



CTPP 2000 Status Report

April 2005

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 3 Data Release on CD-ROM with Extraction Software

The Census Bureau (CB) is finally releasing Part 3 (Journey-to-work Flow) data on CD-ROM along with the user friendly CTPP Access Tool (CAT). The CD-ROM version contains data in IVT format, along with the CAT extraction software for retrieving, browsing, exporting, and creating thematic maps with the data.

We expect the Census Bureau to complete the release of Part 3 for all states before the end of June 2005.

For instructions on using the CD-ROM, please refer to the article by Clara Reschovsky on page 2. For assistance in installing or using the software, please call Nanda Srinivasan at 202-366-5021, or e-mail Nanda.Srinivasan@fhwa.dot.gov.

Initially, State DOTs and MPOs are the recipients for the data. Bureau of Transportation Statistics will handle public distribution through the BTS Website (<http://www.bts.gov> - Click on Bookstore).

The final version of Part 3 (Journey-to-Work) flow was released in May 2004 in flat ASCII format. During January 2005, RITA (BTS) TranStats staff included the data into their portal (see page 6 of this report for instructions on how to use their web-based retrieval system).

Learning about the American Community Survey

By Elaine Murakami, FHWA

The American Community Survey is now in “full implementation.” Links to several resources discussed below are part of the FHWA Census issues webpage. <http://www.fhwa.dot.gov/planning/census/acs.htm>

ACS Basics

The Census Bureau started “full implementation” of the American Community Survey, in Jan 2005. It is “full” in that all counties (more than 3,100) in the U.S. are now included in the sample, compared to 1,239 counties in the test phase. However, group quarters are not included, with CB plans to include GQ by 2006.

In the United States, 250,000 addresses per month, or approximately 2.5 percent per year, will receive the survey. This is equal to about 1-in-480 households a month, or 1-in-40 a year. During Census 2000, about 1-in-6 households received the long form.

Sampling in small governmental units (American Indian reservations, small counties and towns) is greater than 1-in-40 per year. The monthly sample size in these areas is designed to approximate the ratio used in Census 2000, requiring more intensive distribution in these areas.

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Instructions on Using Part 3 (Journey-to-Work Flow) CD-ROMs

By Clara Reschovsky, U.S. Census Bureau

Part 3 (Journey-to-Work Flow) data are more complex than Parts 1 and 2. Soon you will be receiving Part 3 CD-ROMs with the extraction software. Because of the volume of the data, some states requires multiple CD-ROMs. Working with both residence AND workplace geography adds some complexity, and this documentation is designed to help you through the process. Do not get discouraged! Remember that you can call 202-366-5000 or email ctpp@fhwa.dot.gov for assistance.

Here are some instructions that will make navigating through Part 3 easier. Detailed instructions are also posted at <http://www.dot.gov/ctpp> under “Data Products”

Reinstall the “New” Extraction Software

With Part 3, CTPP Access Tool (CAT) software (a.k.a. the Extraction Software, Viewer or Browser) needs to be updated. The new software works with all three CTPP parts and should replace the earlier versions. The easiest thing to do for most installations is to reinstall the new browser on top of the old one. You will still need administrative privileges to do this.

Familiarize Yourself with the Software

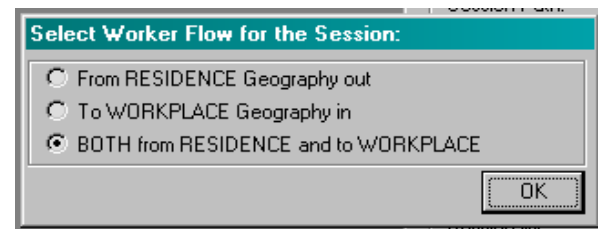
Once you have reinstalled the software, it is advisable to start working with Part 3 data with a smaller, simpler session to get a feel for how the software works and what to expect. It is best to start with home-to-work flows for large geographic units, such as county flows. Create a session with county-to-county flows. Once you get a feel for the software, move on to creating sessions with small geography such as tracts, block groups, and TAZs, where applicable.

Specific differences for Geographical Selection

After you create and name your session, you may notice that the selection window is different. In Parts 1 and 2 you picked either home or workplace geography and then moved on to the table selection. Now you **must pick both home and work geography** before moving on to table selection. Part 3 provides information on workers flowing into or out of your area or both in and out of your area. You need to tell the software which directionality you want your commuter flow to be in.

Selecting Worker Flow for the Session

Figure 1:
Initial
Selection
Box



First option button: “**From RESIDENCE Geography out**” -- Click this radio button if you want to know the workplaces for residents in a particular area. For example, if you want to know where workers who live in Suburb A commute. Do they go downtown, or to the largest employer, or do they go all over the region?

Second option button: “**To WORKPLACE Geography in**” -- Click this radio button if you want to know where the workers in a particular area live, that is where are workers coming from. For example, you could look at the travel characteristics of all people who work “downtown” and find the distribution of all the places where they live.

Third option button: “**BOTH from RESIDENCE and to WORKPLACE**” -- Select this button if you want to know all the interchanges back and forth between or among

areas. This will give you all the flows from the area in your state to the entire country as well as the flows from the countrywide selection back into your state selection. For example if you pick tracts in County A in your state for the CD (state) specific selection, and then you pick the whole state and then the adjoining state for the nationwide selection, the software will select flows originating in the tracts in County A and going to work anywhere in the state (including in County A) as well as in the neighboring state. The software will also select flows for workers who live in your state and the neighboring state who work in the tracts in County A.

Session Example

Suppose I want to know where the workers residing in a state commute to work. First I open the Browser software and create a session for Part 3. Then I would select “From RESIDENCE Geography out.” Once on the Create Session screen I start by selecting my Geographic Type (next to the blue number 1 in Figure 2 below). In this example I picked the first summary level of State on the Residence end.

Selecting the Residence geography is essentially the same as in Part 1 or 2, however, then I must also pick my Workplace geography before going on to another summary level or going on to the table selection. Figure 3 (see page 4) shows the Workplace selection. Workplaces for the selected residence geography can be anywhere in the country (or abroad). I can click specific

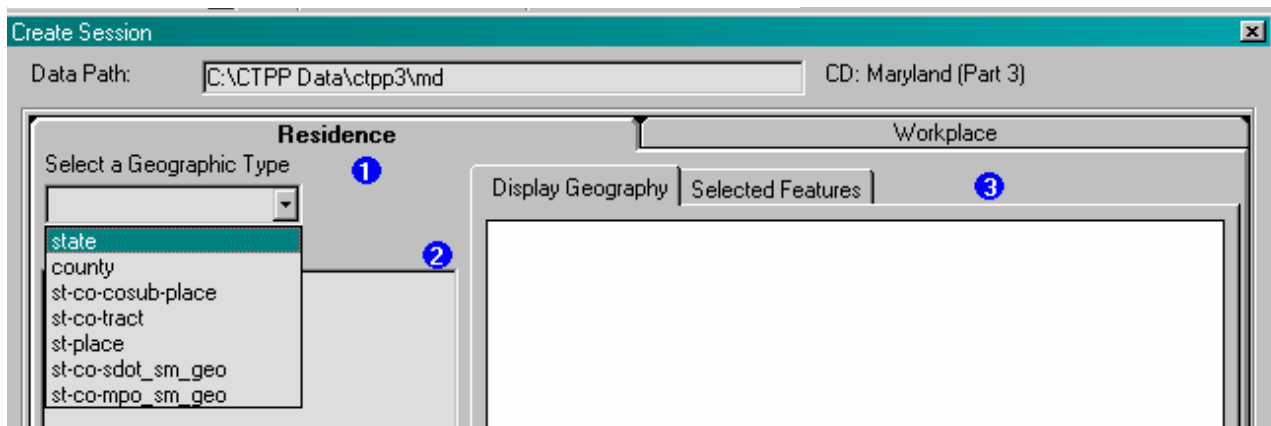
states to see where commuters are going, or I can click Select Entire Level to see all the flows to work at the state level. Then I have the option of going back to the Residence selection tab to select another summary level or go to the Table Selection by clicking Next.

Differences in the Tabular Selection

If your entire state is on one CD, then you can proceed with the Tabular selection as you did in Parts 1 and 2. If you have multiple CDs, then you can either work from the CD that contains the tables you want to access or you can load the CDs onto your hard drive or a server. Keep in mind that you will need significant space to be able to load the entire state onto your hard drive.

If you choose to proceed by working off the CDs, it is still possible to create a session with tables from different CDs. You will need to create multiple sessions with the tables on each CD. You should make sure your geographical selection in each session is identical. Once you have the session from each CD, you should close the browser entirely. Go into the location where you have stored the sessions and copy all the contents into one of the session folders. You will be copying over some files, but this is ok. Then reopen the browser with the session into which you copied the other session(s) and you will have all the tables together for your geographical selection. If you do not have the same geography, it still works, but you will not have all the tables for all the geography.

Figure 2: Geographical Selection from Selected State



This procedure is necessary because you cannot add additional tables from a different CD when editing an existing session because the software cannot generate data from the original selection for the new tables.

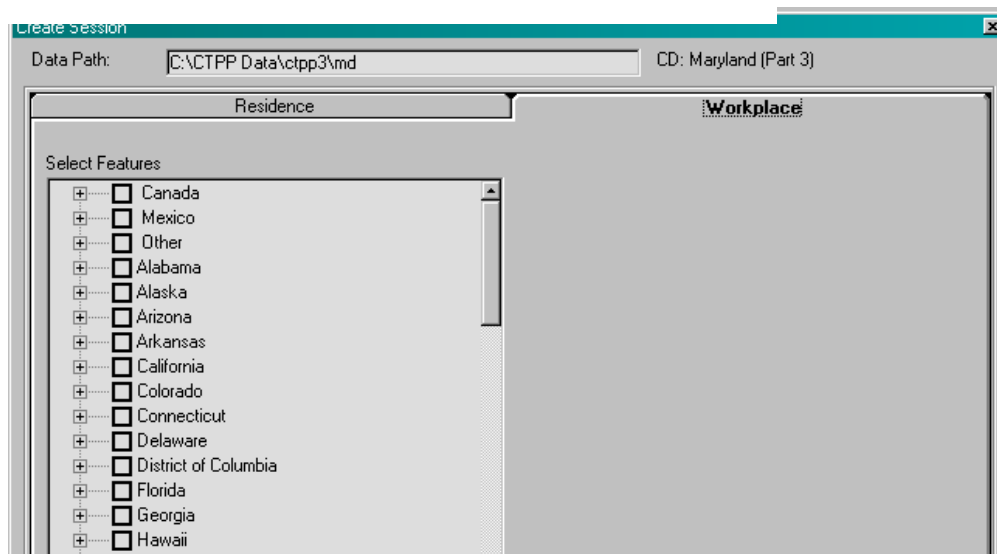
Remember that some of the tables in Part 3 have suppression thresholds applied. This means that for these tables, if the flow had fewer than 3 unweighted observations, then we were required to zero out the flow. These flows are identifiable by the zero in the Total for the table. The main tables that are not subject to suppression are Tables 1, 2, 8 through 11, and 14. Tables 3 through 7, 12, and 13 have suppression.

Once you create the session, you can view the tabular data, calculate new variables, create charts, create maps, and export the data in a

variety of formats as you could with Parts 1 and 2. The biggest difference will be with the mapping. You will see a spider diagram rather than a map with polygons that can have themes demonstrated on them. You can apply the thematic coloring to the lines in the Part 3 maps. You can also export the spider line maps along with your polygons of the geographical selection and the points that the lines can go to or come from. All of this additional functionality will be very useful for demonstrating flows between geography. The export from the map component will provide a line shape file with the residence and workplace fields shown separately.

The export function from the browser concatenates the residence and workplace geography together.

Figure 3: Nationwide Geographical Selection



Highlights from Census Data Subcommittee Meeting at TRB Annual Meeting Continued from Page 5

Committee Project: "Commuting to Downtown" Status Report

Chuck Purvis, Metropolitan Transportation Commission, distributed a project status report handout. Commuting to downtown data, based on Census 2000 CTPP Part 2 databases, has been assembled for 24 of the 58 U.S. cities having populations of 300,000 or more. The goal is to complete the remaining 34 by the end of 2005. The handout describes the methodology, presents downtown commuting data for the 24 cities, and graphs the relationship between downtown worker density and the transit share of commuting to downtown.

Highlights from Census Data Subcommittee Meeting at TRB Annual Meeting

By Ed Limoges, Sabre Systems, Inc.

The Subcommittee on Census Data, ABJ30 (1), met on January 10, 2005 at the 2005 Annual Meeting of the Transportation Research Board. Over thirty persons attended, representing Federal and State agencies, MPOs, consulting firms, and academia. The meeting was chaired by Bob Sicko.

American Community Survey (ACS) Update and Activities

Larry McGinn, U.S. Census Bureau (CB), reported that the ACS was fully funded and in full operation. The January mailing covers all counties, and personal visit follow-ups will begin in March. The ACS sample frame includes 250,000 addresses per month. Beginning in 2006, group quarters will be included. Also in 2006, a methods panel will test changes to questions, especially concerning labor force. BLS and CB are looking at modifying questions for 2008 and beyond to get ACS results close to CPS. However, compared to CPS, ACS has much less space to ask questions.

Phil Salopek, CB, presented information on upcoming ACS data products, including proposed tables. New subject tables are being designed. One of these, S0801 will cover commuting characteristics by sex, and the other, S0802, means of transportation to work by related characteristics. In addition, several detailed tables on journey to work - for example, workers using each specific means of transportation - will be produced. There is also a good possibility that workplace tables will be produced. Because home-to-work flows require different processing, the CB is not ready to commit to producing them as part of their standard products. It may be necessary to ask the user community for funding; (the same is true for migration data). Phil feels a decision on flow tables will be made before the TRB May conference.

Nancy Torrieri, CB, reported that the ACS Federal Agency Information Program was set up in late 2003, to get input from federal agencies on their data wants regarding ACS. CB staff met with DOT last April, and are continuing to meet with individual federal agencies. Also, work has begun on an ACS User Guide. The CB plans to release a PUMS for 2005, and for each year thereafter, using the 5% PUMAs (requiring 100,000 population). As of now there is no plan to change the PUMA geography before the 2010 Census.

Longitudinal Employer Dynamics (LED) Program, Update and Status

Jeremy Wu of the CB LED office began by explaining that LEHD represents the program name, and LED the federal-state partnership. He did a visual presentation that included background and current status, how the partnership functions, transportation-related activities including 2005 ACS place of work geocoding, mapping applications, and disclosure avoidance. Future objectives include addressing gaps in coverage including the self-employed, federal government employment, and addressing issues such as multiple jobholders, and welfare-to-work.

CTPP Part 3 Demo

Nanda Srinivasan demonstrated the CTPP Access Tool (CAT) for Part 3 flow data, which is close to completion.

DOT and MPO Update

Ed Christopher, FHWA, reported that DOT Secretary Mineta has decided that there will not be a content test for potential new transportation-related questions, so ACS will continue to use the same questions as Census 2000. Inside DOT, efforts are continuing to achieve better coordination between the Passenger Travel Working Group and the CB. In addition, the CTPP Working Group is continuing, and has expanded into ACS issues.

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TranStats Allows CTPP 2000 Downloads into CSV Format

Nanda Srinivasan, Cambridge Systematics Inc.

The TranStats team have included Part 1 (Place of Residence), and Part 3 (Journey-to-work flow) datasets in their regular web-based query and data retrieval service, which means that downloads to CSV format are available. Previously, downloads were limited to flat ASCII files. The TranStats team is expected to complete Part 2 (Place of Work) into their system shortly.

To access the TranStats Portal, please visit <http://transtats.bts.gov/> Under “Explore by Agency”, Click on FHWA, and then on “Census Transportation Planning Package (CTPP) 2000.” This will lead you to a screen with all CTPP 2000 datasets, including the flat ASCII file downloads, as shown below.

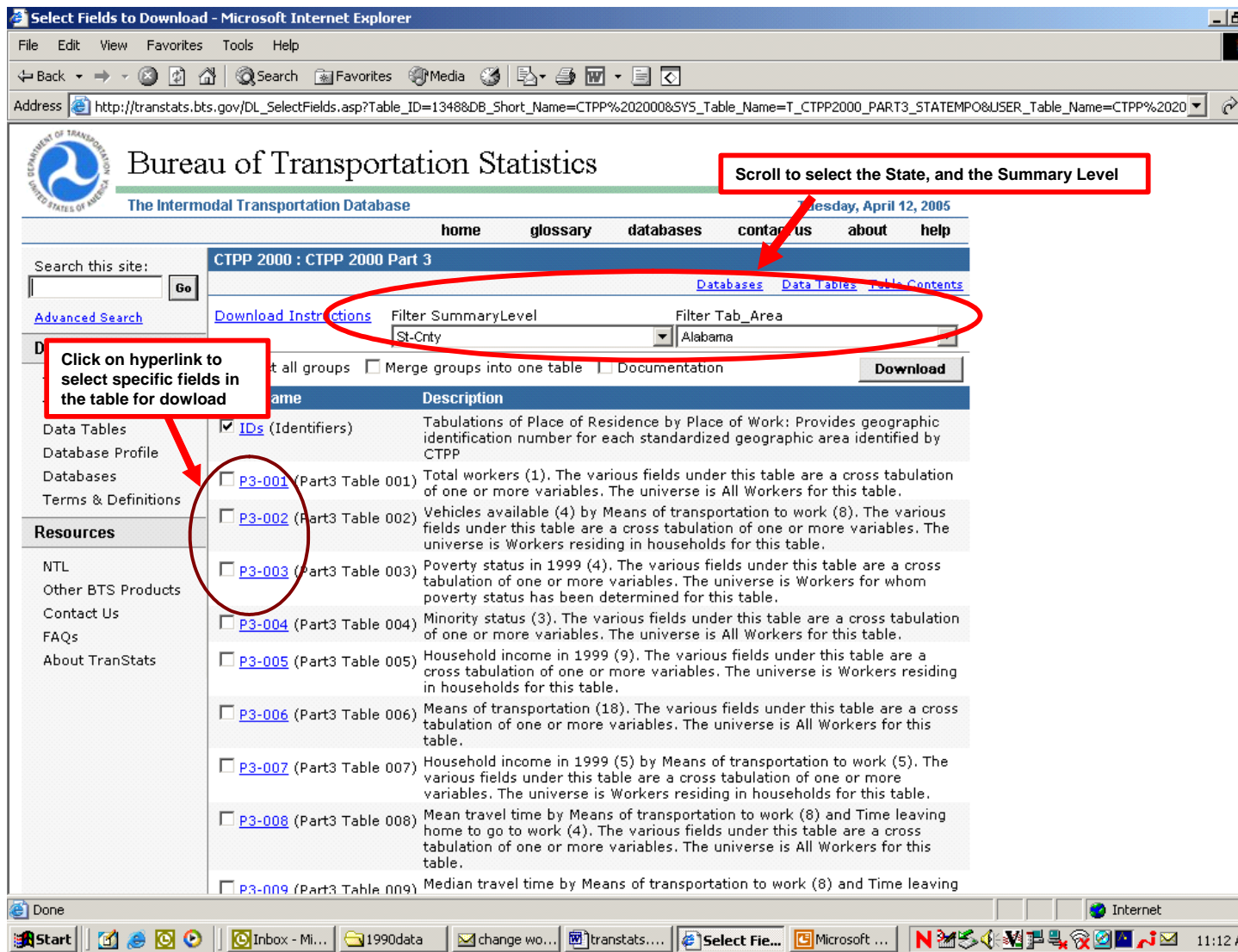
The screenshot shows the TranStats website interface. At the top, it says "Bureau of Transportation Statistics" and "TranStats". Below that, there's a navigation menu with "home", "glossary", "databases", "contact us", "about", and "help". A search bar is on the left. The main content area displays a table of datasets. A red circle highlights the "Download" links for several rows. A callout box with a red arrow points to these links, containing the text "Click to download in CSV format".

Table Name	Description
CTPP 2000 Part 1: Tables 1 to 17	The CTPP 2000 Part 1 - AT PLACE OF RESIDENCE. Tables 1 to 17. Data can be downloaded by summary level and state for tabulations 1 to 17. Table Profile Download
CTPP 2000 Part 1: Tables 18 to 29	The CTPP 2000 Part 1 - AT PLACE OF RESIDENCE. Tables 18 to 29. Data can be downloaded by summary level and state for tabulations 18 to 29. Table Profile Download
CTPP 2000 Part 1: Tables 30 to 46	The CTPP 2000 Part 1 - AT PLACE OF RESIDENCE. Tables 30 to 46. Data can be downloaded by summary level and state for tabulations 30 to 46. Table Profile Download
CTPP 2000 Part 1: Tables 47 to 73	The CTPP 2000 Part 1 - AT PLACE OF RESIDENCE. Tables 47 to 73. Data can be downloaded by summary level and state for tabulations 47 to 73. Table Profile Download
CTPP 2000 Part 1: Tables 74 to 87	The CTPP 2000 Part 1 - AT PLACE OF RESIDENCE. Tables 74 to 87. Data can be downloaded by summary level and state for tabulations 74 to 87. Table Profile Download
CTPP 2000 Part 1: Tables 88 to 120	The CTPP 2000 Part 1 - AT PLACE OF RESIDENCE. Tables 88 to 120. Data can be downloaded by summary level and state for tabulations 88 to 120. Table Profile Download
CTPP 2000 Part 3	The CTPP 2000 Part 3 - JOURNEY-TO-WORK (JTW) tables provide detailed information about the commute trip from home to work. These tables include the following summary levels: State, State-County, State-County-County Subdivision, State-County-County Subdivision Place, State-Place, State-County-Tract, and Detailed State and MPO geography tables. Table Profile Download
CTPP 2000 Part1 (Ascii File)	The CTPP 2000 Part 1 - AT PLACE OF RESIDENCE tables are organized into five distinct groups--Characteristics of persons, Characteristics of Households, Characteristics of Jobs, Characteristics of MPOs, and Characteristics of States.

Click on “download” for Part 1, or Part 3 to get a list of tables, and cells. In the example below, we clicked on “download” hyperlink for Part 3. The screen will show filters for selecting a state, summary level, and Tables. You can filter the tables to specific cells in the table by clicking on the hyperlink for each table. After selecting the state, and the summary level, click on the options for “Merge Groups into one table”, and

“Documentation.” This will ensure that all the datasets are downloaded into one CSV file, and a README file is created for the field headers in the CSV file.

After selecting the tables/specific fields in tables, click on “Download.” This will create a downloadable Zipped file containing the data in CSV format, and a README file.



Learning about the American Community Survey

Continued from Page 1

One of the major benefits of the ACS is that annual statistics for large geographic units, e.g. States, (some) Counties and (some) Cities will be available. However, for small area tabulations such as Census tracts or block groups, 60 months of data need to be collected before any tabulation will occur. For example, reporting of the number of workers using transit for their mode to work for a specific census tract will be the result of summarizing data from 2005 through 2009, or another 60 month period. The overall sampling rate of the ACS is smaller over five years than the decennial census "long form," and non-respondents are generally sampled at 1:3 for field follow-up. Both of these survey design features of the ACS contribute to smaller samples, resulting in lower statistical reliability and larger confidence intervals.

Sample ACS profiles on CB web

The Census Bureau's ACS website currently includes multi-year profiles for selected areas from its test period.

<http://www.census.gov/acs/www/Products/Profiles/Chg/2003/ACS/index.htm> With ACS now in full implementation, similar profiles for smaller geographic units should be available within three years.

Comparability issues between ACS and Decennial Data

Data users MUST remember that the early ACS data is not directly comparable to decennial Census 2000 results, because the decennial census includes group quarters, and represents "April 1" for a specific year. The ACS data are collected over 12 months in each year, reflecting the average over the years. Some researchers think that areas with seasonal population shifts will see the greatest differences between decennial Census and ACS results.

Denver, CO PMSA

Data followed by an * indicates a Significant Difference at the 90 percent level between that data and the data from the most current year. Data followed by a "c" indicates the estimate for that year and the current year are both controlled; a statistical test is not appropriate.

COMMUTING TO WORK				
	2003	2002	2001	2000
Workers 16 years and over	1,108,750	1,083,124 *	1,086,770	1,123,236
Drove alone	78.88%	77.17%	77.30%	76.79%*
Carpooled	9.54%	9.79%	10.87%	11.28%*
Public transportation (incl. taxicab)	4.06%	4.92%	4.92%	5.07%*
Walked	1.29%	2.54% *	1.88% *	1.93% *
Other means	1.14%	1.12%	1.43%	0.99%
Worked at home	5.09%	4.46%	3.60% *	3.94%*
Mean travel time to work (minutes)	24.8	25.4	24.6	25.7 *

Van Auken et al. expected to find that seasonal residents in a resort area would show ACS results with older ages and higher median incomes compared to decennial. However, the small sample sizes with large sample errors, resulted in the inability to compare tract-level data from the ACS test. Linda Gage in reviewing differences in Tulare County, California, expected that migrant laborers were more likely to be surveyed in the summer months, and therefore expected differences in variables such as percent foreign-born, non-English speaking, vehicle ownership and carpooling to work.

Both of these papers are available under “local area expert reports” at:
http://www.census.gov/acs/www/AdvMeth/acs_census/report.htm

Both Cambridge Systematics (NCHRP Interim Report, dated September, 2004), and FHWA staff have found that the ACS results compared to decennial census consistently report :

- lower carpooling rates
- lower average travel time to work
- lower shares of households without vehicles

Training Opportunities

One of the best resources we have found has been the Training material available on the University of Baltimore webpage.
<http://www.ubalt.edu/jfi/ACS/ACS-web/overview.htm>

Through the NCHRP project 08-48 “Using ACS data for Transportation Planning,” Cambridge Systematics will produce a guidebook to assist transportation planners with using ACS data.

The Census Bureau is also working on an ACS data user guide, with an emphasis on the multi-year estimates. A draft version of the guide will be produced this summer and subsequently, following review and revisions, a final version for general audiences will be completed sometime this Fall. This guide will not replace the need for federal agencies to assess the impact of using ACS estimates on their programs, but will provide some guidelines to the interpretation of multiyear averages as they compare to decennial census long form data and data from surveys the Census Bureau conducts.

Unlocking the Census with GIS

ESRI Press recently released a publication entitled “Unlocking the Census with GIS.” Authored by Alan Peters and Heather McDonald (both from the University of Iowa), the book describes how geographic information systems (GIS) can be used to better access, understand, manage, and analyze census data.

The book would be a useful reference for entry level planners at MPOs, and for students who wish to familiarize themselves with the myriad applications of census data to issues ranging from housing, economic, and social conditions. Chapter 6 (prepared with contributions by Paul Hanley of the University of Iowa) provides a detailed treatment of transportation related variables in the decennial census. However, the CTPP Electronic Guidebook (see <http://www.fhwa.dot.gov/ctpp/guidebook.htm>) provides more comprehensive information on the use of Census and CTPP data for transportation analysis.

The cost of the book is \$45. For more information on this publication, including how-to-order, please visit <http://gis.esri.com/esripress/display/index.cfm?fuseaction=display&websiteID=84>

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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/>

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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 listserv.

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 listserv.

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