

National Survey of Bicyclist and Pedestrian  
Attitudes and Behavior

**VOLUME II**  
**FINDINGS REPORT**

Final Report

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| 16. Abstract<br><p>This report presents findings from the National Survey of Bicyclist and Pedestrian Attitudes and Behavior, jointly sponsored by the U.S. Department of Transportation's National Highway Traffic Safety Administration (NHTSA) and the Bureau of Transportation Statistics (BTS) and administered by The Gallup Organization. The goals of the survey were to ascertain the scope and magnitude of bicycle and pedestrian activity and the public's behavior and attitudes regarding bicycling and walking.</p> <p>This report, Volume II: <i>Findings Report</i>, provides a detailed analysis of behaviors and attitudes on various topics related to walking and bicycling including reported frequency of walking and bicycling during the summer months, trip purpose and characteristics, perceptions of safety, safety practices, facilities available and community design. Volume I: <i>Summary Report</i> presents a top line summary of key data results on these topics. Volume III: <i>Methods Report</i> describes the methods used to conduct the interviews and analyze the data. It also contains a copy of the questionnaire. The data come from a survey conducted among a representative sample of 9,616 U.S. residents 16 and older during the Summer of 2002.</p> <p>The survey findings show that slightly less than half (46%) of those 16 and older have regular access to a bicycle, with access increasing with increases in household income. About 43 percent ride a bicycle at least once in the summer months, making an estimated 2.484 billion trips during the summer of 2002. Bicycling declines with age, with those under 20 most likely to bicycle and doing so more frequently, while the majority over 45 did not bicycle during the summer months. The majority of bicycling trips were for recreation or for exercise, while just one in 5 trips were made to conduct errands (14%) or for commuting to work or school (5%). About half of all trips (48%) were made on paved roads. An additional 13 percent were on shoulders of paved roads, and 5 percent on bike lanes on roads. One in 7 was made on sidewalks (14%) or bike trails/paths (13%). Only half (50%) of bicyclists say bike paths are available in the area they ride, while 32 percent say bike lanes are available. However, over half of those who do not use available bicycle paths or lanes say they don't use them because they are not convenient, available, or go where they need to go. More than one in 10 bicyclists (13%) felt threatened for their personal safety on the most recent day they rode their bicycle in the past 30 days in the summer of 2002, with 88 percent of these feeling threatened by motorists. One in 5 bicyclists rode in the dark or near-dark for at least part of their trip, with 63 percent of these saying they took actions to make themselves more visible to motorists. About 4 percent of bicyclists or 2.04 million, were injured while riding in the past two years. About .5 million of these were hit by a motorist. Half (50%) of bicyclists wear a helmet for at least some trips, with 35 percent using them for all or most trips. Nine of 10 support helmet laws for children, while 62 percent support such laws for adults. Nearly half (48%) of those 16 and older are satisfied with how their local community is designed for making bicycle riding safer. About as many (47%) would like to see changes including more bike lanes (38%) and bike paths (30%).</p> <p>About 86 percent of people 16 or older walked, jogged or ran outdoors for 5 minutes or more during the summer months, with 78 percent doing so within the past 30 days. Walking in the past 30 days decreases to just 66 percent for those over 64. An estimated 13.33 billion walking trips were made in the summer months of 2002, with 74 percent of all trips being made by frequent walkers. Personal errands (38%), exercise (28%) and recreation (21%) are the most common reasons for trips. Nearly half (45%) of the trips were mostly made on sidewalks, and 25 percent were mostly on paved roads. Just 6 percent were made mostly on bike or walk paths or trails. About 6 percent of pedestrians felt their personal safety threatened on their most recent trip, with 62 percent saying they felt threatened by motorists. Almost three-quarters of people 16 and older (73%) are satisfied with how their local community is designed for walking, though one-third would like to see changes including more sidewalks (42%) and more lights (17%).</p> |  |                                      |  |                            |           |
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# Introduction

## **Background and Objectives**

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This report presents findings from the National Survey of Pedestrian and Bicyclist Attitudes and Behaviors, jointly sponsored by the U.S. Department of Transportation's National Highway Traffic Safety Administration and the Bureau of Transportation Statistics and administered by The Gallup Organization. The goals of the survey were to ascertain the scope and magnitude of bicycle and pedestrian activity and the public's behavior and attitudes regarding bicycling and walking. This national survey is the first of its kind designed specifically to benchmark bicycle and pedestrian trips, behaviors, and attitudes. The survey findings will serve as a foundation to improve the environment and infrastructure to support these two transportation modes.

The survey asked questions for both bicyclists and pedestrians on the following topics:

- Frequency of bicycling and walking,
- Trip information including: origin, destination, trip time, trip distance, type of area where trip began/ended, trip purpose, facility use, and topography,
- Reasons for not biking and/or walking,
- Perceptions of safety,
- Safety practices,
- Facilities availability,
- Community design,
- Opinions of biking/walking as a form of transportation, and
- Sociodemographics.

Survey respondents were interviewed between June 11 and August 20, 2002, and were asked to provide information about their overall bicycling and walking behaviors during the past 30 days, which encompassed the period of May 11 through August 20, 2002. The survey focused on individual trips taken on the most recent day they bicycled or walked during that period. Specific trip data (including trip origin and destination, purpose, time, distance, etc.) were collected for up to six walking and six bicycling trips on the most recent day traveled. These data cannot be used to project year-round bicycling and walking behaviors, but offer a solid reflection of biking and walking activity in the summer months.

## Methods

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A more detailed methods description can be found in Volume III: Methods Report, which was prepared under separate cover.

Telephone interviews were conducted with a nationally representative sample of 9,616 respondents 16 or older in the United States between June 11 and August 20, 2002. These results were then weighted to reflect the national population of 208 million non-institutionalized people 16 years or older residing in the United States. Weighting is a statistical method that is used for the information supplied by a sample of people to be extrapolated to the entire population.

Sample surveys contain two major components of error: sampling and nonsampling error.

Sampling Error. Sampling error occurs because findings are based on a sample, rather than on the entire population. The total respondent pool was 9,616, for an estimated sampling error of about +/- 1.0 percentage points at the 95 percent level of confidence. Sampling error will be larger for sample subgroups (such as males or people 65+) and for survey items that do not apply to all members of the sample (e.g., sample members who rode bicycles during the 30 days prior to the survey).

Nonsampling Error. Estimates are subject to various errors during the survey process, such as data collection, response coding, and data editing errors. These errors would also occur if a complete census was conducted under the same conditions as the sample survey. Explicit measures of the effects of these errors are not available. However, stringent quality control procedures were followed during data entry, and the questionnaire was reviewed and pretested in an effort to minimize nonsampling errors associated with data entry and questionnaire design. Nonresponse error is a function of both the response rate (27% CASRO) and the differences, if any, between respondents and nonrespondents.

## Data Presented

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The findings of this study are presented in two parts. The first section examines the results regarding bicycling attitudes and behaviors. The second section examines results regarding pedestrian attitudes and behaviors.

For purposes of this study, the following definitions are used throughout the report.

**Bicyclists:** People who reported riding bicycles at least once in the past 30 days during the summer of 2002.

**Pedestrians:** People who reported walking, running, or jogging outdoors for at least five minutes at least once in the previous 30-day period.

**Trip:** A trip is defined as going from a starting point to a destination for a specific purpose without any stops along the way. If you left your house to go on a bike ride with no real destination and returned to your house, that would be considered ONE trip. If you rode from your house to a friend's house for a visit, then rode back home, that would be TWO trips. If you rode from your home to a friend's house, then to a store, and then back home again, that would count as THREE trips.

**Summer:** Summer months are May through August.

**Geographical Areas:** The respondents' geographical area of residence and travel was categorized into 1 of 3 urbanicity areas based on U.S. Census Bureau classifications: suburban, urban, and rural

**NHTSA Regions:** NHTSA has 10 regional offices that work on the agency's mission. The States that make up each region are:

**Region 1:** Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont

**Region 2:** New Jersey, New York,

**Region 3:** Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia

**Region 4:** Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee

**Region 5:** Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin

**Region 6:** Arkansas, Louisiana, New Mexico, Oklahoma, Texas

**Region 7:** Iowa, Kansas, Missouri, Nebraska

**Region 8:** Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming

**Region 9:** Arizona, California, Hawaii, Nevada

**Region 10:** Alaska, Idaho, Oregon, Washington



# I. Bicycling Attitudes and Behaviors

## **Chapter 1: Overall Bicycling Behaviors**

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This section provides information on the bicycling behaviors of people 16 and older. Specifically it covers the following topics:

- Access to bicycles,
- Frequency of bicycling,
- Days spent bicycling,
- Profile of bicyclists,
- Change in bicycling behavior,
- Reasons for not bicycling,
- Number of bicycling trips (among those bicycling at least once in past 30 days), and
- Estimated total number of bicycling trips.

## **Access to Bicycles**

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### **Percent with access to a bicycle, by total and NHTSA Region**

Overall, nearly half of people 16 or older (46%) had bicycles available for their use on a regular basis. Across the NHTSA Regions, those living in NHTSA Regions 5 (IL, IN, MI, MN, OH, WI) (56%) and 8 (CO, MT, ND, SD, UT, WY) (58%) were more likely to have access to bicycles than were those living in other regions of the country. Those in NHTSA Region 6 (AR, LA, NM, OK, TX) (40%) were least likely to have access to bicycles. [Figure 1-A]

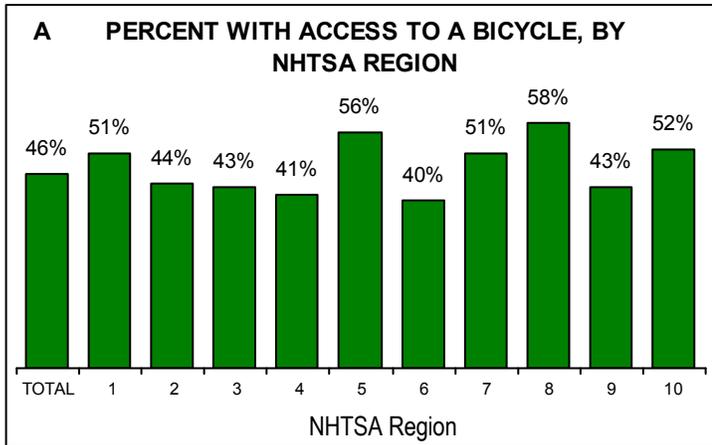
### **Percent with access to a bicycle, by gender and age**

Males (51%) were more likely than females (42%) to have access to bicycles. Those 16 to 20 (62%) reported the greatest access to a bicycle, while just 23 percent of those 65 or older reported access to bicycles. [Figure 1-B]

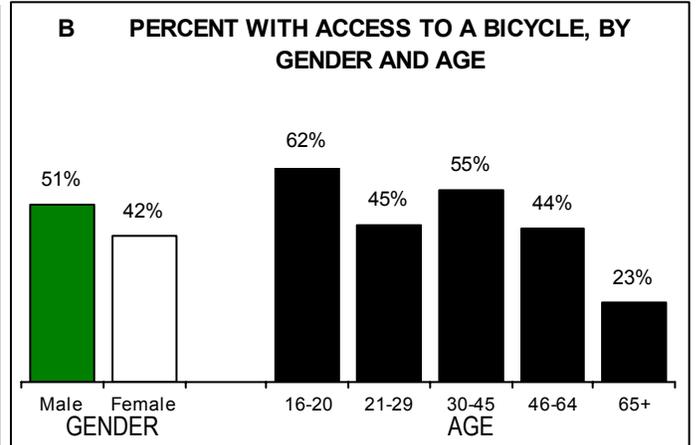
### **Percent with access to a bicycle, by household income**

As household income rises, so too does access to a bicycle. Those with household incomes under \$15,000 were less likely to have access to bicycles (29%) than those in the middle income range of \$30,000 to \$49,000 (47%) and those in the upper income range of \$75,000 or more (65%). [Figure 1-C]

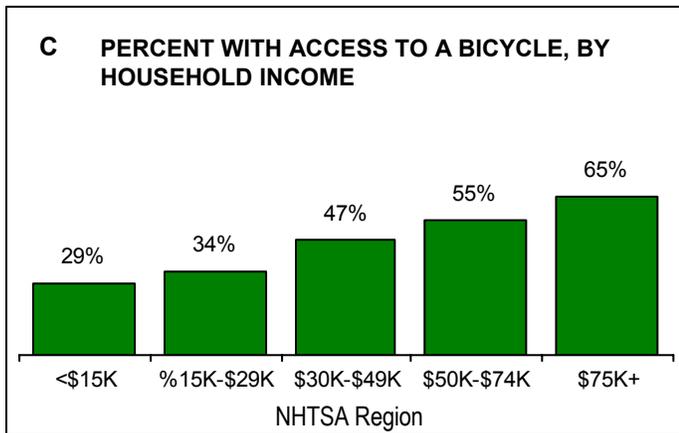
**FIGURE 1: ACCESS TO BICYCLES**



Q1: Do you have a bicycle available for your use on a regular basis?



Q1: Do you have a bicycle available for your use on a regular basis?



Q1: Do you have a bicycle available for your use on a regular basis?

Sample bases for this page:

|                  | Total | Male | Female | 16-20 | 21-29 | 30-45 | 46-64 | 65+  |
|------------------|-------|------|--------|-------|-------|-------|-------|------|
| Total population | 9616  | 3936 | 5680   | 724   | 1309  | 3132  | 2914  | 1479 |

|                  | NHTSA Region |     |      |      |      |      |     |     |      |     |
|------------------|--------------|-----|------|------|------|------|-----|-----|------|-----|
|                  | 1            | 2   | 3    | 4    | 5    | 6    | 7   | 8   | 9    | 10  |
| Total population | 507          | 843 | 1027 | 1754 | 1681 | 1149 | 498 | 358 | 1316 | 483 |

## **Frequency of Bicycling**

---

### **Frequency of bicycling in summer months**

Nearly 6 in 10 (57%) people 16 or older reported that they never use bicycles during the summer months (18% of these nonusers have access to bicycles, and 82% do not). About 1 in 7 (13%) said they use bicycles less than once a month, but at least once during the summer months. An additional 11 percent reported using a bicycle at least once a month, but not weekly. About 1 in 5 (19%) reported using a bicycle at least once a week. [Figure 2-A]

### **Frequency of bicycling in summer months, by gender**

Males 16 or older (24%) were nearly twice as likely as females (13%) to say they ride their bicycles at least once a week in the summer months. More than 6 in 10 (64%) females said they never ride a bicycle, compared to half of males (49%). [Figure 2-B]

### **Frequency of bicycling in summer months, by age**

Propensity to bicycle at least once a week tended to decline with age, with 27 percent of those 16 to 20 saying they ride at least weekly, compared to 15 percent of 46- to 64-year-olds, and just 6 percent of those 65 or older. Similarly, the likelihood of reporting never riding a bicycle generally increased with age, with 85 percent of those 65 or older never bicycling, compared to 37 percent of those under 21 who never ride. [Figure 2-C]

### **Frequency of bicycling in summer months, by race/ethnicity**

Propensity to bicycle at least once a week was higher among Hispanic people (25%) than among White non-Hispanic (19%), Black non-Hispanic (15%) and Asian (9%) people. Black non-Hispanic people 16 and older (63%) were most likely to say they never used bicycles during the summer months. [Figure 2-D]

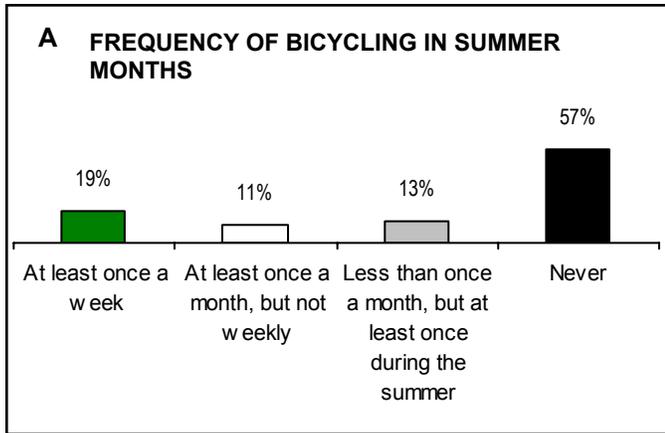
## **Frequency of Bicycling (Continued)**

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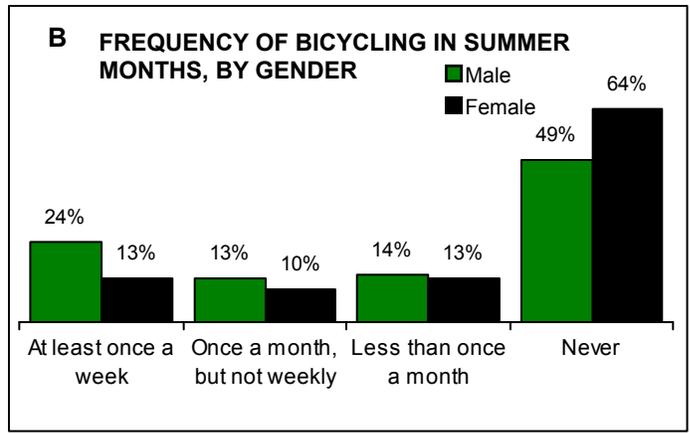
### **Frequency of bicycling in summer months, by NHTSA Region**

Regions vary considerably in the proportion of people bicycling at least once a week in the summer months ranging from a high of 24 percent in NHTSA Regions 5 (IL, IN, MI, MN, OH, WI) and 10 (AK, ID, OR, WA) to a low of 14 percent in NHTSA Regions 4 (AL, FL, GA, KY, MS, NC, SC, TN) and 6 (AR, LA, NM, OK, TX). People in NHTSA Regions 4 and 6 were the most likely to say they never ride bicycles in the summer months (63% and 62%, respectively). [Figure 2-E]

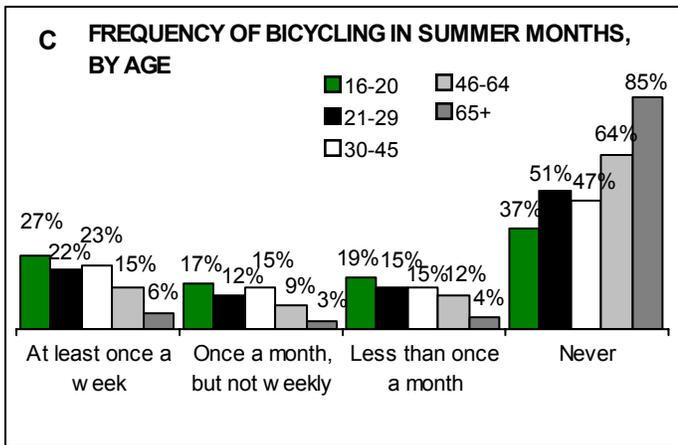
**FIGURE 2: FREQUENCY OF BICYCLING**



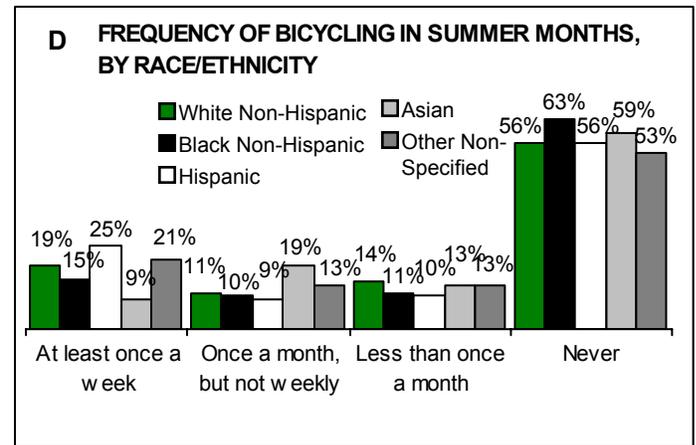
Q2: On average, during the summer months, how often do you use a bicycle? [Base: Total Population]



Q2: On average, during the summer months, how often do you use a bicycle? [Base: Total population]

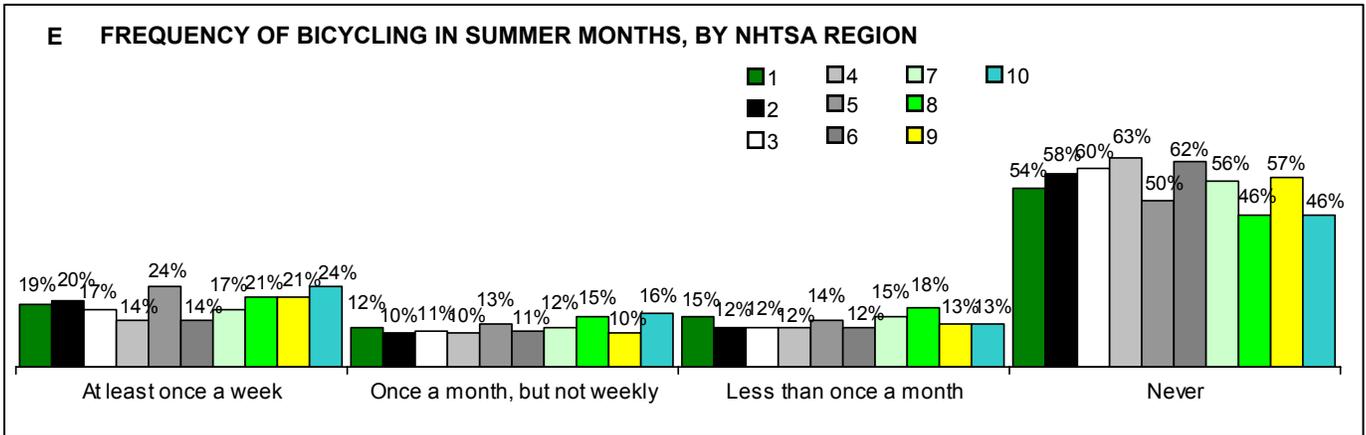


Q2: On average, during the summer months, how often do you use a bicycle? [Base: Total population]



Q2: On average, during the summer months, how often do you use a bicycle? [Base: Total population]

**FIGURE 2: FREQUENCY OF BICYCLING (continued)**



Q2: On average, during the summer months, how often do you use a bicycle? [Base: Total population]

Sample bases for this page:

|                  | Total | Male | Female | 16-20 | 21-29 | 30-45 | 46-64 | 65+  |
|------------------|-------|------|--------|-------|-------|-------|-------|------|
| Total Population | 9616  | 3936 | 5680   | 724   | 1309  | 3132  | 2914  | 1479 |

|                  | NHTSA Region |     |      |      |      |      |     |     |      |     |
|------------------|--------------|-----|------|------|------|------|-----|-----|------|-----|
|                  | 1            | 2   | 3    | 4    | 5    | 6    | 7   | 8   | 9    | 10  |
| Total Population | 507          | 843 | 1027 | 1754 | 1681 | 1149 | 498 | 358 | 1316 | 483 |

|                  | White Non-Hispanic | Black Non-Hispanic | Hispanic | Asian | Other Non-Specified |
|------------------|--------------------|--------------------|----------|-------|---------------------|
| Total Population | 7602               | 762                | 523      | 207   | 352                 |

## **Days Spent Bicycling**

---

### **Average number of days in past month rode a bicycle, by total, gender, and age**

People 16 and older who bicycled at all in the summer months rode a bicycle an average of 5.0 days in the past 30 days. Males rode an average of 5.8 days, compared to 3.9 days for females. Those 16 to 20 rode a bicycle more often (6.1 days) in the past 30 days than did those 30 or older (4.7 days on average). [Figure 3-A]

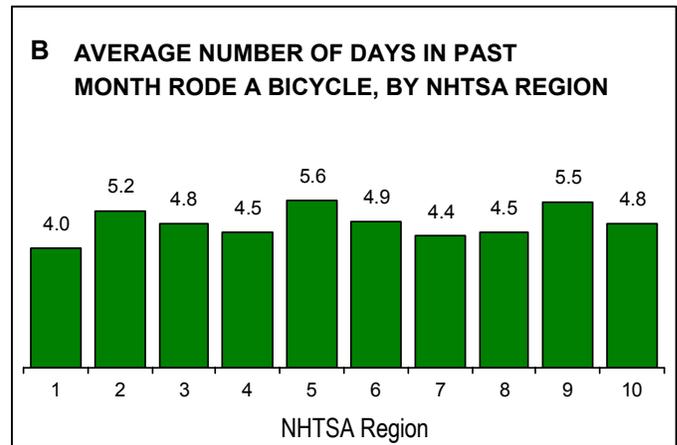
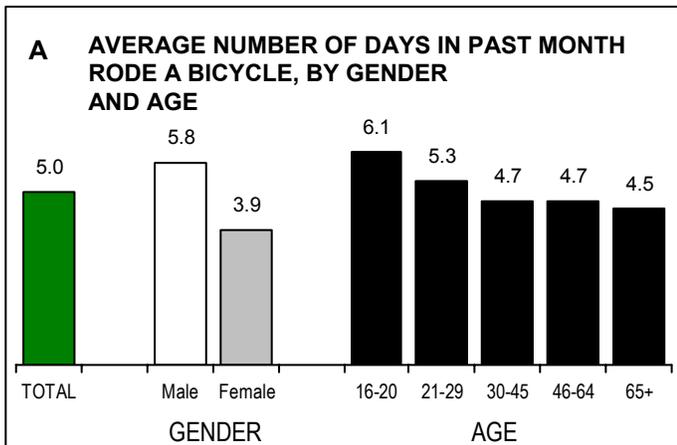
### **Average number of days in past month rode a bicycle, by NHTSA Region**

Those who rode a bicycle at least once in the summer months and live in NHTSA Regions 5 (IL, IN, MI, MN, OH, WI) (5.6 days) and 9 (AZ, CA, HI, NV) (5.5 days) reported a higher average number of days riding a bicycle in the past 30 days than did those living in other regions of the country. Those living in NHTSA Region 1 (CT, ME, MA, NH, RI, VT) (4.0) averaged riding the fewest number of days. [Figure 3-B]

### **Bicycling frequency, based on days per month bicycled**

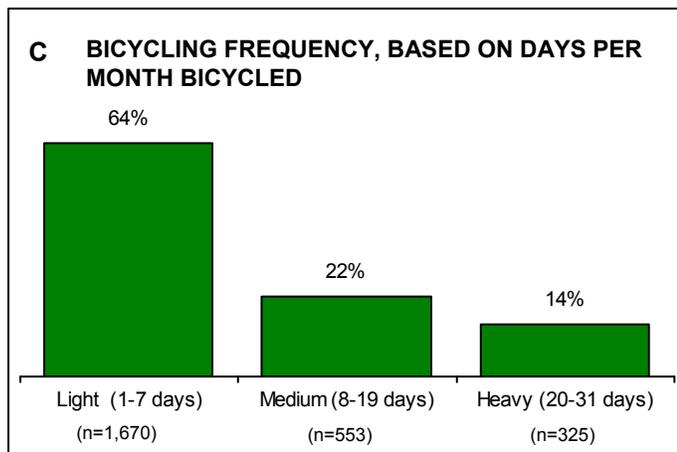
The frequency with which one rode a bicycle in the summer can be divided into heavy riding (20 or more days per month), medium riding (8 to 19 days per month) and light riding (1 to 7 days per month). More than 6 in 10 bicyclists were light-frequency bicyclists (64%), 22 percent were medium-frequency bicyclists, and 14 percent were heavy-frequency bicyclists during the preceding 30 days. [Figure 3-C]

**FIGURE 3: DAYS SPENT BICYCLING**



Q2c: Thinking about the past 30 days, about how many of those days did you ride a bicycle? [Base: Total who bicycle in the summer]

Q2c: Thinking about the past 30 days, about how many of those days did you ride a bicycle? [Base: Total who bicycle in the summer]



Q2c: Thinking about the past 30 days, about how many of those days did you ride a bicycle? [Base: Total who bicycle in the summer]

Sample bases for this page:

|                                 | Total | Male | Female | 16-20 | 21-29 | 30-45 | 46-64 | 65+ |
|---------------------------------|-------|------|--------|-------|-------|-------|-------|-----|
| Total who bicycle in the summer | 4028  | 1979 | 2049   | 435   | 628   | 1684  | 1053  | 214 |

|                                 | NHTSA Region |     |     |     |     |     |     |     |     |     |
|---------------------------------|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                                 | 1            | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  |
| Total who bicycle in the summer | 223          | 349 | 391 | 642 | 824 | 405 | 212 | 183 | 554 | 245 |

## **Profile of Bicyclists**

---

### **Those who rode bicycle at least once in past 30 days, by age and gender**

For the remainder of this report, bicyclists are defined as those who bicycled at least once in the past 30 days. About one quarter of people 16 and older (27%) reported bicycling at least once in the previous 30 days. Males (34%) were more likely to be bicyclists than females (21%), and younger riders 16 to 20 (42%) were more likely to bicycle than those of an older age group. [Figure 4-A]

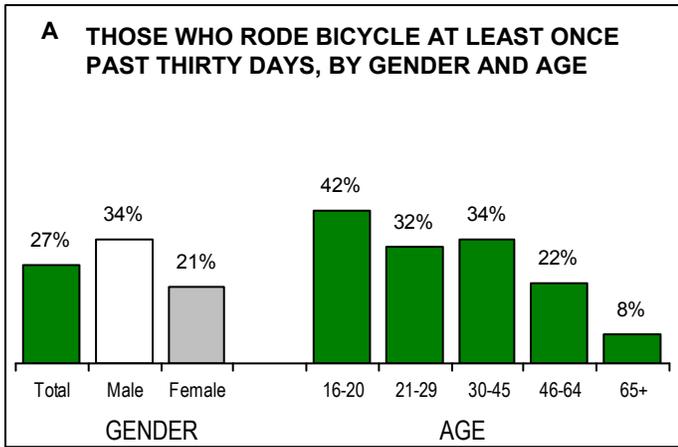
### **Those who rode bicycle at least once in past 30 days, by race/ethnicity**

Black non-Hispanic (22%) and Asian (24%) people were least likely to report bicycling at least once during the past 30 days in the summer months. Those of Hispanic (31%), White non-Hispanic (28%) and Other (30%) descent were most likely to report bicycling. [Figure 4-B]

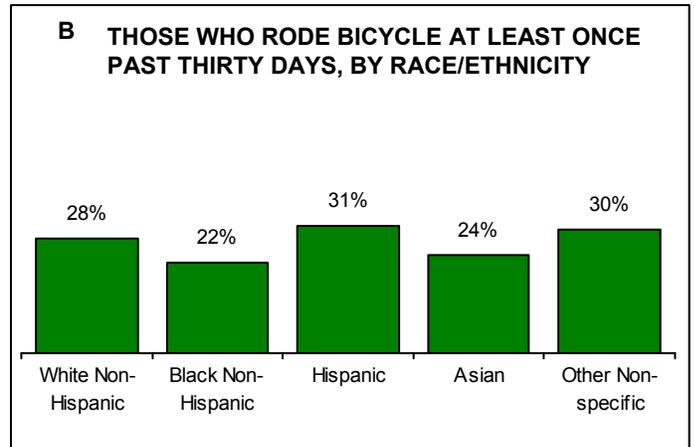
### **Those who rode bicycle at least once in past 30 days, by NHTSA Region**

Those residing in NHTSA Regions 5 (IL, IN, MI, MN, OH, WI) (33%), 8 (CO, MT, ND, SD, UT, WY) (32%) and 10 (AK, ID, OR, WA) (32%) were most likely to bicycle at least once in the past 30 days. Those in NHTSA Region 4 (AL, FL, GA, KY, MS, NC, SC, TN) (22%) and NHTSA Region 6 (AR, LA, NM, OK, TX) (22%) were the least likely to be bicyclists. [Figure 4-C]

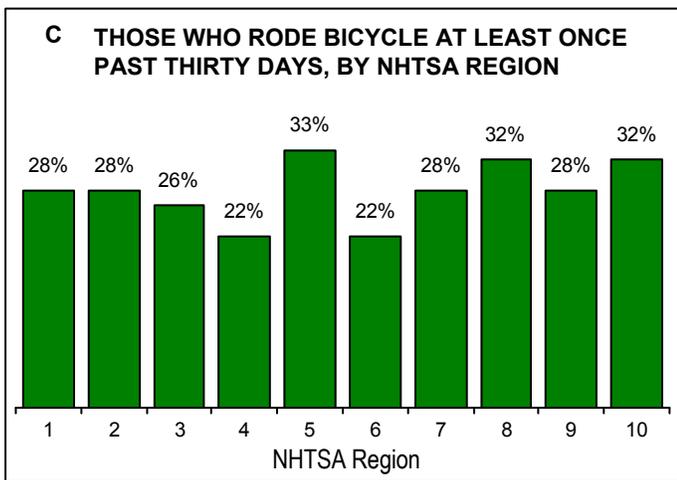
**FIGURE 4: PROFILE OF BICYCLISTS**



Q2c: Thinking about the past 30 days, about how many of those days did you ride a bicycle? [Base: Total population]



Q2c: Thinking about the past 30 days, about how many of those days did you ride a bicycle? [Base: Total population]



Q2c: Thinking about the past 30 days, about how many of those days did you ride a bicycle? [Base: Total population]

Sample bases for this page:

|                  | Total               | Male     | Female   | 16-20    | 21-29    | 30-45    | 46-64    | 65+      | White Non-Hispanic | Black Non-Hispanic | Hispanic | Asian | Other Non-specified |
|------------------|---------------------|----------|----------|----------|----------|----------|----------|----------|--------------------|--------------------|----------|-------|---------------------|
| Total Population | 9616                | 3936     | 5680     | 724      | 1309     | 3132     | 2914     | 1479     | 7602               | 762                | 523      | 207   | 352                 |
|                  | <u>NHTSA Region</u> |          |          |          |          |          |          |          |                    |                    |          |       |                     |
|                  | <u>1</u>            | <u>2</u> | <u>3</u> | <u>4</u> | <u>5</u> | <u>6</u> | <u>7</u> | <u>8</u> | <u>9</u>           | <u>10</u>          |          |       |                     |
| Total Population | 507                 | 843      | 1027     | 1754     | 1681     | 1149     | 498      | 358      | 1316               | 483                |          |       |                     |

## **Change in Bicycling Behavior**

---

### **Change in bicycling behavior over past year, by total, gender and age**

Nearly half of bicyclists (defined as those riding a bicycle at least once in the past 30 days) reported no change in their bicycling behavior compared to about a year ago (46%). However, equal numbers reported bicycling more often (27%) as reported bicycling less often (27%). Male bicyclists (26%) were almost as likely as female bicyclists (28%) to report bicycling more often than a year ago. Bicyclists 21 to 29 (41%) were more likely to report an increase in bicycling behavior than were other age groups. Bicyclists 16 to 20 (44%) were more likely to report a decrease in bicycling behavior than were other age groups. [Figure 5-A]

### **Change in bicycling behavior over past year, by NHTSA Region**

Increases in bicycling behavior over the past year varied little by NHTSA Region, ranging from 23 percent reporting an increase in NHTSA Region 4 (AL, FL, GA, KY, MI, NC, SC, TN) to 31 percent reporting an increase in NHTSA Region 6 (AR, LA, NM, OK, TX). Bicyclists in NHTSA Region 8 (CO, MT, ND, SD, UT, WY) (53%) were most likely of those in any region to report no change in bicycling behavior from about a year ago. [Figure 5-B]

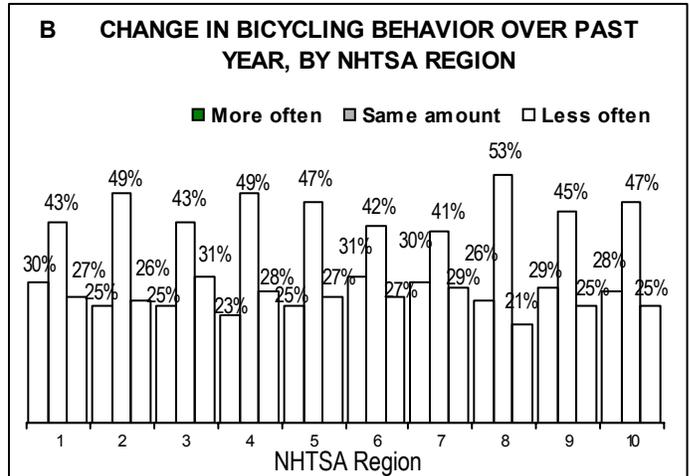
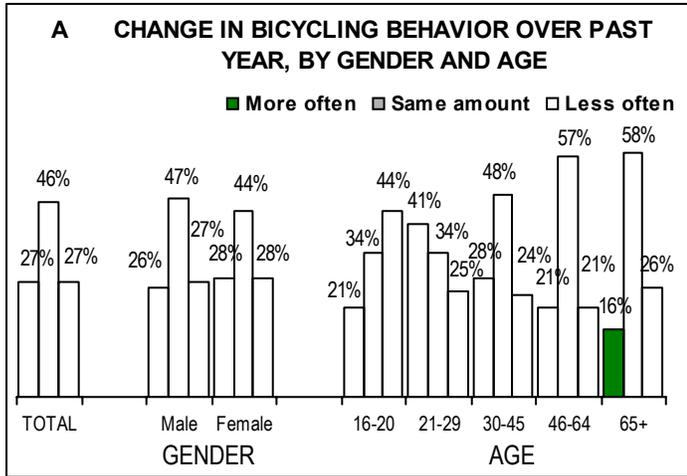
### **Change in bicycling behavior over past year, by urbanicity**

Bicyclists living in urban, suburban, and rural areas did not differ appreciably in reported change in bicycling behavior from about a year ago. [Figure 5-C]

### **Change in bicycling behavior over past year, by bicycling frequency**

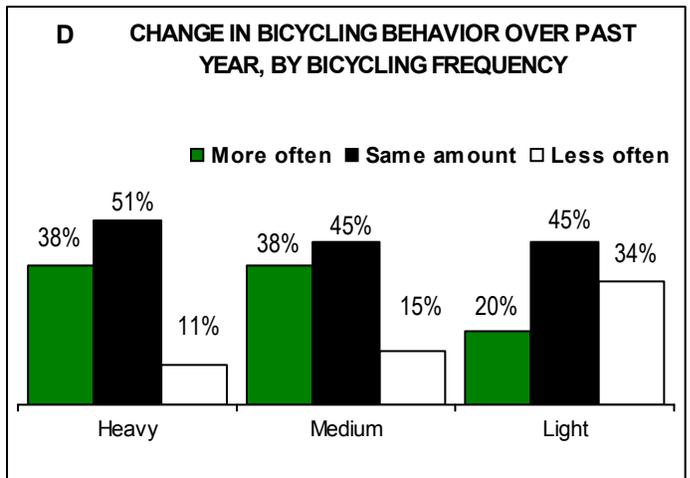
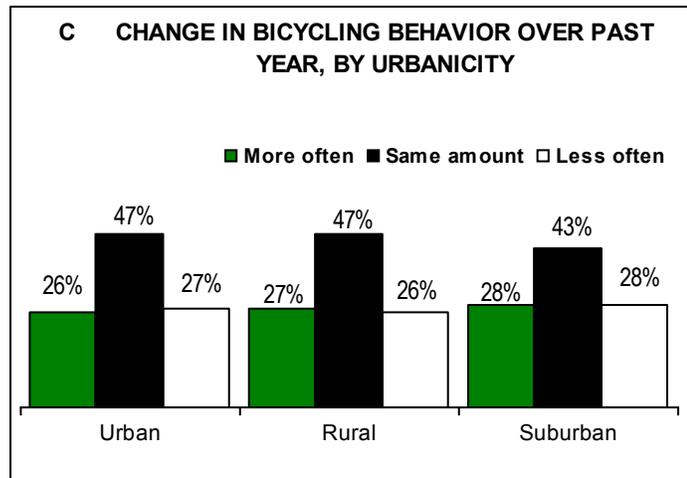
Nearly 4 in 10 heavy- (38%) and medium-frequency (38%) bicyclists reported an increase in their bicycling behavior over the past year. Light-frequency bicyclists (20%) were less likely to report an increase. [Figure 5-D]

**FIGURE 5: CHANGE IN BICYCLING BEHAVIOR**



Q41: Compared to about a year ago, would you say you are now riding a bike more often, less often or about the same amount?  
[Base: Rode bicycle past 30 days]

Q41: Compared to about a year ago, would you say you are now riding a bike more often, less often or about the same amount?  
[Base: Rode bicycle past 30 days]



Q41: Compared to about a year ago, would you say you are now riding a bike more often, less often or about the same amount?  
[Base: Rode bicycle past 30 days]

Q41: Compared to about a year ago, would you say you are now riding a bike more often, less often or about the same amount?  
[Base: Rode bicycle past 30 days]

Sample bases for this page:

|                           | Total | Male | Female | 16-20 | 21-29        | 30-45 | 46-64 | 65+ | Urban | Rural | Suburban |     |     |
|---------------------------|-------|------|--------|-------|--------------|-------|-------|-----|-------|-------|----------|-----|-----|
| Rode bicycle past 30 days | 2525  | 1325 | 1200   | 290   | 398          | 1079  | 626   | 121 | 1293  | 515   | 717      |     |     |
|                           |       |      |        |       | NHTSA Region |       |       |     |       |       |          |     |     |
| Rode bicycle past 30 days |       |      |        | 1     | 2            | 3     | 4     | 5   | 6     | 7     | 8        | 9   | 10  |
|                           |       |      |        | 143   | 224          | 241   | 383   | 556 | 242   | 140   | 112      | 342 | 142 |
| Rode bicycle past 30 days |       |      |        | Heavy | Medium       | Light |       |     |       |       |          |     |     |
|                           |       |      |        | 324   | 549          | 1642  |       |     |       |       |          |     |     |

## **Reasons for Not Bicycling**

---

### **Reasons for not bicycling in the summer or for not riding a bicycle more recently**

Nearly three-fourths of those 16 or older (72%) never rode a bicycle or had not done so in the past 30 days in the summer of 2002. This represents approximately 151 million people who did not bicycle. The top reason given for not bicycling is lack of access to a bicycle (28%). Nearly as many (25%) reported their primary reason for not bicycling as lack of need or desire to ride a bicycle. Fewer reported a physical difficulty (11%) or weather conditions (10%) as the primary reason for not bicycling. [Figure 6-A]

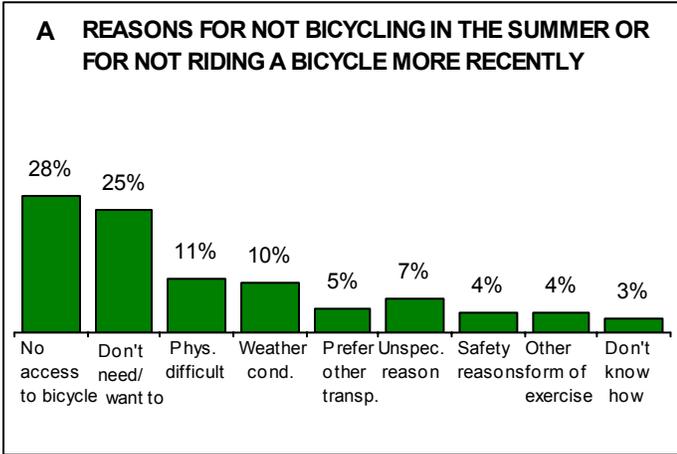
### **Top reasons for not bicycling, by gender, age**

While males and females were equally likely to cite lack of access to a bicycle as a reason for not bicycling (28% each), males (30%) were more likely than females (21%) to cite lack of need or desire to bicycle. Those 21 to 29 were more likely to cite lack of access to a bicycle as their top reason than were other age groups. Those over 64 most often cited physical difficulty (21%) and lack of access to a bicycle (22%) as their main reasons for not bicycling. [Figure 6-B]

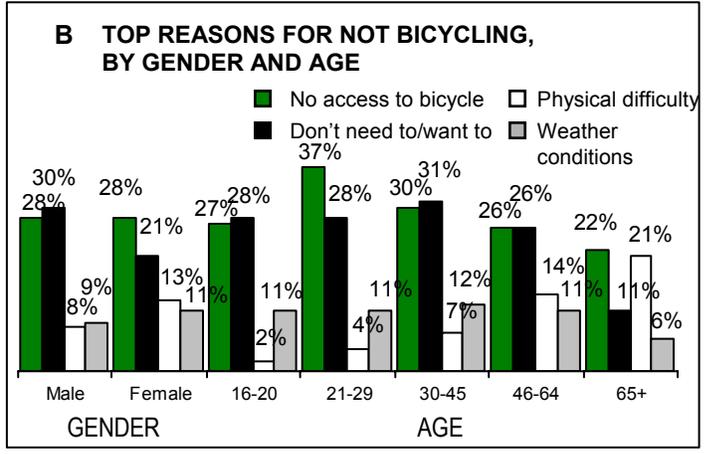
### **Top reasons for not bicycling, by NHTSA Region**

While nonbicyclists overall were nearly equally likely to cite lack of access to a bicycle (28%) as lack of need/desire to bicycle (25%), this varied by region. Nonbicyclists in NHTSA Region 1 (CT, ME, MA, NH, RI, VT) were much more likely to cite lack of need or desire to bicycle (32%) than they were a lack of access (23%). NHTSA Region 8 (CO, MR, ND, SD, UT, WY) nonbicyclists also cited lack of need/desire (29%) more frequently than lack of access (24%). In contrast, lack of access was the more predominant reason in most of the other regions, particularly in NHTSA Region 9 (AZ, CA, HI, NV), NHTSA Region 2 (NJ, NY), and NHTSA Region 4 (AL, FL, GA, KY, MS, NC, SC, TN). Nonbicyclists citing weather conditions ranged from a high of 14 percent in NHTSA Region 6 (AR, LA, NM, OK, TX), to a low of 4 percent in NHTSA Region 10 (AK, ID, OR, WA). [Figure 6-C]

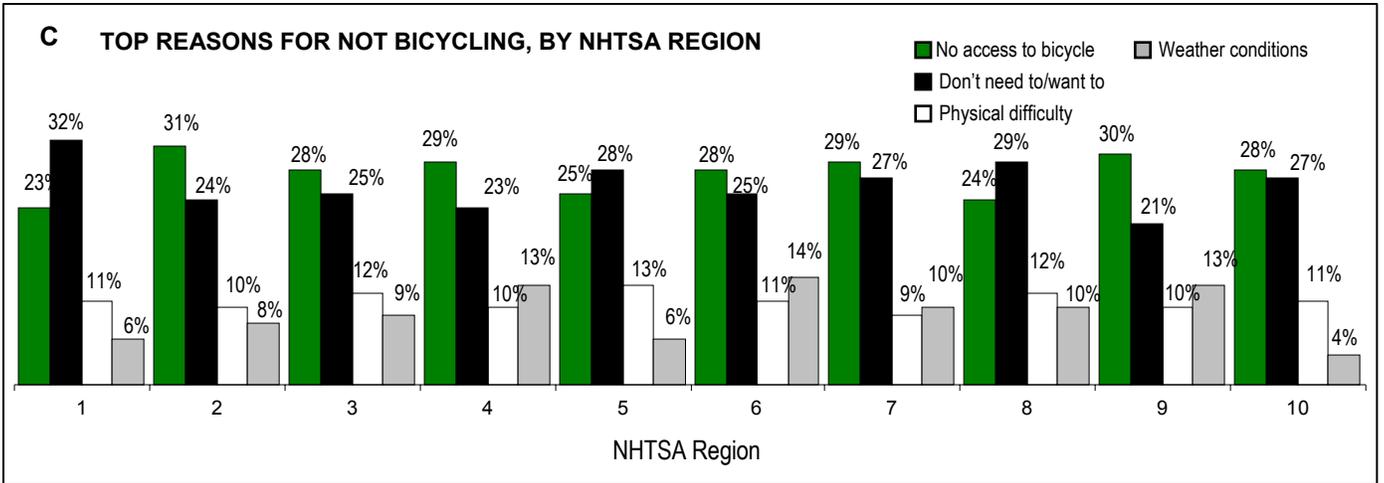
**FIGURE 6: REASONS FOR NOT BICYCLING**



Q2e: What is the primary reason you never ride a bike in the summer/have not ridden a bike more recently? [Base: Never bicycle in summer months or have not bicycled in past 30 days]



Q2e: What is the primary reason you never ride a bike in the summer/have not ridden a bike more recently? [Base: Never bicycle in summer months or have not bicycled in past 30 days]



Q2e: What is the primary reason you never ride a bike in the summer/have not ridden a bike more recently? [Base: Never bicycle in summer months or have not bicycled in past 30 days]

Sample bases for this page:

|   | Total | Male | Female | 16-20 | 21-29 | 30-45 | 46-64 | 65+  |
|---|-------|------|--------|-------|-------|-------|-------|------|
| Never bicycle in summer months or have not bicycled in past 30 days | 7015  | 2576 | 4439   | 430   | 902   | 2028  | 2261  | 1348 |

|   | NHTSA Region |     |     |      |      |     |     |     |     |     |
|---|--------------|-----|-----|------|------|-----|-----|-----|-----|-----|
|   | 1            | 2   | 3   | 4    | 5    | 6   | 7   | 8   | 9   | 10  |
| Never bicycle in summer months or have not bicycled in past 30 days | 360          | 613 | 775 | 1348 | 1115 | 900 | 358 | 244 | 970 | 332 |

## **Estimated Number of Bicycling Trips (Among Those Bicycling at Least Once in Past 30 Days)**

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### **Percent taking 1, 2, 3, 4, or more trips**

An estimated 2.484 billion bicycling trips were made during the summer of 2002 (May 11 and August 20). Over half of bicyclists took just one trip (58%) on the most recent day they rode, 31 percent took two trips, and the remainder took three or more trips (11%). This translates to an average of 1.6 trips per bicyclist per day bicycled. Trips were defined as going from a starting point to a destination for a specific purpose without any stops along the way. [Figure 7-A]

### **Average number of trips, by gender and age**

Male bicyclists took an average of 1.7 trips on the most recent day they rode, compared to 1.5 trips for female bicyclists. The average number of bicycling trips declined with age from a high of 2.0 trips per day among bicyclists under 21 to 1.4 trips per day among bicyclists 46 or older. [Figure 7-B]

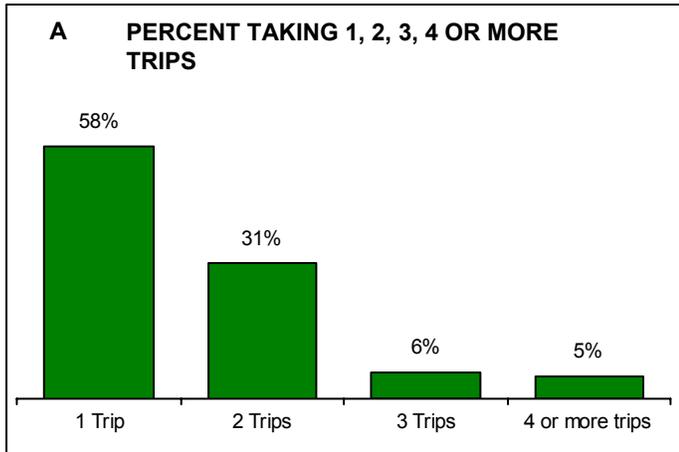
### **Average number of trips, by NHTSA Region**

The average number of bicycle trips on the most recent day of riding varied by region. The number of trips cited ranged from 1.9 in NHTSA Region 10 (AK, ID, OR, WA), to 1.5 trips per day in NHTSA Regions 1 and 3 (Northeast and Eastern Seaboard). [Figure 7-C]

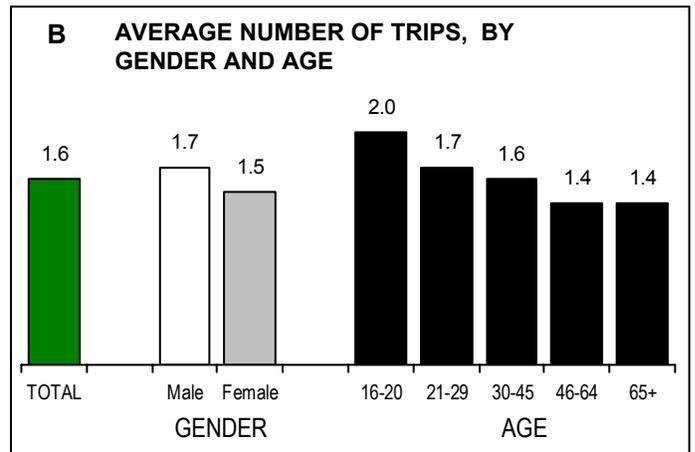
### **Average number of trips**

Heavy-frequency bicyclists (defined as those bicycling 20 or more days in a 30-day period) took an average of 2.1 trips on the most recent day they rode, compared to 1.7 trips per day for medium-frequency bicyclists (those bicycling 8 to 19 days in a 30-day period) and 1.5 trips for light-frequency bicyclists (those bicycling 7 or fewer days). [Figure 7-D]

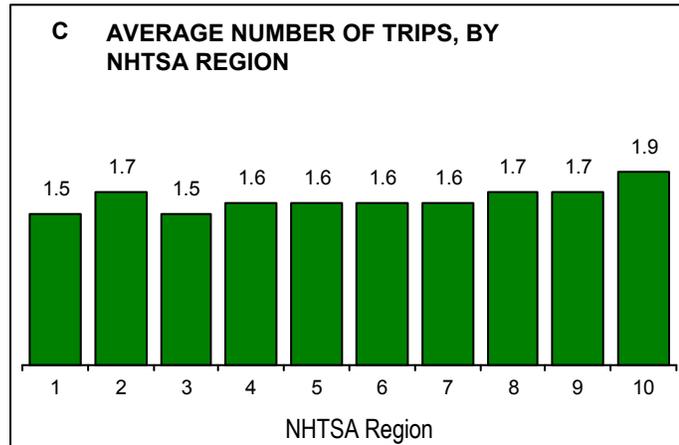
**FIGURE 7: NUMBER OF BICYCLING TRIPS (AMONG THOSE BICYCLING AT LEAST ONCE IN PAST 30 DAYS)**



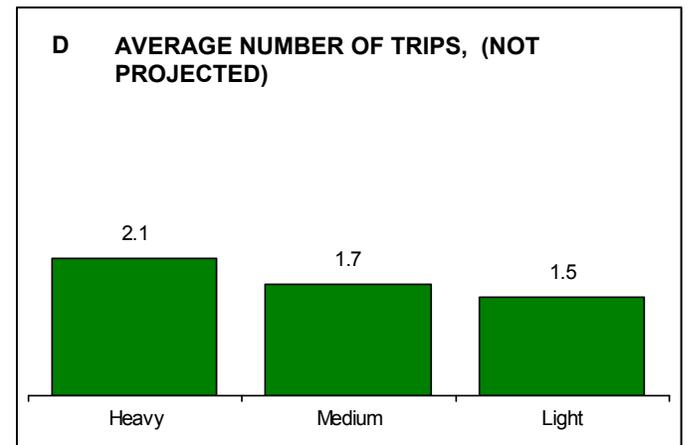
Q5: How many trips did you make on this most recent day you rode your bicycle? [Base: Rode bicycle past 30 days]



Q5: How many trips did you make on this most recent day you rode your bicycle? [Base: Rode bicycle past 30 days]



Q5: How many trips did you make on this most recent day you rode your bicycle? [Base: Rode bicycle past 30 days]



Q5: How many trips did you make on this most recent day you rode your bicycle? [Base: Rode bicycle past 30 days]

Sample bases for this page:

|                           | <u>Total</u> | <u>Male</u> | <u>Female</u> | <u>16-20</u> | <u>21-29</u> | <u>30-45</u> | <u>46-64</u> | <u>65+</u> | <u>Heavy</u> | <u>Medium</u> | <u>Light</u> |
|---------------------------|--------------|-------------|---------------|--------------|--------------|--------------|--------------|------------|--------------|---------------|--------------|
| Rode bicycle past 30 days | 2525         | 1325        | 1200          | 290          | 398          | 1079         | 626          | 121        | 324          | 549           | 1642         |

NHTSA Region

|                           | <u>1</u> | <u>2</u> | <u>3</u> | <u>4</u> | <u>5</u> | <u>6</u> | <u>7</u> | <u>8</u> | <u>9</u> | <u>10</u> |
|---------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| Rode bicycle past 30 days | 143      | 224      | 241      | 383      | 556      | 242      | 140      | 112      | 342      | 142       |

## **Estimated Total Number of Bicycling Trips**

---

### **Estimated projected total number of bicycling trips typical summer months, by total, gender and age**

During the summer months of 2002, a projected 2.484 billion bicycling trips were made by people 16 and older. This reflects an estimated 1.686 billion trips made by male bicyclists and .799 billion trips made by female bicyclists. Bicyclists 30 to 45 made .846 billion bicycling trips, compared to .643 billion trips made by those 16 to 20 and .086 billion trips made by those 65 or older. [Figure 8-A]

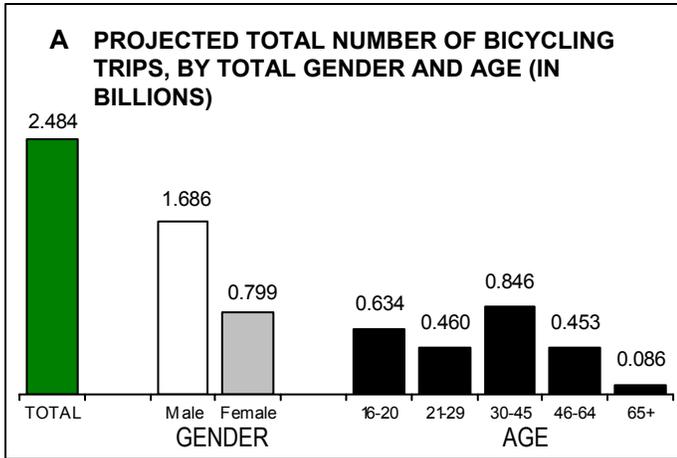
### **Estimated projected total number of bicycling trips, by NHTSA Region**

Bicyclists in NHTSA Region 5 (IL, IN, MI, MN, OH, WI) made more trips (.521 billion) than those living in other regions of the country. Fewer than 100 million trips were made by bicyclists living in NHTSA Region 1 (CT, ME, MA, NH, RI, VT) (.096 billion), and NHTSA Region 8 (CO, MT, ND, SD, UT, WY) (.087 billion). [Figure 8-B]

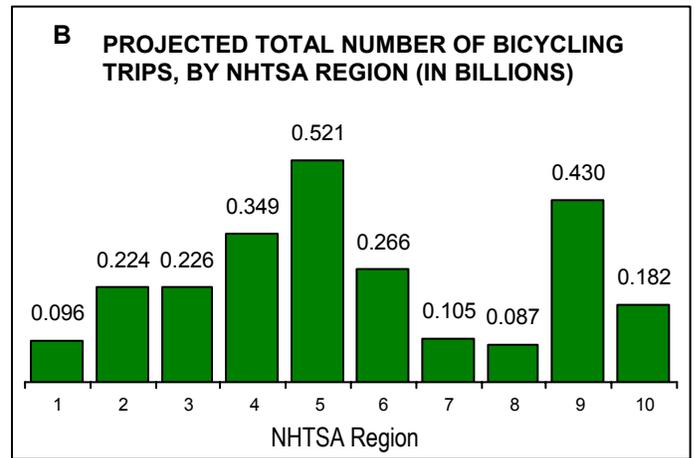
### **Proportion of bicycling trips taken by bicycling frequency**

Heavy-frequency bicyclists made one-half (50%) of all bicycling trips taken over the summer of 2002, though they make up 14% of bicyclists. In contrast, light-frequency bicyclists represent 64 percent represent of the bicycling population, but made just 19% of all trips. [Figure 8-C]

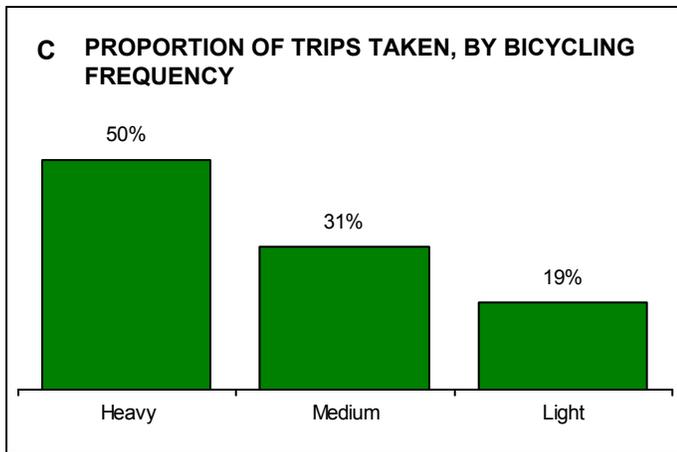
**FIGURE 8: ESTIMATED TOTAL NUMBER OF BICYCLING TRIPS**



Q5: How many trips did you make on this most recent day you rode your bicycle? [Base: Rode bicycle past 30 days]



Q5: How many trips did you make on this most recent day you rode your bicycle? [Base: Rode bicycle past 30 days]



Q5: How many trips did you make on this most recent day you rode your bicycle? [Base: Rode bicycle past 30 days]

Sample bases for this page:

|                              | Total | Male | Female | 16-20 | 21-29 | 30-45 | 46-64 | 65+ | Heavy | Medium | Light |
|------------------------------|-------|------|--------|-------|-------|-------|-------|-----|-------|--------|-------|
| Rode bicycle in past 30 days | 2525  | 1325 | 1200   | 290   | 398   | 1079  | 626   | 121 | 324   | 549    | 1642  |

|                              | NHTSA Region |     |     |     |     |     |     |     |     |     |
|------------------------------|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                              | 1            | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  |
| Rode bicycle in past 30 days | 143          | 224 | 241 | 383 | 556 | 242 | 140 | 112 | 342 | 142 |



## **Chapter 2: Origin-Destination Information for Bicycling**

This section provides information about specific trip data on the most recent day a bicycle was used. Specific trip data were collected for up to six trips (including origin and destination information, purpose, time, distance, etc.) on the most recent day traveled. These data cannot be used to project year-round bicycling behaviors but offer a solid reflection of bicycling trips taken during the summer of 2002.

Specifically this chapter covers the following topics:

- Origin of bicycling trips,
- Purpose and destination of bicycling trips, and
- Characteristics of bicycling trips.

## **Origin of Bicycling Trips**

---

### **Starting point of the day's first trip**

Nearly 9 in 10 (89%) trips began at a residence belonging either to the bicyclist or someone else. An additional 7 percent of trips began at a leisure or recreational site such as a park. Just 1 percent began at work, and 3 percent began in some other location. [Figure 9-A]

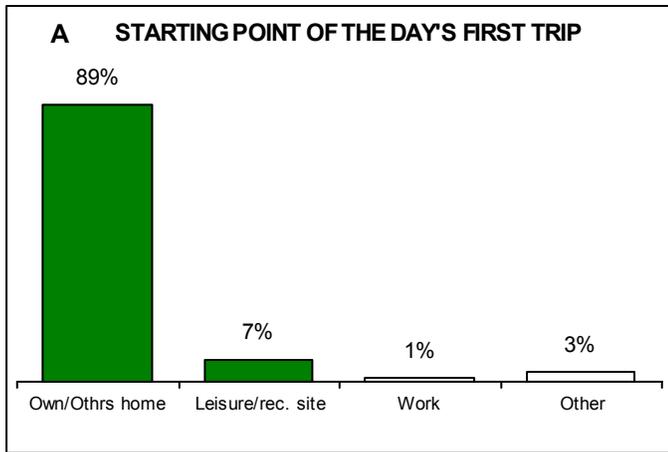
### **Type of area where first trip began**

Those who did not begin their day's trips at home were asked to describe the area within one-quarter mile of where the day's trips began. Over half of these trips began in a recreational area (55%), an additional 27 percent of trips began in a residential area. [Figure 9-B]

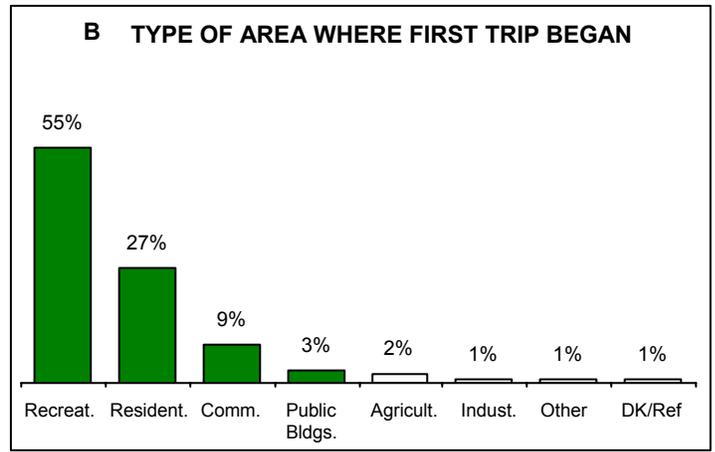
### **Ranges of time first trip began**

The time of day at which the first trip began spanned across all hours of the day. Roughly 4 in 10 trips (39%) began in the morning hours between 12:01 a.m. and noon, 36 percent began in the afternoon hours between noon and 5:59 p.m., and 20 percent began in the evening hours of 6 p.m. through midnight. [Figure 9-C]

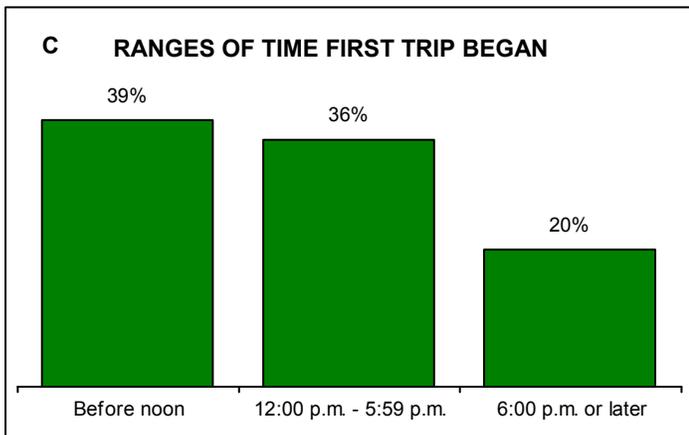
**FIGURE 9: ORIGIN OF BICYCLING TRIPS**



Q6: Thinking of this last day that you rode your bicycle, what was your starting point for this trip? [Base: Rode bicycle past 30 days; n=2,525]



Q8: Was the area within 1/4 mile of where you started your trip...? [Base: Rode bicycle past 30 days beginning first trip somewhere other than own home; n=331]



Q7: What time did you begin this/your first trip of the day? [Base: Rode bicycle past 30 days; n=2,525]

## **Purpose and Destination of Bicycling Trips**

---

Note the data presented in this section are based on the total trips taken on the most recent day bicycled.

### **Purpose of trips**

Bicyclists reported a variety of reasons as the primary purposes for the bicycling trips they took. The most common purposes of trips were for recreation or leisure (29%) and for exercise or health reasons (24%). Additional primary trip purposes included running personal errands (14%), going home (14%), and visiting a friend or relative (10%). Just 5 percent said they used their bicycles for commuting to work or school. [Figure 10-A]

### **Ending points of trips**

The most common ending point of a bicycle trip was home (69%). An additional 11 percent ended at a leisure or recreation site, 9 percent ended at a shopping site and 4 percent ended at work. [Figure 10-B]

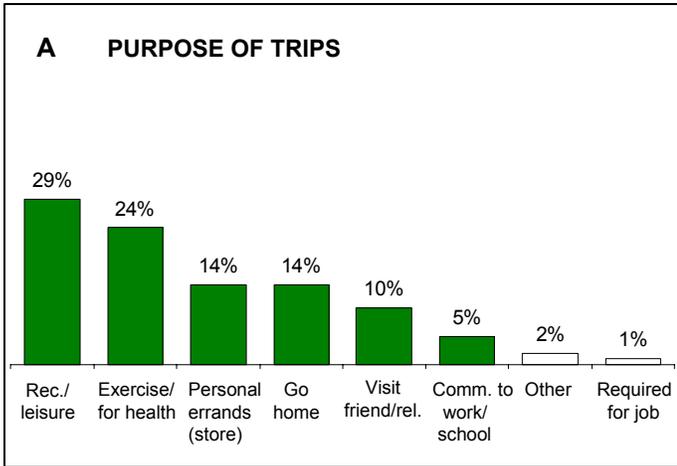
### **Type of area where trips ended**

Trips that did not end at the bicyclist's home tended to end in residential areas (39%), but 1 in 4 (26%) also ended in recreational areas. An additional 1 in 5 (19%) ended in commercial areas. [Figure 10-C]

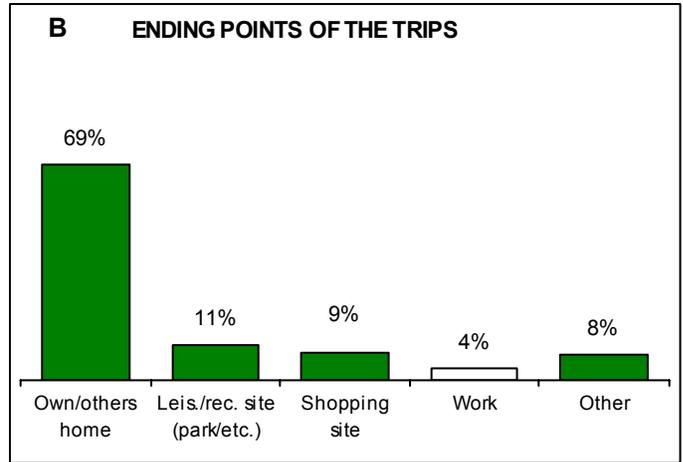
### **Type of area where trips ended**

Trips ended in mostly urban or suburban areas (47%), with an additional 25 percent ending in a rural town or farm area, or a downtown city area (22%). [Figure 10-D]

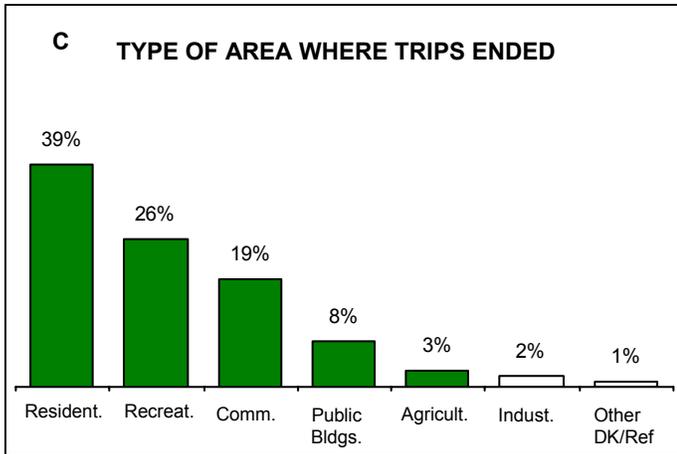
**FIGURE 10: PURPOSE AND DESTINATION OF BICYCLING TRIPS**



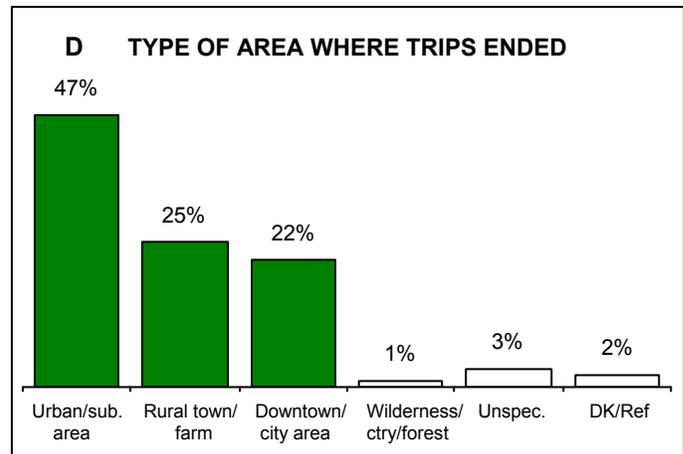
Q9,a 25a: What was the main purpose of this trip? [Base: Data for all trips; n=3,903]



Q10,26: Where did this trip end? [Base: Data for all trips; n=3,903]



Q12,28: Was the area within ¼ mile of where you ended this trip? [Base: Data for all trips that did not end at home; n=1,624]



Q13,29: Was the area within ¼ mile of where you ended this trip? [Base: Data for all trips that did not end at home; n=1,624]

## **Characteristics of Bicycling Trips**

---

### **Trip lengths on most recent day bicycled**

The average bicycle trip taken on the most recent day of bicycling was 3.9 miles. Nearly 4 in 10 trips (39%) were reported to be 1 mile or less. Just 1 in 5 trips (19%) was reported to be more than 5 miles. [Figure 11-A]

### **Type of roads bicycled on**

Nearly half (48%) of bicyclists' trips were ridden mainly on paved roads, not on shoulders (48%). Other facilities used for bicycling trips included sidewalks (14%), bicycle paths, walking paths or trails (13%), shoulders of paved roads (13%), unpaved roads (5%), and bicycle lanes on roads (5%). [Figure 11-B]

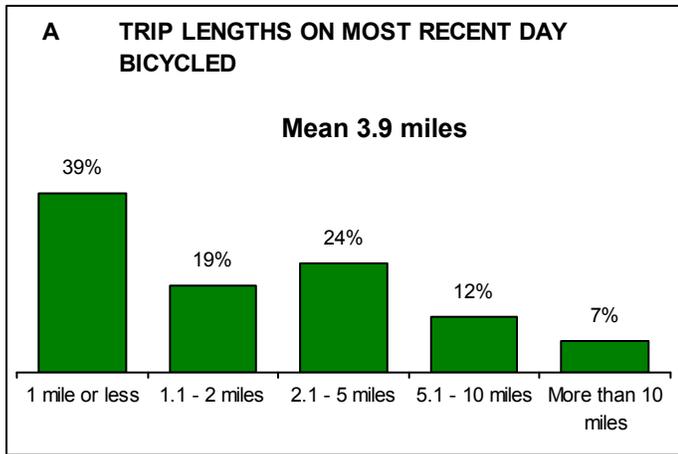
### **Inclination of roads bicycled on**

Bicycle trips were taken primarily on flat surfaces (48%). An additional 35 percent of trips were on flat surfaces with a hill or two, and 16 percent of trips were on mostly hilly surfaces. [Figure 11-C]

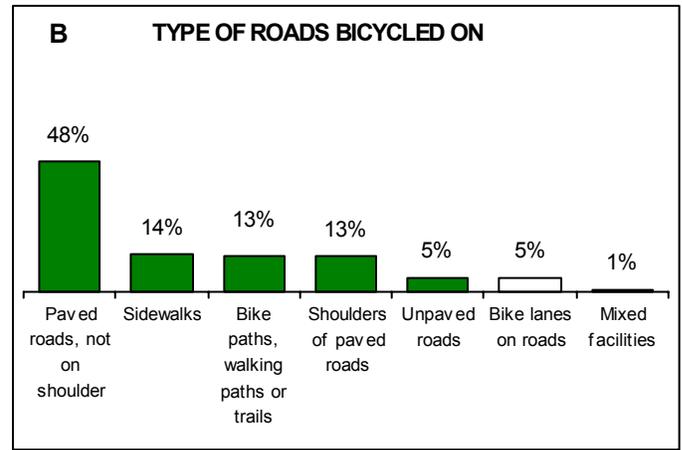
### **Number of people on trips**

Six in 10 (60%) bicycling trips were taken alone. Slightly more than 2 in 10 (22%) bicycling trips were taken with one other person. Almost 2 in 10 (18%) were taken with two or more other people. [Figure 11-D]

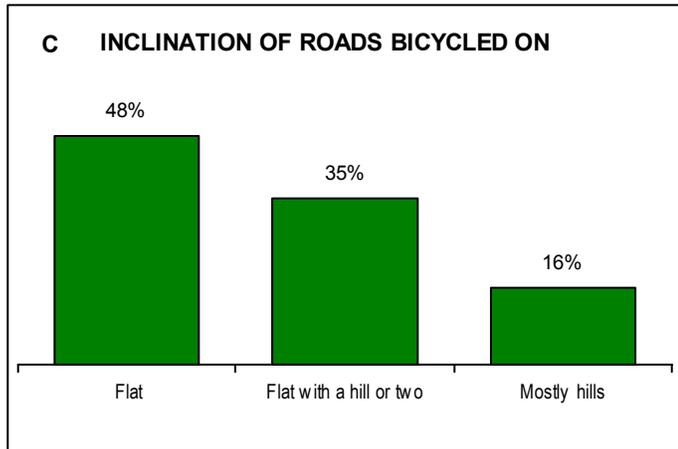
**FIGURE 11: CHARACTERISTICS OF BICYCLING TRIPS**



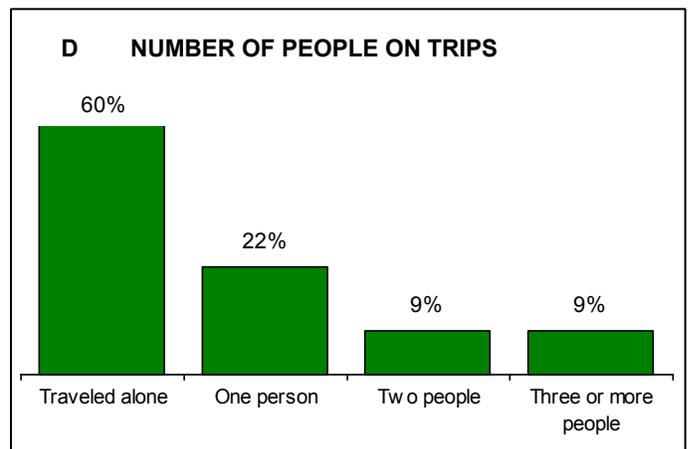
Q14, 30: How far did you bicycle on this trip? [Base: Data for all trips; n=3,903]



Q16,32: Did you ride mostly on...? [Base: Data for all trips; n=3,903]



Q17,33: On this trip, did you ride on a surface that was mainly...? [Base: Data for all trips; n=3,903]



Q18,34: How many other people were with you on this trip? [Base: Data for all trips; n=3,903]



## **Chapter 3: Bicycle as Mode of Transportation**

---

This section provides data on the bicycle as a mode of transportation. Specifically, it covers topics including:

- Alternatives to bicycling,
- Personal feelings of safety while bicycling,
- Reasons feel threatened for personal safety,
- Actions motorist did that were threatening,
- Bicycling in the dark, and
- Making self visible while bicycling in the dark.

## **Alternatives to Bicycling**

---

### **Availability of other modes of transportation, by total, gender and age**

The bicycle was a preferred mode of transportation even when other modes of transportation were available. Among those who reported bicycling trips that were not just for recreational purposes, nearly 9 in 10 (86%) reported that other types of transportation were available to them that day that they could have used instead of their bicycles. Males and females were equally likely to have alternative transportation available. The availability of alternative transportation increased linearly with age, with 95 percent of bicyclists over 64 having an alternative available on that day, compared to 79 percent of those 16 to 20. [Figure 12-A]

### **Availability of other modes of transportation, by race/ethnicity**

White non-Hispanic bicyclists (89%) who were bicycling for nonrecreation purposes were more likely than Black non-Hispanic (75%) and Hispanic bicyclists (79%) to have another transportation mode available to them on the most recent day they bicycled. [Figure 12-B]

### **Availability of other modes of transportation, by household income**

When bicycling for nonrecreational purposes, only the availability of alternate modes of transportation increased with increases in income. Ninety-one percent of those with household incomes \$75,000 or more had an alternative, compared to 73 percent of those earning under \$15,000 per year. [Figure 12-C]

### **Availability of other modes of transportation, by bicycling frequency**

Light-frequency bicyclists (88%) were more likely to have other types of transportation available to them on the most recent day they rode their bicycle for nonrecreation purposes than did those riding more frequently (83%). [Figure 12-D]

## **Alternatives to Bicycling (Continued)**

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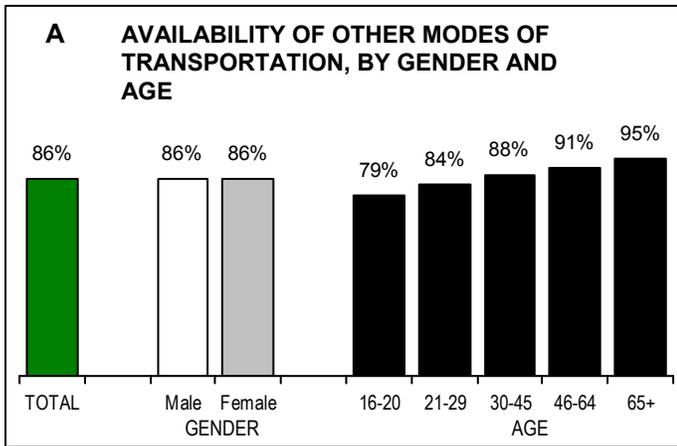
### **Use of bicycle instead of alternative modes**

Among those who had an alternative type of transportation available to them, the main reason they chose to use a bicycle was for the exercise (41%). Other reasons provided were because they enjoy biking or good weather (21%), bicycling is convenient (12%), or for recreation (10%). [Figure 12-E]

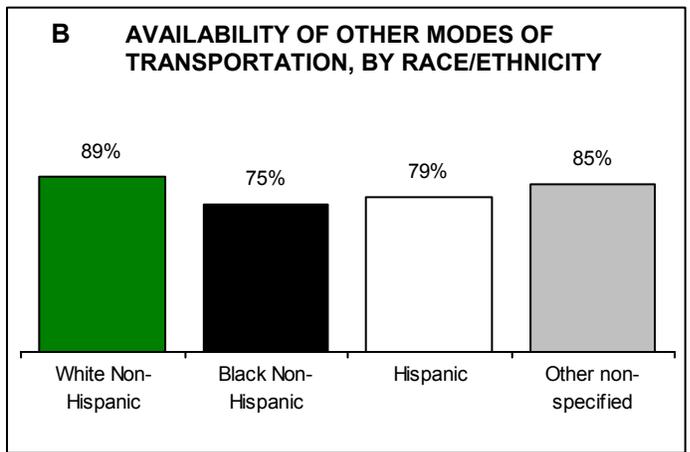
### **Use of bicycle instead of alternative modes, by purpose of trip**

When the purpose of the trip was commuting, the bicycle most often was selected over alternative modes of transportation for the exercise (31%) or convenience (24%). In contrast, those who used a bicycle for personal errands, were much less likely to cite the bicycle as a convenience (12%) than they were to say they used it for the exercise (42%). [Figure 12-F]

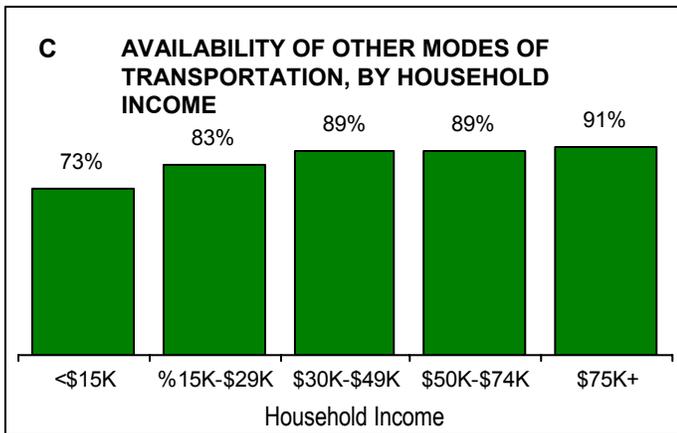
**FIGURE 12: ALTERNATIVES TO BICYCLING**



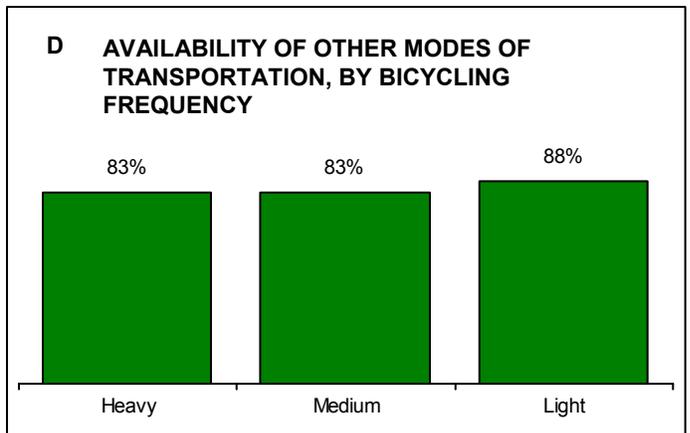
Q36: On that day, were other types of transportation available to you that you could have used instead of your bicycle? [Base: People who made trips other than just for recreation]



Q36: On that day, were other types of transportation available to you that you could have used instead of your bicycle? [Base: People who made trips other than just for recreation]

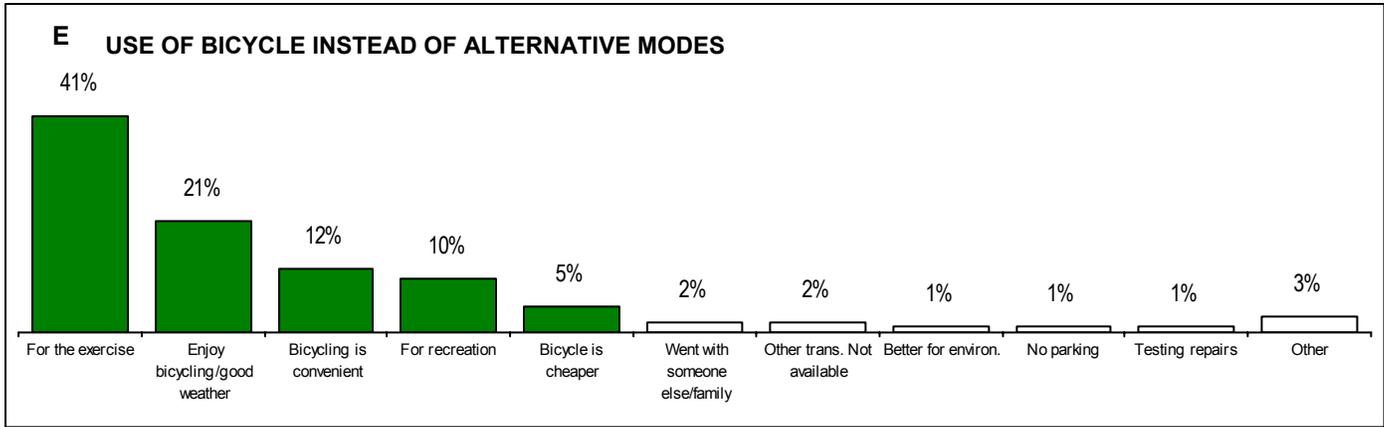


Q36: On that day, were other types of transportation available to you that you could have used instead of your bicycle? [Base: People who made trips other than just for recreation]

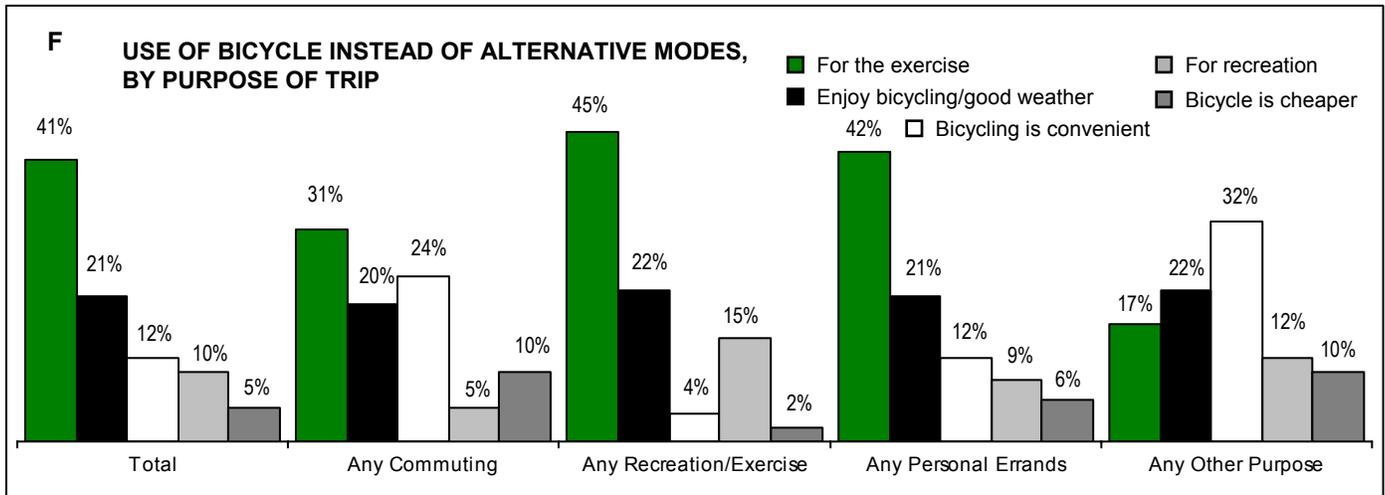


Q36: On that day, were other types of transportation available to you that you could have used instead of your bicycle? [Base: People who made trips other than just for recreation]

**FIGURE 12: ALTERNATIVES TO BICYCLING (continued)**



Q37: What is the main reason that you chose to ride a bicycle instead of some other form of transportation that day? [Base: Alternate form of transportation available for non-recreational trips; n=944]



Q37: What is the main reason that you chose to ride a bicycle instead of some other form of transportation that day? [Base: Alternate form of transportation available for non-recreational trips]

Sample bases for this page:

|   |                |                      |                                |                             |                         |                    |                    |               |                           |                          |              |
|---|----------------|----------------------|--------------------------------|-----------------------------|-------------------------|--------------------|--------------------|---------------|---------------------------|--------------------------|--------------|
| Made trips other than just for recreation                             | Total<br>1062  | Male<br>589          | Female<br>473                  | 16-20<br>190                | 21-29<br>192            | 30-45<br>412       | 46-64<br>223       | 65+<br>41     | White Non-Hispanic<br>808 | Black Non-Hispanic<br>83 |              |
| Made trips other than just for recreation                             | Hispanic<br>87 | Asian<br>--          | Other Non-specified<br>52      | <\$15K<br>121               | \$15K-\$29K<br>147      | \$30K-\$49K<br>247 | \$50K-\$74K<br>191 | \$75K+<br>250 | Heavy<br>193              | Medium<br>232            | Light<br>632 |
| Alternate form of transportation available for non-recreational trips | Total<br>944   | Any Commuting<br>130 | Any Recreation/Exercise<br>397 | Any Personal Errands<br>721 | Any Other Purpose<br>46 |                    |                    |               |                           |                          |              |

## **Personal Feelings of Safety While Bicycling**

---

### **Percent felt threatened for personal safety, by total, gender, age**

More than 1 in 10 bicyclists (13%) felt threatened for their personal safety on the most recent day they rode their bicycles in the previous 30 days in the summer of 2002. Males and females were about equally likely to have felt threatened. [Figure 13-A]

### **Felt threatened for personal safety, by urbanicity**

Bicyclists in suburban areas were more likely to feel threatened (17%) than those living in urban (13%) or rural (9%) areas. [Figure 13-B]

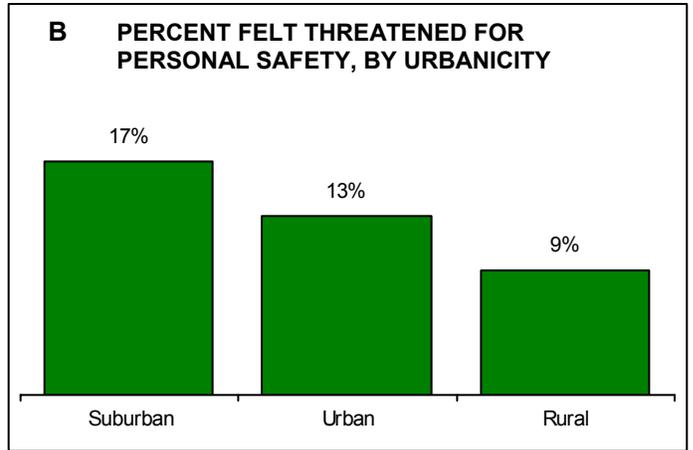
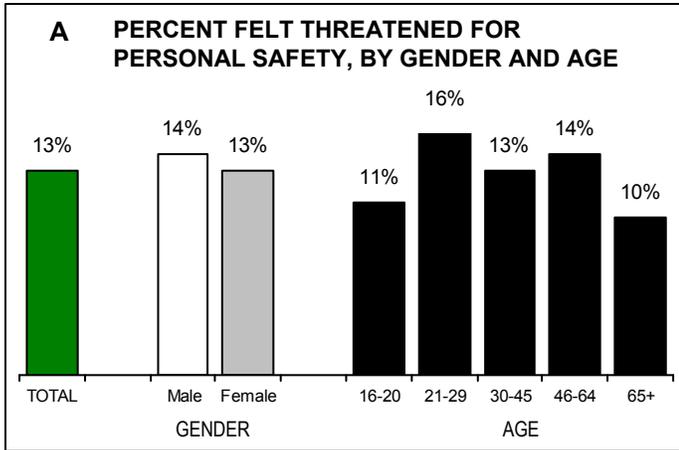
### **Felt threatened for personal safety, by NHTSA Region**

The proportion of bicyclists feeling threatened for their personal safety while bicycling ranged from 9 percent in NHTSA Region 1 (CT, ME, MA, NH, RI, VT) to 16 percent in NHTSA Regions 4 (AL, FL, GA, KY, MS, NC, SC, TN), 9 (AZ, CA, HI, NV) and 10 (AK, ID, OR, WA). [Figure 13-C]

### **Felt threatened for personal safety, by race/ethnicity**

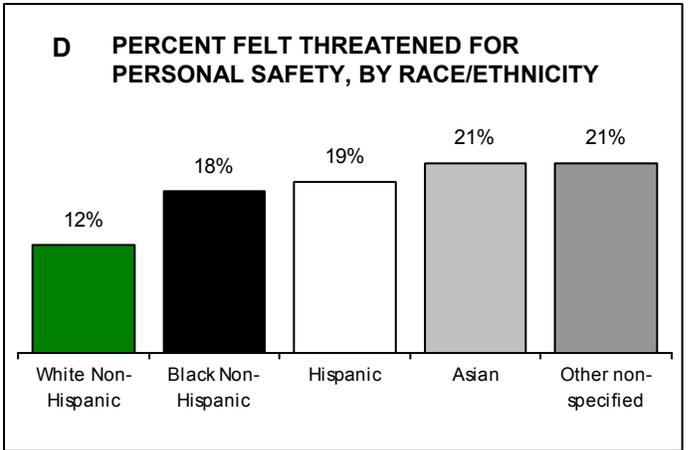
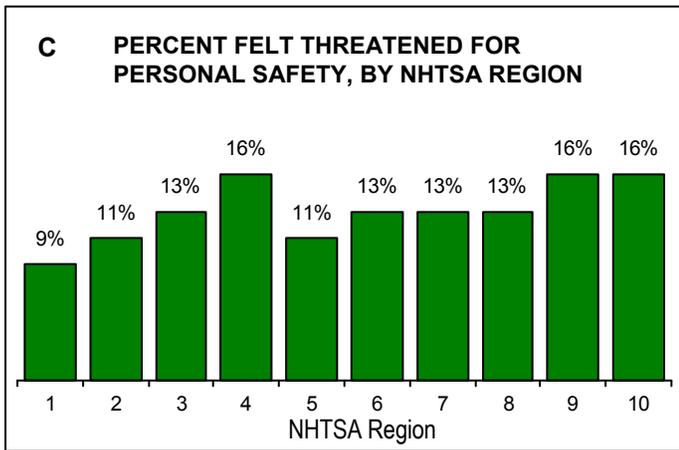
White, non-Hispanic bicyclists (12%) were less likely than Black non-Hispanic bicyclists (18%), Hispanic bicyclists (19%), Asian bicyclists (21%), and bicyclists of other races (21%) to feel threatened for their personal safety while bicycling. [Figure 13-D]

**FIGURE 13: PERSONAL FEELINGS OF SAFETY WHILE BICYCLING**



Q38: Did you feel threatened for your personal safety at any time when you rode your bicycle that day? [Base: Rode bicycle past 30 days]

Q38: Did you feel threatened for your personal safety at any time when you rode your bicycle that day? [Base: Rode bicycle past 30 days]



Q38: Did you feel threatened for your personal safety at any time when you rode your bicycle that day? [Base: Rode bicycle past 30 days]

Q38: Did you feel threatened for your personal safety at any time when you rode your bicycle that day? [Base: Rode bicycle past 30 days]

Sample bases for this page:

|                           |                                   |                                  |                        |                     |                                   |                      |                     |                   |                        |                      |                     |
|---------------------------|-----------------------------------|----------------------------------|------------------------|---------------------|-----------------------------------|----------------------|---------------------|-------------------|------------------------|----------------------|---------------------|
| Rode bicycle past 30 days | <u>Total</u><br>2525              | <u>Male</u><br>1325              | <u>Female</u><br>1200  | <u>16-20</u><br>290 | <u>21-29</u><br>398               | <u>30-45</u><br>1079 | <u>46-64</u><br>626 | <u>65+</u><br>121 | <u>Suburban</u><br>717 | <u>Urban</u><br>1293 | <u>Rural</u><br>515 |
| Rode bicycle past 30 days | <u>1</u><br>143                   | <u>2</u><br>224                  | <u>3</u><br>241        | <u>4</u><br>383     | <u>5</u><br>556                   | <u>6</u><br>242      | <u>7</u><br>140     | <u>8</u><br>112   | <u>9</u><br>342        | <u>10</u><br>142     |                     |
| Rode bicycle past 30 days | <u>White Non-Hispanic</u><br>2036 | <u>Black Non-Hispanic</u><br>158 | <u>Hispanic</u><br>145 | <u>Asian</u><br>49  | <u>Other Non-Specified</u><br>101 |                      |                     |                   |                        |                      |                     |

## **Reasons Felt Threatened for Personal Safety**

---

### **Reasons felt threatened**

Overwhelmingly, the top reason bicyclists felt threatened while bicycling was due to motorists (88%). More than one-third of bicyclists (37%) also reported feeling threatened for their personal safety because of uneven walkways or roadways. One in 4 (24%) felt threatened by dogs or other animals. One in 6 (17%) felt threatened by the potential for crime. [Figure 14-A]

### **Top reasons felt threatened, by gender, age**

There are few differences between males and females regarding reasons for feeling threatened for their personal safety while bicycling, though females were more likely to feel threatened by dogs or other animals (31%) than were males (18%). [Figure 14-B]

Bicyclists under 21 were more concerned about the potential for crime (34%) and dogs or other animals (42%) than were bicyclists over 21. [Figure 14-C]

### **Top reasons felt threatened, by urbanicity**

Suburban bicyclists who felt threatened for their personal safety while bicycling were more likely to say it was because of uneven walkways or surfaces (43%) than were those from urban areas (31%). Bicyclists in rural areas were more likely to feel threatened by dogs or other animals (33%) than were those in suburban areas (18%). [Figure 14-D]

## **Reasons Felt Threatened for Personal Safety (Continued)**

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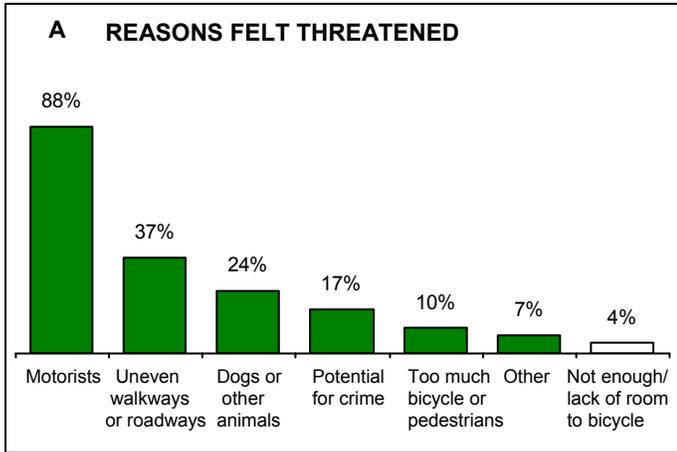
### **Top reasons felt threatened, by race/ethnicity**

Black, non-Hispanic bicyclists (57%) were more likely to report that uneven walkways or surfaces were the reason for feeling threatened for their personal safety while bicycling than were White non-Hispanic (35%) and Hispanic (21%) bicyclists. [Figure 14-E]

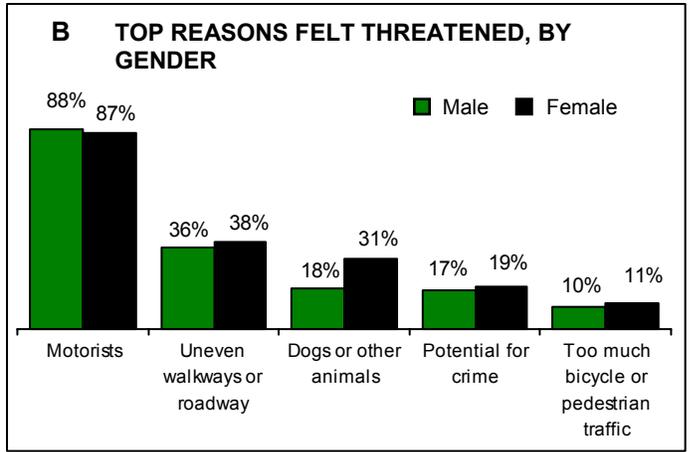
### **Top reasons felt threatened, by household income**

Bicyclists with household income levels under \$30,000 were less likely on average (80% average for those under \$15,000 and \$15,000-\$29,000) than bicyclists with higher household incomes (89% average) to say the reason they felt threatened for their personal safety while bicycling was because of motorists. Bicyclists with incomes below \$30,000 annually were more likely to say they felt threatened by dogs or other animals (40% average) and by too much bicycle or pedestrian traffic (25% average) than were those with income levels \$30,000 and above. [Figure 14-F]

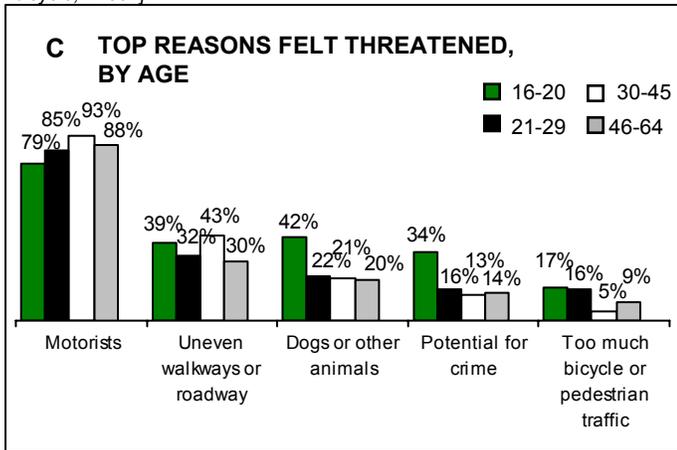
**FIGURE 14: REASONS FELT THREATENED FOR PERSONAL SAFETY**



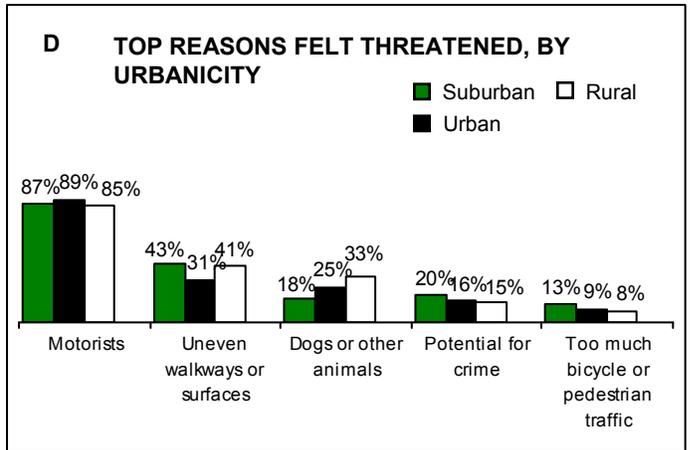
Q38a: Did you feel threatened for your personal safety because of any of the following...? [Base: Felt threatened for personal safety last time rode bicycle; n=351]



Q38a: Did you feel threatened for your personal safety because of any of the following...? [Base: Felt threatened for personal safety last time rode bicycle]

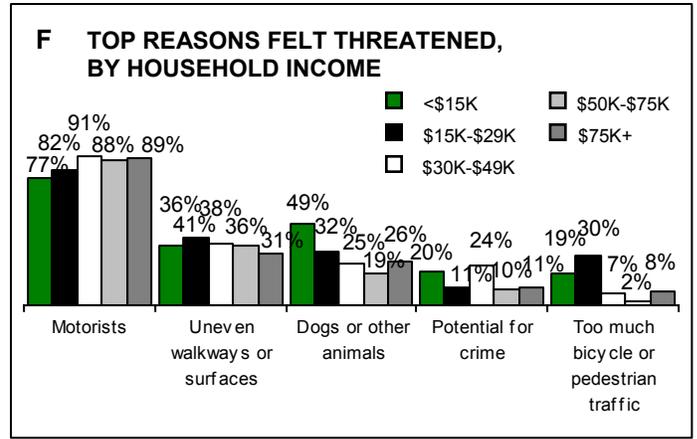
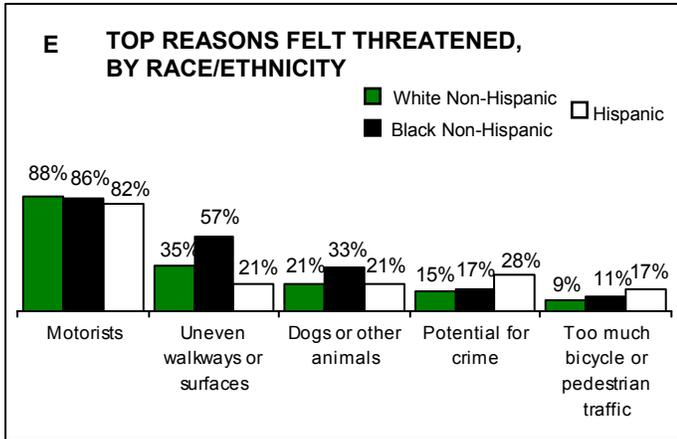


Q38a: Did you feel threatened for your personal safety because of any of the following...? [Base: Felt threatened for personal safety last time rode bicycle]



Q38a: Did you feel threatened for your personal safety because of any of the following...? [Base: Felt threatened for personal safety last time rode bicycle]

**FIGURE 14: REASONS FELT THREATENED FOR PERSONAL SAFETY (continued)**



Q38a: Did you feel threatened for your personal safety because of any of the following...? [Base: Felt threatened for personal safety last time rode bicycle]

Q38a: Did you feel threatened for your personal safety because of any of the following...? [Base: Felt threatened for personal safety last time rode bicycle]

Sample bases for this page:

|   | <u>Total</u>     | <u>Male</u>             | <u>Female</u>      | <u>16-20</u>       | <u>21-29</u>              | <u>30-45</u>              | <u>46-64</u>    | <u>65+</u>   |                            |
|---|------------------|-------------------------|--------------------|--------------------|---------------------------|---------------------------|-----------------|--------------|----------------------------|
| Felt threatened for personal safety last time rode bike | 351              | 184                     | 167                | 33                 | 64                        | 149                       | 95              | *            |                            |
|   |                  | <u>Suburban</u>         | <u>Urban</u>       | <u>Rural</u>       | <u>White Non-Hispanic</u> | <u>Black Non-Hispanic</u> | <u>Hispanic</u> | <u>Asian</u> | <u>Other Non-Specified</u> |
| Felt threatened for personal safety last time rode bike | 125              | 172                     | 54                 | 251                | 30                        | 32                        | *               | *            |                            |
|   |                  | <u>Household Income</u> |                    |                    |                           |                           |                 |              |                            |
|   | <u>&lt;\$15K</u> | <u>\$15K-\$29K</u>      | <u>\$30K-\$49K</u> | <u>\$50K-\$74K</u> | <u>\$75K+</u>             |                           |                 |              |                            |
| Felt threatened for personal safety last time rode bike | 31               | 34                      | 74                 | 76                 | 101                       |                           |                 |              |                            |

\*Sample size insufficient for reporting (n<30)

## **Actions Motorists Did That Were Threatening**

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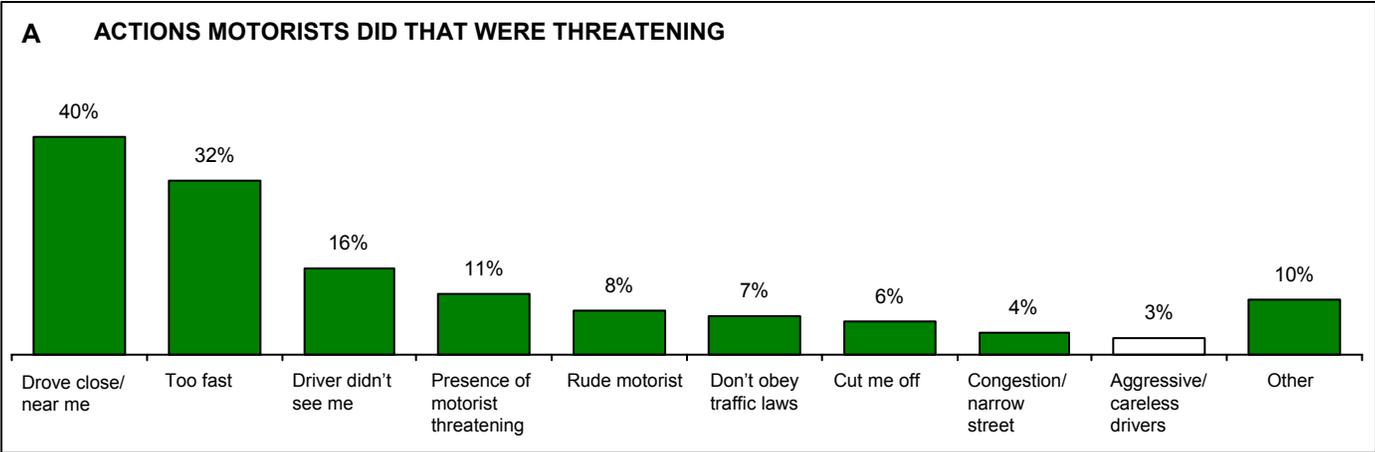
### **Actions motorists did that were threatening**

Among those who reported that they felt threatened by a motorist (11% of bicyclists), the top two actions that were seen as threatening were motorists driving too close to the bicyclist (40%), and motorists driving too fast (32%). Other provided reasons included the driver not seeing the bicyclist (16%), the presence of the motorist was threatening (11%), the motorist was rude (8%) and the motorist did not obey traffic laws (7%). [Figure 15-A]

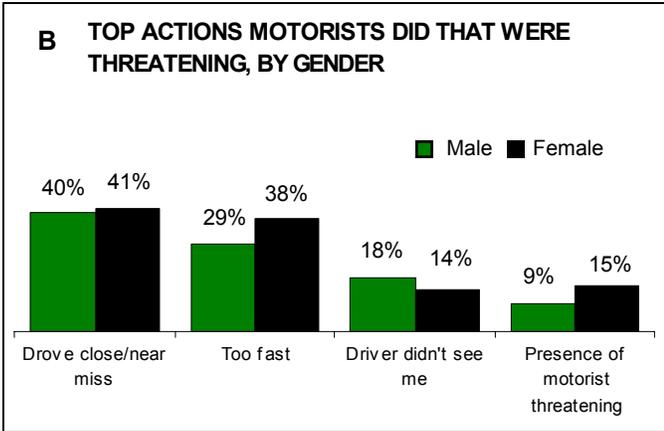
### **Top actions motorists did that were threatening, by gender and age**

There were no statistically valid differences in reported reasons for feeling threatened by motorists' actions between male and female bicyclists. [Figure 15-B]

**FIGURE 15: ACTIONS MOTORISTS DID THAT WERE THREATENING**



Q38b: What did motorists do to make you feel threatened? [Base: Felt threatened by motorist]



Q38b: What did motorists do to make you feel threatened? [Base: Felt threatened by motorist]

Sample bases for this page:

|  | Total | Male | Female |
|--|-------|------|--------|
| Felt threatened for personal safety last time rode bicycle | 310   | 164  | 146    |

\*Sample size insufficient for reporting (n<30)

## **Bicycling in the Dark**

---

### **Percent riding in the dark or near-dark, by total, gender, age**

Overall, 20 percent of bicyclists who rode in the past 30 days reported riding in the dark or near-dark for part of their ride on the last day they rode their bicycles. Males and females were roughly equally likely to ride in the dark. The proportion riding in the dark decreased with age, with 31 percent of bicyclists 16 to 20 riding in the dark, and just 7 percent of bicyclists over 64 riding in the dark on their most recent rides. [Figure 16-A]

### **Percent riding in the dark or near-dark, by NHTSA Region, urbanicity**

There is a significant range of bicyclists reporting riding in dark or near dark conditions across NHTSA Regions. Dark or near-dark riding ranged from a high of 28 percent of bicyclists in NHTSA Region 6 (AR, LA, NM, OK, TX) to lows of 13 percent in NHTSA Region 1 (CT, ME, MA, NH, RI, VT) and NHTSA Region 10 (AK, ID, OR, WA). Suburban bicyclists were more likely to ride in the dark (27%) than urban (17%) or rural (19%) bicyclists. [Figure 16-B]

### **Percent riding in the dark or near-dark, by race/ethnicity**

Black non-Hispanic (30%) and Hispanic (28%) bicyclists were more likely to ride in the dark than White non-Hispanic bicyclists (18%). [Figure 16-C]

### **Percent riding in the dark or near-dark, by household income**

Those with household incomes under \$15,000 were more likely to ride in the dark (31%) than those of higher incomes, especially those earning \$75,000 or more (17%). [Figure 16-D]

## **Bicycling in the Dark (Continued)**

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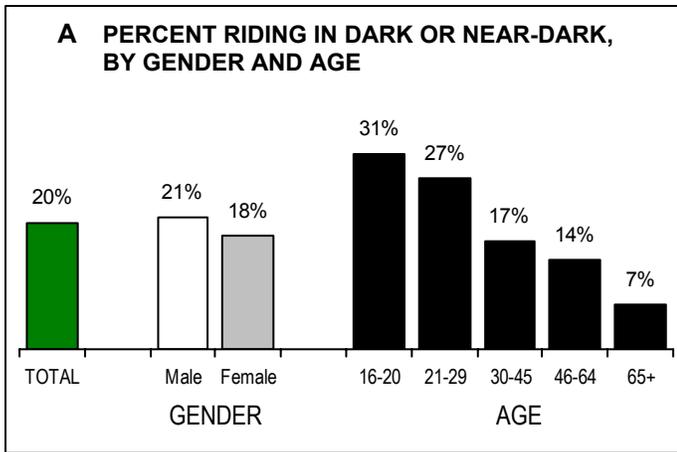
### **Percent riding in the dark or near-dark, by bicycling frequency**

Those who ride their bicycles only a few times a month (light-frequency bicyclists) were less likely to ride in the dark or near-dark the last time they rode their bicycle (17%) than medium-frequency (24%) or heavy-frequency (25%) bicyclists. [Figure 16-E]

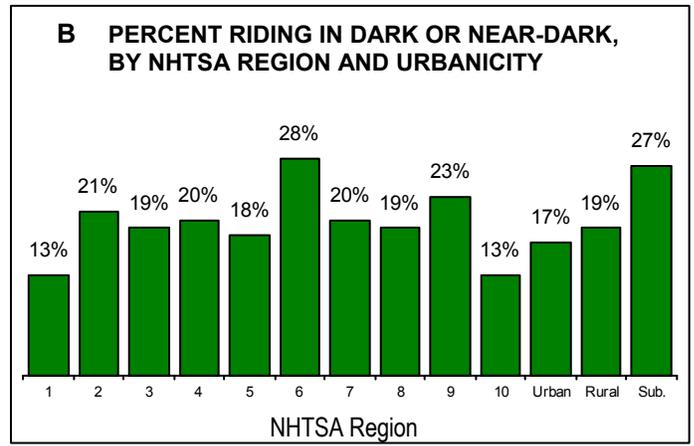
### **Proportion of the time spent riding in the dark or near-dark**

Four in 10 bicyclists (40%) report never riding in the dark or near-dark during the past year. An additional 29 percent spent almost no time riding in the dark or near-dark in that one year time frame. Thus, about 3 in 10 bicyclists (31%) spent at least some time bicycling in the dark or near-dark in the past year, with 18 percent reporting that they spent about half or more of their bicycling time riding in the dark or near-dark. [Figure 16-F]

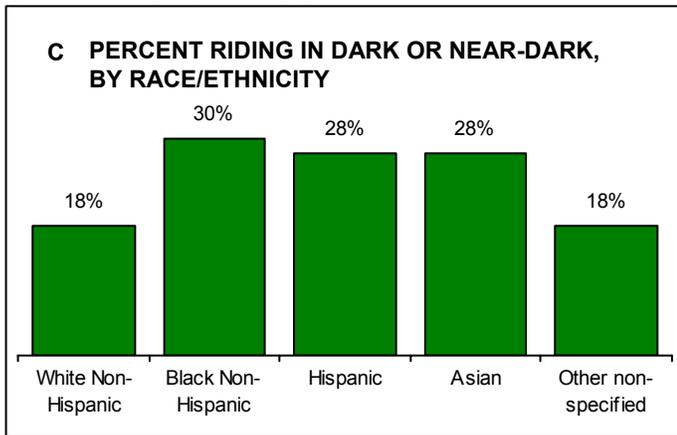
**FIGURE 16: BICYCLING IN THE DARK**



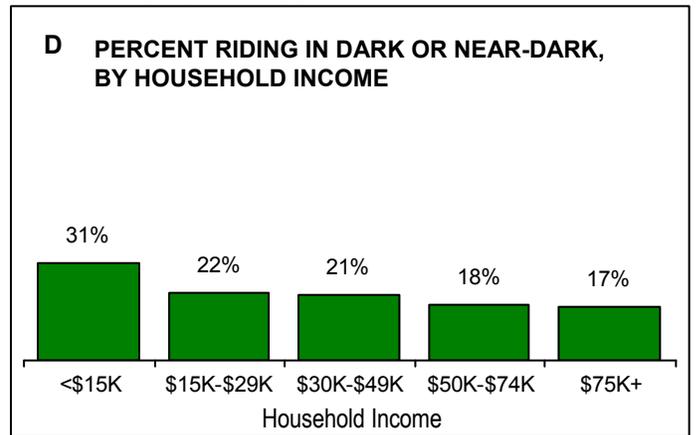
Q39: You may have already mentioned this but, the last time you rode your bicycle, was it dark or near-dark outside for any part of your ride?  
[Base: Rode bicycle past 30 days]



Q39: You may have already mentioned this but, the last time you rode your bicycle, was it dark or near-dark outside for any part of your ride?  
[Base: Rode bicycle past 30 days]

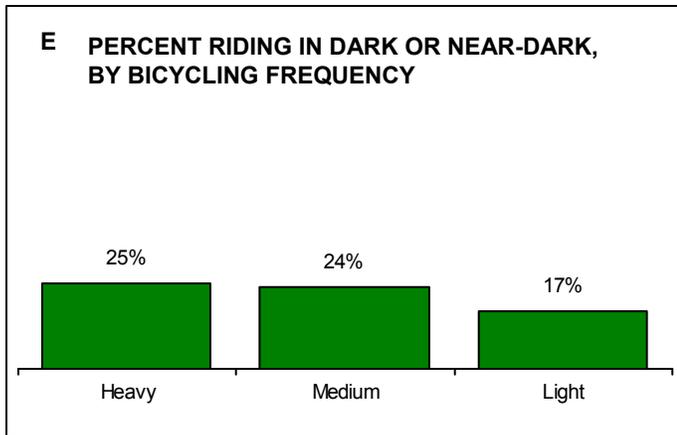


Q39: You may have already mentioned this but, the last time you rode your bicycle, was it dark or near-dark outside for any part of your ride?  
[Base: Rode bicycle past 30 days]

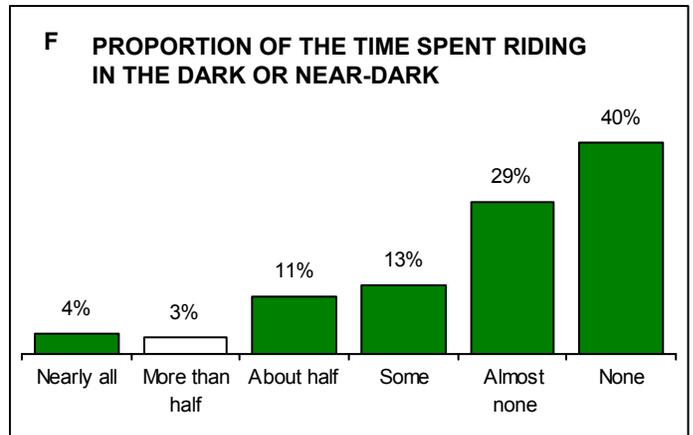


Q39: You may have already mentioned this but, the last time you rode your bicycle, was it dark or near-dark outside for any part of your ride?  
[Base: Rode bicycle past 30 days]

**FIGURE 16: BICYCLING IN THE DARK (continued)**



Q39: You may have already mentioned this but, the last time you rode your bicycle, was it dark or near-dark outside for any part of your ride? [Base: Rode bicycle past 30 days]



Q39a: During the past year, how much of your bicycling was done when it was dark or nearly dark outside? [Base: Rode bicycle past 30 days]

Sample bases for this page:

|                           |                                   |                                  |                        |                     |                                   |                         |                           |                           |                           |                      |                     |
|---------------------------|-----------------------------------|----------------------------------|------------------------|---------------------|-----------------------------------|-------------------------|---------------------------|---------------------------|---------------------------|----------------------|---------------------|
| Rode bicycle past 30 days | <u>Total</u><br>2525              | <u>Male</u><br>1325              | <u>Female</u><br>1200  | <u>16-20</u><br>290 | <u>21-29</u><br>398               | <u>30-45</u><br>1079    | <u>46-64</u><br>626       | <u>65+</u><br>121         | <u>Suburban</u><br>717    | <u>Urban</u><br>1293 | <u>Rural</u><br>515 |
| <u>NHTSA Region</u>       |                                   |                                  |                        |                     |                                   |                         |                           |                           |                           |                      |                     |
| Rode bicycle past 30 days | <u>1</u><br>143                   | <u>2</u><br>224                  | <u>3</u><br>241        | <u>4</u><br>383     | <u>5</u><br>556                   | <u>6</u><br>242         | <u>7</u><br>140           | <u>8</u><br>112           | <u>9</u><br>342           | <u>10</u><br>142     |                     |
| <u>Household Income</u>   |                                   |                                  |                        |                     |                                   |                         |                           |                           |                           |                      |                     |
| Rode bicycle past 30 days | <u>White Non-Hispanic</u><br>2036 | <u>Black Non-Hispanic</u><br>158 | <u>Hispanic</u><br>145 | <u>Asian</u><br>49  | <u>Other Non-Specified</u><br>101 | <u>&lt;\$15K</u><br>194 | <u>\$15K-\$29K</u><br>519 | <u>\$30K-\$49K</u><br>553 | <u>\$50K-\$74K</u><br>494 | <u>\$75K+</u><br>720 |                     |
| Rode bicycle past 30 days | <u>Heavy</u><br>324               | <u>Medium</u><br>549             | <u>Light</u><br>1642   |                     |                                   |                         |                           |                           |                           |                      |                     |

## **Making Self Visible While Bicycling in the Dark**

---

### **Percent who tried to make themselves more visible to motorists, by total, gender, age**

Among those who spent at least some time riding in the dark or near-dark in the past year, more than 6 in 10 (63%) made efforts to make themselves more visible to motorists. Females (70%) were more likely to do something to make themselves more visible than were males (60%). Attempts to make oneself more visible to motorists generally increased with age, with under half of bicyclists 16 to 20 (47%) making an effort, and three-fourths of those 46 to 64 (74%) attempting to make themselves more visible. [Figure 17-A]

### **Percent who tried to make themselves more visible to motorists, by race/ethnicity**

Black, non-Hispanic bicyclists were more likely to try to make themselves visible in the dark (81%) than were White, non-Hispanic (62%) and Hispanic (57%) bicyclists. [Figure 17-B]

### **Percent who tried to make themselves more visible to motorists, by household income**

It appears that making oneself visible to motorists when riding in the dark peaks among bicyclists with household incomes between \$30,000 and \$74,000, while those at the highest income (\$75,000 or more) and lowest income (less than \$15,000) levels report lower levels of trying to make themselves visible to motorists (60% and 57% respectively). [Figure 17-C]

### **Percent who tried to make themselves more visible to motorists, by bicycling frequency**

There is no notable difference in the likelihood of making oneself visible to motorists by the frequency of bicycling. [Figure 17-D]

## **Making Self Visible While Bicycling in the Dark (Continued)**

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### **Methods of making selves more visible to motorists**

The methods used by bicyclists to make themselves more visible after dark included wearing special clothing with reflectors or lights (50%), using a bicycle headlight or taillight (36%), making sure the bicycle had reflectors (32%), and wearing light-colored clothing (16%). Just 2 percent said they ride only in well-lit areas as a way to make themselves more visible to motorists. [Figure 17-E]

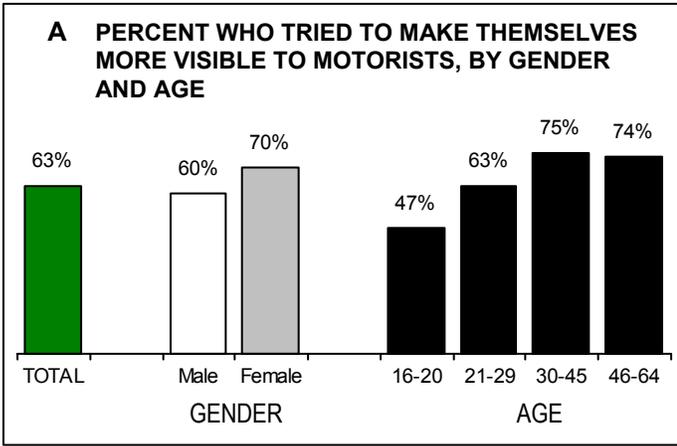
### **Top methods of making selves more visible to motorists, by gender, age, and bicycling frequency**

Males were more likely to use lights on their bicycle (40%) than were females (30%), while females were more apt to ensure their bicycle has reflectors (44%) than were males (26%). [Figure 17-F]

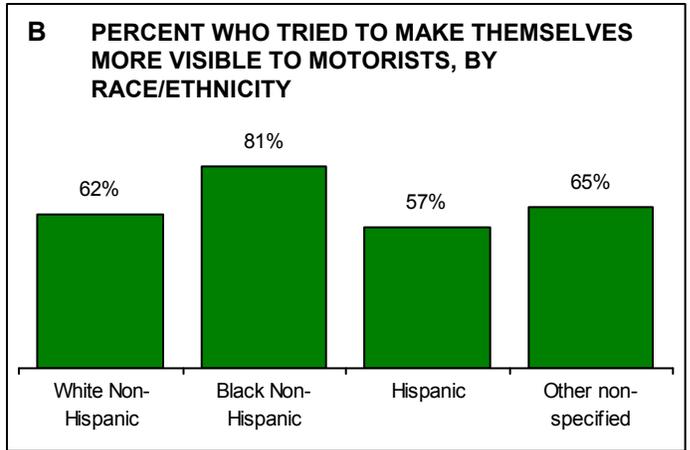
Bicyclists 16 to 20 were less likely to use lights on their bicycle (21%) than older bicyclists (41% combined for older age groups) but were more likely to use reflectors on their bicycle (38%) than older bicyclists, particularly 21- to 29-year-olds (23%). [Figure 17-G]

Heavy-frequency bicyclists were more likely to wear special clothing with reflectors (59%) than were light-frequency bicyclists (47%). Light-frequency bicyclists (38%) were more apt to use a reflector on their bicycle than were heavy-frequency bicyclists (21%). [Figure 17-H]

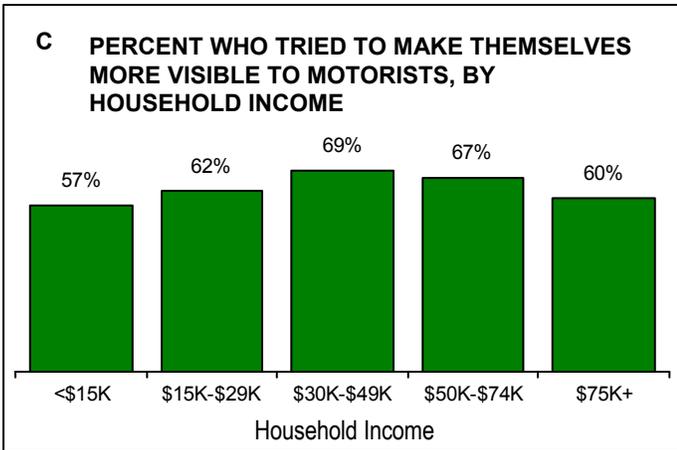
**FIGURE 17: MAKING SELF VISIBLE WHILE BICYCLING IN THE DARK**



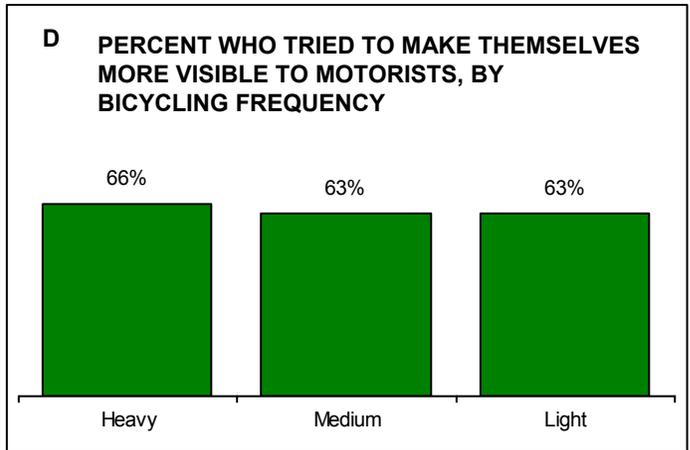
Q39 b: When you ride your bicycle after dark, do you do anything to make yourself more visible to motorists? [Base: At least some of bicycle riding was done in dark or near-dark]



Q39 b: When you ride your bicycle after dark, do you do anything to make yourself more visible to motorists? [Base: At least some of bicycle riding was done in dark or near-dark]

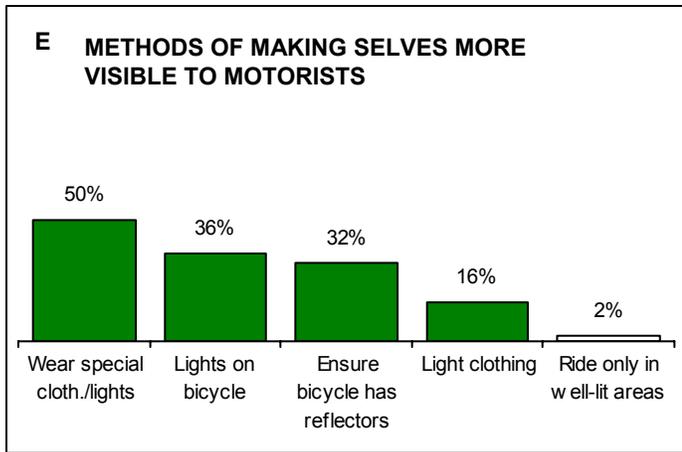


Q39 b: When you ride your bicycle after dark, do you do anything to make yourself more visible to motorists? [Base: At least some of bicycle riding was done in dark or near-dark]

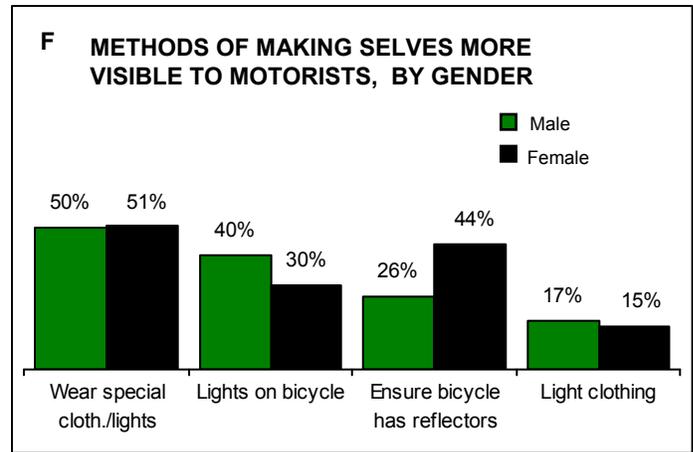


Q39 b: When you ride your bicycle after dark, do you do anything to make yourself more visible to motorists? [Base: At least some of bicycle riding was done in dark or near-dark]

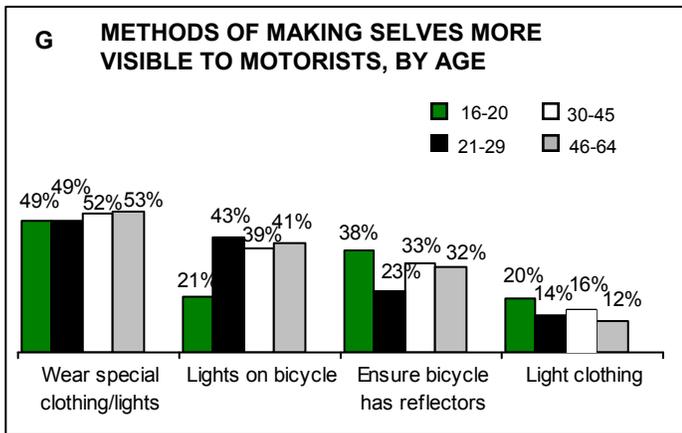
**FIGURE 17: MAKING SELF VISIBLE WHILE BICYCLING IN THE DARK (continued)**



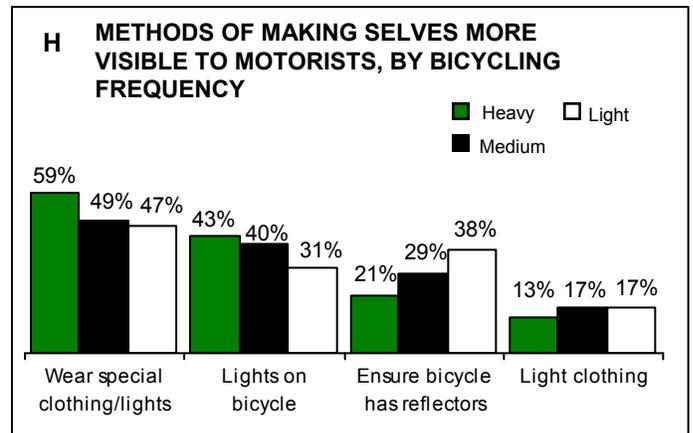
Q40: What do you do to make yourself or your bicycle more visible after dark? [Base: Do something when riding after dark to make self more visible]



Q40: What do you do to make yourself or your bicycle more visible after dark? [Base: Do something when riding after dark to make self more visible]



Q40: What do you do to make yourself or your bicycle more visible after dark? [Base: Do something when riding after dark to make self more visible]



Q40: What do you do to make yourself or your bicycle more visible after dark? [Base: Do something when riding after dark to make self more visible]

Sample bases for this page:

|   | Total | Male    | Female                 | 16-20            | 21-29           | 30-45           | 46-64           | 65+        | White Non-Hispanic | Black Non-Hispanic |           |
|---|-------|---------|------------------------|------------------|-----------------|-----------------|-----------------|------------|--------------------|--------------------|-----------|
| At least some of bicycle riding was done in dark or near-dark | 664   | 415     | 249                    | 149              | 156             | 244             | 103             | *          | 500                | 56                 |           |
|   |       |         |                        | Household Income |                 |                 |                 |            |                    |                    |           |
|   |       |         |                        |                  |                 |                 |                 |            |                    |                    |           |
|   |       |         |                        |                  |                 |                 |                 |            |                    |                    |           |
| At least some of bicycle riding was done in dark or near-dark | 60    | Asian * | Other Non-specified 32 | <\$15K 68        | \$15K-\$29K 118 | \$30K-\$49K 135 | \$50K-\$74K 121 | \$75K+ 159 | Heavy 153          | Medium 168         | Light 338 |
| Do something when riding after dark to make self more visible | 437   | 255     | 182                    | 72               | 101             | 179             | 75              | *          | 110                | 113                | 211       |

\*Sample size insufficient for reporting (n<30)



## **Chapter 4: Bicycling Habits**

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This section provides information on bicycling habits and specifically covers the following topics:

- Availability and use of bicycle paths and bicycle lanes,
- Reasons for not using bicycle paths/bicycle lanes,
- Riding on streets and sidewalks,
- Bicycle-related injuries,
- Helmet laws,
- Frequency of bicycle helmet usage, and
- Reasons for not wearing a helmet.

## **Availability and Use of Bicycle Paths/Bicycle Lanes**

---

### **Availability of bicycle paths/bicycle lanes, by total and age**

Half of bicyclists reported that bicycle paths (paths away from the road on which bikes can travel) are available in the areas they rode (50%), and one-third reported that bicycle lanes (marked lanes on a public road reserved for bikes to travel) are available (32%). Younger bicyclists were most likely to report the availability of bicycle paths with 58 percent of 16- to 20-year-olds saying they were available. [Figure 18-A]

### **Availability of bicycle paths/bicycle lanes, by NHTSA Region**

Bicyclists across the country note a range of availability of bicycle paths and lanes. Availability of bicycle paths range from a high of 68 percent in NHTSA Region 10 (AK, ID, OR, WA) and 61 percent in NHTSA Region 8 (CO, MT, ND, SD, UT, WY) to a low of 39 percent in NHTSA Region 4 (AL, FL, GA, KY, MS, NC, SC, TN). Availability of bicycle lanes were most noted by bicyclists in NHTSA Regions 9 (AZ, CA, HI, NV) (64%), 10 (59%), and 8 (41%), while only about a quarter or fewer bicyclists in all other regions indicated the availability of bicycle lanes. [Figure 18-B]

### **Frequency of using bicycle paths/bicycle lanes**

The frequency of using bicycle paths and bicycle lanes was very similar, with 73 percent reporting using bicycle paths at least some of the time they rode (39% most or all of the time), and 75 percent reporting using bicycle lanes at least some of the time they rode (43% most or all of the time). [Figure 18-C]

## **Availability and Use of Bicycle Paths/Bicycle Lanes (Continued)**

---

### **Frequency of using bicycle paths and bicycle lanes, by urbanicity**

Urban bicyclists were more likely to use bicycle paths all or most of the time (41%) than were bicyclists living in rural areas (31%). [Figure 18-D]

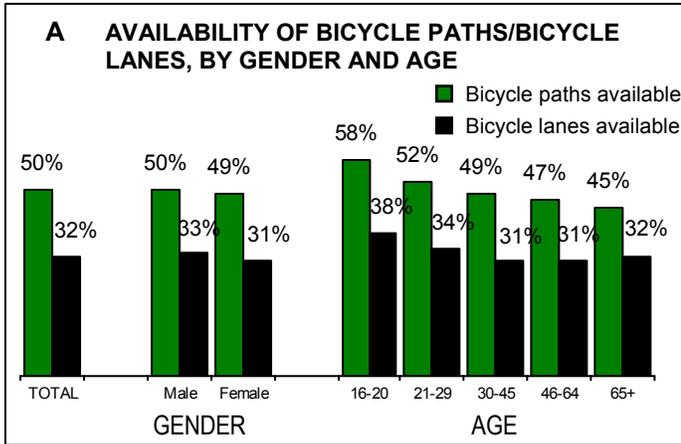
Urban (43%) and suburban (46%) bicyclists were more likely to use bicycle lanes all or most of the time than were bicyclists in rural areas (33%). [Figure 18-E]

### **Frequency of using bicycle paths/bicycle lanes, by NHTSA Region**

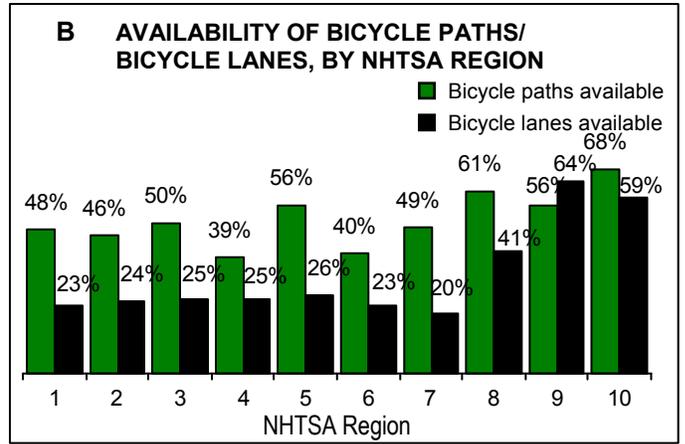
Bicyclists in NHTSA Region 7 (IA, KS, MO, NE) (50%) were the most likely to use bicycle paths all or most of the time, and bicyclists in NHTSA Regions 6 (AR, LA, NM, OK, TX) (27%) and 10 (AK, ID, OR, WA) (29%) were the least likely. [Figure 18-F]

Usage of bicycle lanes ranged from about half of bicyclists in NHTSA Regions 2 (NJ, NY), 9 (AZ, CA, HI, NV), 10 (AK, ID, OR, WA) and 3 (DE, DC, MD, PA, VA, WV), to a low of about one third of bicyclists in NHTSA Regions 4 (AL, FL, GA, KY, MS, NC, SC, TN), 5 (IL, IN, MI, MN, OH, WI), 6 (AR, LA, NM, OK, TX) and 8 (CO, MT, ND, SD, UT, WY). [Figure 18-G]

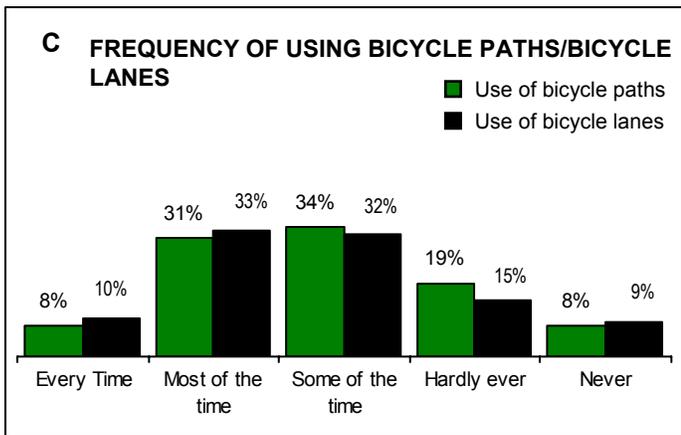
**FIGURE 18: AVAILABILITY AND USE OF BICYCLE PATHS/BICYCLE LANES**



Q42, 44: Are bike paths, that is, paths away from the road on which bikes can travel/bike lanes, that is, marked lanes on a public road reserved for bikes, available in the areas you ride? [Base: Have bicycle available on regular basis and/or ride at least once during the summer]

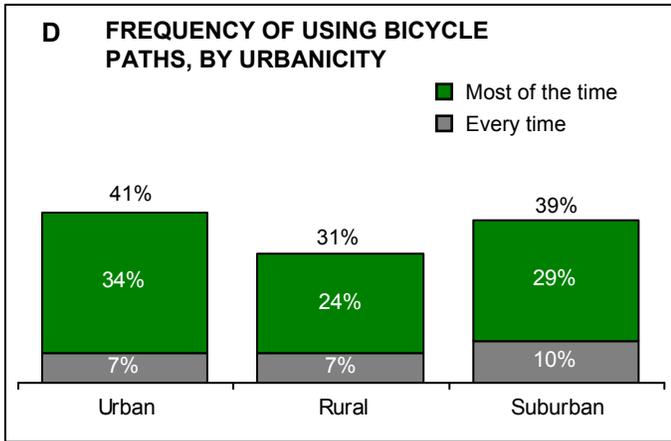


Q42, 44: Are bike paths, that is, paths away from the road on which bikes can travel/bike lanes, that is, marked lanes on a public road reserved for bikes, available in the areas you ride? [Base: Have bicycle available on regular basis and/or ride at least once during the summer]

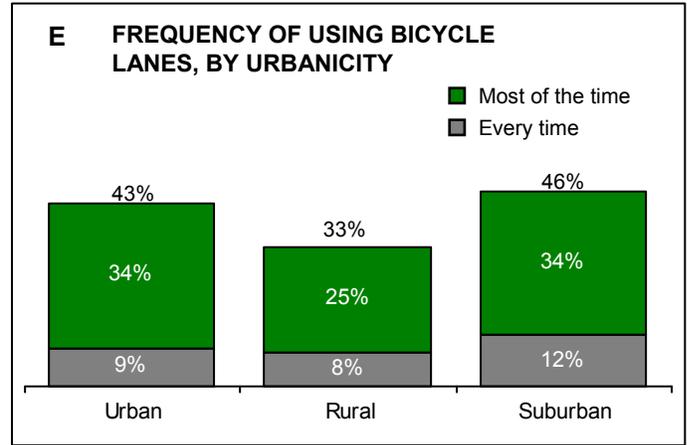


Q42a, 44a: Do you ride on bike paths...? Do you ride in bike lanes...? [Base: Bicyclists who have bicycle paths/bicycle lanes available where ride]

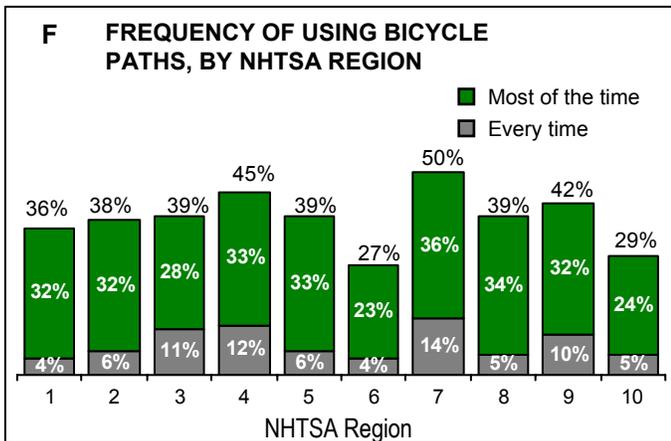
**FIGURE 18: AVAILABILITY AND USE OF BICYCLE PATHS/BICYCLE LANES (continued)**



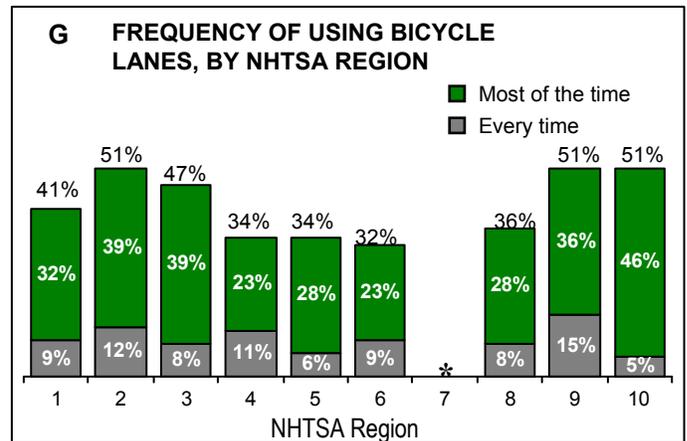
Q42a: Do you ride on bicycle paths...? [Base: Bicyclists Who have bicycle paths/bicycle lanes available where ride]



Q44a: Do you ride in bicycle lanes...? [Base: Bicyclists Who have bicycle paths/bicycle lanes available where ride]



Q42a, 44a: Do you ride on bicycle paths...? [Base: Bicyclists Who have bicycle paths/bicycle lanes available where ride]



Q42a, 44a: Do you ride in bicycle lanes...? [Base: Bicyclists Who have bicycle paths/bicycle lanes available where ride]

\*\*Sample bases for this page:

|   |                      |                     |                      |                        |                      |                    |                 |                 |                  |                  |
|---|----------------------|---------------------|----------------------|------------------------|----------------------|--------------------|-----------------|-----------------|------------------|------------------|
| Have bicycle available on regular basis and/or ride at least once during the summer | <u>Total</u><br>9540 | <u>16-20</u><br>720 | <u>21-29</u><br>1300 | <u>30-45</u><br>3107   | <u>46-64</u><br>2887 | <u>65+</u><br>1469 |                 |                 |                  |                  |
|   | <u>NHTSA Region</u>  |                     |                      |                        |                      |                    |                 |                 |                  |                  |
|   | <u>1</u><br>503      | <u>2</u><br>837     | <u>3</u><br>1016     | <u>4</u><br>1731       | <u>5</u><br>1671     | <u>6</u><br>1142   | <u>7</u><br>498 | <u>8</u><br>356 | <u>9</u><br>1312 | <u>10</u><br>474 |
| Bicyclists who have bike paths available where ride                                 | <u>Total</u><br>1292 | <u>Urban</u><br>667 | <u>Rural</u><br>199  | <u>Suburban</u><br>426 |                      |                    |                 |                 |                  |                  |
|   | <u>NHTSA Region</u>  |                     |                      |                        |                      |                    |                 |                 |                  |                  |
|   | <u>1</u><br>71       | <u>2</u><br>117     | <u>3</u><br>135      | <u>4</u><br>140        | <u>5</u><br>309      | <u>6</u><br>94     | <u>7</u><br>69  | <u>8</u><br>70  | <u>9</u><br>196  | <u>10</u><br>91  |
| Bicyclists who have bike lanes available  | <u>Total</u><br>833  | <u>Urban</u><br>402 | <u>Rural</u><br>109  | <u>Suburban</u><br>322 |                      |                    |                 |                 |                  |                  |
|   | <u>NHTSA Region</u>  |                     |                      |                        |                      |                    |                 |                 |                  |                  |
|   | <u>1</u><br>38       | <u>2</u><br>60      | <u>3</u><br>61       | <u>4</u><br>87         | <u>5</u><br>150      | <u>6</u><br>65     | <u>7</u><br>*   | <u>8</u><br>41  | <u>9</u><br>225  | <u>10</u><br>81  |

\*Sample size insufficient for reporting (n<30)

## **Reasons for Not Using Bicycle Paths/Bicycle Lanes**

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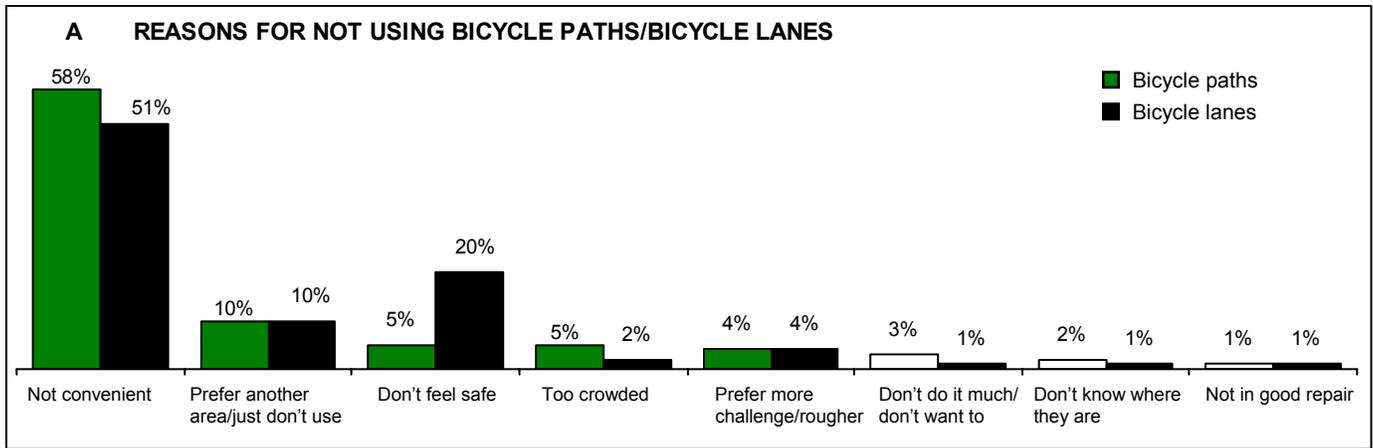
### **Reasons for not using bicycle paths/bicycle lanes**

Bicyclists gave a variety of reasons for choosing not to use bicycle paths/bicycle lanes when they believed they were available. Over half said they do not use bicycle paths (58%) or bicycle lanes (51%) because they are not convenient, meaning they were not available where the bicyclist wanted to go. Another frequent reason for not using bicycle lanes was that bicyclists did not feel safe using them (20%), but this is cited much less often for not using bicycle paths (5%). [Figure 19-A]

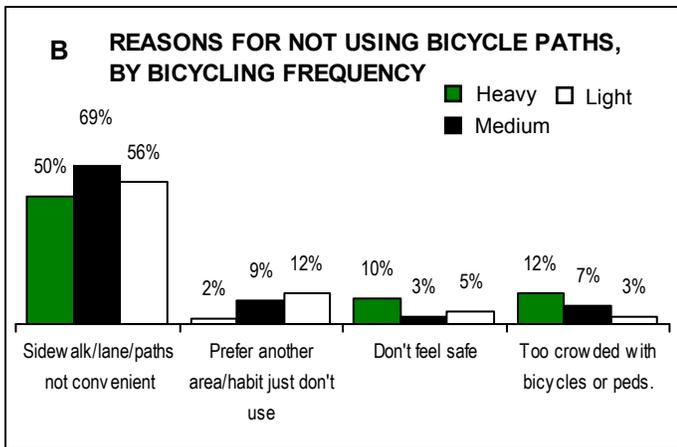
### **Top reasons for not using bicycle paths/bicycle lanes, by bicycling frequency**

Heavy-frequency bicyclists were less likely to be dissuaded to use a bicycle path by the lack of convenience (50%) than were medium-frequency bicyclists (69%). [Figure 19-B] Light-frequency bicyclists were least likely to say they didn't use bike lanes because they were inconvenient (46% as compared to 52% of heavy- and 62% of medium-frequency bicyclists). [Figure 19-C]

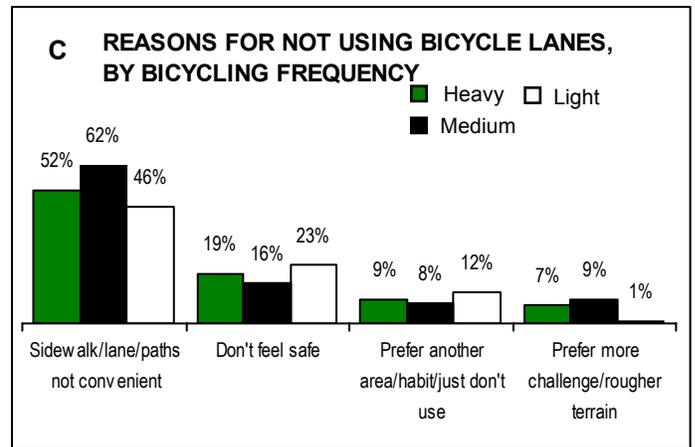
**FIGURE 19: REASONS FOR NOT USING BICYCLE PATHS/BICYCLE LANES**



Q43, 45: What is the main reason that you choose not to use the bicycle paths/lanes? [Base: Never/hardly ever use bicycle paths/lanes – but are available]



Q43: What is the main reason that you choose not to use the bicycle paths? [Base: Never/hardly ever use bicycle paths – but are available]



Q45: What is the main reason that you choose not to use the bicycle lanes? [Base: Never/hardly ever use bicycle lanes – but are available]

Sample bases for this page:

|  |       |       |        |       |
|--|-------|-------|--------|-------|
| Never/hardly ever use bicycle paths, but are available | Total | Heavy | Medium | Light |
|  | 337   | 39    | 71     | 226   |
| Never/hardly ever use bicycle lanes, but are available | Total | Heavy | Medium | Light |
|  | 205   | 29    | 46     | 126   |

## Riding on Streets and Sidewalks

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### Direction of bicycling in street, by total, gender, age

Seven in 10 bicyclists (69%) reported that they typically ride *with* traffic when riding their bicycles in the street, that is, riding in the same direction as the cars. One in four (24%) said they typically ride *against* traffic, riding against the direction of the cars. Male bicyclists (70%) were more likely than female bicyclists (66%) to ride with traffic. Bicyclists 30 to 45 (74%) were most apt to ride with traffic. [Figure 20-A]

### Direction of bicycling in street, by NHTSA Region, urbanicity

Bicyclists across the country vary in the direction they travel when bicycling in the street. Eight in 10 bicyclists in NHTSA Regions 9 (AZ, CA, HI, NV) (79%) and 10 (AK, ID, OR, WA) (80%) report bicycling with traffic when riding in the street, while just over one half of those in NHTSA Regions 4 (AL, FL, GA, KY, MS, NC, SC, TN) (54%) and 6 (AR, LA, NM, OK, TX) (54%) said they ride with traffic. [Figure 20-B]

### Direction of bicycling in street, by race/ethnicity, household income

White, non-Hispanic bicyclists were more likely to ride with traffic (72%) than were Black, non-Hispanic (56%), and Hispanic (62%) bicyclists. [Figure 20-C]

Bicyclists in the upper income bracket of \$75,000 or more were more likely to ride with traffic (76%) than were those with household incomes of \$29,000 or less (61%). [Figure 20-D]

## **Riding on Streets and Sidewalks (Continued)**

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### **Direction of bicycling on sidewalk, by total, gender, age**

Even when riding on the sidewalk, nearly half (45%) of bicyclists said they ride in the same direction as the cars on the adjacent street. Just 16 percent said they ride facing traffic while on a sidewalk. One in 10 (11%) volunteered it varied, and an additional 26 percent said they never ride on sidewalks.

There were no differences between the sidewalk bicycling patterns of male and female bicyclists. Sidewalk usage for bicycling decreased with age, with 95 percent of 16- to 20-year-olds using them for bicycling and just 52 percent of those over 64 using sidewalks. [Figure 20-E]

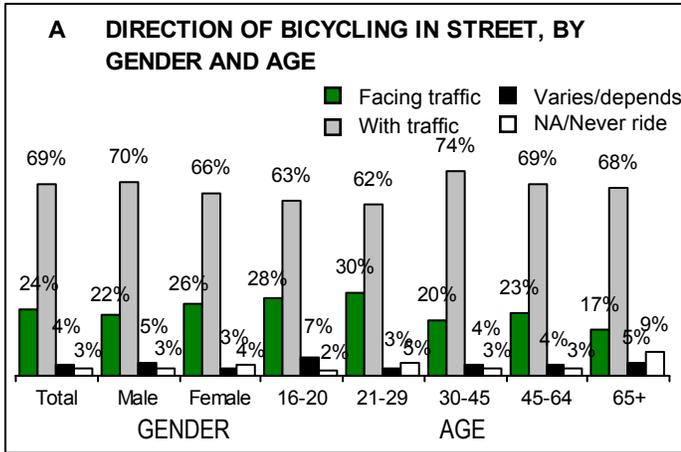
### **Direction of bicycling on sidewalk, by urbanicity**

Bicyclists living in rural areas were less likely to use sidewalks than were those in urban and suburban areas. [Figure 20-F]

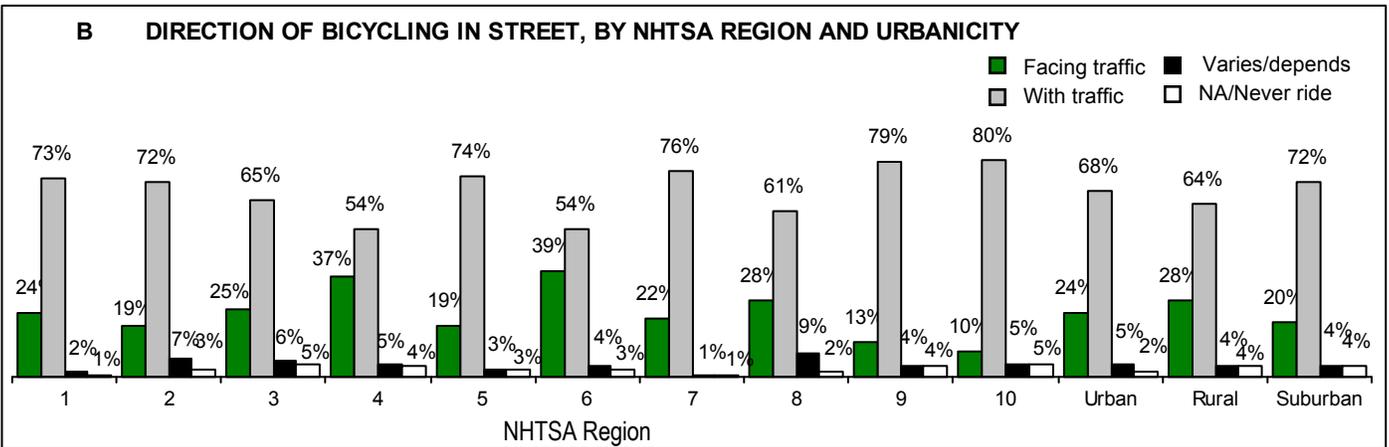
### **Direction of bicycling on sidewalk, by race/ethnicity, household income**

Hispanic bicyclists were more likely to ride with traffic when bicycling on sidewalks (60%) than were White, non-Hispanic (44%) or Black, non-Hispanic (45%) bicyclists. [Figure 20-G] There are no notable differences by income level in the direction bicyclists rode on sidewalks. [Figure 20-H]

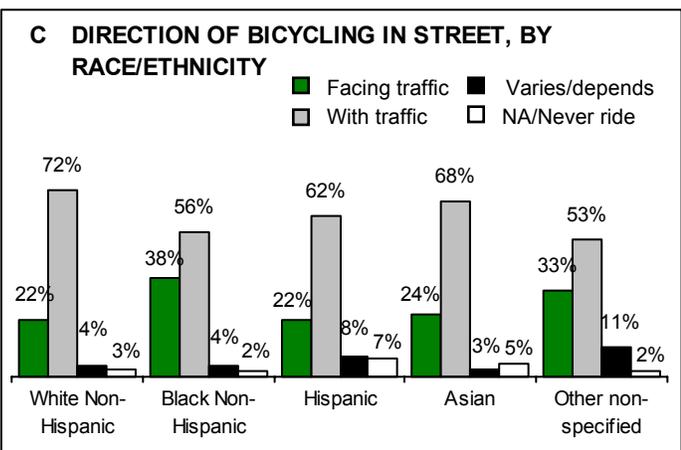
**FIGURE 20: RIDING ON STREETS AND SIDEWALKS**



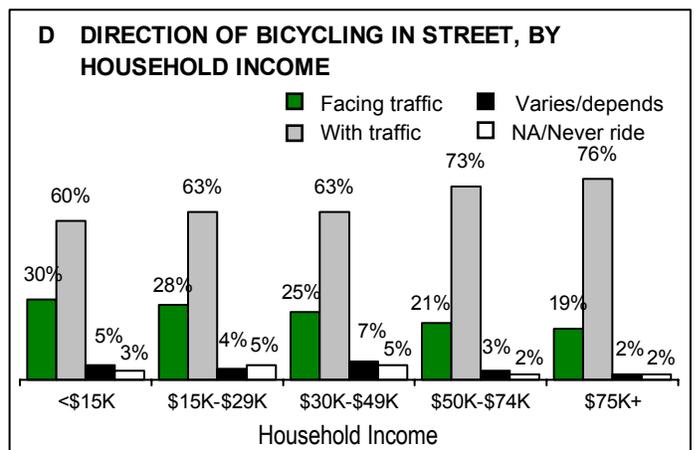
Q46a: When riding your bicycle in the street do you typically ride facing traffic, that is, riding against the direction of the cars, with traffic, that is riding the same direction as the cars? [Base: Rode bicycle past 30 days]



Q46a: When riding your bicycle in the street do you typically ride facing traffic, that is, riding against the direction of the cars, with traffic, that is riding the same direction as the cars? [Base: Rode bicycle past 30 days]

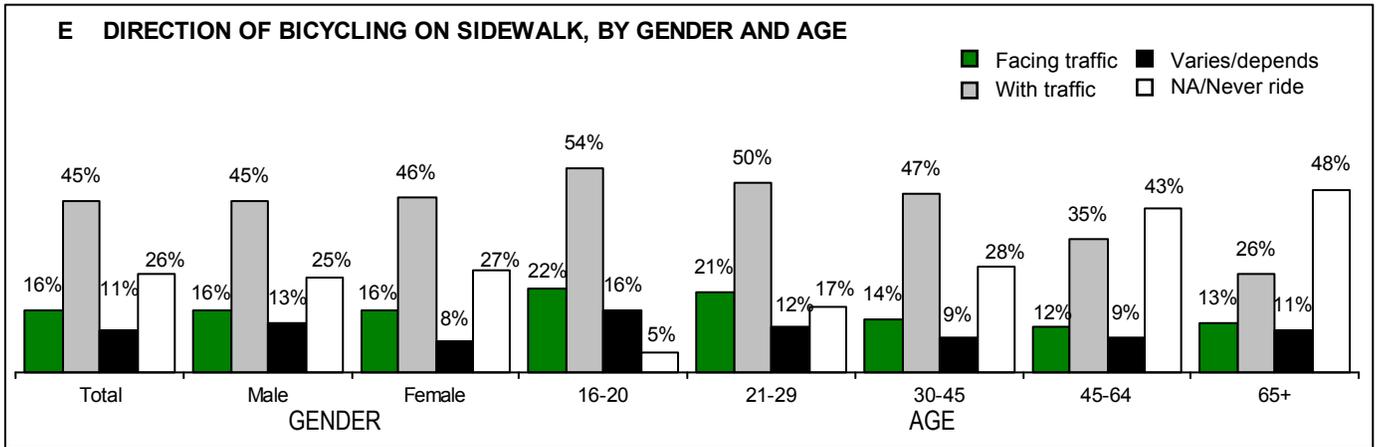


Q46a: When riding your bicycle in the street do you typically ride facing traffic, that is, riding against the direction of the cars, with traffic, that is riding the same direction as the cars? [Base: Rode bicycle past 30 days]

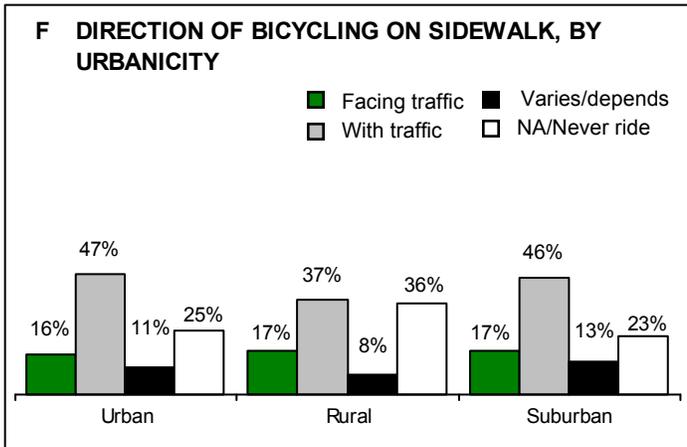


Q46a: When riding your bicycle in the street do you typically ride facing traffic, that is, riding against the direction of the cars, with traffic, that is riding the same direction as the cars? [Base: Rode bicycle past 30 days]

**FIGURE 20: RIDING ON STREETS AND SIDEWALKS (continued)**

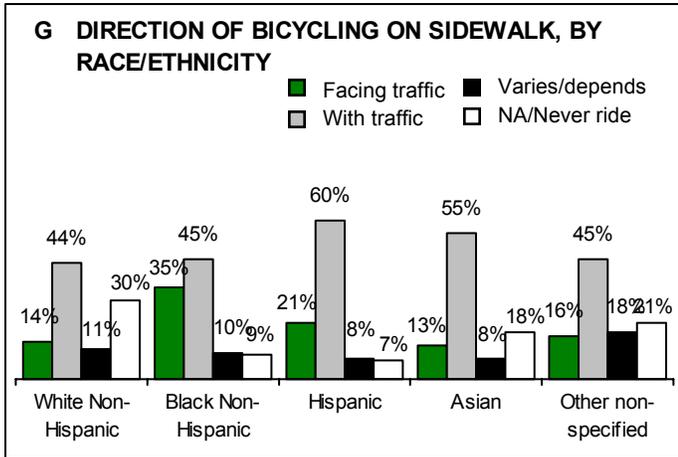


Q46b: When riding your bike on the sidewalks do you typically ride...? [Base: Rode bicycle past 30 days]

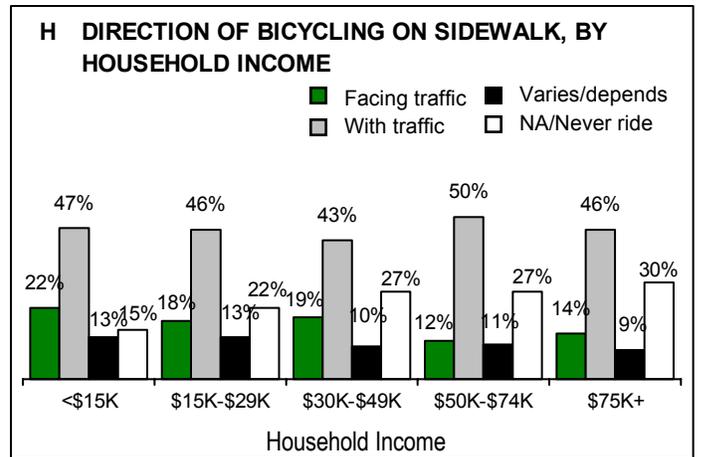


Q46b: When riding your bike on the sidewalks do you typically ride...? [Base: Rode bicycle past 30 days]

**FIGURE 20: RIDING ON STREETS AND SIDEWALKS (continued)**



Q46b: When riding your bike on the sidewalks do you typically ride...?  
[Base: Rode bicycle past 30 days]



Q46b: When riding your bike on the sidewalks do you typically ride...?  
[Base: Rode bicycle past 30 days]

Sample bases for this page:

|                           | Total | Male | Female | 16-20 | 21-29 | 30-45 | 46-64 | 65+ | Urban | Rural | Suburban |
|---------------------------|-------|------|--------|-------|-------|-------|-------|-----|-------|-------|----------|
| Rode bicycle past 30 days | 2525  | 1325 | 1200   | 290   | 398   | 1079  | 626   | 121 | 1293  | 515   | 717      |

|                           | NHTSA Region |     |     |     |     |     |     |     |     |     |
|---------------------------|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                           | 1            | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  |
| Rode bicycle past 30 days | 143          | 224 | 241 | 383 | 556 | 242 | 140 | 112 | 342 | 142 |

|                           | Household Income   |                    |          |       |                     |        |             |             |             |        |
|---------------------------|--------------------|--------------------|----------|-------|---------------------|--------|-------------|-------------|-------------|--------|
|                           | White Non-Hispanic | Black Non-Hispanic | Hispanic | Asian | Other non-specified | <\$15K | \$15K-\$29K | \$30K-\$49K | \$50K-\$74K | \$75K+ |
| Rode bicycle past 30 days | 2036               | 158                | 145      | 49    | 101                 | 194    | 319         | 553         | 494         | 720    |



## **Bicycle-Related Injuries**

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### **Percent injured while riding a bicycle, by total and bicycling frequency**

Just 4 percent of bicyclists 16 and older have been injured in the past two years while riding bicycles. Heavy-frequency bicyclists were more likely to experience injuries while bicycling (11%) than were medium- (4%) or light-frequency (2%) bicyclists. [Figure 21-A]

### **Percent injured while riding a bicycle, by gender, age**

Male and female bicyclists were roughly equally likely to have been injured while riding a bicycle in the past two years. Bicyclists 16 to 20 were more likely to have been injured (10%) than those 21 or older (3% on average). [Figure 21-B]

### **Percent injured while riding a bicycle, by race/ethnicity, household income**

While 6 percent or fewer bicyclists of White, non-Hispanic (3%), Black, non-Hispanic, (1%), Asian (6%), or Hispanic (5%) race or ethnicity have been injured while riding bicycles, those of other race/ethnicity (13%) were twice as likely to experience a bicycle-related injury. [Figure 21-C]

Those with household incomes under \$30,000 were about twice as likely to be injured (5%) than those with higher incomes (3%). [Figure 21-D]

## **Bicycle-Related Injuries (Continued)**

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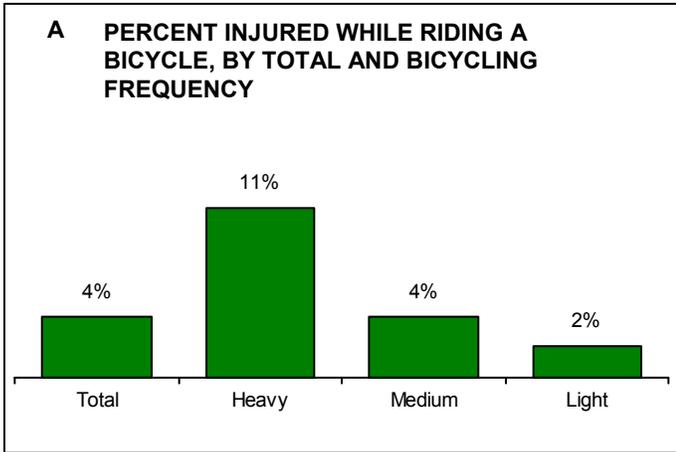
### **Projected number of bicyclists injured/hit by motor vehicle in past 2 years, by total and bicycling frequency**

Over 2 million bicyclists were injured while riding bicycles in the past two years based on the self-reported data collected by this survey. An estimated 457,000 were injured as a result of being hit by a motor vehicle. Heavy-frequency bicyclists accounted for nearly 900,000 injuries and 257,000 motor vehicle-related injuries. Light-frequency bicyclists experienced nearly 700,000 injuries in the past two years, with just over 100,000 being hit by motor vehicles. [Figure 21-E]

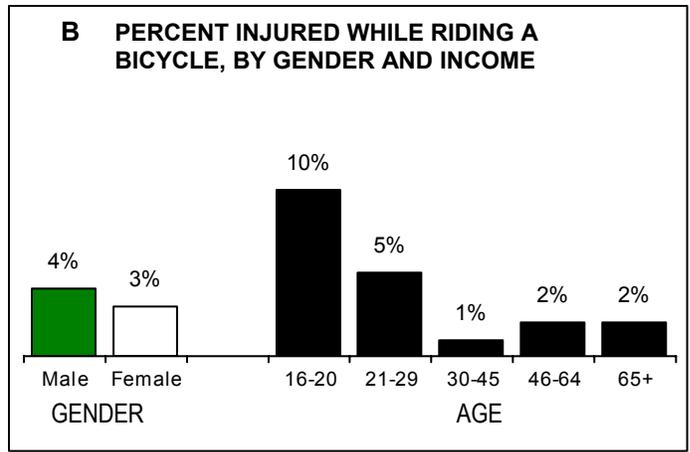
### **Projected number of bicyclists injured/hit by motor vehicle in past 2 years, by gender**

An estimated 323,000 male bicyclists were hit by motor vehicles while bicycling in the past two years, compared to an estimated 134,000 female bicyclists. [Figure 21-F]

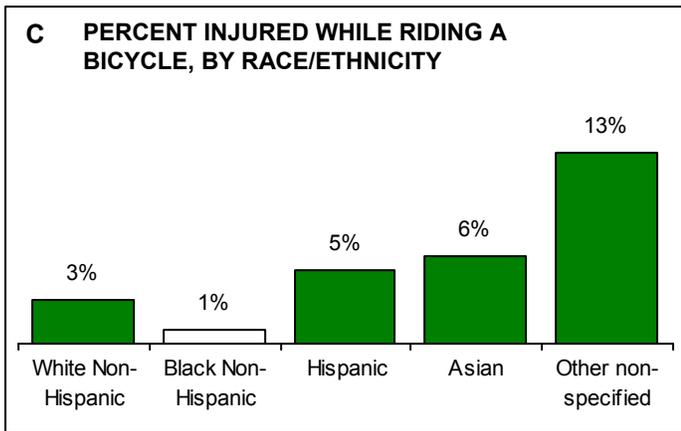
**FIGURE 21: BICYCLE-RELATED INJURIES**



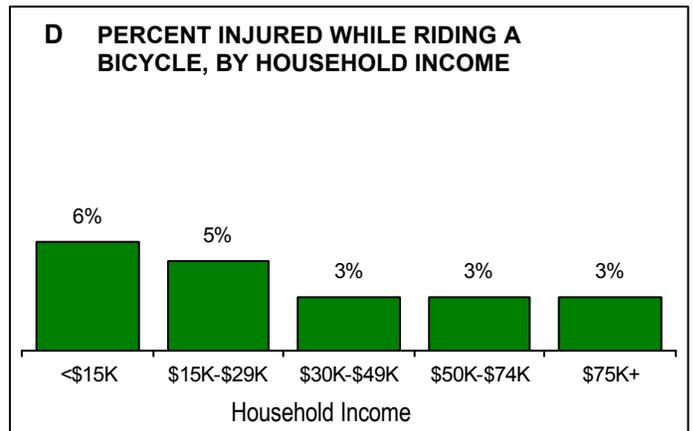
Q46c: In the past two years, were you ever injured while you were riding a bicycle? Only count injuries that required attention by a medical professional. [Base: Rode bicycle past 30 days]



Q46c: In the past two years, were you ever injured while you were riding a bicycle? Only count injuries that required attention by a medical professional. [Base: Rode bicycle past 30 days]

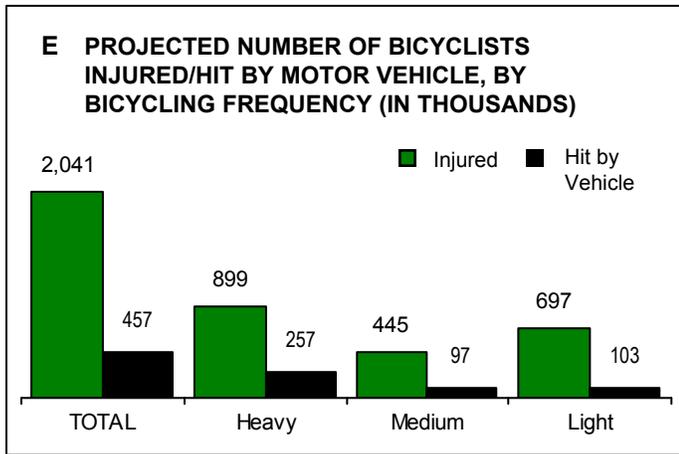


Q46c: In the past two years, were you ever injured while you were riding a bicycle? Only count injuries that required attention by a medical professional. [Base: Rode bicycle past 30 days]

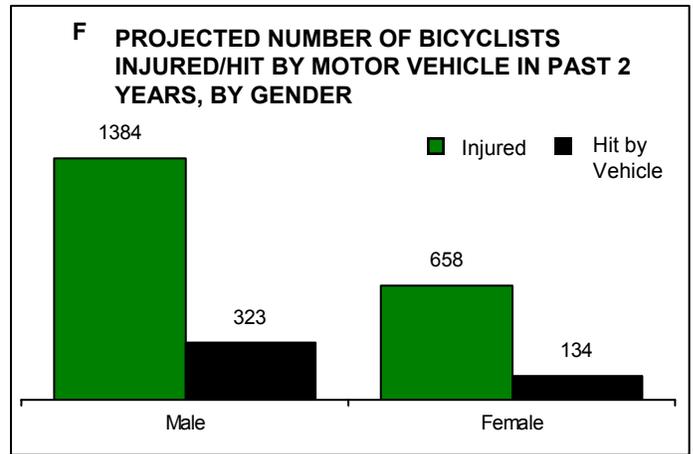


Q46c: In the past two years, were you ever injured while you were riding a bicycle? Only count injuries that required attention by a medical professional. [Base: Rode bicycle past 30 days]

**FIGURE 21: BICYCLE-RELATED INJURIES (continued)**



Q46c: In the past two years, were you ever injured while you were riding a bicycle? Only count injuries that required attention by a medical professional. Q46d: Was the injury a result of being hit by a motor vehicle? [Base: Rode bicycle past 30 days]



Q46c: In the past two years, were you ever injured while you were riding a bicycle? Only count injuries that required attention by a medical professional. Q46d: Was the injury a result of being hit by a motor vehicle? [Base: Rode bicycle past 30 days]

Sample bases for this page:

|                           |                                   |                                  |                        |                      |                                   |                         |                           |                           |                           |                      |                   |
|---------------------------|-----------------------------------|----------------------------------|------------------------|----------------------|-----------------------------------|-------------------------|---------------------------|---------------------------|---------------------------|----------------------|-------------------|
| Rode bicycle past 30 days | <u>Total</u><br>2525              | <u>Heavy</u><br>324              | <u>Medium</u><br>549   | <u>Light</u><br>1642 | <u>Male</u><br>1325               | <u>Female</u><br>1200   | <u>16-20</u><br>290       | <u>21-29</u><br>398       | <u>30-45</u><br>1079      | <u>46-64</u><br>626  | <u>65+</u><br>121 |
| Rode bicycle past 30 days | <u>White Non-Hispanic</u><br>2036 | <u>Black Non-Hispanic</u><br>158 | <u>Hispanic</u><br>145 | <u>Asian</u><br>49   | <u>Other Non-Specified</u><br>101 | <u>&lt;\$15K</u><br>194 | <u>Household Income</u>   |                           |                           |                      |                   |
|                           |                                   |                                  |                        |                      |                                   |                         | <u>\$15K-\$29K</u><br>319 | <u>\$30K-\$49K</u><br>553 | <u>\$50K-\$74K</u><br>494 | <u>\$75K+</u><br>720 |                   |

## Helmet Laws

---

### Awareness of State bicycle helmet laws, by total, NHTSA Region

Overall, 18 percent of people 16 and older believed their State does not have a bicycle helmet law. Thirty-two percent said there is a State law that applies to both adults and children, 25 percent said it applies only to children, and 1 percent said it applies only to adults. The remaining 24 percent did not know if there was a law. [Figure 22-A]

Bicyclists in NHTSA Regions 8 (CO, MT, ND, SD, UT, WY), 7 (IA, KS, MO, NE), 5 (IL, IN, MI, MN, OH, WI) and 6 (AR, LA, NM, OK, TX) were most likely to admit they didn't know if their State has a bicycle helmet law (38%, 36%, 33%, and 30% don't know, respectively). Those in NHTSA Region 2 (NJ, NY) were most likely to believe there is a helmet law in their State (88%), reporting that those laws are geared towards children (40%) or towards both children and adults (42%).

### Awareness of State bicycle helmet laws, by presence of children 5 to 15 in household

Those living with children 5 to 15 in the household were more likely to say their State had bicycle helmet laws for children only (28%) than were those without children 5 to 15 (24%). Those living without children 5 to 15 were more likely to report not knowing if there was a State helmet law (26% don't know) than were those living with children in this age group (19%). [Figure 22-B]

### Awareness of State bicycle helmet laws, by race/ethnicity

White, non-Hispanic people 16 and older (27% don't know) were less likely to venture an opinion as to whether their State has a bicycle helmet law than were those of other racial/ethnic backgrounds. Among those who claimed to know about the laws, White, non-Hispanics were split over whether the laws apply to children only (27%), or to both adults and children (27%), while Black, non-Hispanic (51%), Hispanic (51%), and Asian (52%) people were more likely to believe that the laws are for both adults and children. [Figure 22-C]

### Support for helmet laws by total, NHTSA Region

Nine in 10 people 16 and older (90%) supported laws that require children to wear helmets whenever they are riding a bicycle, but just 6 in 10 (62%) supported a law requiring adults to always wear bicycle helmets. [Figure 22-D]

Support for laws for children was equal to or above 84 percent across all NHTSA Regions, with 95 percent of those in NHTSA Region 2 (NJ, NY) supporting the idea. Over 50 percent support laws for adult helmet usage across all NHTSA Regions, with the highest support again in NHTSA Region 2 (69%).

## **Helmet Laws (Continued)**

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### **Support for helmet laws, by race/ethnicity**

Nearly 8 in 10 Hispanics 16 and older (79%) supported laws that require adults to wear bicycle helmets. In contrast, 59 percent of White, non-Hispanics supported helmet laws for adults.

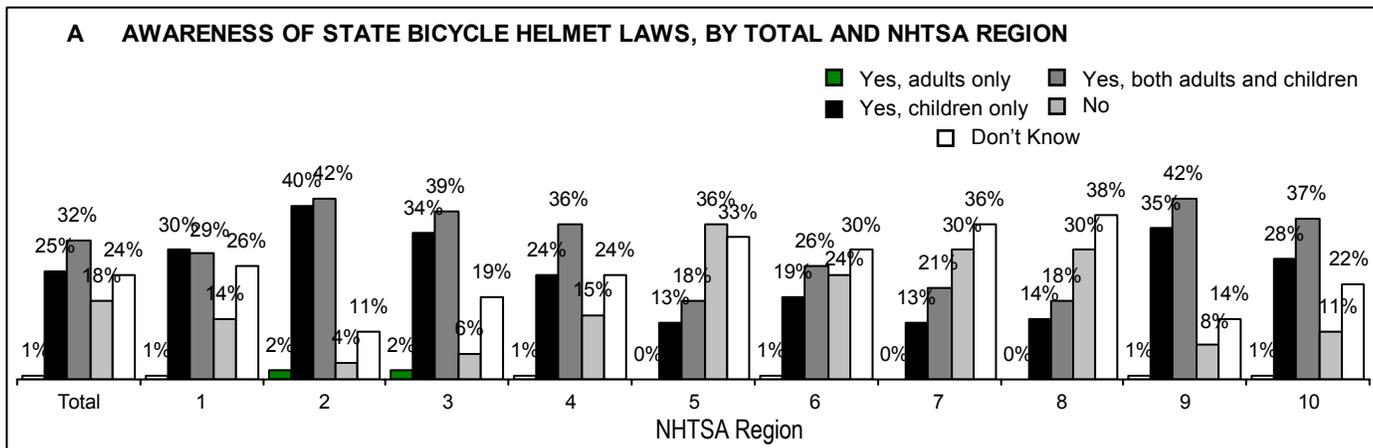
### **Support for helmet laws, by presence of children 5 to 15 in household**

Support for helmet laws did not differ according to whether children 5 to 15 are present in the household.

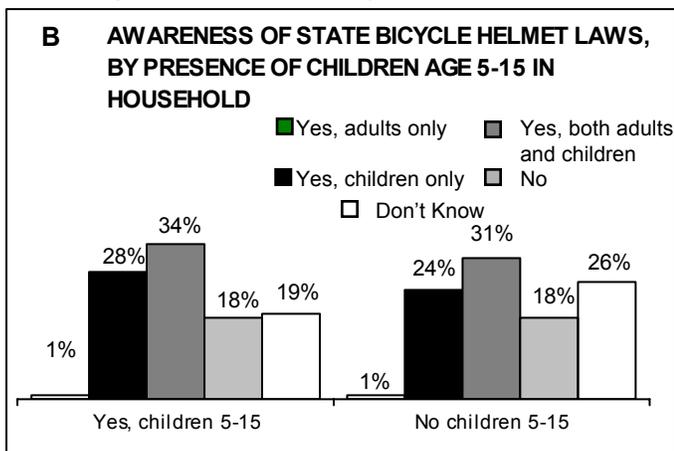
### **Support for helmet laws, by bicyclist status**

Bicyclists (88%) were similar to nonbicyclists (91%) in level of support for bicycle helmet laws for children. However, bicyclists were less supportive of adult helmet laws (49%) than were nonbicyclists (67%). [Figure 22-E]

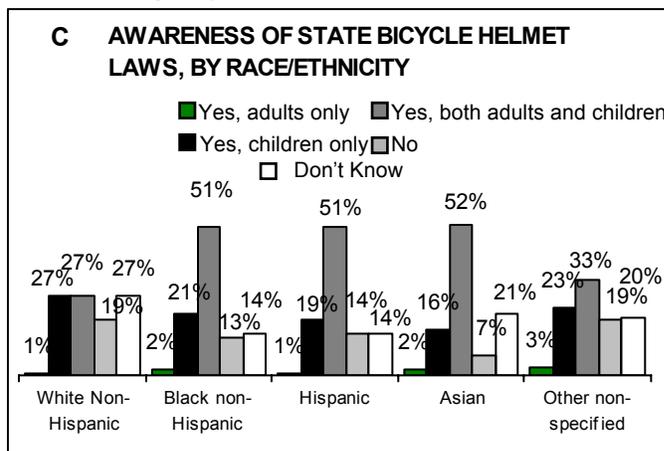
**FIGURE 22: HELMET LAWS**



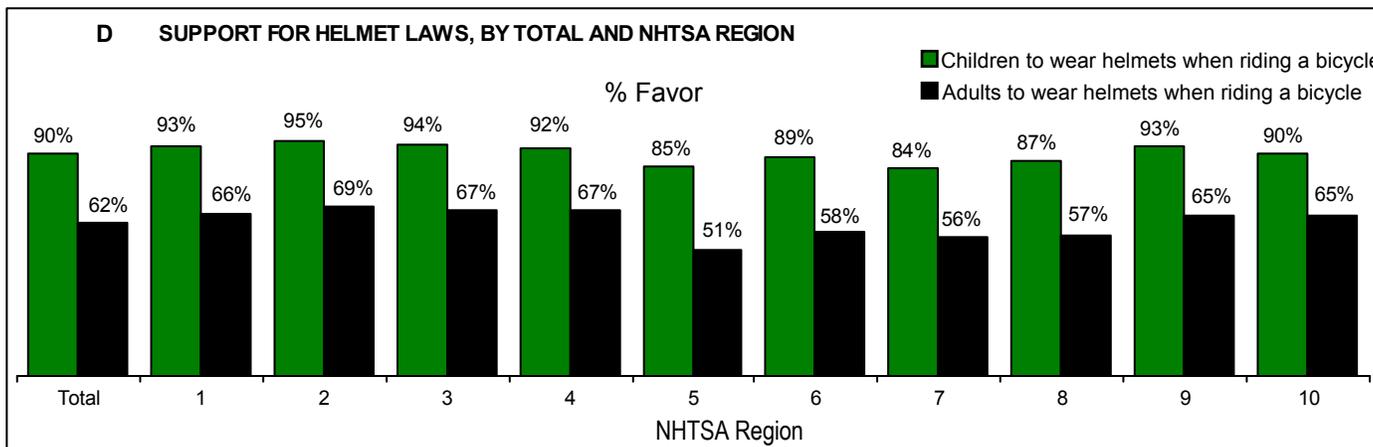
Q49: Does your state have a law that requires adults and/or children to wear a helmet when riding a bicycle?



Q49: Does your state have a law that requires adults and/or children to wear a helmet when riding a bicycle?

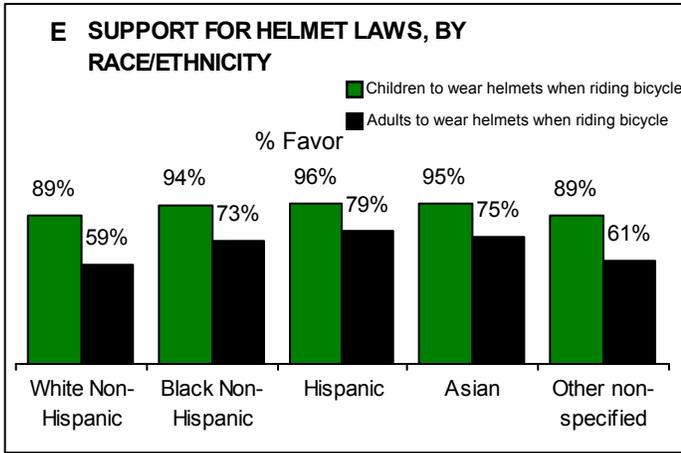


Q49: Does your state have a law that requires adults and/or children to wear a helmet when riding a bicycle?

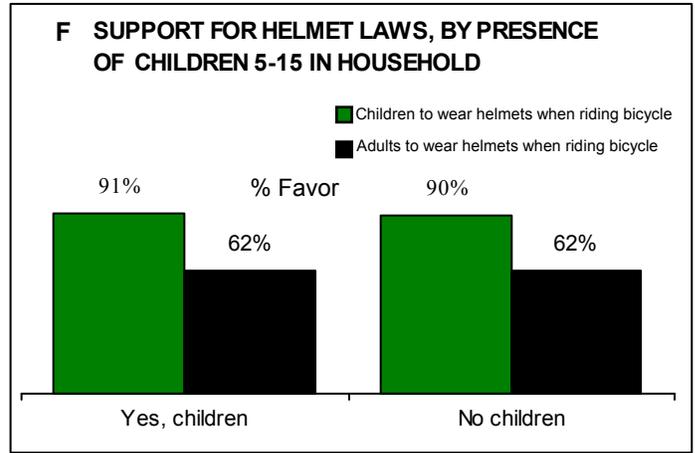


Q50: Do you favor or oppose laws that require ...?

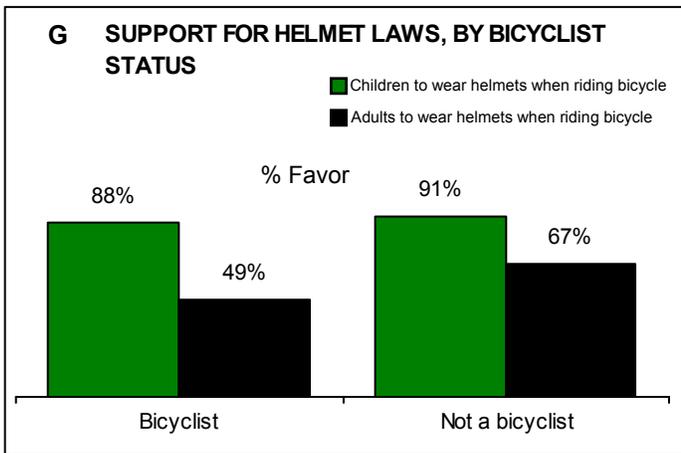
**FIGURE 22: HELMET LAWS (continued)**



Q50: Do you favor or oppose laws that require...?



Q50: Do you favor or oppose laws that require...?



Q50: Do you favor or oppose laws that require...?

Sample bases for this page:

|                  | NHTSA Region                      |                                  |                        |                     |                                   |                              |                                 |                          |                              |      |     |       |       |       |       |      |
|------------------|-----------------------------------|----------------------------------|------------------------|---------------------|-----------------------------------|------------------------------|---------------------------------|--------------------------|------------------------------|------|-----|-------|-------|-------|-------|------|
|                  | Total                             | 1                                | 2                      | 3                   | 4                                 | 5                            | 6                               | 7                        | 8                            | 9    | 10  | 16-20 | 21-29 | 30-45 | 46-64 | 65+  |
| Total population | 9616                              | 507                              | 843                    | 1027                | 1754                              | 1681                         | 1149                            | 498                      | 358                          | 1318 | 483 | 724   | 1309  | 3132  | 2914  | 1479 |
| Total population | <u>White Non-Hispanic</u><br>7602 | <u>Black Non-Hispanic</u><br>762 | <u>Hispanic</u><br>523 | <u>Asian</u><br>207 | <u>Other non-specified</u><br>352 | <u>Children 5-15</u><br>2677 | <u>No Children 5-15</u><br>6919 | <u>Bicyclist</u><br>2510 | <u>Not Bicyclist</u><br>7106 |      |     |       |       |       |       |      |

## **Frequency of Bicycle Helmet Usage**

---

### **Frequency of helmet usage, by total, gender**

Among those who rode a bicycle in the past 30 days, half (50%) said they never wear a helmet or did not have access to a helmet. About one-third (35%) reported that they wear a helmet for all (24%), or nearly all or most (11%), of their rides. Male and female bicyclists were about equally likely to wear a helmet. [Figure 23-A]

### **Frequency of helmet usage, by age**

Propensity to wear a helmet for all rides increased after the teenage and young adult years, with just 13 percent of bicyclists 16 to 20 and 21 percent of bicyclists 21 to 29 reporting that they always wear a helmet. This is compared to nearly 30 percent of bicyclists 30 or older. Nearly 6 in 10 (57%) of 16-to 20-year-old bicyclists said they never wear helmets or do not have access to one. [Figure 23-B]

### **Frequency of helmet usage, by race/ethnicity**

Asian bicyclists were most likely among all races (33%) to wear helmets for all of their rides. Hispanic bicyclists were most likely to never wear a bike helmet (59%). [Figure 23-C]

## **Frequency of Bicycle Helmet Usage (Continued)**

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### **Frequency of helmet usage, by household income**

Usage of helmets for all bicycle rides tended to increase as household income increased. Three in 10 of the highest income bicyclists (31%) wear helmets for all rides, compared to 16 percent of those earning under \$15,000. Conversely, 59 percent of those earning less than \$15,000 said they never wear helmets or do not have access to one, compared to 44 percent of those earning \$75,000 or more per year. [Figure 23-D]

### **Frequency of helmet usage, by bicycling frequency**

Light-frequency bicyclists were least likely to wear helmets for all of their rides (23%). [Figure 23-E]

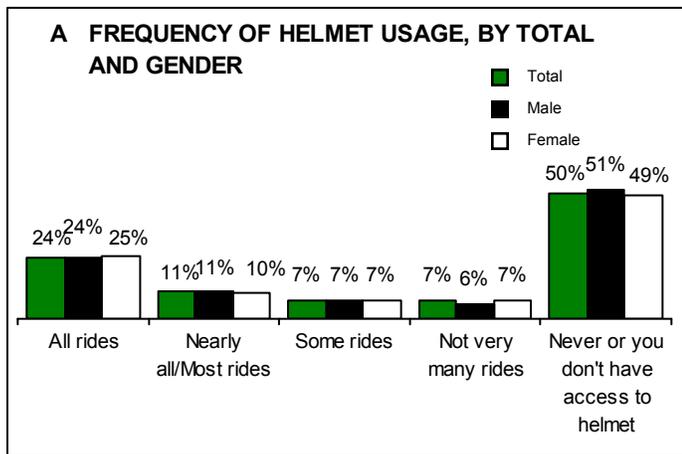
### **Never use/Don't have helmet access, by NHTSA Region**

As a group, bicyclists in the South and middle of the country (those in NHTSA Regions 5 (IL, IN, MI, MN, OH, WI) (60%), 6 (AR, LA, NM, OK, TX) (58%), 7 (IA, KS, MO, NE) (56%), and 4 (AL, FL, GA, KY, MS, NC, SC, TN) (56%)) were most likely to report they never wear bicycle helmets or do not have access to them. [Figure 23-F]

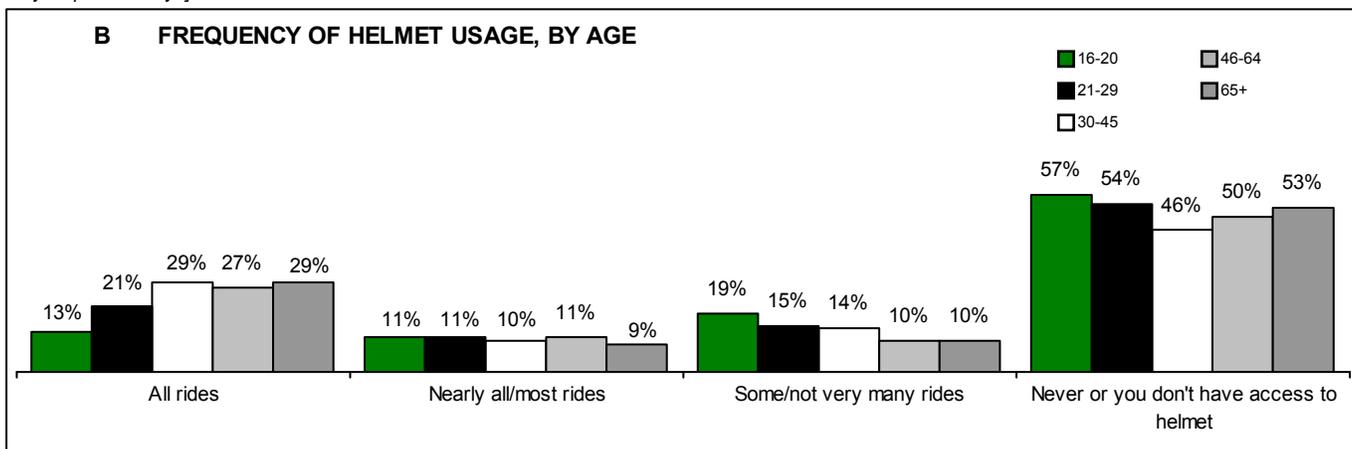
### **Frequency of helmet usage, by NHTSA Region**

Bicyclists in NHTSA Regions 1 (CT, ME, MA, NH, RI, VT) (55%) and 10 (AK, ID, OR, WA) (52%) were more likely than those in other regions of the country to say they wear helmets for all, or nearly all, or most of their bicycle rides. [Figure 23-G]

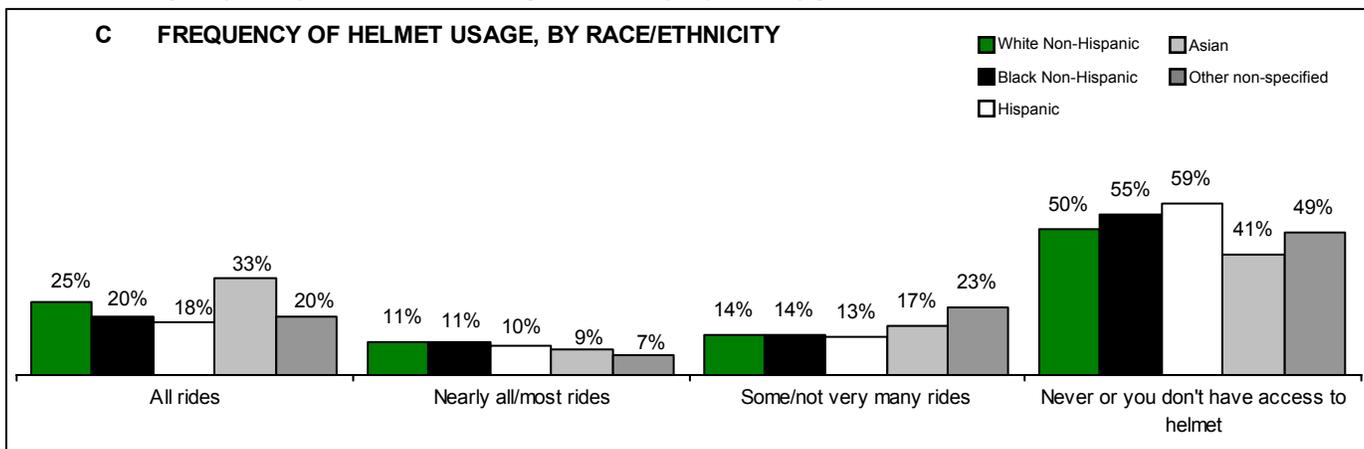
**FIGURE 23: FREQUENCY OF BICYCLE HELMET USAGE**



Q47: When riding a bicycle, do you wear a helmet for...? [Base: Rode bicycle past 30 days]

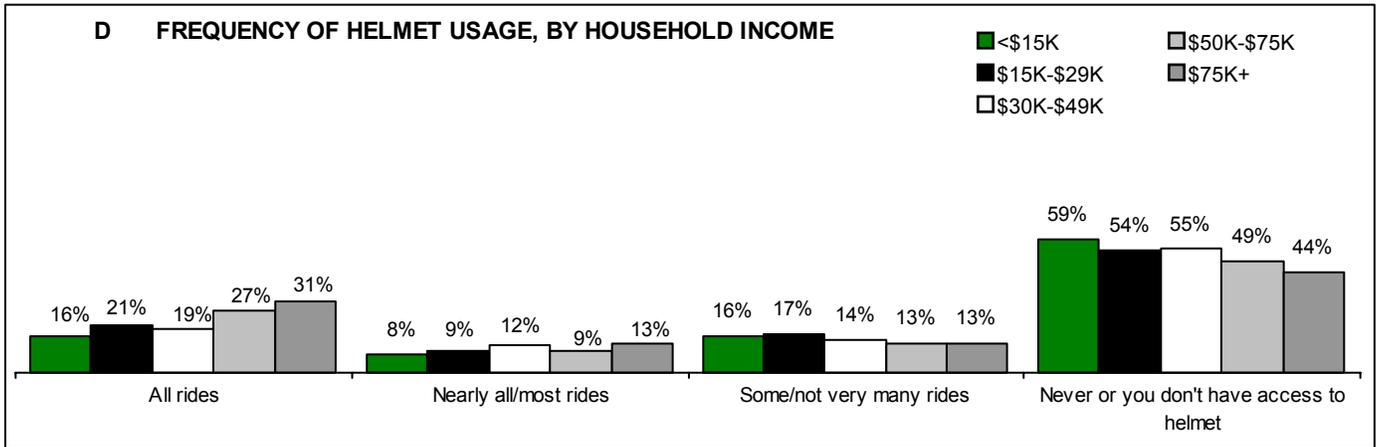


Q47: When riding a bicycle, do you wear a helmet for...? [Base: Rode bicycle past 30 days]

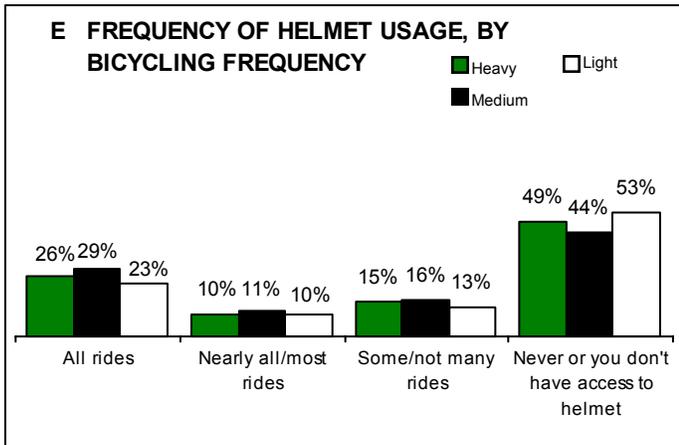


Q47: When riding a bicycle, do you wear a helmet for...? [Base: Rode bicycle past 30 days]

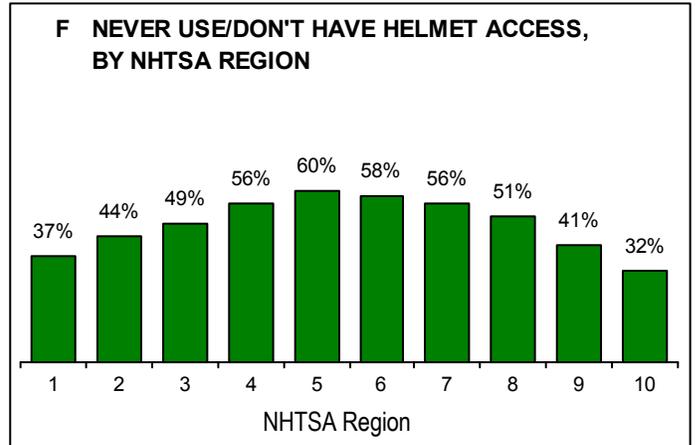
**FIGURE 23: FREQUENCY OF BICYCLE HELMET USAGE (continued)**



Q47: When riding a bicycle, do you wear a helmet for...? [Base: Rode bicycle past 30 days]

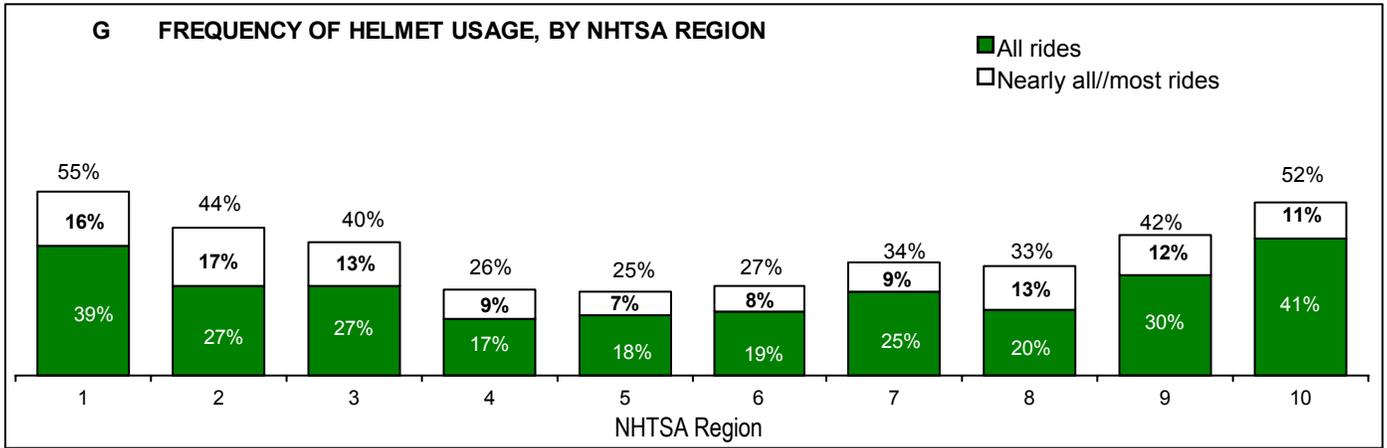


Q47: When riding a bicycle, do you wear a helmet for...? [Base: Rode bicycle past 30 days]



Q47: When riding a bicycle, do you wear a helmet for...? [Base: Rode bicycle past 30 days]

**FIGURE 23: FREQUENCY OF BICYCLE HELMET USAGE (continued)**



Q47: When riding a bicycle, do you wear a helmet for...? [Base: Rode bicycle past 30 days]

Sample bases for this page:

|                           | <u>Total</u> | <u>Male</u> | <u>Female</u> | <u>16-20</u> | <u>21-29</u> | <u>30-45</u> | <u>46-64</u> | <u>65+</u> | <u>Heavy</u> | <u>Medium</u> | <u>Light</u> |
|---------------------------|--------------|-------------|---------------|--------------|--------------|--------------|--------------|------------|--------------|---------------|--------------|
| Rode bicycle past 30 days | 2525         | 1325        | 1200          | 290          | 398          | 1079         | 626          | 121        | 324          | 549           | 1642         |

Household Income

|                           | <u>White Non-Hispanic</u> | <u>Black Non-Hispanic</u> | <u>Hispanic</u> | <u>Asian</u> | <u>Other non-specified</u> | <u>&lt;\$15K</u> | <u>\$15K-\$29K</u> | <u>\$30K-\$49K</u> | <u>\$50K-\$74K</u> | <u>\$75K+</u> |
|---------------------------|---------------------------|---------------------------|-----------------|--------------|----------------------------|------------------|--------------------|--------------------|--------------------|---------------|
| Rode bicycle past 30 days | 2036                      | 158                       | 145             | 49           | 101                        | 194              | 319                | 553                | 494                | 720           |

NHTSA Region

|                           | <u>1</u> | <u>2</u> | <u>3</u> | <u>4</u> | <u>5</u> | <u>6</u> | <u>7</u> | <u>8</u> | <u>9</u> | <u>10</u> |
|---------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| Rode bicycle past 30 days | 143      | 224      | 24       | 383      | 556      | 242      | 140      | 112      | 342      | 142       |



## **Reasons for Not Wearing a Helmet**

---

### **Reasons for not wearing a helmet**

Bicyclists who did not wear helmets for all of their rides were asked whether a list of specific reasons for not wearing helmets applied to them. They could choose as many reasons they felt applied to them. The top reasons for not wearing helmets were that the bicyclist does not have one (50%), that it is too hot in the summer months to wear a helmet (47%), that helmets are uncomfortable (45%), or that they do not wear helmets for short bicycling trips (42%). Fewer agreed that their reason for not wearing helmets was because they do not like the way they look in helmets (27%), that they forgot to wear them (26%), that helmets do not provide much protection (22%), that they obstruct vision (12%), or that they are too expensive (12%). [Figure 24-A]

### **Top reasons for not wearing a helmet, by age and gender**

Male and female bicyclists provided similar reasons for not wearing helmets every time they ride, though females were more likely to say it was because it is too hot to wear helmets (53%) than were males (44%). [Figure 24-B]

Bicyclists 65 and older (66%) were more likely than younger bicyclists to say they did not wear helmets because they did not have them. The propensity to say they didn't wear a helmet because it was uncomfortable decreased with age, with 53 percent of 16- to 20-year-old bicyclists giving this reason, and just 35 percent of those 65 or older doing the same. [Figure 24-C]

### **Top reasons for not wearing a helmet, by urbanicity**

Bicyclists living in urban, suburban, and rural areas provided similar reasons for not wearing helmets every time they ride, though urban bicyclists (44%) were less likely than suburban (50%) and rural (51%) bicyclists to say they did not wear helmets because it was too hot to wear them. [Figure 24-D]

### **Top reasons for not wearing a helmet, by race/ethnicity**

Hispanic bicyclists were more likely to say they do not wear helmets while riding because it is uncomfortable (53%) than were White, non-Hispanic bicyclists (43%). [Figure 24-E]

## **Reasons for Not Wearing a Helmet (Continued)**

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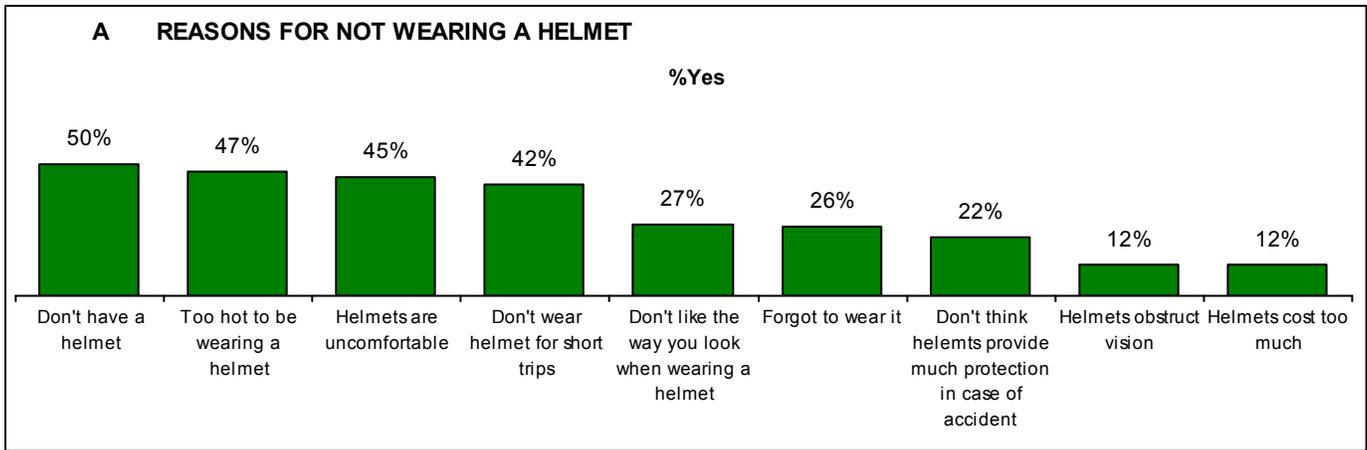
### **Top reasons for not wearing helmets, by household income**

The reasons provided for not wearing helmets on all bicycle rides generally do not differ significantly by income levels. However, those bicyclists with incomes under \$15,000 are more likely to say it is too hot to be wearing helmets (57% as compared to 49% or fewer of higher-income bicyclists reporting this reason). [Figure 24-F]

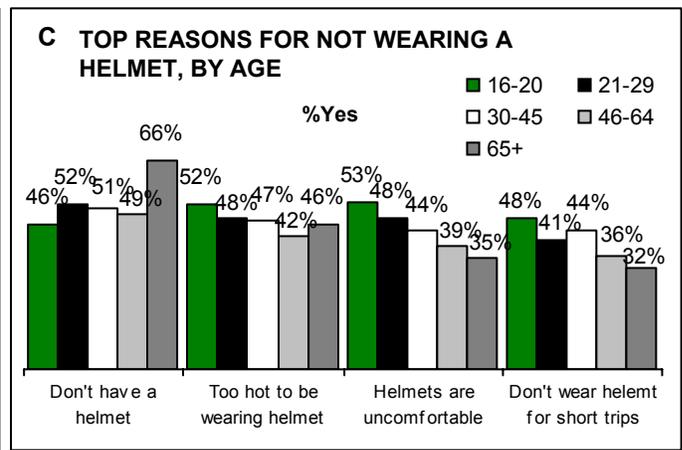
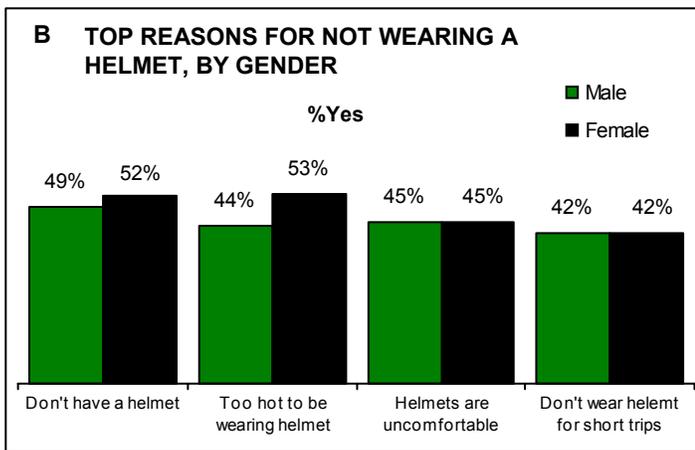
### **Top reasons for not wearing helmets, by bicycling frequency**

Heavy-frequency bicyclists were less likely to say that they did not wear helmets for short trips (34%) than were light- (43%) and medium- (45%) frequency bicyclists. Medium-frequency bicyclists (44%) were less likely than light-frequency bicyclists (53%) to say they don't have a helmet. [Figure 24-G]

**FIGURE 24: REASONS FOR NOT WEARING A HELMET**

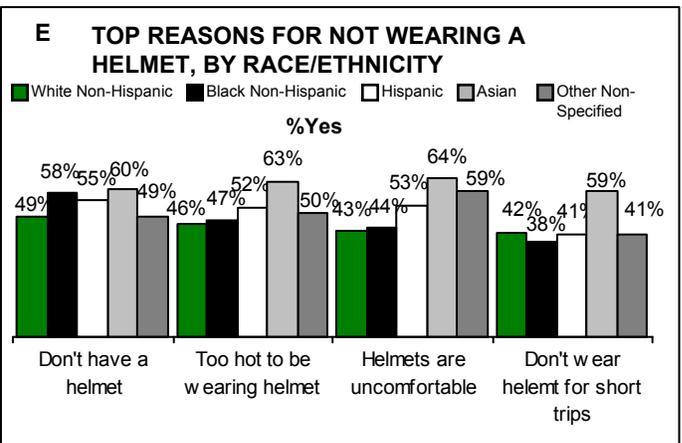
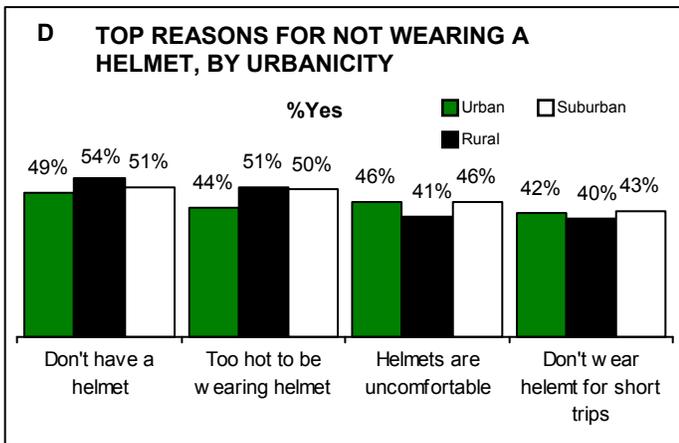


Q48: What are the reasons you don't always wear a bicycle helmet? Is it because... [Base: Bicyclists who do not wear a helmet for all of their rides (n=1,848)]



Q48: What are the reasons you don't always wear a bicycle helmet? Is it because...? [Base: Bicyclists who do not wear a helmet for all of their rides]

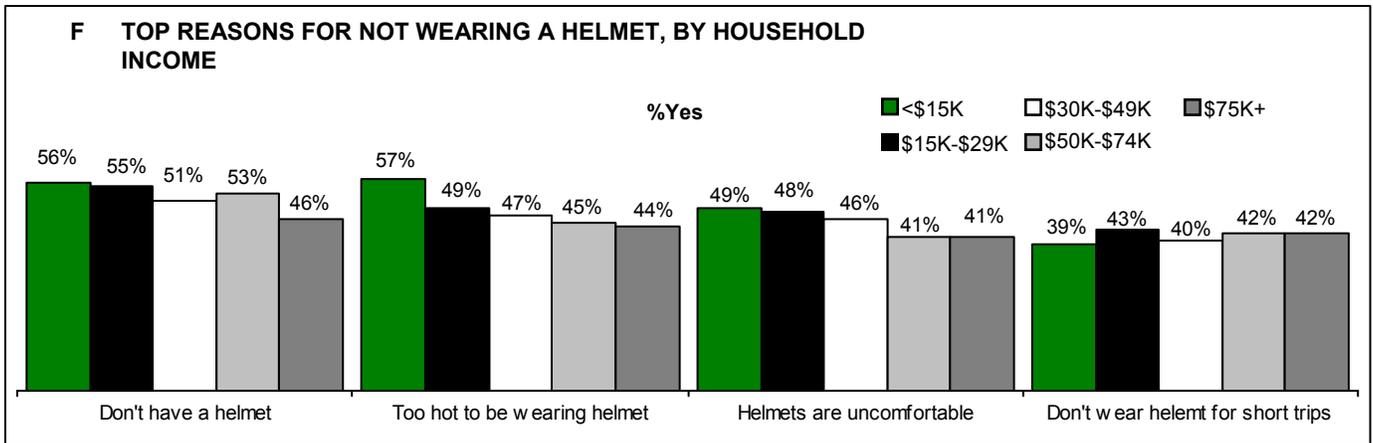
Q48: What are the reasons you don't always wear a bicycle helmet? Is it because...? [Base: Bicyclists who do not wear a helmet for all of their rides]



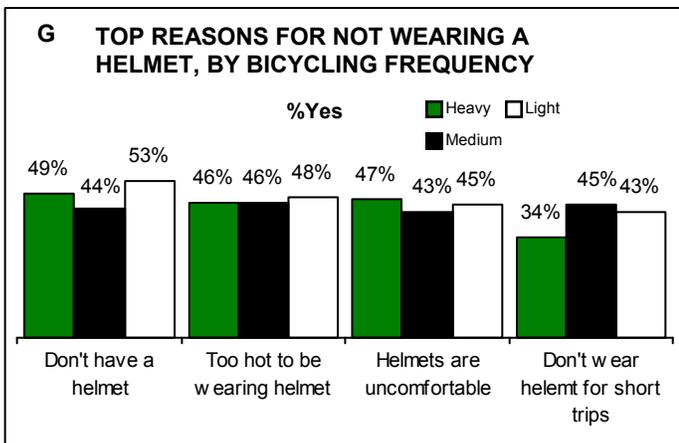
Q48: What are the reasons you don't always wear a bicycle helmet? Is it because...? [Base: Bicyclists who do not wear a helmet for all of their rides]

Q48: What are the reasons you don't always wear a bicycle helmet? Is it because...? [Base: Bicyclists who do not wear a helmet for all of their rides]

**FIGURE 24: REASONS FOR NOT WEARING A HELMET (continued)**



Q48: What are the reasons you don't always wear a bicycle helmet? It is because...? [Base: Bicyclists who do not wear a helmet for all of their rides]



Q48: What are the reasons you don't always wear a bicycle helmet? Is it because...? [Base: Bicyclists who do not wear a helmet for all of their rides]

Sample bases for this page:

|   |   |  |                        |                         |  |                           |                           |                      |                     |                     |                        |
|---|---|--|------------------------|-------------------------|--|---------------------------|---------------------------|----------------------|---------------------|---------------------|------------------------|
| Bicyclists who do not wear a helmet for all rides | <u>Total</u><br>1848                        | <u>Male</u><br>980                         | <u>Female</u><br>868   | <u>16-20</u><br>250     | <u>21-29</u><br>310                        | <u>30-45</u><br>749       | <u>46-64</u><br>445       | <u>65+</u><br>87     | <u>Urban</u><br>936 | <u>Rural</u><br>409 | <u>Suburban</u><br>503 |
| Bicyclists who do not wear a helmet for all rides | <u>White</u><br><u>Non-Hispanic</u><br>1474 | <u>Black</u><br><u>Non-Hispanic</u><br>123 | <u>Hispanic</u><br>116 | <u>Asian</u><br>34      | <u>Other</u><br><u>Non-Specified</u><br>78 | <u>Household Income</u>   |                           |                      |                     |                     |                        |
| Bicyclists who do not wear a helmet for all rides | <u>Heavy</u><br>225                         | <u>Medium</u><br>377                       | <u>Light</u><br>1238   | <u>&lt;\$15K</u><br>159 | <u>\$15K-\$29K</u><br>253                  | <u>\$30K-\$49K</u><br>436 | <u>\$50K-\$74K</u><br>349 | <u>\$75K+</u><br>480 |                     |                     |                        |



## **Chapter 5: Bicyclist Satisfaction**

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This section provides information about how satisfied bicyclists are with how their communities are designed for bicycling. Specifically, it covers the following topics:

- Satisfaction with community,
- Desire for changes in community, and
- Opinions on bicycling.

## **Satisfaction With Community**

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### **Satisfaction with how community is designed for bicycling, by bicycling status**

Among people 16 or older, almost half (48%) expressed satisfaction with how their communities are designed for making bicycle riding safe. Just 1 in 5 (19%) was very satisfied. Bicyclists were more likely to be satisfied with their communities (57% very or somewhat satisfied) than were nonbicyclists (45%). [Figure 25-A]

### **Satisfaction with how community is designed for bicycling, by gender, age**

Males (50%) were more likely than females (46%) to be very or somewhat satisfied with how their communities are designed for bicycling. Young bicyclists 16 to 20 were more likely to be satisfied (58% very or somewhat satisfied) than were bicyclists over 21. [Figure 25-B]

### **Satisfaction with how community is designed for bicycling, by race/ethnicity**

Hispanic (53% very or somewhat satisfied) and Asian (60%) people 16 and older more often tended to be satisfied with how their communities are designed for making bicycling safe than were White non-Hispanic (48%) and Black non-Hispanic (46%) people. [Figure 25-C]

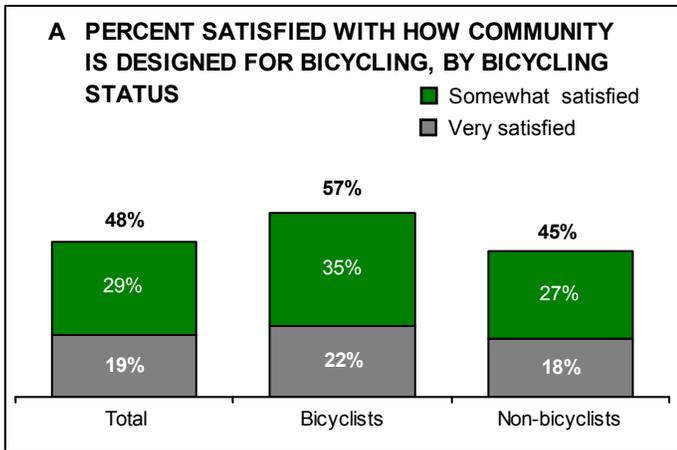
### **Satisfaction with how community is designed for bicycling, by household income**

Those with incomes of \$15,000 or less were more likely to be satisfied with how their communities are designed (57% very or somewhat satisfied) than were those in higher income categories. [Figure 25-D]

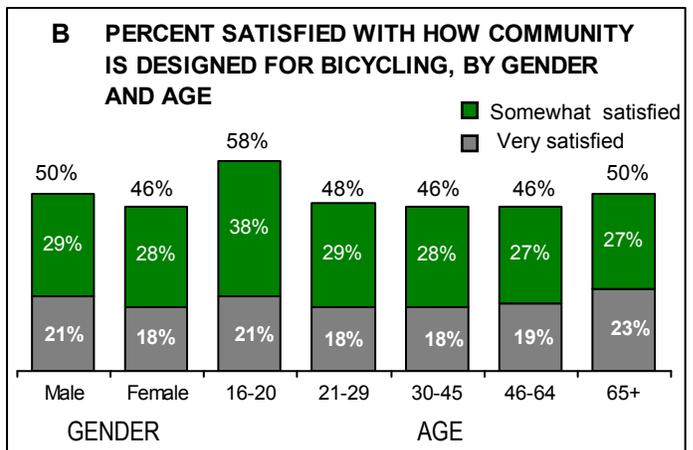
### **Satisfaction with how community is designed for bicycling by NHTSA Region, urbanicity**

Satisfaction with how their community is designed was highest in NHTSA Region 10 (AK, ID, OR, WA) (65% very or somewhat satisfied). Satisfaction was lowest in NHTSA Region 2 (NJ, NY) (39%). Those living in urban, suburban, and rural areas were about equally likely to be satisfied with how their communities are designed. [Figure 25-E]

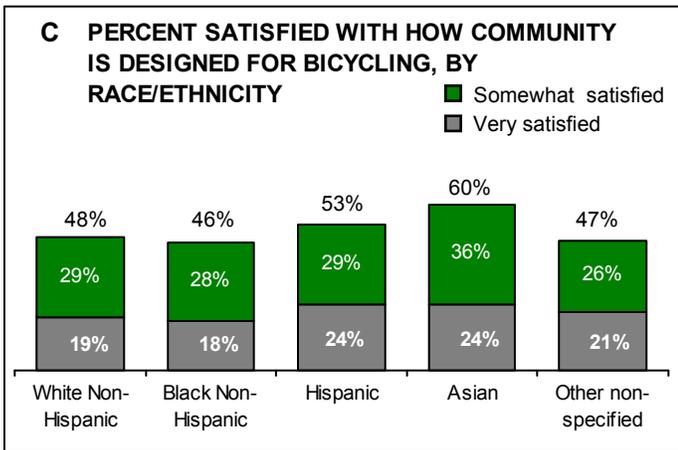
**FIGURE 25: SATISFACTION WITH COMMUNITY**



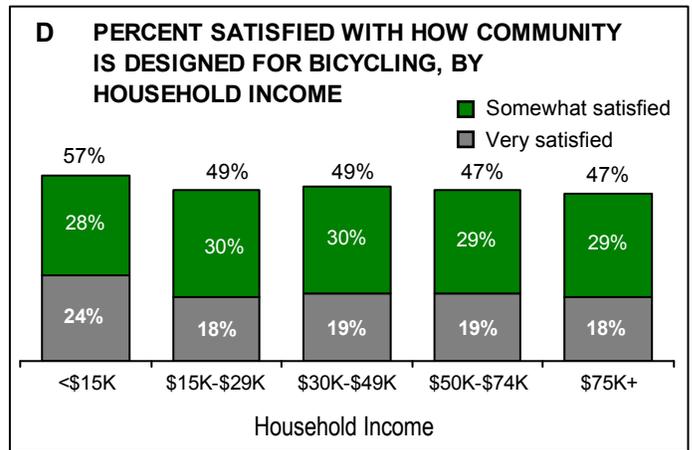
Q48a: How satisfied are you with how your local community is designed for making bicycle riding safe?



Q48a: How satisfied are you with how your local community is designed for making bicycle riding safe?

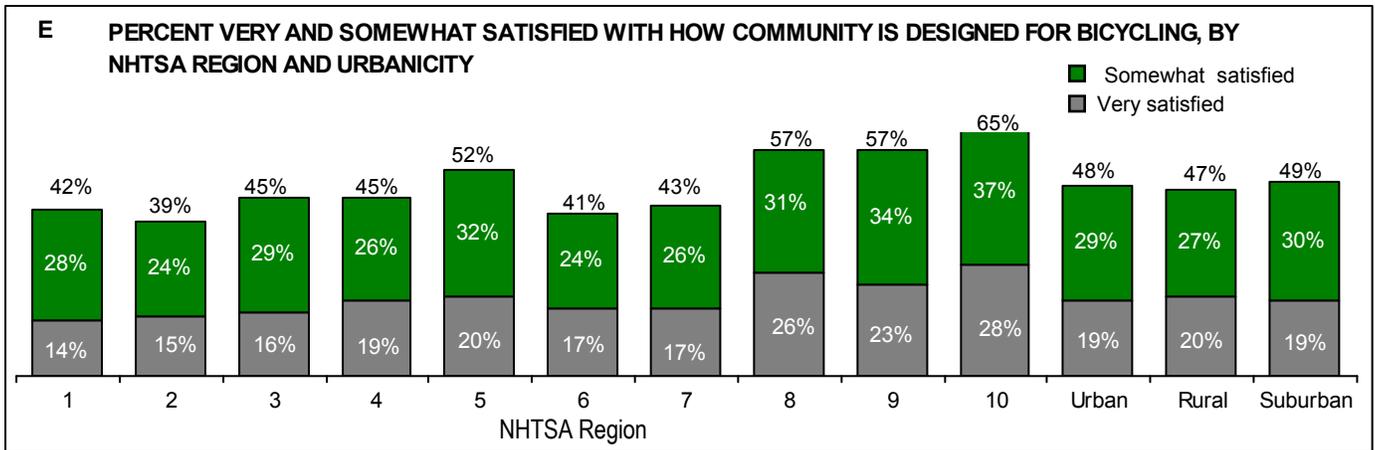


Q48a: How satisfied are you with how your local community is designed for making bicycle riding safe?



Q48a: How satisfied are you with how your local community is designed for making bicycle riding safe?

**FIGURE 25: SATISFACTION WITH COMMUNITY (continued)**



Q48a: How satisfied are you with how your local community is designed for making bicycle riding safe?

Sample bases for this page:

| Total Population | Total | Bicyclists | Non-bicyclists | Male | Female | 16-20 | 21-29 | 30-45 | 46-64 | 65+  |
|------------------|-------|------------|----------------|------|--------|-------|-------|-------|-------|------|
|                  | 9575  | 2510       | 7065           | 3920 | 5655   | 722   | 1304  | 3122  | 2899  | 1471 |

| Total Population | White Non-Hispanic | Black Non-Hispanic | Other Non-Specified | Asian | Household Income |             |             |             |        |  |
|------------------|--------------------|--------------------|---------------------|-------|------------------|-------------|-------------|-------------|--------|--|
|                  |                    |                    |                     |       | <\$15K           | \$15K-\$29K | \$30K-\$49K | \$50K-\$74K | \$75K+ |  |
| 7572             | 756                | 522                | 206                 | 350   | 1049             | 1526        | 2131        | 1615        | 1996   |  |

| Total Population | NHTSA Region |     |      |      |      |      |     |     |      |     | Urban | Rural | Suburban |
|------------------|--------------|-----|------|------|------|------|-----|-----|------|-----|-------|-------|----------|
|                  | 1            | 2   | 3    | 4    | 5    | 6    | 7   | 8   | 9    | 10  |       |       |          |
|                  | 505          | 839 | 1022 | 1741 | 1673 | 1145 | 498 | 357 | 1314 | 481 | 4625  | 2246  | 2704     |



## **Desire for Changes in Community**

---

### **Desire change in community, by total, NHTSA Region and urbanicity**

Regardless of how satisfied they were with the way their communities are designed for bicycling safety, almost half of people 16 or older (47%) would like to see some changes made in their community for bicyclists. Across NHTSA Regions, this desire varied very little, from 45 percent to 50 percent. Those living in suburban areas (51%) were more likely than those in urban (47%) or rural (42%) areas to desire change. [Figure 26-A]

### **Changes desired in community**

The change most desired in the community was to increase bicycling facilities such as more bicycle lanes (38%), more bicycle paths (30%) and more bicycle trails (14%). Bicycle paths were defined as “paths away from the road on which bikes can travel” and bicycle lanes were defined as “marked lanes on a public road reserved for bikes to travel” earlier in the survey for respondents.

Smaller proportions of residents recommended improving existing bicycling facilities (8%), safety education (7%), changing laws about where bicyclists can ride (7%), improving safety for bicyclists (6%), and improving enforcement of traffic laws (4%). [Figure 26-B]

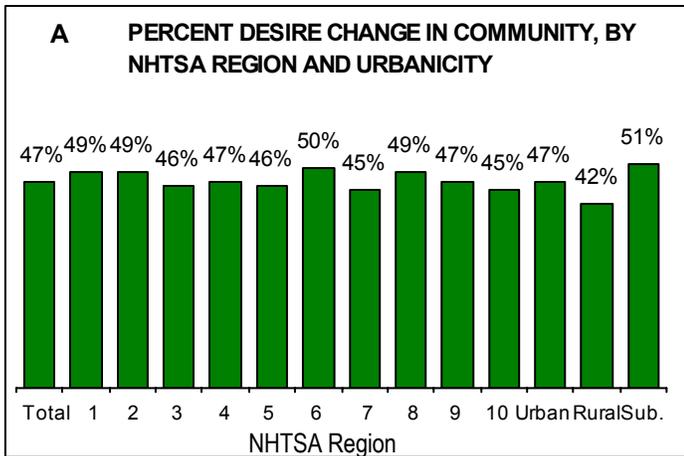
### **Top 3 changes desired in community, by bicycling frequency**

Light-frequency bicyclists (those riding 7 or fewer days in a 30-day period in the summer months) were less interested in adding bicycle lanes (38%) than were medium-frequency bicyclists (48%). Heavy-frequency bicyclists were less interested in adding bicycle paths (22%) than were medium- (31%) or light-frequency (33%) bicyclists. [Figure 26-C]

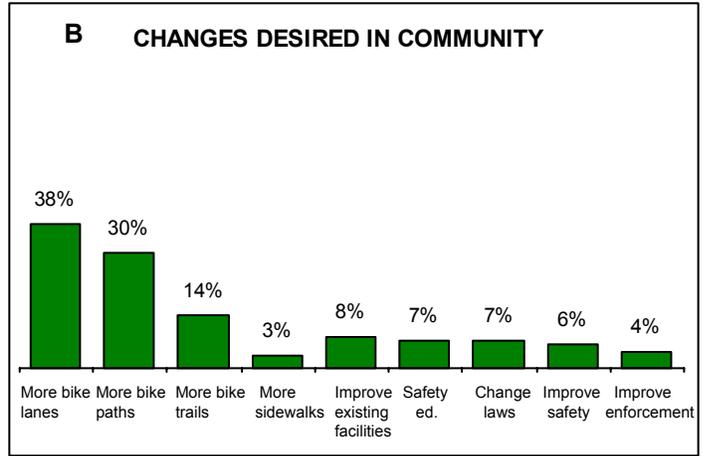
### **Top 3 changes desired in community, by NHTSA Region**

The desire to add bicycle lanes ranged from a low of 25 percent in NHTSA Region 8 (CO, MT, ND, SD, UT, WY) to a high of 44 percent in NHTSA Region 6 (AR, LA, NM, OK, TX). The recommendation for more bicycle paths ranged from a low of 20 percent in NHTSA Region 9 (AZ, CA, HI, NV) to a high of 35 percent in NHTSA Region 5 (IL, IN, MI, MN, OH, WI). The desire for more bicycle trails ranged from a low of 8 percent in NHTSA Region 10 (AK, ID, OR, WA) to a high of 19 percent in NHTSA Region 7 (IA, KS, MS, NE). [Figure 26-D]

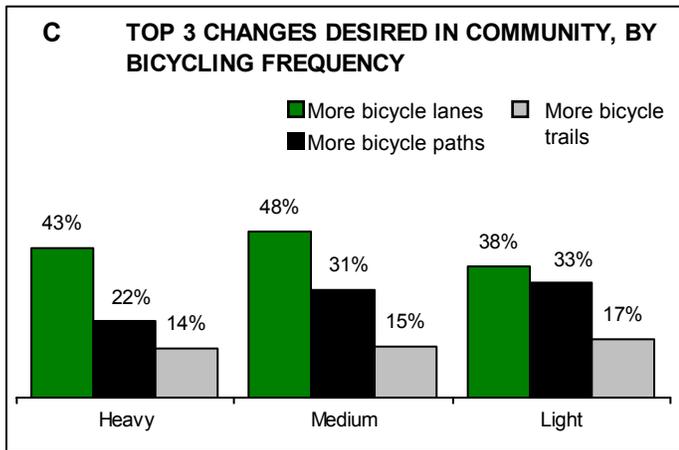
**FIGURE 26: DESIRE FOR CHANGES IN COMMUNITY**



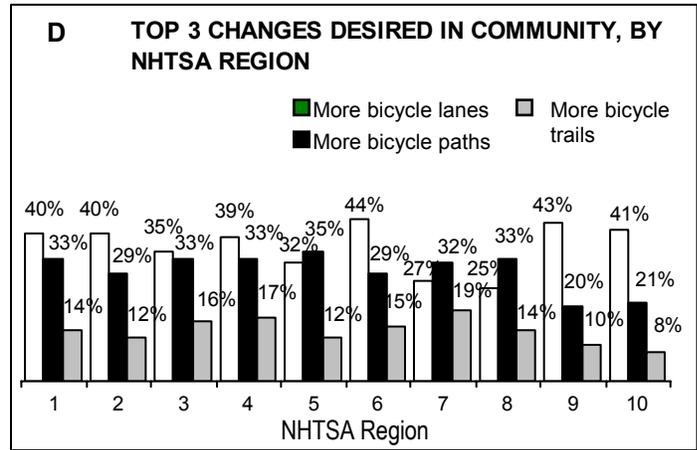
Q48b: Are there any changes you would like made in your community for bicyclists?



Q48c: What changes would you like to see made in your community? [Base: Desire changes in community for bicyclists]



Q48c: What changes would you like to see made in your community? [Base: Desire changes in community for bicyclists]



Q48c: What changes would you like to see made in your community? [Base: Desire changes in community for bicyclists]

Sample bases for this page:

|  | NHTSA Region |       |        |       |      |      |      |     |     |      |     |       |       |          |  |
|--|--------------|-------|--------|-------|------|------|------|-----|-----|------|-----|-------|-------|----------|--|
| Total Population                           | Total        | 1     | 2      | 3     | 4    | 5    | 6    | 7   | 8   | 9    | 10  | Urban | Rural | Suburban |  |
|  | 9575         | 505   | 839    | 1022  | 1741 | 1673 | 1145 | 498 | 357 | 1314 | 481 | 4625  | 2246  | 2704     |  |
|  | NHTSA Region |       |        |       |      |      |      |     |     |      |     |       |       |          |  |
| Desire changes in community for bicyclists | Total        | Heavy | Medium | Light | 1    | 2    | 3    | 4   | 5   | 6    | 7   | 8     | 9     | 10       |  |
|  | 4575         | 203   | 326    | 883   | 263  | 420  | 493  | 840 | 769 | 558  | 241 | 180   | 593   | 218      |  |

## **Opinions on Bicycling**

---

### **Opinions on bicycling**

All respondents, whether they rode a bicycle during the summer months or not, were asked to rate how much they agreed that selected statements about bicycling apply to them. Overall, two-thirds of people 16 or older (67%) strongly agreed that bicycling is a great form of exercise for them (84% strongly or somewhat agree). Nearly 9 out of 10 (87%) strongly or somewhat agreed that bicycling is an enjoyable activity to do in a group, and nearly as many (79%) agreed that it is an enjoyable activity to do alone. Seven in 10 (71%) said that they would like to be bicycling more than they are now, but less than one half (48%) felt that bicycling is a great form of transportation in the area where they live. [Figure 27-A]

### **Opinions on bicycling, by gender**

Males were more likely than females to agree that bicycling is a great form of exercise for them (by 5 percentage points), that it is an enjoyable activity to do alone (by 3 percentage points), and that they would like to bicycle more than they do now (by 3 percentage points). [Figure 27-B]

### **Opinions on bicycling, by age**

The oldest adults 65 and older are generally least likely to agree with all of the positive statements about bicycling, with particularly lower agreement to wanting to bicycle more than they do now. The few other key differences by age include higher agreement among those 16 to 20 year olds that bicycling is a great form of transportation in the area they live, and higher agreement among those 30 to 45 that bicycling is an enjoyable group activity and they would like to bicycle more than they do now. [Figure 27-C]

## **Opinions on Bicycling (Continued)**

---

### **Opinions on bicycling, by bicycling status**

Those who bicycled at least once in the past 30 days prior to the interview were more likely to agree with all of the statements about bicycling than were those who did not bicycle. The differences were greatest with regards to bicycling being a great form of transportation in their area (by 20 percentage points), that bicycling is a great form of exercise (by 19 percentage points), and that they would like to bicycle more than they currently are (by 19 percentage points). [Figure 27-D]

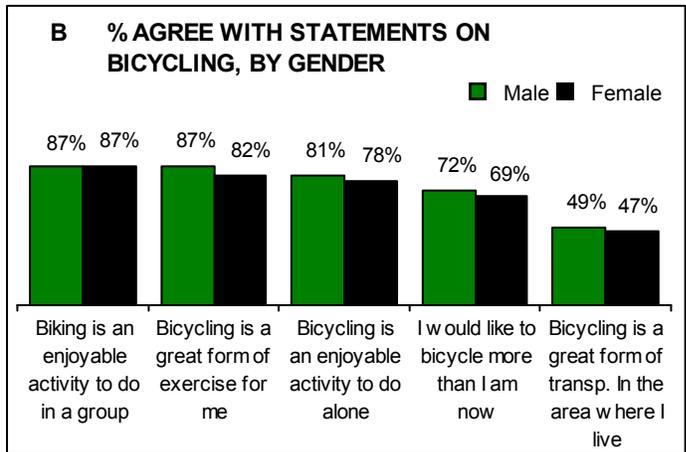
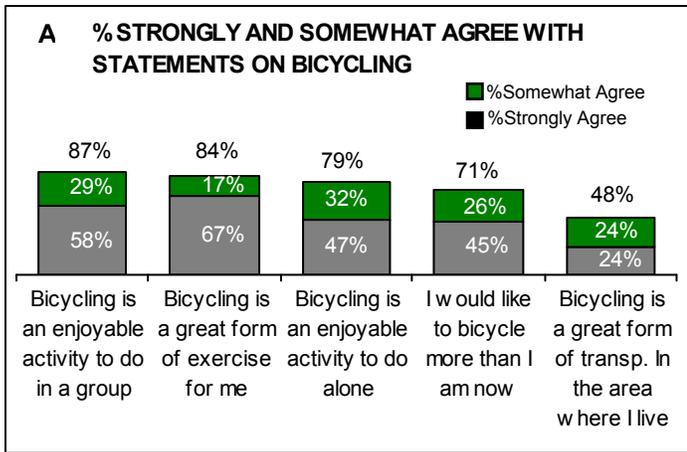
### **Opinions on bicycling, by bicycling frequency**

Nearly all bicyclists, whether they bicycle just a few days a month or nearly all days in a month, agreed that bicycling is a great form of exercise for them. About 9 out of 10 bicyclists also agreed that bicycling is an enjoyable activity to do in a group (91%) or alone (90%). Heavy-frequency bicyclists were more likely to agree that bicycling is a great form of transportation in the area where they live (81%) than were medium- (65%) or light-frequency (57%) bicyclists. [Figure 27-E]

### **Percent agreeing that bicycling is a great form of transportation in this area, by NHTSA Region**

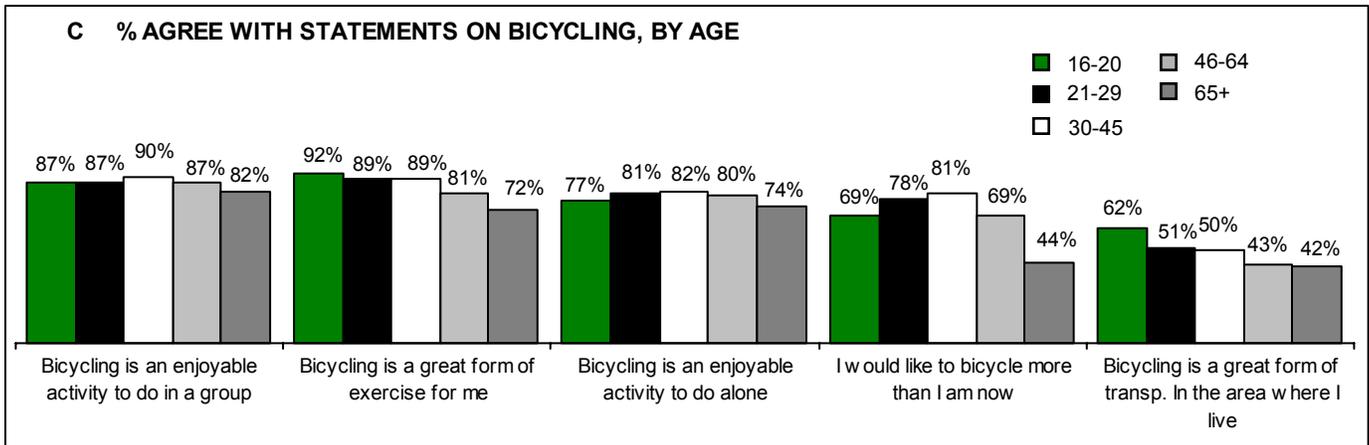
Those living in the western NHTSA Regions were more likely than those elsewhere in the country to agree that bicycling is a great form of transportation in their area (56% in NHTSA Region 8, 58% in NHTSA Region 9, and 60% in NHTSA Region 10). Those in the Mid-Atlantic and Southeast regions of the country were least likely to agree with this statement (42% in NHTSA Region 3 and 39% in NHTSA Region 4). [Figure 27-F]

**FIGURE 27: OPINIONS ON BICYCLING**



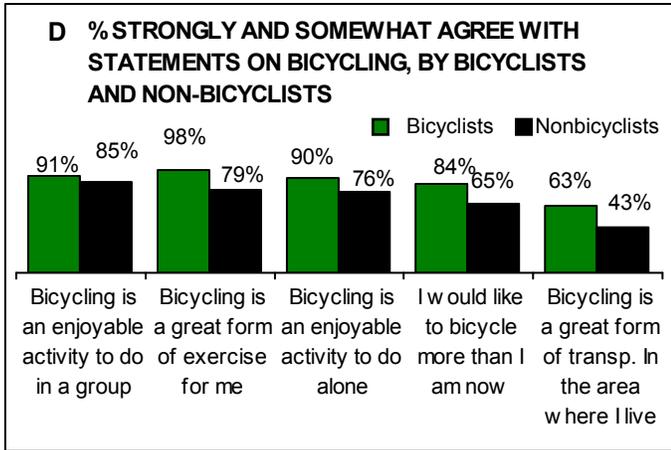
Q51: Now, I would like to know your personal opinions about bicycling. Please indicate how strongly you agree or disagree with the following statements about bicycling. How about ...? [Base: Total population]

Q51: Now, I would like to know your personal opinions about bicycling. Please indicate how strongly you agree or disagree with the following statements about bicycling. How about ...? [Base: Total population]

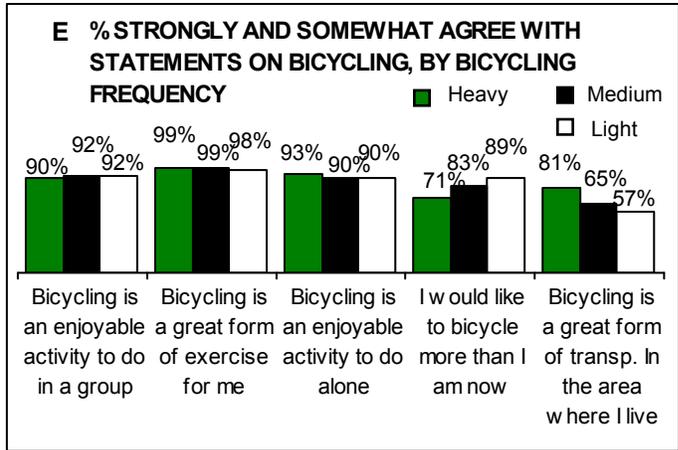


Q51: Now, I would like to know your personal opinions about bicycling. Please indicate how strongly you agree or disagree with the following statements about bicycling. How about ...? [Base: Total population]

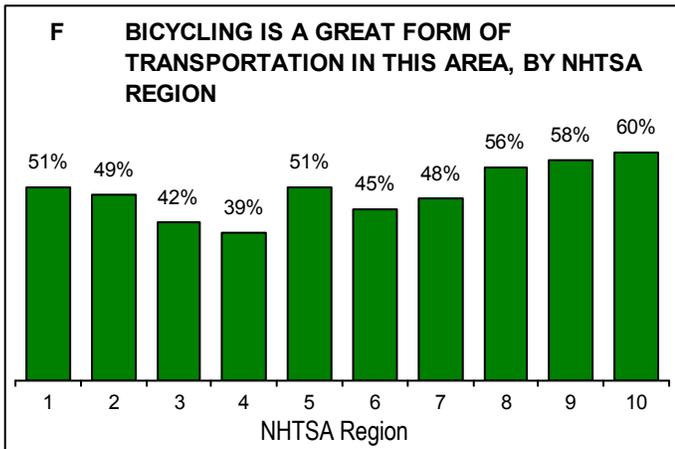
**FIGURE 27: OPINIONS ON BICYCLING (continued)**



Q51: Now, I would like to know your personal opinions about bicycling. Please indicate how strongly you agree or disagree with the following statements about bicycling. How about...? [Base total population]



Q51: Now, I would like to know your personal opinions about bicycling. Please indicate how strongly you agree or disagree with the following statements about bicycling. How about...? [Base total population]



Q51: Now, I would like to know your personal opinions about bicycling. Please indicate how strongly you agree or disagree with the following statements about bicycling. How about...? [Base total population]

Sample bases for this page:

|                  | Total               | Male     | Female   | 16-20    | 21-29    | 30-45    | 46-64    | 65+      | Heavy    | Medium    | Light | Bicyclists | Non-Bicyclists |
|------------------|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-------|------------|----------------|
| Total population | 9616                | 3936     | 5680     | 724      | 1309     | 3132     | 2914     | 1479     | 325      | 553       | 1670  | 2510       | 7106           |
|                  | <b>NHTSA Region</b> |          |          |          |          |          |          |          |          |           |       |            |                |
|                  | <u>1</u>            | <u>2</u> | <u>3</u> | <u>4</u> | <u>5</u> | <u>6</u> | <u>7</u> | <u>8</u> | <u>9</u> | <u>10</u> |       |            |                |
| Total population | 507                 | 843      | 1027     | 1754     | 1681     | 1149     | 498      | 358      | 1316     | 483       |       |            |                |



# II. Pedestrian Attitudes and Behaviors

## **Chapter 1: Overall Pedestrian Behaviors**

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This section provides information on the pedestrian behaviors of people 16 and older. Specifically it covers the following topics:

- Frequency of walking,
- Days spent walking,
- Profile of pedestrians,
- Change in pedestrian behavior,
- Reasons for not walking,
- Number of walking trips among those walking at least once in past 30 days, and
- Estimated total number of walking trips.

## **Frequency of Walking**

---

### **Frequency of walking in summer months**

Nearly 3 in 4 (72%) people 16 or older reported that they walked an average of at least once a week during the summer months. Walking was defined as any outdoor walking, jogging or running that lasts at least five minutes or more. About 1 in 10 (9%) said they walk at least once a month, but not weekly. Just 4 percent reported walking less than once a month, and 14 percent reported never walking in the summer months. [Figure 28-A]

### **Frequency of walking in summer months, by gender**

There were no notable differences in walking frequency by gender. Males (70%) were about equally likely as females (73%) to say they walk at least once a week in the summer months. [Figure 28-B]

### **Frequency of walking in summer months, by age**

Propensity to walk at least once a week remained above 70 percent among people of all age groups except those 65 and older (65%). People in that older age range were more apt to report they never walk (25%) than were those of younger age groups. [Figure 28-C]

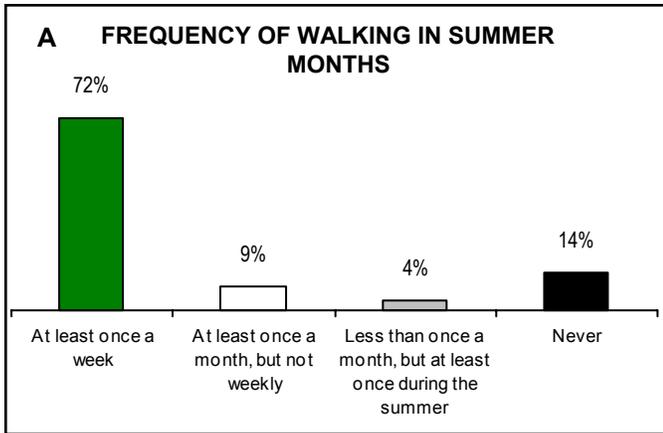
### **Frequency of walking in summer months, by race/ethnicity**

Black, non-Hispanic people 16 or older (68%) were least likely of all listed races/ethnicities to report walking at least once a week in the summer months. [Figure 28-D]

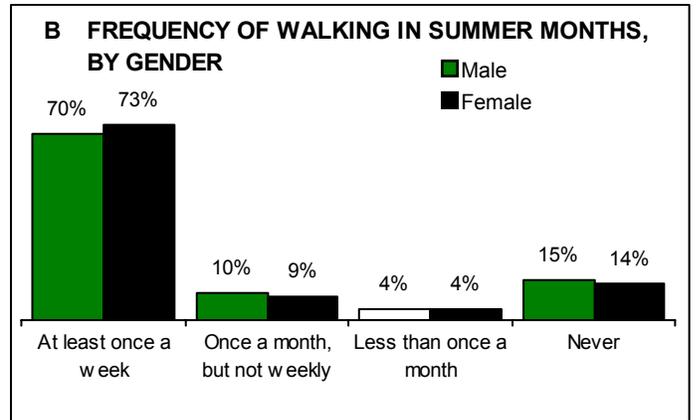
### **Frequency of walking in summer months, by NHTSA Region**

Reports of walking at least once a week in the summer months varies across NHTSA Regions, from a high of 81 percent in NHTSA Region 10 (AK, ID, OR, WA) to a low of 65 percent in NHTSA Region 7 (IA, KS, MO, NE) (65%). [Figure 28-E]

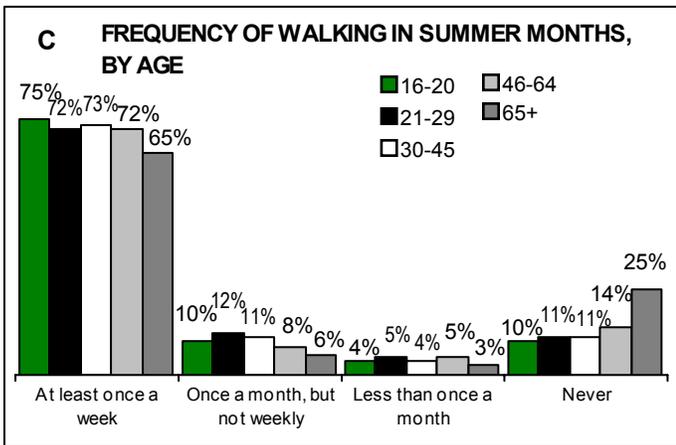
**FIGURE 28: FREQUENCY OF WALKING**



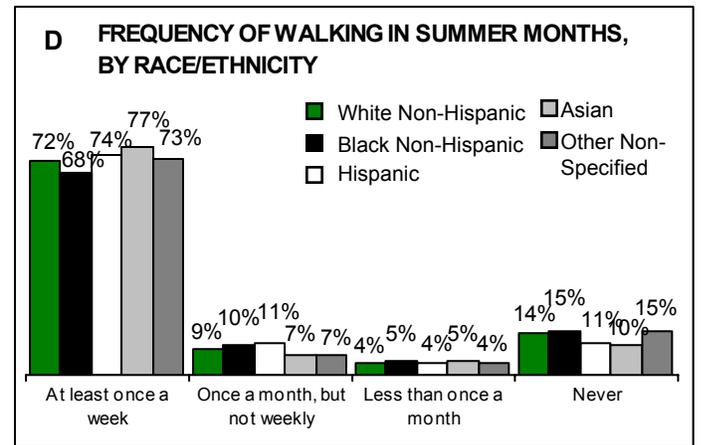
Q52: On average, during the summer months, how often do you walk?



Q52: On average, during the summer months, how often do you walk?

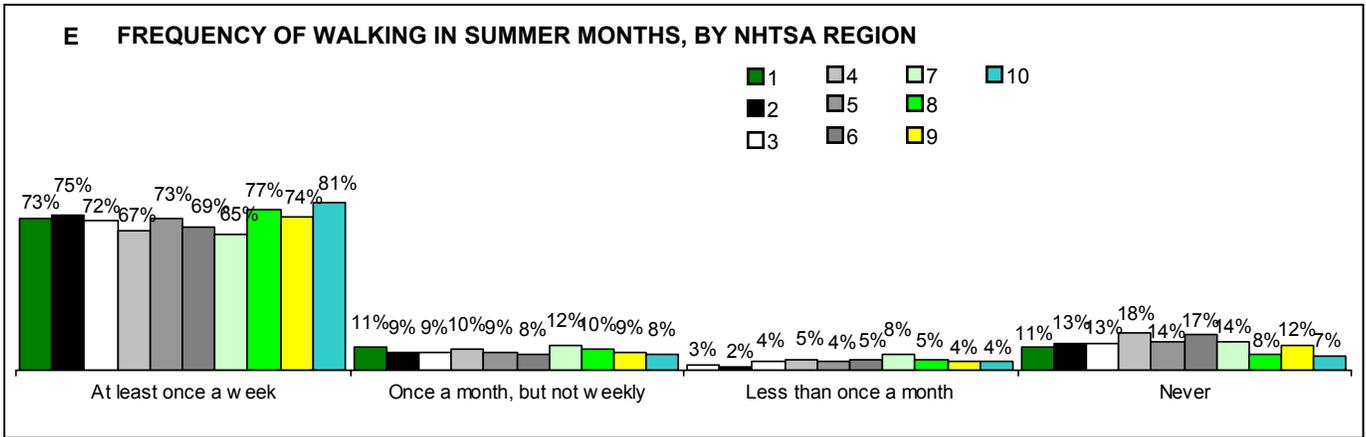


Q52: On average, during the summer months, how often do you walk?



Q52: On average, during the summer months, how often do you walk?

**FIGURE 28: FREQUENCY OF WALKING (continued)**



Q52: On average, during the summer months, how often do you walk?

Sample bases for this page:

|                  | Total | Male | Female | 16-20 | 21-29 | 30-45 | 46-64 | 65+  |
|------------------|-------|------|--------|-------|-------|-------|-------|------|
| Total Population | 9616  | 3936 | 5680   | 724   | 1309  | 3132  | 2914  | 1479 |

|                  | NHTSA Region |     |      |      |      |      |     |     |      |     |
|------------------|--------------|-----|------|------|------|------|-----|-----|------|-----|
|                  | 1            | 2   | 3    | 4    | 5    | 6    | 7   | 8   | 9    | 10  |
| Total Population | 507          | 843 | 1027 | 1754 | 1681 | 1149 | 498 | 358 | 1316 | 483 |

|                  | White Non-Hispanic | Black Non-Hispanic | Hispanic | Asian | Other Non-Specified |
|------------------|--------------------|--------------------|----------|-------|---------------------|
| Total Population | 7602               | 762                | 523      | 207   | 352                 |

## **Days Spent Walking**

---

### **Average number of days in past month walked, by total, gender, age**

People 16 and older who walked at all in the summer months walked on average 14.9 days during the past 30 days in the summer months. Males (15.0) and females (14.9) reported the same number of walking days. Those 16 to 20 (15.8) and 65 and older (15.9) walked more often in the past 30 days than did those 21 to 64. [Figure 29-A]

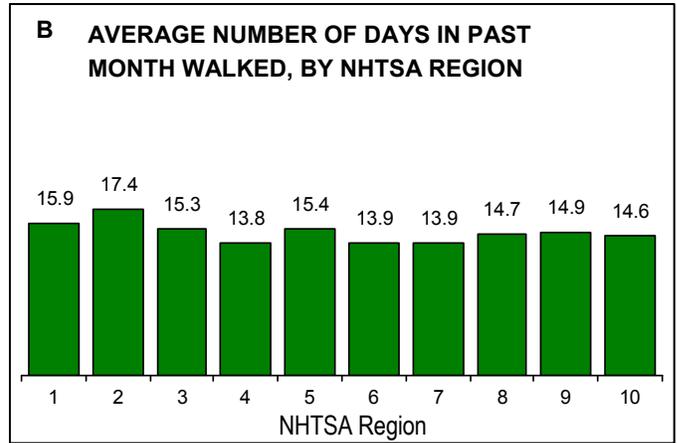
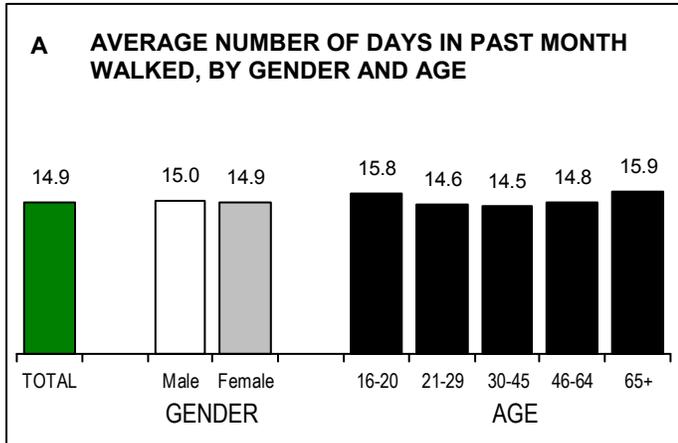
### **Average number of days in past month walked, by NHTSA Region**

Those who walked at least once in the summer months and live in NHTSA Region 2 (NY, NJ) (17.4 days) reported higher average number of days walking in the past 30 days than did those living in other regions of the country. Those living in NHTSA Regions 4 (AL, FL, GA, KY, MS, NC, SC, TN) (13.8), 6 (AR, LA, NM, OK, TX) (13.9) and 7 (IA, KS, MO, NE) (13.9) averaged the fewest number of days walking. [Figure 29-B]

### **Walking frequency, based on days per month walked**

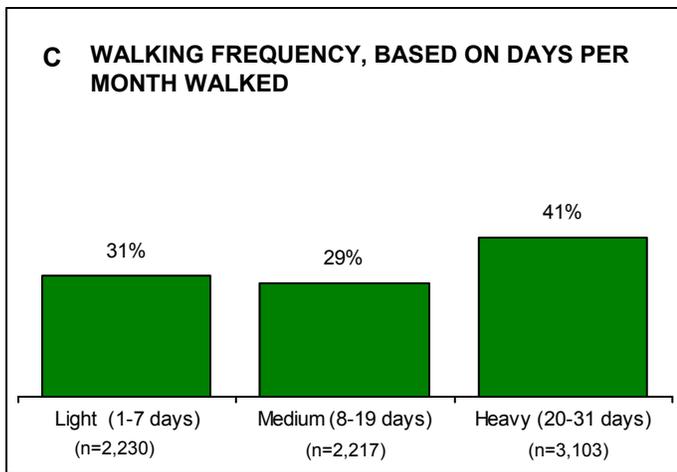
The frequency with which one walked can be divided into heavy (walking 20 or more days per month), medium (8 to 19 days per month) and light (1 to 7 days per month). About 1 in 3 pedestrians is a light-frequency pedestrian (31%), 29 percent are medium-frequency pedestrians, and 41 percent are heavy-frequency pedestrians. [Figure 29-C]

**FIGURE 29: DAYS SPENT WALKING**



Q52c: Thinking about the past 30 days, about how many of those days did you walk? [Base: Total who walk in the summer]

Q52c: Thinking about the past 30 days, about how many of those days did you walk? [Base: Total who walk in the summer]



Q52c: Thinking about the past 30 days, about how many of those days did you walk? [Base: Total population]

Sample bases for this page:

|                              | Total | Male | Female | 16-20 | 21-29 | 30-45 | 46-64 | 65+  |
|------------------------------|-------|------|--------|-------|-------|-------|-------|------|
| Total who walk in the summer | 8147  | 3309 | 4838   | 641   | 1152  | 2751  | 2472  | 1086 |

|                              | NHTSA Region |     |     |      |      |     |     |     |      |     |
|------------------------------|--------------|-----|-----|------|------|-----|-----|-----|------|-----|
|                              | 1            | 2   | 3   | 4    | 5    | 6   | 7   | 8   | 9    | 10  |
| Total who walk in the summer | 450          | 719 | 892 | 1422 | 1412 | 934 | 418 | 318 | 1134 | 448 |

## **Profile of Pedestrians**

---

### **Those who walked at least once in past 30 days, by total, gender, age**

More than 3 in 4 people 16 and older (78%) reported walking at least once in the past 30 days in the summer months. There was no notable difference between males and females, nor between most age groups. The exception was the oldest age group, who were less likely to report walking in the past 30 days (66%). [Figure 30-A]

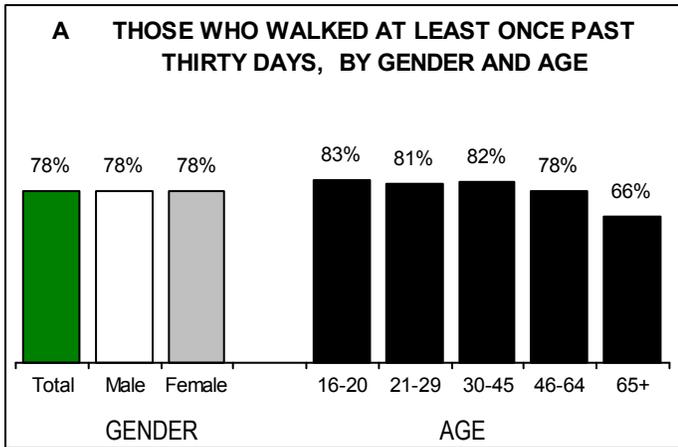
### **Those who walked at least once in past 30 days, by race/ethnicity**

Reports of walking at least once in the past 30 days in the summer months ranged from 84 percent among Asians to 75 percent among Black, non-Hispanics. [Figure 30-B]

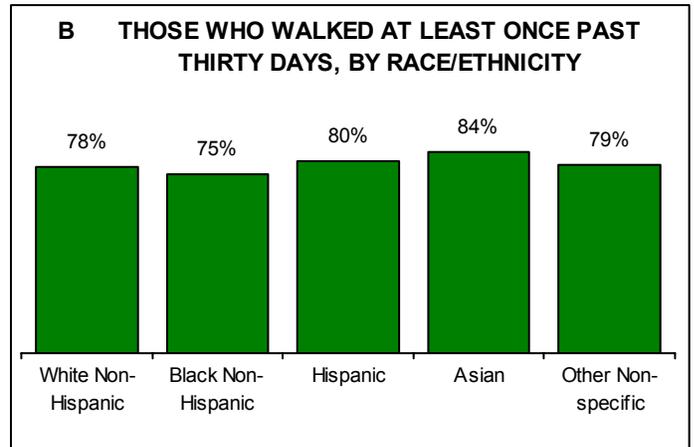
### **Those who walked at least once in past 30 days, by NHTSA Region**

Those residing in NHTSA Regions 10 (AK, ID, OR, WA) (88%) and 8 (CO, MT, ND, SD, UT, WY) (85%) were more likely than those in other regions to walk at least once in the past 30 days in the summer. Those in NHTSA Regions 4 (AL, FL, GA, KY, MS, NC, SC, TN) (72%) and 6 (AR, LA, NM, OK, TX) (74%) were the least likely to be pedestrians. [Figure 30-C]

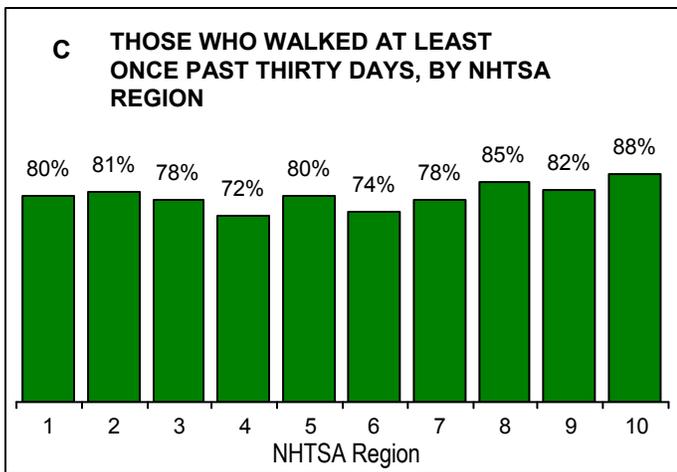
**FIGURE 30: PROFILE OF PEDESTRIANS**



Q52c: Thinking about the past 30 days, about how many of those days did you walk? [Base: Total population]



Q52c: Thinking about the past 30 days, about how many of those days did you walk? [Base: Total population]



Q52c: Thinking about the past 30 days, about how many of those days did you walk? [Base: Total population]

Sample bases for this page:

|                  | <u>Total</u>        | <u>Male</u> | <u>Female</u> | <u>16-20</u> | <u>21-29</u> | <u>30-45</u> | <u>46-64</u> | <u>65+</u> | <u>White Non-Hispanic</u> | <u>Black Non-Hispanic</u> | <u>Hispanic</u> | <u>Asian</u> | <u>Other Non-specified</u> |
|------------------|---------------------|-------------|---------------|--------------|--------------|--------------|--------------|------------|---------------------------|---------------------------|-----------------|--------------|----------------------------|
| Total Population | 9616                | 3936        | 5680          | 724          | 1309         | 3132         | 2914         | 1479       | 7602                      | 762                       | 523             | 207          | 352                        |
|                  | <u>NHTSA Region</u> |             |               |              |              |              |              |            |                           |                           |                 |              |                            |
|                  | <u>1</u>            | <u>2</u>    | <u>3</u>      | <u>4</u>     | <u>5</u>     | <u>6</u>     | <u>7</u>     | <u>8</u>   | <u>9</u>                  | <u>10</u>                 |                 |              |                            |
| Total Population | 507                 | 843         | 1027          | 1754         | 1681         | 1149         | 498          | 358        | 1316                      | 483                       |                 |              |                            |

## **Change in Pedestrian Behavior**

---

### **Change in walking behavior over past year, by total, gender and age**

Just over half of pedestrians (defined as those walking at least once in the past 30 days in the summer months) reported no change in their walking behavior from a year ago (51%). Three in 10 (30%) reported walking more often than they did a year ago, and 19 percent reported walking less often. Females (32%) were more likely than males (28%) to report an increase in walking since the past year. The percentage reporting an increase in walking compared to a year ago declined with age, dropping from 41 percent of those 16-20, to 37 percent among 21-29, 33 percent among those 30-45, 26 percent among 46-64 and then 14% 65 and older. [Figure 31-A]

### **Change in walking behavior over past year, by NHTSA Region**

Increases in walking behavior from a year ago varied a bit by NHTSA Region, ranging from 25 percent reporting an increase in Region 10 (AK, ID, OR, WA) to 34 percent reporting an increase in NHTSA Region 1 (CT, ME, MA, NH, RI, VT). Reported decreases in walking ranged from 23 percent in NHTSA Region 6 (AR, LA, NM, OK, TX) to 15 percent in NHTSA Regions 1 (CT, ME, MA, NH, RI, VT) and 10 (AK, ID, OR, WA). [Figure 31-B]

### **Change in walking behavior over past year, by urbanicity**

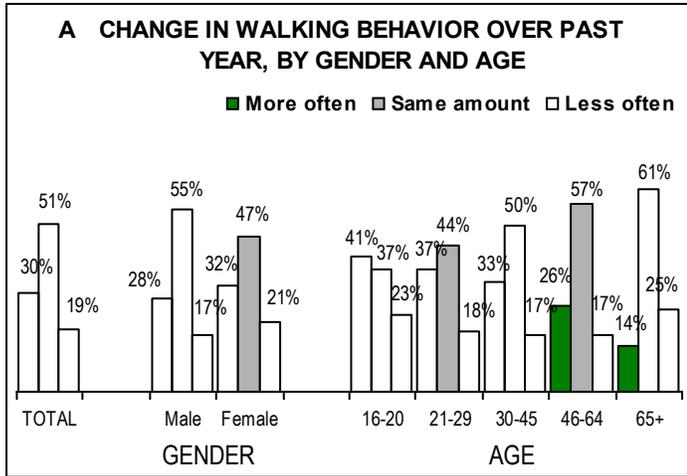
Urban (31%) and suburban (30%) dwellers were more likely to report increases in walking behavior compared to a year ago than were those living in rural areas (26%). [Figure 31-C]

### **Change in walking behavior over past year, by walking frequency**

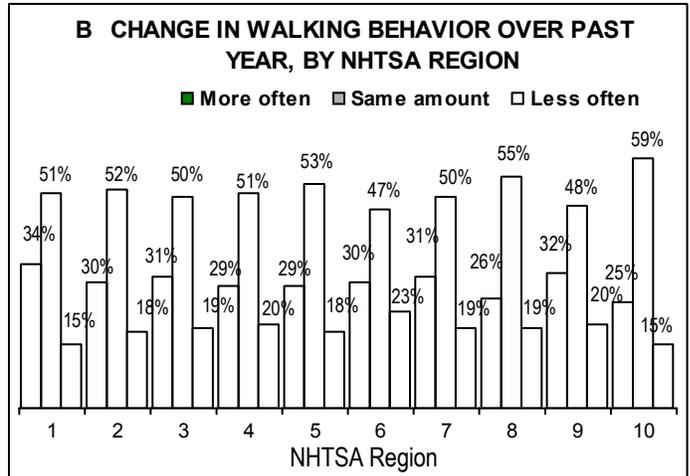
The frequency with which one walked can be divided into heavy (walking 20 or more days per month), medium (8 to 19 days per month) and light (1 to 7 days per month).

Heavy-frequency walkers were more likely to report an increase in walking from a year ago (36%) than were medium-frequency (31%) or light-frequency (21%) walkers. [Figure 31-D]

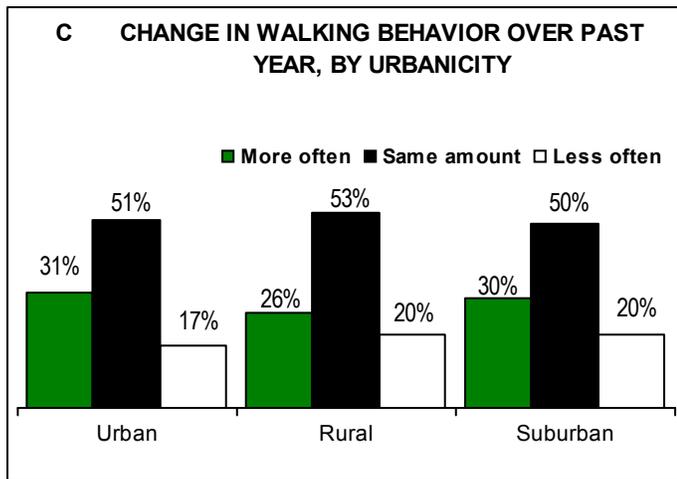
**FIGURE 31: CHANGE IN PEDESTRIAN BEHAVIOR**



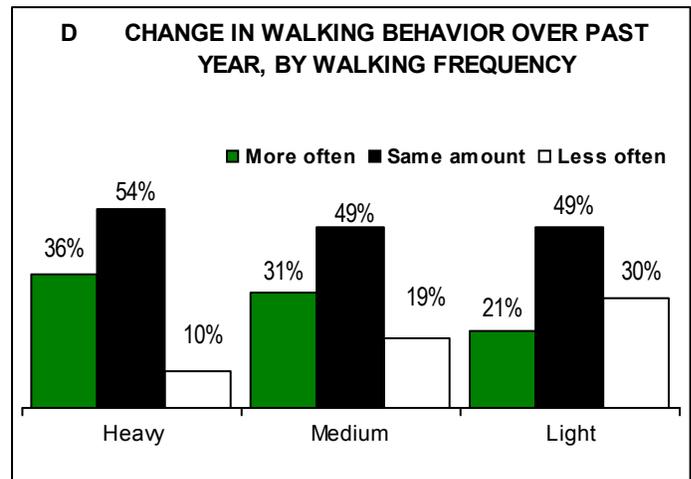
Q91: Compared to about a year ago, would you say you are walking more often, less often or about the same amount? [Base: Walked past 30 days]



Q91: Compared to about a year ago, would you say you are walking more often, less often or about the same amount? [Base: Walked past 30 days]



Q91: Compared to about a year ago, would you say you are walking more often, less often or about the same amount? [Base: Walked past 30 days]



Q91: Compared to about a year ago, would you say you are walking more often, less often or about the same amount? [Base: Walked past 30 days]

Sample bases for this page:

|                     | Total | Male | Female | 16-20               | 21-29        | 30-45 | 46-64 | 65+           | Urban | Rural | Suburban     |   |    |
|---------------------|-------|------|--------|---------------------|--------------|-------|-------|---------------|-------|-------|--------------|---|----|
| Walked past 30 days | 7585  | 3084 | 4501   | 601                 | 1076         | 2579  | 2293  | 996           | 3675  | 1717  | 2193         |   |    |
|                     |       |      |        | <u>NHTSA Region</u> |              |       |       |               |       |       |              |   |    |
|                     |       |      |        | 1                   | 2            | 3     | 4     | 5             | 6     | 7     | 8            | 9 | 10 |
| Walked past 30 days | 423   | 677  | 832    | 1287                | 1334         | 854   | 380   | 295           | 1077  | 426   |              |   |    |
|                     |       |      |        |                     | <u>Heavy</u> |       |       | <u>Medium</u> |       |       | <u>Light</u> |   |    |
| Walked past 30 days | 3098  | 2213 | 2206   |                     |              |       |       |               |       |       |              |   |    |

## Reasons for Not Walking

---

### Reasons for not walking in the summer or for not walking more recently

One in 5 (20%) people 16 or older reported they never walk or had not done so during the past 30 days over the summer of 2002. This represents approximately 41 million people who did not walk. The top reasons given for not walking included lack of desire or need (27%), disabilities and other health impairments (25%), and weather conditions (23%). [Figure 32-A]

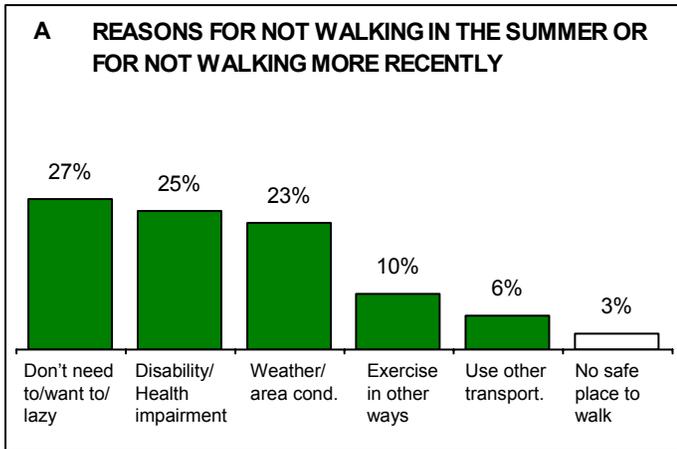
### Top reasons for not walking, by gender, age

Females were more likely to cite disability (31%) and weather conditions (28%) as a reason for not walking than were males (18% and 19% respectively). Males were more likely to report a lack of desire or need (32%) than females (23%) and that they got exercise in other ways (14% vs. 6%). One half of people 65 and older who did not walk reported the main reason is because of a disability (50%). Those 16 to 20 who did not walk were more likely to report it is because of a lack of desire or need (39%) than did other age groups. They were also more likely to report not walking because of weather conditions (31%). [Figure 32-B]

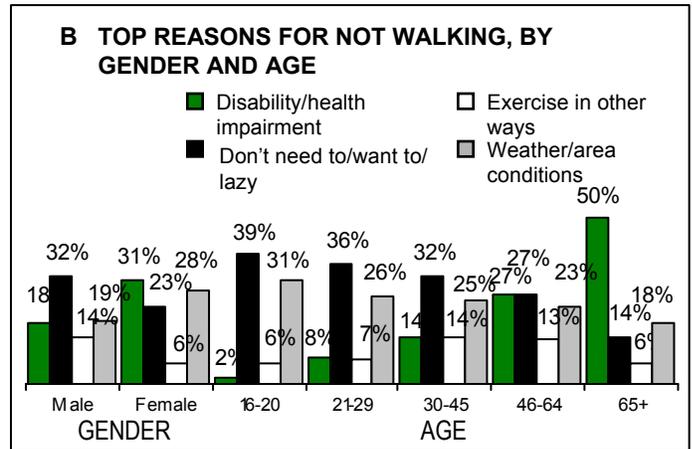
### Top reasons for not walking, by NHTSA Region

Those in NHTSA Region 10 (AK, ID, OR, WA) (36%) who did not walk were more likely to cite lack of need or desire to walk than were those living in other regions of the country (next highest region is 32% in NHTSA Region 6). Those living in NHTSA Regions 4 (AL, FL, GA, KY, MS, NC, SC, TN) (29%) and 9 (AZ, CA, HI, NV) (33%) were more likely to cite weather conditions as a top reason for not walking than were those elsewhere. [Figure 32-C]

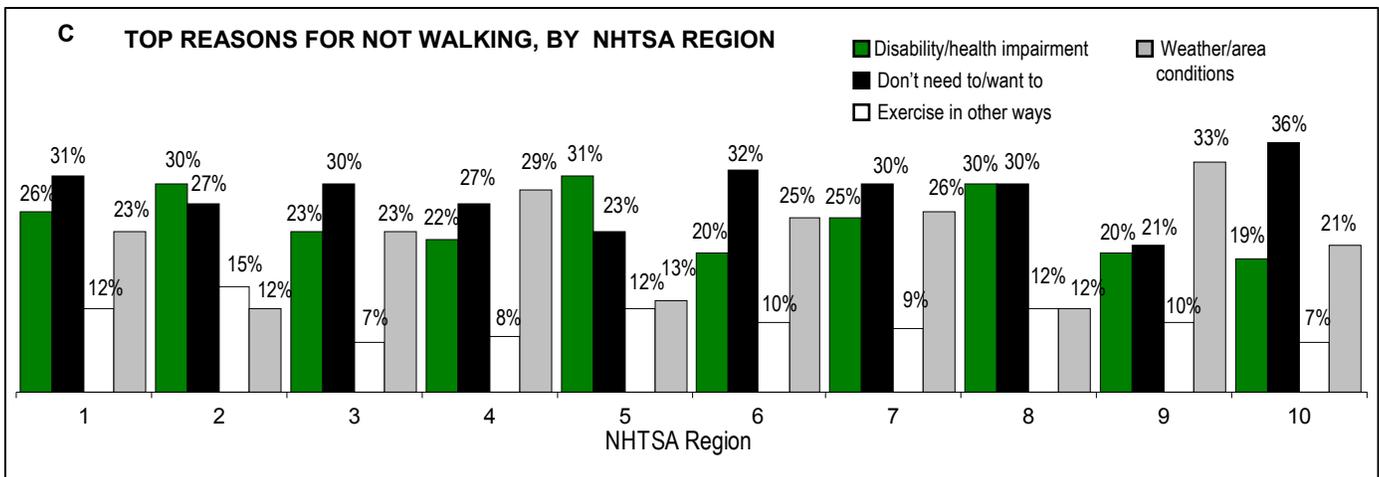
**FIGURE 32: REASONS FOR NOT WALKING**



Q52e: What is the primary reason you never walk in the summer/have not walked more recently? [Base: Never walk in summer months or have not walked in past 30 days]



Q52e: What is the primary reason you never walk in the summer/have not walked more recently? [Base: Never walk in summer months or have not walked in past 30 days]



Q52e: What is the primary reason you never walk in the summer/have not walked more recently? [Base: Never walk in summer months or have not walked in past 30 days]

Sample bases for this page:

|  | Total | Male | Female | 16-20 | 21-29 | 30-45 | 46-64 | 65+ |
|--|-------|------|--------|-------|-------|-------|-------|-----|
| Never walk in summer months or have not walked in past 30 days | 1875  | 792  | 1083   | 114   | 215   | 501   | 584   | 446 |

|  | NHTSA Region |     |     |     |     |     |     |    |     |    |
|--|--------------|-----|-----|-----|-----|-----|-----|----|-----|----|
|  | 1            | 2   | 3   | 4   | 5   | 6   | 7   | 8  | 9   | 10 |
| Never walk in summer months or have not walked in past 30 days | 77           | 153 | 176 | 431 | 323 | 272 | 113 | 56 | 221 | 53 |

## **Number of Walking Trips (Among Those Walking at Least Once in Past 30 Days)**

---

### **Percent taking 1, 2, 3, 4, or more trips**

An estimated 13.33 billion walking trips were made during the summer of 2002. Over half took just one trip on the last day they walked (57%), 29 percent took two trips, and the remainder took three or more trips (13%). This translates to an average of 1.7 trips on the last day they walked. Average daily trips were projected out to total summer month averages based on the reported number of days walked. [Figure 33-A]

### **Average number of trips, by total, gender and age**

Male and female pedestrians took the same average number of trips on the most recent day they walked in the summer of 2002. The number of walking trips declined with age from a high of 2.0 trips the last day walking among walkers under 21 to 1.5 trips among pedestrians 46 or older. [Figure 33-B]

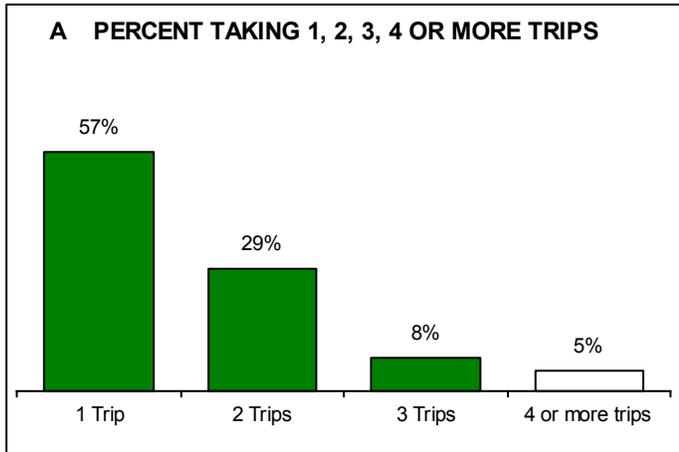
### **Average number of trips, by NHTSA Region**

Average walking trips the last day walked ranged from a high of 2.0 in NHTSA Region 2 (NJ, NY) to lows of 1.6 trips in NHTSA Regions 1 (CT, ME, MA, NH, RI, VT), 4 (AL, FL, GA, KY, MS, NC, SC, TN), 6 (AR, LA, NM, OK, TX) and 7 (IA, KS, MO, NE). [Figure 33-C]

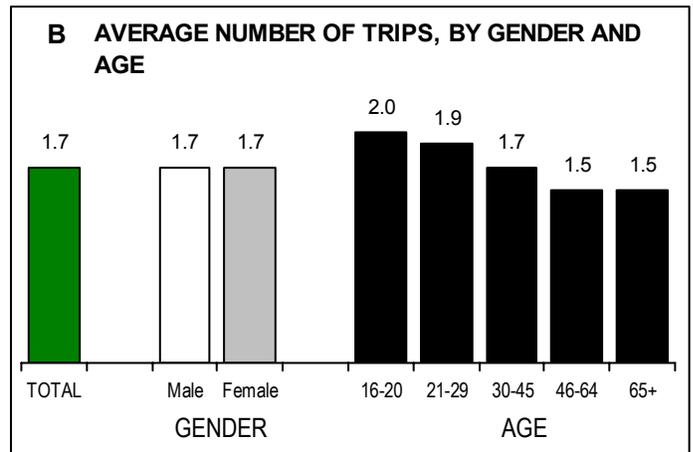
### **Average number of trips, by walking frequency**

There were no differences in number of trips taken on the most recent day walked by frequency of walking in the past 30 days. [Figure 33-D]

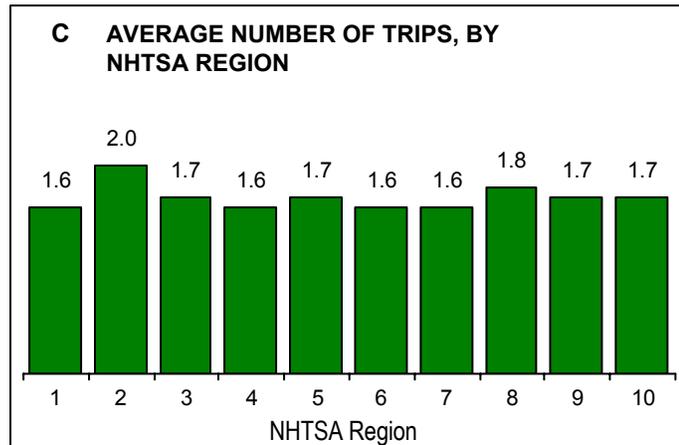
**FIGURE 33: NUMBER OF WALKING TRIPS (AMONG THOSE WALKING AT LEAST ONCE IN PAST 30 DAYS)**



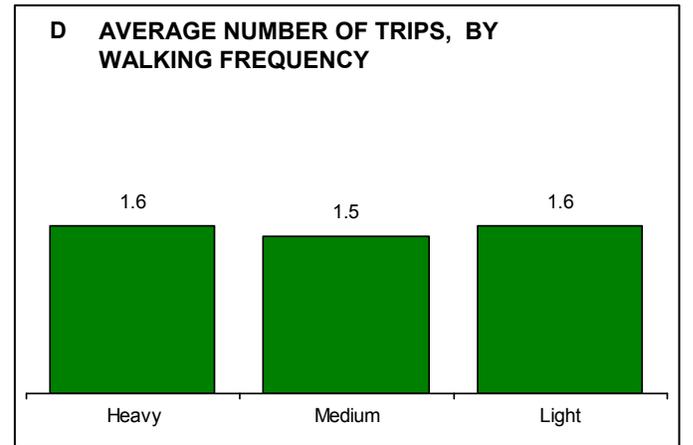
Q55: How many trips did you make on this most recent day you walked?  
[Base: Walked past 30 days]



Q55: How many trips did you make on this most recent day you walked?  
[Base: Walked past 30 days]



Q55: How many trips did you make on this most recent day you walked?  
[Base: Walked past 30 days]



Q55: How many trips did you make on this most recent day you walked?  
[Base: Walked past 30 days]

Sample bases for this page:

|                     | Total | Male | Female | 16-20 | 21-29 | 30-45 | 46-64 | 65+ |
|---------------------|-------|------|--------|-------|-------|-------|-------|-----|
| Walked past 30 days | 7562  | 3072 | 4490   | 600   | 1075  | 2575  | 2290  | 982 |

NHTSA Region

|                     | 1   | 2   | 3   | 4    | 5    | 6   | 7   | 8   | 9    | 10  |
|---------------------|-----|-----|-----|------|------|-----|-----|-----|------|-----|
| Walked past 30 days | 417 | 677 | 830 | 1285 | 1333 | 845 | 379 | 295 | 1076 | 425 |

|                     | Heavy | Medium | Light |
|---------------------|-------|--------|-------|
| Walked past 30 days | 3088  | 2207   | 2199  |

## **Estimated Total Number of Walking Trips**

---

### **Estimated total number of walking trips typical summer months, by total, gender, and age**

During the summer months of 2002, a projected 13.33 billion walking trips were made by people 16 and older. This reflects an estimated 6.31 billion trips made by male pedestrians and 7.02 billion trips made by female pedestrians. Those 30 to 45 made 4.43 billion walking trips, compared to 1.96 billion trips made by those 16 to 20 and 1.43 billion trips made by those 65 or older. [Figure 34-B]

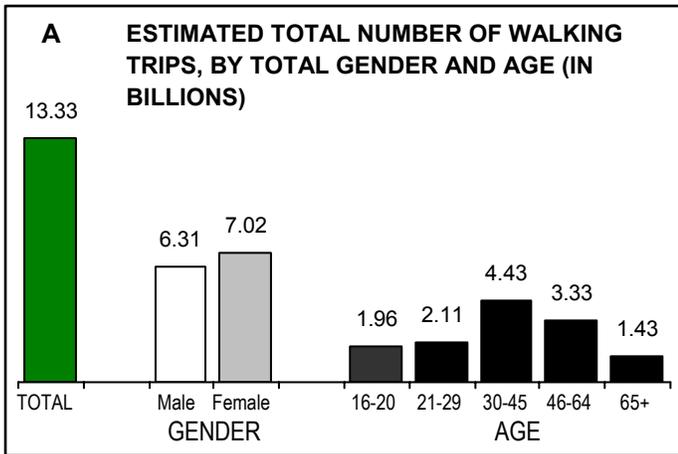
### **Estimated total number of walking trips, by NHTSA Region**

The number of pedestrian trips ranged from highs of 2.44 billion in NHTSA Region 5 (IL, IN, MI, MN, OH, WI), to lows of less than 1 billion in NHTSA Regions 1 (CT, ME, MA, NH, RI, VT) (.73 billion), 7 (IA, KS, MO, NE) (.58 billion), 8 (CO, MT, ND, SD, UT, WY) (.53 billion), and 10 (AK, ID, OR, WA) (.68 billion). [Figure 34-C]

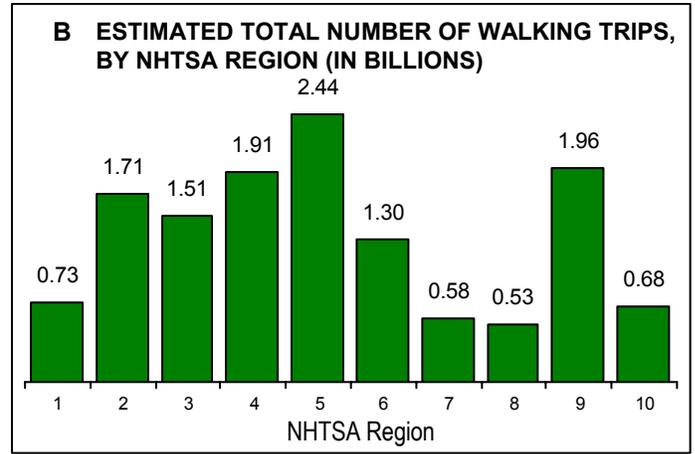
### **Proportion of walking trips taken by walking frequency**

Heavy-frequency pedestrians who walked at least 20 days per month (41% of pedestrians) took 74 percent of walking trips made by pedestrians during the summer of 2002, compared to 20 percent of trips made by medium-frequency bicyclists who walked between 8 and 19 days per month (29% of the pedestrian population). Light-frequency pedestrians walking 7 or fewer days per month (31% of the pedestrian population) took just 6 percent of the walking trips. [Figure 34-D]

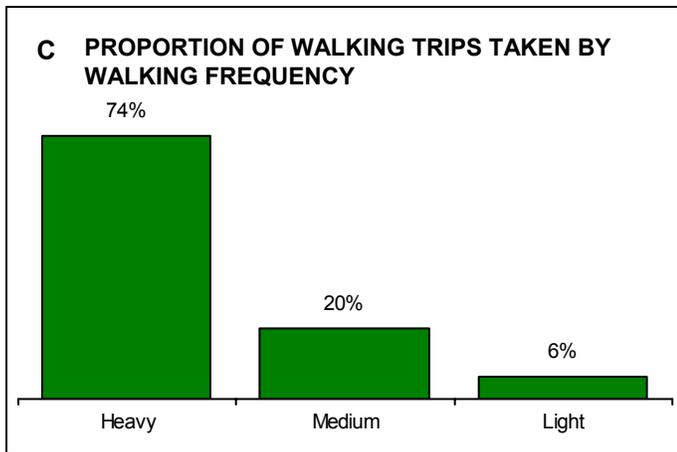
**FIGURE 34: ESTIMATED TOTAL NUMBER OF WALKING TRIPS**



Q55: How many trips did you make on this most recent day you walked?  
[Base: Walked past 30 days]



Q55: How many trips did you make on this most recent day you walked?  
[Base: Walked past 30 days]



Q55: How many trips did you make on this most recent day you walked?  
[Base: Walked past 30 days]

Sample bases for this page:

|                        | Total | Male | Female | 16-20 | 21-29 | 30-45 | 46-64 | 65+ | Heavy | Medium | Light |
|------------------------|-------|------|--------|-------|-------|-------|-------|-----|-------|--------|-------|
| Walked in past 30 days | 7562  | 3072 | 4490   | 600   | 1075  | 2575  | 2290  | 982 | 3088  | 2207   | 2199  |

NHTSA Region

|                        | 1   | 2   | 3   | 4    | 5    | 6   | 7   | 8   | 9    | 10  |
|------------------------|-----|-----|-----|------|------|-----|-----|-----|------|-----|
| Walked in past 30 days | 417 | 677 | 830 | 1285 | 1333 | 845 | 379 | 295 | 1076 | 425 |



## **Chapter 2: Origin-Destination Information for Walking**

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This section provides information about specific trip data on the most recent day a walk was taken. Specific trip data were collected for up to six trips (including origin and destination information, purpose, time, distance, etc.) on the most recent day traveled. These data cannot be used to project year-round walking behaviors but offer a solid reflection of walking trips taken during the summer of 2002.

Specifically this chapter covers the following topics:

- Origin of walking trips,
- Purpose and destination of walking trips, and
- Characteristics of walking trips.

## **Origin of Walking Trips**

---

### **Starting point of the day's first trip**

Eight in 10 (80%) walking trips began at a residence either belonging to the pedestrian or someone else. An additional 8 percent of trips began at a leisure or recreational site such as a park. Just 5 percent began at work, 3 percent began at a transportation site, and 4 percent began in some other location. [Figure 35-A]

### **Type of area where first trip began**

In those instances where the first trip of the day did not begin at home, respondents were asked to describe the area within one-quarter mile of where the day's trips began. One-third of trips began in a recreational area (34%), 20 percent began in a residential area, and 21 percent began in a commercial area. [Figure 35-B]

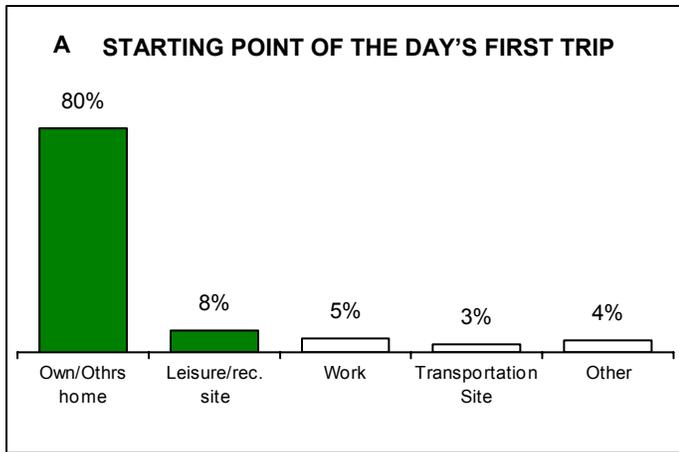
### **Type of area (urbanicity) where first trip began**

Nearly 4 in 10 trips (39%) started in an urban or suburban area, with an additional 27 percent beginning in a rural town or farm area and 25 percent beginning in a downtown city area. [Figure 35-C]

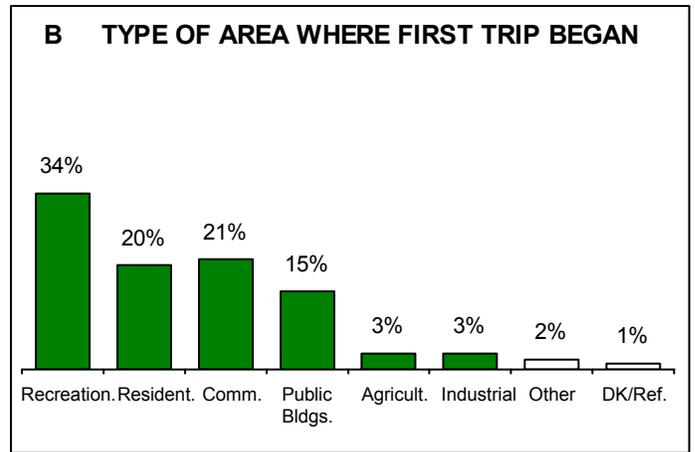
### **Ranges of time first trip began**

A plurality of trips (45%) began in the morning hours of 12:01 a.m. through noon, 28 percent began in the afternoon hours between noon and 5:59 p.m., and 22 percent began in the evening hours of 6 p.m. through midnight. [Figure 35-D]

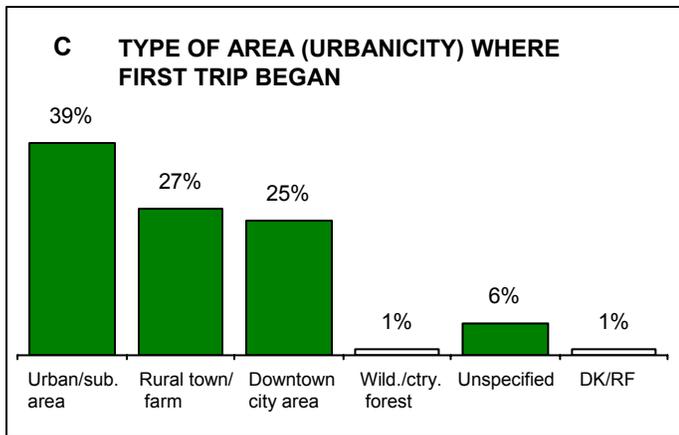
**FIGURE 35: ORIGIN OF WALKING TRIPS**



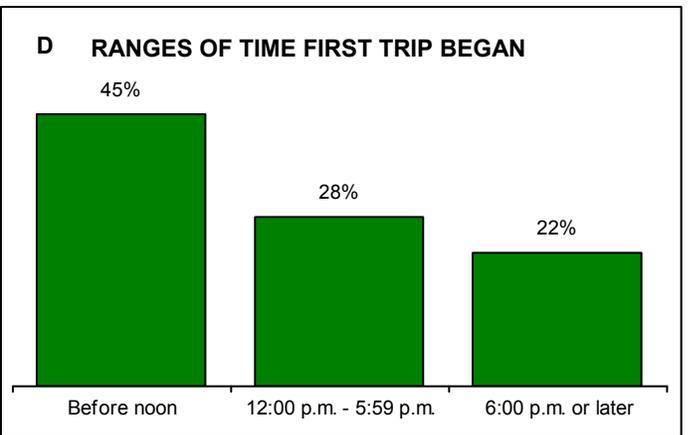
Q56: Thinking of this last day that you walked, what was your starting point for this trip? [Base: Walked past 30 days; n=7,562]



Q58: Was the area within ¼ mile of where you started your trip...? [Base: Walked past 30 days beginning first trip somewhere other than own home; n=1,672]



Q59: Was the starting point in a...? [Base: Walked past 30 days beginning first trip somewhere other than own home; n=1,672]



Q57: What time did you begin this trip? [Base: Walked past 30 days; n=7,562]

## **Purpose and Destination of Walking Trips**

---

Note the data presented in this section are based on the total trips taken on the most recent day walked.

### **Purpose of trips**

Pedestrians reported a variety of reasons as the primary purposes for walking trips. The most common purpose of trips was for personal errands (38%). Additional primary trip purposes included exercise/for health reasons (28%) and for recreation or leisure (21%). Just 5 percent said they walked to commute to work or school, and 4 percent said that walking is required for their job. [Figure 36-A]

### **Ending points of trips**

The most common ending point of a walking trip was a home (61%). An additional 10 percent ended at a leisure or recreation site, 9 percent ended at a shopping site and 7 percent ended at work. [Figure 36-B]

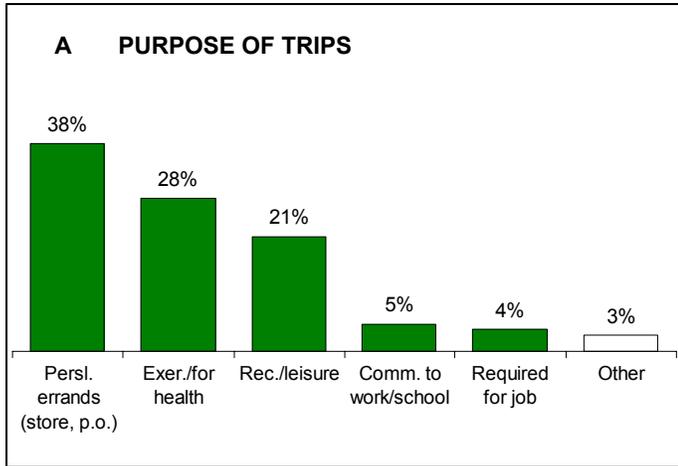
### **Type of area where trips ended**

The majority of the trips ended in residential areas (61%), but more than 1 in 10 also ended in commercial (14%) and recreational (12%) areas. An additional 7 percent ended at a public building. [Figure 36-C]

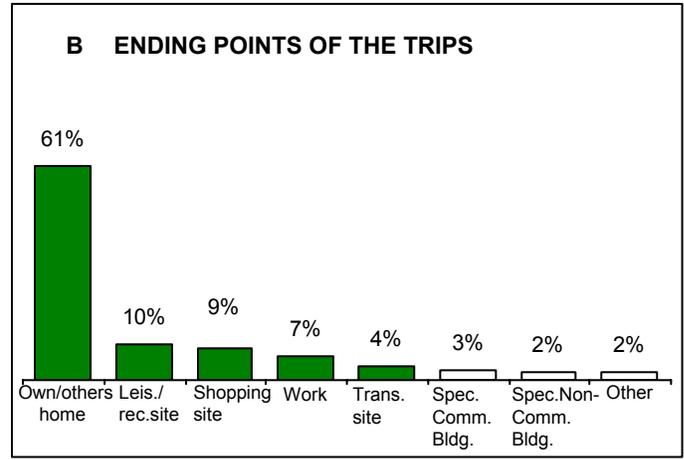
### **Type of area (urbanicity) where trips ended**

Trips ended in mostly urban or suburban areas (58%), with an additional 16 percent ending in a downtown city area and 22 percent in a rural town or farm area. [Figure 36-D]

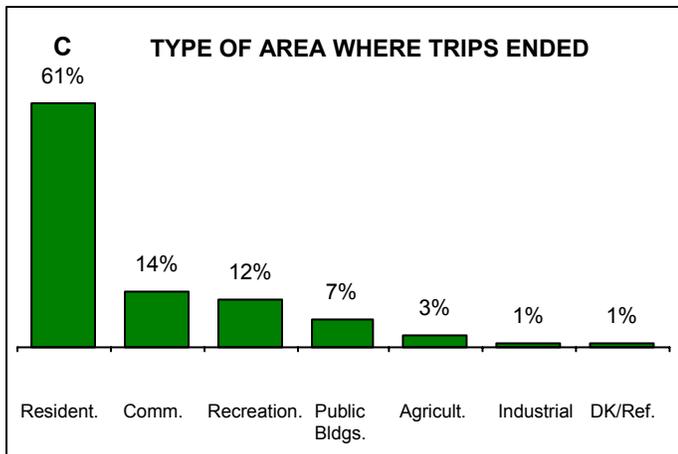
**FIGURE 36: PURPOSE AND DESTINATION OF WALKING TRIPS**



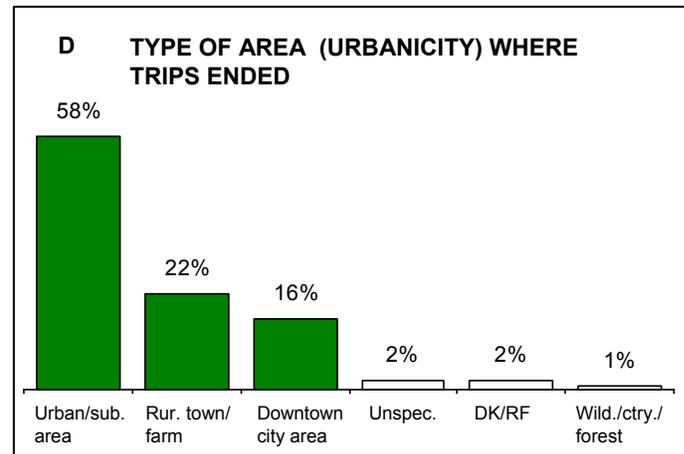
Q59a 75a: What was the main purpose of this trip? [Base: Data for all trips; n=12,283]



Q60,76: Where did this trip end? [Base: Data for all trips; n=12,203]



Q62,78: Was the area within ¼ mile of where you ended this trip? [Base: Data for all trips; n=12,203]



Q63,79: Was the ending point in a...? [Base: Data for all trips; n=12,203]

## **Characteristics of Walking Trips**

---

### **Trip lengths on most recent day walked**

The average reported walking trip taken most recently during the summer was 1.3 miles. Half of trips (50%) were less than 1 mile, and an additional 13 percent were 1 mile. Just 7 percent of trips were more than 5 miles. [Figure 37-A]

### **Type of roads walked on**

During the most recent day of walking, 45% of pedestrians walked mostly on sidewalks. Other surfaces used for walking trips included paved roads, not on shoulders (25%), shoulders of paved roads (8%), unpaved roads (8%), or bicycle paths, walking paths or trails (6%). [Figure 37-B]

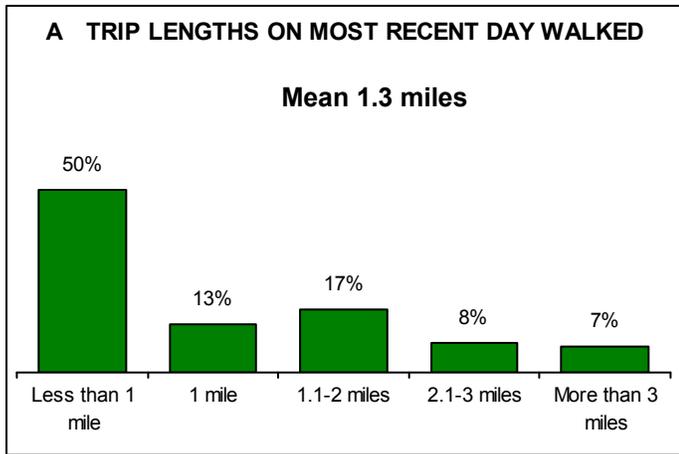
### **Inclination of roads walked on**

Walking trips were taken primarily on flat surfaces (61%). An additional 27 percent of trips were on flat surfaces with a hill or two, and 11 percent of trips were on mostly hilly surfaces. [Figure 37-C]

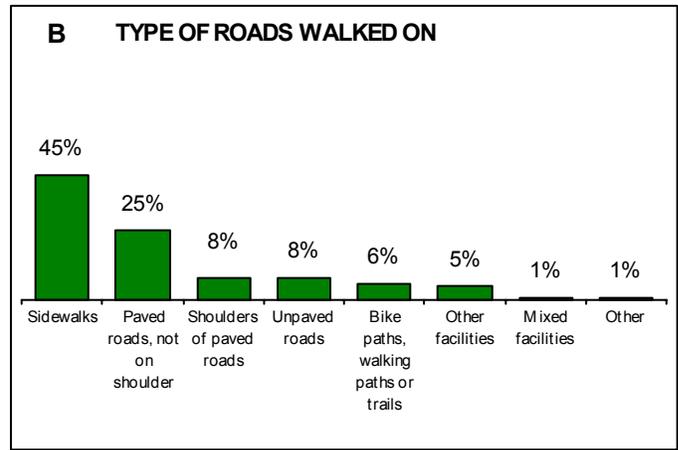
### **Number of people on trips**

Nearly 6 in 10 (57%) walking trips were taken alone. An additional 24 percent of trips were taken with one other person. About 2 in 10 (19%) trips were taken with two or more other people. [Figure 37-D]

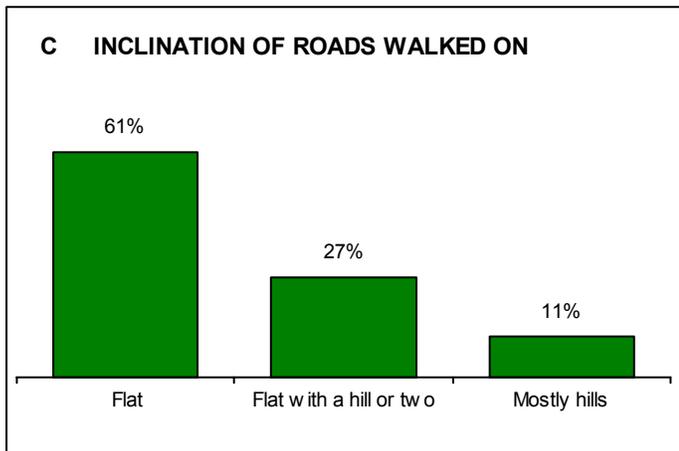
**FIGURE 37: CHARACTERISTICS OF WALKING TRIPS**



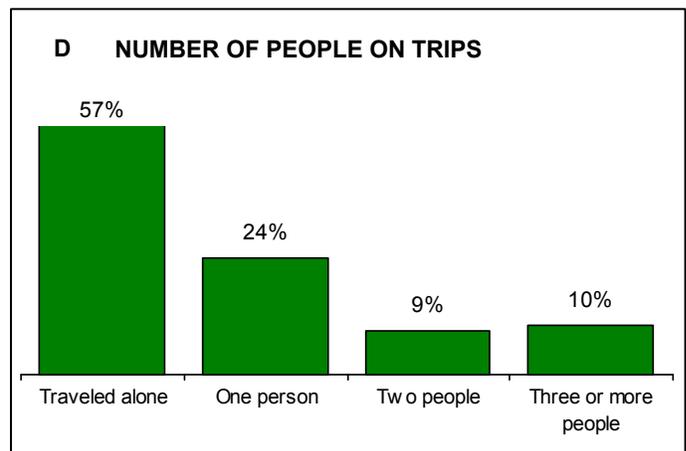
Q64, 80: How far did you walk on this trip? [Base: Data for all trips; n=12,283]



Q66, 82: Did you walk mostly on...? [Base: Data for all trips; n=12,283]



Q67, 83: On this trip, did you walk on a surface that was mainly...? [Base: Data for all trips; n=12,283]



Q68, 84: How many other people were with you on this trip? [Base: Data for all trips; n=12,283]



## **Chapter 3: Walking as Mode of Transportation**

---

This section provides data on walking as a mode of transportation. Specifically, it covers topics including:

- Alternatives to walking,
- Personal feelings of safety while walking,
- Reasons for feeling threatened when walking,
- Actions motorists did that were threatening,
- Walking in the dark, and
- Making self visible while walking in the dark.

## **Alternatives to Walking**

---

### **Availability of other modes of transportation, by total, age and gender**

Walking was a preferred mode of transportation even when other modes of transportation were available. Among those who reported walking trips for non-recreational purposes, 3 in 4 (75%) reported that other types of transportation were available instead of walking. Males and females were equally likely to have alternative transportation available (75%). Those in the oldest (65+) and youngest (16-20) age categories were less likely to say other modes of transportation were available to them on their last day of walking. [Figure 38-A]

### **Availability of other modes of transportation, by race/ethnicity**

Hispanic pedestrians (68%) who were not walking for recreation were less likely than were White non-Hispanic pedestrians (75%) to have another transportation mode available to them. [Figure 38-B]

### **Availability of other modes of transportation, by household income**

The availability of alternate modes of transportation when walking was lower for those with household incomes under \$15,000 (70%) than it was for those with household incomes between \$30,000 and \$74,000 (79%). [Figure 38-C]

### **Availability of other modes of transportation, by walking frequency**

Medium frequency pedestrians were more likely to have other types of transportation available to them on the most recent day they walked for non-recreation purposes (79%) than did those walking more frequently (72%). [Figure 38-D]

## **Alternatives to Walking (Continued)**

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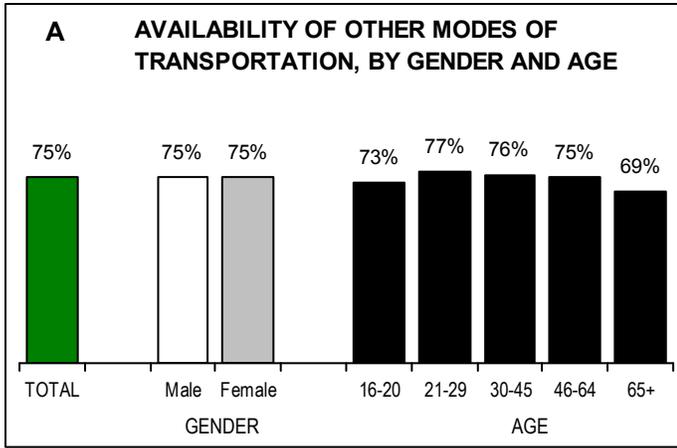
### **Decision to walk instead of alternative modes**

Among those who had an alternative type of transportation available to them, the main reason they chose to walk was for the exercise (39%). Other reasons provided were because they enjoy walking or good weather (26%), walking is convenient (12%), or for recreation (6%). [Figure 38-E]

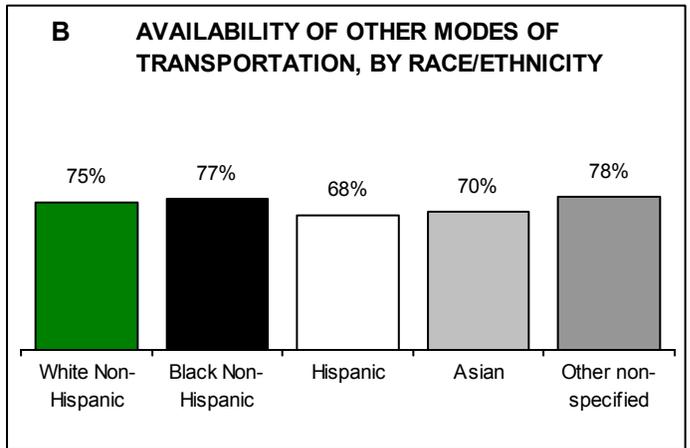
### **Decision to walk instead of alternative modes, by purpose of trip**

Exercise was the most reported reason for choosing to walk for pedestrians regardless of the purpose of their walk trip. Sizable proportions of those who walk as their commuting mode (18%) and whose trip was for nonrecreation/nonpersonal errands (25%) reported they decided to walk because it was convenient. [Figure 38-F]

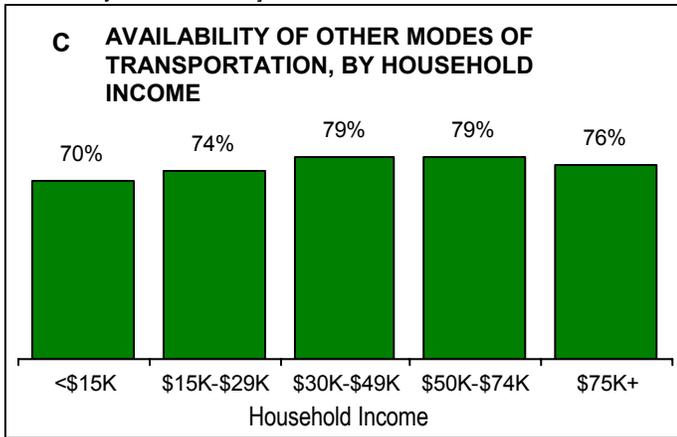
**FIGURE 38: ALTERNATIVES TO WALKING**



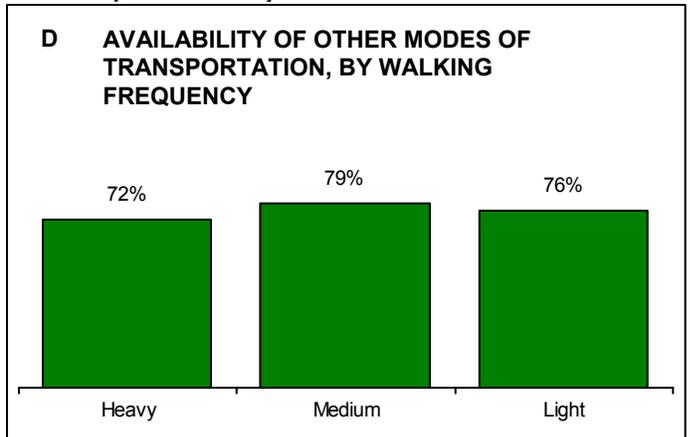
Q86: On that day, were other types of transportation available to you that you could have used instead of walking? [Base: People who made trips other than just for recreation]



Q86: On that day, were other types of transportation available to you that you could have used instead of walking? [Base: People who made trips other than just for recreation]

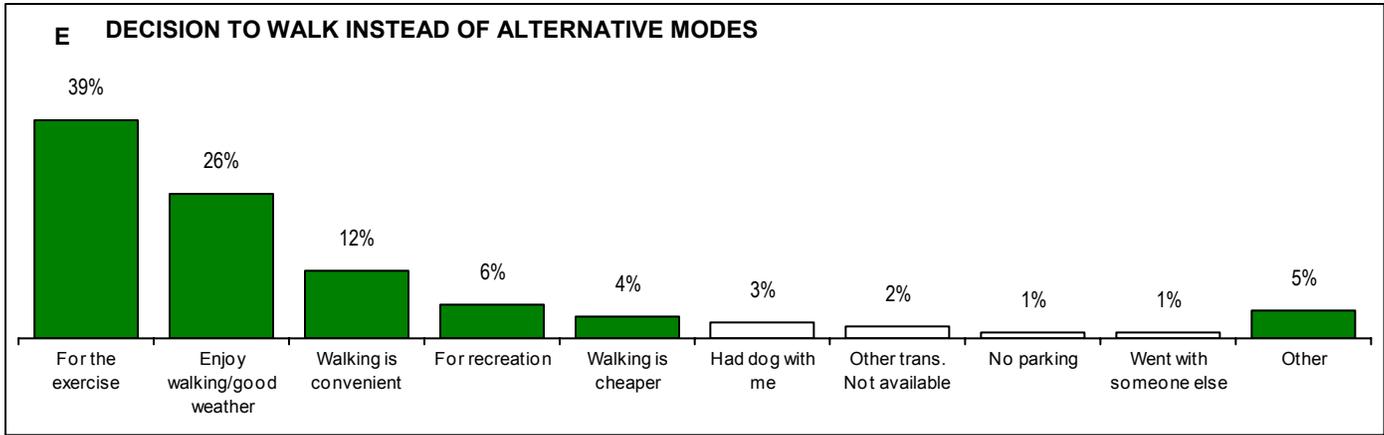


Q86: On that day, were other types of transportation available to you that you could have used instead of walking? [Base: People who made trips other than just for recreation]

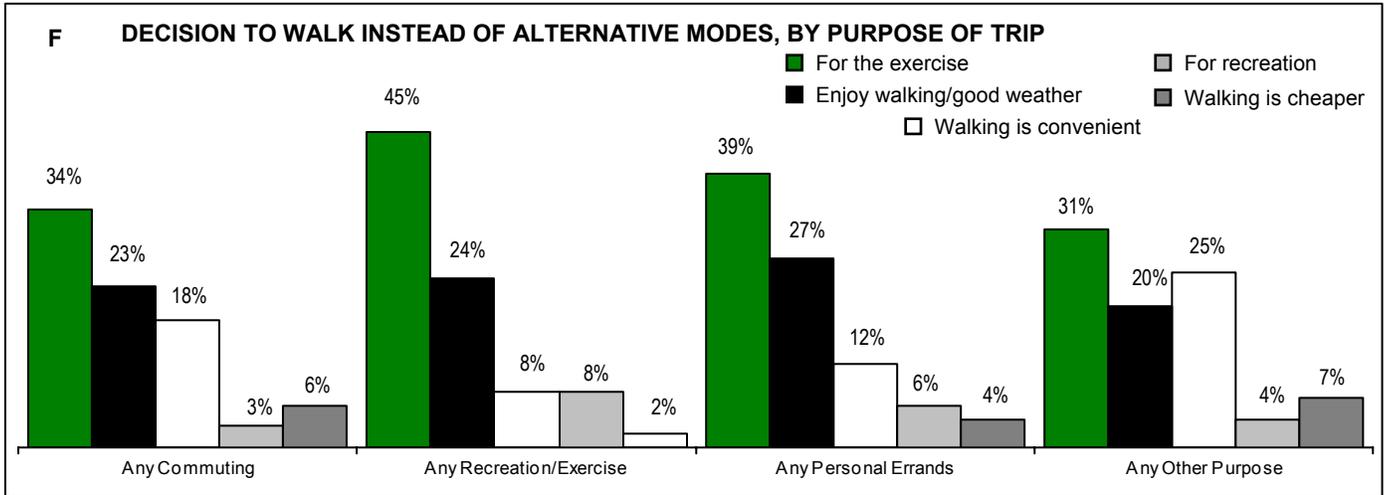


Q86: On that day, were other types of transportation available to you that you could have used instead of walking? [Base: People who made trips other than just for recreation]

**FIGURE 38: ALTERNATIVES TO WALKING (continued)**



Q87: What is the main reason that you chose to walk instead of some other form of transportation that day? [Base: Alternate form of transportation available for non-recreational trips; n= 3,001]



Q87: What is the main reason that you chose to walk instead of some other form of transportation that day? [Base: Alternate form of transportation available for non-recreational trips]

Sample bases for this page:

|   | Total | Male | Female | 16-20 | 21-29 | 30-45 | 46-64 | 65+ | White Non-Hispanic | Black Non-Hispanic |
|---|-------|------|--------|-------|-------|-------|-------|-----|--------------------|--------------------|
| Made trips other than just for recreation | 3960  | 1648 | 2312   | 399   | 639   | 1347  | 1080  | 476 | 2979               | 370                |

|   | Hispanic | Asian | Other Non-specified | <\$15K | \$15K-\$29K | \$30K-\$49K | \$50K-\$74K | \$75K+ | Heavy | Medium | Light |
|---|----------|-------|---------------------|--------|-------------|-------------|-------------|--------|-------|--------|-------|
| Made trips other than just for recreation | 284      | 82    | 174                 | 517    | 668         | 913         | 632         | 753    | 1806  | 970    | 1148  |

|   | Total | Any Commuting | Any Recreation/Exercise | Any Personal Errands | Any Other Purpose |
|---|-------|---------------|-------------------------|----------------------|-------------------|
| Alternate form of transportation available for non-recreational trips | 3001  | 337           | 1248                    | 2165                 | 244               |

## **Personal Feelings of Safety While Walking**

---

### **Percent felt threatened for personal safety, by total, gender, age**

Just 6 percent of pedestrians felt threatened for their personal safety on the most recent day they walked in the summer of 2002. Males and females were equally likely to have felt threatened. Pedestrians 16 to 20 were more likely to have felt threatened (10%) than were those of other age groups. [Figure 39-A]

### **Felt threatened for personal safety, by urbanicity**

There were no notable differences by urbanicity among those who felt threatened for their personal safety while walking. [Figure 39-B]

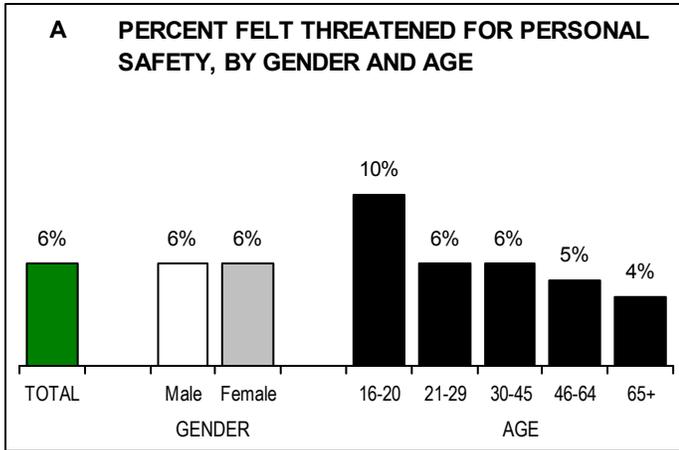
### **Felt threatened for personal safety, by NHTSA Region**

There was little variation across the country in the proportion of pedestrians who felt threatened for their personal safety, ranging from 2 percent in NHTSA Region 7 (IA, KS, MO, NE) to 8 percent in NHTSA Region 1 (CT, ME, MA, NH, RI, VT). [Figure 39-C]

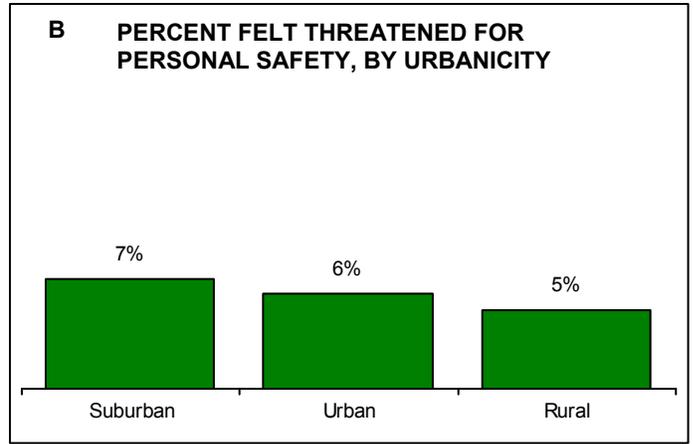
### **Felt threatened for personal safety, by race/ethnicity**

White, non-Hispanic pedestrians (5%) were least likely to feel threatened for their personal safety while walking. [Figure 39-D]

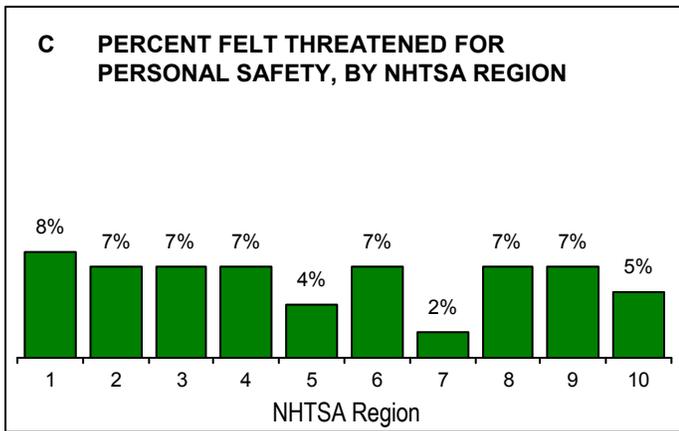
**FIGURE 39: PERSONAL FEELINGS OF SAFETY WHILE WALKING**



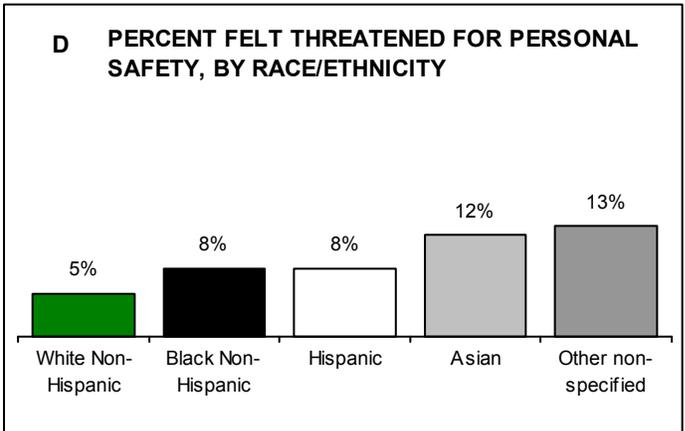
Q88: Did you feel threatened for your personal safety at any time while walking that day? [Base: Walked past 30 days]



Q88: Did you feel threatened for your personal safety at any time while walking that day? [Base: Walked past 30 days]



Q88: Did you feel threatened for your personal safety at any time while walking that day? [Base: Walked past 30 days]



Q88: Did you feel threatened for your personal safety at any time while walking that day? [Base: Walked past 30 days]

Sample bases for this page:

|                     | <u>Total</u>              | <u>Male</u>               | <u>Female</u>   | <u>16-20</u> | <u>21-29</u>               | <u>30-45</u> | <u>46-64</u> | <u>65+</u> | <u>Suburban</u> | <u>Urban</u> | <u>Rural</u> |
|---------------------|---------------------------|---------------------------|-----------------|--------------|----------------------------|--------------|--------------|------------|-----------------|--------------|--------------|
| Walked past 30 days | 7585                      | 3084                      | 4501            | 601          | 1076                       | 2579         | 2293         | 996        | 2193            | 3675         | 1717         |
|                     | <u>NHTSA Region</u>       |                           |                 |              |                            |              |              |            |                 |              |              |
|                     | <u>1</u>                  | <u>2</u>                  | <u>3</u>        | <u>4</u>     | <u>5</u>                   | <u>6</u>     | <u>7</u>     | <u>8</u>   | <u>9</u>        | <u>10</u>    |              |
| Walked past 30 days | 423                       | 677                       | 832             | 1287         | 1334                       | 854          | 380          | 295        | 1077            | 426          |              |
|                     | <u>White Non-Hispanic</u> | <u>Black Non-Hispanic</u> | <u>Hispanic</u> | <u>Asian</u> | <u>Other Non-Specified</u> |              |              |            |                 |              |              |
| Walked past 30 days | 5991                      | 583                       | 426             | 172          | 282                        |              |              |            |                 |              |              |

## **Reasons Felt Threatened for Personal Safety**

---

### **Reasons felt threatened**

The top reason pedestrians felt threatened while walking was due to motorists (62%). More than one-third of pedestrians also reported feeling threatened for their personal safety because of dogs or other animals (36%) or because of the potential for crime (36%). More than one-quarter (28%) felt threatened by uneven walkways or roadways. [Figure 40-A]

### **Top reasons felt threatened, by gender, age**

There were few differences between males and females for feeling threatened for their personal safety while walking, though females were more likely to have felt threatened by the potential for crime (42%) than were males (30%).

Pedestrians 21 to 45 (70%) were more concerned about the threat of motorists than were younger or older pedestrians. Pedestrians under 21 (44%) were more concerned about dogs or other animals than were pedestrians over 21. [Figures 40-B,C]

### **Top reasons felt threatened, by urbanicity**

The threat of motorists was commonly shared by urban, suburban, and rural pedestrians. Suburban pedestrians who felt threatened for their personal safety while walking were more likely to say it was because of the potential for crime (50%) than were those from urban (28%) or rural (33%) areas. [Figure 40-D]

## **Reasons Felt Threatened for Personal Safety (Continued)**

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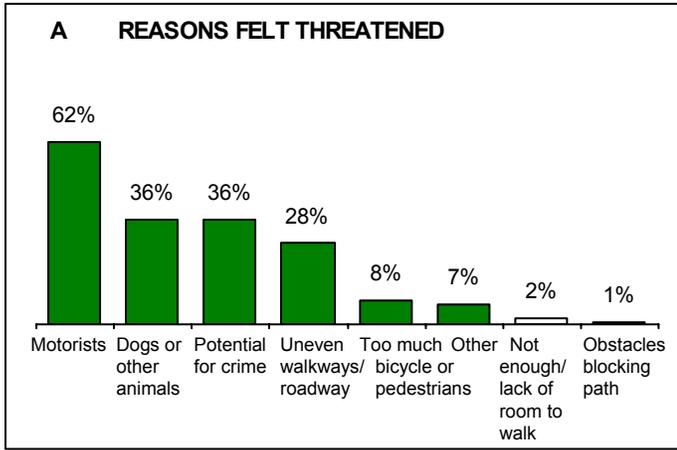
### **Top reasons felt threatened, by race/ethnicity**

Black, non-Hispanic pedestrians (43%) were more likely to report that uneven walkways or surfaces was a reason for feeling threatened for their personal safety while walking than were White non-Hispanic (27%) pedestrians. [Figure 40-E]

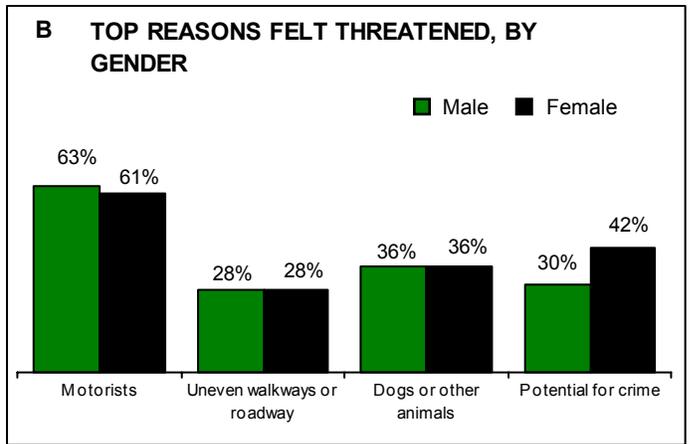
### **Top reasons felt threatened, by household income**

Pedestrians with household income levels under \$30,000 were less likely (58%) than were pedestrians with incomes over \$75,000 (72%) to say that the reason they felt threatened for their personal safety while walking was because of motorists. Pedestrians with incomes under \$30,000 were more likely to say that they felt threatened by the potential for crime and threatened by dogs or other animals than were those with income levels of \$30,000 or more. [Figure 40-F]

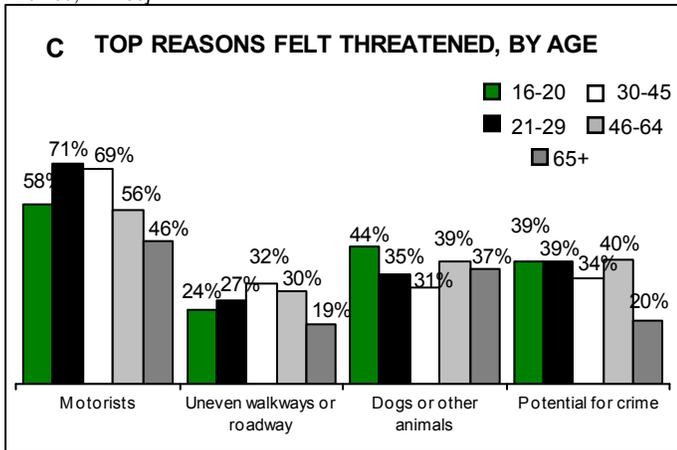
**FIGURE 40: REASONS FELT THREATENED FOR PERSONAL SAFETY**



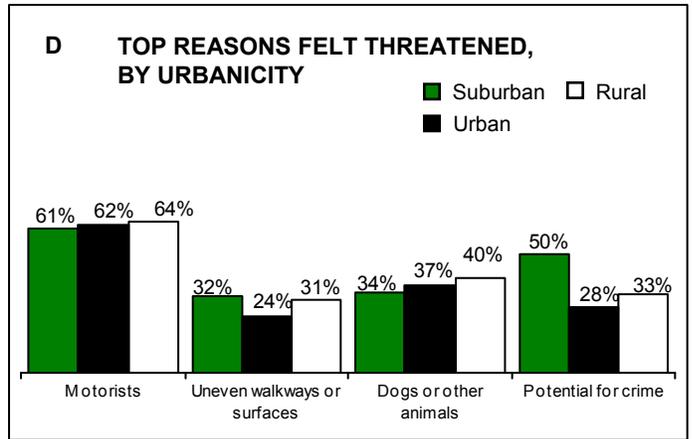
Q88a: Did you feel threatened for your personal safety because of any of the following...? [Base: Felt threatened for personal safety last time walked; n= 433]



Q88a: Did you feel threatened for your personal safety because of any of the following...? [Base: Felt threatened for personal safety last time walked]

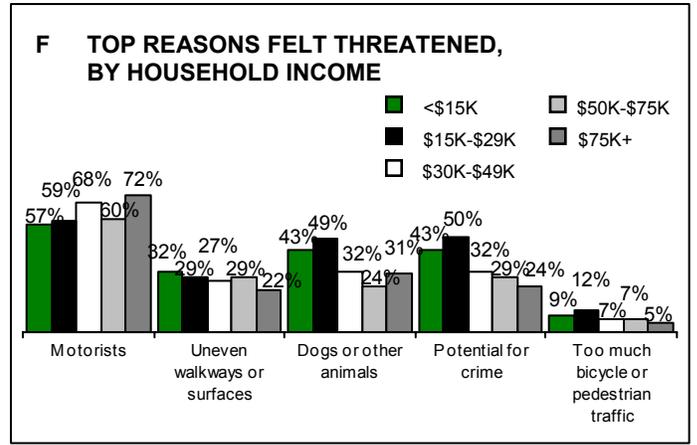
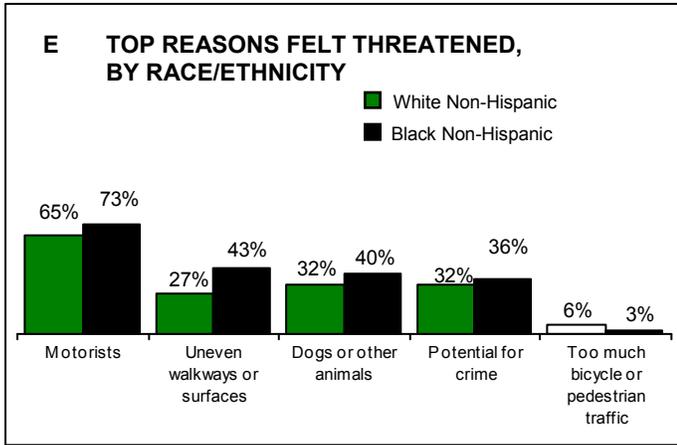


Q88a: Did you feel threatened for your personal safety because of any of the following...? [Base: Felt threatened for personal safety last time walked]



Q88a: Did you feel threatened for your personal safety because of any of the following...? [Base: Felt threatened for personal safety last time walked]

**FIGURE 40: REASONS FELT THREATENED FOR PERSONAL SAFETY (continued)**



Q88a: Did you feel threatened for your personal safety because of any of the following...? [Base: Felt threatened for personal safety last time walked]

Q88a: Did you feel threatened for your personal safety because of any of the following...? [Base: Felt threatened for personal safety last time walked]

\*\*Sample bases for this page:

|  | Total            | Male        | Female      | 16-20              | 21-29              | 30-45    | 46-64 | 65+                 |
|--|------------------|-------------|-------------|--------------------|--------------------|----------|-------|---------------------|
| Felt threatened for personal safety last time walked | 433              | 157         | 276         | 55                 | 60                 | 158      | 111   | 42                  |
|  | Suburban         | Urban       | Rural       | White Non-Hispanic | Black Non-Hispanic | Hispanic | Asian | Other Non-Specified |
| Felt threatened for personal safety last time walked | 138              | 207         | 88          | 298                | 43                 | *        | *     | *                   |
|  | Household Income |             |             |                    |                    |          |       |                     |
|  | <\$15K           | \$15K-\$29K | \$30K-\$49K | \$50K-\$74K        | \$75K+             |          |       |                     |
| Felt threatened for personal safety last time walked | 69               | 71          | 89          | 64                 | 89                 |          |       |                     |

\*Sample size insufficient for reporting (n<40)

## **Actions Motorist Did That Were Threatening**

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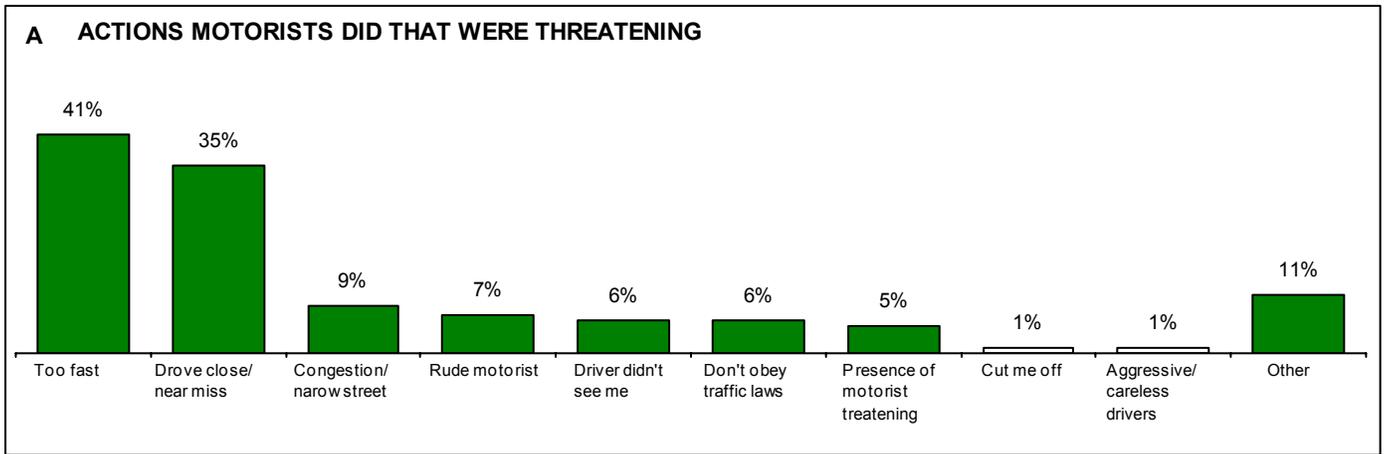
### **Actions motorists did that were threatening**

Among those who reported that they felt threatened by a motorist (4% of pedestrians), the top two actions that were seen as threatening were driving too fast (41%) and driving too close to the pedestrian (35%). [Figure 41-A]

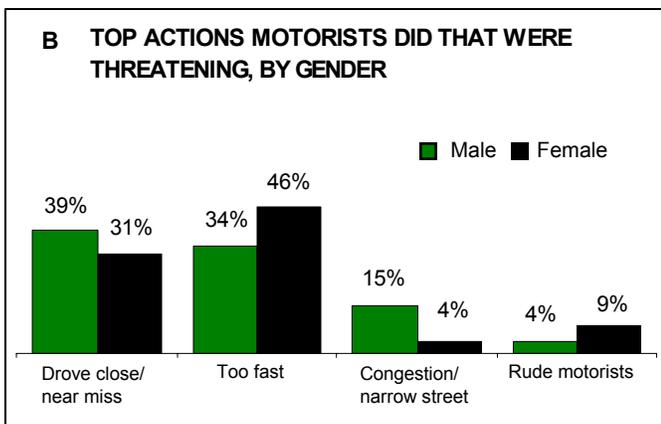
### **Top actions motorists did that were threatening, by age and gender**

Females were more apt to say that the motorist was driving too fast (46%) than were males (34%). Due to small sample sizes, there were no distinguishable differences by age group in reasons for feeling threatened by motorists. [Figure 41-B]

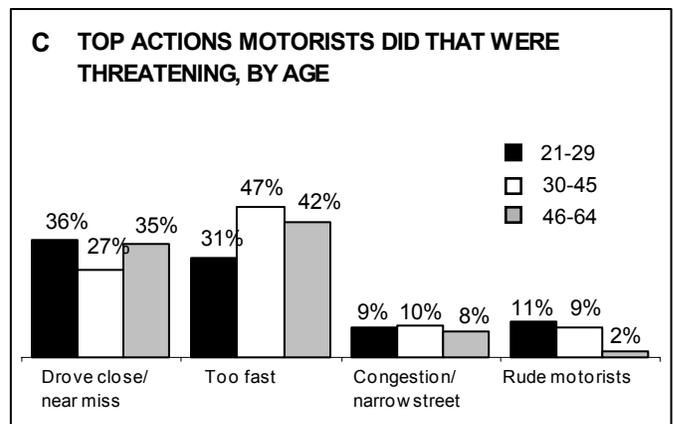
**FIGURE 41: ACTIONS MOTORISTS DID THAT WERE THREATENING**



Q88b: What did motorists do to make you feel threatened? [Base: Felt threatened by motorist]



Q88b: What did motorists do to make you feel threatened? [Base: Felt threatened by motorist]



Q88b: What did motorists do to make you feel threatened? [Base: Felt threatened by motorist]

\*\*Sample bases for this page:

|  | Total | Male | Female | 16-20 | 21-29 | 30-45 | 46-64 | 65+ |
|--|-------|------|--------|-------|-------|-------|-------|-----|
| Felt threatened for personal safety last time walked | 270   | 101  | 169    | *     | 42    | 109   | 61    | *   |

\*Sample size insufficient for reporting (n<30)

## **Walking in the Dark**

---

### **Percent walking in the dark or near-dark, by total, gender, age**

Overall, 22 percent of pedestrians reported walking in the dark or near-dark for part of their most recent walk. Males (25%) were more likely than females (20%) to have walked in the dark. The proportion walking in the dark decreased with age, with 32 percent of pedestrians 16 to 20 walking in the dark, and just 9 percent of pedestrians over 64 walking in the dark on their most recent walk. [Figure 42-A]

### **Percent walking in the dark or near-dark, by NHTSA Region, urbanicity**

Pedestrians in NHTSA Region 6 (AR, LA, NM, OK, TX) were more likely to walk in the dark or near-dark than were those in other parts of the country. Those in NHTSA Regions 1 (CT, ME, MA, NH, RI, VT) (15%) and 10 (AK, ID, OR, WA) (14%) were least likely to walk in the dark. There were no differences in propensity to walk in the dark by urbanicity. [Figure 42-B]

### **Percent walking in the dark or near-dark, by race/ethnicity**

White non-Hispanic (21%) and Asian (19%) pedestrians were less likely to walk in the dark than were Black non-Hispanic pedestrians (27%) and pedestrians from other racial groups (29%). [Figure 42-C]

### **Percent walking in the dark or near-dark, by household income**

There were no differences by income level in propensity to walk in the dark or near-dark. [Figure 42-D]

## **Walking in the Dark (Continued)**

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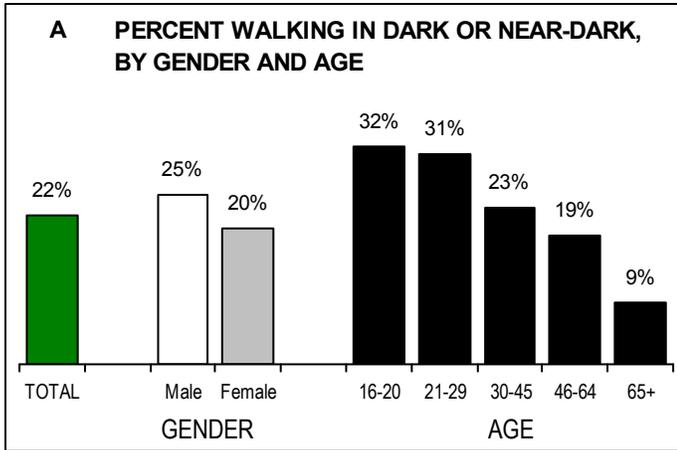
### **Percent walking in the dark or near-dark, by walking frequency**

There were no differences by walking frequency in propensity to walk in the dark or near-dark. [Figure 42-E]

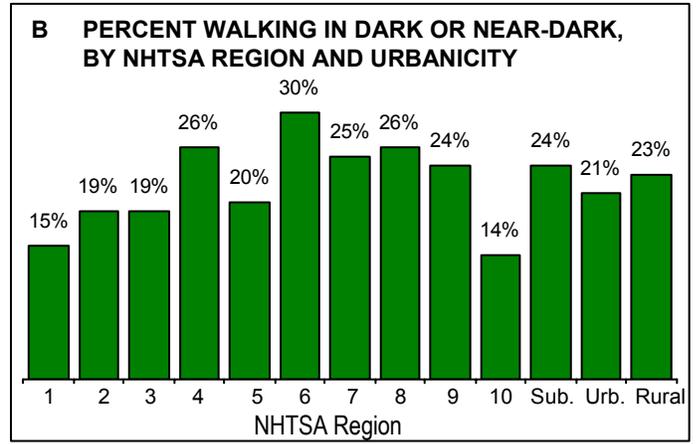
### **Proportion of the time spent walking in the dark or near-dark**

In the past year, 44 percent of pedestrians spent at least some time walking in the dark or near-dark, with 10 percent saying that more than half of their walking was done when it was dark or near dark and 16 percent saying about half was in the dark or near-dark in the past year. [Figure 42-F]

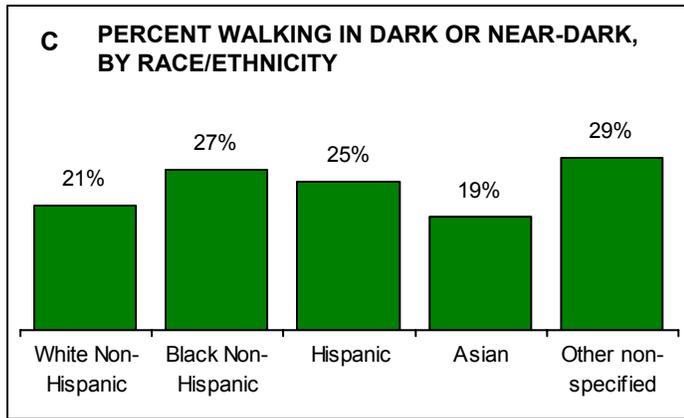
**FIGURE 42: WALKING IN THE DARK**



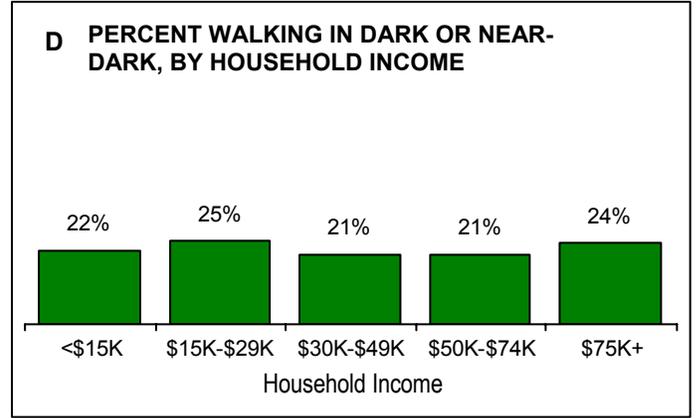
Q89: You may have already mentioned this but, the last time you walked, was it dark or near-dark outside for any part of your walk? [Base: Walked past 30 days]



Q89: You may have already mentioned this but, the last time you walked, was it dark or near-dark outside for any part of your walk? [Base: Walked past 30 days]

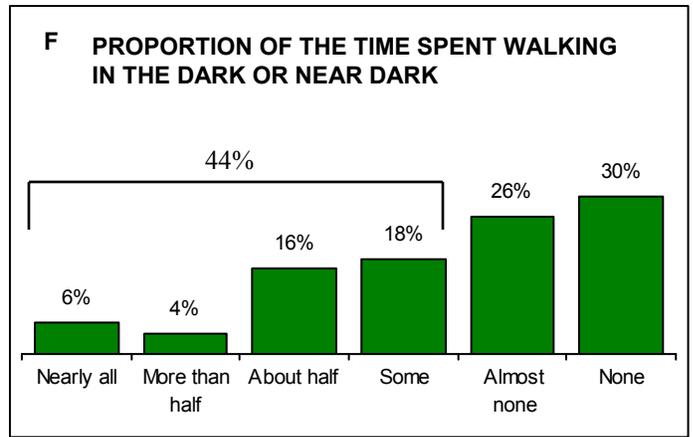
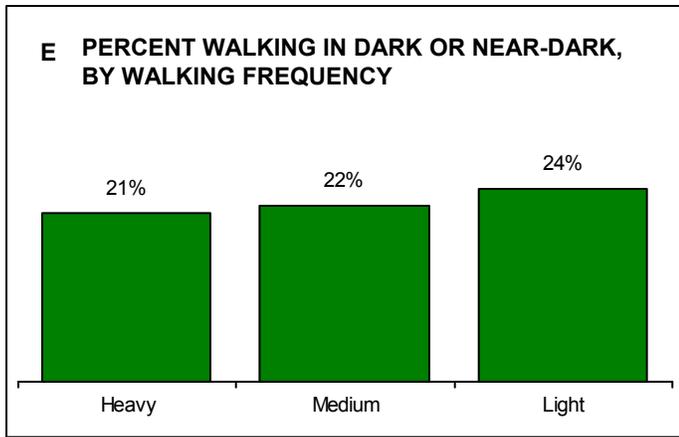


Q89: You may have already mentioned this but, the last time you walked, was it dark or near-dark outside for any part of your walk? [Base: Walked past 30 days]



Q89: You may have already mentioned this but, the last time you walked, was it dark or near-dark outside for any part of your walk? [Base: Walked past 30 days]

**FIGURE 42: WALKING IN THE DARK (continued)**



Q89: You may have already mentioned this but, the last time you walked, was it dark or near-dark outside for any part of your walk? [Base: Walked past 30 days]

Q89a: During the past year, how much of your walking was done when it was dark or nearly dark outside? [Base: Walked past 30 days]

Sample bases for this page:

|                     |                                   |                                  |                        |                     |                                   |                         |                            |                            |                            |                       |                      |
|---------------------|-----------------------------------|----------------------------------|------------------------|---------------------|-----------------------------------|-------------------------|----------------------------|----------------------------|----------------------------|-----------------------|----------------------|
| Walked past 30 days | <u>Total</u><br>7585              | <u>Male</u><br>3084              | <u>Female</u><br>4501  | <u>16-20</u><br>601 | <u>21-29</u><br>1076              | <u>30-45</u><br>2579    | <u>46-64</u><br>2293       | <u>65+</u><br>996          | <u>Suburban</u><br>2193    | <u>Urban</u><br>3675  | <u>Rural</u><br>1717 |
|                     | <u>NHTSA Region</u>               |                                  |                        |                     |                                   |                         |                            |                            |                            |                       |                      |
| Walked past 30 days | <u>1</u><br>423                   | <u>2</u><br>677                  | <u>3</u><br>832        | <u>4</u><br>1287    | <u>5</u><br>1334                  | <u>6</u><br>854         | <u>7</u><br>380            | <u>8</u><br>295            | <u>9</u><br>1077           | <u>10</u><br>426      |                      |
|                     | <u>Household Income</u>           |                                  |                        |                     |                                   |                         |                            |                            |                            |                       |                      |
| Walked past 30 days | <u>White Non-Hispanic</u><br>5991 | <u>Black Non-Hispanic</u><br>583 | <u>Hispanic</u><br>426 | <u>Asian</u><br>172 | <u>Other Non-Specified</u><br>282 | <u>&lt;\$15K</u><br>742 | <u>\$15K-\$29K</u><br>1155 | <u>\$30K-\$49K</u><br>1719 | <u>\$50K-\$74K</u><br>1303 | <u>\$75K+</u><br>1731 |                      |
| Walked past 30 days | <u>Heavy</u><br>3098              | <u>Medium</u><br>2213            | <u>Light</u><br>2206   |                     |                                   |                         |                            |                            |                            |                       |                      |

## **Making Self Visible While Walking in the Dark**

---

### **Percent who tried to make themselves more visible to motorists, by total, gender, age**

Among those who spent at least some time walking in the dark or near-dark in the past year, nearly 4 in 10 (39%) made efforts to make themselves more visible to motorists. Females (44%) were more likely to do something to make themselves more visible than were males (34%). Attempts to make oneself more visible to motorists generally increased with age, with nearly 1 out of 3 pedestrians 16 to 20 (29%) making an effort, and 45 percent of those 46 to 64 attempting to make themselves more visible. [Figure 43-A]

### **Percent who tried to make themselves more visible to motorists, by race/ethnicity**

Asian (24%) pedestrians were least likely to try to make themselves visible in the dark (other races/ethnicities ranged from 31% to 41%). [Figure 43-B]

### **Percent who tried to make themselves more visible to motorists, by household income**

There were no differences across income categories with regards to pedestrians making themselves more visible to motorists when walking in the dark. [Figure 43-C]

### **Percent who tried to make themselves more visible to motorists, by walking frequency**

Those walking least often (light frequency pedestrians) (36%) were about as likely to try to make themselves more visible to motorists when walking after dark as were those walking most often (heavy frequency pedestrians) (39%). [Figure 43-D]

## **Making Self Visible While Walking in the Dark (Continued)**

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### **Methods of making selves more visible to motorists**

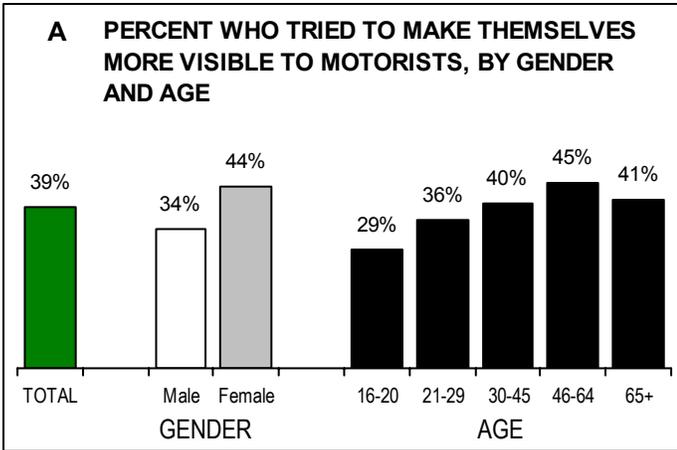
Overall, the methods used by pedestrians to make themselves more visible after dark included wearing light colored clothing (64%), wearing fluorescent or reflective clothing (28%) or bringing something visible with them on the walk (such as a flashlight or a dog with a reflective collar) (18%). Just 5 percent said they walk only in well-lit areas as a way to make themselves more visible to motorists. [Figure 43-E]

### **Top methods of making selves more visible to motorists by age, gender, and walking frequency**

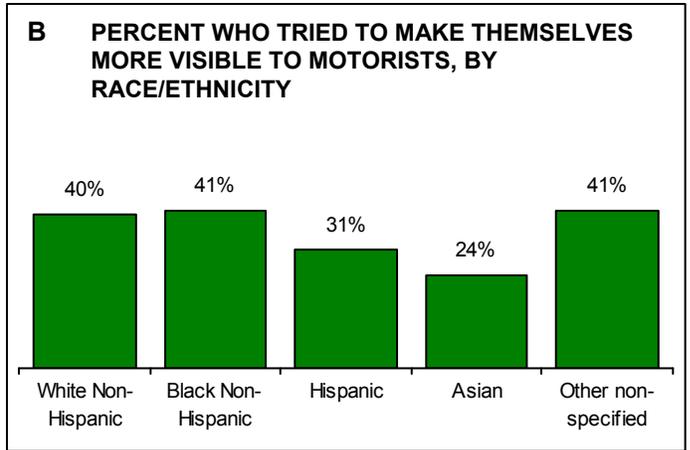
Females were more likely to bring something visible with them on their walk to make themselves more visible to motorists (20%) than were males (15%), but males and females were about equally likely to wear light colored or reflective clothing. Pedestrians of all ages were roughly equally likely to wear light colored or reflective clothing. Pedestrians 46 to 64 (24%) were more likely to bring along something visible than were pedestrians under 21 (7%).

Light-frequency pedestrians were less likely to wear special clothing with reflectors (22%) than were higher frequency pedestrians. [Figures 43-F,G,H]

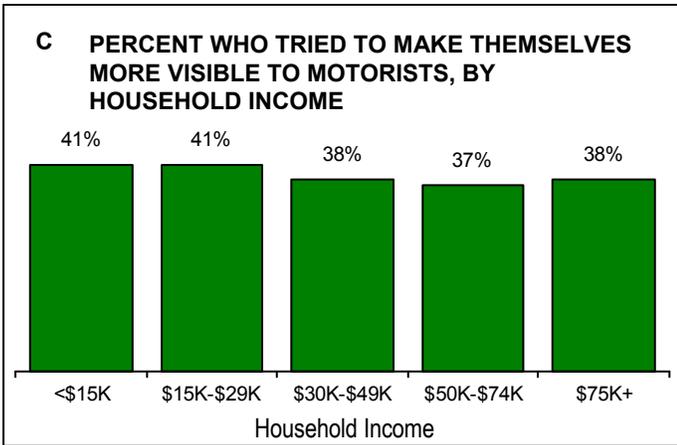
**FIGURE 43: MAKING SELF VISIBLE WHILE WALKING IN THE DARK**



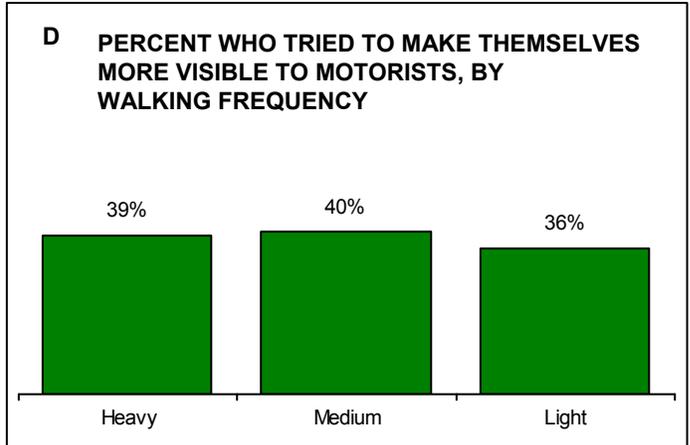
Q89b: When you walk after dark, do you do anything to make yourself more visible to motorists? [Base: At least some of walking was done in dark or near-dark]



Q89b: When you walk after dark, do you do anything to make yourself more visible to motorists? [Base: At least some of walking was done in dark or near-dark]

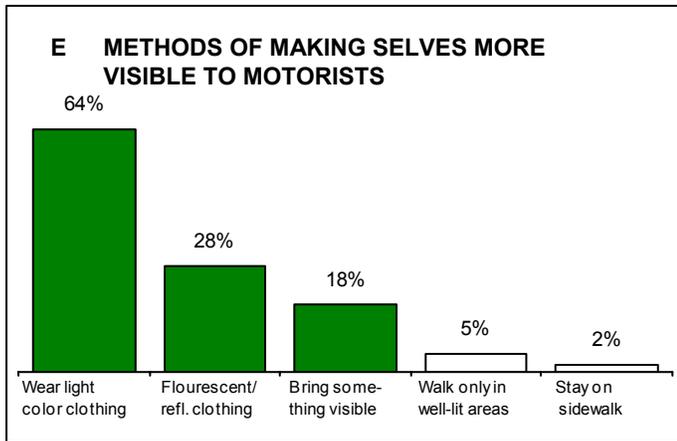


Q89b: When you walk after dark, do you do anything to make yourself more visible to motorists? [Base: At least some of walking was done in dark or near-dark]

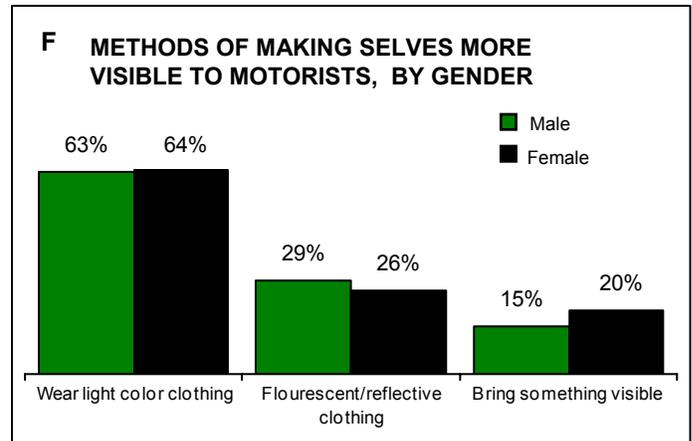


Q89b: When you walk after dark, do you do anything to make yourself more visible to motorists? [Base: At least some of walking was done in dark or near-dark]

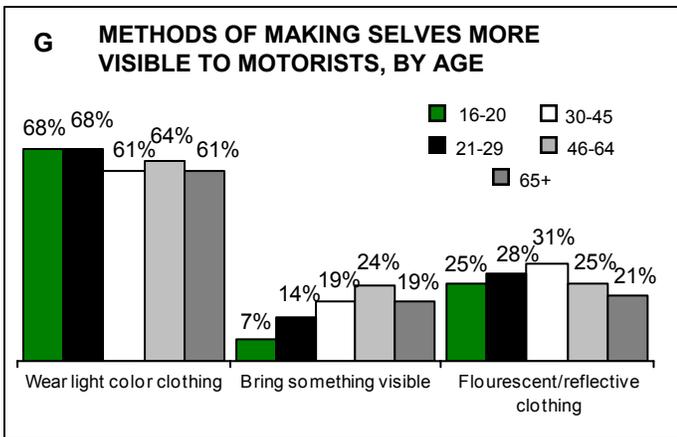
**FIGURE 43: MAKING SELF VISIBLE WHILE WALKING IN THE DARK (continued)**



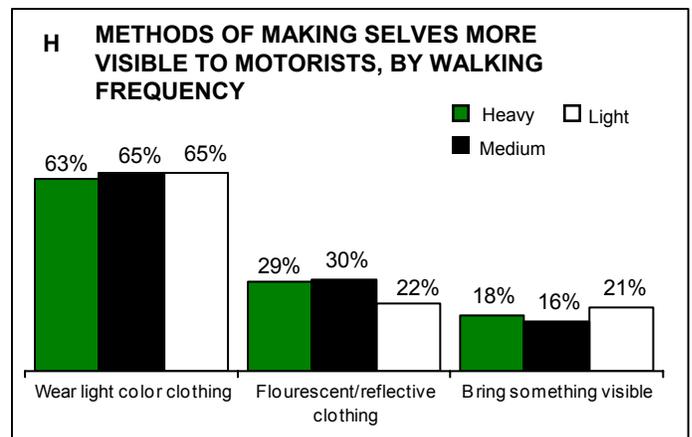
Q90: What do you do to make yourself more visible when walking after dark? [Base: Do something when walking after dark to make self more visible]



Q90: What do you do to make yourself more visible when walking after dark? [Base: Do something when walking after dark to make self more visible]



Q90: What do you do to make yourself more visible when walking after dark? [Base: Do something when walking after dark to make self more visible]



Q90: What do you do to make yourself more visible when walking after dark? [Base: Do something when walking after dark to make self more visible]

Sample bases for this page:

|  | Total           | Male        | Female                     | 16-20            | 21-29           | 30-45           | 46-64           | 65+       | White Non-Hispanic | Black Non-Hispanic |              |  |
|--|-----------------|-------------|----------------------------|------------------|-----------------|-----------------|-----------------|-----------|--------------------|--------------------|--------------|--|
| At least some of walking was done in dark or near-dark         | 3211            | 1504        | 1707                       | 394              | 593             | 1222            | 808             | 183       | 2471               | 260                |              |  |
|  |                 |             |                            | Household Income |                 |                 |                 |           |                    |                    |              |  |
|  |                 |             |                            |                  | \$15K-<br>\$29K | \$30K-<br>\$49K | \$50K-<br>\$74K | \$75K+    | Heavy              | Medium             | Light        |  |
| At least some of walking was done in dark or near-dark         | Hispanic<br>211 | Asian<br>79 | Other Non-specified<br>142 | <\$15K<br>330    | 495             | 732             | 533             | 782       | 1520               | 882                | 789          |  |
| Do something when walking after dark to make self more visible | Total<br>1246   | Male<br>486 | Female<br>760              | 16-20<br>114     | 21-29<br>216    | 30-45<br>482    | 46-64<br>360    | 65+<br>73 | Heavy<br>579       | Medium<br>370      | Light<br>290 |  |



## **Chapter 4: Walking Habits**

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This section provides information on walking habits and specifically covers the following topics:

- Availability and use of sidewalks,
- Reasons for not using sidewalks,
- Walking on streets and sidewalks, and
- Walking-related injuries.

## **Availability and Use of Sidewalks**

---

### **Availability of sidewalks, by total and gender, age**

Nearly 7 out of 10 (68%) pedestrians reported that sidewalks or paths are available in the areas where they walk. Reporting the availability of sidewalks and paths diminished with age, with 77 percent of pedestrians under 30 reporting them and just 59 percent of those over 64 doing the same. [Figure 44-A]

### **Availability of sidewalks, by NHTSA Region**

Pedestrians in NHTSA Regions 9 (AZ, CA, HI, NV) (82%) and 2 (NJ, NY) (77%) were most likely to report sidewalks or paths being available in the areas where they walk. Those in NHTSA Regions 4 (AL, FL, GA, KY, MS, NC, SC, TN) (54%) and 6 (AR, LA, NM, OK, TX) (59%) were least likely to report the availability of sidewalks or paths. [Figure 44-B]

### **Frequency of using sidewalks**

Among pedestrians who reported that sidewalks or paths were available in the areas they walked, one-third (34%) said they used sidewalks or paths every time they walked. An additional 45 percent reported using them most of the time. The remainder (21%) used sidewalks or paths only some of the time or less. [Figure 44-C]

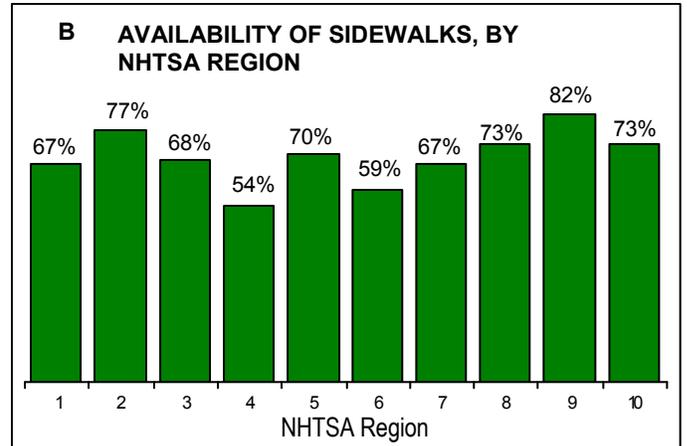
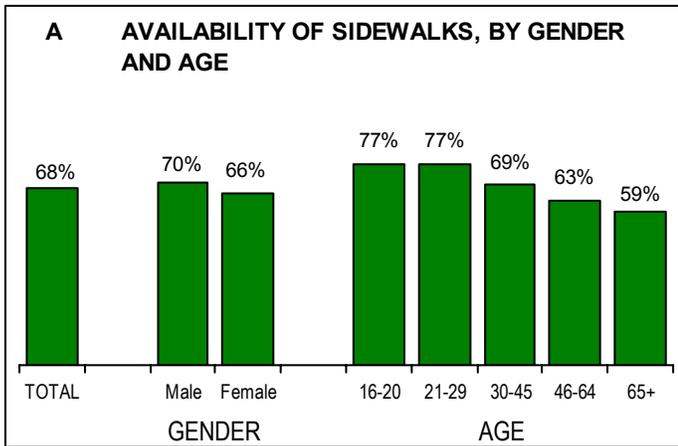
### **Frequency of using sidewalks, by urbanicity**

Suburban pedestrians were more likely to use sidewalks or paths all or most of the time (85%) than were pedestrians living in urban (78%) or rural areas (66%). [Figure 44-D]

### **Frequency of using sidewalks, by NHTSA Region**

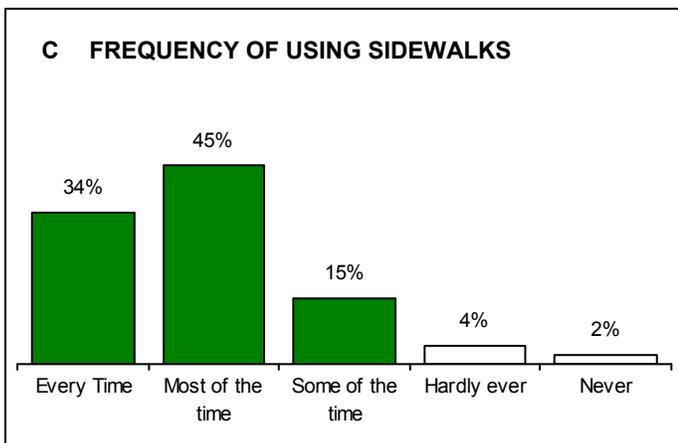
Frequent use of sidewalks or paths (all or most of the time) range from 87 percent of pedestrians in NHTSA Region 9 (87%), to 71 percent in NHTSA Regions 4 and 6. [Figure 44-E]

**FIGURE 44: AVAILABILITY AND USE OF SIDEWALKS**



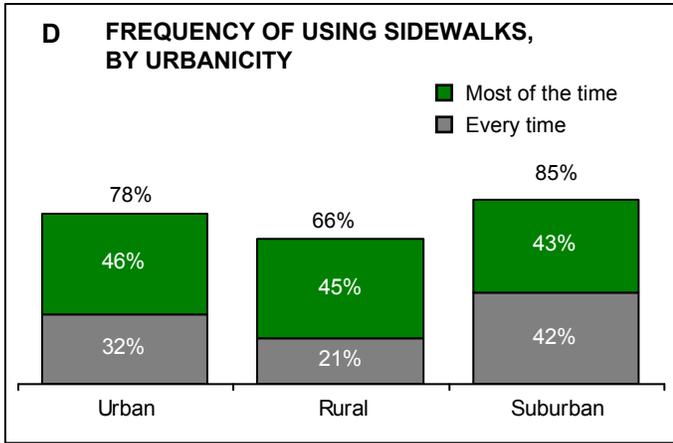
Q92: Are sidewalks or paths available in the areas that you walk? [Base: Total population]

Q92: Are sidewalks or paths available in the areas that you walk? [Base: Total population]

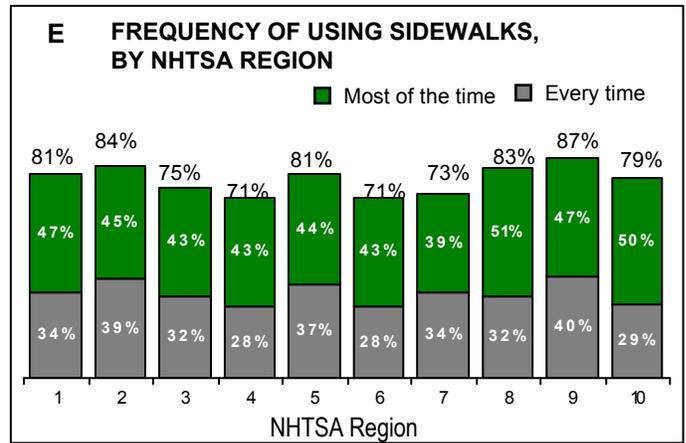


Q92a: Do you use sidewalks or paths...? [Base: Walkers who have sidewalks or paths available where walk]

**FIGURE 44: AVAILABILITY AND USE OF SIDEWALKS (continued)**



Q92a: Do you use sidewalks or paths...? [Base: Walkers who have sidewalks or paths available where walk]



Q92a: Do you use sidewalks or paths...? [Base: Walkers who have sidewalks or paths available where walk]

\*\*Sample bases for this page:

|  |                      |                      |                       |                         |                      |                      |                      |                    |                  |                  |
|--|----------------------|----------------------|-----------------------|-------------------------|----------------------|----------------------|----------------------|--------------------|------------------|------------------|
| Total population   | <u>Total</u><br>9616 | <u>Male</u><br>3936  | <u>Female</u><br>5680 | <u>16-20</u><br>724     | <u>21-29</u><br>1309 | <u>30-45</u><br>3132 | <u>46-64</u><br>2914 | <u>65+</u><br>1479 |                  |                  |
| <u>NHTSA Region</u>                                      |                      |                      |                       |                         |                      |                      |                      |                    |                  |                  |
| Total population   | <u>1</u><br>507      | <u>2</u><br>843      | <u>3</u><br>1027      | <u>4</u><br>1754        | <u>5</u><br>1681     | <u>6</u><br>1149     | <u>7</u><br>498      | <u>8</u><br>358    | <u>9</u><br>1316 | <u>10</u><br>483 |
| Walkers who have sidewalks or paths available where walk | <u>Total</u><br>5241 | <u>Urban</u><br>2573 | <u>Rural</u><br>831   | <u>Suburban</u><br>1837 |                      |                      |                      |                    |                  |                  |
| <u>NHTSA Region</u>                                      |                      |                      |                       |                         |                      |                      |                      |                    |                  |                  |
| Walkers who have sidewalks or paths available where walk | <u>1</u><br>285      | <u>2</u><br>524      | <u>3</u><br>578       | <u>4</u><br>709         | <u>5</u><br>947      | <u>6</u><br>511      | <u>7</u><br>262      | <u>8</u><br>209    | <u>9</u><br>904  | <u>10</u><br>312 |

## **Reasons for Not Using Sidewalks**

---

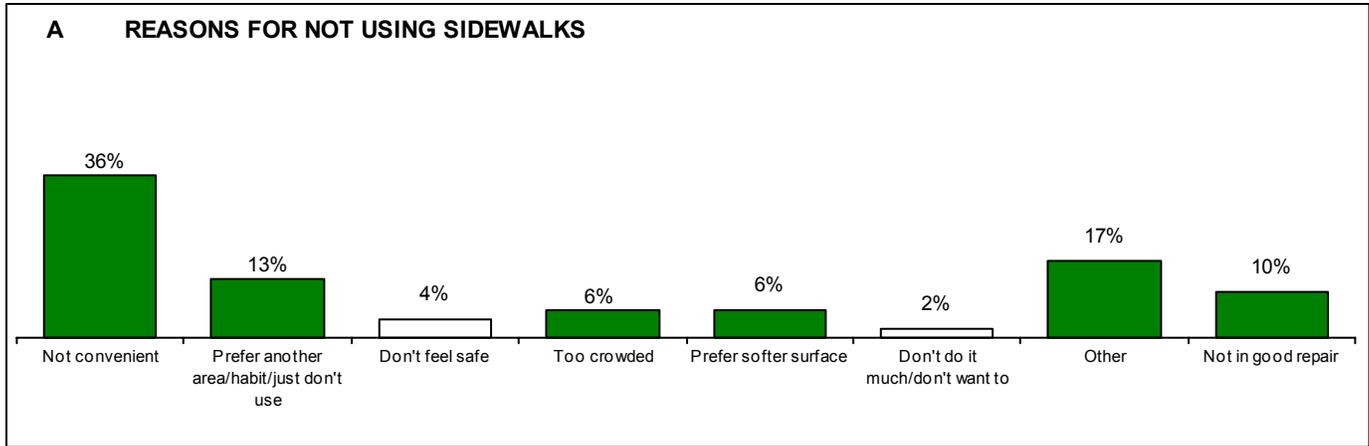
### **Reasons for not using sidewalks**

Pedestrians gave a variety of reasons for choosing not to use sidewalks or paths when they are available. The most commonly cited reason is lack of convenience (36%), meaning they were either not available or did not go where the pedestrian wanted to go. [Figure 45-A]

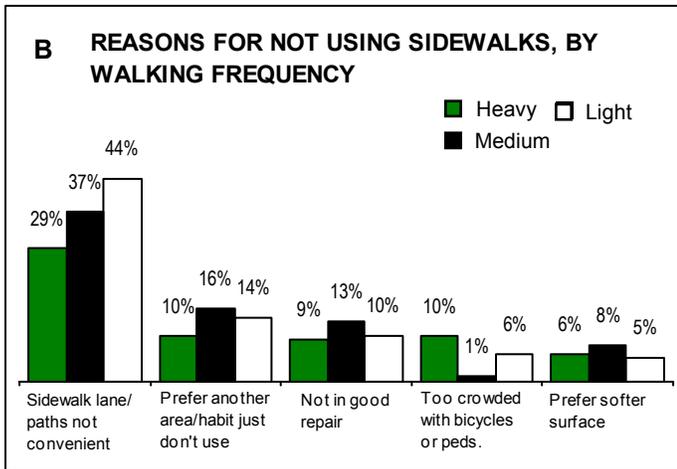
### **Top reasons for not using sidewalks, by walking frequency**

Heavy-frequency pedestrians were less likely to be dissuaded to use a sidewalk or path by the lack of convenience (29%) than were medium- (37%) or light-frequency (44%) pedestrians. [Figure 45-B]

**FIGURE 45: REASONS FOR NOT USING SIDEWALKS**



Q93: What is the main reason that you choose not to use these sidewalks or paths? [Base: Never/hardly ever use sidewalks – but are available]



Q93: What is the main reason that you choose not to use these sidewalks or paths? [Base: Never/hardly ever use sidewalks – but are available]

Sample bases for this page:

|  | <u>Total</u> | <u>Heavy</u> | <u>Medium</u> | <u>Light</u> |
|--|--------------|--------------|---------------|--------------|
| Never/hardly ever use sidewalks, but are available | 302          | 125          | 77            | 97           |

## **Walking on Streets and Sidewalks**

---

### **Direction of walking in street, by total, gender, age**

Six in ten (60%) pedestrians reported that they typically walk facing traffic when walking in the street, that is, walking against the direction of the traffic. Nearly 1 in 4 (23%) said they walk *with* traffic. Male and female pedestrians were equally likely to walk against traffic. Pedestrians 45 to 64 (67%) were more apt to walk against traffic than were younger or older pedestrians. [Figure 46-A]

### **Direction of walking in street, by NHTSA Region, urbanicity**

Pedestrians in NHTSA Region 4 (AL, FL, GA, KY, MS, NC, SC, TN) (69%) were more likely than those in other parts of the country to report walking against traffic when walking in the street, and those in NHTSA Region 9 (AZ, CA, HI, NV) (45%) were least likely to walk against traffic. [Figure 46-B]

### **Direction of walking in street, by race/ethnicity, household income**

White, non-Hispanic pedestrians were more likely to walk against traffic (63%) than were Black, non-Hispanic (58%), Hispanic (43%), and Asian (32%) pedestrians.

Pedestrians in the upper income bracket of \$75,000 or more were more likely to walk against traffic (64%) than were those earning \$29,000 or less (55%). [Figures 46-C,D]

## **Walking on Streets and Sidewalks (Continued)**

---

### **Direction of walking on sidewalk, by total, gender, age**

When walking on the sidewalk, pedestrians were split in the direction they walk, with 30 percent walking against traffic and 33 percent walking with traffic. Nearly 1 in 4 (23%) said it varies, and an additional 12 percent said they never walk on sidewalks.

Female pedestrians (32%) were more likely to walk against traffic when walking on the sidewalk than were male pedestrians (28%). The proportion walking in the same direction as traffic when on a sidewalk declined with age, with 44 percent of those 16 to 20 walking with traffic, and 16 percent of those 65 or older doing the same. [Figure 46-E]

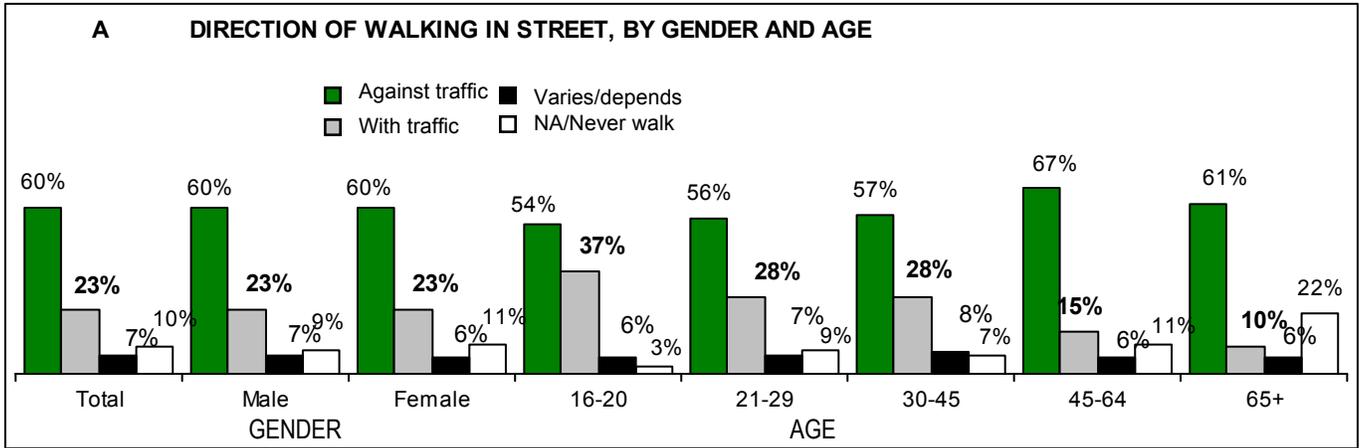
### **Direction of walking on sidewalk, by urbanicity**

Pedestrians living in rural areas (27%) were less likely to walk with traffic when walking on sidewalks than those in urban (35%) and suburban (34%) areas. Rural area pedestrians were more likely to say they never walk on sidewalks (21%) than their urban and suburban counterparts. [Figure 46-F]

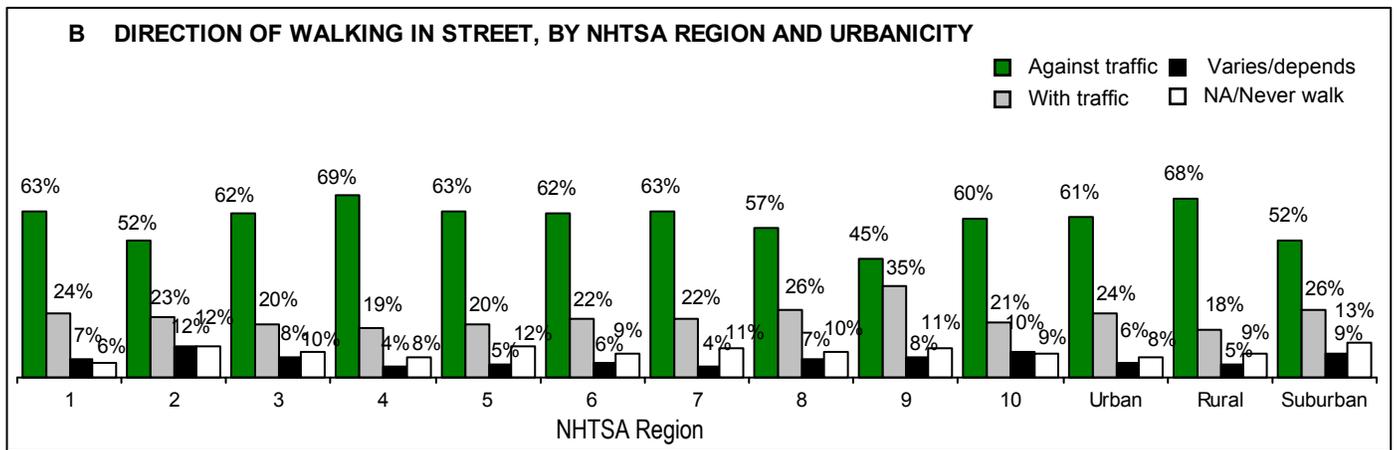
### **Direction of walking on sidewalk, by race/ethnicity, household income**

Black non-Hispanic pedestrians (46%) were more likely to walk against traffic when walking on sidewalks than were White, non-Hispanic (28%) or Hispanic (34%) pedestrians. Propensity to walk against traffic while on a sidewalk decreases as incomes rise, with 37 percent of those with household incomes under \$15,000 walking against traffic, decreasing to 28 percent among those with incomes \$75,000 and above. [Figures 46-G,H]

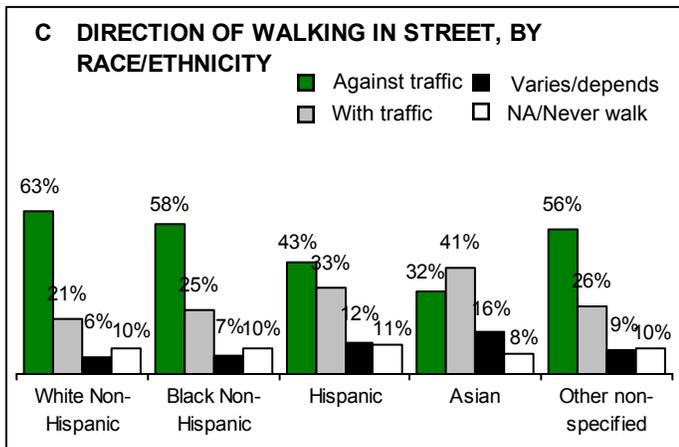
**FIGURE 46: WALKING ON STREETS AND SIDEWALKS**



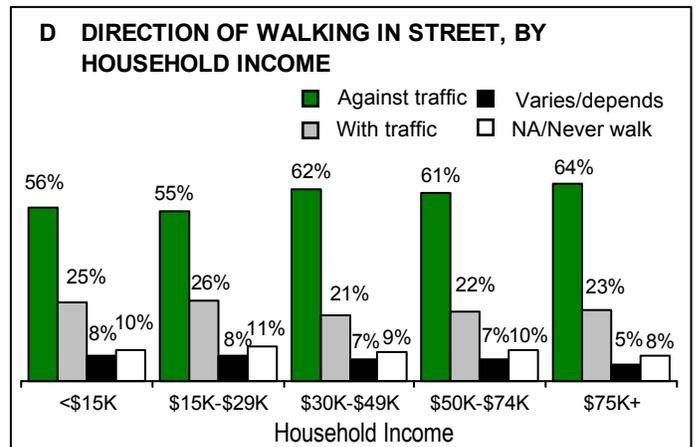
Q94: When walking in the street do you typically walk...? [Base: Walked past 30 days]



Q94: When walking in the street do you typically walk...? [Base: Walked past 30 days]

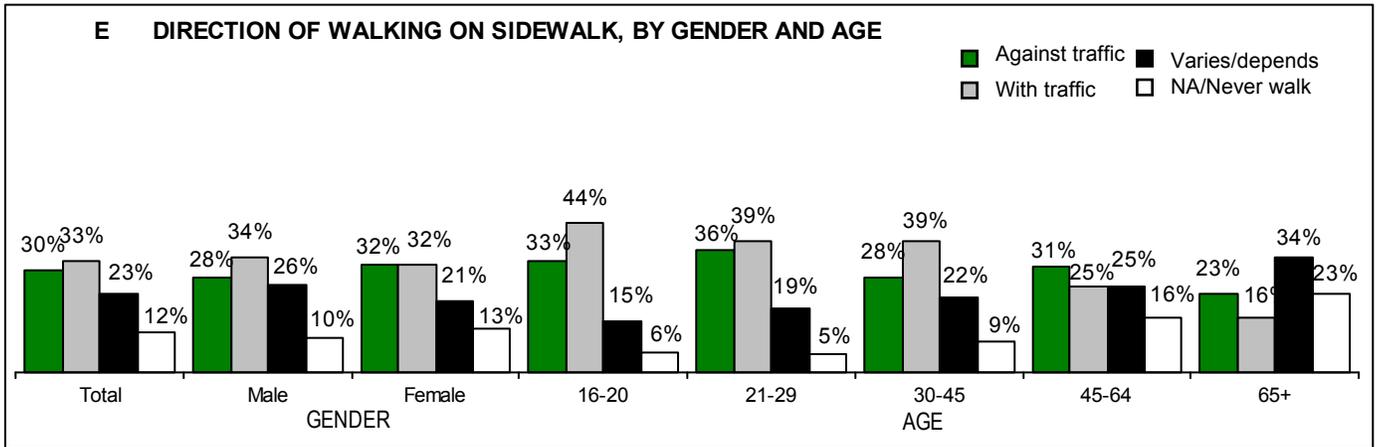


Q94: When walking in the street do you typically walk...? [Base: Walked past 30 days]

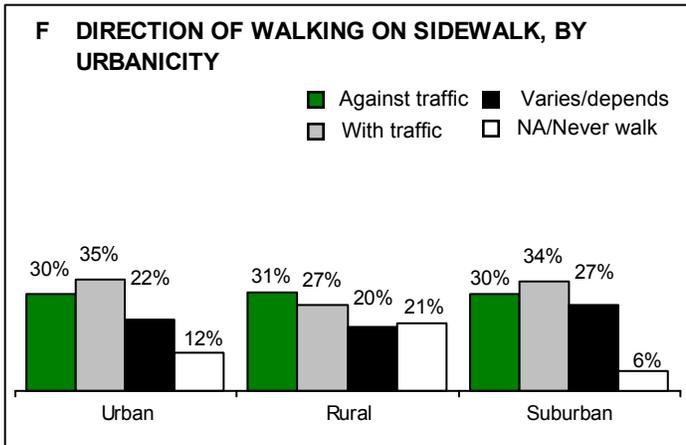


Q94: When walking in the street do you typically walk...? [Base: Walked past 30 days]

**FIGURE 46: WALKING ON STREETS AND SIDEWALKS (continued)**

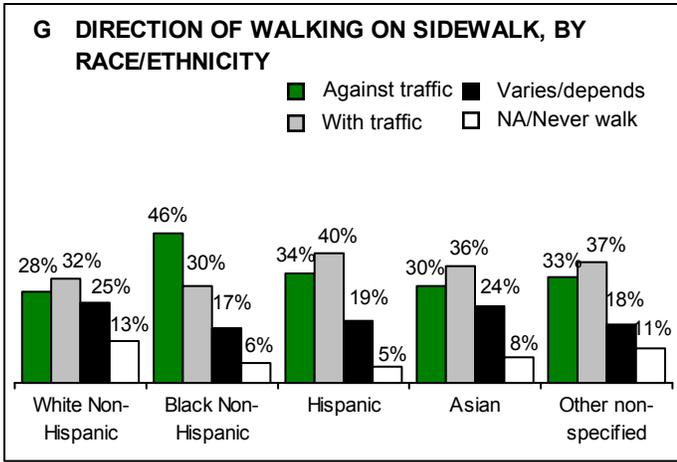


Q95: When walking on the sidewalk do you typically walk...? [Base: Walked past 30 days]

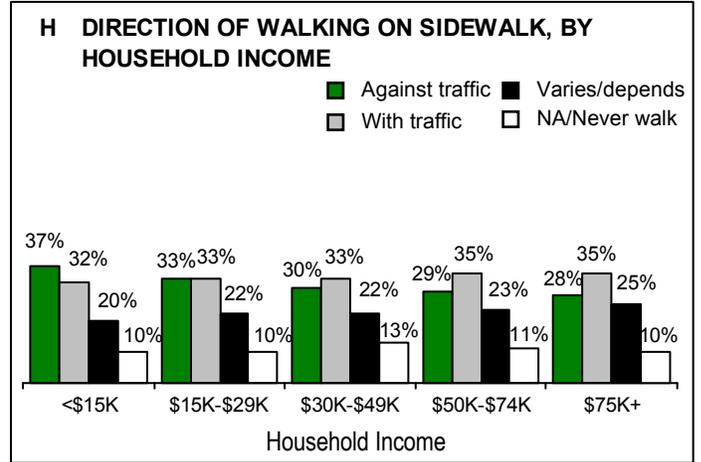


Q95: When walking on the sidewalk do you typically walk...? [Base: Walked past 30 days]

**FIGURE 46: WALKING ON STREETS AND SIDEWALKS (continued)**



Q95: When walking on the sidewalk do you typically walk...? [Base: Walked past 30 days]



Q95: When walking on the sidewalk do you typically walk...? [Base: Walked past 30 days]

Sample bases for this page:

|                         | Total                             | Male                             | Female                 | 16-20               | 21-29                             | 30-45                   | 46-64                      | 65+                        | Urban                      | Rural                 | Suburban |
|-------------------------|-----------------------------------|----------------------------------|------------------------|---------------------|-----------------------------------|-------------------------|----------------------------|----------------------------|----------------------------|-----------------------|----------|
| Walked past 30 days     | 7585                              | 3084                             | 4501                   | 601                 | 1076                              | 2579                    | 2293                       | 996                        | 3675                       | 1717                  | 2193     |
| <u>NHTSA Region</u>     |                                   |                                  |                        |                     |                                   |                         |                            |                            |                            |                       |          |
| Walked past 30 days     | <u>1</u><br>423                   | <u>2</u><br>677                  | <u>3</u><br>832        | <u>4</u><br>1287    | <u>5</u><br>1334                  | <u>6</u><br>854         | <u>7</u><br>380            | <u>8</u><br>295            | <u>9</u><br>1077           | <u>10</u><br>426      |          |
| <u>Household Income</u> |                                   |                                  |                        |                     |                                   |                         |                            |                            |                            |                       |          |
| Walked past 30 days     | <u>White Non-Hispanic</u><br>5991 | <u>Black Non-Hispanic</u><br>583 | <u>Hispanic</u><br>426 | <u>Asian</u><br>172 | <u>Other non-specified</u><br>282 | <u>&lt;\$15K</u><br>742 | <u>\$15K-\$29K</u><br>1155 | <u>\$30K-\$49K</u><br>1719 | <u>\$50K-\$74K</u><br>1303 | <u>\$75K+</u><br>1731 |          |



## **Walking-Related Injuries**

---

### **Percent injured while walking, by total and walking frequency**

Just 2 percent of pedestrians 16 and older reported being injured in the past two years while walking. Heavy-frequency pedestrians were equally likely to experience an injury while walking (2%) as were medium- (2%) and light-frequency (2%) pedestrians. [Figure 47-A]

### **Percent injured while walking, by gender, age**

Male and female pedestrians were equally likely to be injured while walking in the past two years. Pedestrians 16 to 20 were twice as likely to have been injured (4%) than were those 21 or older (2%). [Figure 47-B]

### **Percent injured while walking, by race/ethnicity, household income**

Non-Hispanic White, non-Hispanic Black, and Hispanic pedestrians were roughly equally likely to have been injured while walking in the past two years. Those with household incomes under \$15,000 were more likely to be injured (4%) than were those with higher incomes (2%). [Figures 47-C,D]

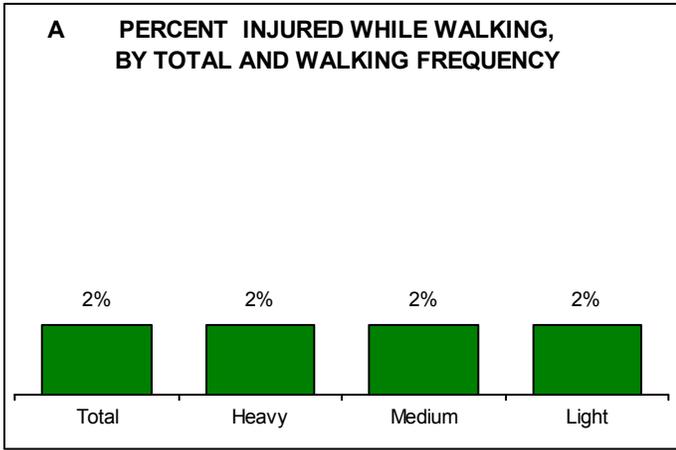
### **Projected number of pedestrians injured/hit by motor vehicle in past two years, by total and walking frequency**

Nearly 3.6 million pedestrians were injured while walking in the past two years. An estimated 473,000 were injured as a result of being hit by a motor vehicle. Heavy-frequency pedestrians accounted for more than 1.6 million injuries and 195,000 motor vehicle related injuries. Light-frequency pedestrians experienced 856,000 injuries in the past two years, with just over 200,000 being hit by a motor vehicle. [Figure 47-E]

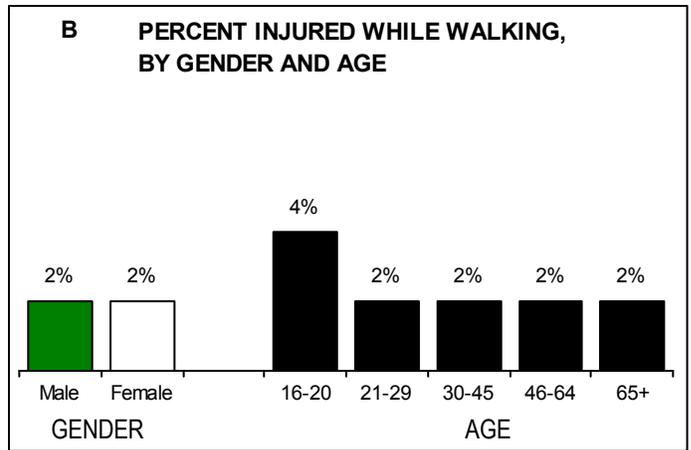
### **Projected number of pedestrians injured/hit by motor vehicle in past 2 years, by gender**

While female pedestrians had a greater number of injuries while walking than their male counterparts in the past two years (2 million versus 1.5 million), male pedestrians had more injuries caused by being hit by a motor vehicle while walking (270,000 hit by motor vehicles for male pedestrians, compared to 203,000 female pedestrians). [Figure 47-F]

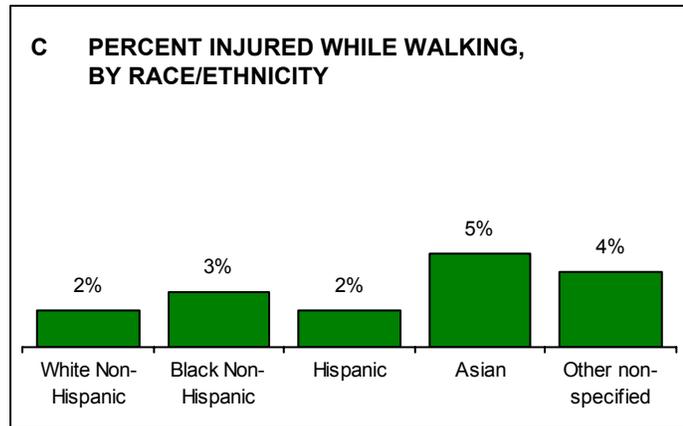
**FIGURE 47: WALKING-RELATED INJURIES**



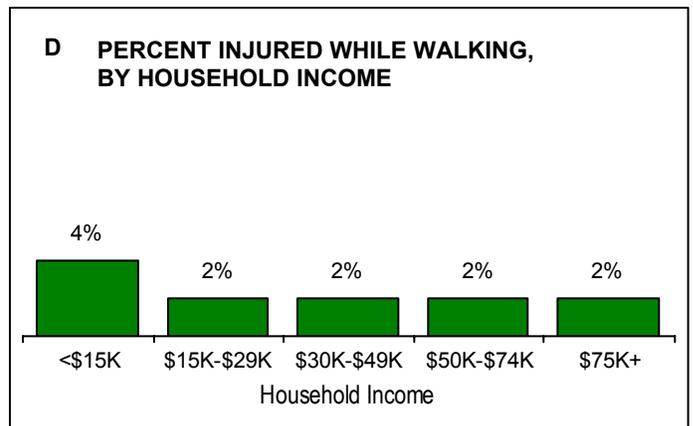
Q96: In the past two years, were you ever injured while you were walking? Only count injuries that required attention by a medical professional. [Base: Walked past 30 days]



Q96: In the past two years, were you ever injured while you were walking? Only count injuries that required attention by a medical professional. [Base: Walked past 30 days]

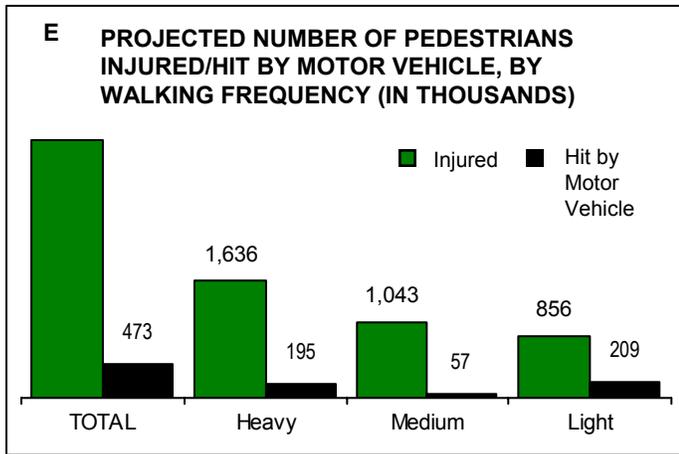


Q96: In the past two years, were you ever injured while you were walking? Only count injuries that required attention by a medical professional. [Base: Walked past 30 days]

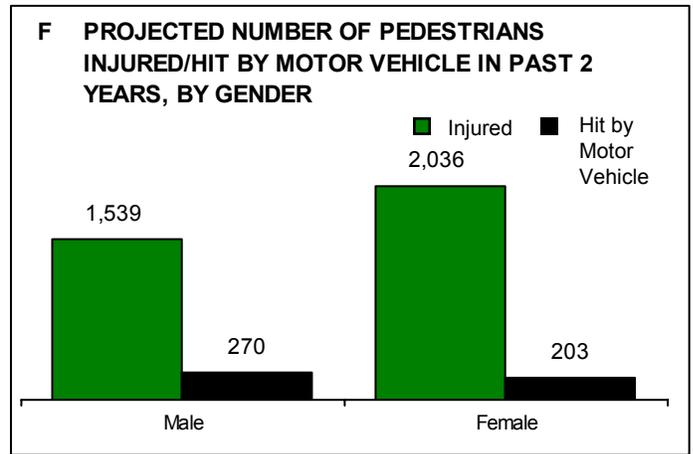


Q96: In the past two years, were you ever injured while you were walking? Only count injuries that required attention by a medical professional. [Base: Walked past 30 days]

**FIGURE 47: WALKING-RELATED INJURIES (continued)**



Q96: In the past two years, were you ever injured while you were walking? Only count injuries that required attention by a medical professional. Q97: Was this injury a result of being hit by a motor vehicle? [Base: Walked past 30 days]



Q96: In the past two years, were you ever injured while you were walking? Only count injuries that required attention by a medical professional. Q97: Was this injury a result of being hit by a motor vehicle? [Base: Walked past 30 days]

Sample bases for this page:

|                     |                                   |                                  |                        |                      |                                   |                         |                            |                            |                            |                       |                   |
|---------------------|-----------------------------------|----------------------------------|------------------------|----------------------|-----------------------------------|-------------------------|----------------------------|----------------------------|----------------------------|-----------------------|-------------------|
| Walked past 30 days | <u>Total</u><br>7585              | <u>Heavy</u><br>3098             | <u>Medium</u><br>2213  | <u>Light</u><br>2206 | <u>Male</u><br>3084               | <u>Female</u><br>4501   | <u>16-20</u><br>601        | <u>21-29</u><br>1076       | <u>30-45</u><br>2579       | <u>46-64</u><br>2293  | <u>65+</u><br>996 |
| Walked past 30 days | <u>White Non-Hispanic</u><br>5991 | <u>Black Non-Hispanic</u><br>583 | <u>Hispanic</u><br>426 | <u>Asian</u><br>172  | <u>Other Non-Specified</u><br>282 | <u>&lt;\$15K</u><br>742 | <u>Household Income</u>    |                            |                            |                       |                   |
|                     |                                   |                                  |                        |                      |                                   |                         | <u>\$15K-\$29K</u><br>1155 | <u>\$30K-\$49K</u><br>1719 | <u>\$50K-\$74K</u><br>1303 | <u>\$75K+</u><br>1731 |                   |



## **Chapter 5: Pedestrian Satisfaction**

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This section provides information about the satisfaction of pedestrians with how their communities are designed for walking. Specifically, it covers the following topics:

- Satisfaction with communities,
- Desire for changes in community, and
- Opinions on walking.

## **Satisfaction With Community**

---

### **Satisfaction with how community is designed for walking, by pedestrian status**

Among people 16 or older, nearly 3 in 4 (73%) expressed satisfaction with how their communities are designed for making walking safe. Slightly over 4 in 10 (41%) were very satisfied. Pedestrians were more satisfied with their communities (75% very or somewhat satisfied) than were nonpedestrians (67%). [Figure 48-A]

### **Satisfaction with how community is designed for walking, by gender, age**

Males and females were roughly equally satisfied with how their communities are designed for making walking safe. Satisfaction varied little with age, though the oldest (65+) and youngest (16 to 20) people were more likely to be satisfied (77%) than those 21 to 64 (72% on average). [Figure 48-B]

### **Satisfaction with how community is designed for walking, by race/ethnicity**

People of Asian descent tended to be more satisfied with how their communities are designed for making walking safe (82% very or somewhat satisfied) than were White non-Hispanic (73%) and Black non-Hispanic (73%) people. [Figure 48-C]

### **Satisfaction with how community is designed for walking, by household income**

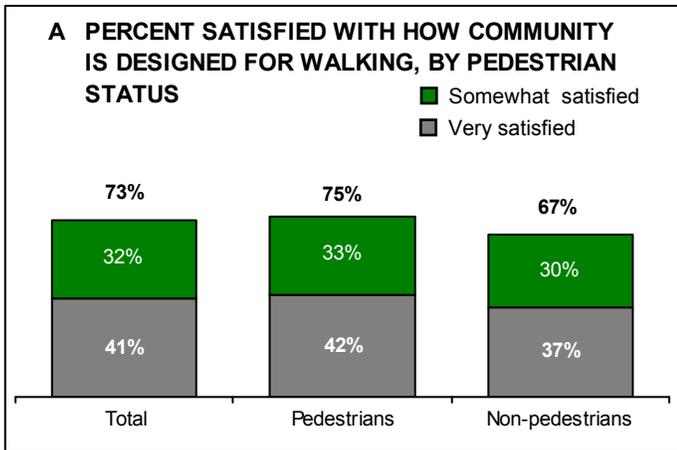
Satisfaction with how their communities are designed for walking did not differ by household income level. [Figure 48-D]

### **Satisfaction with how community is designed, by NHTSA Region, urbanicity**

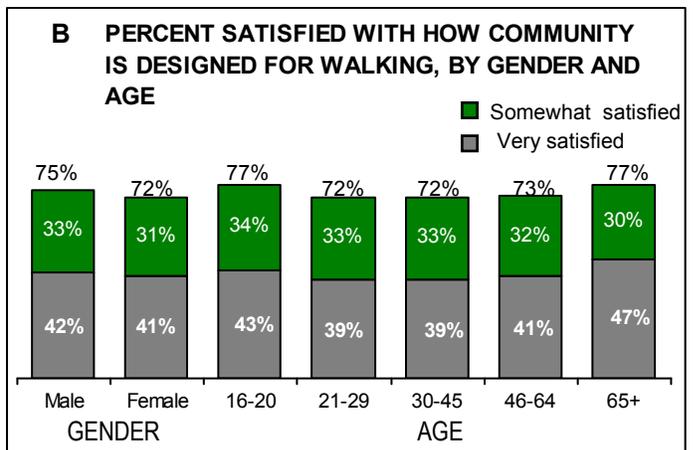
Satisfaction with how their community is designed for making walking safe varied across NHTSA Regions. About 8 of 10 people in NHTSA Regions 10 (AK, ID, OR, WA) (81% very or somewhat satisfied), 9 (AZ, CA, HI, NV) (79%), 8 (CO, MT, ND, SD, UT, WY) (78%), and 7 (IA, KS, MO, NE) (79%) were satisfied, while fewer than 7 of 10 in NHTSA Regions 4 (AL, FL, GA, KY, MS, NC, SC, TN) (69%) and 6 (AR, LA, NM, OK, TX) (67%) were satisfied.

Those living in suburban areas were more likely to be satisfied with how their communities are designed for walking (77%) than were those in urban (72%) or rural (71%) areas. [Figure 48-E]

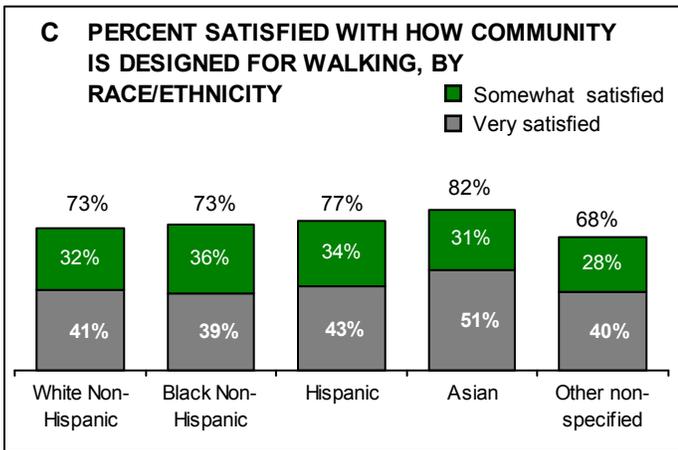
**FIGURE 48: SATISFACTION WITH COMMUNITY**



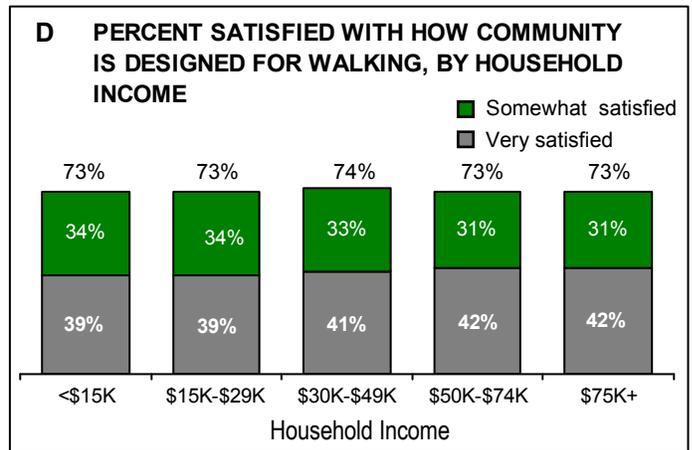
Q98: How satisfied are you with how your local community is designed for making walking safe?



Q98: How satisfied are you with how your local community is designed for making walking safe?

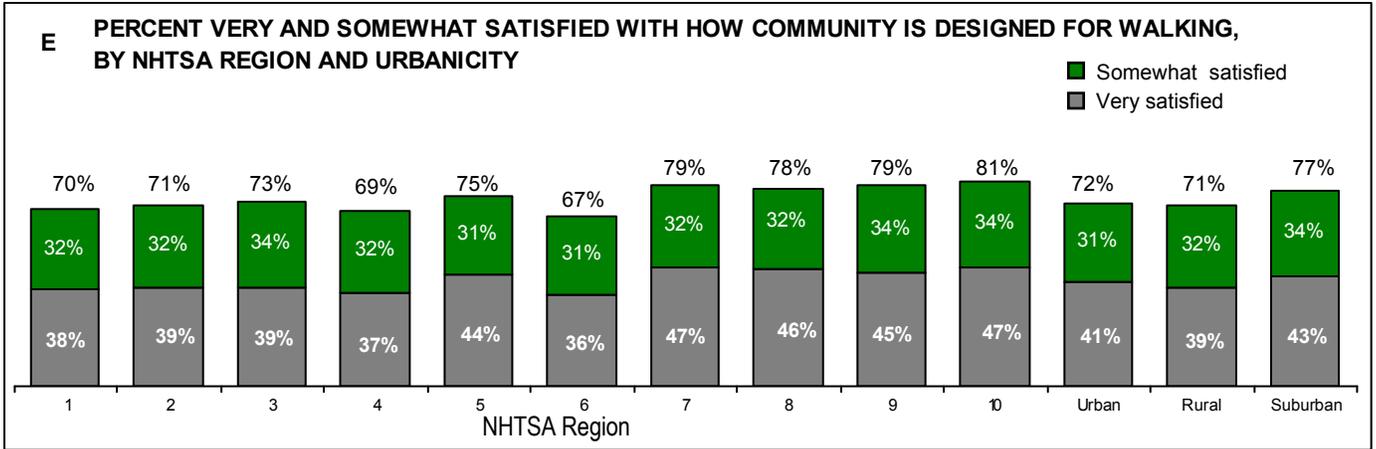


Q98: How satisfied are you with how your local community is designed for making walking safe?



Q98: How satisfied are you with how your local community is designed for making walking safe?

**FIGURE 48: SATISFACTION WITH COMMUNITY (continued)**



Q98: How satisfied are you with how your local community is designed for making walking safe?

Sample bases for this page:

| Total Population | Total | <u>Pedestrians</u> | <u>Non-pedestrians</u> | <u>Male</u> | <u>Female</u> | <u>16-20</u> | <u>21-29</u> | <u>30-45</u> | <u>46-64</u> | <u>65+</u> |
|------------------|-------|--------------------|------------------------|-------------|---------------|--------------|--------------|--------------|--------------|------------|
|                  | 9561  | 7548               | 2013                   | 3910        | 5651          | 722          | 1303         | 3115         | 2901         | 1463       |

Household Income

| Total Population | <u>White Non-Hispanic</u> | <u>Black Non-Hispanic</u> | <u>Hispanic</u> | <u>Asian</u> | <u>Other Non-Specified</u> | <u>&lt;\$15K</u> | <u>\$15K-\$29K</u> | <u>\$30K-\$49K</u> | <u>\$50K-\$74K</u> | <u>\$75K+</u> |
|------------------|---------------------------|---------------------------|-----------------|--------------|----------------------------|------------------|--------------------|--------------------|--------------------|---------------|
|                  | 7562                      | 755                       | 521             | 206          | 349                        | 1052             | 1519               | 2127               | 1617               | 1996          |

NHTSA Region

| Total Population | <u>1</u> | <u>2</u> | <u>3</u> | <u>4</u> | <u>5</u> | <u>6</u> | <u>7</u> | <u>8</u> | <u>9</u> | <u>10</u> | <u>Urban</u> | <u>Rural</u> | <u>Suburban</u> |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|--------------|--------------|-----------------|
|                  | 502      | 837      | 1019     | 1743     | 1676     | 1141     | 495      | 356      | 1312     | 480       | 4628         | 2239         | 2694            |

## **Desire for Changes in Community**

---

### **Desire for changes in community, by total, NHTSA Region and urbanicity**

Regardless of how satisfied they were with the way their communities are designed for walking safety, about one-third of people 16 or older (34%) would like to see some changes made in their community for pedestrians. Across NHTSA Regions, this desire ranged from 28 percent wanting to see changes in NHTSA Region 10 (AK, ID, OR, WA) to 39 percent wanting changes in NHTSA Region 6 (AR, LA, NM, OK, TX). Those living in urban (35%) and suburban (35%) areas were more likely to desire change than were those in rural (30%) areas. [Figure 49-A]

### **Changes desired in community**

The change most desired in the community is to increase the number of sidewalks (42%). Smaller numbers would like to see more lights (17%), improved facilities (12%), more paths and trails (10%), or more crosswalks (8%). [Figure 49-B]

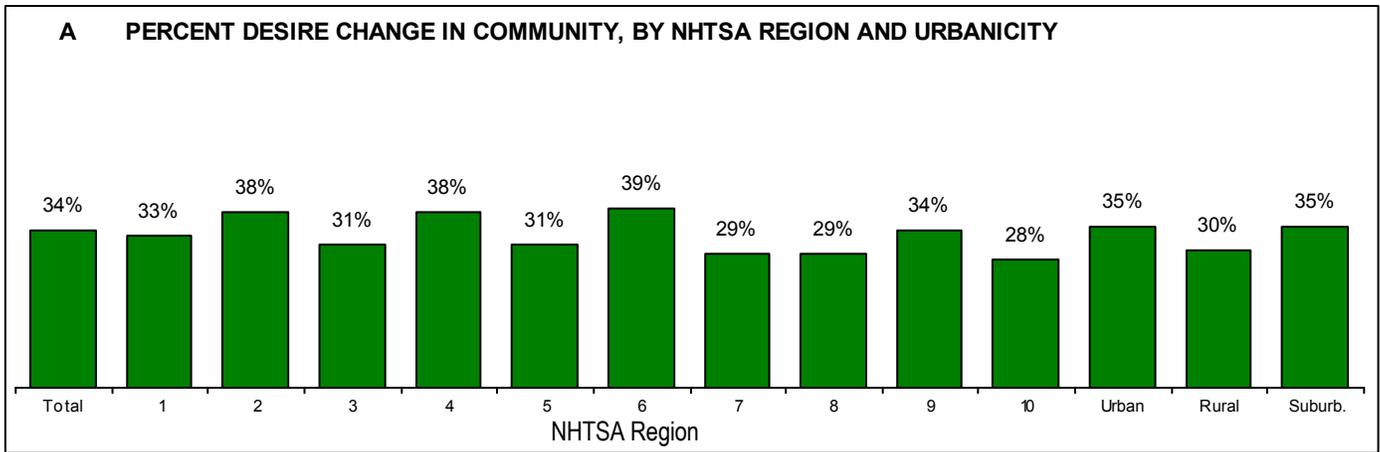
### **Top 3 changes desired in community, by walking frequency**

Light-frequency pedestrians were more interested in adding sidewalks (47%) than were medium- (41%) and heavy-frequency (38%) pedestrians. [Figure 49-C]

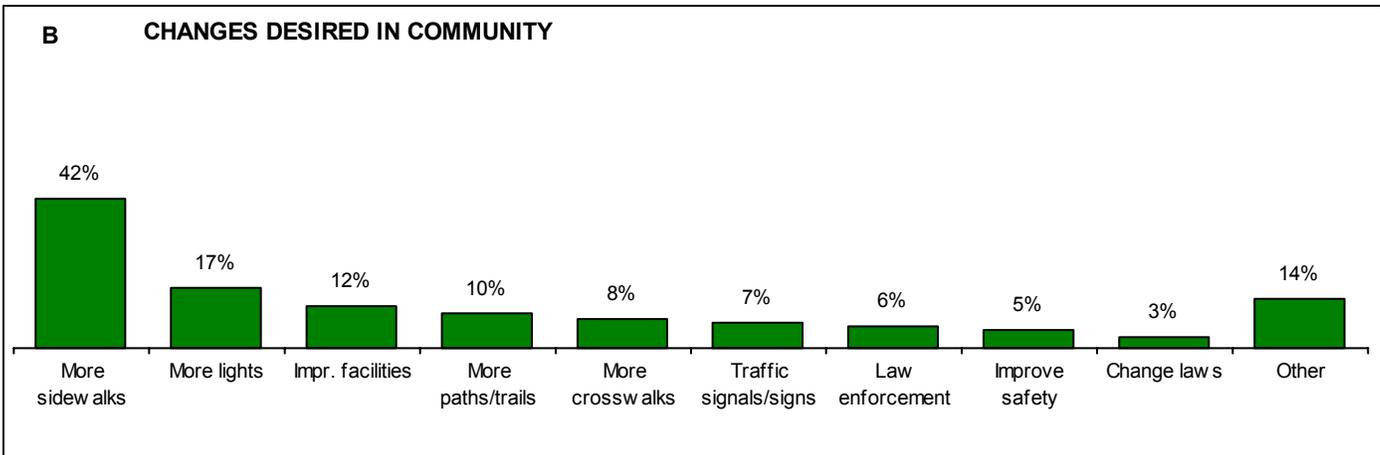
### **Top 3 changes desired in community, by NHTSA Region**

The desire to add sidewalks ranged from a low of 26 percent in NHTSA Region 9 (AZ, CA, HI, NV) to a high of 58 percent in NHTSA Region 6 (AR, LA, NM, OK, TX). The recommendation for more lights ranged from a low of 10 percent in NHTSA Region 7 (IA, KS, MO, NE) to a high of 23 percent in NHTSA Region 9 (AZ, CA, HI, NV). The desire for improved facilities was highest in NHTSA Region 7 (IA, KS, MS, NE) (31%). [Figure 49-D]

**FIGURE 49: DESIRE FOR CHANGES IN COMMUNITY**

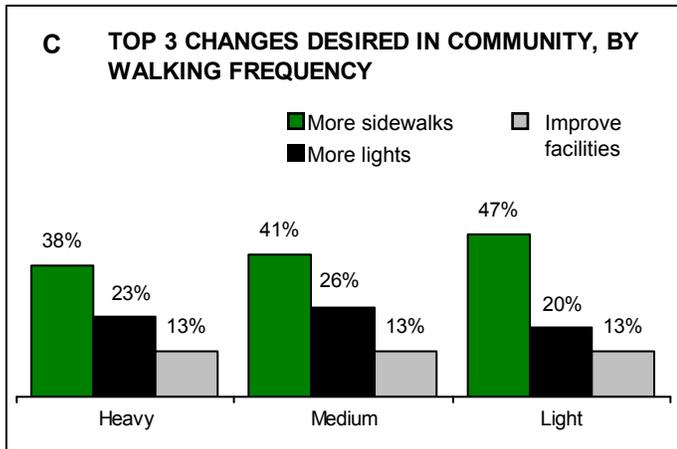


Q99: Are there any changes you would like made in your community for pedestrians?

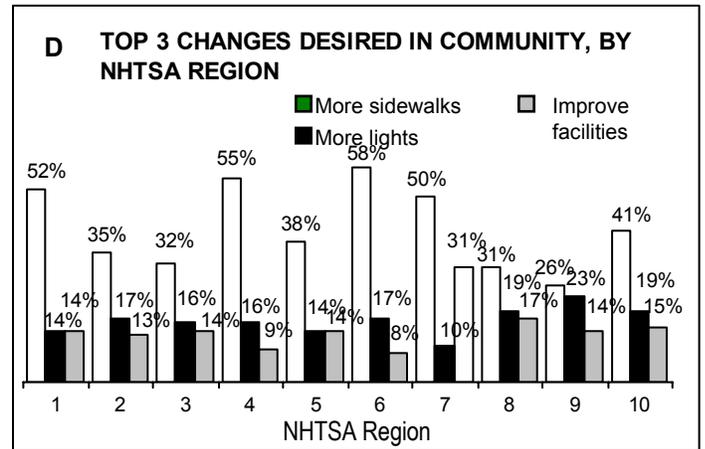


Q100: What changes would you like to see made in your community? [Base: Desire changes in community for pedestrians]

**FIGURE 49: DESIRE FOR CHANGES IN COMMUNITY (continued)**



Q100: What changes would you like to see made in your community?  
 [Base: Desire changes in community for pedestrians]



Q100: What changes would you like to see made in your community?  
 [Base: Desire changes in community for pedestrians]

Sample bases for this page:

NHTSA Region

| Total population | Total | 1   | 2   | 3    | 4    | 5    | 6    | 7   | 8   | 9    | 10  | Urban | Rural | Suburban |
|------------------|-------|-----|-----|------|------|------|------|-----|-----|------|-----|-------|-------|----------|
|                  | 9561  | 502 | 837 | 1019 | 1743 | 1676 | 1141 | 495 | 356 | 1312 | 480 | 4628  | 2239  | 2694     |

NHTSA Region

| Desire changes in community for pedestrians | Total | Heavy | Medium | Light | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  |
|---|-------|-------|--------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|   | 3352  | 1129  | 776    | 780   | 188 | 318 | 346 | 679 | 521 | 452 | 149 | 111 | 437 | 151 |



## **Opinions on Walking**

---

### **Opinions on walking**

Regardless of whether they walked during the summer months, more than 8 in 10 people 16 or older (82%) strongly agreed that walking was a great form of exercise for them (94% strongly or somewhat agree). Nearly 9 in 10 (88%) strongly or somewhat agreed that walking is an enjoyable activity to do in a group, and 79 percent agreed that it is an enjoyable activity to do alone. Nearly 8 in 10 (77%) said that they would like to be walking more than they are now, but only one-half (50%) felt that walking is a great form of transportation in the area where they live. [Figure 50-A]

### **Opinions on walking, by gender**

Females were more likely than males to agree that walking is a great form of exercise for them (96% compared to 92%), that they would like to walk more than they are now (81% compared to 71%) and that walking is an enjoyable activity to do in a group (91% compared to 85%). [Figure 50-B]

### **Opinions on walking, by age**

People 65 or older (82%) are less likely to agree that walking is an enjoyable activity to do in a group as compared to those under 65 (average agreement of 90%). Agreement that walking is a great form of transportation in the area they live generally decreases with age, from a high of 59 percent among 16- to 20-year-olds to 47 percent among those 46 or older. Those under age 30 (73% on average) are less likely to agree that walking is an enjoyable activity to do alone than are those 30 or older (82% on average). Similarly, those under 30 (72% on average) are less likely to agree that they would like to walk more now than they do as compared to those 30 or older (78% on average). [Figure 50-C]

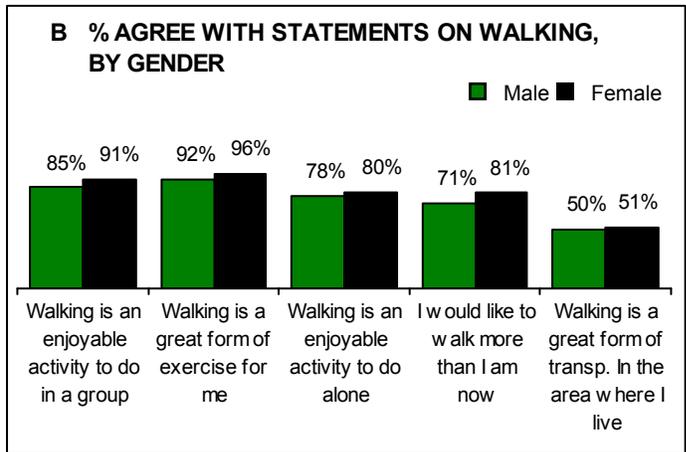
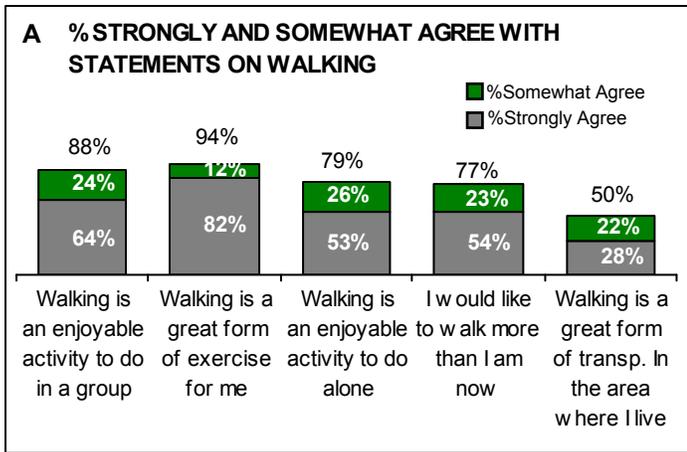
## **Opinions on Walking (Continued)**

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### **Percent agreeing that walking is a great form of transportation in this area, by NHTSA Region**

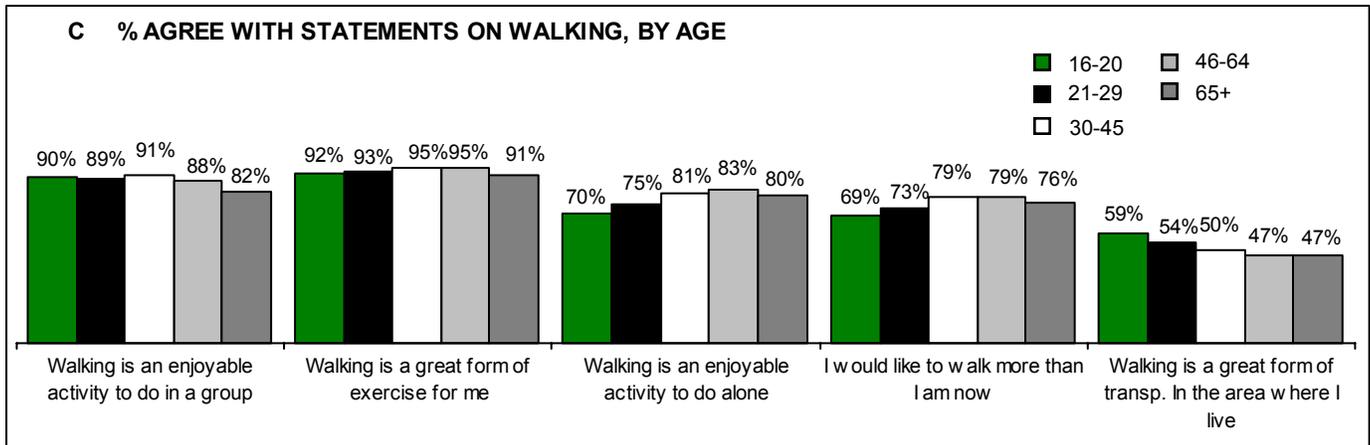
The perception that walking is a great form of transportation in their area varies by NHTSA Region, from a high agreement of 59 percent in NHTSA Region 8 (CO, MT, ND, SD, UT, WY) to a low of 42 percent in NHTSA Region 4 (AL, FL, GA, KY, MS, NC, SC, TN). [Figure 50-D]

**FIGURE 50: OPINIONS ON WALKING**



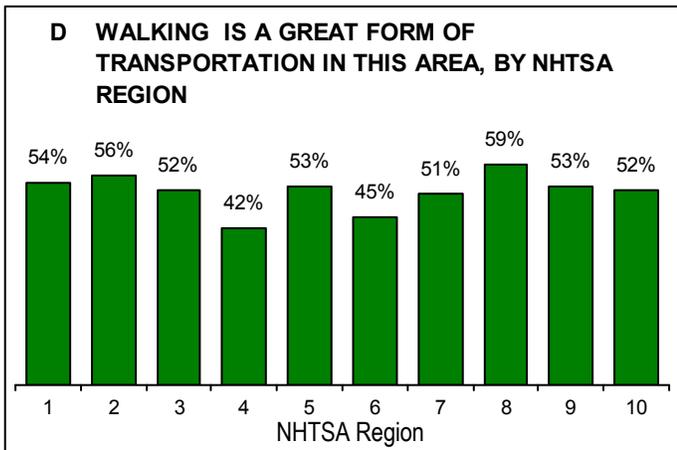
Q101: Now, I would like to know your personal opinions about walking. Please indicate how strongly you agree or disagree with the following statements about walking. How about ...?

Q101: Now, I would like to know your personal opinions about walking. Please indicate how strongly you agree or disagree with the following statements about walking. How about ...?



Q101: Now, I would like to know your personal opinions about walking. Please indicate how strongly you agree or disagree with the following statements about walking. How about ...?

**FIGURE 50: OPINIONS ON WALKING (continued)**



Q101: Now, I would like to know your personal opinions about walking. Please indicate how strongly you agree or disagree with the following statements about walking. How about ...?

Sample bases for this page:

|                     | Total           | Male            | Female           | 16-20            | 21-29            | 30-45            | 46-64           | 65+             | Heavy            | Medium           | Light | Pedestrians | Non-Pedestrians |
|---------------------|-----------------|-----------------|------------------|------------------|------------------|------------------|-----------------|-----------------|------------------|------------------|-------|-------------|-----------------|
| Total population    | 9616            | 3936            | 5680             | 724              | 1309             | 3132             | 2914            | 1479            | 325              | 553              | 1670  | 7548        | 2068            |
| <u>NHTSA Region</u> |                 |                 |                  |                  |                  |                  |                 |                 |                  |                  |       |             |                 |
| Total population    | <u>1</u><br>507 | <u>2</u><br>843 | <u>3</u><br>1027 | <u>4</u><br>1754 | <u>5</u><br>1681 | <u>6</u><br>1149 | <u>7</u><br>498 | <u>8</u><br>358 | <u>9</u><br>1316 | <u>10</u><br>483 |       |             |                 |



# Appendix A

## NHTSA Regions

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**The National Highway Traffic Safety Administration has 10 regional offices that work on the agency’s mission to save lives, prevent injuries, and reduce traffic-related healthcare and other economic costs. The States and Territories that make up each Region are:**

**Region 1:** Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont

**Region 2:** New Jersey, New York

**Region 3:** Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia

**Region 4:** Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee

**Region 5:** Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin

**Region 6:** Arkansas, Louisiana, New Mexico, Oklahoma, Texas

**Region 7:** Iowa, Kansas, Missouri, Nebraska

**Region 8:** Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming

**Region 9:** Arizona, California, Hawaii, Nevada

**Region 10:** Alaska, Idaho, Oregon, Washington

(NOTE: Interviewing was conducted only in the 50 United States and the District of Columbia.)

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**National Highway Traffic Safety  
Administration**

