CTPP 2000 Status Report

January 2003

U.S. Department of Transportation
Federal Highway Administration
Bureau of Transportation Statistics
Federal Transit Administration
In cooperation with the TRB Census Subcommittee

Using the CTPP 2000 Profile Data

On October 30, the first Census Transportation Planning Package 2000 (CTPP 2000) product was released. The profiles are posted on the AASHTO web page at http://www.transportation.org/ctpp

The CTPP profiles include data from both 1990 and 2000. Some tables were previously available through Summary File 3, but two tables have been added. The first table is household size by vehicle availability, and the second is travel time by mode to work. Profiles are available for each county nation-wide, and for MCDs in six New England States. If you are interested in a complete data set on CD, please contact the Bureau of Transportation Statistics at http://www.bts.gov (products, census profiles) or call them at 202-366-3282.

As of November 27, over 900 unique users had accessed the site.

What have you done with the profile data? See page 8 of this report for the results from Ed Christopher, now with the FHWA Mid-west Resource Center.

CTPP 2000 Data Release Schedule

CTPP Part 1 – Residence Based Tables:
February 2003

CTPP Parts 2 & 3– Work End Tables & Worker Flow Tables:
Summer 2003

The CTPP will be released on a flow basis.

Important Websites:

CTPP Website:
http://www.dot.gov/ctpp

FHWA Census Issues Website:
http://www.fhwa.dot.gov/planning/census/

TRB Census Data Subcommittee:
http://www.trbcensus.com

CTPP 2000 Profiles:
http://www.transportation.org/ctpp

1990 CTPP downloadable via Transtats:
http://transtats.bts.gov/ (Coming soon)

CTPP 2000 Related Activity at the 82nd TRB Annual Meeting

(January 12-16, 2003 Washington DC)

We hope to see many of you at the TRB Annual Meeting. The following sessions/meetings are scheduled.

Committee on Urban Transportation Data and Information Systems (A1D08) Meeting:
January 13, 2002; 1:30 – 5:30 pm (Hilton Hotel)

Analyzing and Presenting Census Data: January 15, 2003; 9:00 am to 12:00 noon (Hilton Hotel)

TRB Census Subcommittee Meeting: January 15, 2003; 2:30 – 4:00 pm (Hilton Hotel)

Are you ready for CTPP Part 1?

By Ed Christopher, Federal Highway Administration

Residence-tabulations only
Similar to Summary Files 1 and 3 from the Census, CTPP Part 1 is limited to tabulations for residence geography only. Data for workplace geography and flow will not be available until Spring 2003.

Geographic Unit of Reporting
"Everyone" wants small area geography! CTPP Part 1 will be the first product with TAZ and Tract, and in many cases, Block Group level data.

Tables included
Compared to 1990 CTPP, there are more tables with race and Hispanic origin. We have added "poverty status," which is a derived value using family size, presence and age of children, and income. Some tables that travel demand modelers may find particularly useful include 1-62 through 1-79 for households. These represent cross-tabs for household size, vehicles available, number of workers, and income. For a complete list of the tables, please see: http://www.fhwa.dot.gov/ctpp/content.htm.

Data access through CAT

When the CTPP Part 1 data CDs start rolling out the Census Bureau's door, the data will be stored in Beyond 20/20 proprietary format. However, the CTPP Access Tool (CAT) is a user-friendly interface that will allow you to pick the tables in which you are interested, and to export files into many different formats, including GIS formats. There is also some basic mapping functionality built into the CAT.

Learn more about Census data and CTPP
FHWA has commissioned a self-instructional guidebook to help new users of Census data better understand where the data is from, why CTPP data differs from other data sources, and how to use CTPP data in different applications. A Beta version is now available. The final version is expected to be completed by February 2003.

To request a copy of the Beta version (it has only about 50 percent of the content), please send a email to Ed Christopher at the FHWA MidWest Resource Center (edc@berwyned.com or ed.christopher@fhwa.dot.gov).

Note: The graphic for the cat is taken from "Glenda Moore's Cat Stuff Graphics", non-commercial use only, www.xmission.com/~emailbox/graphics.htm

Are You *Still* Subscribed to the CTPP Listserve?

In the last few months, we have noticed several "list-serve" e-mails bounce back to us because of wrong e-mail addresses. If you have not received any e-mail from the CTPP listserve community in the past few weeks, chances are that you are no longer subscribed.

To subscribe, please send an e-mail to majordomo@chrispy.net with "subscribe ctpp-news" as the body of your message **OR** send an e-mail to edc@berwyned.com.

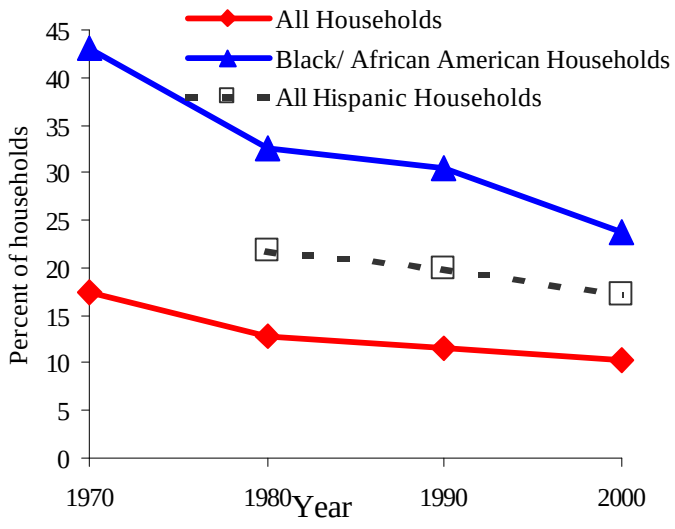
Households without Vehicles, 2000

Elaine Murakami, Federal Highway Administration

National Trends

Nationwide, about 10 percent of households do not have any vehicle. Each decade, this number has steadily declined, but between 1990 and 2000 the decline is very small. This number is likely to show continuing, but small, declines in the next decade. There remain some households, particularly lower income African-Americans, and Hispanic and other immigrants, who currently are much more likely to be without a vehicle.

Percent of Households without Vehicles



Land development patterns to a certain degree may also explain variability in vehicle ownership rates. Some development patterns are difficult to serve by fixed route transit modes and encourage high rates of vehicle ownership. Alternatively, transit supportive communities exist that require less dependency on vehicles. Transit accessibility is a key factor in providing mobility to get to jobs and to services and is often used by transportation planners to estimate rates of vehicle ownership and estimate travel demand.

Nationwide, about 4.5 percent of commuters use transit as their usual mode to work. While many of these transit commuters have a vehicle available for their use, others are able to live and work without a car.

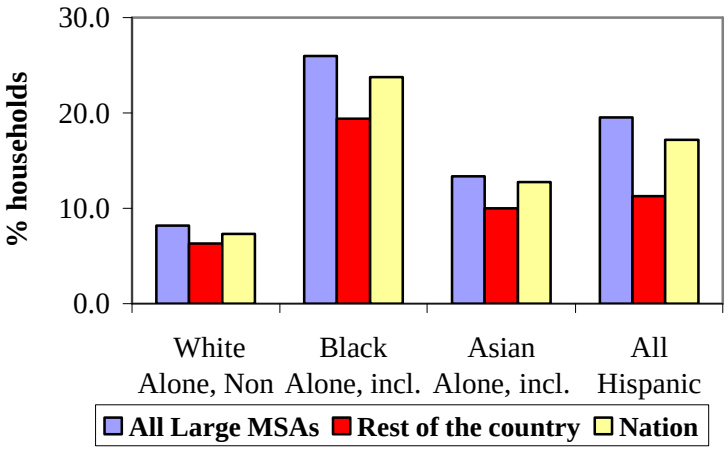
Race and Large MSAs

Vehicle availability varies more by race and Hispanic origin in MSA's with over 1 million population than in the rest of the country. For example, in these large MSAs, African Americans have a difference of 18 percent (26 compared to 8 percent) compared to White households. But for the rest of the country, the difference between African American and White households is only 13 percent (19 percent compared to 6 percent).

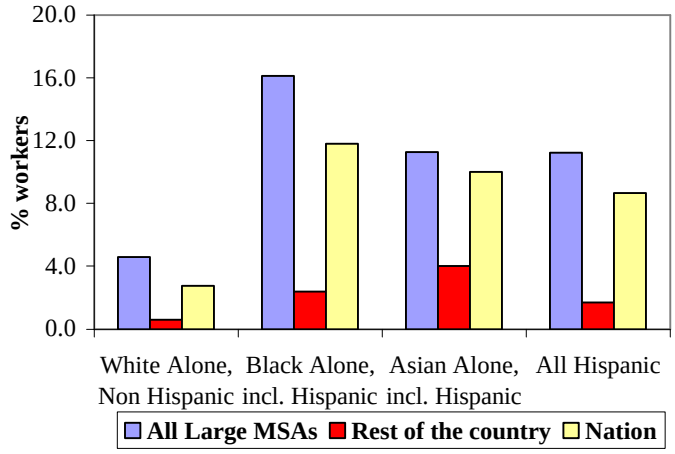
Similarly, Hispanic households in these large MSAs have a difference of nearly 11 percent (19 percent compared to 8 percent). Outside of these large MSAs, Hispanic households show much less of a difference compared to White households (11 percent compared to 6 percent).

Although Asian households are much closer in vehicle availability to White households, Asian workers are much more likely to use transit in large MSAs than might be expected.

Percent of households without vehicles, 2000



Percent of workers who used Transit to work, 2000



Large Cities

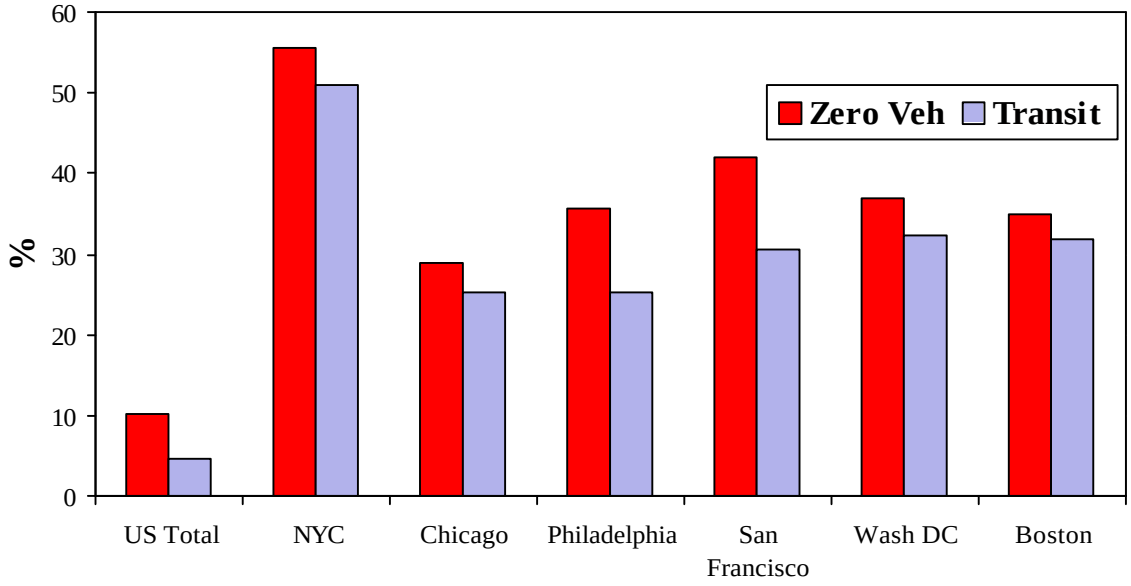
Densely populated cities are the most likely to have households without cars and also to have a high proportion of workers who use transit for their usual commute trip.

Six cities with the highest number of transit commuters are: New York, Chicago, Philadelphia, San Francisco, Washington, DC, and Boston.

Together, the population in these six cities make up only 5 percent of households nationwide, but represent 23 percent of households without vehicles. Even more striking is that these six cities represent nearly 40 percent of all transit commuters in the United States.

The transit shares appear to be highly correlated with the proportion of households without vehicles. In New York City, over 55 percent of households have no vehicle, and about 51 percent of workers use transit for their journey to work. In Washington, DC, over 37 percent of households have no vehicle, and about 32 percent of workers use transit for their journey to work .

Comparison of ZeroVehicle Households and Commuters using Transit for the Journey to Work



This suggests that accessibility to transit, despite longer travel times, can allow people in households to live without a vehicle in many cases, or with fewer vehicles in others.

	% of 1-person hhlds with zero veh	% of 2-person hhlds with zero or 1-veh
US total	20.8	34.3
Cook County, IL	32.9	52.6
San Francisco, CA	43.5	64.1
Washington, DC	45.3	71.1

Source: CTPP Profile sheets
http://ctpp.transportation.org

For example, in San Francisco, 43.5 percent of 1-person households have no vehicle, compared to 20.8 percent nationwide. Similarly, 2-person households are more likely to have either no car or 1 car. In San Francisco, 64.1 percent of 2-person households had either no car or 1 car, compared to 34.3 percent nationwide.

If you want a short commute, try a metro area with less than 1 million people!

Nanda Srinivasan, Cambridge Systematics

Average Travel Time

The most noticeable difference between 1990 and 2000 journey-to-work data is the increase in travel time to work. This increase is seen at many different geographic levels, with average travel time increasing in all States, and in all large metropolitan areas (MSAs with population over a million). Nationwide, the reported difference is 3.1 minutes, of which about one minute can be attributed to a difference in coding commutes of 100 minutes and longer (travel time was topcoded at 99 minutes for 1990 data, while it was topcoded at 200 minutes for 2000). That is, nearly 2 minutes of the increase is "real," and 1 minute is change due to coding.

Still, an average 2-minute increase in commuting time across all large metropolitan areas in the nation is substantial. Between 1980 and 1990, the increase was only 42 seconds.

Travel times also increased substantially outside of the large metropolitan areas, with the "rest of the country" showing a reported increase in commute time of about 3.3 minutes from 1990.

		2000: Percent of workers who commute:		Average Travel Time		
	2000 %Population	30 minutes or more	60 minutes or more	1990	2000	Change in Travel Time
Nation	100	33.4	7.7	22.4	25.5	3.1
49 Large MSAs	57.4	39.3	9.2	24.7	27.9	3.2
Rest of the Country	42.6	24.9	5.7	18.9	22.2	3.3

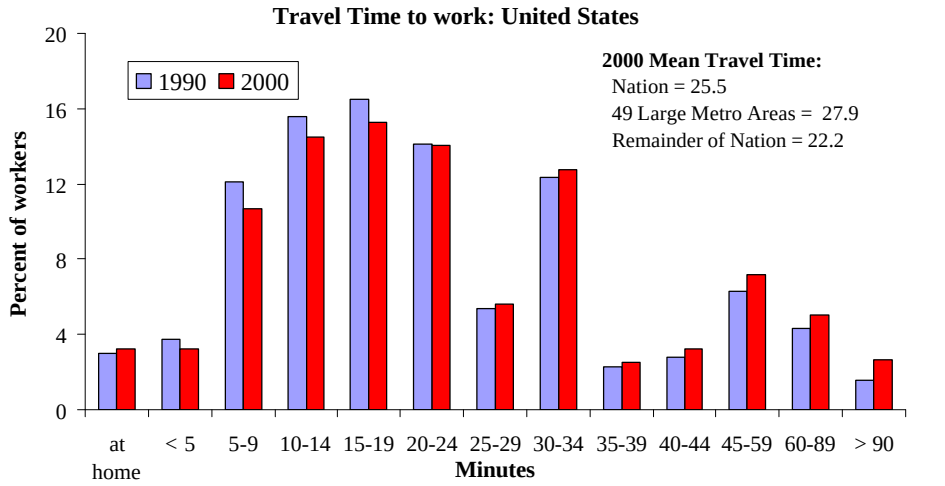
Note: Some of the changes may be due to top-coding changes in calculating travel time from 1990 to 2000.

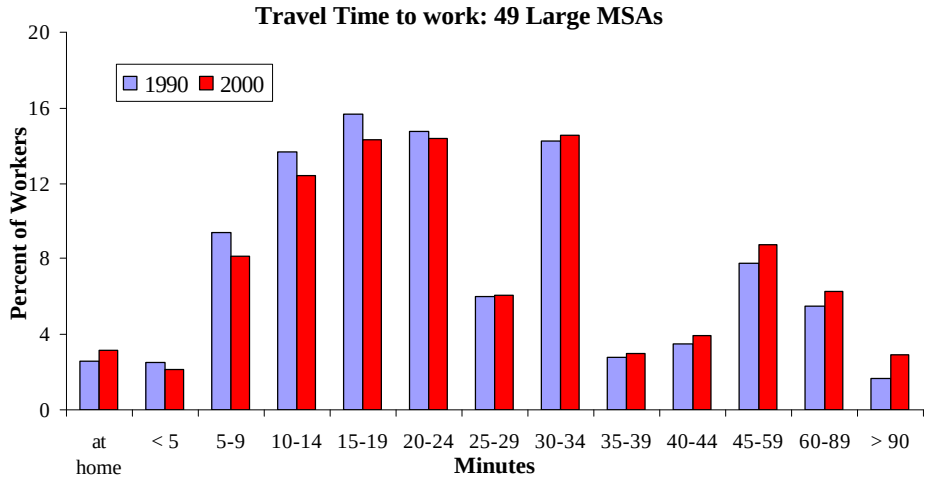
Travel Time Distribution

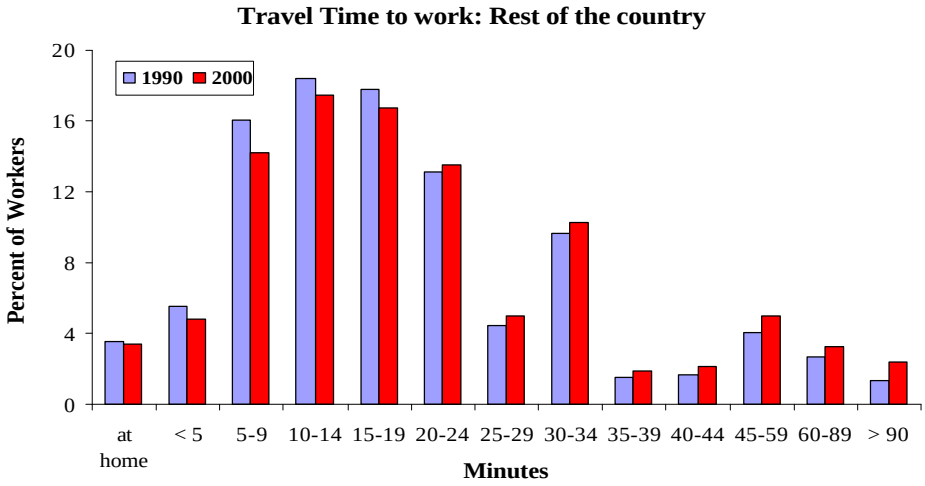
The data show an interesting pattern. First, percent of workers with longer travel times increased in 2000. For large metropolitan areas, percent of workers for all travel time classes in excess of 25 minutes show an increase, while all the classes less than 25 minutes show a decrease. For the rest of the country, the increase starts with the 20-24 minute category, but the overall curve is skewed to the left (shorter times) compared to the large metropolitan areas.

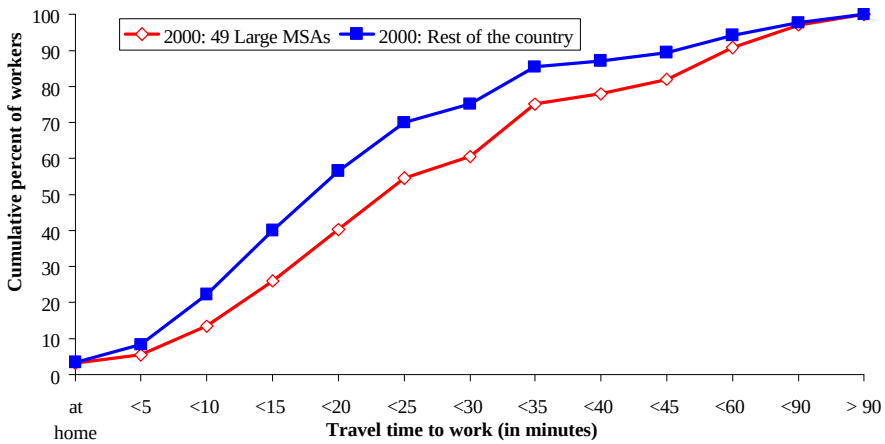
Many workers would probably consider a 30 minute commute to be tolerable—that is one hour a day for commuting to and from work would probably not be considered onerous. Overall, 39 percent of the workforce in large metropolitan areas is spending one hour or more a day just in traveling to and from work.

Some researchers have postulated a "travel-time budget" naturally occurs in human societies. That is, regardless of travel mode, people all over the world have a tendency to travel between an hour and an hour and one-half per day. If workers devote an hour to commuting, less time may be spent on daily discretionary travel. Trip-chaining and other techniques may be ways people use to maximize the efficiency of their daily travel while maintaining a consistent budget of travel time.


Travel Time to work: United States
1990 2000
2000 Mean Travel Time:
Nation = 25.5
49 Large Metro Areas = 27.9
Remainder of Nation = 22.2
Percent of workers
0 4 8 12 16 20
at home
< 5
5-9
10-14
15-19
20-24
25-29
30-34
35-39
40-44
45-59
60-89
> 90
Minutes


Travel Time to work: 49 Large MSAs
1990 2000
Percent of Workers
0 4 8 12 16 20
at home
< 5
5-9
10-14
15-19
20-24
25-29
30-34
35-39
40-44
45-59
60-89
> 90
Minutes


Travel Time to work: Rest of the country
1990 2000
Percent of Workers
0 4 8 12 16 20
at home
< 5
5-9
10-14
15-19
20-24
25-29
30-34
35-39
40-44
45-59
60-89
> 90
Minutes


2000: 49 Large MSAs
2000: Rest of the country
Cumulative percent of workers
0 10 20 30 40 50 60 70 80 90 100
at home
<5
<10
<15
<20
<25
<30
<35
<40
<45
<60
<90
> 90
Travel time to work (in minutes)

CTPP Profiles: Do They Have Any Utility?
Ed Christopher, Federal Highway Administration

Yes, the CTPP profiles have a wide range of uses. One way they can be used is to compile individual county data into a regional total, and then to compare each county to the region. This can be important in trying to understand how an area has changed and if any overall patterns exist.

Vehicle Ownership

For example, you may be interested in the change in the number of vehicles per household. Table 1 shows the six counties representing northeastern Illinois. At a regional level, the number of vehicles per household remained constant from 1990 to 2000, while it went up in Cook county (where Chicago is located) but went down in DuPage county. DuPage is considered by many to be suburban, so this trend may be suspect and needs more exploration. Is there major change occurring in the region? Perhaps.

Recognizing that vehicles per household may be related to the number of people in a household, we can include this variable (see Table 2), which is included in the CTPP profiles. Again we see that at a regional level there has not been any "real" change but within the counties there are some subtle differences. Another thing we may notice is that there was no change in Cook County, which should provoke an interest to look deeper into how people are traveling or the age composition of the population. The story with DuPage County is quite different as we find decreases in both the number of vehicles and people per household. With the profiles, one can identify and explore these differences.

If we do a quick check across all the counties with an eye on both Tables 1 and 2, we begin to see that there are no consistent patterns. It is obvious that the individual counties are not following the regional pattern, leading one to conclude that there must be some very localized differences worth exploring. The ability to analyze the data at different geographic scales is an important component of the CTPP. CTPP Part 1 will be the first CTPP product that includes TAZ, tract, and in some cases, block group, reporting.

Table 1: Vehicles per household

	1990	2000
Six-County Total	1.49	1.49
Cook	1.32	1.36
DuPage	1.91	1.85
Kane	1.85	1.90
Lake	1.89	1.88
McHenry	2.01	1.99
Will	1.95	1.97

Table 2: Persons per household

	1990	2000
Six-County Total	2.66	2.65
Cook	2.68	2.68
DuPage	2.76	2.73
Kane	2.91	2.97
Lake	2.85	2.88
McHenry	2.88	2.89
Will	2.97	2.94

Modal Market Shares

Region-wide modal market shares or within mode changes are also high interest topics from the CTPP. The actual numbers are on the profiles so it is possible to add counties together, combine categories and calculate new percentages. Tables 3 and 4 are summaries for the six counties identified above. Similar reviews can be made with the other journey-to-work questions such as "travel time to work", "time leaving home to go to work."

The profiles also contain two useful cross-tabulations: "household size by vehicles available", and 'means of transportation to work by travel time to work"—with both row and column percents.

If you were interested in those individuals commuting 45 minutes or more to work by the modes they used, you would see that in Cook County (where Chicago is located) Illinois, of workers with a commute of 45 minutes or longer, 65 percent drove alone, 13 percent carpooled and 33 percent took public transportation. In McHenry County, nearly 90 percent of those with long commute time (45+ minutes) drove alone or carpooled.

Even if these profiles are limited to county totals, and have few tables not already available from Summary File 3, they are still useful. The table on household size and vehicles available is already being used by the Metropolitan Council of the Twin Cities, in Minnesota and at the Knoxville MPO in Tennessee to factor and adjust their own recently completed household travel surveys.

Please share your experiences using the CTPP or other Census data with the CTPP Working Group! Just drop the working group an email at ctpp@fhwa.dot.gov.

Table 3: Modal Market Shares

	1990	2000
Drove alone	66%	69%
Carpooled	12	11
Public trans. (incl taxicab)	15	13
Bicycle or walked	4	4
Motorcycle or other means	1	1
Worked at home	2	3
Total	100%	100%

Table 4: Change within Modes (1990 to 2000)

	Number	Percent
Drove alone	263,772	11
Carpooled	-4,603	-1
Public trans. (incl taxicab)	-40,676	-8
Bicycle or walked	-20,092	-13
Motorcycle or other means	5,476	25
Worked at home	35,350	48

CTPP Hotline – 202-366-5000

CTPP Website: http://www.dot.gov/ctpp
TRB Sub-committee on census data: http://www.trbcensus.com
FHWA Website for Census issues: http://www.fhwa.dot.gov/planning/census

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