

# CTPP 2000 Status Report

August 2003

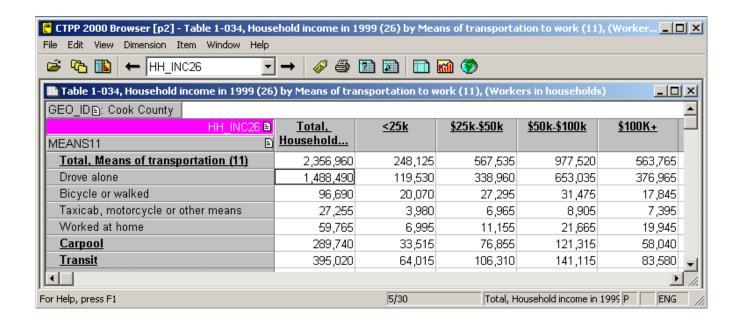
U.S. Department of Transportation
Federal Highway Administration
Bureau of Transportation Statistics
Federal Transit Administration
In cooperation with the TRB Census Subcommittee

#### CTPP 2000 Part 1 Data Release Started

The Census Bureau (CB) released CTPP 2000 Part 1 data for Oregon on June 30. We expect the Census Bureau to complete the release of Part 1 for all states by August 15, 2003. The State DOTs and MPOs are the recipients for this version of the data. They have one month to review the data and to notify the CB of any problems. After this review period, the Census Bureau will finalize the data and deliver CDs to the Bureau of Transportation Statistics for public distribution. Orders will be processed through the BTS Website (htpp://www.bts.gov – Click on Products). BTS also plans to make the CTPP 2000 data available through a web-based on-line query system, similar to the 1990 CTPP data access, but there is no schedule at this time.

The Part 1 data is accompanied with access software called the CTPP Access Tool (CAT). With the software, you can browse tables, combine cells, make simple maps, and export to different file formats. The graphic below shows Table 1-34 for Cook County, IL, after aggregating 26 income categories to 4, and 11 travel modes to 6. More examples are shown on page 5, and 6 of this report. For assistance in installing or using the software, please call Nanda Srinivasan at 202-366-5021, or e-mail Nanda.Srinivasan@fhwa.dot.gov.

State DOTs and MPOs may also request a zipped, fixed-field ASCII version of the data. To request this version, please call Clara Reschovsky at 301-763-2454 or e-mail Clara.A.Reschovsky@census.gov.



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## Interpretation of Statewide County-to-County Commuter Flow Maps

By Todd Steiss, AICP, Parsons Brinckerhoff (steiss@pbworld.com) Jonathan Garner, Parsons Brinckerhoff (garner@pbworld.com)

As part of a Statewide TDM initiative for the North Carolina Department of Transportation (Contact: Miriam Perry, mperry@dot.state.nc.us), Parsons Brinckerhoff developed a method to show county-to-county commuter flow patterns for the entire state.

The resulting map helped define the commuting patterns for metropolitan areas and isolated counties that are more rural in nature. This process will help establish the initial framework for determining the types of TDM strategies that should be considered and what areas should be marketed for those strategies.

County-to-county flow maps for small groups of counties can be generated with details on volume and directional flow. A metropolitan area of six counties would only require 30 county-to-county flow lines, 6 intra-county commute figures, and some method to represent flows into and out of the metropolitan area. A statewide commuter

flow map, however, may involve over a hundred counties with thousands of countyto-county flow combinations. At this level of complexity, a more generalized map is warranted.

**Exhibit A** shows the county-to-county commute patterns for the State of North Carolina. The dots represent the internal county commuting and the lines represent the county-to -county flow. Counties with 50,000 or more internal trips are labeled with the major city in parentheses.

A large dot is an indication that the county has a large total employment base and small dots represent counties with a small overall employment base. Although the county-tocounty lines do not explicitly show the direction of flow, it can be generally assumed that the major flow represented by the visible line is in the direction from small dots to large dots. Any hidden lines representing the minor "reverse flow" would typically be from large dots to small dots. The dominant flow between dots of equal

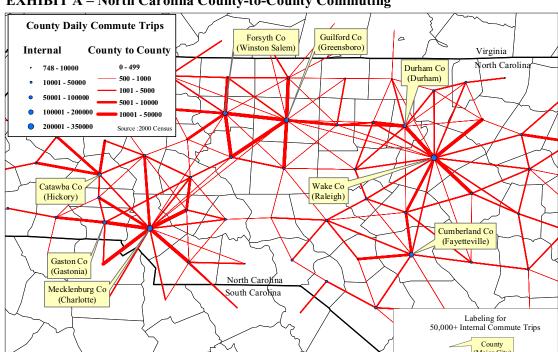


EXHIBIT A – North Carolina County-to-County Commuting

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size is less obvious and may depend on the location(s) of the employment activity in relation to housing within each locality. There are techniques to offset the lines between counties and use arrows to show both directions of flow, however, this would add significant complexity to a county-to-county commuter flow map at the state level.

Other general conclusions can be inferred by the map results. Counties with small dots that have major flow lines to large dots often represent bedroom communities to a major employment base. Small dots in isolation or that are connected to only a few other small dots tend to represent rural communities with a small residential and employment base. If there is significant internal commuting in two or more adjacent counties (medium to large dots), the county-to-county commute flow tends to have heavy traffic volumes moving in both directions in the AM and PM.

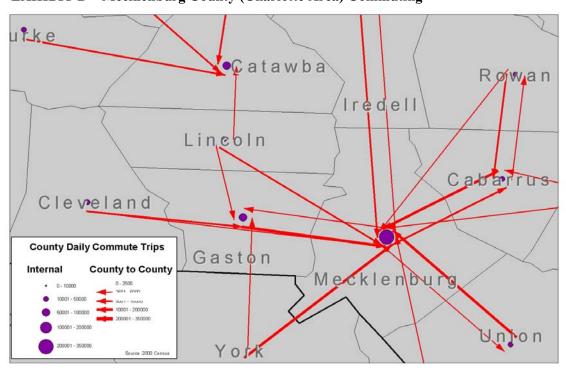
The commuting patterns in some metropolitan areas can be considerably complex. In these cases, more detailed mapping maybe required (i.e., directional flow lines).

**Exhibit B** shows a very simple commuting pattern for the Charlotte Mecklenburg metropolitan area where most of the commute trips are from the surrounding counties into Mecklenburg County (where the City of Charlotte is located). Additional examples are posted at: http://www.trbcensus.com/articles

These types of maps can help in defining and analyzing commuting patterns throughout the state or major metropolitan area. Several variations in data sets and level of geography can be used such as multiple state analyses, the use of Traffic Analysis Zones rather than counties, or creating commuter flow maps by means of transportation. The results can be used for marketing, evaluation of transportation improvements, land-use decisions, and travel forecasting model calibration. Stepby-step processes for generating the maps for any area in ESRI's ArcView 3.2 and ArcView 8.x are posted at http://www.fhwa.dot.gov/ctpp/cfs3x.htm and

http://www.fhwa.dot.gov/ctpp/cfs8x.htm

EXHIBIT B - Mecklenburg County (Charlotte Area) Commuting



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### **Commuting Patterns of Immigrants**

By Chuck Purvis, Metropolitan Transportation Commission, Oakland

The following analysis is based on Table 14 of the report "Census 2000, 1% PUMS for San Francisco Bay Area" (http://www.trb.census.com/articles)

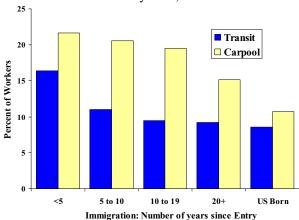
This analysis is an extension to research conducted by Dowell Myers of University of Southern California, using 1980 and 1990 PUMS for the Southern California area ("Changes over Time in Transportation Mode for Journey to Work: Effects of Aging and Immigration," Dowell Myers, in **Decennial Census Data for Transportation Planning: Case** Studies and Strategies for 2000: Volume 2: Case Studies, pp85-99, TRB Conference Proceedings, Washington D.C., 1996), where he found that immigrant populations, including workers, were a key component to the viability of the mass transit systems.

This pattern continues in 2000 in the San Francisco region. Recent immigrants to

the United States are less likely to own private vehicles and rely more heavily on transit to get to and from work. Of immigrant workers who entered after 1995, over 16 percent used transit to get to work, compared to less than 9 percent of workers born in the United States. As time goes by, and vehicles are acquired, commuting by immigrants looks more and more like US-born, with those here over twenty years with patterns similar to US-born. Carpooling, like transit, is also much higher for recent immigrants, nearly 22 percent for those here less than 5 years, compared to less than 11 percent for USborn.

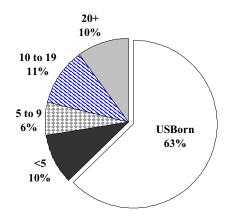
In the San Franciso Bay Area in 2000, approximately 37 percent of transit commuters were immigrants, although immigrants make up 32 percent of all commuters.

Immigration Yrs since Entry by Means of Transportation to Work San Francisco Bay Area, 2000



Source: Census 2000, 1% PUMS analysis by C Purvis

Transit Commuters by Immigration Yrs since Entry San Francisco Bay Area, 2000



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# Using American Community Survey Data for Transportation Planning – Update on the NCHRP 8-48 Project

By Kevin Tierney, Cambridge Systematics Inc.

In July 2003, National Cooperative Highway Research Program (NCHRP) Project 8-48 – Using American Community Survey Data for Transportation Planning got underway. The objective of this project is to develop a practitioner guidebook for using American Community Survey data for transportation planning. The guidebook will provide the transportation planning community with a central reference for understanding American Community Survey data and how these data will differ from Decennial Census Long Form data, the source of CTPP. In addition, the guidebook will provide transportation planners and policy-makers with practical guidance and step-by-step instructions on analyzing, interpreting, and presenting American Community Survey data.

The development of the guidebook will begin with a review of how transportation planners have used (and expect to use) CTPP and other Census data. The guidebook developers will be contacting a wide-range of individuals from the transportation planning community to define their current analyses, and to gather input on how the migration from Long Form data to

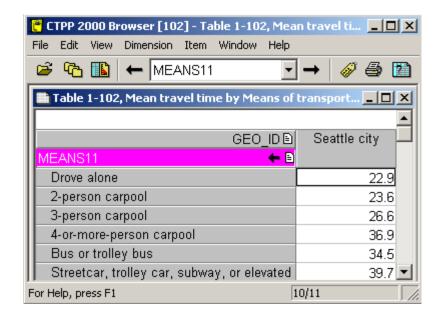
American Community Survey data will affect their analyses.

Then, the American Community Survey test data from 31 diverse sites will be analyzed and compared to year 2000 Census results. The guidebook development team will recommend new transportation-related ACS data products and tabulations that could be combined to serve as a new type of CTPP. The guidebook will demonstrate how raw data from the American Community Survey and the proposed data products could be used effectively and efficiently by transportation planners.

The guidebook development will be phased to take advantage of new Census data releases and American Community Survey test site datasets as they become available. The guidebook will be available for presentation at a Spring 2005 national transportation conference on Census data and products.

If you would like to share your experiences with CTPP and your views of the American Community Survey, please email Kevin Tierney (kft@camsys.com).

The exhibit here shows Table 1-102 (Mean Travel Time by Mode) for the City of Seattle, Washington.



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#### **New Products**

<u>Journey-to-Work Trends in the United</u> <u>States and Major Metropolitan Areas</u>, 1960 - 2000

The Journey-to-Work Trends report tracks trends in demographics, worker characteristics and journey-to-work commute in the United States and its large Metropolitan Statistical Areas (MSAs). The report is based on data from the decennial census published by the U.S. Census Bureau. The report is expected to be released by September 3, 2003. Copies will be mailed to everyone who currently receives this status report.

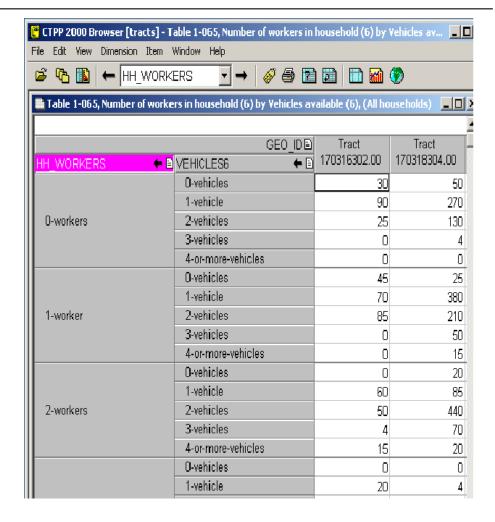
#### CTPP Guidebook

Currently, a beta version of the CTPP Guidebook is being supplied to people who request it. We have mailed around 500 copies of the beta. The beta version contains 4 modules, and two case studies.

The complete CTPP Guidebook is expected to be available by the third week of August, 2003. The complete version will contain everything in the beta version, along with 3 additional case studies. Copies will be mailed to all State DOTs, and MPOs. We expect that the guidebook will be a valuable teaching aid for university instructors.

The CTPP Access Tool allows you to visualize data in several ways. The exhibit to the right shows one arrangement for Table 1-65.

One of the new features in CTPP is the introduction of Census Tracts as a standard summary level across the nation, in addition to other more detailed geographies such as TAZs.



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#### **Urban Data Committee Mid-Year Meeting**

By Ed Limoges, Sabre Systems, Inc./US Census Bureau and Stacey Bricka, NuStats

The Urban Data and Information Systems Committee (A1D08), Ed Christopher, Chair, met July 17 in Portland, OR, at the TRB mid-year committee meetings. Announcements included: TRB reorganization has put A1D08 in the Policy and Organization Group, chaired by Alan Pisarski; a list of final reports of household travel surveys and websites will be added to the committee's website (http://www.mtc.ca.gov/trb/urban/)

#### **Commuting to Downtown Study**

Chuck Purvis, Metropolitan Transportation Commission, presented a proposal for a comparative study of commuting to US central business districts(CBDs). The study would use Census JTW data sets, 1970-2000, to analyze changes in employment and transport mode, especially transit. Recommended cities include Chicago, Detroit, New York, San Francisco, Seattle, and Washington DC. Within a given city there could be more than one CBD demarcation, reflecting both subareas, and changes over time. Prototype tables and maps have been done for San Francisco, Oakland, and San Jose The prototype of maps and the proposal are posted at http://www.mtc.ca.gov/trb/urban/commu te/

The maps demarcate the CBDs, and show major transportation facilities and important buildings. The downtown profile would also have a narrative summary. Chuck sees this as a voluntary effort, beginning with the committee's members and friends. For more information, please contact Chuck Purvis (*E-mail: cpurvis@mtc.ca.gov. Phone: 510-464-7731*).

#### **January 2004 Annual Meeting**

Items included: ADUS paper call on application of ITS archive data; ADUS workshop on ITS data archiving; metadata paper call; Census poster session, jointly with A1D05, with assurances that posters selected will meet TRB guidelines and not represent a commercial interest; National Data Workshop, scheduled for Sunday afternoon. The committee is planning on one paper session, and one presentation focused on the Downtowns Study, possibly with the land use and large cities committees.

#### **Future Committee Activities**

TRB Decennial Census Conference is scheduled for May 11-13, 2005 in Irvine, California.

Committee could expand the travel survey archiving activity to other survey data and reports, for use in trend analysis.

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#### **CTPP Hotline – 202-366-5000**

ctpp@fhwa.dot.gov

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/

#### **FHWA**

Elaine Murakami

PH: 202-366-6971 (206-220-4460 in Seattle)

FAX: 202-366-7660

Email: elaine.murakami@fhwa.dot.gov

Nanda Srinivasan PH: 202-366-5021 FAX: 202-366-7742

Email: nanda.srinivasan@fhwa.dot.gov

Ed Christopher (Urban Data Committee Chair)

PH: 708-283-3534 FAX: 708-283-3501

Email: edc@berwyned.com

**FTA** 

Eric Pihl

PH: 202-366-6048 FAX: 202-493-2478

Email: eric.pihl@fta.dot.gov

**BTS** 

Pheny Smith PH: 202-366-2817 FAX: 202-366-3370

Email: pheny.smith@bts.dot.gov

**AASHTO** 

Dave Clawson PH: 202-624-5807 FAX: 202-624-5806

Email: davidc@aashto.org

**Census Population Division** 

Phil Salopek PH: 301-763-2454 Fax: 301-457-2481

Email: phillip.a.salopek@census.gov

Clara Reschovsky PH: 301-763-2454 FAX: 301-457-2481

Email: clara.a.reschovsky@census.gov

**TRB Committees** 

Ed Christopher (Urban Data Committee Chair)

See under FHWA

Bob Sicko (Census Subcommittee Chair)

Mirai Associates PH: 425-415-0905 FAX: 425-415-0935

E-mail: bob@miraiassociates.com

#### **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 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.