



## FHWA NHTS BRIEF

### About the NHTS

Conducted periodically since 1969 by the Federal Highway Administration, the NHTS collects travel data from a sample of U.S. households. The information is used to understand trends in the Nation's trip-making and miles of travel by mode, purpose, and time-of-day for use in policy, planning, and safety.

Data are collected for household members for each day of the year, yielding a rich demographic profile linked to daily travel and vehicle characteristics.

For more information:  
<http://nhts.ornl.gov>



U.S. Department of Transportation  
Federal Highway Administration

# NON-MOTORIZED TRAVEL

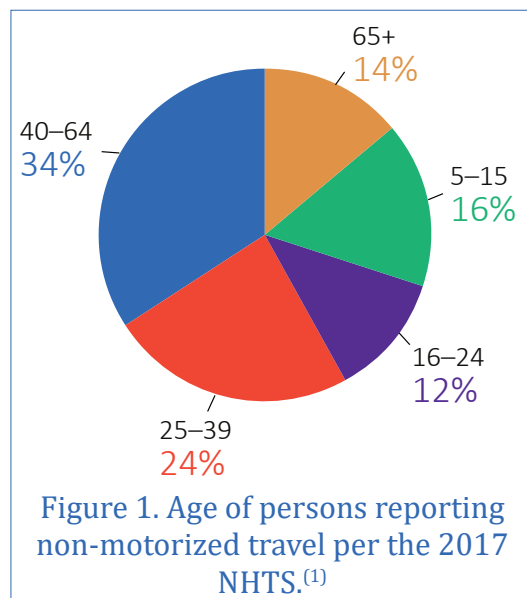
2017 National Household Travel Survey

April 2020

According to the 2017 National Household Travel Survey (NHTS), Americans ages 5+ reported more than 42.5 billion trips by walking or biking.<sup>(1)</sup> These trips averaged 1 mile in length and 16 minutes in duration and comprised almost 12% of all trips annually (across all modes and purposes). Definitionally, non-motorized trips (i.e., walking and biking) include trips made for exercise or recreation as well as those made to access destinations such as workplaces, stores, etc. The purpose of this brief is to provide insights into non-motorized travel. Specifically, it focuses on who reports non-motorized travel, where and when these trips take place, and for what purposes. All data used in this brief draw from the 2017 NHTS data.<sup>(1)</sup>

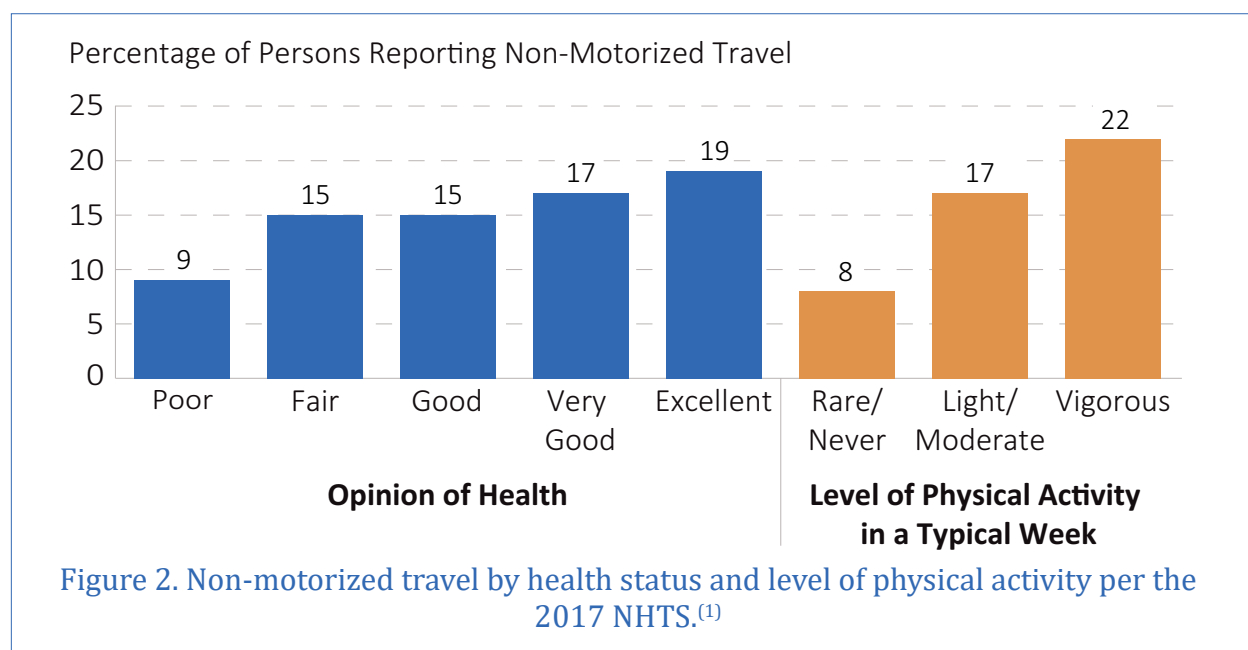
## Who Reports Walk/Bike Trips?

On a typical day, one in six Americans (17%) reported taking a walk or riding a bike. Of this group, one-third (34%) were between the ages of 40 and 64. An additional 24% were between the ages of 25 to 39 (see figure 1). Children ages 5 to 15 comprised 16%, while those ages 65+ comprised 14%. Non-motorized travelers ages 16 to 24 were the smallest group, comprising only 12% of all those



traveling by walking/biking. Across genders and age groups, an equal proportion of men and women reported non-motorized travel.

Not surprisingly, there were differences in the number of non-motorized travelers based on self-reported data of health status and level of physical activity. As indicated in figure 2, respondents who self-reported being in better health reported more walking and biking trips as compared to those who self-reported being in poorer health. Similarly, those reporting a higher level of physical activity in a typical week also reported more walking and biking trips than those reporting a lower level (or no) physical activity.



### Where and When Do These Trips Take Place?

As expected, non-motorized travelers tended to live in the higher-density areas. Figure 3 shows the distribution of those who reported travel by walking/biking versus those who did not by home geography. The proportion of those reporting no travel by walking or biking remained fairly steady across geography, while the proportion of those who did report non-motorized travel increased as density increased.

According to the 2017 NHTS, non-motorized travel took place steadily during daylight hours, with four peaks at 8 a.m., 12 p.m., 3 p.m., and 6 p.m. This compares to auto travel, which has three peaks (7 a.m., 12 p.m., and 5 p.m.), and transit travel, which peaks at 7 a.m. and 5 p.m. (see figure 4).

Of all non-motorized trips reported, 75% took place during the week (Monday through Friday). Weekday walking and biking trips took place throughout the day with four peaks (as noted in figure 4), while weekend non-motorized trips were more likely to take place mid-day with only two peaks at 10 a.m. and 3 p.m. (see figure 5).

Percentage of Persons Ages 5+

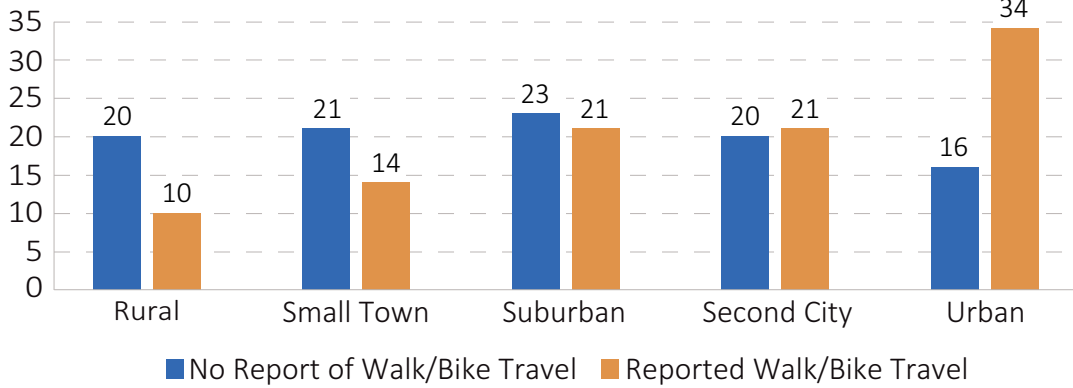


Figure 3. Non-motorized travel by home geography per the 2017 NHTS.<sup>(1)</sup>

Percentage of Trips

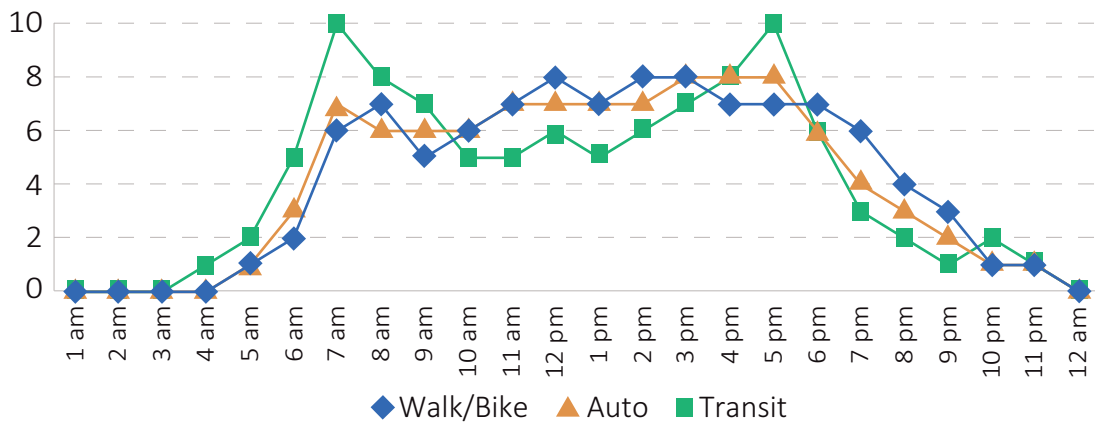


Figure 4. Comparison of travel mode by time of day per the 2017 NHTS.<sup>(1)</sup>

Percentage of Trips

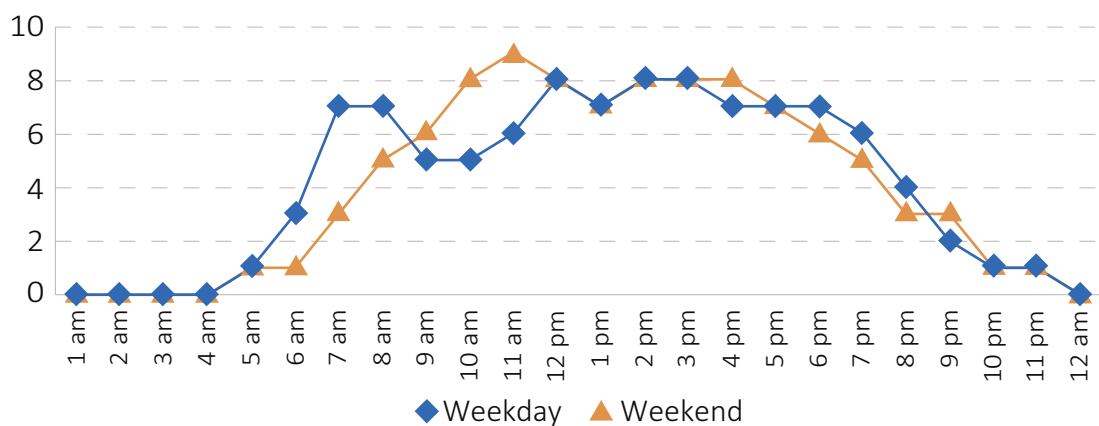


Figure 5. Non-motorized trips by time of day and day of week per the 2017 NHTS.<sup>(1)</sup>

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## What Reasons Are Motivating These Trips?

Differences in trip purpose by day of week for non-motorized trips provide some insights as to why these differences in the time of day of travel. As indicated in table 1, during the week, the primary trip purposes were social/recreation (37%); family/personal business, which includes parents taking kids to school/daycare (16%); shopping (12%); and school/church (12%). On the weekend, the social/recreation trips increased to almost half (49%), followed by trips for shopping (19%) and to visit friends/relatives (10%).

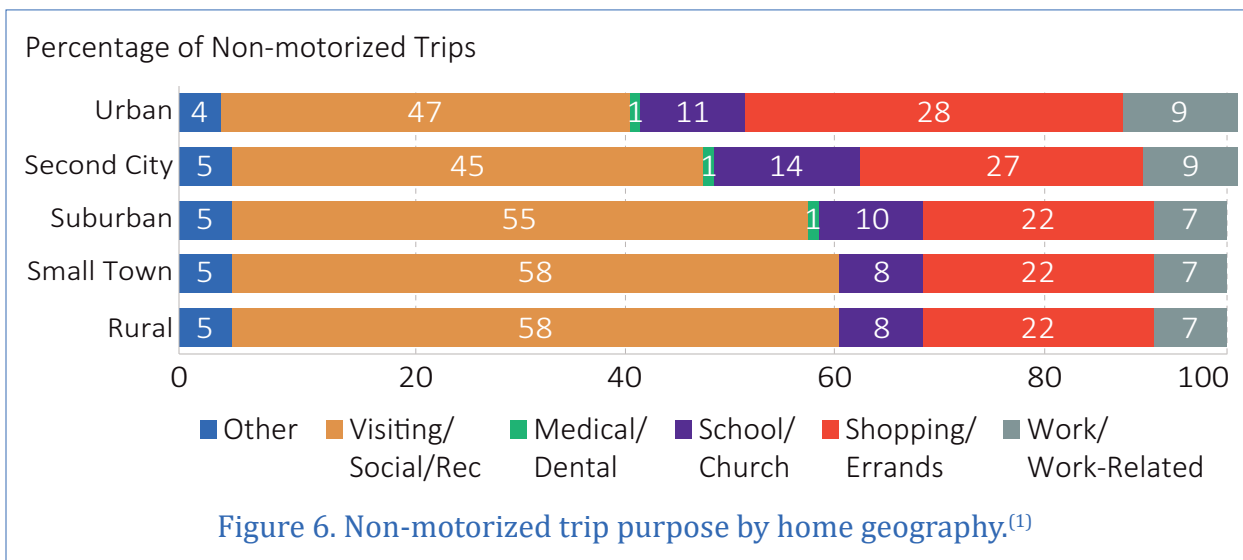
Table 1. Percentage of non-motorized trips by trip purpose and day of week.<sup>(1)</sup>

| Trip Purpose                 | Weekday     | Weekend     |
|------------------------------|-------------|-------------|
| To/from work                 | 9%          | 4%          |
| Work-related business        | 2%          | 0%          |
| Shopping                     | 12%         | 19%         |
| Family/personal business     | 16%         | 8%          |
| School/church                | 12%         | 7%          |
| Medical/dental               | 1%          | 0%          |
| Visit with friends/relatives | 6%          | 10%         |
| Social/recreational          | 37%         | 49%         |
| Other                        | 5%          | 3%          |
| <b>Total</b>                 | <b>100%</b> | <b>100%</b> |

Consistent with the increased level of non-motorized travel in urban areas (see figure 3), as the home geography density increased, the proportion of trips for purposes other than visiting or social/recreation increased. Urban dwellers reported the highest proportion of non-motorized travel for shopping and work/work-related purposes than those living in all other home geographies (see figure 6).

To summarize, key findings in this brief include the following:

- Across all travelers reporting at least one trip by walking or biking, the largest proportion were those ages 40 to 64, while the smallest proportion was those ages 16 to 24.
- Across genders, men and women reported the same level of walk and bike trips.
- Self-reports of health and levels of physical activity were positively correlated with non-motorized travel; that is, those in better health and with higher levels of physical activity were more likely to report a trip by walking or biking.
- Those living in higher-density areas were more likely to travel by walking or biking as compared to those living in lower-density areas.
- Compared to auto and transit trips (with three and two peaks respectively), non-motorized travel has four peaks (at 8 a.m., 12 p.m., 3 p.m., and 6 p.m.).



- Of all non-motorized trips reported, the majority took place during the week (Monday through Friday). Weekday walk and bike trips reflect four peaks while weekend non-motorized trips were more likely to take place mid-day with only two peaks observed (at 10 a.m. and 3 p.m.).
- While social/recreation was the dominant trip purpose for non-motorized travel, people who lived in urban areas reported a higher level of non-motorized travel for work and shopping purposes.

## References

1. Federal Highway Administration. (2017). *2017 National Household Travel Survey, U.S.* Department of Transportation, Washington, DC. Available online: <http://nhts.ornl.gov>.

## Contact Information

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