Technical Report Series

On the Go

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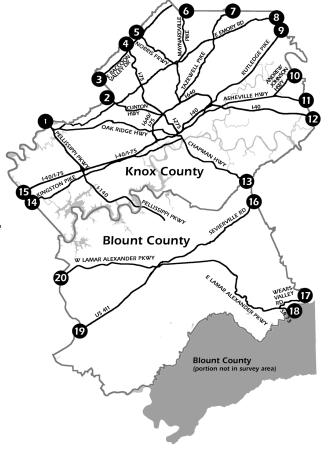
MPC Web site and email:

www.knoxmpc.org contact@knoxmpc.org Travel patterns along Knoxville-area highways and byways. How many trips do Knoxville-area residents make in a day?
Are these for business or pleasure?
How many vehicles are merely passing through without a local destination?

A study commissioned by the Knoxville Urban Area Metropolitan Planning Organization in Knox and Blount counties finds an increasing reliance on automobiles. The purpose of the study is to update transportation and air quality models for the two-county area. Eventually the data will be used to build a travel demand model to help MPO planners set transportation priorities for the next 20 to 30 years.

SURVEY AREA MAP AND DATA COLLECTION POINTS

- 1. Oak Ridge Highway at Anderson County Line
- 2. Clinton Highway at Anderson County Line
- 3. Raccoon Valley Road at Anderson County Line
- 4. I-75 at Anderson County Line
- 5. Norris Freeway at Anderson County Line
- 6. Maynardville Highway at Union County Line
- 7. Tazewell Pike at Union County Line
- 8. Emory Road at Grainger County Line
- 9. Rutledge Pike at Grainger County Line
- 10. Andrew Johnson Hwy. at Jefferson County Line
- 11. Asheville Highway at Sevier County Line
- 12. I-40 at Sevier County Line
- 13. Chapman Highway at Sevier County Line
- 14. Kingston Pike at Loudon County Line
- 15. I-40 at Loudon County Line
- 16. Sevierville Road at Sevier County Line
- 17. Wears Valley Road at Sevier County Line
- 18. SR 73 at Sevier County Line
- 19. US 411 at Loudon County Line
- 20. Lamar Alexander Pkwy. at Loudon County Line





MPO contracted with NuStats, an Austin, Texas-based firm, which collected data from 1,704 households over the months of November 2000 - February 2001. Data collection methods included telephone surveys and travel logs. A second study monitored traffic patterns at 20 roadside locations along the boundary of the study area, capturing license plate information which was matched to motor vehicle registrations. Researchers then followed up with mail-in and telephone questionnaires to determine where commuters from outside the two-county study area were going to and from. A total of 1,638 valid responses were collected.

Major findings:

- Local travel is up considerably.

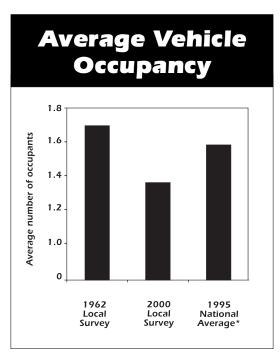
 Although households today report making about the same number of daily trips (8.5) compared to 1962 when the last local study was conducted, the trip rate per person has increased by 29 percent. This increase probably reflects the fact that households are getting smaller, but still taking just as many trips.
- Households with children make more trips (an average of 13 per day) as do households supported by two workers (an average of 12 per day). The average trips per day for all households was 8.5.
- A trip is defined as driving from one destination to another. In the example above, a person who leaves home to fill up the car with gas, pick up food at the grocery store, and visit the beauty salon has made three trips. Returning home is the fourth trip.

- Cars have fewer passengers.

 Nearly two out of three trips taken were by people traveling alone in their cars.

 Average vehicle occupancy dropped from 1.69 in 1962 to 1.36 in 2000.

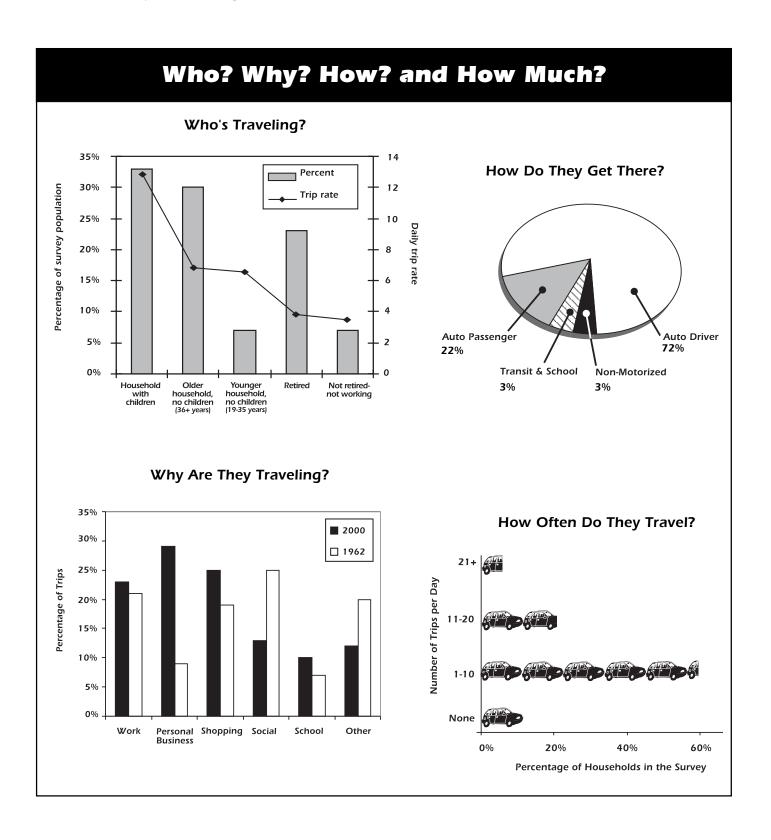
 When shopping or running errands, however, a majority of people in the study rode with at least one other passenger.
- Transit (including school buses) makes up just 1 percent of all trips.



*National average from the U.S. Department of Transportation, Federal Highway Administration as published in the report "Summary of Travel Trends, 1995, National Personal Transportation Survey."

Household Survey Highlights

Most trips in the survey area took less than 15 minutes, with a small number lasting longer than a half hour. The average trip lasted just over 18 minutes. Women made slightly more trips than men at a ratio of 3.61 to 3.29 trips per day. Older people had the lowest trip rate; those over 65 years old averaged 2.54 trips per day. The highest daily trip rate (4.14) was seen in the 35-44-year-old group— the age range of adults most likely to be driving children to and from school and other activities.



Roadside Survey Results

Approximately 20 percent of Tennessee passenger vehicles were merely passing through the study area, while 80 percent had either the trip origin or destination within the area. One-half of all travelers were headed for work or a business appointment. Shopping and errands (such as banking, going to the grocery store, etc.) accounted for the second most common trip purpose, followed by travel for entertainment purposes such as visiting a friend or relative, or going to a sporting event or movie.

Other highlights include:

- The majority of those traveling for work or business appointments were driving on one of the three interstate sites or State Route 62 (Oak Ridge Highway) at the Anderson County Line. These four sites accounted for 57% of all work and business appointment travel.
- Most respondents make frequent trips, with one-third (34%) of survey participants making the same trip four or more times a week. An additional 16% traveled two to three days a week.
- Automobiles are the most common type (58%) of vehicle driven by respondents. Sport utility vehicles/ vans are the second most popular vehicle, driven by 24% of those participating in the study. The median age of all vehicles in the study was five years, with model years ranging from 1954 to 2001. Vehicles made in 1997 were the most prevalent.

