



CTPP 2000 Status Report

January 2004

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 2 Data Release Started

By the second week of January 2004, the Census Bureau (CB) is expected to release Part 2 (Place of Work) data for California and Texas.

We expect the Census Bureau to complete the release of Part 2 for all states before the end of February 2004. 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, CB will finalize the data and deliver CDs to the Bureau of Transportation Statistics for public distribution. Orders will be processed through the BTS Website (<http://www.bts.gov> – Click on Products).

The Part 2 data are accompanied by the CTPP Access Tool (CAT). With the software you can browse tables, combine cells, make simple maps, and export to different file formats. 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.

CTPP 2000 Related Activity at the 83rd TRB Annual Meeting (January 11-15, 2004 Washington DC)

We hope to see many of you at the TRB Annual Meeting. The following sessions/meetings are scheduled. In addition, staff will also be present at the CTPP Booth at the Marriott Wardman Park Hotel from January 11 – January 14, 2004.

A Data Bonanza on National Data User Guides and Tools (Workshop):
Sunday, January 11, 2004, 2:00 PM- 5:30 PM, Jefferson West, Hilton Hotel

Commuting in America (Presentation Session):
Monday, January 12, 2004, 8:00 AM - 9:45AM, Lincoln West, Hilton Hotel

Committee on Urban Transportation Data and Information Systems (A1D08) Meeting:
Monday, January 12, 2004, 1:30 PM - 5:30 PM, Caucus Room, Hilton Hotel

Analyzing and Presenting Census Data (Poster Session):
Wednesday, January 14, 2004, 9:30AM -12:00 Noon, Exhibit Hall, Hilton Hotel

Census for Transportation Planning Subcommittee (ABJ30(1), A1D08(1)) Meeting:
Wednesday, January 14, 2004, 2:30 PM–4:00 PM, International Center D, Hilton Hotel

CTPP Workers-at-Work Compared to Other Employment Estimates

Nanda Srinivasan, Cambridge Systematics, Inc.

Workers-at-work counts obtained from CTPP 2000 will differ from other employment data sources. The May 2003 issue of the status report examined some of the reasons for the differences between Employed persons versus Workers-at-work (<http://www.fhwa.dot.gov/ctpp/sr0503.htm>).

While examining CTPP worker counts in Part 2 against other data sources, here are a few additional issues to consider:

1. Local characteristics of employment

CTPP data may show substantially fewer workers in those areas/zones where second jobs and part-time employment are more the norm. Examples of such areas include:

- a. Areas where retail trade and similar service industries are predominant.
- b. Colleges and university areas: Typically colleges/universities employ considerable numbers of part-time adjunct teachers, a trend that increased during the 1990s. Therefore, tracts or TAZs with colleges and universities may reflect lower worker totals than the institution's own figures.

2. CTPP 2000 uses NAICS industries, while your source may be SIC-based

CTPP 2000 (and all Census 2000 employment data) uses the 1997 North American Industry Classification System (NAICS). The 1990 CTPP used the Standard Industrial Classification (SIC) codes. Many local employment data sources still use SIC codes. The difference in classification can cause the CTPP 2000 numbers to be substantially different for some categories.

3. Multi-site businesses and some job types are more likely to have problems with workplace location coding

In business and establishment surveys, companies with more than one work

location may still report all their workers at a single location, typically a corporate office building. The state unemployment insurance agencies that maintain ES-202 files vary in their efforts to distribute job counts to the company's individual work locations. In a survey of workers with these jobs, some people will give the address of their current assignment, some will give the headquarters' address appearing on their mail or paycheck, and some may give no answer.

4. Decennial Census 2000 differs from Current Population Survey for April 2000

Usually, counts of employed people (and the civilian labor force) are lower in the decennial census than in the CPS, but in 2000 the differences between the census and the CPS were larger than in the past. Census 2000 estimate of the number of employed people was about 5 percent lower than the CPS estimate. Census 2000 estimate of the number of unemployed people was over 5 percent higher than the CPS value. The Census 2000 estimate of the labor force participation rate was 2.1 percentage points lower than the CPS estimate. The census unemployment rate was 2.1 percentage points higher than the CPS.

For more information, please refer to "Comparing Employment, Income, and Poverty: Census 2000 and the Current Population Survey" by Sandra Luckett Clark et.al, HHES, U.S. Census Bureau (www.census.gov/hhes/www/laborfor/b8copy2nr.pdf). Some analysts and MPOs in New York, Miami, and Los Angeles have conveyed their concern to the Census Bureau that this decrease in total workers from decennial census results are inconsistent with local knowledge and have asked the Census Bureau to conduct further research.

The articles on page 2 and page 3 are abridged versions of technical notes that will accompany CTPP 2000, Part 2 data. The complete notes are also available at www.trbcensus.com/part2notes.htm

Allocation of Missing Place of Work Data in Decennial Censuses and CTPP 2000

Ed Limoges, Sabre Systems Inc.

In the processing of census data, the work location is based upon both the workplace address and employer name given by respondents on the long-form questionnaires. These responses are then geocoded. Geocoding is a two-phase operation. The first phase is an automated or computer-match operation. Records not resolved during this phase move on to a computer-assisted clerical phase. However, not all workers can be coded to all geographic levels.

Allocation is the process used to assign data attributes wherever the responses to census questions are either incomplete or missing. Substituted responses are taken from other respondents who are similar in characteristics and residential location to the person with missing information. The allocation procedures employed by the Census Bureau use both trip data and job data to assign workplace locations. The general process is to find workers whose workplace is fully coded ("Donors") and are similar in characteristics to workers needing place of work allocation ("Recipients").

The allocation process was conducted in two steps (1) standard allocation and (2) extended allocation.

Standard allocation in Census 2000

Standard allocation codes work locations, at a minimum, to a State, County and Place geocode. Many records are allocated down to the Block Group and TAZ level during the standard allocation.

The standard allocation system attempts to match four worker attributes at once:

- travel time (2 classes - less than 30 minutes, and 30 and over),
- residence tract,
- means of transportation (2 classes - public and non-public), and
- industry (20 classes, generally representing the major industry groups used in CTPP 2000).

For each recipient, the procedure begins by attempting to find a donor that matches the recipient on all four attributes. If this cannot be achieved the matching rules are relaxed one by one to find a donor. First, the travel time match is dropped, then the residence tract match, then means of transportation, and finally industry. A match is not forced in the standard allocation process.

Extended allocation in CTPP 2000

The extended allocation procedure developed for use in CTPP 2000 is targeted at assigning workplace tract and block codes to workers who could not be coded during the standard allocation process. If State or County codes were assigned in the standard allocation process, those codes are not changed in the extended allocation process.

Extended allocation is done in two stages. In the first stage, a set of potential destination areas is identified for each recipient, based on trip characteristics and residence location. In the second stage, the recipient is matched to a fully geocoded donor who matches the recipient's industry and occupation characteristics and who works in any one of the potential destination areas.

The first stage begins with the residence tract of the recipient. All residents of that tract who have been coded to a place of work tract are identified, and their work tracts are listed. In addition, geocoded workers who work in that residence tract are identified. Their origin tract numbers are then added to the list of potential work tracts described above.

Extended allocation uses ten means (mode) of transportation categories and seven travel time (duration) classes to find a donor.

In the second stage, 90 classes of industry and 23 classes of occupation are used to select a specific donor from the collection of workers who worked in the potential destination tracts.

Update on the American Community Survey

Elaine Murakami, FHWA Office of Planning

Full implementation to begin July 1, 2004

The Census Bureau (CB) has asked Congress to fund full implementation of the American Community Survey (ACS) starting July 1, 2004, the last quarter of the 2004 fiscal year (FY04). The FY04 funds would cover the mail-out component, but the field follow-up for non-response would not be budgeted or implemented until FY05. The estimate for a full year of ACS implementation is currently \$170 million.

Results from Test of Voluntary Response

Congress asked the Census Bureau to test the difference between conducting the ACS with voluntary vs. mandatory response. The report is available at:

<http://www.census.gov/acs/www/Downloads/Report03.pdf>. In the test, voluntary response resulted in a drop of about 20 percent in response rate. The Census Bureau estimates that it would cost an additional \$55 to \$60 million per year to keep the number of interviews the same. Any drop in sample size is a threat to small area tabulation, particularly block groups and TAZs. At the present time, CB is continuing the ACS using the “mandatory” condition, however, if there are too many complaints by the public, this could change. The Economic Census, and some economic surveys are considered “mandatory.” Other “mandatory” surveys include the Business Expenses Survey, the Survey of Business Owners, and the Self-Employed Persons Business Expenses Survey.

Census Bureau Research Comparing ACS to the Decennial Census

The Census Bureau is conducting research at the National level (Debbie Griffin) and the county and tract level (Rita Petroni and Gregg Diffendal). Rita’s work at county and tract level is expected to be released in early 2004. Also, the Census Bureau has

contracted for research comparing 3-year estimates from the ACS with comparable data from the Census 2000 long form by Joseph Salvo, New York City Department of Planning, Linda Gage, State of California; George Hough, Portland State University; and Paul Voss, University of Wisconsin. Their reports will also be available in early 2004.

Research conducted by Rita Petroni of the Census Bureau, and Joe Salvo from the City of New York confirm that one main benefit of the ACS method is the use of permanent, trained interviewer staff for non-response follow-up. In addition, under the ACS survey methods, mail-back forms are included for follow-up if they are missing critical data items. A complex algorithm is used to determine whether a given survey requires follow-up. The algorithm is based on an evaluation of survey completeness based on responses to questions relating to variables such as age, sex, income, educational attainment, and vision/hearing difficulty. The decennial census has much higher mail-back return rates, likely due to the intense media campaign. However, the decennial census mail-back responses are not subject to field follow-up, resulting in high item non-response for some variables. The outcome is much lower item non-response in ACS compared to decennial census, where field interviewers focused on “complete count” and short form items to the detriment of LF items (Joe Salvo).

Research so far has identified some seasonal affects:

- Migrant labors in Tulare County, CA affect income distribution, poverty status, and public assistance income. (Linda Gage)
- Enrollment in pre-school drops in summer-time (Debbie Griffin).

FHWA-sponsored research

FHWA has sponsored three small research projects, starting in 2001, with the results just beginning to flow. Emily Parkany, of Villanova University, examined data from Hampden County, MA; Deb Niemeier of UC Davis, is examining data from San Francisco County, CA; and Wende Mix of Westat is examining data from six counties in the ACS test.

Wende Mix focused on journey to work characteristics and vehicle availability. She began with county level analysis, and then shifted to tract analysis, using Broward County and San Francisco County. Travel time to work was “significantly different” at the county level for each of the 6 counties, but no pattern has yet been determined that can explain this difference.

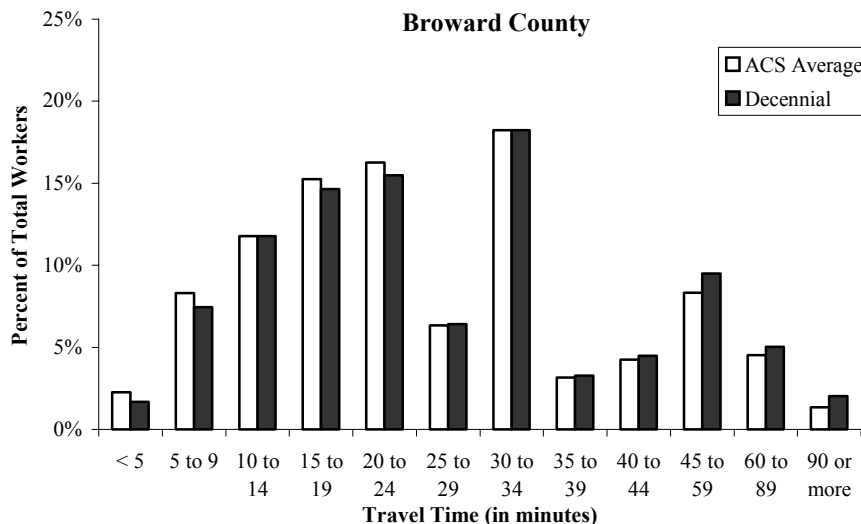
- Travel times in the ACS are shorter, with average travel times lower, and with a greater proportion of trips in categories such as “less than 5 minutes” “5-9 minutes” and “10-14 minutes,” and similarly, fewer trips over 60 minutes.
- In the majority of tracts in both San Francisco and Broward County, the number of commuters by means of transportation to work (using 7 categories) had no significant difference in all 7 categories. When examining transit commuters,

93% of tracts in Broward and 89% of tracts in San Francisco had no significant difference in total transit commuters. When examining transit in 5 sub-categories, 98% of the tracts in Broward, and 81% of the tracts in San Francisco showed no significant difference. No spatial pattern could be discerned in those tracts with significant differences.

- Because the sample size in the 3-year ACS test is smaller than the decennial Census long form, the number of origin-destination pairs is smaller in the ACS, with each sample carrying a larger weight. A similar effect will occur under a 5-year ACS sample, especially if the sample size drops for any reason.

NCHRP 08-48

NCHRP project 08-48, “American Community Survey in Transportation Planning” began in late summer 2003. Kevin Tierney at Cambridge Systematics is the project leader. The goal of the project is to develop a guidebook for practitioners on how to use the ACS data, with attention to the differences between the decennial census and ACS data resulting from the differences in data collection methods and data averaging over time. A subset of the CTPP 2000 tables are being prepared from the ACS test counties to assist in this project. (table production is sponsored by BTS and FHWA).



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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.