

2000 Travel Behavior Inventory HOME INTERVIEW SURVEY, SEVEN-COUNTY AREA

About the Survey

The Home Interview Survey is one of several studies that make up the 2000 Travel Behavior Inventory (TBI). The TBI is a comprehensive survey of travel in the Twin Cities area, conducted jointly by the Metropolitan Council and the Minnesota Department of Transportation about every 10 years.

For the Home Interview Survey, a total of 6,219 randomly selected households successfully completed 24-hour travel diaries for each of five weekdays. Of these households, 5,032 were in the seven core counties of the region and 1,187 were in the 13 “ring” counties surrounding the region.

In the diaries, household members (5 years of age and older) recorded locations of trip origins and destinations, travel mode (such as auto, bus or bicycle), the times that trips started and ended, and activities at trip destinations. This is the first TBI where both motorized and non-motorized (walking and bicycling) modes were included in the travel diaries.

About this Briefing Memo

This memo highlights data from the Home Interview Survey that were collected in the seven core counties of the region (the jurisdiction of the Metropolitan Council). A separate memo describes the data from the ring counties (publication no. 35-03-041).

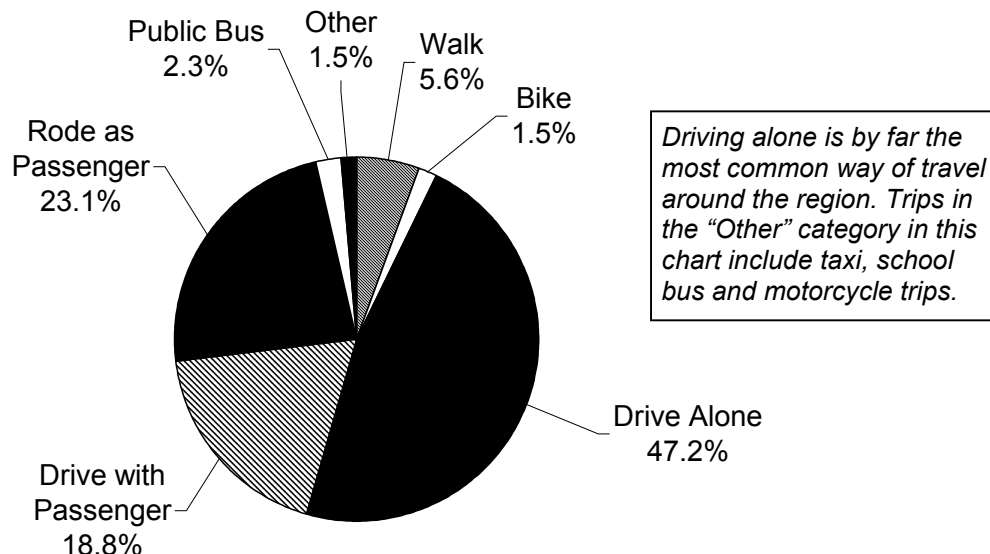
The data from the survey focus primarily on person trips. A person trip is a one-way journey between two points taken by one person. For example, a trip taken by a person in a car from home directly to work constitutes one person trip. A similar trip to work, but with an intervening stop at a coffee shop, constitutes two person trips.

This memo is one of a series that describes data from the 2000 TBI. An upcoming memo will feature data from the External Station Survey, which measured travel into and out of the seven-county area. A previous memo (publication no. 35-03-039) compared data from the 1990 TBI and the current one.

Data Highlights

Nine out of ten trips taken by motorized vehicle

Weekday person-trips in the seven-county Twin Cities area totaled 11,672,7434 in 2001, for an average of 11.1 weekday person-trips per household. These trips included both motorized and non-motorized modes.



- Most trips (92.8%) were made by motor vehicle (10.3 trips per day per household).
- The remainder (7.2%) were made by bicycle or walking (.8 trips per day per household).
- Two-thirds (66%) of all person trips in the seven-county region were made by auto drivers; another 23.1%, by auto passengers. Public transit accounted for 2.3% of all person trips.
- More than half of the people making auto trips (53%) drove alone and 47% made their trip with at least one other person. More than three-fourths of the people going to work (77.6 %) drove alone.

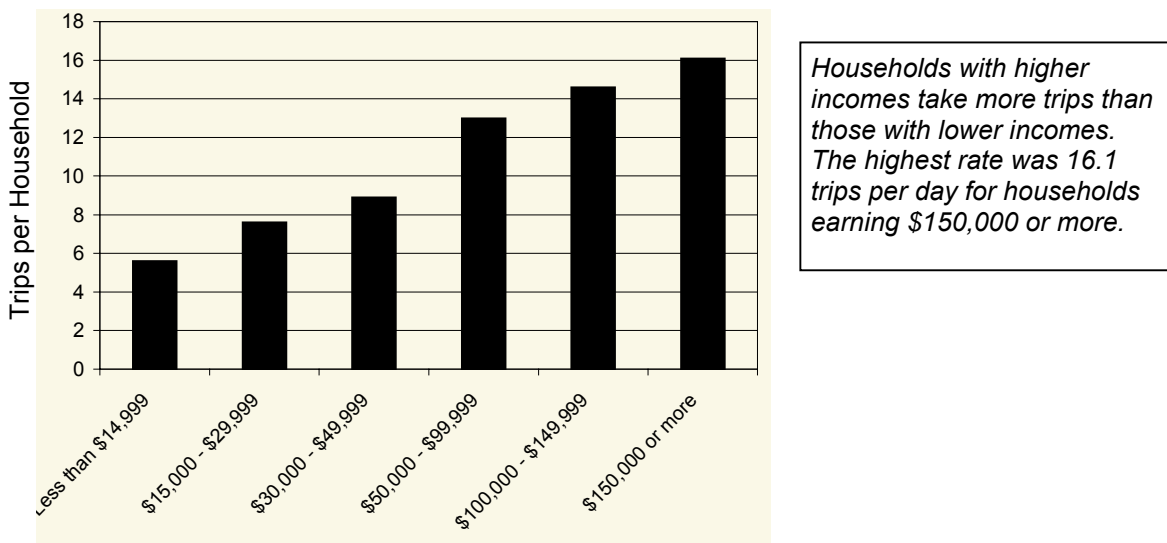
Bigger households make more trips

The number of person trips per household grows with household size. For example, one-person households averaged 5.3 trips per day and two-person households averaged 9.3 trips per day, while households with five or more people made an average of 22.4 trips.

The number of trips per person, however, varies little with household size. The highest trip rate is 5.3 for persons in one-person households; the lowest, 4.2 trips for persons in three-person households. Overall, individuals made 4.5 trips per day (all modes) and 4.2 motorized trips per day.

Have cash, will travel

The number of person trips per household generally increases with household income. The trip rate for households in the lowest income group (less than \$5,000) is 6.2 trips (all modes) per day. By contrast, the trip rate for households in the highest income group (\$150,000 or more) is 16.1 trips per day.



If you've got wheels, you'll use them

The more vehicles a household has, the more motorized trips the household members tend to take. Person trips in motorized vehicles (including transit) ranged from an average of 3.2 trips per day for households with no vehicles to 14.7 trips per day for households with five or more vehicles. Households with two vehicles averaged 12.2 trips per day.

Households in the seven-county area had, on average, 1.03 vehicles per licensed driver. The average number of licensed drivers per household was 1.75, while the average number of vehicles available to the household was 1.8. Just under 5% of households had no vehicle, and just over 2% had no licensed driver.

Most trips taken on Wednesdays

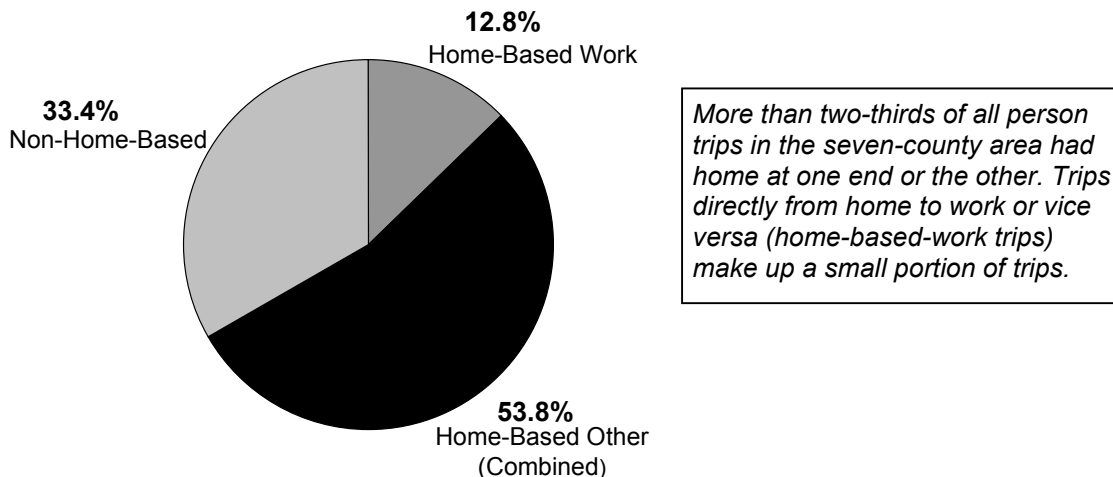
While the average household trip rate in the seven core counties was 11.1 trips per day (all modes), the rate varied depending on the day of the week. Mondays were the lowest (10.1 trips per day),

while Wednesdays were the highest (12.0 trips per day). Household trips rates for biking and walking ranged from .7 to 1.0, with Tuesday being the most popular day to take a trip by biking or walking.

Trip purposes influence traffic patterns

The TBI tracked the destination activity and general purpose of each person trip to determine which activities and trip purposes generate the most trips. This information assists planners in forecasting future traffic growth and planning transportation improvements.

Of all person trips made in the seven counties, 12.8% are made directly from home to work or work to home with no stops in between. In fact, home is at one end of two-thirds (66.6%) of the person trips made in the region. Other than to work, destinations include shopping, school, or some other place.

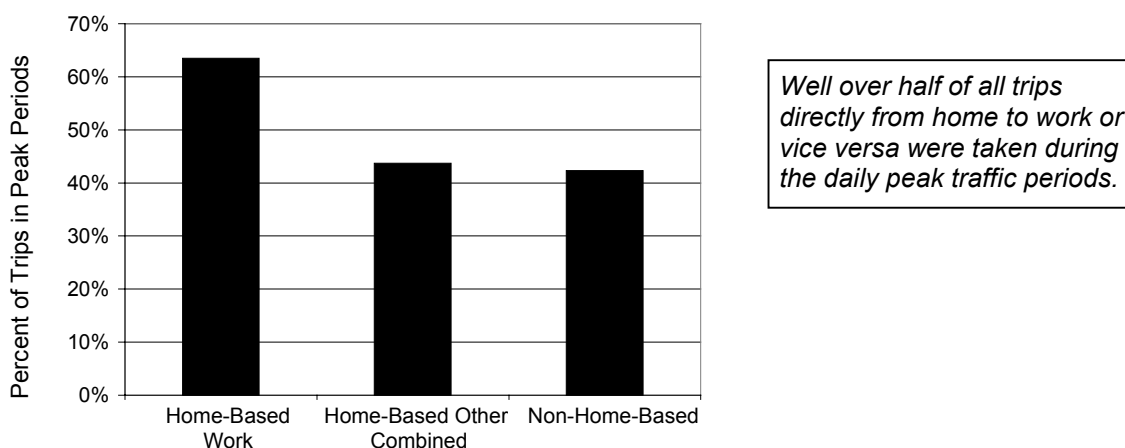


One-third (33.4%) of all person trips did not involve home at one end or the other. These included trips made between, for example, a coffee shop and work, from work to the dry cleaners, from one shopping mall to another, or from a restaurant to a theatre.

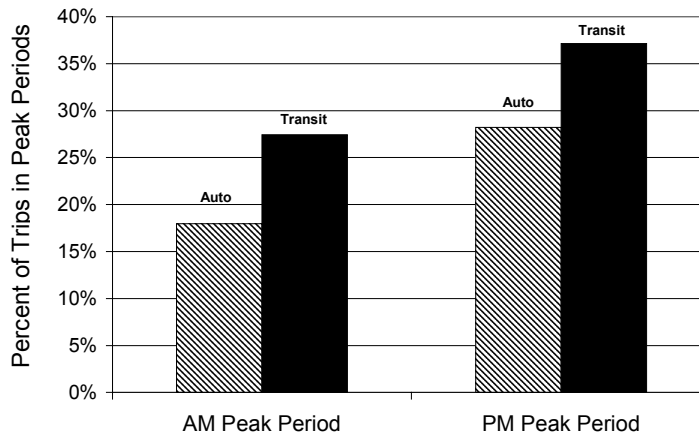
Activities at home (not including working at home) had the largest share, 32.9%, of the destination activities of all person trips. Other leading destination activities included shopping (13%), personal business (11.9%), work (11.1%) and picking up or dropping someone off (7.8%).

Trip purposes shape traffic flow

Commuting to work and school has a major impact on traffic patterns. Nearly half of all daily trips in the region (46% or 5.34 million) occurred from 6:45 AM to 9:45 AM and 2:30 PM to 5:59 PM. Almost two-thirds of all home-based work trips (63.5%) were taken in those time periods. More than one-third (34.3%) of the AM peak-hour trips (6:45 to 7:44) are home-based work trips, while only 15.4% of PM peak hour (5 to 5:59 p.m.) trips are home-based work trips. This reflects the fact that people often take advantage of their commute home to do other activities, like shopping or eating out.



A greater percentage of transit trips occurred in the peak periods compared with passenger-vehicle traffic. While peak-period auto-driver trips represent 18% of the daily total in the AM peak period and 28.1% in the PM peak period, peak-period transit represented 27.4% and 37.2%, respectively, of the daily total of all transit trips.



Transit exhibits higher "peaking" characteristics than auto travel. A greater share of transit trips occur during the daily peak periods compared with auto trips.

Travel time is increasing

Most commuters are not surprised to hear that it's now taking longer to get to work (and to other destinations) than it did 10 years ago.

Because the 2000 TBI was the first to include walking and bicycling in its tabulations, overall travel time for all modes cannot be compared to 1990. But the average motorized travel time for the work commute rose from an average of 21 minutes in 1990 to 24 minutes in 2000.

When biking and walking trips to work are included in the mix, the average overall duration of trips directly from home to work or vice versa was 25.6 minutes in 2000, and the average distance, 10.5 miles. For auto drivers, the average commute took 25.1 minutes, and for transit riders, 42.6 minutes. For all modes, about 35% of commutes were 15 minutes or less; 40%, between 16 and 30 minutes; and 25%, longer than 30 minutes.

In the 2000 TBI, the average duration of all trips, commuting or otherwise, for all modes was 16.6 minutes. Just under half of all trips (45.7%) took 10 minutes or less.

Motorized trips averaged just over 17 minutes in length, compared to 15.8 minutes 10 years earlier.

Driving alone dominates travel

A vehicle trip is a one-way journey made by an auto, truck or bus, regardless of the number of people transported. More than two-thirds of all vehicle trips (71.5%) are made in single-occupant vehicles. The average passenger-vehicle occupancy for all trip purposes is 1.35.