CTPP Status Report

September 2006

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

Commuting in America III

By Alan Pisarski

Commuting in America III (CIA III) is complete and will be published by the Transportation Research Board (TRB). The report will be broadly distributed through the TRB distribution process as well as special mailings to Congress and State Agencies.

CIA III and its predecessors encompass the history of the working years of the baby boom generation, and now as that group heads off-stage the document considers the sources of new workers to meet future demands. One of the keys to this will be the immigrant population – who they are, what skills they provide, and where will they be located. This population is already having significant impacts on commuting. Another key will be keeping older workers in the labor force longer. This suggests strong needs for employers to go where the skilled workers are or where they want to be and to provide competitive amenities to attract workers.

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The Next CTPP: SCOP Census Data Work Group Activities

Jonette Kreideweis, Mn DOT

The AASHTO Standing Committee on Planning (SCOP) Census Data Work Group has been working hard over the last year to develop an action plan for meeting future transportation needs for census based transportation planning products.

In April 2006, the Work Group sponsored a workshop on "Priority Census Data Uses and Needs for Transportation". The workshop was supported by the FHWA Planning Capacity Building Program and cosponsored by several TRB data committees. The purposes of the workshop were to share information on census data uses, learn more about future census data products, identify census data needs and priorities and scope out a multi-year program of tasks and potential CTPP pooled fund project components.

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2005 ACS Data Released

On August 29, 2006, the Census Bureau released economic data from the 2005 ACS and covering the following characteristics:

- Income
- Employment status
- Journey to work

Data was released for geographic areas with population more than 65,000.

On October 3, 2006, CB will release housing characteristics including tenure, vehicle ownership, and place-of-work tables. Data can be accessed via the American Factfinder at: http://factfinder.census.gov

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The Next CTPP: SCOP Census Data Work Group Activities

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The workshop reaffirmed the importance of census data for effective transportation planning. Participants discussed the transition from the census long-form to the new American Community Survey (ACS) and the current financial limitations of FHWA to support census data related work activities. Results of the workshop recommend a future Census Transportation Planning Products (CTPP) pooled fund project made up of a combination of data, training, technical support and research products. A summary of the workshop can be found at http://trbcensus.com/SCOP/docs/workshop_report.pdf.

The results of the census data workshop were presented at the AASHTO SCOP summer meeting in June 2006 in La Jolla, California. AASHTO SCOP members gave the Work Group approval to prepare a detailed CTPP pooled fund project proposal for discussion at the AASHTO Annual Meeting in October 2006.

A subgroup of the SCOP Census Data Work Group has been meeting over the summer to develop a preliminary list of tasks and costs for a future CTPP. To address priority data, training, technical support and research needs will require a future CTPP pooled fund project in the range of $5.5 - $6.0 million. Subgroup results were discussed during an August SCOP Census Work Group conference call. Work on refinements will continue with the goal of having a CTPP project proposal available for AASHTO SCOP by the end of September 2006. Summaries of AASHTO SCOP Census Data Work Group activities are posted at http://www.trbcensus.com/SCOP

The NEW CTPP Logo

Those familiar with the CTPP 2000 logo will notice that the logo has a new look. The CTPP will embrace a family of **Census Transportation Planning Products**. Products under the CTPP will include data, research, training and technical assistance.

Commuting in America III

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This will impact days worked, hours worked, departure times, and mode choices. The older workforce varies sharply from the general work force in many attributes of travel time and mode.

CIA III has value for state and local interests as it sets the context for local patterns and trends while establishing benchmarks for local comparisons. Among the national patterns of interest are the following:

1. The journey to work share of all travel continues to decline as other trip purposes grow faster, but the home and the workplace are the two key anchors around which much of that travel occurs.

2. In the 1980s, the national pattern often reflected the local pattern in terms of mode choice with little variation across the country. In the 1990s, regional shifts, particularly in carpooling and transit, resulted in more local variation.

3. The shift to the single occupant vehicle continues but with far less virulence than in the 1980s across all states and metropolitan areas.

4. The suburban shift continues with dramatic changes in commuters leaving their home counties to work. This suggests strong influences on rural to suburb patterns and long distance – "extreme commutes" in the future. It will be important to see how these trends evolve with the increasing costs of fuel.

5. Perhaps the most significant demographic change has been the rise in African American auto ownership.

6. The rise of working at home may be among the key stories of the last few decades – in most places now more significant than walking to work and often rivaling transit in terms of share.

7. The great importance of transit to downtown CBDs is documented with some special work provided by individual metro areas via the TRB Urban Data Committee.

Dichotomous patterns are revealed in the datasets that have bearing at the national, state, and regional levels. There are four that are of particular focus in the book:

1. Metro areas above and below 5-million population (we now have 12 such areas with one-third of the nation's population).
2. Workers over and below age 55. These patterns are particularly significant for the future.
3. Workers leaving home before or after 8 a.m. The auto world is a "pre-eight" world.
4. Commuters traveling more or less than 20 minutes.

The book closes with the speculation on how past trends will play out in the future and what new patterns and trends are emerging to challenge policy makers and the profession.

Ordering information:

Copies are available for sale through TRB. Advanced orders are now being taken, with delivery of the publication expected by the end of October. Order now at http://gulliver.trb.org/news/blurb_detail.asp?id=6699 and receive a $10 discount off the $60 cover price for this publication.

The full data set comprising an extensive array of special tabulations done by the Census Bureau as part of the CTPP program will be available on the BTS Transtats website (http://www.transtats.bts.gov).

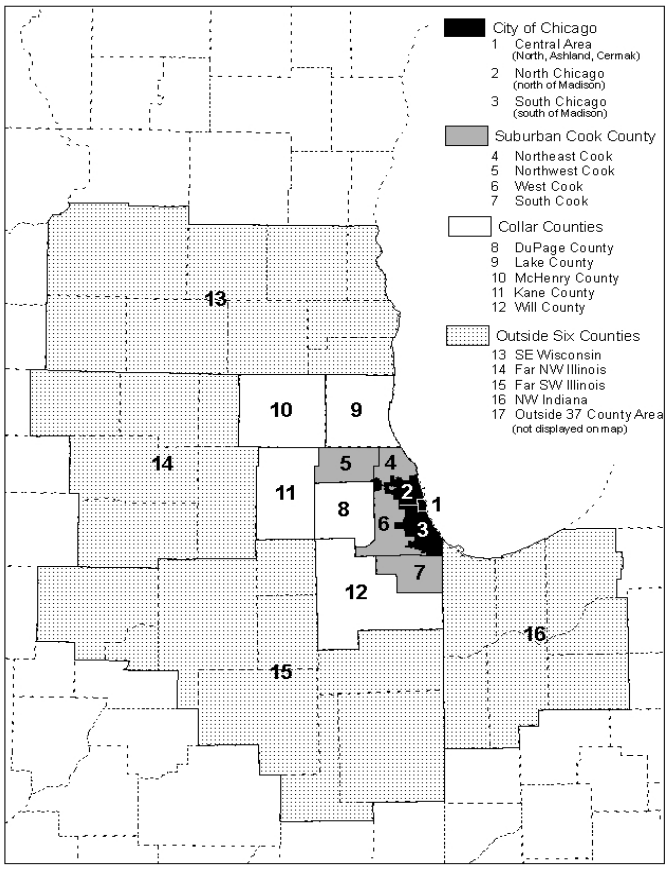
Northeastern Illinois CTPP Journey to Work Flow Summaries

Offered On-Line at http://www.rtams.org

Brad Thompson, Senior Analyst, Regional Transportation Authority
Sid Weseman, Manager-System Planning, Regional Transportation Authority

Since 2002, the Regional Transportation Authority (RTA) of northeastern Illinois has been providing local and regional transportation agencies access to a wealth of transportation asset information on the RTAMS (Regional Transportation Asset Management System) website. The RTAMS website provides users access to the region's vast collection of detailed transportation and financial data, including data for the second largest transit system in the nation. Users can search and cross-reference RTAMS's data sets, including the location of transportation assets and services, public transit ridership, Tollway traffic volumes, planning studies, transit sales tax revenues and political jurisdictions. The site also provides an interactive map containing over 30 spatial data layers including aerial photography. The RTAMS website is continuously evolving with new data, functionality and contributors. Based on its popularity, a public version of RTAMS has been available since June 2005.

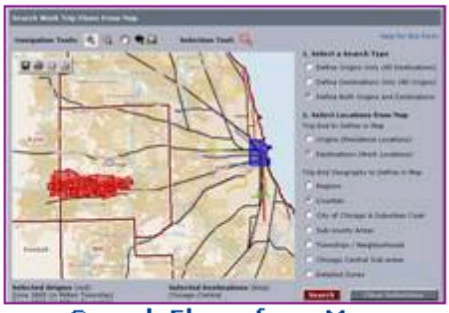
When the CTPP 2000 (Part 3) was released, the RTA took the lead producing regional-level analyses of Journey-to-Work flows. The analyses included those workers who either live and/or work within the RTA six county region. The analysis proved valuable in supporting a number of RTA planning initiatives. The RTA realized that the entire region could benefit from this dataset if it could be offered in an easy to use, interactive form on the RTAMS website.



In April 2006, RTAMS unveiled its CTPP Work Flow application. The dataset contains flow information for a 37-county region that includes northeastern Illinois, northwestern Indiana and southeastern Wisconsin. The data has been extracted at the TAZ (Traffic Analysis Zone) level, containing over 9,000 geographies. Because of rounding and suppression at the TAZ level (unlike 1990 CTPP) aggregating to higher geographies created a rounding error. It was discovered that aggregating the Part 3 TAZ tabulations for the 6 county-area underreported total workers by 3.4% when compared with the county-to-county level tabulation provided with the CTPP 2000.

To resolve this problem, CTPP 2000 work trips by means of transportation were calculated by dividing Table 3-14 (aggregate travel time by means of transportation) by Table 3-08 (mean travel time by means of transportation). This calculation reduced the error when aggregating to larger geographies to nearly zero.

Work Trip Flows



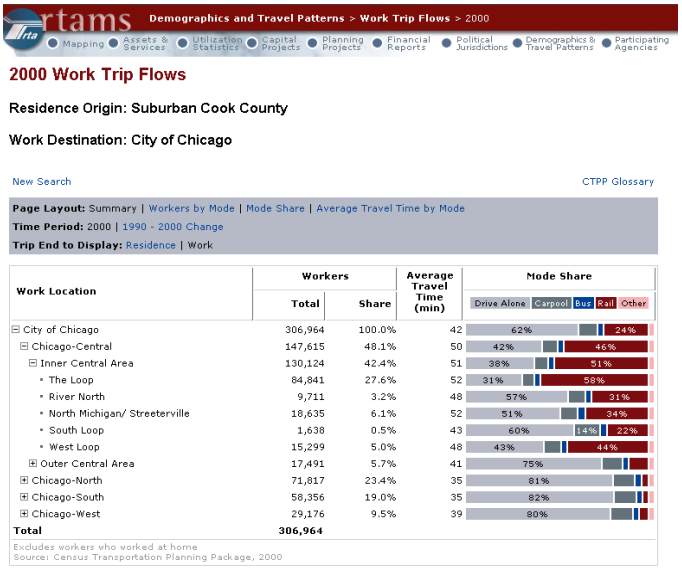
Search Flows from Map
(detailed zones and predefined geographies)

Search Flows from List
(predefined geographies only)

Users have two methods of identifying flows; using an interactive map or by selecting from a list of over 200 predefined geographies. These predefined geographies include TAZ aggregations of regions, counties, suburban and rural townships and sub-areas of the City of Chicago. By choosing to select from a list, users simply select an Origin-trip-end geography (or all areas) and the Destination trip end geography (or all areas). Using the interactive map, a user can create customized origin and destination geographies built from individual TAZs.

Result tabulations include the number of workers by means of transportation, as well as average travel time to work by means of transportation. Below is an example of the default summary table of workers originating in Suburban Cook Co. and working in the City of Chicago.

From the summary table, users have the ability to link to other flow result types. These include; number of workers by mode, percent mode share, and average travel time by mode. Users can also select to view the change in flows from 1990 to 2000 or toggle to the opposite trip end.



Work Location	Workers		Average Travel Time (min)	Mode Share
	Total	Share		Drive Alone / Carpool / Bus / Rail / Other
City of Chicago	306,964	100.0%	42	62% / 24%
Chicago-Central	147,615	48.1%	50	42% / 46%
Inner Central Area	130,124	42.4%	51	38% / 51%
The Loop	84,841	27.6%	52	31% / 58%
River North	9,711	3.2%	48	57% / 31%
North Michigan/ Streeterville	18,635	6.1%	52	51% / 34%
South Loop	1,638	0.5%	43	60% / 14% / 22%
West Loop	15,299	5.0%	48	43% / 44%
Outer Central Area	17,491	5.7%	41	75%
Chicago-North	71,817	23.4%	35	81%
Chicago-South	58,356	19.0%	35	82%
Chicago-West	29,176	9.5%	39	80%
Total	**306,964**			

Excludes workers who worked at home
Source: Census Transportation Planning Package, 2000

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Use of CTPP at the Eastgate MPO, Youngstown, Ohio

By Kathleen Rodi, Eastgate MPO

The Eastgate MPO extensively relies on CTPP data for many planning applications. This article showcases two important applications.

Development of "attractiveness" Variables

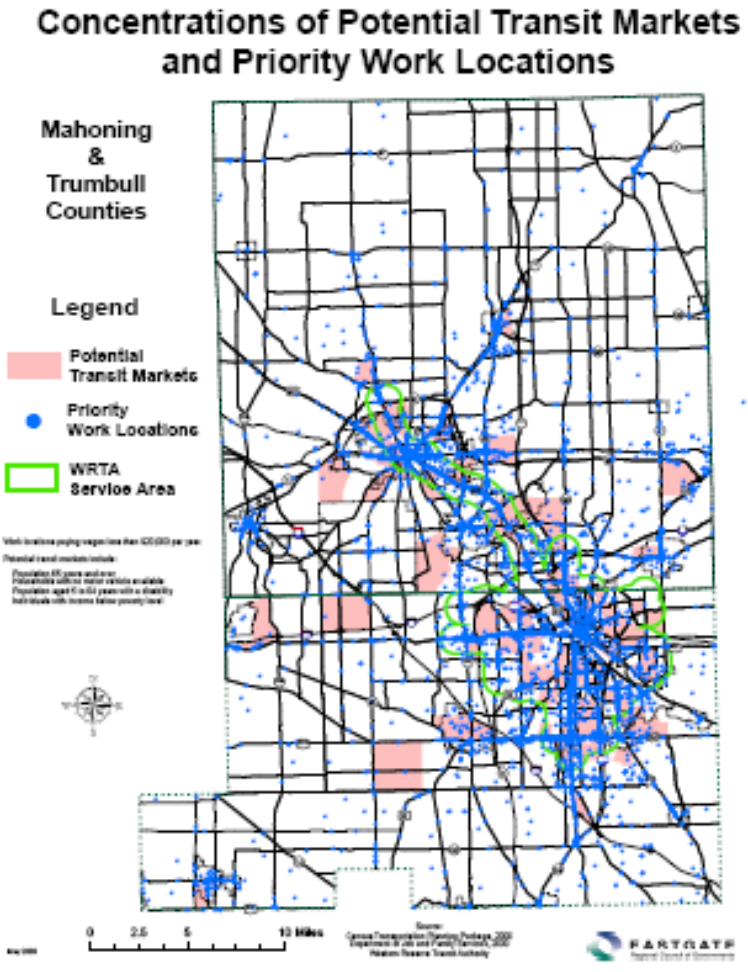
Eastgate staff developed these factors to explain potential population shifts around the region at the geographic level of Traffic Analysis Zones. Based on census and other variables, staff designed a predictive model on "attractiveness variables." This model uses attributes considered by people in deciding where to live to help predict which areas will grow, which areas will remain stable, and which will lose population in the near future (e.g. 2030). The variables included population density, employment, population growth, Income, Housing Age, Housing Starts, Highway access, presence of water and sewer lines, crime rate, income tax and property tax.

The Census Transportation Planning Package (CTPP) was extremely helpful in creating 2000 base data on population, employment, income and housing characteristic by TAZ. Mahoning and Trumbull Counties have a total of 657 traffic zones.

Eastgate staff hosted two focus groups to obtain community feedback on their approach to the predictive model and attempted to weight the various variables by assigning relative factors to each. Real estate agents, community leaders, and area planners attended the focus group sessions. Many variables were discussed at great length and then assigned weighted values according to attractiveness and/or importance. For example, for developing a factor for income, average household income for a traffic zone was divided by 10 million. Income was weakly weighted because it was felt that a small increase in income might not cause location shifts in place of residence.

Estimation of Potential Transit Markets

Using TAZs with high concentration of households with no vehicles, disabled population, or individuals with income below the poverty level, potential transit markets were estimated, and mapped. The CTPP data was overlaid with data on work locations paying less than $20,000 a year to visualize residential and work distributions of potential transit markets.



Northeastern Illinois CTPP Journey to Work Flow Summaries

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The CTPP Work Flow application provides transportation and planning professionals, elected officials, advocacy organizations and the public a powerful and easy to use tool to access the rich work -trip flow data available in the CTPP. The application greatly reduces the amount of time necessary for users to download, learn and extract flows from the complex CTPP dataset.

To access the CTPP Journey to Work Flow data, simply go to http://www.rtams.org Users are required to create an RTAMS account through a simple online form. Once logged in, select from the main menu Demographics and Travel Patterns >> Work Trip Flows.

2005 ACS Data Released

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Ed Christopher (FHWA), Nanda Srinivasan (FHWA – contractor), and Ken Bryson (Census Bureau) presented a webcast on accessing the latest ACS data. The presentations from the webinar are archived at: ftp://ftp.camsys.com/clientsupport/CTPPdata/Training/Webinar1/

Because ACS data are collected differently from Census 2000, there are bound to be some differences caused by methodological changes. Some factors to bridge Census 2000 journey-to-work data with ACS data (based on NCHRP 08-48) are posted at ftp://ftp.camsys.com/clientsupport/CTPPdata/Training/Webinar1/general_issues.ppt

Ken Bryson's presentation with voice-over is also posted in macromedia format at http://fhwa.breezecentral.com/afftraining2/

The CTPP WG is also working on developing profiles for the nation, large cities, and MSAs (based on the November 2004 geographic definition of Core Based Statistical Areas used to tabulate 2005 ACS data). These profiles will cover selected journey-to-work tables from 1990, 2000, and 2005 ACS data. The profiles will be posted on the CTPP page at http://www.dot.gov/ctpp under Data Products.

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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
CTPP 2000 Profiles: http://www.transportation.org/ctpp
1990 CTPP downloadable via Transtats: http://transtats.bts.gov/

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CTPP Listserve

The CTPP Listserve serves as a web-forum for posting questions, and sharing information on Census data. Currently, over 700 users are subscribed to the listserve.
To subscribe, please register by filling a form posted at:
http://www.chrispy.net/mailman/listinfo/ctpp-news
On the form, you can indicate if you want e-mails to be batched in a daily digest. The website also includes an archive of past e-mails posted to the listserve.

For questions on the listserve, please e-mail Ed Christopher at edc@berwyned.com.