N=258	24.5%	N=463	40.4%	N=764	100.0%	N=1891

 Table 21: Question #11 without don't know and refused responses

Would you say you strongly agree, somewhat agree, somewhat disagree or strongly disagree with the following statement: "I would like to travel by bike more than I do now."	Percent	Number
Strongly AGREE	29.6%	N=565
Somewhat AGREE	24.1%	N=460
Somewhat DISAGREE	13.8%	N=265
Strongly DISAGREE	30.3%	N=579
(DON'T KNOW)	1.7%	N=33
(REFUSED)	0.4%	N=8
Total	100.0%	N=1910

#### Table 22: Question #12 with don't know and refused responses

#### Table 23: Question #12 without don't know and refused responses

Would you say you strongly agree, somewhat agree, somewhat disagree or strongly disagree with the following statement: "I would like to travel by bike more than I do now."	Percent	Number
Strongly AGREE	30.3%	N=565
Somewhat AGREE	24.6%	N=460
Somewhat DISAGREE	14.2%	N=265
Strongly DISAGREE	31.0%	N=579
Total	100.0%	N=1869

Do any of the following prevent you from riding a bike more often than you currently											
do—	Ye	Yes		No		(DON'T KNOW)		(REFUSED)		Total	
I am not physically able											
(Those who answered yes to this item were											
skipped to question #15)	22.6%	N=433	76.8%	N=1467	0.4%	N=8	0.1%	N=3	100.0%	N=1910	
I don't own a bike	37.2%	N=550	62.6%	N=924	0.1%	N=1	0.1%	N=2	100.0%	N=1477	
My bike is not in good working condition	18.9%	N=280	77.2%	N=1141	2.9%	N=43	1.0%	N=14	100.0%	N=1477	
l do not feel safe	33.5%	N=494	64.1%	N=946	1.7%	N=24	0.8%	N=12	100.0%	N=1477	
Biking lanes, trails, and paths are not available	46.9%	N=693	50.3%	N=744	1.8%	N=26	1.0%	N=15	100.0%	N=1477	
Biking lanes, trails, and paths are not connected	49.5%	N=732	44.4%	N=656	5.9%	N=88	0.2%	N=2	100.0%	N=1477	
It takes too long	34.0%	N=502	63.1%	N=932	2.8%	N=41	0.2%	N=3	100.0%	N=1477	
Destinations are too far	46.7%	N=690	51.3%	N=759	1.8%	N=27	0.1%	N=2	100.0%	N=1477	
Existing bikeways are in poor condition	22.3%	N=329	69.3%	N=1024	8.2%	N=121	0.2%	N=3	100.0%	N=1477	
No showers or place to freshen up at my destination	46.7%	N=691	48.1%	N=711	4.9%	N=72	0.3%	N=4	100.0%	N=1477	
Lack of secure bike parking	51.1%	N=755	44.3%	N=654	4.4%	N=64	0.2%	N=3	100.0%	N=1477	
Weather is too HOT	63.6%	N=940	35.3%	N=521	0.9%	N=13	0.2%	N=3	100.0%	N=1477	
Weather is too COLD	26.1%	N=386	72.6%	N=1072	1.1%	N=16	0.2%	N=3	100.0%	N=1477	
It doesn't fit my lifestyle	36.2%	N=536	62.3%	N=921	1.2%	N=18	0.2%	N=3	100.0%	N=1477	

Table 24: Question #13 with don't know and refused responses

Do any of the following prevent you from riding a bike more often than you currently							
do—	Ye	es	N	lo	То	Total	
I am not physically able							
(Those who answered yes to this item were skipped to question #15)	22.8%	N=433	77.2%	N=1467	100.0%	N=1899	
I don't own a bike	37.3%	N=550	62.7%	N=924	100.0%	N=1474	
My bike is not in good working condition	19.7%	N=280	80.3%	N=1141	100.0%	N=1420	
I do not feel safe	34.3%	N=494	65.7%	N=946	100.0%	N=1441	
Biking lanes, trails, and paths are not available	48.2%	N=693	51.8%	N=744	100.0%	N=1436	
Biking lanes, trails, and paths are not connected	52.7%	N=732	47.3%	N=656	100.0%	N=1387	
It takes too long	35.0%	N=502	65.0%	N=932	100.0%	N=1434	
Destinations are too far	47.6%	N=690	52.4%	N=759	100.0%	N=1449	
Existing bikeways are in poor condition	24.3%	N=329	75.7%	N=1024	100.0%	N=1353	
No showers or place to freshen up at my destination	49.3%	N=691	50.7%	N=711	100.0%	N=1402	
Lack of secure bike parking	53.6%	N=755	46.4%	N=654	100.0%	N=1410	
Weather is too HOT	64.3%	N=940	35.7%	N=521	100.0%	N=1461	
Weather is too COLD	26.5%	N=386	73.5%	N=1072	100.0%	N=1458	
It doesn't fit my lifestyle	36.8%	N=536	63.2%	N=921	100.0%	N=1456	

Table 25: Question #13 without don't know and refused responses

I'm going read a list of places you could hypothetically ride a bike. For each place, please tell me how comfortable you would feel biking there using a scale of 1-4, with 1 meaning you would be "Very Uncomfortable", 2 meaning you are "Somewhat Uncomfortable", 3 meaning you are "Somewhat Comfortable", and 4 meaning you would be "Very Comfortable".	Very Unco	mfortable	Some Uncomf		Some Comfo		Very Con	nfortable	(DON'T	<now)< th=""><th>(REFU</th><th>SED)</th><th>То</th><th>tal</th></now)<>	(REFU	SED)	То	tal
A path or trail that is separate from a street.	7.5%	N=111	7.5%	N=110	21.3%	N=315	62.7%	N=927	0.8%	N=12	0.1%	N=2	100.0%	N=1477
A residential street with one traffic lane in each direction, with traffic speeds of 25 to 30 miles per hour, some on street parking and no bike lane	26.8%	N=396	28.6%	N=422	29.5%	N=436	14.5%	N=215	0.4%	N=6	0.1%	N=2	100.0%	N=1477
What if that street also had bicycle route markings, speed humps, and other things that slow down car traffic	6.6%	N=98	13.8%	N=204	32.3%	N=477	46.5%	N=687	0.6%	N=9	0.1%	N=2	100.0%	N=1477
A neighborhood commercial shopping street with one traffic lane in each direction, with traffic speeds of 25 to 30 miles per hour, with on- street parking and no bike lane	38.8%	N=574	32.2%	N=476	19.5%	N=288	8.5%	N=126	0.7%	N=10	0.2%	N=3	100.0%	N=1477
The same street if a striped bicycle lane was added	8.5%	N=125	14.1%	N=208	40.9%	N=604	35.8%	N=528	0.5%	N=8	0.2%	N=3	100.0%	N=1477

### Table 26: Question #14 with don't know and refused responses

I'm going read a list of places you could hypothetically ride a bike. For each place, please tell me how comfortable you would feel biking there using a scale of 1-4, with 1 meaning you would be "Very Uncomfortable", 2 meaning you are "Somewhat Uncomfortable", 3 meaning you are "Somewhat Comfortable", and 4 meaning you would be "Very Comfortable".	Very Unco	omfortable	Some Uncomf		Some Comfo		Very Con	nfortable	(DON'T	KNOW)	(REFU	ISED)	Το	tal
A major urban street with two traffic lanes in each direction, speeds of 30 to 35 miles per hour and no bike lane	58.5%	N=865	25.6%	N=378	9.2%	N=136	6.0%	N=89	0.5%	N=7	0.2%	N=3	100.0%	N=1477
The same street with a striped bike lane added	13.8%	N=204	24.3%	N=359	36.3%	N=537	25.0%	N=369	0.4%	N=5	0.2%	N=3	100.0%	N=1477
What if it also had a wide bicycle lane separated from traffic by a raised curb	5.1%	N=76	8.3%	N=123	27.5%	N=407	58.4%	N=862	0.4%	N=6	0.2%	N=4	100.0%	N=1477
A major street with two or three traffic lanes in each direction, traffic speeds of 35 to 40 miles per hour, and no bike lane	70.9%	N=1048	19.5%	N=288	6.2%	N=92	3.0%	N=44	0.2%	N=3	0.2%	N=3	100.0%	N=1477
The same street with a striped bike lane added	21.1%	N=312	28.6%	N=422	32.8%	N=484	16.8%	N=248	0.5%	N=8	0.2%	N=4	100.0%	N=1477
What if it also had a wide bicycle lane separated from traffic by a raised curb	9.3%	N=138	12.6%	N=186	31.1%	N=460	46.5%	N=687	0.2%	N=3	0.3%	N=4	100.0%	N=1477

I'm going read a list of places you could hypothetically ride a bike. For each place, please tell me how comfortable you would feel biking there using a scale of 1-4, with 1 meaning you would be "Very Uncomfortable", 2 meaning you are "Somewhat Uncomfortable", 3 meaning you are "Somewhat Comfortable", and 4 meaning you would be "Very Comfortable".	Ve Uncom	-	Some Uncomf		Some Comfo		Very Con	nfortable	-	tal
A path or trail that is separate from a street.	7.6%	N=111	7.5%	N=110	21.5%	N=315	63.3%	N=927	100.0%	N=1463
A residential street with one traffic lane in each direction, with traffic speeds of 25 to 30 miles per hour, some on street parking and no bike lane	27.0%	N=396	28.7%	N=422	29.7%	N=436	14.6%	N=215	100.0%	N=1469
What if that street also had bicycle route markings, speed humps, and other things that slow down car traffic	6.7%	N=98	13.9%	N=204	32.5%	N=477	46.9%	N=687	100.0%	N=1466
A neighborhood commercial shopping street with one traffic lane in each direction, with traffic speeds of 25 to 30 miles per hour, with on- street parking and no bike lane	39.2%	N=574	32.5%	N=476	19.7%	N=288	8.6%	N=126	100.0%	N=1464
The same street if a striped bicycle lane was added	8.5%	N=125	14.2%	N=208	41.2%	N=604	36.0%	N=528	100.0%	N=1466
A major urban street with two traffic lanes in each direction, speeds of 30 to 35 miles per hour and no bike lane	58.9%	N=865	25.8%	N=378	9.2%	N=136	6.0%	N=89	100.0%	N=1467
The same street with a striped bike lane added	13.9%	N=204	24.4%	N=359	36.5%	N=537	25.1%	N=369	100.0%	N=1469
What if it also had a wide bicycle lane separated from traffic by a raised curb	5.1%	N=76	8.4%	N=123	27.7%	N=407	58.7%	N=862	100.0%	N=1468
A major street with two or three traffic lanes in each direction, traffic speeds of 35 to 40 miles per hour, and no bike lane	71.2%	N=1048	19.6%	N=288	6.2%	N=92	3.0%	N=44	100.0%	N=1471
The same street with a striped bike lane added	21.3%	N=312	28.8%	N=422	33.0%	N=484	16.9%	N=248	100.0%	N=1466
What if it also had a wide bicycle lane separated from traffic by a raised curb	9.4%	N=138	12.7%	N=186	31.3%	N=460	46.7%	N=687	100.0%	N=1470

Table 27: Question #14 without don't know and refused responses

Four Types of Transportation Bicyclists	Percent	Number
Strong & Fearless	1.8%	N=35
Enthused & Confident	13.8%	N=262
Interested But Concerned	36.5%	N=693
No Way No How	47.9%	N=909
Total	100.0%	N=1898

#### Table 28: Four Types of Transportation Bicyclists: Dill (Portland) Classification

#### Table 29: Current Cycling Behavior (Dill)

Current Cycling Behavior (Dill)	Percent	Number
Utilitarian Cyclist	12.6%	N=238
Recreation-only Cyclist	14.3%	N=270
Non-cyclist	53.6%	N=1009
Unable to Cycle	19.5%	N=366
Total	100.0%	N=1883

Now I'm going to ask you how important, if at all, you feel it is for your community to do each of the following. What about	Essei	ntial	Ve impo	·	Some impo		Not a impo		(DO KNC		(REFL	JSED)	То	tal
Providing bike trails separated from roadways	17.7%	N=339	38.0%	N=726	34.3%	N=655	9.4%	N=180	0.3%	N=5	0.3%	N=6	100.0%	N=1910
Providing bike lanes separated from vehicles so bikes and cars do not have to share the same lane	22.6%	N=432	46.6%	N=889	24.0%	N=458	6.3%	N=120	0.2%	N=5	0.3%	N=6	100.0%	N=1910
Lowering traffic speeds on community roadways to the improve safety of pedestrians and bicyclists sharing the road	15.2%	N=290	34.1%	N=651	29.5%	N=563	19.7%	N=377	1.1%	N=21	0.4%	N=7	100.0%	N=1910
Providing traffic signals or crossing beacons at intersections and crossings to warn drivers of bike and trail							5.20/				0.404			
users crossing the road	27.0%	N=516	44.1%	N=842	21.4%	N=408	6.3%	N=120	0.8%	N=16	0.4%	N=8	100.0%	N=1910

Table 30: Question #15 with don't know and refused responses

Now I'm going to ask you how important, if at all, you feel it is for your community to do each of the following.										
What about	Esser	ntial	Very im	portant	Somewhat	important	Not at all i	important	То	tal
Providing bike trails separated from roadways	17.8%	N=339	38.2%	N=726	34.5%	N=655	9.5%	N=180	100.0%	N=1899
Providing bike lanes separated from vehicles so bikes and cars do not have to share the same lane	22.8%	N=432	46.8%	N=889	24.1%	N=458	6.3%	N=120	100.0%	N=1899
Lowering traffic speeds on community roadways to the improve safety of pedestrians and bicyclists sharing the road	15.4%	N=290	34.6%	N=651	29.9%	N=563	20.0%	N=377	100.0%	N=1882
Providing traffic signals or crossing beacons at intersections and crossings to warn drivers of bike and	27.20/	N 516	44 70/	N 042	21.0%	N 409	6.49/	N 120	100.0%	N 1996
trail users crossing the road	27.3%	N=516	44.7%	N=842	21.6%	N=408	6.4%	N=120	100.0%	N=1886

Table 31: Question #15 without don't know and refused responses

Which of the following best describes your AGE?	Percent	Number
18-24 years	13.6%	N=259
25-34 years	17.9%	N=341
35-44 years	20.7%	N=396
45-54 years	18.4%	N=352
55-64 years	13.9%	N=266
65+ years	14.2%	N=272
(DON'T KNOW)	0.0%	N=0
(REFUSED)	1.2%	N=24
Total	100.0%	N=1910

### Table 33: Question #17 without don't know and refused responses

Which of the following best describes your AGE?	Percent	Number
18-24 years	13.7%	N=259
25-34 years	18.1%	N=341
35-44 years	21.0%	N=396
45-54 years	18.7%	N=352
55-64 years	14.1%	N=266
65+ years	14.4%	N=272
Total	100.0%	N=1886

Which of the following best describes your RACIAL OR ETHNIC BACKGROUND?	Percent	Number
Hispanic or Latino	23.0%	N=439
African American / Black	14.1%	N=269
Caucasian / White	50.7%	N=969
Asian	3.8%	N=73
American Indian/Alaska Native	0.8%	N=15
Pacific Islander	0.3%	N=5
Or something else? (SPECIFY)	1.9%	N=36
(DON'T KNOW)	0.7%	N=13
(REFUSED)	4.7%	N=90
Total	100.0%	N=1910

#### Table 34: Question #18 with don't know and refused responses

#### Table 35: Question #18 without don't know and refused responses

Which of the following best describes your RACIAL OR ETHNIC BACKGROUND?	Percent	Number	
Hispanic or Latino	24.3%	N=439	
African American / Black	14.9%	N=269	
Caucasian / White	53.6%	N=969	
Asian	4.1%	N=73	
American Indian/Alaska Native	0.8%	N=15	
Pacific Islander	0.3%	N=5	
Or something else? (SPECIFY)	2.0%	N=36	
Total	100.0%	N=1807	

Which of the following best describes your total annual HOUSEHOLD INCOME?	Percent	Number		
Under \$25,000	11.4%	N=218		
\$25,000 - \$49,999	18.2%	N=348		
\$50,000 - \$74,999	17.9%	N=342		
\$75,000 - \$99,999	11.9%	N=227		
\$100,000 or more	22.9%	N=438		
(DON'T KNOW)	5.2%	N=100		
(REFUSED)	12.4%	N=237		
Total	100.0%	N=1910		

#### Table 36: Question #19 with don't know and refused responses

#### Table 37: Question #19 without don't know and refused responses

Which of the following best describes your total annual HOUSEHOLD INCOME?	Percent	Number
Under \$25,000	13.9%	N=218
\$25,000 - \$49,999	22.1%	N=348
\$50,000 - \$74,999	21.7%	N=342
\$75,000 - \$99,999	14.4%	N=227
\$100,000 or more	27.9%	N=438
Total	100.0%	N=1573

#### Table 38: Question #21

GENDER (by observation)	Percent	Number
Male	49.2%	N=939
Female	50.8%	N=971
Total	100.0%	N=1910

### Table 39: Language of Interview

Language of Interview	Percent	Number
English	93.7%	N=1790
Spanish	6.3%	N=120
Total	100.0%	N=1910

#### Table 40: County of Residence

County of Residence	Percent	Number
Collin County	12.4%	N=237
Dallas County	36.4%	N=695
Denton County	10.9%	N=208
Rockwall County	1.2%	N=23
Tarrant County	27.9%	N=534
Rural Counties	11.1%	N=212
Total	100.0%	N=1910

Percent of Respondents within Half-Mile of Bicycle Facilities	Percent	Number	
	Within Half Mile of Bicycle Facility	29.7%	N=567
	NOT within Half Mile	53.0%	N=1012
Is Respondent within Half Mile of a Bicycle Facility?	Refused Location or Could Not Locate	17.3%	N=330
-	Total	100.0%	N=1910
	Within Half Mile of Off-Street Bicycle Facility	23.3%	N=446
	NOT within Half Mile	59.4%	N=1134
Is Respondent within Half Mile of an Off-Street Bicycle Facility?	Refused Location or Could Not Locate	17.3%	N=330
	Total	100.0%	N=1910
	Within Half Mile of On-Street Bicycle Facility	10.5%	N=200
	NOT within Half Mile	72.2%	N=1380
Is Respondent within Half Mile of an On-Street Bicycle Facility?	Refused Location or Could Not Locate	17.3%	N=330
	Total	100.0%	N=1910

Table 41: Percen	of Respondents	within Half-Mile	of Bicycle Facilities

Percent of Respondents within Half-Mile of Bicycle Facilities	Percent	Number	
	Within Half Mile of Bicycle Facility	35.9%	N=567
Is Respondent within Half Mile of a Bicycle Facility?	NOT within Half Mile	64.1%	N=1012
_	Total	100.0%	N=1580
Is Respondent within Half Mile of an Off-Street Bicycle Facility?	Within Half Mile of Off-Street Bicycle Facility	28.2%	N=446
	NOT within Half Mile	71.8%	N=1134
	Total	100.0%	N=1580
	Within Half Mile of On-Street Bicycle Facility	12.6%	N=200
Is Respondent within Half Mile of an On-Street Bicycle Facility?	NOT within Half Mile	87.4%	N=1380
	Total	100.0%	N=1580

## **Appendix B: Crosstabulations of Survey Results by Respondent Characteristics**

ANOVA and chi-square tests of significance were applied to these comparisons of survey questions. A "p-value" of 0.05 or less indicates that there is less than a 5% probability that differences observed between subgroups are due to chance; or in other words, a greater than 95% probability that the differences observed are "real." Cells shaded grey indicate statistically significant differences ( $p \le 0.05$ ) between at least two of the subgroups. The weighted dataset was used to generate these tables and to conduct the tests of statistical significance.

### Selected Survey Results by SubArea within NCTCOG Region

Did you ever ride a bicycle, even once, in the past 12 months?	Collin County	Dallas County	Denton County	Rockwall County	Tarrant County	"Core Counties"	Rural Counties	Overall
No	57.4%	65.2%	57.3%	57.3%	65.3%	63.1%	68.8%	63.7%
Yes	42.6%	34.8%	42.7%	42.7%	34.7%	36.9%	31.2%	36.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 42: Outstien #1 by County of Desidence

#### Table 44: Question #2 by County of Residence Thinking about the past year, which of the following BEST describes your bicycle-riding behavior-Only asked of those who had ever bicycled "Core Collin Dallas Denton Rockwall Tarrant Rural Counties" in last 12 months County County County County County Counties Overall You ride daily 3.3% 7.2% 9.3% 0.6% 4.5% 6.0% 1.0% 5.5% A few times a week 15.8% 26.0% 19.8% 31.4% 20.1% 21.8% 13.6% 21.0% A few times a month 37.6% 29.1% 39.5% 32.0% 36.1% 34.0% 28.3% 33.5% 28.5% 24.2% 15.8% 22.9% 34.6% 24.2% A few times a year 11.8% 23.1% You seldom ride 10.3% 9.0% 10.8% 14.3% 11.0% 10.2% 17.7% 10.9% You are currently NOT a bike rider 4.4% 4.5% 4.8% 10.0% 5.4% 4.9% 4.7% 4.9% Total 100.0% 100.0% 100.0% 100.0% 100.0% 100.0% 100.0% 100.0%

Thinking about the past year, which of the following BEST describes your bicycle-riding behavior— Those who had not bicycled in last 12 months considered "Not a rider"	Collin County	Dallas County	Denton County	Rockwall County	Tarrant County	"Core Counties"	Rural Counties	Overall
You ride daily	1.4%	2.5%	4.0%	0.2%	1.6%	2.2%	0.3%	2.0%
A few times a week	6.7%	9.0%	8.4%	13.4%	7.0%	8.1%	4.2%	7.6%
A few times a month	16.0%	10.1%	16.9%	13.7%	12.5%	12.6%	8.8%	12.1%
A few times a year	12.2%	8.4%	6.7%	5.0%	7.9%	8.5%	10.8%	8.8%
You seldom ride	4.4%	3.1%	4.6%	6.1%	3.8%	3.7%	5.5%	3.9%
You are currently NOT a bike rider	59.3%	66.8%	59.4%	61.5%	67.2%	64.9%	70.3%	65.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

 Table 45: Question #2 by County of Residence

In the last 30 days, about how often, if at all, did you bicycle for work, school, shopping or to get to another destination? Only asked of those who had ever bicycled in last 12 months or were not a current rider	Collin County	Dallas County	Denton County	Rockwall County	Tarrant County	"Core Counties"	Rural Counties	Overall
None	68.8%	51.0%	67.6%	56.2%	73.8%	63.0%	71.8%	63.8%
Once or twice	14.5%	19.5%	12.3%	26.8%	13.2%	15.9%	13.9%	15.7%
3 or 4 times	3.5%	7.2%	2.7%	3.8%	3.8%	4.9%	6.1%	5.0%
About once or twice a week	4.9%	7.9%	7.9%	2.4%	1.9%	5.6%	0.0%	5.0%
3 or 4 times a week	7.9%	3.9%	3.9%	7.9%	6.1%	5.3%	4.6%	5.2%
5 or more times a week	0.3%	10.5%	5.6%	3.0%	1.3%	5.3%	3.6%	5.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

### Table 46: Question #3 by County of Residence

#### Table 47: Question #3 by County of Residence

In the last 30 days, about how often, if at all, did you bicycle for work, school, shopping or to get to another destination? Those who had not bicycled in last 12 months considered "Not a rider"	Collin County	Dallas County	Denton County	Rockwall County	Tarrant County	"Core Counties"	Rural Counties	Overall
None	87.3%	83.7%	86.9%	83.2%	91.4%	87.0%	91.6%	87.5%
Once or twice	5.9%	6.5%	4.9%	10.3%	4.3%	5.6%	4.1%	5.4%
3 or 4 times	1.4%	2.4%	1.1%	1.4%	1.2%	1.7%	1.8%	1.7%
About once or twice a week	2.0%	2.6%	3.2%	0.9%	0.6%	2.0%	0.0%	1.7%
3 or 4 times a week	3.2%	1.3%	1.6%	3.0%	2.0%	1.8%	1.4%	1.8%
5 or more times a week	0.1%	3.5%	2.3%	1.2%	0.4%	1.9%	1.1%	1.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

In the last 30 days, about how often, if at all, did you bicycle for fun or exercise? Only asked of those who had ever bicycled in last 12 months or were not a current rider	Collin County	Dallas County	Denton County	Rockwall County	Tarrant County	"Core Counties"	Rural Counties	Overall
None	22.2%	24.4%	23.3%	13.0%	27.0%	24.5%	32.0%	25.2%
Once or twice	40.6%	29.2%	31.9%	47.3%	33.9%	33.1%	33.9%	33.1%
3 or 4 times	10.7%	12.7%	18.7%	13.8%	19.3%	15.2%	12.6%	14.9%
About once or twice a week	13.1%	13.9%	12.1%	5.1%	10.3%	12.3%	9.9%	12.1%
3 or 4 times a week	9.1%	6.7%	6.8%	14.8%	2.8%	6.1%	5.1%	6.0%
5 or more times a week	4.3%	13.2%	7.1%	6.0%	6.8%	8.9%	6.5%	8.7%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 48: Question #4 by County of Residence

#### Table 49: Question #4 by County of Residence

In the last 30 days, about how often, if at all, did you bicycle for fun or exercise? Those who had not bicycled in last 12 months considered "Not a rider"	Collin County	Dallas County	Denton County	Rockwall County	Tarrant County	"Core Counties"	Rural Counties	Overall
None	68.3%	74.9%	68.9%	66.5%	76.1%	73.5%	79.8%	74.2%
Once or twice	16.5%	9.7%	12.9%	18.2%	11.1%	11.6%	10.1%	11.4%
3 or 4 times	4.4%	4.2%	7.6%	5.3%	6.3%	5.3%	3.8%	5.2%
About once or twice a week	5.3%	4.6%	4.9%	2.0%	3.4%	4.3%	2.9%	4.2%
3 or 4 times a week	3.7%	2.2%	2.8%	5.7%	0.9%	2.1%	1.5%	2.1%
5 or more times a week	1.7%	4.4%	2.9%	2.3%	2.2%	3.1%	1.9%	3.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Over the past year, on average, how many days did you ride your bicycle during each of these seasons? What about Only asked of those who had ever bicycled in last 12 months and were currently a rider Percent riding once a week or more	Collin County	Dallas County	Denton County	Rockwall County	Tarrant County	"Core Counties"	Rural Counties	Overall
What about in the Spring, the months of March, April and May?	41.7%	53.4%	41.1%	56.8%	42.4%	46.5%	28.6%	44.8%
What about in Summer, the months of June, July and August?	40.4%	39.6%	39.1%	51.3%	43.5%	41.0%	31.1%	40.0%
What about in the Fall, the months of September, October and November?	40.8%	40.6%	47.7%	50.0%	39.4%	41.5%	19.6%	39.4%
What about in the Winter, the months of December, January and February?	20.1%	21.6%	20.9%	26.3%	21.3%	21.2%	11.0%	20.2%

 Table 50: Question #5 by County of Residence

Over the past year, on average, how many days did you ride your bicycle during each of these seasons? What about Those who had not bicycled in last 12 months or were not currently riders considered "Never" Percent riding once a week or more	Collin County	Dallas County	Denton County	Rockwall County	Tarrant County	"Core Counties"	Rural Counties	Overall
What about in the Spring, the months of March, April and May?	16.9%	17.0%	16.4%	21.8%	13.5%	15.9%	8.4%	15.1%
What about in Summer, the months of June, July and August?	16.3%	12.7%	15.8%	19.7%	13.9%	14.1%	9.2%	13.5%
What about in the Fall, the months of September, October and November?	16.6%	13.0%	19.3%	19.2%	12.2%	14.2%	5.8%	13.2%
What about in the Winter, the months of December, January and February?	8.2%	7.0%	8.5%	10.1%	6.7%	7.3%	3.3%	6.9%

Table 51: Question #5 by County of Residence

How many miles is your AVERAGE bicycle ride? Only asked of those who had ever bicycled in last 12 months and were currently a rider	Collin County	Dallas County	Denton County	Rockwall County	Tarrant County	"Core Counties"	Rural Counties	Overall
less than a mile	10.5%	12.4%	17.7%	5.7%	5.4%	10.6%	11.2%	10.6%
one mile	8.9%	10.3%	6.9%	5.2%	8.0%	8.8%	17.4%	9.7%
two miles	8.4%	17.1%	13.3%	15.1%	9.5%	12.7%	14.0%	12.9%
3 to 4 miles	16.4%	21.4%	22.2%	10.0%	27.5%	22.4%	31.3%	23.3%
5 miles	15.1%	14.6%	14.7%	14.8%	19.6%	16.3%	11.1%	15.8%
5 to 10 miles	23.1%	13.3%	17.4%	21.5%	11.1%	15.0%	6.6%	14.1%
11 to 15 miles	4.1%	3.6%	3.8%	4.0%	9.0%	5.4%	6.4%	5.5%
16 to 20 miles	5.4%	1.4%	1.5%	1.9%	3.7%	2.8%	2.0%	2.7%
more than 20 miles	7.9%	5.8%	2.5%	21.9%	6.3%	6.1%	0.0%	5.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

#### Table 52: Question #6 by County of Residence

On the days you ride a bicycle, about how many miles on average do you ride? Only asked of those who had ever bicycled in last 12 months and were currently a rider	Collin County	Dallas County	Denton County	Rockwall County	Tarrant County	"Core Counties"	Rural Counties	Overall
less than a mile	9.5%	12.3%	8.3%	8.0%	9.3%	10.2%	15.2%	10.8%
one mile	10.2%	7.6%	11.9%	6.4%	12.7%	10.2%	17.2%	11.0%
two miles	8.0%	15.3%	14.6%	20.1%	11.7%	12.9%	18.2%	13.5%
3 to 4 miles	18.8%	16.3%	25.8%	9.7%	14.9%	17.6%	24.8%	18.4%
5 miles	19.9%	19.5%	13.1%	12.5%	16.4%	17.5%	7.9%	16.5%
5 to 10 miles	15.8%	15.4%	15.7%	9.4%	15.9%	15.6%	8.6%	14.8%
11 to 15 miles	4.8%	7.9%	6.9%	10.0%	12.9%	8.8%	6.3%	8.5%
16 to 20 miles	5.1%	2.7%	1.3%	10.0%	1.0%	2.5%	2.0%	2.4%
more than 20 miles	8.1%	2.9%	2.5%	13.9%	5.1%	4.6%	0.0%	4.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

#### Table 53: Question #7 by County of Residence

#### Table 54: Question #6 and #7 Averages by County of Residence

Average miles ridden on bicycle Only asked of those who had ever bicycled in last 12 months and were currently a rider	Collin County	Dallas County	Denton County	Rockwall County	Tarrant County	"Core Counties"	Rural Counties	Overall
How many miles is your AVERAGE bicycle ride?	7.98	7.18	5.36	14.06	9.36	7.84	3.86	7.45
On the days you ride a bicycle, about how many miles on average do you ride?	7.73	5.71	5.28	11.70	6.59	6.36	3.75	6.09

How often, if at all, would you say you wear a helmet when you ride a bicycle? Only asked of those who had ever bicycled in last 12 months and were currently a rider	Collin County	Dallas County	Denton County	Rockwall County	Tarrant County	"Core Counties"	Rural Counties	Overall
Never	38.5%	41.0%	41.3%	45.6%	38.1%	39.8%	65.3%	42.3%
About 25% of the time	5.9%	8.2%	5.7%	4.4%	9.1%	7.7%	5.7%	7.5%
About half the time	6.3%	8.2%	2.1%	2.4%	5.0%	6.0%	0.0%	5.5%
About 75% of the time	2.4%	2.5%	1.5%	0.6%	1.3%	1.9%	2.1%	2.0%
Always or almost always	46.8%	40.1%	49.4%	47.0%	46.5%	44.5%	27.0%	42.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

# Table 55: Question #8 by County of Residence

#### Table 56: Question #9 by County of Residence

How safe or unsafe do you feel when you ride a bicycle in your community? Only asked of those who had ever bicycled in last 12 months and were currently a rider	Collin County	Dallas County	Denton County	Rockwall County	Tarrant County	"Core Counties"	Rural Counties	Overall
Very unsafe	8.8%	11.8%	9.0%	12.4%	5.3%	9.0%	8.5%	9.0%
Somewhat unsafe	15.0%	18.4%	8.4%	13.8%	16.5%	15.8%	21.3%	16.3%
Somewhat safe, or	30.9%	41.0%	34.0%	40.2%	35.3%	36.7%	24.0%	35.5%
Very safe?	45.3%	28.8%	48.6%	33.6%	42.9%	38.5%	46.2%	39.2%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Now I want to ask you a availability of different bicycles in your commu For each, I want you to there are too many, abo or too few. What about	kinds of facilities for nity. tell me if you think	Collin County	Dallas County	Denton County	Rockwall County	Tarrant County	"Core Counties"	Rural Counties	Overall
	Too many	2.1%	0.7%	1.4%	2.9%	1.9%	1.4%	1.6%	1.4%
The number or amount of off-street bicycle paths and	About the right amount, or	45.2%	34.8%	39.7%	27.3%	38.5%	38.0%	23.6%	36.5%
trails	Too few	52.7%	64.5%	58.9%	69.8%	59.6%	60.6%	74.8%	62.1%
	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Too many	7.6%	3.4%	2.2%	1.8%	4.1%	4.0%	3.0%	3.9%
The number or amount of on-street	About the right amount, or	28.9%	20.3%	22.7%	18.0%	28.9%	24.5%	15.6%	23.6%
dedicated bicycle	Too few	63.6%	76.3%	75.1%	80.2%	67.0%	71.4%	81.4%	72.5%
	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Too many	8.3%	4.3%	5.6%	2.1%	2.8%	4.5%	2.2%	4.3%
The number or amount of bike-	About the right amount, or	44.1%	28.0%	33.8%	30.8%	36.3%	33.8%	25.3%	32.9%
friendly streets	Too few	47.6%	67.7%	60.6%	67.1%	60.9%	61.7%	72.4%	62.9%
	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
The number of	Too many	3.8%	0.7%	0.6%	0.8%	1.6%	1.4%	0.3%	1.3%
The number of places to park bicycles, like bike	About the right amount, or	26.9%	19.8%	21.8%	18.7%	29.2%	24.0%	21.9%	23.8%
racks and storage	Too few	69.3%	79.5%	77.6%	80.5%	69.2%	74.6%	77.8%	74.9%
lockers	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

# Table 57: Question #10 by County of Residence

Would you say you strongly agree, somewhat agree, somewhat disagree or strongly disagree with the each of the following statements about your neighborhood. Percent who somewhat or strongly agree	Collin County	Dallas County	Denton County	Rockwall County	Tarrant County	"Core Counties"	Rural Counties	Overall
There are off-street bike trails or paved paths in or near my neighborhood that are easy to								
get to.	63.3%	51.4%	63.8%	46.3%	55.3%	55.8%	31.8%	53.2%
There are bike lanes that are easy to get to.	41.1%	33.7%	36.0%	24.0%	44.2%	38.2%	19.7%	36.2%
There are quiet streets, without bike lanes, that are easy to get to on a bike.	74.8%	58.2%	68.9%	66.7%	67.9%	65.0%	57.3%	64.1%
There is a high crime rate in my neighborhood.	7.8%	36.4%	4.1%	8.4%	21.4%	23.2%	5.3%	21.2%
There is so much traffic along the street I live on that it would make it difficult or unpleasant to bike.	37.7%	54.8%	33.6%	30.4%	45.1%	46.4%	40.2%	45.8%
There is so much traffic along nearby streets that it would make it difficult or unpleasant to bike.	54.8%	64.3%	51.3%	59.8%	56.9%	59.0%	54.7%	58.5%
The speed of traffic on most nearby streets is usually slow.	42.3%	40.5%	46.7%	42.1%	40.1%	41.4%	48.2%	42.1%
Most drivers exceed the posted speed limits in my neighborhood.	62.0%	65.3%	63.8%	64.2%	70.9%	66.4%	61.7%	65.9%
Streets in my neighborhood are poorly maintained.	17.3%	44.1%	24.4%	29.0%	30.4%	33.4%	48.5%	35.1%

Table 58: Question #11 by County of Residence

Would you say you strongly agree, somewhat agree, somewhat disagree or strongly disagree with the following statement: "I would like to travel by bike more than I do now."	Collin County	Dallas County	Denton County	Rockwall County	Tarrant County	"Core Counties"	Rural Counties	Overall
Strongly AGREE	27.1%	38.8%	19.5%	28.2%	27.1%	31.0%	24.4%	30.3%
Somewhat AGREE	27.3%	21.2%	28.1%	25.1%	26.9%	24.7%	23.7%	24.6%
Somewhat DISAGREE	13.1%	11.7%	23.5%	12.3%	14.7%	14.3%	13.1%	14.2%
Strongly DISAGREE	32.6%	28.3%	28.9%	34.3%	31.3%	30.0%	38.8%	31.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

# Table 59: Question #12 by County of Residence

Do any of the following prevent you from riding a bike more often than you currently do— Percent saying "yes"	Collin County	Dallas County	Denton County	Rockwall County	Tarrant County	"Core Counties"	Rural Counties	Overall
I am not physically able	15.3%	22.5%	18.9%	24.7%	24.1%	21.6%	32.2%	22.8%
I don't own a bike	34.5%	40.5%	37.6%	32.2%	34.9%	37.4%	37.2%	37.4%
My bike is not in good working condition	18.0%	23.7%	17.0%	9.9%	18.2%	20.1%	14.8%	19.6%
I do not feel safe	32.7%	42.4%	26.8%	28.9%	28.0%	34.5%	31.7%	34.2%
Biking lanes, trails, and paths are not available	38.4%	50.8%	43.2%	53.2%	47.0%	46.8%	60.6%	48.2%
Biking lanes, trails, and paths are not connected	47.1%	58.5%	51.2%	59.5%	45.4%	51.9%	60.3%	52.7%
It takes too long	32.3%	40.4%	34.6%	38.9%	31.3%	35.6%	30.0%	35.1%
Destinations are too far	47.4%	44.5%	55.2%	58.7%	43.9%	46.3%	60.1%	47.6%
Existing bikeways are in poor condition	13.5%	28.5%	25.2%	25.8%	20.3%	23.3%	33.6%	24.3%
No showers or place to freshen up at my destination	40.1%	52.0%	47.5%	44.3%	49.9%	49.0%	52.0%	49.3%
Lack of secure bike parking	47.0%	59.5%	52.7%	57.6%	49.9%	53.8%	51.4%	53.6%
Weather is too HOT	63.5%	69.7%	69.6%	69.4%	57.2%	64.9%	59.0%	64.3%
Weather is too COLD	25.8%	28.4%	30.1%	27.1%	22.5%	26.4%	27.2%	26.5%
It doesn't fit my lifestyle	39.5%	36.3%	41.1%	38.8%	32.7%	36.4%	40.6%	36.8%

# Table 60: Question #13 by County of Residence

I'm going read a list of places you could hypothetically ride a bike. For each place, please tell me how comfortable you would feel biking there using a scale of 1-4, with 1 meaning you would be "Very Uncomfortable", 2 meaning you are			<u>14 by county</u>					
"Somewhat Uncomfortable", 3 meaning you are "Somewhat Comfortable", and 4 meaning you would be "Very Comfortable". Percent saying very or somewhat comfortable	Collin County	Dallas County	Denton County	Rockwall County	Tarrant County	"Core Counties"	Rural Counties	Overall
A path or trail that is separate from a street.	88.8%	83.3%	86.0%	86.3%	85.2%	85.1%	82.9%	84.9%
A residential street with one traffic lane in each direction, with traffic speeds of 25 to 30 miles per hour, some on street parking and no bike lane	53.0%	37.7%	47.6%	54.2%	45.3%	43.8%	49.2%	44.3%
What if that street also had bicycle route markings, speed humps, and other things that slow down car traffic	78.6%	75.5%	79.3%	85.2%	87.2%	80.1%	72.6%	79.4%
A neighborhood commercial shopping street with one traffic lane in each direction, with traffic speeds of 25 to 30 miles per hour, with on- street parking and no bike lane	32.4%	25.9%	24.5%	28.4%	32.7%	28.8%	23.8%	28.3%
The same street if a striped bicycle lane was added	78.0%	77.0%	74.3%	77.7%	78.6%	77.3%	76.8%	77.3%
A major urban street with two traffic lanes in each direction, speeds of 30 to 35 miles per hour and no bike lane	17.4%	16.6%	11.5%	18.8%	15.1%	15.6%	11.9%	15.3%
The same street with a striped bike lane added	63.7%	61.3%	60.0%	62.6%	61.4%	61.6%	62.7%	61.7%
What if it also had a wide bicycle lane separated from traffic by a raised curb	87.3%	88.7%	86.9%	85.6%	82.7%	86.4%	87.1%	86.5%

# Table 61: Question #14 by County of Residence

I'm going read a list of places you could hypothetically ride a bike. For each place, please tell me how comfortable you would feel biking there using a scale of 1-4, with 1 meaning you would be "Very Uncomfortable", 2 meaning you are "Somewhat Uncomfortable", 3 meaning you are "Somewhat Comfortable", and 4 meaning you would be "Very Comfortable". Percent saying very or somewhat comfortable	Collin County	Dallas County	Denton County	Rockwall County	Tarrant County	"Core Counties"	Rural Counties	Overall
A major street with two or three traffic lanes in each direction, traffic speeds of 35 to 40								
miles per hour, and no bike lane	9.6%	9.2%	8.1%	11.5%	10.6%	9.6%	5.8%	9.2%
The same street with a striped bike lane								
added	49.1%	53.8%	44.5%	55.2%	48.4%	50.3%	47.2%	50.0%
What if it also had a wide bicycle lane separated from traffic by a raised curb	74.2%	81.3%	84.7%	79.6%	73.6%	78.3%	74.7%	78.0%

Four Types of Transportation Bicyclists	Collin County	Dallas County	Denton County	Rockwall County	Tarrant County	"Core Counties"	Rural Counties	Overall
Strong & Fearless	1.9%	1.5%	0.9%	1.5%	2.3%	1.7%	2.5%	1.8%
Enthused & Confident	17.1%	14.6%	12.5%	13.7%	13.4%	14.3%	9.8%	13.8%
Interested But Concerned	33.9%	41.6%	32.6%	36.9%	35.5%	37.5%	28.5%	36.5%
No Way No How	47.1%	42.3%	54.0%	47.9%	48.8%	46.5%	59.2%	47.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 62: Four Types of Transportation Bicyclists by County of Residence

# Table 63: Current Cycling Behavior (Dill) by County of Residence

Current Cycling Behavior (Dill)	Collin County	Dallas County	Denton County	Rockwall County	Tarrant County	"Core Counties"	Rural Counties	Overall
	,	,	,	,	,			
Utilitarian Cyclist	12.9%	16.4%	13.2%	17.0%	8.7%	13.1%	8.7%	12.6%
Recreation-only Cyclist	19.7%	9.6%	20.3%	16.7%	16.4%	14.5%	12.6%	14.3%
Non-cyclist	56.1%	55.6%	51.4%	44.9%	52.9%	54.1%	49.0%	53.6%
Unable to Cycle	11.3%	18.4%	15.1%	21.4%	22.1%	18.2%	29.8%	19.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Now I'm going to ask you how important, if at all, you feel it is for your community to do each of the following. What about Percent rating as essential or very important	Collin County	Dallas County	Denton County	Rockwall County	Tarrant County	"Core Counties"	Rural Counties	Overall
Providing bike trails separated from roadways	61.5%	68.4%	58.2%	58.8%	70.9%	66.8%	55.1%	65.5%
Providing bike lanes separated from vehicles so bikes and cars do not have to share the same lane	70.3%	81.7%	69.1%	60.7%	78.7%	77.3%	64.2%	75.9%
Lowering traffic speeds on community roadways to the improve safety of pedestrians and bicyclists sharing the road	64.2%	74.0%	66.3%	76.1%	71.8%	71.0%	62.2%	70.1%
Providing traffic signals or crossing beacons at intersections and crossings to warn drivers of bike and trail users crossing the road	74.3%	80.6%	76.4%	72.9%	80.1%	79.0%	73.6%	78.4%

 Table 64: Question #15 by County of Residence

# Selected Survey Results by Age of Respondent

Table 65: Question #1 by Age of Respondent											
<b>18-24 25-34 35-44 45-54 55-64</b>											
Did you ever ride a bicycle, even once, in the past 12 months?	years	years	years	years	years	65+ years	Overall				
No	57.7%	66.2%	60.9%	50.6%	67.3%	83.2%	63.7%				
Yes	42.3%	33.8%	39.1%	49.4%	32.7%	16.8%	36.3%				
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%				

Table 66:	Question #2 b	y Age of Res	pondent				
Thinking about the past year, which of the following BEST describes your bicycle-riding behavior— Only asked of those who had ever bicycled in last 12 months	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65+ years	Overall
You ride daily	7.7%	1.5%	4.1%	6.3%	7.9%	6.9%	5.5%
A few times a week	18.7%	15.0%	19.6%	18.7%	38.9%	21.3%	21.0%
A few times a month	37.1%	42.9%	36.4%	31.3%	20.2%	28.5%	33.5%
A few times a year	24.7%	23.4%	32.2%	21.3%	18.5%	20.3%	24.2%
You seldom ride	8.5%	10.9%	4.3%	16.0%	10.1%	19.2%	10.9%
You are currently NOT a bike rider	3.2%	6.2%	3.4%	6.5%	4.4%	3.8%	4.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Thinking about the past year, which of the following BEST describes your bicycle-riding behavior— Those who had not bicycled in last 12 months considered "Not a rider"	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65+ years	Overall
You ride daily	3.3%	0.5%	1.6%	3.1%	2.6%	1.2%	2.0%
A few times a week	7.9%	5.1%	7.7%	9.2%	12.7%	3.6%	7.6%
A few times a month	15.7%	14.5%	14.2%	15.4%	6.6%	4.8%	12.1%
A few times a year	10.5%	7.9%	12.6%	10.5%	6.1%	3.4%	8.8%
You seldom ride	3.6%	3.7%	1.7%	7.9%	3.3%	3.2%	3.9%
You are currently NOT a bike rider	59.1%	68.3%	62.2%	53.8%	68.7%	83.8%	65.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 67: Question #2 by Age of Respondent

In the last 30 days, about how often, if at all, did you bicycle for work, school, shopping or to get to another destination? Only asked of those who had ever bicycled in last 12 months and were not a current rider	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65+ years	Overall
None	41.1%	64.3%	68.7%	66.0%	66.4%	87.1%	63.8%
Once or twice	29.4%	23.8%	11.6%	12.1%	8.7%	3.3%	15.7%
3 or 4 times	8.8%	1.2%	7.5%	3.6%	5.9%	1.5%	5.0%
About once or twice a week	7.2%	5.5%	2.6%	0.2%	18.0%	1.0%	5.0%
3 or 4 times a week	5.9%	3.9%	4.8%	9.4%	0.1%	1.8%	5.2%
5 or more times a week	7.6%	1.3%	4.8%	8.7%	1.1%	5.2%	5.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

#### Table 68: Question #3 by Age of Respondent

#### Table 69: Question #3 by Age of Respondent

In the last 30 days, about how often, if at all, did you bicycle for work, school, shopping or to get to another destination? Those who had not bicycled in last 12 months considered "Not a rider"	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65+ years	Overall
None	76.0%	88.7%	88.2%	84.3%	89.5%	97.9%	87.5%
Once or twice	12.0%	7.5%	4.4%	5.6%	2.7%	0.5%	5.4%
3 or 4 times	3.6%	0.4%	2.8%	1.7%	1.8%	0.2%	1.7%
About once or twice a week	3.0%	1.8%	1.0%	0.1%	5.6%	0.2%	1.7%
3 or 4 times a week	2.4%	1.2%	1.8%	4.4%	0.0%	0.3%	1.8%
5 or more times a week	3.1%	0.4%	1.8%	4.0%	0.3%	0.8%	1.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

In the last 30 days, about how often, if at all, did you bicycle for fun or exercise? Only asked of those who had ever bicycled in last 12 months and were not a current rider	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65+ years	Overall
None	30.0%	20.3%	18.1%	28.1%	25.8%	36.2%	25.2%
Once or twice	37.1%	36.9%	37.0%	37.8%	11.3%	24.2%	33.1%
3 or 4 times	11.2%	16.6%	14.7%	15.0%	18.2%	16.1%	14.9%
About once or twice a week	14.4%	15.8%	9.3%	6.4%	25.5%	3.3%	12.1%
3 or 4 times a week	1.7%	6.5%	7.9%	3.9%	8.8%	11.7%	6.0%
5 or more times a week	5.7%	3.9%	13.1%	8.9%	10.5%	8.6%	8.7%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

## Table 70: Question #4 by Age of Respondent

 Table 71: Question #4 by Age of Respondent

In the last 30 days, about how often, if at all, did you bicycle for fun or exercise? Those who had not bicycled in last 12 months considered "Not a rider"	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65+ years	Overall
None	71.3%	74.7%	69.1%	66.8%	76.8%	89.7%	74.2%
Once or twice	15.2%	11.7%	14.0%	17.5%	3.5%	3.9%	11.4%
3 or 4 times	4.6%	5.3%	5.5%	6.9%	5.7%	2.6%	5.2%
About once or twice a week	5.9%	5.0%	3.5%	2.9%	8.0%	0.5%	4.2%
3 or 4 times a week	0.7%	2.1%	3.0%	1.8%	2.8%	1.9%	2.1%
5 or more times a week	2.3%	1.2%	4.9%	4.1%	3.3%	1.4%	3.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Over the past year, on average, how many days did you ride your bicycle during each of these seasons? What about Only asked of those who had ever bicycled in last 12 months and were currently a rider Percent riding once a week or more	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65+ years	Overall
What about in the Spring, the months of March, April and May?	44.7%	33.1%	45.6%	47.3%	52.7%	48.5%	44.8%
What about in Summer, the months of June, July and August?	44.6%	32.5%	33.8%	46.5%	40.7%	44.6%	40.0%
What about in the Fall, the months of September, October and November?	38.3%	33.2%	32.6%	46.7%	39.3%	53.6%	39.4%
What about in the Winter, the months of December, January and February?	20.0%	11.3%	21.6%	22.4%	18.0%	34.6%	20.2%

# Table 72: Question #5 by Age of Respondent

Over the past year, on average, how many days did you ride your bicycle during each of these seasons? What about Those who had not bicycled in last 12 months or were not currently riders considered "Never" Percent riding once a week or more	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65+ years	Overall
What about in the Spring, the months of March, April and May?	18.1%	10.2%	16.7%	21.8%	15.5%	7.5%	15.1%
What about in Summer, the months of June, July and August?	18.3%	10.0%	12.3%	21.4%	12.0%	7.1%	13.5%
What about in the Fall, the months of September, October and November?	15.7%	10.5%	11.7%	21.1%	11.6%	8.6%	13.2%
What about in the Winter, the months of December, January and February?	8.2%	3.6%	7.9%	10.4%	5.2%	5.5%	6.9%

How many miles is your AVERAGE bicycle ride? Only asked of those who had ever bicycled in last 12 months	18-24	25-34	35-44	45-54	55-64	CE i visore	Querell
and were currently a rider	years	years	years	years	years	65+ years	Overall
less than a mile	8.6%	14.3%	12.6%	10.7%	4.0%	12.9%	10.6%
one mile	19.9%	7.9%	10.3%	6.6%	5.1%	7.1%	9.7%
two miles	13.7%	7.3%	15.3%	16.0%	7.1%	14.7%	12.9%
3 to 4 miles	34.2%	38.5%	18.1%	12.5%	26.3%	12.9%	23.3%
5 miles	6.7%	8.2%	17.2%	21.6%	20.2%	20.6%	15.8%
5 to 10 miles	8.5%	11.6%	18.2%	14.8%	16.6%	10.4%	14.1%
11 to 15 miles	0.8%	5.8%	2.5%	9.1%	7.7%	9.2%	5.5%
16 to 20 miles	2.2%	4.4%	1.9%	0.5%	4.3%	7.5%	2.7%
more than 20 miles	5.4%	1.9%	3.7%	8.2%	8.6%	4.7%	5.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 74: Question #6 by Age of Respondent

On the days you ride a bicycle, about how many miles on average do you ride?							
Only asked of those who had ever bicycled in last 12 months	18-24	25-34	35-44	45-54	55-64		
and were currently a rider	years	years	years	years	years	65+ years	Overall
less than a mile	9.5%	12.9%	11.5%	11.2%	5.0%	17.1%	10.8%
one mile	9.4%	13.5%	13.9%	8.8%	12.5%	4.4%	11.0%
two miles	23.5%	8.0%	9.2%	16.9%	6.2%	18.0%	13.5%
3 to 4 miles	28.4%	19.3%	17.4%	13.2%	19.5%	14.5%	18.4%
5 miles	8.0%	20.9%	17.2%	17.1%	19.6%	10.2%	16.5%
5 to 10 miles	7.8%	16.4%	21.3%	11.1%	19.7%	12.4%	14.8%
11 to 15 miles	9.5%	5.4%	4.0%	14.1%	7.3%	9.7%	8.5%
16 to 20 miles	3.1%	2.4%	1.1%	0.8%	4.2%	8.5%	2.4%
more than 20 miles	0.8%	1.2%	4.2%	6.8%	6.0%	5.2%	4.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

# Table 75: Question #7 by Age of Respondent

#### Table 76: Question #6 and #7 Averages by Age of Respondent

Average miles ridden on bicycle Only asked of those who had ever bicycled in last 12 months and were currently a rider	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65+ years	Overall
How many miles is your AVERAGE bicycle ride?	4.94	5.04	5.61	9.64	13.25	6.74	7.45
On the days you ride a bicycle, about how many miles on average do you ride?	4.83	4.92	5.76	6.61	8.20	6.92	6.09

How often, if at all, would you say you wear a helmet when you ride a bicycle? Only asked of those who had ever bicycled in last 12 months and were currently a rider	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65+ years	Overall
Never	56.5%	35.9%	54.7%	34.2%	29.4%	36.1%	42.3%
About 25% of the time	14.8%	9.8%	5.3%	8.6%	0.8%	0.7%	7.5%
About half the time	5.1%	6.8%	3.6%	1.3%	17.7%	2.6%	5.5%
About 75% of the time	3.8%	4.1%	0.4%	1.7%	1.1%	0.2%	2.0%
Always or almost always	19.8%	43.3%	36.0%	54.2%	51.1%	60.5%	42.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

# Table 77: Question #8 by Age of Respondent

Table 78:	Question	#9 by	Age of	f Respondent	

How safe or unsafe do you feel when you ride a bicycle in your community? Only asked of those who had ever bicycled in last 12 months and were currently a rider	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65+ years	Overall
Very unsafe	3.9%	11.1%	9.3%	11.5%	9.5%	4.6%	9.0%
Somewhat unsafe	5.0%	20.6%	14.5%	18.3%	26.4%	13.4%	16.3%
Somewhat safe, or	48.5%	34.9%	36.8%	26.8%	31.1%	40.3%	35.5%
Very safe?	42.6%	33.4%	39.4%	43.4%	33.0%	41.6%	39.2%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Now I want to ask you about the different kinds of facilities for bio	cycles in your community.			-				
For each, I want you to tell me if you think there are too many, about the right amount, or too few. What about		18-24	25-34	35-44	45-54	55-64	<b>CE</b> 1 1100000	Quarall
what about		years	years	years	years	years	65+ years	Overall
_	Too many	0.0%	0.4%	0.9%	0.5%	3.5%	4.7%	1.4%
The number or amount of off-	About the right amount, or	37.3%	36.3%	31.7%	38.9%	40.0%	37.2%	36.5%
street bicycle paths and trails	Too few	62.7%	63.3%	67.4%	60.6%	56.4%	58.1%	62.1%
	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
The number or amount of on-	Too many	1.9%	1.8%	3.4%	4.6%	6.0%	6.0%	3.9%
	About the right amount, or	29.1%	20.4%	21.4%	21.9%	25.9%	26.1%	23.6%
street dedicated bicycle lanes	Too few	69.0%	77.8%	75.2%	73.5%	68.2%	67.8%	72.5%
	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Too many	3.3%	2.1%	5.7%	3.7%	4.3%	7.2%	4.3%
The number or amount of	About the right amount, or	38.8%	31.0%	30.7%	30.5%	34.6%	32.5%	32.9%
bike-friendly streets	Too few	57.9%	66.9%	63.6%	65.8%	61.1%	60.3%	62.9%
	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Too many	0.0%	0.7%	1.6%	0.6%	2.1%	3.1%	1.3%
The number of places to park	About the right amount, or	32.6%	29.0%	18.8%	22.0%	22.9%	17.3%	23.8%
bicycles, like bike racks and storage lockers	Too few	67.4%	70.4%	79.7%	77.4%	75.0%	79.6%	74.9%
	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

# Table 79: Question #10 by Age of Respondent

Would you say you strongly agree, somewhat agree, somewhat disagree or strongly disagree with the each of the following statements about your neighborhood. Percent who somewhat or strongly agree	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65+ years	Overall
There are off-street bike trails or paved paths in or near my neighborhood that are easy to get to.	62.2%	60.2%	53.7%	49.5%	52.5%	40.0%	53.2%
There are bike lanes that are easy to get to.	42.6%	40.6%	38.5%	31.7%	32.0%	31.2%	36.2%
There are quiet streets, without bike lanes, that are easy to get to on a bike.	73.1%	59.3%	62.9%	61.9%	70.4%	60.5%	64.1%
There is a high crime rate in my neighborhood.	25.7%	26.4%	21.0%	24.6%	17.7%	9.7%	21.2%
There is so much traffic along the street I live on that it would make it difficult or unpleasant to bike.	41.4%	57.3%	47.7%	47.9%	40.0%	35.8%	45.8%
There is so much traffic along nearby streets that it would make it difficult or unpleasant to bike.	55.0%	63.3%	57.8%	66.4%	54.1%	53.0%	58.5%
The speed of traffic on most nearby streets is usually slow.	55.6%	39.6%	40.5%	38.7%	43.5%	38.0%	42.1%
Most drivers exceed the posted speed limits in my neighborhood.	66.3%	78.2%	67.9%	66.0%	58.2%	57.0%	65.9%
Streets in my neighborhood are poorly maintained.	31.1%	42.5%	35.4%	40.5%	28.4%	30.2%	35.1%

Table 80: Question #11 by Age of Respondent

Would you say you strongly agree, somewhat agree, somewhat disagree or strongly disagree with the following statement: "I would like to travel by bike more than I do now."	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65+ years	Overall
Strongly AGREE	30.8%	39.8%	36.4%	25.5%	23.8%	21.2%	30.3%
Somewhat AGREE	32.9%	21.6%	26.3%	26.0%	26.0%	14.1%	24.6%
Somewhat DISAGREE	19.7%	10.5%	11.4%	20.9%	11.6%	10.9%	14.2%
Strongly DISAGREE	16.6%	28.1%	25.9%	27.6%	38.7%	53.8%	31.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

#### Table 81: Question #12 by Age of Respondent

Do any of the following prevent you from riding a bike more often than you currently do— Percent saying "yes"	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65+ years	Overall
I am not physically able	15.3%	9.3%	16.9%	18.1%	35.0%	49.6%	22.8%
l don't own a bike	39.4%	40.8%	33.7%	34.9%	40.5%	38.2%	37.4%
My bike is not in good working condition	22.0%	17.5%	17.2%	16.6%	29.1%	20.7%	19.6%
I do not feel safe	26.8%	39.1%	42.5%	27.0%	37.7%	27.3%	34.2%
Biking lanes, trails, and paths are not available	50.2%	51.6%	50.0%	44.6%	42.2%	48.7%	48.2%
Biking lanes, trails, and paths are not connected	50.9%	61.3%	55.5%	49.6%	44.4%	48.4%	52.7%
It takes too long	44.8%	38.5%	34.8%	30.6%	23.5%	34.9%	35.1%
Destinations are too far	61.4%	58.7%	44.7%	40.1%	30.8%	41.4%	47.6%
Existing bikeways are in poor condition	27.4%	28.0%	25.4%	19.4%	25.2%	16.9%	24.3%
No showers or place to freshen up at my destination	51.0%	51.5%	48.4%	50.5%	43.5%	48.1%	49.3%
Lack of secure bike parking	54.6%	59.0%	55.0%	50.8%	44.3%	53.2%	53.6%
Weather is too HOT	75.5%	66.4%	62.2%	59.8%	66.9%	56.6%	64.3%
Weather is too COLD	22.0%	31.4%	26.4%	26.9%	24.8%	25.8%	26.5%
It doesn't fit my lifestyle	37.6%	44.1%	29.4%	33.3%	34.0%	47.4%	36.8%

#### Table 82: Question #13 by Age of Respondent

I'm going read a list of places you could hypothetically ride a bike. For each place, please tell me how comfortable you would feel biking there using a scale of 1-4, with 1 meaning you would be "Very Uncomfortable", 2 meaning you are "Somewhat Uncomfortable", 3 meaning you are "Somewhat Comfortable", and 4 meaning you would be "Very Comfortable". Percent saying very or somewhat comfortable	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65+ years	Overall
A path or trail that is separate from a street.	90.4%	85.8%	85.2%	85.3%	81.0%	75.8%	84.9%
A residential street with one traffic lane in each direction, with traffic speeds of 25 to 30 miles per hour, some on street parking and no bike lane	50.8%	41.8%	41.1%	46.1%	45.6%	38.5%	44.3%
What if that street also had bicycle route markings, speed humps, and other things that slow down car traffic	86.2%	77.9%	83.1%	80.0%	72.9%	68.5%	79.4%
A neighborhood commercial shopping street with one traffic lane in each direction, with traffic speeds of 25 to 30 miles per hour, with on- street parking and no bike lane	34.8%	30.9%	25.3%	29.3%	21.0%	27.7%	28.3%
The same street if a striped bicycle lane was added	83.4%	76.9%	80.5%	78.6%	63.1%	75.8%	77.3%
A major urban street with two traffic lanes in each direction, speeds of 30 to 35 miles per hour and no bike lane	15.8%	19.0%	15.0%	13.9%	10.3%	16.6%	15.3%
The same street with a striped bike lane added	69.4%	61.9%	67.1%	62.7%	45.2%	53.3%	61.7%
What if it also had a wide bicycle lane separated from traffic by a raised curb	91.6%	89.7%	87.2%	85.2%	86.0%	73.4%	86.5%
A major street with two or three traffic lanes in each direction, traffic speeds of 35 to 40 miles per hour, and no bike lane	6.4%	9.3%	10.2%	11.9%	6.7%	8.9%	9.2%
The same street with a striped bike lane added	50.0%	53.4%	54.8%	47.7%	43.1%	42.4%	50.0%
What if it also had a wide bicycle lane separated from traffic by a raised curb	79.2%	79.8%	80.4%	78.9%	75.1%	67.8%	78.0%

# Table 83: Question #14 by Age of Respondent

Four Types of Transportation Bicyclists	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65+ years	Overall
Strong & Fearless	1.7%	2.7%	2.2%	0.4%	2.3%	1.8%	1.8%
Enthused & Confident	14.6%	19.4%	13.3%	19.9%	5.9%	5.9%	13.8%
Interested But Concerned	46.6%	39.7%	43.2%	31.0%	35.2%	21.9%	36.5%
No Way No How	37.1%	38.2%	41.3%	48.7%	56.5%	70.4%	47.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

\_ . . . . \_ \_ \_ -. . . . . ....

# Table 85: Current Cycling Behavior (Dill) by Age of Respondent

	18-24	25-34	35-44	45-54	55-64		
Current Cycling Behavior (Dill)	years	years	years	years	years	65+ years	Overall
Utilitarian Cyclist	24.0%	11.4%	12.0%	15.9%	10.7%	2.1%	12.6%
Recreation-only Cyclist	8.8%	14.4%	19.6%	18.3%	13.1%	8.5%	14.3%
Non-cyclist	55.7%	67.9%	53.8%	52.3%	44.6%	42.8%	53.6%
Unable to Cycle	11.6%	6.2%	14.6%	13.4%	31.5%	46.6%	19.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Now I'm going to ask you how important, if at all, you feel it is for your community to do each of the following. What about Percent rating as essential or very important	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65+ years	Overall
Providing bike trails separated from roadways	56.5%	72.1%	65.2%	66.3%	66.4%	64.7%	65.5%
Providing bike lanes separated from vehicles so bikes and cars do not have to share the same lane	69.4%	81.2%	79.6%	76.4%	75.0%	72.3%	75.9%
Lowering traffic speeds on community roadways to the improve safety of pedestrians and bicyclists sharing the road	70.7%	75.8%	70.6%	70.1%	67.5%	67.3%	70.1%
Providing traffic signals or crossing beacons at intersections and crossings to warn drivers of bike and trail users crossing the road	83.1%	77.3%	82.5%	74.8%	73.6%	80.0%	78.4%

# Table 86: Question #15 by Age of Respondent

# **Selected Survey Results by Race and Gender of Respondent**

Did you ever ride a bicycle, even once, in the past 12 months?	Hispanic or Latino	African American / Black	Caucasian / White	Asian	Other	Male	Female	Overall
No	67.2%	66.1%	58.8%	76.0%	73.9%	61.5%	65.9%	63.7%
Yes	32.8%	33.9%	41.2%	24.0%	26.1%	38.5%	34.1%	36.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

# Table 97: Question #1 by Pace and Sex of Persondent

#### Table 88: Question #2 by Race and Sex of Respondent

Thinking about the past year, which of the following BEST describes your bicycle-riding behavior— Only asked of those who had ever bicycled in last 12 months	Hispanic or Latino	African American / Black	Caucasian / White	Asian	Other	Male	Female	Overall
You ride daily	2.1%	7.5%	5.6%	0.0%	18.2%	8.1%	2.7%	5.5%
A few times a week	30.0%	24.2%	18.0%	23.9%	13.2%	20.1%	22.0%	21.0%
A few times a month	41.8%	20.7%	32.5%	57.9%	27.6%	32.7%	34.4%	33.5%
A few times a year	20.1%	25.3%	26.4%	7.8%	28.2%	21.0%	27.7%	24.2%
You seldom ride	6.0%	14.6%	12.3%	3.5%	11.5%	11.4%	10.3%	10.9%
You are currently NOT a bike rider	0.0%	7.7%	5.2%	6.9%	1.4%	6.7%	2.9%	4.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Thinking about the past year, which of the following BEST describes your bicycle-riding behavior— Those who had not bicycled in last 12 months considered "Not a rider"	Hispanic or Latino	African American / Black	Caucasian / White	Asian	Other	Male	Female	Overall
You ride daily	0.7%	2.6%	2.3%	0.0%	4.7%	3.1%	0.9%	2.0%
A few times a week	9.8%	8.2%	7.4%	5.7%	3.4%	7.8%	7.5%	7.6%
A few times a month	13.7%	7.0%	13.4%	13.9%	7.2%	12.6%	11.7%	12.1%
A few times a year	6.6%	8.6%	10.9%	1.9%	7.4%	8.1%	9.5%	8.8%
You seldom ride	2.0%	4.9%	5.1%	0.8%	3.0%	4.4%	3.5%	3.9%
You are currently NOT a bike rider	67.2%	68.7%	60.9%	77.6%	74.3%	64.1%	66.9%	65.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 89: Question #2 by Race/Ethnicity and Sex of Respondent

In the last 30 days, about how often, if at all, did you bicycle for work, school, shopping or to get to another destination? Only asked of those who had ever bicycled in last 12 months	Hispanic or Latino	African American / Black	Caucasian / White	Asian	Other	Male	Female	Overall
None	46.8%	67.7%	68.7%	48.7%	87.0%	63.5%	64.2%	63.8%
Once or twice	23.4%	11.4%	13.6%	22.2%	5.8%	18.8%	12.6%	15.7%
3 or 4 times	4.9%	0.3%	6.7%	1.9%	1.2%	3.0%	7.1%	5.0%
About once or twice a week	14.8%	3.4%	1.9%	7.3%	0.0%	2.1%	8.2%	5.0%
3 or 4 times a week	3.1%	9.4%	4.8%	19.9%	0.0%	8.2%	2.1%	5.2%
5 or more times a week	7.0%	7.8%	4.2%	0.0%	5.9%	4.5%	5.9%	5.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 90: Question #3 by Race/Ethnicity and Sex of Respondent

#### Table 91: Question #3 by Race/Ethnicity and Sex of Respondent

In the last 30 days, about how often, if at all, did you bicycle for work, school, shopping or to get to another destination? Those who had not bicycled in last 12 months considered "Not a rider"	Hispanic or Latino	African American / Black	Caucasian / White	Asian	Other	Male	Female	Overall
None	82.6%	89.9%	87.8%	88.5%	96.8%	86.9%	88.1%	87.5%
Once or twice	7.7%	3.6%	5.3%	5.0%	1.4%	6.7%	4.2%	5.4%
3 or 4 times	1.6%	0.1%	2.6%	0.4%	0.3%	1.1%	2.4%	1.7%
About once or twice a week	4.8%	1.1%	0.8%	1.6%	0.0%	0.7%	2.7%	1.7%
3 or 4 times a week	1.0%	2.9%	1.9%	4.4%	0.0%	2.9%	0.7%	1.8%
5 or more times a week	2.3%	2.4%	1.7%	0.0%	1.5%	1.6%	1.9%	1.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

In the last 30 days, about how often, if at all, did you bicycle for fun or exercise? Only asked of those who had ever bicycled in last 12 months	Hispanic or Latino	African American / Black	Caucasian / White	Asian	Other	Male	Female	Overall
None	14.1%	29.9%	28.3%	8.5%	44.1%	21.5%	29.1%	25.2%
Once or twice	39.2%	29.1%	32.6%	20.8%	13.2%	37.3%	28.8%	33.1%
3 or 4 times	17.6%	15.2%	14.8%	11.9%	4.5%	13.2%	16.8%	14.9%
About once or twice a week	19.3%	14.4%	8.2%	29.1%	12.7%	7.1%	17.3%	12.1%
3 or 4 times a week	2.2%	1.5%	7.6%	29.7%	7.5%	7.6%	4.3%	6.0%
5 or more times a week	7.6%	9.9%	8.5%	0.0%	18.0%	13.4%	3.8%	8.7%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 92: Question #4 by Race/Ethnicity and Sex of Respondent

#### Table 93: Question #4 by Race/Ethnicity and Sex of Respondent

In the last 30 days, about how often, if at all, did you bicycle for fun or exercise? Those who had not bicycled in last 12 months considered "Not a rider"	Hispanic or Latino	African American / Black	Caucasian / White	Asian	Other	Male	Female	Overall
None	71.9%	78.0%	72.0%	79.5%	85.6%	71.8%	76.5%	74.2%
Once or twice	12.8%	9.1%	12.7%	4.7%	3.4%	13.4%	9.6%	11.4%
3 or 4 times	5.8%	4.7%	5.8%	2.7%	1.1%	4.7%	5.6%	5.2%
About once or twice a week	6.3%	4.5%	3.2%	6.5%	3.3%	2.6%	5.7%	4.2%
3 or 4 times a week	0.7%	0.5%	3.0%	6.6%	1.9%	2.7%	1.4%	2.1%
5 or more times a week	2.5%	3.1%	3.3%	0.0%	4.6%	4.8%	1.2%	3.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Over the past year, on average, how many days did you ride your bicycle during each of these seasons? What about Only asked of those who had ever bicycled in last 12 months and were currently a rider Percent riding once a week or more	Hispanic or Latino	African American / Black	Caucasian / White	Asian	Other	Male	Female	Overall
What about in the Spring, the months of March, April and May?	50.7%	44.4%	41.9%	61.0%	55.5%	47.0%	42.5%	44.8%
What about in Summer, the months of June, July and August?	44.4%	31.3%	39.6%	48.7%	67.7%	43.7%	36.4%	40.0%
What about in the Fall, the months of September, October and November?	26.3%	25.0%	44.6%	61.4%	58.8%	42.1%	36.6%	39.4%
What about in the Winter, the months of December, January and February?	15.3%	12.0%	23.6%	29.0%	17.4%	23.4%	17.0%	20.2%

 Table 94: Question #5 by Race/Ethnicity and Sex of Respondent

Over the past year, on average, how many days did you ride your bicycle during each of these seasons? What about Those who had not bicycled in last 12 months or were not currently riders considered "Never" Percent riding once a week or more	Hispanic or Latino	African American / Black	Caucasian / White	Asian	Other	Male	Female	Overall
What about in the Spring, the months of March, April and May?	15.2%	13.9%	16.3%	13.6%	14.3%	16.2%	14.0%	15.1%
What about in Summer, the months of June, July and August?	13.3%	9.8%	15.4%	10.9%	17.4%	15.1%	12.0%	13.5%
What about in the Fall, the months of September, October and November?	7.8%	7.6%	17.4%	13.7%	15.1%	14.5%	12.0%	13.2%
What about in the Winter, the months of December, January and February?	4.7%	3.8%	9.2%	6.5%	4.5%	8.1%	5.6%	6.9%

Table 95: Question #5 by Race/Ethnicity and Sex of Respondent

How many miles is your AVERAGE bicycle ride? Only asked of those who had ever bicycled in last 12 months and were currently a rider	Hispanic or Latino	African American / Black	Caucasian / White	Asian	Other	Male	Female	Overall
less than a mile	3.6%	15.4%	11.9%	32.2%	0.0%	8.1%	13.3%	10.6%
one mile	16.3%	14.1%	6.7%	0.0%	17.7%	8.4%	11.0%	9.7%
two miles	12.5%	21.1%	11.4%	16.3%	14.7%	12.1%	13.6%	12.9%
3 to 4 miles	37.5%	12.6%	19.2%	26.8%	36.4%	23.5%	23.1%	23.3%
5 miles	16.1%	19.7%	15.9%	3.2%	4.9%	12.0%	19.7%	15.8%
5 to 10 miles	7.9%	8.8%	18.0%	4.3%	13.3%	16.4%	11.8%	14.1%
11 to 15 miles	1.9%	0.3%	7.4%	0.0%	12.1%	8.3%	2.7%	5.5%
16 to 20 miles	0.9%	1.8%	3.0%	14.8%	0.0%	3.6%	1.8%	2.7%
more than 20 miles	3.5%	6.2%	6.6%	2.3%	1.0%	7.8%	3.0%	5.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 96: Question #6 by Race/Ethnicity and Sex of Respondent

On the days you ride a bicycle, about how many miles on average do you ride? Only asked of those who had ever bicycled in last 12 months and were currently a rider	Hispanic or Latino	African American / Black	Caucasian / White	Asian	Other	Male	Female	Overall
less than a mile	0.0%	15.3%	13.0%	32.2%	2.1%	8.8%	12.8%	10.8%
one mile	21.2%	10.6%	8.4%	0.0%	12.0%	8.8%	13.2%	11.0%
two miles	14.6%	20.0%	11.7%	14.0%	24.5%	10.9%	16.1%	13.5%
3 to 4 miles	28.1%	12.3%	15.3%	29.3%	28.8%	13.7%	23.1%	18.4%
5 miles	19.1%	21.2%	15.8%	0.7%	4.7%	15.1%	18.0%	16.5%
5 to 10 miles	7.7%	5.5%	20.1%	5.7%	5.3%	20.0%	9.5%	14.8%
11 to 15 miles	7.4%	6.0%	8.3%	0.9%	21.7%	13.6%	3.4%	8.5%
16 to 20 miles	1.1%	3.1%	2.3%	17.2%	0.0%	3.2%	1.6%	2.4%
more than 20 miles	0.7%	6.0%	5.2%	0.0%	0.9%	6.0%	2.2%	4.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

## Table 97: Question #7 by Race/Ethnicity and Sex of Respondent

### Table 98: Question #6 and #7 Averages by Race/Ethnicity and Sex of Respondent

Average miles ridden on bicycle Only asked of those who had ever bicycled in last 12 months and were currently a rider	Hispanic or Latino	African American / Black	Caucasian / White	Asian	Other	Male	Female	Overall
How many miles is your AVERAGE bicycle ride?	4.54	4.66	9.31	5.23	5.16	9.14	5.70	7.45
On the days you ride a bicycle, about how many miles on average do you ride?	4.41	5.38	6.76	5.19	5.60	7.67	4.46	6.09

How often, if at all, would you say you wear a helmet when you ride a bicycle? Only asked of those who had ever bicycled in last 12 months and were currently a rider	Hispanic or Latino	African American / Black	Caucasian / White	Asian	Other	Male	Female	Overall
Never	42.0%	48.8%	40.3%	49.0%	49.6%	42.0%	42.6%	42.3%
About 25% of the time	14.8%	19.7%	2.1%	14.2%	5.8%	8.4%	6.5%	7.5%
About half the time	10.6%	7.1%	3.4%	3.8%	8.2%	2.9%	8.2%	5.5%
About 75% of the time	3.3%	0.0%	2.0%	0.0%	3.7%	2.1%	1.9%	2.0%
Always or almost always	29.3%	24.4%	52.2%	33.0%	32.8%	44.7%	40.9%	42.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 99: Question #8 by Race/Ethnicity and Sex of Respondent

# Table 100: Question #9 by Race/Ethnicity and Sex of Respondent

How safe or unsafe do you feel when you ride a bicycle in your community? Only asked of those who had ever bicycled in last 12 months and were currently a rider	Hispanic or Latino	African American / Black	Caucasian / White	Asian	Other	Male	Female	Overall
Very unsafe	5.3%	14.3%	9.7%	7.5%	6.0%	9.2%	8.7%	9.0%
Somewhat unsafe	13.8%	15.0%	18.2%	16.3%	7.9%	15.9%	16.7%	16.3%
Somewhat safe, or	46.2%	28.9%	32.6%	36.2%	41.3%	31.6%	39.5%	35.5%
Very safe?	34.6%	41.8%	39.4%	40.0%	44.8%	43.2%	35.0%	39.2%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Now I want to ask you as availability of different ki bicycles in your commun For each, I want you to to there are too many, abou or too few. What about	inds of facilities for ity. ell me if you think	Hispanic or Latino	African American / Black	Caucasian / White	Asian	Other	Male	Female	Overall
	Too many	1.0%	0.4%	1.8%	0.6%	0.0%	1.3%	1.5%	1.4%
The number or amount of off-street bicycle paths and	About the right amount, or	33.5%	38.5%	37.2%	39.6%	26.0%	39.5%	33.4%	36.5%
trails	Too few	65.5%	61.2%	61.0%	59.8%	74.0%	59.2%	65.0%	62.1%
	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Too many	2.1%	2.6%	4.3%	0.9%	3.4%	4.3%	3.5%	3.9%
The number or amount of on-street dedicated bicycle	About the right amount, or	23.5%	28.3%	22.6%	34.9%	13.2%	28.4%	18.9%	23.6%
lanes	Too few	74.4%	69.1%	73.0%	64.2%	83.4%	67.3%	77.5%	72.5%
	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Too many	1.5%	5.4%	4.3%	10.4%	4.8%	5.1%	3.4%	4.3%
The number or amount of bike-	About the right amount, or	31.6%	31.6%	33.6%	35.7%	28.3%	36.0%	29.8%	32.9%
friendly streets	Too few	66.9%	63.0%	62.1%	53.9%	66.8%	58.9%	66.8%	62.9%
	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Too many	0.8%	0.4%	1.5%	1.4%	0.2%	1.3%	1.2%	1.3%
The number of places to park bicycles, like bike racks and	About the right amount, or	25.7%	21.1%	24.2%	18.6%	27.2%	24.9%	22.7%	23.8%
bike racks and storage lockers	Too few	73.5%	78.5%	74.2%	80.0%	72.6%	73.8%	76.1%	74.9%
	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

### Table 101: Question #10 by Race/Ethnicity and Sex of Respondent

Would you say you strongly agree, somewhat agree, somewhat disagree or strongly disagree with the each of the following statements about your neighborhood. Percent who somewhat or strongly agree	Hispanic or Latino	African American / Black	Caucasian / White	Asian	Other	Male	Female	Overall
There are off-street bike trails or paved paths in or near my neighborhood that are easy to get to.	60.3%	47.2%	50.1%	73.9%	42.8%	56.7%	49.7%	53.2%
There are bike lanes that are easy to get to.	38.2%	45.1%	32.3%	53.7%	29.9%	41.6%	30.9%	36.2%
There are quiet streets, without bike lanes, that are easy to get to on a bike.	52.6%	55.3%	70.8%	79.1%	64.1%	68.4%	59.9%	64.1%
There is a high crime rate in my neighborhood.	36.3%	31.3%	13.4%	18.8%	14.6%	20.3%	22.0%	21.2%
There is so much traffic along the street I live on that it would make it difficult or unpleasant to bike.	58.8%	47.4%	38.9%	50.7%	48.5%	44.7%	46.8%	45.8%
There is so much traffic along nearby streets that it would make it difficult or unpleasant to bike.	65.9%	52.4%	59.0%	54.2%	45.6%	54.9%	62.1%	58.5%
The speed of traffic on most nearby streets is usually slow.	47.5%	40.8%	39.7%	44.6%	58.9%	47.2%	37.2%	42.1%
Most drivers exceed the posted speed limits in my neighborhood.	72.4%	62.2%	64.9%	64.3%	66.3%	62.6%	69.2%	65.9%
Streets in my neighborhood are poorly maintained.	45.9%	34.2%	31.5%	28.7%	36.0%	35.3%	34.8%	35.1%

 Table 102: Question #11 by Race/Ethnicity and Sex of Respondent

Would you say you strongly agree, somewhat agree, somewhat disagree or strongly disagree with the following statement: "I would like to travel by bike more than I do now."	Hispanic or Latino	African American / Black	Caucasian / White	Asian	Other	Male	Female	Overall
Strongly AGREE	37.0%	33.5%	26.4%	30.7%	30.4%	26.9%	33.5%	30.3%
Somewhat AGREE	22.1%	16.1%	27.9%	32.7%	26.3%	27.8%	21.6%	24.6%
Somewhat DISAGREE	14.7%	10.8%	14.5%	23.7%	12.4%	15.2%	13.2%	14.2%
Strongly DISAGREE	26.2%	39.6%	31.2%	12.9%	30.8%	30.1%	31.8%	31.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 103: Question #12 by Race/Ethnicity and Sex of Respondent

Do any of the following prevent you from riding a bike more often than you currently do— Percent saying "yes"	Hispanic or Latino	African American / Black	Caucasian / White	Asian	Other	Male	Female	Overall
I am not physically able	20.6%	24.8%	23.7%	14.2%	27.3%	19.7%	25.7%	22.8%
I don't own a bike	39.4%	38.1%	33.9%	50.4%	46.7%	35.5%	39.5%	37.4%
My bike is not in good working condition	25.8%	20.0%	16.3%	21.8%	19.8%	19.2%	20.0%	19.6%
I do not feel safe	44.0%	29.2%	31.9%	32.2%	36.2%	28.5%	40.3%	34.2%
Biking lanes, trails, and paths are not available	56.0%	48.5%	43.8%	44.5%	65.5%	40.3%	56.6%	48.2%
Biking lanes, trails, and paths are not connected	58.2%	50.2%	51.2%	50.8%	64.7%	46.1%	59.8%	52.7%
It takes too long	37.1%	34.4%	32.3%	46.6%	43.6%	35.3%	34.8%	35.1%
Destinations are too far	50.0%	44.9%	45.4%	47.7%	69.7%	45.9%	49.4%	47.6%
Existing bikeways are in poor condition	32.4%	20.0%	20.6%	28.0%	34.9%	19.8%	29.1%	24.3%
No showers or place to freshen up at my destination	53.4%	47.7%	47.4%	60.9%	53.6%	43.9%	54.9%	49.3%
Lack of secure bike parking	57.1%	45.9%	50.5%	67.3%	84.7%	50.8%	56.5%	53.6%
Weather is too HOT	74.4%	53.7%	62.0%	70.3%	70.7%	61.0%	67.9%	64.3%
Weather is too COLD	32.6%	28.4%	21.6%	34.5%	33.6%	26.4%	26.6%	26.5%
It doesn't fit my lifestyle	40.7%	40.0%	35.4%	30.6%	26.1%	33.8%	39.9%	36.8%

Table 104: Question #13 by Race/Ethnicity and Sex of Respondent

I'm going read a list of places you could hypothetically ride a bike. For each place, please tell me how comfortable you would feel biking there using a scale of 1-4, with 1 meaning you would be "Very Uncomfortable", 2 meaning you are "Somewhat Uncomfortable", 3 meaning you are "Somewhat Comfortable", and 4 meaning you would be "Very Comfortable". Percent saying very or somewhat comfortable	Hispanic or Latino	African American / Black	Caucasian / White	Asian	Other	Male	Female	Overall
A path or trail that is separate from a street.	88.5%	79.1%	86.4%	82.9%	65.3%	85.9%	83.8%	84.9%
A residential street with one traffic lane in each direction, with traffic speeds of 25 to 30 miles per hour, some on street parking and no bike lane	39.1%	34.6%	48.8%	47.6%	43.1%	47.1%	41.3%	44.3%
What if that street also had bicycle route markings, speed humps, and other things that slow down car traffic	81.7%	76.1%	79.7%	76.2%	78.8%	78.0%	80.9%	79.4%
A neighborhood commercial shopping street with one traffic lane in each direction, with traffic speeds of 25 to 30 miles per hour, with on- street parking and no bike lane	31.8%	30.7%	28.5%	17.9%	17.5%	29.4%	27.2%	28.3%
The same street if a striped bicycle lane was added	80.5%	73.6%	76.3%	86.6%	76.9%	75.8%	78.8%	77.3%
A major urban street with two traffic lanes in each direction, speeds of 30 to 35 miles per hour and no bike lane	15.8%	18.4%	13.4%	18.7%	14.9%	17.1%	13.3%	15.3%
The same street with a striped bike lane added	69.7%	58.7%	57.5%	79.3%	68.4%	62.0%	61.3%	61.7%
What if it also had a wide bicycle lane separated from traffic by a raised curb	92.6%	79.2%	86.3%	93.5%	95.2%	87.9%	85.0%	86.5%

 Table 105: Question #14 by Race/Ethnicity and Sex of Respondent

I'm going read a list of places you could hypothetically ride a bike. For each place, please tell me how comfortable you would feel biking there using a scale of 1-4, with 1 meaning you would be "Very Uncomfortable", 2 meaning you are "Somewhat Uncomfortable", 3 meaning you are "Somewhat Comfortable", and 4 meaning you would be "Very Comfortable". Percent saying very or somewhat comfortable	Hispanic or Latino	African American / Black	Caucasian / White	Asian	Other	Male	Female	Overall
A major street with two or three traffic lanes in each direction, traffic speeds of 35 to 40								
miles per hour, and no bike lane	8.3%	12.4%	7.7%	15.2%	6.3%	11.6%	6.7%	9.2%
The same street with a striped bike lane								
added	59.2%	56.4%	43.3%	59.9%	57.7%	50.3%	49.6%	50.0%
What if it also had a wide bicycle lane								

Four Types of Transportation Bicyclists	Hispanic or Latino	African American / Black	Caucasian / White	Asian	Other	Male	Female	Overall
Strong & Fearless	2.2%	1.1%	1.5%	5.0%	0.1%	2.1%	1.5%	1.8%
Enthused & Confident	13.9%	18.2%	12.9%	11.3%	10.1%	13.5%	14.1%	13.8%
Interested But Concerned	40.8%	30.8%	36.2%	41.0%	38.4%	36.6%	36.4%	36.5%
No Way No How	43.1%	49.9%	49.4%	42.6%	51.4%	47.8%	48.0%	47.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

# Table 106: Four Types of Transportation Bicyclists by Race/Ethnicity and Sex of Respondent

#### Table 107: Current Cycling Behavior (Dill) by Race/Ethnicity and Sex of Respondent

Current Cycling Behavior (Dill)	Hispanic or Latino	African American / Black	Caucasian / White	Asian	Other	Male	Female	Overall
Utilitarian Cyclist	17.4%	10.5%	12.4%	11.5%	3.2%	13.3%	12.0%	12.6%
Recreation-only Cyclist	11.0%	12.4%	17.2%	9.5%	13.3%	16.4%	12.3%	14.3%
Non-cyclist	53.4%	56.9%	50.7%	66.5%	57.8%	54.2%	53.0%	53.6%
Unable to Cycle	18.2%	20.3%	19.8%	12.5%	25.7%	16.0%	22.8%	19.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Now I'm going to ask you how important, if at all, you feel it is for your community to do each of the following. What about Percent rating as essential or very important	Hispanic or Latino	African American / Black	Caucasian / White	Asian	Other	Male	Female	Overall
Providing bike trails separated from roadways	73.0%	68.3%	61.6%	63.9%	64.6%	64.0%	67.0%	65.5%
Providing bike lanes separated from vehicles so bikes and cars do not have to share the same lane	80.5%	84.3%	70.7%	83.0%	92.6%	73.8%	77.9%	75.9%
Lowering traffic speeds on community roadways to the improve safety of pedestrians and bicyclists sharing the road	79.4%	82.5%	63.9%	68.6%	60.4%	70.3%	69.8%	70.1%
Providing traffic signals or crossing beacons at intersections and crossings to warn drivers of bike and trail users crossing the road	81.1%	85.2%	75.4%	79.2%	90.5%	76.8%	79.8%	78.4%

 Table 108: Question #15 by Race/Ethnicity and Sex of Respondent

# Selected Survey Results by Annual Household Income

Table 109: Question #1 by A	Annual Household Income
-----------------------------	-------------------------

Did you ever ride a bicycle, even once, in the past 12 months?	Under \$25,000	\$25,000 - \$49,999	\$50,000 - \$74,999	\$75,000 - \$99,999	\$100,000 or more	Overall
No	75.1%	70.9%	60.8%	54.9%	56.0%	63.7%
Yes	24.9%	29.1%	39.2%	45.1%	44.0%	36.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

### Table 110: Question #2 by Annual Household Income

Thinking about the past year, which of the following BEST describes your bicycle-riding behavior— Only asked of those who had ever bicycled in last 12 months	Under \$25,000	\$25,000 - \$49,999	\$50,000 - \$74,999	\$75,000 - \$99,999	\$100,000 or more	Overall
You ride daily	15.6%	3.0%	9.8%	3.2%	3.0%	5.5%
A few times a week	30.1%	2.4%	23.2%	24.0%	22.8%	21.0%
A few times a month	18.5%	51.8%	20.3%	33.2%	33.8%	33.5%
A few times a year	17.9%	20.5%	31.5%	24.2%	26.4%	24.2%
You seldom ride	12.8%	9.2%	14.4%	7.8%	11.8%	10.9%
You are currently NOT a bike rider	5.0%	13.0%	0.9%	7.5%	2.2%	4.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Thinking about the past year, which of the following BEST describes your bicycle-riding behavior— Those who had not bicycled in last 12 months considered "Not a rider"	Under \$25,000	\$25,000 - \$49,999	\$50,000 - \$74,999	\$75,000 - \$99,999	\$100,000 or more	Overall
You ride daily	3.9%	0.9%	3.8%	1.4%	1.3%	2.0%
A few times a week	7.5%	0.7%	9.1%	10.8%	10.1%	7.6%
A few times a month	4.6%	15.1%	8.0%	15.0%	14.9%	12.1%
A few times a year	4.5%	6.0%	12.4%	10.9%	11.6%	8.8%
You seldom ride	3.2%	2.7%	5.6%	3.5%	5.2%	3.9%
You are currently NOT a bike rider	76.3%	74.7%	61.1%	58.3%	56.9%	65.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 111: Question #2 by Annual Household Income

In the last 30 days, about how often, if at all, did you bicycle for work, school, shopping or to get to another destination? Only asked of those who had ever bicycled in last 12 months	Under \$25,000	\$25,000 - \$49,999	\$50,000 - \$74,999	\$75,000 - \$99,999	\$100,000 or more	Overall
None	43.4%	59.3%	64.4%	57.9%	73.0%	63.8%
Once or twice	24.7%	29.5%	10.1%	18.9%	9.9%	15.7%
3 or 4 times	3.0%	4.3%	7.1%	6.1%	3.8%	5.0%
About once or twice a week	0.4%	2.3%	1.8%	9.0%	4.7%	5.0%
3 or 4 times a week	13.7%	0.8%	8.4%	7.5%	4.1%	5.2%
5 or more times a week	14.7%	3.9%	8.1%	0.6%	4.6%	5.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

#### Table 112: Question #3 by Annual Household Income

# Table 113: Question #3 by Annual Household Income

In the last 30 days, about how often, if at all, did you bicycle for work, school, shopping or to get to another destination? Those who had not bicycled in last 12 months considered "Not a rider"	Under \$25,000	\$25,000 - \$49,999	\$50,000 - \$74,999	\$75,000 - \$99,999	\$100,000 or more	Overall
None	86.8%	89.7%	86.2%	82.4%	88.3%	87.5%
Once or twice	5.8%	7.5%	3.9%	7.9%	4.2%	5.4%
3 or 4 times	0.7%	1.1%	2.7%	2.5%	1.6%	1.7%
About once or twice a week	0.1%	0.6%	0.7%	3.8%	2.0%	1.7%
3 or 4 times a week	3.2%	0.2%	3.3%	3.1%	1.8%	1.8%
5 or more times a week	3.4%	1.0%	3.2%	0.3%	2.0%	1.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

In the last 30 days, about how often, if at all, did you bicycle for fun or exercise? Only asked of those who had ever bicycled in last 12 months	Under \$25,000	\$25,000 - \$49,999	\$50,000 - \$74,999	\$75,000 - \$99,999	\$100,000 or more	Overall
None	37.1%	31.1%	21.2%	18.9%	29.4%	25.2%
Once or twice	18.8%	42.5%	34.6%	41.2%	29.7%	33.1%
3 or 4 times	13.0%	15.0%	11.8%	13.0%	16.8%	14.9%
About once or twice a week	16.4%	5.8%	16.8%	8.4%	10.4%	12.1%
3 or 4 times a week	2.2%	1.7%	5.6%	12.8%	6.7%	6.0%
5 or more times a week	12.6%	3.8%	9.9%	5.7%	7.0%	8.7%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

#### Table 114: Question #4 by Annual Household Income

Table 115: Question #4 by Annual Household Income

In the last 30 days, about how often, if at all, did you bicycle for fun or exercise? Those who had not bicycled in last 12 months considered "Not a rider"	Under \$25,000	\$25,000 - \$49,999	\$50,000 - \$74,999	\$75,000 - \$99,999	\$100,000 or more	Overall
None	85.1%	82.6%	69.3%	66.2%	69.6%	74.2%
Once or twice	4.4%	10.8%	13.5%	17.2%	12.8%	11.4%
3 or 4 times	3.1%	3.8%	4.6%	5.4%	7.3%	5.2%
About once or twice a week	3.9%	1.5%	6.5%	3.5%	4.5%	4.2%
3 or 4 times a week	0.5%	0.4%	2.2%	5.3%	2.9%	2.1%
5 or more times a week	3.0%	1.0%	3.9%	2.4%	3.0%	3.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Over the past year, on average, how many days did you ride your bicycle during each of these seasons? What about Only asked of those who had ever bicycled in last 12 months and were currently a rider Percent riding once a week or more	Under \$25,000	\$25,000 - \$49,999	\$50,000 - \$74,999	\$75,000 - \$99,999	\$100,000 or more	Overall
What about in the Spring, the months of March, April and May?	58.4%	32.6%	44.7%	49.0%	42.7%	44.8%
What about in Summer, the months of June, July and August?	52.1%	41.6%	46.0%	39.6%	36.8%	40.0%
What about in the Fall, the months of September, October and November?	49.8%	30.4%	39.3%	42.6%	39.6%	39.4%
What about in the Winter, the months of December, January and February?	19.9%	14.5%	22.4%	26.6%	19.8%	20.2%

 Table 116: Question #5 by Annual Household Income

Over the past year, on average, how many days did you ride your bicycle during each of these seasons? What about Those who had not bicycled in last 12 months or were not currently riders considered "Never" Percent riding once a week or more	Under \$25,000	\$25,000 - \$49,999	\$50,000 - \$74,999	\$75,000 - \$99,999	\$100,000 or more	Overall
What about in the Spring, the months of March, April and May?	13.8%	7.8%	17.4%	20.4%	18.4%	15.1%
What about in Summer, the months of June, July and August?	12.3%	10.1%	17.9%	16.5%	15.8%	13.5%
What about in the Fall, the months of September, October and November?	11.8%	7.7%	14.8%	17.8%	16.8%	13.2%
What about in the Winter, the months of December, January and February?	4.7%	3.7%	8.7%	11.1%	8.5%	6.9%

# Table 117: Question #5 by Annual Household Income

How many miles is your AVERAGE bicycle ride? Only asked of those who had ever bicycled in last 12 months and were currently a rider	Under \$25,000	\$25,000 - \$49,999	\$50,000 - \$74,999	\$75,000 - \$99,999	\$100,000 or more	Overall
less than a mile	18.7%	6.7%	7.5%	13.0%	14.4%	10.6%
one mile	7.9%	13.7%	17.4%	10.4%	5.6%	9.7%
two miles	15.7%	21.2%	15.8%	4.6%	9.0%	12.9%
3 to 4 miles	9.7%	30.3%	21.0%	25.0%	18.3%	23.3%
5 miles	29.2%	6.8%	14.6%	17.5%	16.9%	15.8%
5 to 10 miles	5.4%	9.0%	18.7%	11.9%	15.9%	14.1%
11 to 15 miles	0.0%	7.7%	1.5%	7.8%	8.6%	5.5%
16 to 20 miles	4.7%	3.1%	2.5%	0.2%	3.7%	2.7%
more than 20 miles	8.7%	1.5%	1.1%	9.5%	7.6%	5.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 118: Question #6 by Annual Household Income

On the days you ride a bicycle, about how many miles on average do you ride? Only asked of those who had ever bicycled in last 12 months and were currently a rider	Under \$25,000	\$25,000 - \$49,999	\$50,000 - \$74,999	\$75,000 - \$99,999	\$100,000 or more	Overall
less than a mile	9.2%	6.7%	10.4%	15.0%	11.6%	10.8%
one mile	12.9%	10.0%	13.1%	10.2%	10.3%	11.0%
two miles	12.2%	27.9%	16.9%	4.6%	11.0%	13.5%
3 to 4 miles	16.5%	17.3%	23.9%	12.7%	11.4%	18.4%
5 miles	27.2%	13.3%	6.7%	22.7%	21.1%	16.5%
5 to 10 miles	12.3%	11.4%	19.1%	7.3%	17.4%	14.8%
11 to 15 miles	9.7%	8.5%	5.8%	18.8%	6.7%	8.5%
16 to 20 miles	0.0%	3.8%	3.1%	0.2%	3.4%	2.4%
more than 20 miles	0.0%	0.9%	1.0%	8.5%	7.2%	4.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

#### Table 119: Question #7 by Annual Household Income

#### Table 120: Question #6 and #7 Averages by Annual Household Income

Average miles ridden on bicycle Only asked of those who had ever bicycled in last 12 months and were currently a rider	Under \$25,000	\$25,000 - \$49,999	\$50,000 - \$74,999	\$75,000 - \$99,999	\$100,000 or more	Overall
How many miles is your AVERAGE bicycle ride?	6.16	5.00	4.78	9.21	9.36	7.45
On the days you ride a bicycle, about how many miles on average do you ride?	4.59	5.12	5.02	7.85	7.19	6.09

How often, if at all, would you say you wear a helmet when you ride a bicycle? Only asked of those who had ever bicycled in last 12 months and were currently a rider	Under \$25,000	\$25,000 - \$49,999	\$50,000 - \$74,999	\$75,000 - \$99,999	\$100,000 or more	Overall
Never	53.7%	39.9%	60.6%	43.3%	33.1%	42.3%
About 25% of the time	7.9%	22.0%	0.4%	13.4%	5.1%	7.5%
About half the time	1.8%	10.8%	2.7%	0.5%	4.5%	5.5%
About 75% of the time	0.4%	0.4%	4.4%	3.6%	0.9%	2.0%
Always or almost always	36.1%	27.0%	31.9%	39.2%	56.3%	42.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

#### Table 121: Question #8 by Annual Household Income

#### Table 122: Question #9 by Annual Household Income

How safe or unsafe do you feel when you ride a bicycle in your community? Only asked of those who had ever bicycled in last 12 months and were currently a rider	Under \$25,000	\$25,000 - \$49,999	\$50,000 - \$74,999	\$75,000 - \$99,999	\$100,000 or more	Overall
Very unsafe	10.8%	10.8%	11.5%	2.3%	7.9%	9.0%
Somewhat unsafe	18.1%	12.4%	18.8%	19.3%	14.2%	16.3%
Somewhat safe, or	31.8%	46.2%	34.7%	32.6%	38.2%	35.5%
Very safe?	39.3%	30.5%	35.0%	45.8%	39.8%	39.2%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Now I want to ask you about different kinds of facilities for community. For each, I want you to tell m many, about the right amoun What about	bicycles in your e if you think there are too	Under \$25,000	\$25,000 - \$49,999	\$50,000 - \$74,999	\$75,000 - \$99,999	\$100,000 or more	Overall
	Too many	0.8%	0.7%	1.1%	0.2%	2.5%	1.4%
The number or amount of	About the right amount, or	37.7%	24.0%	35.0%	41.1%	40.5%	36.5%
off-street bicycle paths and trails	Too few	61.5%	75.2%	63.9%	58.8%	57.0%	62.1%
	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Too many	2.6%	1.6%	4.8%	4.2%	4.4%	3.9%
The number or amount of	About the right amount, or	23.2%	24.6%	22.7%	25.0%	22.3%	23.6%
on-street dedicated bicycle lanes	Too few	74.2%	73.8%	72.5%	70.8%	73.3%	72.5%
	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Too many	0.7%	3.1%	5.6%	4.0%	5.1%	4.3%
The number or amount of	About the right amount, or	30.0%	34.4%	28.8%	25.9%	36.4%	32.9%
bike-friendly streets	Too few	69.3%	62.6%	65.6%	70.1%	58.6%	62.9%
	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Too many	0.5%	0.2%	0.9%	0.8%	3.0%	1.3%
The number of places to park bicycles, like bike racks and storage lockers	About the right amount, or	27.2%	22.2%	19.6%	26.7%	25.9%	23.8%
	Too few	72.3%	77.6%	79.5%	72.5%	71.2%	74.9%
	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

### Table 123: Question #10 by Annual Household Income

Would you say you strongly agree, somewhat agree, somewhat disagree or strongly disagree with the each of the following statements about your neighborhood. Percent who somewhat or strongly agree	Under \$25,000	\$25,000 - \$49,999	\$50,000 - \$74,999	\$75,000 - \$99,999	\$100,000 or more	Overall
There are off-street bike trails or paved paths in or near my neighborhood that are easy to get to.	49.3%	51.0%	49.7%	56.0%	56.7%	53.2%
There are bike lanes that are easy to get to.	32.7%	41.7%	37.9%	38.8%	35.6%	36.2%
There are quiet streets, without bike lanes, that are easy to get to on a bike.	53.4%	53.5%	61.9%	71.8%	76.0%	64.1%
There is a high crime rate in my neighborhood.	43.6%	27.9%	25.6%	14.3%	11.1%	21.2%
There is so much traffic along the street I live on that it would make it difficult or unpleasant to bike.	59.3%	57.8%	44.9%	37.0%	36.5%	45.8%
There is so much traffic along nearby streets that it would make it difficult or unpleasant to bike.	64.4%	61.1%	56.1%	54.5%	61.5%	58.5%
The speed of traffic on most nearby streets is usually slow.	43.4%	42.6%	44.3%	42.0%	39.3%	42.1%
Most drivers exceed the posted speed limits in my neighborhood.	63.7%	67.6%	68.2%	69.6%	67.1%	65.9%
Streets in my neighborhood are poorly maintained.	48.0%	44.6%	37.8%	33.9%	23.9%	35.1%

Table 124: Question #11 by Annual Household Income

Would you say you strongly agree, somewhat agree, somewhat disagree or strongly disagree with the following statement: "I would like to travel by bike more than I do now."	Under \$25,000	\$25,000 - \$49,999	\$50,000 - \$74,999	\$75,000 - \$99,999	\$100,000 or more	Overall
Strongly AGREE	24.0%	37.4%	30.7%	32.9%	27.3%	30.3%
Somewhat AGREE	25.6%	23.1%	21.5%	27.4%	26.5%	24.6%
Somewhat DISAGREE	12.6%	11.0%	17.7%	12.2%	16.8%	14.2%
Strongly DISAGREE	37.8%	28.6%	30.2%	27.5%	29.5%	31.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 125: Question #12 by Annual Household Income

Do any of the following prevent you from riding a bike more often than you currently do— Percent saying "yes"	Under \$25,000	\$25,000 - \$49,999	\$50,000 - \$74,999	\$75,000 - \$99,999	\$100,000 or more	Overall
I am not physically able	42.3%	29.4%	25.2%	10.2%	12.7%	22.8%
l don't own a bike	42.8%	45.6%	33.3%	28.5%	32.7%	37.4%
My bike is not in good working condition	33.6%	23.3%	18.3%	13.9%	13.2%	19.6%
I do not feel safe	40.1%	41.3%	42.0%	31.0%	25.4%	34.2%
Biking lanes, trails, and paths are not available	62.3%	53.4%	49.2%	46.8%	43.0%	48.2%
Biking lanes, trails, and paths are not connected	48.1%	58.2%	53.0%	54.2%	52.4%	52.7%
It takes too long	45.2%	39.2%	29.7%	42.6%	28.1%	35.1%
Destinations are too far	41.3%	52.6%	48.1%	55.9%	43.1%	47.6%
Existing bikeways are in poor condition	40.4%	19.9%	28.7%	24.5%	18.2%	24.3%
No showers or place to freshen up at my destination	45.6%	50.8%	49.9%	53.0%	48.6%	49.3%
Lack of secure bike parking	59.5%	57.9%	58.1%	54.3%	45.9%	53.6%
Weather is too HOT	60.4%	60.3%	67.3%	67.6%	59.5%	64.3%
Weather is too COLD	22.3%	28.3%	22.6%	25.4%	23.0%	26.5%
It doesn't fit my lifestyle	39.6%	38.0%	33.4%	39.6%	36.4%	36.8%

Table 126: Question #13 by Annual Household Income

I'm going read a list of places you could hypothetically ride a bike. For each place, please tell me how comfortable you would feel biking there using a scale of 1-4, with 1 meaning you would be "Very Uncomfortable", 2 meaning you are "Somewhat Uncomfortable", 3 meaning you are "Somewhat Comfortable", and 4 meaning you would be "Very Comfortable". Percent saying very or somewhat comfortable	Under \$25,000	\$25,000 - \$49,999	\$50,000 - \$74,999	\$75,000 - \$99,999	\$100,000 or more	Overall
A path or trail that is separate from a street.	90.3%	80.5%	85.3%	88.0%	86.2%	84.9%
A residential street with one traffic lane in each direction, with traffic speeds of 25 to 30 miles per hour, some on street parking and no bike lane	47.4%	39.2%	39.7%	47.7%	47.8%	44.3%
What if that street also had bicycle route markings, speed humps, and other things that slow down car traffic	79.4%	83.1%	81.6%	73.1%	79.9%	79.4%
A neighborhood commercial shopping street with one traffic lane in each direction, with traffic speeds of 25 to 30 miles per hour, with on- street parking and no bike lane	30.9%	27.5%	20.6%	28.0%	33.9%	28.3%
The same street if a striped bicycle lane was added	69.0%	83.8%	77.5%	77.8%	79.4%	77.3%
A major urban street with two traffic lanes in each direction, speeds of 30 to 35 miles per hour and no bike lane	27.1%	15.5%	8.3%	20.6%	11.9%	15.3%
The same street with a striped bike lane added	59.5%	61.4%	63.8%	63.8%	62.0%	61.7%
What if it also had a wide bicycle lane separated from traffic by a raised curb	90.0%	85.1%	93.1%	79.9%	88.7%	86.5%
A major street with two or three traffic lanes in each direction, traffic speeds of 35 to 40 miles per hour, and no bike lane	17.1%	11.9%	4.4%	8.0%	6.8%	9.2%
The same street with a striped bike lane added	59.7%	48.9%	49.6%	47.8%	47.7%	50.0%
What if it also had a wide bicycle lane separated from traffic by a raised curb	82.2%	80.2%	80.5%	69.5%	78.8%	78.0%

# Table 127: Question #14 by Annual Household Income

Four Types of Transportation Bicyclists	Under \$25,000	\$25,000 - \$49,999	\$50,000 - \$74,999	\$75,000 - \$99,999	\$100,000 or more	Overall
Strong & Fearless	0.6%	2.8%	0.3%	2.6%	2.0%	1.8%
Enthused & Confident	16.9%	12.1%	12.4%	18.0%	14.3%	13.8%
Interested But Concerned	25.0%	39.1%	34.0%	42.0%	36.4%	36.5%
No Way No How	57.5%	46.0%	53.3%	37.4%	47.3%	47.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 128: Four Types of Transportation Bicyclists by Annual Household Income

# Table 129: Current Cycling Behavior (Dill) by Annual Household Income

	Under	\$25,000 -	\$50,000 -	\$75,000 -	\$100,000 or	
Current Cycling Behavior (Dill)	\$25,000	\$49,999	\$74,999	\$99,999	more	Overall
Utilitarian Cyclist	13.3%	10.5%	13.9%	17.6%	11.8%	12.6%
Recreation-only Cyclist	5.0%	8.0%	17.8%	16.4%	19.3%	14.3%
Non-cyclist	45.7%	58.5%	46.3%	57.0%	58.2%	53.6%
Unable to Cycle	36.0%	23.0%	22.0%	9.0%	10.8%	19.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Now I'm going to ask you how important, if at all, you feel it is for your community to do each of the following. What about Percent rating as essential or very important	Under \$25,000	\$25,000 - \$49,999	\$50,000 - \$74,999	\$75,000 - \$99,999	\$100,000 or more	Overall
Providing bike trails separated from roadways	68.9%	67.5%	68.4%	64.5%	63.7%	65.5%
Providing bike lanes separated from vehicles so bikes and cars do not have to share the same lane	80.6%	82.1%	83.5%	75.4%	69.6%	75.9%
Lowering traffic speeds on community roadways to the improve safety of pedestrians and bicyclists sharing the road	77.6%	81.4%	67.4%	72.1%	65.7%	70.1%
Providing traffic signals or crossing beacons at intersections and crossings to warn drivers of bike and trail users crossing the road	81.0%	88.4%	76.8%	76.5%	77.1%	78.4%

Table 130: Question #15 by Annual Household Income

# Selected Survey Results by "Four Type" Category and Current Cycling Behavior

ANOVA and chi-square tests of significance were applied to these comparisons of survey questions. A "p-value" of 0.05 or less indicates that there is less than a 5% probability that differences observed between subgroups are due to chance; or in other words, a greater than 95% probability that the differences observed are "real." Cells shaded grey indicate statistically significant differences ( $p \le .05$ ) between at least two of the subgroups.

Did you ever ride a bicycle, even once, in the past 12 months?	Strong & Fearless	Enthused & Confident	Interested But Concerned	No Way No How	Utilitarian Cyclist	Recreation- only Cyclist	Non- cyclist	Unable to Cycle	Overall
No	63.6%	51.7%	43.7%	82.7%	0.0%	0.0%	83.3%	100.0%	63.7%
Yes	36.4%	48.3%	56.3%	17.3%	100.0%	100.0%	16.7%	0.0%	36.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

#### Table 131: Question #1 by "Four Type" Category and Current Cycling Behavior

Thinking about the past year, which of the following BEST describes your bicycle-riding behavior— Only asked of those who had ever bicycled in last 12 months	Strong & Fearless	Enthused & Confident	Interested But Concerned	No Way No How	Utilitarian Cyclist	Recreation- only Cyclist	Non-cyclist	Overall
You ride daily	1.3%	6.4%	6.2%	3.5%	10.5%	4.4%	0.0%	5.5%
A few times a week	59.0%	25.4%	21.8%	13.4%	35.1%	22.8%	0.0%	21.0%
A few times a month	7.0%	37.8%	34.4%	31.1%	41.3%	44.3%	0.0%	33.5%
A few times a year	11.7%	19.3%	26.7%	22.3%	10.8%	20.8%	50.9%	24.2%
You seldom ride	21.0%	9.7%	9.5%	13.8%	2.2%	7.8%	29.2%	10.9%
You are currently NOT a bike								
rider	0.0%	1.5%	1.5%	15.9%	0.0%	0.0%	19.9%	4.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

 Table 132: Question #2 by "Four Type" Category and Current Cycling Behavior

Thinking about the past year, which of the following BEST describes your bicycle- riding behavior— Those who had not bicycled in last 12 months considered "Not a rider"	Strong & Fearless	Enthused & Confident	Interested But Concerned	No Way No How	Utilitarian Cyclist	Recreation- only Cyclist	Non- cyclist	Unable to Cycle	Overall
You ride daily	0.5%	3.1%	3.5%	0.6%	10.5%	4.4%	0.0%	0.0%	2.0%
A few times a week	21.5%	12.3%	12.3%	2.3%	35.1%	22.8%	0.0%	0.0%	7.6%
A few times a month	2.5%	18.2%	19.4%	5.4%	41.3%	44.3%	0.0%	0.0%	12.1%
A few times a year	4.3%	9.3%	15.0%	3.9%	10.8%	20.8%	8.5%	0.0%	8.8%
You seldom ride	7.6%	4.7%	5.4%	2.4%	2.2%	7.8%	4.9%	0.0%	3.9%
You are currently NOT a bike rider	63.6%	52.4%	44.5%	85.5%	0.0%	0.0%	86.7%	100.0%	65.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

 Table 133: Question #2 by "Four Type" Category and Current Cycling Behavior

In the last 30 days, about how often, if at all, did you bicycle for work, school, shopping or to get to another destination? Only asked of those who had ever bicycled in last 12 months	Strong & Fearless	Enthused & Confident	Interested But Concerned	No Way No How	Utilitarian Cyclist	Recreation- only Cyclist	Non-cyclist	Overall
None	67.9%	61.2%	51.9%	100.0%	0.0%	100.0%	100.0%	63.8%
Once or twice	20.0%	15.5%	21.0%	0.0%	43.5%	0.0%	0.0%	15.7%
3 or 4 times	11.2%	6.9%	6.0%	0.0%	13.9%	0.0%	0.0%	5.0%
About once or twice a week	0.0%	1.4%	8.2%	0.0%	14.0%	0.0%	0.0%	5.0%
3 or 4 times a week	1.0%	7.9%	6.3%	0.0%	14.4%	0.0%	0.0%	5.2%
5 or more times a week	0.0%	7.0%	6.6%	0.0%	14.2%	0.0%	0.0%	5.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

 Table 134: Question #3 by "Four Type" Category and Current Cycling Behavior

In the last 30 days, about how often, if at all, did you bicycle for work, school, shopping or to get to another destination? Those who had not bicycled in last 12 months considered "Not a rider"	Strong & Fearless	Enthused & Confident	Interested But Concerned	No Way No How	Utilitarian Cyclist	Recreation- only Cyclist	Non- cyclist	Unable to Cycle	Overall
None	88.3%	81.6%	73.3%	100.0%	0.0%	100.0%	100.0%	100.0%	87.5%
Once or twice	7.3%	7.4%	11.7%	0.0%	43.5%	0.0%	0.0%	0.0%	5.4%
3 or 4 times	4.1%	3.3%	3.3%	0.0%	13.9%	0.0%	0.0%	0.0%	1.7%
About once or twice a week	0.0%	0.7%	4.5%	0.0%	14.0%	0.0%	0.0%	0.0%	1.7%
3 or 4 times a week	0.4%	3.8%	3.5%	0.0%	14.4%	0.0%	0.0%	0.0%	1.8%
5 or more times a week	0.0%	3.3%	3.6%	0.0%	14.2%	0.0%	0.0%	0.0%	1.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

 Table 135: Question #3 by "Four Type" Category and Current Cycling Behavior

In the last 30 days, about how often, if at all, did you bicycle for fun or exercise? Only asked of those who had ever bicycled in last 12 months	Strong & Fearless	Enthused & Confident	Interested But Concerned	No Way No How	Utilitarian Cyclist	Recreation- only Cyclist	Non-cyclist	Overall
None	21.8%	19.7%	27.6%	22.4%	6.3%	0.0%	100.0%	25.2%
Once or twice	17.8%	36.8%	29.5%	42.2%	39.9%	45.7%	0.0%	33.1%
3 or 4 times	34.2%	15.3%	14.1%	15.7%	13.5%	24.6%	0.0%	14.9%
About once or twice a week	13.0%	13.7%	11.2%	13.4%	17.9%	13.7%	0.0%	12.1%
3 or 4 times a week	1.0%	10.2%	5.8%	3.2%	7.8%	7.7%	0.0%	6.0%
5 or more times a week	12.2%	4.2%	11.8%	3.2%	14.6%	8.3%	0.0%	8.7%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

 Table 136: Question #4 by "Four Type" Category and Current Cycling Behavior

In the last 30 days, about how often, if at all, did you bicycle for fun or exercise? Those who had not bicycled in last 12 months considered "Not a rider"	Strong & Fearless	Enthused & Confident	Interested But Concerned	No Way No How	Utilitarian Cyclist	Recreation- only Cyclist	Non- cyclist	Unable to Cycle	Overall
None	71.6%	61.8%	59.8%	88.7%	6.3%	0.0%	100.0%	100.0%	74.2%
Once or twice	6.5%	17.5%	16.4%	6.1%	39.9%	45.7%	0.0%	0.0%	11.4%
3 or 4 times	12.4%	7.3%	7.8%	2.3%	13.5%	24.6%	0.0%	0.0%	5.2%
About once or twice a week	4.7%	6.5%	6.2%	1.9%	17.9%	13.7%	0.0%	0.0%	4.2%
3 or 4 times a week	0.4%	4.8%	3.2%	0.5%	7.8%	7.7%	0.0%	0.0%	2.1%
5 or more times a week	4.4%	2.0%	6.6%	0.5%	14.6%	8.3%	0.0%	0.0%	3.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

 Table 137: Question #4 by "Four Type" Category and Current Cycling Behavior

		· /	<u> </u>	, ,	<u> </u>		
Over the past year, on average, how many days did you ride your bicycle during each of these seasons? What about Only asked of those who had ever bicycled in last 12 months and were currently a rider Percent riding once a week or more	Strong & Fearless	Enthused & Confident	Interested But Concerned	No Way No How	Utilitarian Cyclist	Recreation- only Cyclist	Overall
What about in the Spring, the months of March, April and May?	40.2%	46.2%	46.7%	39.2%	69.8%	42.1%	44.8%
What about in Summer, the months of June, July and August?	38.2%	48.5%	39.5%	34.6%	56.3%	40.8%	40.0%
What about in the Fall, the months of September, October and November?	21.2%	43.8%	38.5%	39.8%	55.3%	39.2%	39.4%
What about in the Winter, the months of December, January and February?	2.8%	24.6%	22.6%	10.7%	33.0%	18.5%	20.2%

 Table 138: Question #5 by "Four Type" Category and Current Cycling Behavior

Over the past year, on average, how many days did you ride your bicycle during each of these seasons? What about Those who had not bicycled in last 12 months or were not currently riders considered "Never" Percent riding once a week or more	Strong & Fearless	Enthused & Confident	Interested But Concerned	No Way No How	Utilitarian Cyclist	Recreation- only Cyclist	Overall
What about in the Spring, the months of March, April and May?	11.0%	22.0%	25.4%	5.6%	69.8%	42.1%	15.1%
What about in Summer, the months of June, July and August?	10.5%	23.0%	21.5%	5.0%	56.3%	40.8%	13.5%
What about in the Fall, the months of September, October and November?	5.8%	20.5%	21.1%	5.5%	55.3%	39.2%	13.2%
What about in the Winter, the months of December, January and February?	0.8%	11.7%	12.4%	1.5%	33.0%	18.5%	6.9%

 Table 139: Question #5 by "Four Type" Category and Current Cycling Behavior

How many miles is your AVERAGE bicycle ride? Only asked of those who had ever bicycled in last 12 months and were currently a rider	Strong & Fearless	Enthused & Confident	Interested But Concerned	No Way No How	Utilitarian Cyclist	Recreation- only Cyclist	Overall
less than a mile	41.4%	12.6%	9.4%	7.3%	8.0%	6.6%	10.6%
one mile	0.0%	5.0%	10.3%	12.8%	9.0%	8.1%	9.7%
two miles	0.0%	15.3%	13.1%	11.1%	8.1%	12.6%	12.9%
3 to 4 miles	35.5%	24.0%	24.0%	20.3%	31.2%	21.3%	23.3%
5 miles	8.3%	15.0%	16.6%	15.5%	13.2%	19.3%	15.8%
5 to 10 miles	0.0%	13.9%	13.1%	19.1%	15.0%	14.5%	14.1%
11 to 15 miles	0.0%	3.4%	6.2%	6.1%	4.7%	7.2%	5.5%
16 to 20 miles	0.0%	3.5%	2.7%	2.3%	2.2%	4.4%	2.7%
more than 20 miles	14.8%	7.2%	4.7%	5.5%	8.5%	5.9%	5.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

 Table 140: Question #6 by "Four Type" Category and Current Cycling Behavior

On the days you ride a bicycle, about how many miles on average do you ride? Only asked of those who had ever bicycled in last 12 months and were currently a rider	Strong & Fearless	Enthused & Confident	Interested But Concerned	No Way No How	Utilitarian Cyclist	Recreation- only Cyclist	Overall
less than a mile	20.4%	9.2%	10.7%	9.2%	8.6%	7.5%	10.8%
one mile	55.1%	7.0%	9.9%	12.8%	8.3%	10.7%	11.0%
two miles	0.0%	19.1%	13.1%	10.9%	9.0%	12.5%	13.5%
3 to 4 miles	0.9%	15.4%	20.1%	18.5%	21.4%	18.3%	18.4%
5 miles	8.8%	19.0%	16.1%	16.9%	16.8%	16.9%	16.5%
5 to 10 miles	0.0%	12.4%	15.0%	18.3%	15.8%	16.7%	14.8%
11 to 15 miles	0.0%	7.5%	10.3%	5.8%	11.7%	8.7%	8.5%
16 to 20 miles	0.0%	2.6%	2.6%	2.1%	2.4%	3.8%	2.4%
more than 20 miles	14.8%	7.9%	2.1%	5.4%	6.1%	4.9%	4.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

 Table 141: Question #7 by "Four Type" Category and Current Cycling Behavior

Average miles ridden on bicycle Only asked of those who had ever bicycled in last 12 months and were currently a rider	Strong & Fearless	Enthused & Confident	Interested But Concerned	No Way No How	Utilitarian Cyclist	Recreation- only Cyclist	Overall
How many miles is your AVERAGE bicycle ride?	10.43	8.18	7.61	6.27	8.97	8.42	7.45
On the days you ride a bicycle, about how many miles on average do you ride?	10.09	7.06	5.72	6.04	7.13	6.91	6.09

#### Table 142: Question #6 and #7 Averages by "Four Type" Category and Current Cycling Behavior

	Table 143:	Question #8 by	"Four Type" Ca	ategory and Cur	rent Cycling Be	havior		
How often, if at all, would you say you wear a helmet when you ride a bicycle? Only asked of those who had ever bicycled in last 12 months and were currently a rider	Strong & Fearless	Enthused & Confident	Interested But Concerned	No Way No How	Utilitarian Cyclist	Recreation- only Cyclist	Non-cyclist	Overall
Never	83.9%	39.8%	40.8%	43.5%	40.8%	34.2%	60.4%	42.3%
About 25% of the time	1.3%	18.6%	6.5%	0.7%	7.7%	8.2%	6.5%	7.5%
About half the time	0.0%	5.0%	6.5%	3.7%	8.8%	3.5%	1.7%	5.5%
About 75% of the time	0.0%	2.2%	1.7%	2.8%	2.1%	2.2%	1.5%	2.0%
Always or almost always	14.8%	34.4%	44.5%	49.3%	40.6%	52.0%	29.9%	42.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

#### .. . . . ... ....

How safe or unsafe do you feel when you ride a bicycle in your community? Only asked of those who had ever bicycled in last 12 months and were currently a rider	Strong & Fearless	Enthused & Confident	Interested But Concerned	No Way No How	Utilitarian Cyclist	Recreation- only Cyclist	Non-cyclist	Overall
Very unsafe	35.0%	12.2%	8.7%	4.6%	11.9%	7.8%	7.3%	9.0%
Somewhat unsafe	10.4%	16.7%	19.4%	8.2%	21.8%	12.8%	12.1%	16.3%
Somewhat safe, or	45.0%	20.4%	43.2%	25.5%	39.7%	27.4%	43.3%	35.5%
Very safe?	9.6%	50.6%	28.8%	61.7%	26.6%	52.0%	37.3%	39.2%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

 Table 144: Question #9 by "Four Type" Category and Current Cycling Behavior

bicycles in your For each, I wan if you think the	availability of of facilities for r community. It you to tell me ere are too many, t amount, or too	Strong & Fearless	Enthused & Confident	Interested But Concerned	No Way No How	Utilitarian Cyclist	Recreation- only Cyclist	Non-cyclist	Unable to Cycle	Overall
The number	Too many	10.0%	0.3%	0.6%	2.1%	0.7%	0.3%	1.2%	3.4%	1.4%
or amount of off-street	About the right amount, or	54.7%	27.4%	33.8%	40.6%	37.5%	32.8%	37.7%	35.5%	36.5%
bicycle paths	Too few	35.3%	72.2%	65.7%	57.3%	61.8%	66.9%	61.1%	61.1%	62.1%
and trails	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
The number	Too many	10.6%	1.6%	2.2%	5.8%	5.2%	2.0%	3.5%	6.0%	3.9%
or amount of on-street	About the right amount, or	19.3%	15.8%	20.9%	28.4%	26.3%	19.9%	23.6%	24.9%	23.6%
dedicated	Too few	70.1%	82.6%	76.9%	65.8%	68.5%	78.1%	72.9%	69.1%	72.5%
bicycle lanes	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Too many	11.5%	0.5%	2.1%	6.9%	4.9%	1.9%	4.4%	5.7%	4.3%
The number or amount of	About the right amount, or	43.1%	33.6%	25.5%	37.6%	23.4%	33.0%	35.4%	33.4%	32.9%
bike-friendly streets	Too few	45.4%	66.0%	72.4%	55.5%	71.7%	65.1%	60.2%	61.0%	62.9%
50,000	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
The number	Too many	11.2%	0.2%	0.0%	2.2%	0.0%	0.0%	1.4%	2.8%	1.3%
of places to park bicycles,	About the right amount, or	20.9%	24.6%	20.0%	26.6%	31.9%	20.8%	23.3%	22.3%	23.8%
like bike racks and	Too few	67.9%	75.2%	80.0%	71.2%	68.1%	79.2%	75.2%	74.9%	74.9%
storage lockers	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

 Table 145: Question #10 by "Four Type" Category and Current Cycling Behavior

	Tuble 1	40. Question	iii by rour i	the categor		cycling beliavi	01	· · · · · ·	
Would you say you strongly agree, somewhat agree, somewhat disagree or strongly disagree with the each of the following statements about your neighborhood. Percent who somewhat or strongly agree	Strong & Fearless	Enthused & Confident	Interested But Concerned	No Way No How	Utilitarian Cyclist	Recreation- only Cyclist	Non- cyclist	Unable to Cycle	Overall
There are off-street bike trails or paved paths in or near my neighborhood that are easy to get to.	66.1%	49.7%	57.2%	50.2%	60.0%	61.6%	53.0%	41.6%	53.2%
There are bike lanes that are easy to get to.	33.5%	40.7%	35.1%	35.5%	44.2%	35.4%	35.7%	33.4%	36.2%
There are quiet streets, without bike lanes, that are easy to get to on a bike.	64.5%	63.5%	67.8%	61.5%	73.3%	67.9%	64.8%	53.7%	64.1%
There is a high crime rate in my neighborhood.	31.1%	26.0%	18.2%	21.5%	24.9%	17.8%	19.4%	26.2%	21.2%
There is so much traffic along the street I live on that it would make it difficult or unpleasant to bike.	43.5%	48.2%	46.9%	44.4%	41.3%	49.1%	45.5%	48.2%	45.8%
There is so much traffic along nearby streets that it would make it difficult or unpleasant to bike.	42.4%	63.1%	63.0%	54.3%	62.8%	60.0%	57.5%	58.1%	58.5%
The speed of traffic on most nearby streets is usually slow.	49.6%	36.3%	41.6%	43.7%	41.2%	41.2%	43.3%	40.9%	42.1%
Most drivers exceed the posted speed limits in my neighborhood.	65.0%	68.1%	70.1%	61.9%	67.8%	65.4%	67.6%	60.7%	65.9%
Streets in my neighborhood are poorly maintained.	37.8%	34.4%	36.6%	33.9%	37.8%	35.4%	32.1%	41.4%	35.1%

 Table 146: Question #11 by "Four Type" Category and Current Cycling Behavior

Prepared by National Research Center, Inc. (2017-10-25)

Would you say you strongly agree, somewhat agree, somewhat disagree or strongly disagree with the following statement: "I would like to travel by bike more than I do now."	Strong & Fearless	Enthused & Confident	Interested But Concerned	No Way No How	Utilitarian Cyclist	Recreation- only Cyclist	Non- cyclist	Unable to Cycle	Overall
Strongly AGREE	33.3%	45.2%	50.7%	10.4%	48.2%	38.8%	27.9%	17.8%	30.3%
Somewhat AGREE	18.5%	24.4%	45.5%	8.9%	37.1%	24.1%	25.6%	12.2%	24.6%
Somewhat DISAGREE	15.9%	15.0%	2.0%	23.2%	8.1%	21.8%	15.1%	10.5%	14.2%
Strongly DISAGREE	32.3%	15.3%	1.7%	57.5%	6.7%	15.3%	31.4%	59.5%	31.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

 Table 147: Question #12 by "Four Type" Category and Current Cycling Behavior

Do any of the following prevent you from riding a bike more often than you currently do— Percent saying "yes"	Strong & Fearless	Enthused & Confident	Interested But Concerned	No Way No How	Utilitarian Cyclist	Recreation- only Cyclist	Non- cyclist	Unable to Cycle	Overall
I am not physically able	0.0%	0.0%	2.4%	45.8%	7.0%	9.5%	2.1%	100.0%	22.8%
I don't own a bike	45.5%	35.5%	31.5%	45.2%	13.0%	10.1%	49.3%		37.4%
My bike is not in good working condition	20.2%	20.0%	21.2%	16.7%	18.1%	7.5%	23.5%		19.6%
I do not feel safe	33.4%	32.3%	39.0%	29.1%	31.6%	32.8%	35.2%		34.2%
Biking lanes, trails, and paths are not available	46.2%	58.5%	52.0%	37.5%	51.1%	47.1%	48.1%		48.2%
Biking lanes, trails, and paths are not connected	39.3%	53.4%	61.9%	40.0%	59.1%	61.9%	49.4%		52.7%
It takes too long	39.8%	39.9%	29.8%	39.9%	22.0%	28.2%	40.0%		35.1%
Destinations are too far	48.1%	41.0%	45.2%	54.8%	32.0%	40.6%	52.8%		47.6%
Existing bikeways are in poor condition	8.8%	26.1%	30.3%	16.4%	32.0%	21.7%	23.4%		24.3%
No showers or place to freshen up at my destination	19.0%	51.7%	52.0%	46.7%	50.7%	41.8%	50.9%		49.3%
Lack of secure bike parking	22.2%	57.3%	61.4%	42.4%	58.3%	52.1%	52.9%		53.6%
Weather is too HOT	55.8%	58.6%	64.6%	67.5%	58.7%	53.4%	68.2%		64.3%
Weather is too COLD	28.9%	20.9%	28.8%	26.0%	29.5%	30.1%	24.3%		26.5%
It doesn't fit my lifestyle	27.3%	31.6%	23.5%	58.3%	6.0%	17.2%	49.0%		36.8%

I'm going read a list of places you could hypothetically ride a bike. For each place, please tell me how comfortable you would feel biking there using a scale of 1-4, with 1 meaning you would be "Very Uncomfortable", 2 meaning you are "Somewhat Uncomfortable", 3 meaning you are "Somewhat Comfortable", and 4 meaning you would be "Very Comfortable". Percent saying very or somewhat comfortable	Strong & Fearless	Enthused & Confident	Interested But Concerned	No Way No How	Utilitarian Cyclist	Recreation- only Cyclist	Non-cyclist	Overall
A path or trail that is separate from a street.	79.8%	88.1%	87.8%	79.4%	82.1%	92.7%	83.4%	84.9%
A residential street with one traffic lane in each direction, with traffic speeds of 25 to 30 miles per hour, some on street parking and no bike lane	84.3%	46.5%	43.5%	41.3%	45.7%	47.1%	43.7%	44.3%
What if that street also had bicycle route markings, speed humps, and other things that slow down car traffic	88.6%	87.6%	84.2%	67.5%	76.2%	89.4%	77.8%	79.4%
A neighborhood commercial shopping street with one traffic lane in each direction, with traffic speeds of 25 to 30 miles per hour, with on- street parking and no bike lane	100.0%	39.8%	23.0%	24.0%	32.9%	25.6%	28.2%	28.3%
The same street if a striped bicycle lane was added	100.0%	100.0%	79.1%	60.8%	74.7%	86.4%	75.7%	77.3%
A major urban street with two traffic lanes in each direction, speeds of 30 to 35 miles per hour and no bike lane	100.0%	26.2%	8.7%	13.3%	13.9%	12.1%	16.6%	15.3%
The same street with a striped bike lane added	100.0%	100.0%	58.3%	43.3%	73.6%	63.7%	58.3%	61.7%

 Table 149: Question #14 by "Four Type" Category and Current Cycling Behavior

I'm going read a list of places you could hypothetically ride a bike. For each place, please tell me how comfortable you would feel biking there using a scale of 1-4, with 1 meaning you would be "Very Uncomfortable", 2 meaning you are "Somewhat Uncomfortable", 3 meaning you are "Somewhat Comfortable", and 4 meaning you would be "Very Comfortable". Percent saying very or somewhat comfortable	Strong & Fearless	Enthused & Confident	Interested But Concerned	No Way No How	Utilitarian Cyclist	Recreation- only Cyclist	Non-cyclist	Overall
What if it also had a wide bicycle lane separated from traffic by a raised curb	96.3%	96.4%	89.9%	76.2%	92.8%	95.0%	82.9%	86.5%
A major street with two or three traffic lanes in each direction, traffic speeds of 35 to 40 miles per hour, and no bike lane	100.0%	16.6%	3.0%	6.9%	9.3%	7.4%	9.8%	9.2%
The same street with a striped bike lane added	87.4%	100.0%	40.1%	34.0%	58.6%	52.9%	47.5%	50.0%
What if it also had a wide bicycle lane separated from traffic by a raised curb	96.3%	96.3%	81.6%	62.4%	85.4%	85.2%	74.7%	78.0%

Four Types of Transportation Bicyclists	Strong & Fearless	Enthused & Confident	Interested But Concerned	No Way No How	Utilitarian Cyclist	Recreation- only Cyclist	Non- cyclist	Unable to Cycle	Overall
Strong & Fearless	100.0%	0.0%	0.0%	0.0%	1.7%	2.2%	2.5%	0.0%	1.8%
Enthused & Confident	0.0%	100.0%	0.0%	0.0%	20.3%	20.9%	15.5%	0.0%	13.8%
Interested But Concerned	0.0%	0.0%	100.0%	0.0%	78.0%	38.8%	38.6%	0.0%	36.5%
No Way No How	0.0%	0.0%	0.0%	100.0%	0.0%	38.2%	43.4%	100.0%	47.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 150: Four Types of Transportation Bicyclists by "Four Type" Category and Current Cycling Behavior

#### Table 151: Current Cycling Behavior (Dill) by "Four Type" Category and Current Cycling Behavior

	Strong &	Enthused &	Interested But	No Wav	Utilitarian	Recreation-	Non-	Unable to	
Current Cycling Behavior (Dill)	Fearless	Confident	Concerned	No How	Cyclist	only Cyclist	cyclist	Cycle	Overall
Utilitarian Cyclist	11.7%	18.5%	27.3%	0.0%	100.0%	0.0%	0.0%	0.0%	12.6%
Recreation-only Cyclist	16.8%	21.6%	15.4%	11.3%	0.0%	100.0%	0.0%	0.0%	14.3%
Non-cyclist	71.6%	59.9%	57.3%	48.1%	0.0%	0.0%	100.0%	0.0%	53.6%
Unable to Cycle	0.0%	0.0%	0.0%	40.5%	0.0%	0.0%	0.0%	100.0%	19.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Now I'm going to ask you how important, if at all, you feel it is for your community to do each of the following. What about Percent rating as essential or very important	Strong & Fearless	Enthused & Confident	Interested But Concerned	No Way No How	Utilitarian Cyclist	Recreation- only Cyclist	Non- cyclist	Unable to Cycle	Overall
Providing bike trails separated from roadways	72.5%	63.4%	68.2%	63.9%	68.8%	64.1%	62.1%	74.5%	65.5%
Providing bike lanes separated from vehicles so bikes and cars do not have to share the same lane	75.0%	71.6%	77.1%	76.1%	80.5%	77.1%	72.4%	81.2%	75.9%
Lowering traffic speeds on community roadways to the improve safety of pedestrians and bicyclists sharing the road	78.7%	69.1%	66.3%	72.8%	62.9%	67.5%	70.4%	76.1%	70.1%
Providing traffic signals or crossing beacons at intersections and crossings to warn drivers of bike and trail users crossing the road	76.3%	84.0%	79.7%	75.7%	79.6%	72.4%	78.4%	82.2%	78.4%

 Table 152: Question #15 by "Four Type" Category and Current Cycling Behavior

		Enthused	Interested						
Which of the following best	Strong &	&	But	No Way	Utilitarian	<b>Recreation-</b>	Non-	Unable to	
describes your AGE?	Fearless	Confident	Concerned	No How	Cyclist	only Cyclist	cyclist	Cycle	Overall
18-24 years	12.6%	14.7%	17.6%	10.7%	26.2%	8.5%	14.5%	8.3%	13.7%
25-34 years	26.2%	25.5%	19.6%	14.4%	16.3%	18.1%	23.0%	5.8%	18.1%
35-44 years	25.5%	20.5%	24.9%	18.2%	19.8%	28.4%	21.0%	15.7%	21.0%
45-54 years	3.9%	27.0%	15.8%	18.9%	23.4%	23.7%	18.2%	12.8%	18.7%
55-64 years	18.0%	6.1%	13.6%	16.7%	11.8%	12.8%	11.7%	22.7%	14.1%
65+ years	13.9%	6.2%	8.6%	21.1%	2.4%	8.5%	11.6%	34.6%	14.4%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 153: Question #17 by "Four Type" Category and Current Cycling Behavior

#### Table 154: Question #18 by "Four Type" Category and Current Cycling Behavior

Which of the following best describes your RACIAL OR	Strong &	Enthused &	Interested But	No Way	Utilitarian	Recreatio n-only	Non-	Unable to	0
ETHNIC BACKGROUND?	Fearless	Confident	Concerned	No How	Cyclist	Cyclist	cyclist	Cycle	Overall
Hispanic or Latino	31.5%	24.6%	27.0%	22.0%	32.9%	18.6%	24.7%	23.1%	24.3%
African American/Black	9.4%	19.7%	12.5%	15.6%	11.7%	12.4%	15.6%	15.3%	14.9%
Caucasian/White	46.7%	50.1%	52.7%	55.4%	51.0%	63.5%	51.2%	54.9%	53.6%
Asian	12.2%	3.3%	4.5%	3.6%	3.6%	2.7%	5.1%	2.7%	4.1%
American Indian/Alaska Native	0.0%	0.5%	0.9%	0.9%	0.3%	0.6%	0.8%	1.4%	0.8%
Pacific Islander	0.0%	1.2%	0.0%	0.3%	0.0%	0.1%	0.3%	0.5%	0.3%
Or something else? (SPECIFY)	0.2%	0.6%	2.3%	2.2%	0.4%	2.1%	2.2%	2.2%	2.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Which of the following best describes your total annual HOUSEHOLD INCOME?	Strong & Fearless	Enthused & Confident	Interested But Concerned	No Way No How	Utilitarian Cyclist	Recreation- only Cyclist	Non- cyclist	Unable to Cycle	Overall
Under \$25,000	5.0%	16.4%	9.7%	16.6%	14.2%	5.0%	11.9%	26.2%	13.9%
\$25,000 - \$49,999	36.8%	18.7%	24.2%	21.1%	17.7%	12.5%	23.9%	26.4%	22.1%
\$50,000 - \$74,999	3.7%	18.8%	20.6%	23.9%	23.3%	27.5%	18.7%	25.0%	21.7%
\$75,000 - \$99,999	21.8%	18.2%	17.0%	11.2%	19.6%	17.0%	15.4%	6.8%	14.4%
\$100,000 or more	32.7%	27.9%	28.5%	27.3%	25.2%	38.0%	30.1%	15.6%	27.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 155: Question #19 by "Four Type" Category and Current Cycling Behavior

#### Table 156: Question #21 by "Four Type" Category and Current Cycling Behavior

GENDER (by observation)	Strong & Fearless	Enthused & Confident	Interested But Concerned	No Way No How	Utilitarian Cyclist	Recreation- only Cyclist	Non- cyclist	Unable to Cycle	Overall
Male	57.6%	48.1%	49.4%	49.2%	51.7%	56.1%	49.6%	40.3%	49.2%
Female	42.4%	51.9%	50.6%	50.8%	48.3%	43.9%	50.4%	59.7%	50.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

### **Appendix C: Survey Methodology**

#### **Survey Purpose**

The North Central Texas Council of Governments (NCTCOG) commissioned a survey of residents to capture the views of the public-at-large about bicycle use across the region to help guide future bicycle plans and projects that affect bicyclists.

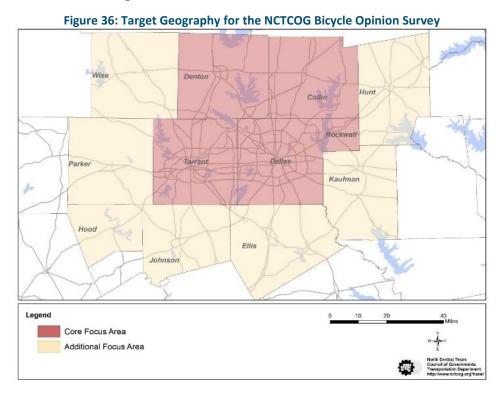
#### **Developing the Interview Script**

One of the important purposes of the survey was to categorize the NCTCOG adult population's comfort bicycling in various scenarios for comparison to the Four Types typology created by the City of Portland and further explored by Jennifer Dill and her colleagues at the University of Portland. The questions crafted for that survey were used as the starting point for the NCTCOG Bicycle Opinion Survey. In addition, questions were constructed to help determine residents' perception of factors in their neighborhood that might help or hinder bicycle use, perceived barriers to bicycling, and support for improvements to bicycle facilities.

The final script was developed through an iterative process between the staff of National Research Center, Inc. (NRC) and the Project Review Committee of NCTCOG. A copy of the interview script can be found in *Appendix D: Interview Script*.

#### **Selecting Survey Recipients**

As the surveys conducted by Dill *et al* had been conducted by phone, NCTCOG also desired to conduct their survey by telephone. The target population for the survey was all adults 18 years of age or older who live in the 12 county region served by NCTCOG. NCTCOG desired to have an adequate number of surveys from six areas within this region for reporting: each of the five urban counties and a sixth area comprised of the seven other more rural counties as shown below.



As shown in Table 157 below, there is variability in the population size of these six areas. The sampling plan was designed to result in roughly equal numbers of interviews in each of these six areas. Survey research is a balance of available resources to optimal survey design; if it were feasible, it would be ideal to survey every adult in the region, but as that is not possible, a sampling of adults is selected for the survey. It was determined that 1,250 interviews could be completed with the existing survey budget, so roughly 208 interviews were planned to be completed in each of the six regions. There were four City entities that desired to participate in the survey and have an adequate number of surveys to produce a separate report of results for their residents. Some interviews in these cities would be conducted through the regular sampling protocol, but additional surveys would be needed. The goal was to complete a total of 200 interviews in each of the four cities, as shown in Table 158.

	Adult (age 18+) Population*	NCTCOG funded interviews	City funded interviews	Total interviews	95% Confidence Interval (Margin of error)
Five core urban counties:	4,429,756	1,040	665	1,705	±2.4%
Collin Co.	624,692	208	249	457	±4.6%
Dallas Co.	1,813,293	208	182	390	±5.0%
Denton Co.	538,373	208	234	442	±4.7%
Rockwall Co.	61,396	208		208	±6.8%
Tarrant Co.	1,392,002	208		208	±6.8%
Seven rural counties**	552,744	210		210	±6.8%
All	4,982,500	1,250	665	1,915	±2.2%

#### Table 157: Number of Surveys to be Completed by Region within NCTCOG

\*American Community Survey 2015 5-year estimates

\*\*Ellis, Hood, Hunt, Johnson, Kaufman, Parker & Wise Counties

#### Table 158: Number of Surveys to be Completed in Each of the Four Selected Cities

City	Adult (age 18+) Population*	NCTCOG funded	City Funded	Total Interviews	95% Confidence Interval (Margin of Error)
Plano: Collin County	275,000	64	136	200	±6.9%
Garland: Dallas County	234,000	18	182	200	±6.9%
Frisco: Collin & Denton					
Counties	153,000	18	182	200	±6.9%
Denton: Denton County	126,000	35	165	200	±6.9%

\*American Community Survey 2015 5-year estimates

The goal of the sampling plan was to ensure those selected are representative of the target population. Thus, the first step was to determine from what source the sample would be selected, referred to as the sampling frame, with the aim of choosing a source that would include as large a proportion as possible of the desired target population.

For a telephone survey, there are a number of considerations in choosing this sampling frame. Before the advent of mobile telephones, only landlines were included in the sampling frame. Now, however, using only landline phone numbers would exclude a very large proportion of adults. Nationally, according to the latest data from the National Health Interview Survey, 50% of adults have only wireless telephone service, and 51% of households have only wireless telephone service.<sup>1</sup> (There are an estimated 3.2% of households nationally with no telephone service.) In Texas, it is estimated that 59.2% of adults have only wireless telephone service.<sup>2</sup>

Thus, to be inclusive of all adults, both landline and cell phones must be included in the sampling frames. A further issue is how to target a small geographic location using telephone numbers. Traditionally, in the past, a random digit dial (RDD) sample was generated, using area codes and telephone prefixes known to be assigned to certain geographic areas and randomly generating the remaining numbers. These would then be screened against known non-residential numbers, and used as the sampling frame. This would allow the inclusion of "unlisted" phone numbers and was the gold standard for much of telephone surveying.

However, this approach is more problematic for cell phone numbers, as these blocks of numbers are assigned to cellular service providers or retail stores. Of course, individuals purchasing the phones may reside a small or great distance from the point of sale. Additionally, customers may "port" their numbers, bringing them to a new residence when they move (locally or nationally), thus the link between geography and the area code and prefix of a phone number is increasingly weak.

Random-digit dialing can capture numbers that are not in lists, but is based on area codes that are related to geography, so will exclude people who have moved to the area, but retained a cell phone number from another geography. Listed sources include billing address data for cell phones, and thus will target resident geography regardless of the area code and prefix. This increases the coverage of the sampling frame, and has been found to be helpful in including harder-to-reach demographics.<sup>3</sup>

Thus, a hybrid approach to the source of sampling frames was taken for the NCTCOG Bicycle Opinion survey, with a mix of random-digit-dial (RDD) and listed sources for landlines and cell phones. The sample was procured by the call center (Customer Research International) from a reputable sample vendor, Marketing Systems Group (MSG). The base sample frame consisted of roughly 30% listed landline, 50% wireless RDD, and 20% listed cell. Additional sample was purchased per phone type as needed to ensure balanced results that were representative of the population. Additional listed sample was used after the county level sampling frame was used for the original regional quotas in order to complete additional surveys for the four cities.

Screening questions were used to place respondents within the subgeographies of the NCTCOG region. Respondents were asked in which county they lived, and if there were in Collin, Dallas or Denton County, in which city they lived. Those who did not live in one of the 12 counties of the NCTCOG region were not interviewed. Once quotas were filled for the specific areas (the total

<sup>&</sup>lt;sup>1</sup> https://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless201705.pdf

<sup>&</sup>lt;sup>2</sup> https://www.cdc.gov/nchs/data/nhis/earlyrelease/Wireless\_state\_201608.pdf

<sup>&</sup>lt;sup>3</sup> Reconnaissance Market Research (2013). Exploration of Sample Bias Within Various Sources of Telephone Sample.

number of interviews from Table 157 and Table 158 above), respondents from those areas were not interviewed.

#### Choosing a Household Member to Complete the Survey

Different procedures were used to request a household member to complete the survey depending on the sample source being dialed. For landline phones, an unbiased procedure to select a single individual within the household known as the "birthday method" was used for this purpose. For this, the interviewer asks that the survey be completed by the adult household member (18 years old or older) who most recently had a birthday, irrespective of year of birth. This technique is not used with cell-phone numbers as they are almost always unique to an individual (i.e., not shared by a household) and therefore, the random selection of a person is made when the cell phone number is selected.

#### Sample Management

The sample was imported into CRI's Computer Assisted Telephone Interviewing (CATI) system which allows for controlled sample handling, questionnaire flow and skip controls and expedited data delivery. Both landline and cell phone numbers were managed by the CATI system and were dialed proportionately. Cell phone numbers were hand dialed as required by the Telephone Consumer Protection Act (TCPA) (47 U.S.C. 227, 47 CFR 64.1200).

Each telephone number was attempted a minimum of five times (typically eight) for landline (two to three attempts for cell phones) during various times of the day and week. Additionally, the CATI system allows respondents to schedule a specific date and time for callback to complete a survey. These procedures remove any bias from only completing surveys with easily reached respondents. This method also reduces self-selection and non-response bias. Fresh sample was only released when no records currently in progress are available. Respondents requesting callback at a specific time and date were inserted into a special calling queue managed by the CATI system to ensure these callbacks were attempted at the appointed time.

The Voxco CATI platform records all call attempts, including the call disposition, date, start time, end time, and duration of each call attempt. These records are available for export at any point in the study for review and analysis to confirm adherence to strict dialing protocols.

#### **Administering the Survey**

The bulk of the interviewing was conducted from May 4, 2017 through June 3, 2017. The plan had been for CRI to conduct the surveys in English and in Spanish, utilizing Spanish bi-lingual interviewers. The protocol was supposed to be that if an English only interviewer encountered a Spanish-speaking respondent, they would record the disposition for that record as language barrier. All language barrier records would then be loaded into a separate sample file and dialed by Spanish-speaking interviewer. However, these phone numbers had mistakenly not been immediately loaded for Spanish interviewers. Once this mistake was realized, all the phone numbers that had been given the language barrier disposition were loaded and dialed following the usual protocol beginning on July 21 through July 25, 2017.

#### **Response Rates**

A total of 1,910 interviews were completed. Of these, 1,842 were completed during the original interviewing period, while an additional 68 interviews were conducted in the second phase of call-

backs to those phone numbers that had been given the disposition of "language barrier." A total of 32 interviews were conducted in Spanish. The final dispositions of the numbers dialed during the survey are listed in Table 159 below. A total of 85,538 phone numbers were dialed during the survey administration. Some of these numbers were considered ineligible for the survey, such as phone numbers of businesses, disconnected phones, etc. With approximately 62,968 eligible households called, the 1,910 completed interviews represent a response rate of 3.0%.

Table 159: Disposition of all Numbers	Called for the 2017 NCTCOG Bicy	vcle Opinion Survey
Table 199. Disposition of an Hambers	culicul for the LOLF Hereod Die	yeie opinion burvey

Call Disposition	Number of Phone Numbers Contacted
Complete	1,910
Refusal	5,796
Respondent never available	5,952
Other, non-refusals	
Respondent unavailable during field period	198
Language problem	15
Always busy	4,039
No answer	17,099
Answering machine/voice mail	32,909
Out of sample - other strata than originally coded (do not live in NCTCOG)	492
Call blocking	852
Fax/data line	442
Disconnected number	13,699
Business, government office, other organizations	1,177
No eligible respondent (a child's phone)	958
Total phone numbers used	85,538
I=Complete Interviews	1,910
P=Partial Interviews	
R=Refusal and break off	5,796
NC=Non-contact	39,059
O=Other	15
e <sup>1</sup> : the estimated proportion of cases of unknown eligibility that are eligible	0.736
UH=Unknown Household	21,990
UO=Unknown other	
Response rate <sup>2</sup>	3.0%

<sup>1</sup>Estimate of e is based on proportion of eligible households among all numbers for which a definitive determination of status was obtained (a very conservative estimate). Disconnected, fax/data line or business phone numbers were not included as eligible households.

<sup>2</sup>The response rate was calculated as I/((I+P) + (R+NC+O) + e(UH+UO)). This is Response Rate 3 on the AAPOR Response Rate Calculator Version 4.0

(see <a href="http://www.aapor.org/Education-Resources/For-Researchers/Poll-Survey-FAQ/Response-Rates-An-Overview.aspx">http://www.aapor.org/Education-Resources/For-Researchers/Poll-Survey-FAQ/Response-Rates-An-Overview.aspx</a>)

The number of completed surveys by region and city are shown in tables below, with the corresponding 95% confidence intervals.

Region	Total interviews	95% Confidence Interval	City	Total interviews	95% Confidence Interval
Five core urban counties:	1,696	±2.4%	City of Denton	205	±6.8%
Collin Co.†	433	±4.7%	City of Frisco	201	±6.9%
Dallas Co. †	403	±4.9%	City of Garland	207	±6.8%
Denton Co. †	425	±4.8%	City of Plano	205	±6.8%
Rockwall Co.	217	±6.7%			
Tarrant Co.	218	±6.6%			
Seven rural counties**	214	±6.7%			
All	1,910	±2.2%			

#### Table 160: Number of Completed Surveys by Region within NCTCOG

\*American Community Survey 2015 5-year estimates \*\*Ellis, Hood, Hunt, Johnson, Kaufman, Parker & Wise Counties † These counties have more surveys because the cities of Denton, Frisco, Garland and Plano are found in these counties.

The 95 percent confidence interval (or "margin of error") quantifies the "sampling error" or precision of the estimates made from the survey results. A 95 percent confidence interval can be calculated for any sample size, and indicates that in 95 of 100 surveys conducted like this one, for a particular item, a result would be found that is within plus-or-minus 6 percentage points of the result that would be found if everyone in the population of interest was surveyed. The practical difficulties of conducting any resident survey may introduce other sources of error in addition to sampling error. Despite best efforts to boost participation and ensure potential inclusion of all eligible households, some selected households will decline participation in the survey (potentially introducing non-response error) and some eligible households may be unintentionally excluded from the listed sources for the sample (referred to as coverage error).

#### **Analyzing the Results**

Use of a CATI system means that all collected data were entered into the dataset at the time of the interview. Skip patterns were programmed into CATI so interviewers were automatically "skipped" to the appropriate question based on the individual responses being given. Before the data were analyzed, an in-depth cleaning of the data was conducted as part of the standard quality control procedures.

#### Weighting the Data

While every effort is made to get as responses from a group as representative as possible of the target population, some individuals are more or less likely to respond to a survey. Thus, after the data were collected, a procedure known as weighting was conducted to make the respondents more closely match the demographic profile of the target population.

To ensure the results would be representative within the various geographic areas sampled, the dataset was divided into 10 parts for the weighting process: Collin County without the City of Plano or City of Frisco residents; Dallas County without the City of Garland; Denton County without the City of Denton or City of Frisco; Rockwall County; Tarrant County; the seven rural counties (Ellis, Hood, Hunt, Johnson, Kaufman, Parker & Wise Counties); City of Denton; City

of Frisco; City of Garland; and City of Plano. Within each of these areas, the demographic profile of respondents was compared to the adult population characteristics as described by the 2015 American Community Survey 5-year estimates. Initial weights were calculated using an Iterative Proportional Fitting model via a python raking algorithm plug-in to SPSS. The control variables used were sex & age, percent of population that was black and percent of the population that was Hispanic. These initial weights were trimmed so that no case was given a weight greater than 5.

Once these initial weights were calculated, another weight (a "geographical weight") was applied to bring each of these 10 geographic areas to the proper proportion represented in the entire NCTCOG region. Applying this regional weight ensured the overall results were representative of the entire region. The final weight was multiplication of the initial weight and the geographical weight. Table 161 below shows the results of applying the final weight; tables showing the results of the weighting within each of the 10 subareas are available in a separate document, if desired. Data were not weighted on annual household income (many respondents will not answer this question, see Table 36 in *Appendix A: Responses to Survey Questions*), but comparisons are provided here to show that the respondents were fairly similar to the general population in terms of income.

	Population	Unweighted	Weighted
Characteristic	Norm <sup>1</sup>	Data	Data
Sex			
Females 18+ years of age	51.5%	49.3%	50.8%
Males 18+ years of age	48.5%	50.7%	49.2%
Age			
18-34 years of age	32.9%	20.7%	31.8%
35-54 years of age	39.0%	34.2%	39.7%
55+ years of age	28.1%	45.2%	28.5%
Sex and Age			
Females 18-34	16.5%	8.7%	16.0%
Females 35-54	19.7%	17.5%	19.7%
Females 55+	15.2%	23.3%	15.2%
Males 18-34	16.4%	12.0%	15.8%
Males 35-54	19.2%	16.7%	20.0%
Males 55+	12.9%	21.9%	13.4%
Race/Ethnicity 18+ years of age			
White alone	71.2%	73.1%	53.6%
Black alone	14.9%	9.3%	14.9%
Other	13.9%	17.6%	31.5%
Hispanic 18+ years of age			
Hispanic	24.4%	9.0%	24.3%
Not Hispanic	75.6%	91.0%	75.7%
Annual Household Income			
Under \$25,000	18.7%	10.4%	13.9%
\$25,000 to \$49,999	22.7%	17.8%	22.1%
\$50,000 to \$74,999	18.1%	19.4%	21.7%
\$75,000 to \$99,999	12.4%	16.2%	14.4%
\$100,000+	28.1%	36.2%	27.9%

<sup>1</sup>Source: 2015 American Community Survey 5-year estimates

#### Analyzing the Data

The electronic dataset was analyzed using the Statistical Package for the Social Sciences (SPSS). For the most part, frequency distributions and average (mean) ratings are presented in the body of the report. A complete set of frequencies for each survey question is presented in *Appendix A: Responses to Survey Questions*.

A statistical procedure known as factor analysis was conducted with the items from questions #5, #11, #14 and #15 to see whether the items from these questions could be grouped into a single or several variables because they shared a common theme. For two of the questions, #11 and #14, which had 9 and 11 items, respectively, factor analysis revealed a structure with three subscales.

Reliability analysis of the resulting indices was used to confirm that each scale or subscale had an acceptable level of internal consistency when the items were grouped together. This is generally measured by Cronbach's alpha, a statistic that measures the extent to which question items within a scale measure the same construct. While there are no hard and fast rules about what levels of Cronbach's alpha are acceptable, one author has proposed that levels "of 0.70 or more are generally accepted as representing good reliability" (Litwin MS. How to Measure Survey Reliability and Validity. Thousand Oaks: Sage Publications; 1995), while another states that "[a]s a general rule, we believe that reliabilities should not be below 0.80 for widely used scales" (Carmines EG, Zeller RA. Reliability and Validity Assessment. Newbury Park: Sage Publications; 1979). Five of the factors reached a good level of internal consistency of 0.70 or above, while the other 6 had an adequate or fair level of reliability, with alpha-levels between 0.516 and 0.694.<sup>4</sup> Table 162 on the next page shows the items that comprise each of the scales, as well as the Cronbach's alpha. Scores for all these scales and subscales are shown in the tables in Appendices A and B. A few of these scales are also highlighted in the body of the report.

<sup>&</sup>lt;sup>4</sup> Generally, the more items in a scale, the higher the Cronbach's alpha level.

Prepared by National Research Center, Inc. (2017-10-25)

Index		Cronbach's Alpha		Item	Factor Loading
Q5 Average Frequency of Biking Each Season (1=Never, 6=5 or more times a week), Bicyclists only		0.827		What about in the Spring, the months of March, April and May?	0.814
				What about in Summer, the months of June, July and August?	0.795
				What about in the Fall, the months of September, October and November?	0.824
				What about in the Winter, the months of December, January and February?	0.813
Q5 Average Frequency of Biking Each Season (1=Never, 6=5 or more times a week), All respondents		0.923		What about in the Spring, the months of March, April and May?	0.924
				What about in Summer, the months of June, July and August?	0.912
				What about in the Fall, the months of September, October and November?	0.926
				What about in the Winter, the months of December, January and February?	0.854
	Perception of Access to Bicycle Paths, Lanes, Bikable Streets in Neighborhood		0.694	There are off-street bike trails or paved paths in or near my neighborhood that are easy to get to.	0.816
		0.680		There are bike lanes that are easy to get to.	0.820
Q11 Perception of Ease of Bicycling in Neighborhood				There are quiet streets, without bike lanes, that are easy to get to on a bike.	0.694
	Perception of Bicycle Safety Due to Traffic in Neighborhood		0.519	There is so much traffic along the street I live on that it would make it difficult or unpleasant to bike.	0.693
				There is so much traffic along nearby streets that it would make it difficult or unpleasant to bike.	0.815
				The speed of traffic on most nearby streets is usually slow.	0.562
				Most drivers exceed the posted speed limits in my neighborhood.	0.611
	Perception of Bicycle Safety		0.627	There is a high crime rate in my neighborhood.	0.823
	due to Crime and Poor Street Maintenance in Neighborhood			Streets in my neighborhood are poorly maintained.	0.775

#### Table 162: Items Comprising Each Index

Index		Cronbach's Alpha		Item	Factor Loading
				A path or trail that is separate from a street.	0.654
Q14 Comfort riding a bicycle	Comfort riding a bicycle on path or residential street		0.516	A residential street with one traffic lane in each direction, with traffic speeds of 25 to 30 miles per hour, some on street parking and no bike lane	0.606
				What if that street also had bicycle route markings, speed humps, and other things that slow down car traffic	0.700
	Comfort riding a bicycle on commercial, major urban and major 2 to 3 lane streets	0.810	0.724	A neighborhood commercial shopping street with one traffic lane in each direction, with traffic speeds of 25 to 30 miles per hour, with on- street parking and no bike lane	0.694
				A major urban street with two traffic lanes in each direction, speeds of 30 to 35 miles per hour and no bike lane	0.819
				A major street with two or three traffic lanes in each direction, traffic speeds of 35 to 40 miles per hour, and no bike lane	0.804
	Comfort riding a bicycle on busier streets with striped bicycle lane or separated by curb		0.830	The same street if a striped bicycle lane was added	0.617
				The same street with a striped bike lane added	0.746
				What if it also had a wide bicycle lane separated from traffic by a raised curb	0.716
				The same street with a striped bike lane added	0.716
				What if it also had a wide bicycle lane separated from traffic by a raised curb	0.785
Q15 Perceived Importance of Bicycle Improvements		0.624		Providing bike trails separated from roadways	0.718
				Providing bike lanes separated from vehicles so bikes and cars do not have to share the same lane	0.784
				Lowering traffic speeds on community roadways to the improve safety of pedestrians and bicyclists sharing the road	0.613
				Providing traffic signals or crossing beacons at intersections and crossings to warn drivers of bike and trail users crossing the road	0.626

\*These items were reverse coded so that agreeing would be equivalent to a negative perception (barrier to bicycling) and disagreeing would be equivalent to a positive perception (facilitator of bicycling).

#### The Four Types of Bicyclists and General Bicycling Behavior

One of the goals of the NCTCOG Bicycle Opinion Survey was to classify respondents into the Four Types originally proposed by Roger Geller with the City of Portland's Bureau of Transportation and tested by Jennifer Dill and Nathan McNeil from Portland State University. This typology focused on bicycle riding for transportation and places individuals into four categories determined in large part by their comfort cycling on different kinds of facilities. These questions are shown in Table 163 below.

I'm going read a list of places you could hypothetically ride a bike. For each place, please tell me how comfortable you would feel biking there using a scale of 1-4, with 1 meaning you would be "Very Uncomfortable", 2 meaning you are "Somewhat Uncomfortable", 3 meaning you are "Somewhat Comfortable" and 4 meaning you would be "Very Comfortable".	1=Very Uncomfortable	2=Somewhat Uncomfortable	3=Somewhat Comfortable	4=Very Comfortable
14a. A path or trail that is separate from a street. How comfortable would you be biking there?	1	2	3	4
14b. A two lane residential street with traffic speeds of 25 to 30 miles per hour, some on street parking and no bike lane?	1	2	3	4
14c. What if that street also had bicycle route markings, speed humps, and other things that slow down car traffic?	1	2	3	4
14d. A two-lane neighborhood commercial shopping street with traffic speeds of 25 to 30 miles per hour, with on- street parking and no bike lane?	1	2	3	4
14e. The same street if a striped bicycle lane was added?	1	2	3	4
14f. A major urban street with four traffic lanes, speeds of 30 to 35 miles per hour and no bike lane?	1	2	3	4
14g. The same street with a striped bike lane added?	1	2	3	4
14h. What if it also had a wide bicycle lane separated from traffic by a raised curb?	1	2	3	4
14i. A major street with two or three lanes in each direction, traffic speeds of 35 to 40 miles per hour, and no bike lane?	1	2	3	4
14j. The same street with a striped bike lane added?	1	2	3	4
14k. What if it also had a wide bicycle lane separated from traffic by a raised curb?	1	2	3	4

#### Table 163: Questions Used for Categorizing Respondents Into the Four Types

The classification system also takes into account a person's self-reported desire to bike more and whether they feel that they are physically unable to bicycle. Table 164 below shows how individuals were classified into one of the four categories. One change was made to how individuals were classified for the NCTCOG survey compared to the surveys completed by Dill & McNeil; it was found that some people said they did not bike or bike more often because they were physically unable to do so. In the scripts used by Dill & McNeil, and thus also for the NCTCOG survey, those who provided such an answer were not asked the comfort level questions. On the Dill & McNeil surveys, these individuals were classified as "No Way No How." However, on the NCTCOG survey, some respondents who said they were physically unable to bike more often did actually report riding a bicycle. These individuals were moved from the No Way No How group to the Interested But Concerned group.

	Cycl	Interest in Cycling		
Туре	Criterion 1	Criterion 2	Criterion 3	Criterion 4
"Strong & Fearless"	Average Mean Score for q14d,q14f & q14i (No Bike Lane) of 3.5 or higher*			Either
"Enthused & Confident"	Average Mean Score for q14d,q14f & q14i (No Bike Lane) less than 3.5	Average Mean Score for q14e, q14g, q14j (With Bike Lane) of 3.5 or higher*	None	Either
	Average Mean Score for q14d,q14f & q14i (No Bike Lane) less than 3.5	Average Mean Score for q14e, q14g, q14j (With Bike Lane) of less than 3.5	Average Mean Score for q14a 1.5 or higher	Wants to Bike More (q12=4,3)
"Interested But Concerned"	Average Mean Score for q14d,q14f & q14i (No Bike Lane) less than 3.5	Average Mean Score for q14e, q14g, q14j (With Bike Lane) of less than 3.5	Average Mean Score for q14a 1.5 or higher	Does Not Want to Bike More (q12=1,2) BUT Cycled for Transportation in Past 30 Days (Q3=2,3,4,5or 6)
	Not Physically Able (q13a=1) BUT Cycled in Past 30 Days (Q3 or Q4 = 2,3,4,5,6)			
	Average Mean Score for q14d,q14f & q14i (No Bike Lane) less than 3.5	Average Mean Score for q14e, q14g, q14j (With Bike Lane) of less than 3.5	Average Mean Score for q14a 1.5 or higher	Does Not Want to Bike More (q12=1,2) AND Did Not Cycle for Transportation in Past 30 Days
"No Way No How"	Average Mean Score for q14d,q14f & q14i (No Bike Lane) less than 3.5	Average Mean Score for q14e, q14g, q14j (With Bike Lane) of less than 3.5	Average Mean Score for q14a less than 1.5	
	Not Physically Able (q13a=1) AND Did Not Cycle in Past 30 Days			

#### Table 164: Classifying the Four Types of Cyclists

\*Respondent had to score "4=Very Comfortable" on at least two of the three scenarios in order to achieve a 3.5 or above.

Dill & McNeil also categorized individuals by their general cycling behavior, and this classification was used for the NCTCOG survey. Utilitarian cyclists were those who had ridden a bicycle at least once in the past 30 days for transportation. Recreation-only cyclists were those who had ridden a bicycle in the past 30 days for fun or exercise, but had not ridden to work, school, shopping or another destination in the last 30 days. Non-cyclists were those who had not ridden a bicycle in the last 30 days for either reason, although they may have ridden a bicycle at least once in the last 12 months. Those unable to ride were those who said they do not ride more because they are physically unable and had not ridden in the last 12 months. This classification is shown in Table 165 below.

Current Behavior	Criterion	
Unable to Ride	Answered do not ride more because physically unable (q13a=1) AND did not ride in the last 12 months	
Non-cyclist	Did not ride in last 30 days and did not answer do not ride more because physically unable (q13=2)	
Recreation only cyclist	Rode at least once in past 30 days for fun or exercise (q3=2,3,4,5,6) b did not ride for transportation in last 30 da	
Utilitarian cyclist	Rode at least once in past 30 days for transportation (q4=2,3,4,5,6)	

- - - - - - -

Included in *Appendix B: Crosstabulations of Survey Results by Respondent Characteristics* are breakdowns of survey results by respondent characteristics. Chi-square or ANOVA tests of significance were applied to these breakdowns of selected survey questions. A "p-value" of 0.05 or less indicates that there is less than a 5% probability that differences observed between groups are due to chance; or in other words, a greater than 95% probability that the differences observed in the selected categories of respondents represent "real" differences among those populations. Where differences between subgroups are statistically significant, they have been marked with grey shading in the appendices.

#### **Considerations for Future Surveys**

Based on the experience with the 2017 NCTCOG Bicycle Opinion Survey, the following are recommendations or considerations if the survey is repeated in the future.

#### 1) Ask a question specifically about whether health or other mobility-related issues prevent a person from being physically unable to ride a bicycle, separate from the question about barriers to bicycle riding.

A specific targeted question about physical ability to ride a bicycle would more accurately identify those who are not able to ride.

## 2) Ask all respondents the set of questions related to their comfort riding a bicycle in the various scenarios.

In 2017, a significant proportion (15%) of those who said they did not ride a bike or ride a bike more often because they were physically unable to do so actually had reported riding a bicycle in the last 12 months, and 4% had ridden a bicycle at least once for transportation in the last 30 days. Respondents may be responding to the part of the stem of the question "ride more often," indicating they are currently riding as much as they are physically able.

## 3) When asking the comfort level questions, have those interviewed respond with the scale words rather than with a number (e.g., respond with "very uncomfortable" rather than "1").

It is possible that some respondents forgot what number corresponded to which response scale point, and were not as accurate in providing their comfort level than if they had been asked to specify the wording of the response scale point that corresponded to their comfort level. This was the only question set of the interview script in which respondents used a number rather than the actual words. The wording used for the NCTCOG survey mirrored that used in the Portland and Austin surveys, but the change might help clarify.

# 4) In addition to asking comfort riding a bicycle in the various scenarios used to classify the Four Types of Cyclists, ask whether respondents have ridden in these environments in the past 12 months.

Several counter-intuitive pattern were observed among the Four Types in the NCTCOG region. Bicycle usage was highest among the Interested But Concerned group, next highest among the Enthused and Confident, and third highest among the Strong & Fearless (see Figure 1, Figure 5, Figure 6 and Figure 7). It could be hypothesized that the Strong & Fearless would have the highest rates of ridership, since they are comfortable bicycling in a variety of situations. In the Dill & McNeil Portland study, a slightly different pattern was observed, but there the ridership rates were also not the highest for the Strong & Fearless, but were highest in the next group, the Enthused & Confident (see Figure 22). The differences in ridership rates among the these three groups was not as large in Portland as in NCTCOG. The Strong & Fearless group was small for NCTCOG, and this could produce more volatility. It could be constructive in understanding more about the practical use of this typology to see how comfort levels in these various situations translates to real world experience.

#### **Appendix D: Interview Script**

A copy of the interview script appear on the following pages.

#### Bicycling Opinion Telephone Survey for North Central Texas COG

Good Afternoon/Evening, my name is \_\_\_\_\_\_, calling on behalf of the North Central Texas Council of Governments or COG. As the regional transportation planning organization for the Dallas-Fort Worth region, they are gathering information on bicycle use. This will help guide future bicycle plans and projects that affect bicyclists and non-bicyclists. Of course, this survey is anonymous.

#### [CELL ONLY]

S1a. Before I continue, are you in a safe place to talk on your phone, specifically not currently driving? [INTERVIEWER NOTE: EVEN IF THE RESPONDENT IS OK WITH TAKING THE SURVEY WHILE DRIVING, WE CANNOT CONTINUE WITH THE SURVEY.]

1=Yes – in safe place/not driving 2=No – not safe/driving [CONTINUE] [ARRANGE CALLBACK]

S1b. [First,] May I verify that you are 18 years or older?

1=Yes [SKIP TO S1d] 2=No [IF CELL, TERMINATE]

S1c. Is there someone in the household 18 or older?

1=Yes [ASK TO SPEAK TO THAT PERSON/ARRANGE BEST CALL BACK TIME/CONFIRM PHONE NUMBER] 2=No [THANK & TERMINATE]

S1d. What county do you live in? [IF QUOTA FILLED FOR RESPONSE, THANK AND TERMINATE]

1=Collin County [ASK QS1e] 2=Dallas County [ASK QS1f] 3=Denton County [ASK QS1e] 4=Rockwall County [ASK Q1] 5=Tarrant County [ASK Q1] 6=Ellis County [ASK Q1] 7=Hood County [ASK Q1] 8=Hunt County [ASK Q1] 9=Johnson County [ASK Q1] 10=Kaufman County [ASK Q1] 11=Parker County [ASK Q1] 12=Wise County [ASK Q1] 77=(OTHER) 88=(DON'T KNOW) 99=(REFUSED)

Prepared by National Research Center, Inc. (2017-10-25)

S1e. What city do you live in?

1=Plano [GO TO Q1] 2=Frisco [GO TO Q1] 3=Denton [GO TO Q1] 4=Other [IF QUOTA FILLED FOR COUNTY, THANK AND TERMINATE] 8=(DON'T KNOW) [IF QUOTA FILLED FOR COUNTY, THANK AND TERMINATE] 9=REFUSED [IF QUOTA FILLED FOR COUNTY, THANK AND TERMINATE]

S1f. What city do you live in?

1=Garland [GO TO Q1] 2=Other [IF QUOTA FILLED FOR COUNTY, THANK AND TERMINATE] 8=(DON'T KNOW) [IF QUOTA FILLED FOR COUNTY, THANK AND TERMINATE] 9=REFUSED [IF QUOTA FILLED FOR COUNTY, THANK AND TERMINATE]

1. Did you ever ride a bicycle, even once, in the past 12 months?

1=No [Skip to Q10] 2=Yes 8=(DON'T KNOW) [SKIP TO Q10] 9=(REFUSED) [SKIP TO Q10]

 Thinking about the past year, which of the following BEST describes your bicycle-riding behavior—[READ]

1=You ride daily 2=A few times a week 3=A few times a month 4=A few times a year 5=You seldom ride 6=You are currently NOT a bike rider [SKIP TO Q10]] 8=(DON'T KNOW) [SKIP TO Q10]] 9=(REFUSED) [SKIP TO Q10]]

3. In the last 30 days, about how often, if at all, did you bicycle for work, school, shopping or to get to another destination?

1=None 2=Once or twice 3=3 or 4 times 4=About once or twice a week 5=3 or 4 times a week 6=5 or more times a week 9=(REFUSED)

4. In the last 30 days, about how often, if at all, did you bicycle for fun or exercise?

1=None 2=Once or twice 3=3 or 4 times 4=About once or twice a week 5=3 or 4 times a week 6=5 or more times a week 9=(REFUSED)

- 5. Over the past year, on average, how many **days** did you ride your bicycle during each of these seasons? What about . . .
  - a. in the Spring, the months of March, April and May?
  - b. in Summer, the months of June, July and August?
  - c. in the Fall, the months of September, October and November?
  - d. in the Winter, the months of December, January and February?

Would you say you . . . 1=Never ride in this season, 2=Ride about one or two days during this season 3=Ride about one or four days a month during this season 4=Ride about once or twice a week during this season 5=Ride about 3 or 4 days a week (during this season) 6=Ride 5 or more days a week (during this season) 8=(DON'T KNOW) 9=(REFUSED)

- 6. How many miles is your AVERAGE bicycle ride? [UNAIDED] \_\_\_\_\_\_ (0=Less than a mile) (888=DON'T KNOW) (999= REFUSED)
- 7. On the days you ride a bicycle, about how many miles on average do you ride?

[UNAIDED] \_\_\_\_\_ (0=Less than a mile) (888=DON'T KNOW) (999= REFUSED)

8. How often, if at all, would you say you wear a helmet when you ride a bicycle?

1=Never 2=About 25% of the time 3=About half the time 4=About 75% of the time 5=Always or almost always 9=(REFUSED)

9. How safe or unsafe do you feel when you ride a bicycle in your community?

1=Very unsafe 2=Somewhat unsafe 3=Somewhat safe, or 4=Very safe 8=(DON'T KNOW) 9=(REFUSED) 10. Now I want to ask you about the amount or availability of different kinds of facilities for bicycles in your community. For each, I want you to tell me if you think there are too many, about the right amount, or too few.

What about . . .

- a. The number or amount of off-street bicycle paths and trails
- a. The number or amount of on-street dedicated bicycle lanes
- c. The number or amount of bike-friendly streets
- d. The number of places to park bicycles, like bike racks and storage lockers Would you say there are . . .

1=Too many 2=About the right amount, or 3=Too few 8=(DON'T KNOW) 9=(REFUSED)

- 11. Would you say you strongly agree, somewhat agree, somewhat disagree or strongly disagree with the each of the following statements about your neighborhood. What about . . .
  - a. There are off-street bike trails or paved paths in or near my neighborhood that are easy to get to.
  - b. There are bike lanes that are easy to get to.
  - c. There are quiet streets, without bike lanes, that are easy to get to on a bike.
  - d. There is a high crime rate in my neighborhood. -
  - e. There is so much traffic along the street I live on that it would make it difficult or unpleasant to bike.
  - f. There is so much traffic along nearby streets that it would make it difficult or unpleasant to bike.
  - g. The speed of traffic on most nearby streets is usually slow.
  - h. Most drivers exceed the posted speed limits in my neighborhood.
  - i. Streets in my neighborhood are poorly maintained.

Would you say you ... 4=Strongly AGREE 3=Somewhat AGREE 2=Somewhat DISAGREE 1=Strongly DISAGREE 8=(DON'T KNOW) 9=(REFUSED)

12. Would you say you strongly agree, somewhat agree, somewhat <u>dis</u>agree or strongly <u>dis</u>agree with the following statement: "I would like to travel by bike more than I do now."

4=Strongly AGREE 3=Somewhat AGREE 2=Somewhat DISAGREE 1=Strongly DISAGREE 8=(DON'T KNOW) 9=(REFUSED)

- 13. Do any of the following prevent you from riding a bike more often than you currently do-(READ)
  - a. I am not physically able (IF YES, SKIP TO Q15)
  - b. I don't own a bike
  - c. My bike is not in good working condition
  - d. I do not feel safe
  - e. Biking lanes, trails, and paths are not available
  - f. Biking lanes, trails, and paths are not connected
  - g. It takes too long
  - h. Destinations are too far
  - i. Existing bikeways are in poor condition
  - j. No showers or place to freshen up at my destination
  - k. Lack of secure bike parking
  - I. Weather is too HOT
  - m. Weather is too COLD
  - n. It doesn't fit my lifestyle

1=Yes 2=No 8=(DON'T KNOW) 9=(REFUSED) 14. I'm going read a list of places you could hypothetically ride a bike. For each place, please tell me how comfortable you would feel biking there using a scale of 1-4, with 1 meaning you would be "Very Uncomfortable", 2 meaning you are Somewhat Uncomfortable, 3 meaning you are Somewhat Comfortable, and 4 meaning you would be "Very Comfortable". (REPEAT SCALE AS NECESSARY)

1=Very Uncomfortable 2=Somewhat Uncomfortable 3=Somewhat Comfortable 4=Very Comfortable 8=(DON'T KNOW) 9=(REFUSED)

- a. A path or trail that is separate from a street. How comfortable would you be biking there?
- b. A residential street with one traffic lane in each direction, with traffic speeds of 25 to 30 miles per hour, some on street parking and no bike lane? (*How comfortable would you be biking there?*)
- c. What if that street also had bicycle route markings, speed humps, and other things that slow down car traffic? (*How comfortable would you be biking there?*)
- d. A neighborhood commercial shopping street with one traffic lane in each direction, with traffic speeds of 25 to 30 miles per hour, with on- street parking and no bike lane? (How comfortable would you be biking there?)
- e. The same street if a striped bicycle lane was added? (How comfortable would you be biking there?)
- f. A major urban street with two traffic lanes in each direction, speeds of 30 to 35 miles per hour and no bike lane? (How comfortable would you be biking there?)
- g. The same street with a striped bike lane added? (How comfortable would you be biking there?)
- h. What if it also had a wide bicycle lane separated from traffic by a raised curb? (How comfortable would you be biking there?)
- i. A major street with two or three traffic lanes in each direction, traffic speeds of 35 to 40 miles per hour, and no bike lane? (How comfortable would you be biking there?)
- j. The same street with a striped bike lane added? (How comfortable would you be biking there?)
- k. What if it also had a wide bicycle lane separated from traffic by a raised curb? (How comfortable would you be biking there?)

- 15. Now I'm going to ask you how important, if at all, you feel it is for your community to do each of the following. What about . . .
  - a. Providing bike trails separated from roadways
  - b. Providing bike lanes separated from vehicles so bikes and cars do not have to share the same lane
  - c. Lowering traffic speeds on community roadways to the improve safety of pedestrians and bicyclists sharing the road
  - d. Providing traffic signals or crossing beacons at intersections and crossings to warn drivers of bike and trail users crossing the road

Would you say . . .(REPEAT SCALE AS NECESSARY) 1=Essential 2=Very important 3=Somewhat important 4=Not at all important 8=(DON'T KNOW) 9=(REFUSED)

#### Demographics

- 16. What is the zip code of your primary residence? \_\_\_\_\_\_ [MAY NEED TO MOVE THIS UP FRONT TO THE SCREENERS IF PEOPLE DON'T KNOW WHAT COUNTY THEY LIVE IN]
- 17. Which of the following best describes your AGE?
  - 1=18-24 years 2=25-34 years 3=35-44 years 4=45-54 years 5=55-64 years 6=65+ years 8=(DON'T KNOW) 9=(REFUSED)
- 18. Which of the following best describes your RACIAL OR ETHNIC BACKGROUND?

19. Which of the following best describes your total annual HOUSEHOLD INCOME?

1=Under \$25,000 2=\$25,000 - \$49,999 3=\$50,000 - \$74,999 4=\$75,000 - \$99,999 5=\$100,000 or more 8=(DON'T KNOW) 9=(REFUSED)

20. The North Central Texas Council of Governments would like to be able to look at survey results by the area in which those we interviewed lived. Your responses will remain completely confidential, and the information provided to the Council of Governments will be blurred to be at a neighborhood level. Would you mind telling me you home address, or the nearest major cross-streets to where you live?

21. [GENDER] (By Observation) (Please confirm methodology on verifying this. Via direction question? Or based on voice characteristics by person administering the survey?)

1=Male 2=Female