

CTPP Status Report

August 2011

U.S. Department of Transportation
Federal Highway Administration
Bureau of Transportation Statistics
Federal Transit Administration
AASHTO Standing Committee on Planning
In cooperation with the TRB Census Subcommittee

TAZ Delineation for Use in CTPP

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The TAZ program is nearing completion. All participating organizations will have submitted their delineations by August 1st. Participants can be divided into three basic categories: those who delineated TAZs and TADs, those who delineated only TAZs, and those who dropped out of the program, opting to accept the default of Census Tract-based TAZs.

Of the 381 original participants who were originally signed up for the program, 264 (approximately 69 percent) delineated TAZs and TADs, 58 (15 percent) delineated only TAZs, and 64 (17 percent) dropped out and opted for the Census Tract default option.

For the areas where participants did not delineate TADs, AASHTO contracted with Caliper to delineate TADs. As a result, there should be nationwide coverage for TADs.

Many of the submissions required significant rework after review by the Census Bureau. We estimate that 25 percent of first submissions from participants had to be returned for serious verification failures (such as noncontiguous entities, nesting issues between TAZs and

CTPP 2006-2008 Available in BTS Bookstore

The CTPP 2006-2008 are now available in the BTS Bookstore. The 2006-2008 CTPP has a one click download button for downloading the raw data (CSV format) and a link directing users to the data access software at AASHTO website. Follow this link to the BTS Bookstore for CTPP data products:

https://lbts.rita.dot.gov/pdc/user/products/src/searchProduct.xml?pdc_page=1&c=-1&pdc_end=15&pdc_start=1&pdc_sort=2+DESC%2C+4+DESC&qt=ctpp.

TADs, unassigned area problems, and belowminimum population TADs). Generally, Census Bureau staff was able to work with participants to obtain corrected resubmissions in a timely manner. In almost every case, participants who delineated TADs adhered to the 20,000 minimum population criteria, the only exceptions to this rule being in cases where participants created water-only TADs (or TADs that consisted solely of water and offshore islands). The TAZs and TADs will be added into TIGER so that the 2006-2010 CTPP will include these custom geographic units.

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TRB Census Data Conference in October 2011

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A TRB Conference on "Using Census Data for Transportation" will be held October 25-27, 2011 at the Beckman Center in Irvine, California. Information on the conference can be found at http://www.cvent.com/events/using-census-data-for-transportation-applications-conference/event-summary-fecf178bb83a468d86c4d85de1a3bcbf.aspx.

The conference planning team has fashioned a program to:

- Share experiences on how census data are being used to meet decision-making needs.
- Discuss opportunities, limitations, and challenges associated with the transition from the decennial census long form to the new American Community Survey.
- Learn more about recent research to minimize the impacts of data suppression and assess alternative data sources, including Bureau of Labor Statistics Quarterly Census of Employment and Wages (QCEW) and Census Bureau Longitudinal Employment Household Dynamics – On the Map (LEHD-OTM).

Opening sessions will provide background and context on the status of census data planning programs and how they align with transportation planning requirements. In addition, the conference will include breakout discussion sessions for participants to share ideas for improving and sustaining census data programs for transportation planning applications.

Census data are critical inputs for a host of transportation planning applications. They help us understand current conditions and predict future trends. They provide household, workplace, journey-to-work, and flow data for policy and planning studies, travel demand modeling, environmental justice analyses, transit evaluations, and many other work activities.

I hope that those of you who have used census data and have experiences to share will plan to participate in the conference. Early-bird registration ends August 24, 2011 and advance registration expires on September 24, 2011.

CTPP Special Tabulation from U.S. Census Bureau American Community Survey Data Based on 5-year (2006-2010) Data

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The CTPP and the U.S. Census Bureau are working together on a special tabulation request for the next CTPP data product. The product will be a special tabulation based on ACS 2006-2010 5-year data. In many respects the tabulation will be similar to the CTPP data product based on the 3-year 2006 – 2008 ACS data. There are two main differences:

- The CTPP tables will be available at large and small levels of geography. In addition to Nation, State, County, MCD, Place (over 20,000), MSA and PUMA, data will also be available at Place (all sizes), tract, TAZ and TAD.
- More tables crossed with Means of Transportation, and many tables will avoid suppression by being subject to the perturbation methodology developed under the auspices of the NCHRP Project 8-79, "Producing Transportation Data Products from the American Community Survey that Comply with Disclosure Rules."

The special CTPP tabulation is expected to be available in early 2013.

2010 Census Summary File 1

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As of July 25, the Census Bureau had released the Summary File 1 for 23 states. SF1 release is scheduled to be completed by the end of August.

Why is Summary File 1 of interest to transportation planners?

 Includes a count of persons in group quarters, and by type of group quarters. Many MPOs want to know how many people are in college dormitories and military installations, as these groups also generate local travel. Residents in institutionalized group quarters, such as prisons and nursing homes are less likely to generate local travel.

- Includes distributions of household size and presence/absence of children. These characteristics impact trip generation.
- Age of residents. Although life cycle and income may be better predictors of trip generation, age is often used as a proxy when other characteristics are not available.
- If you have a population synthesizer, the Summary File 1 tables may be a critical element in synthesizing households and persons.

The Table 1 is a list of tables in 2010 Census Summary File 1 that might be of interest to the transportation community.

Table 1. Selected Table List in the 2010 Census Summary File 1

Table	Table number	Number of cells	
Sex by Age	P12	23 age categories	
Sex by Age (under age 20)	P14	Single years 0-19	
Household Size and Type by Presence of Children	P19	19 cells	
Household Type and Household Size	P28	16 cells	
Group Quarters by GQ Type (institutional or non-institutional)	P42	10	
Housing Units (Occupancy)	Н3	3	
Average Household Size by Tenure	H12	3	

There are at least three ways to access the 2010 Census Summary File 1:

- Microsoft Access Table Shell
- American FactFinder 2
- Missouri Census Data Center

In early July, the Census Bureau released a Microsoft Access Table Shell for use with the Summary File 1 files. This may be because the American FactFinder 2 has been difficult to use. The table shell will provide an easier way to access Summary File 1 information from the Census Bureau's FTP site:

http://www2.census.gov/census 2010/04-Summary File 1/. Instructions for how to use the shell and work with the information is included in the zip file on the FTP site.

You can also access the data using American FactFinder 2: http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml, but you may find it easier to use the Microsoft Access table shell. To get the complete SF1 table list, start with "Topics" (green circled) on the left panel, then select dataset 2010 SF1 (See Figure 1 and Figure 2). But do not click the link marked with a red X in Figure 1, as that link is limited to "Quick Tables." You can also try keyword search in the box on the top left of Figure 2, and it might lead to several pages to find the table you want.

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Figure 1. American FactFinder 2 Home Page

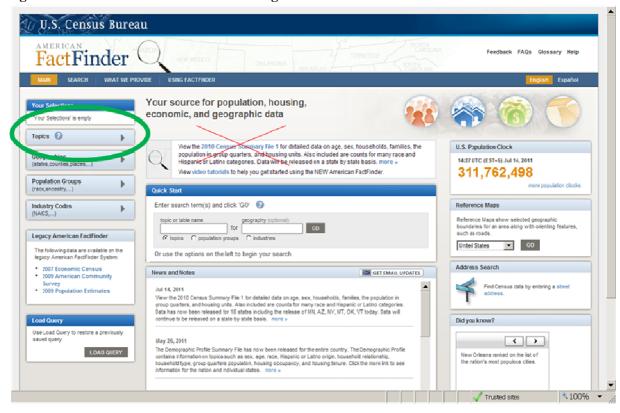
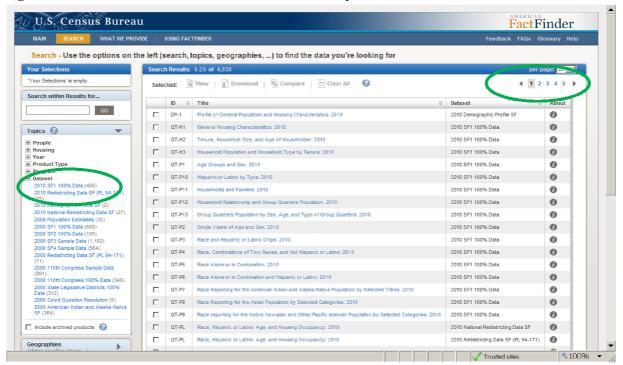


Figure 2. American FactFinder 2 Census 2010 Summary File 1 Selection



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Another way to access the 2010 Census Summary File is by using the Missouri Census Data Center (Figure 3 and Figure 4). http://mcdc.missouri.edu/cgi-bin/uexplore?/pub/data/sf12010.

For more information on which states have been released, please see:

http://2010.census.gov/news/press-kits/ summary-file-1.html

Figure 3. Missouri Census Data Center Home Page

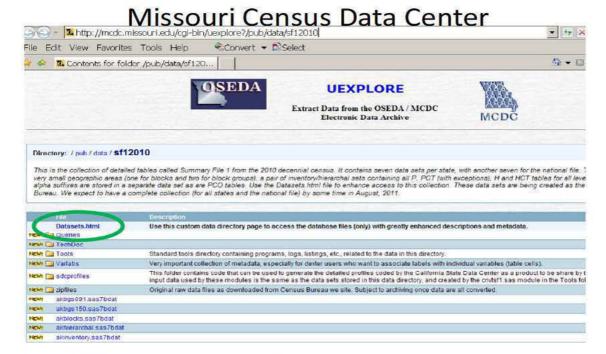
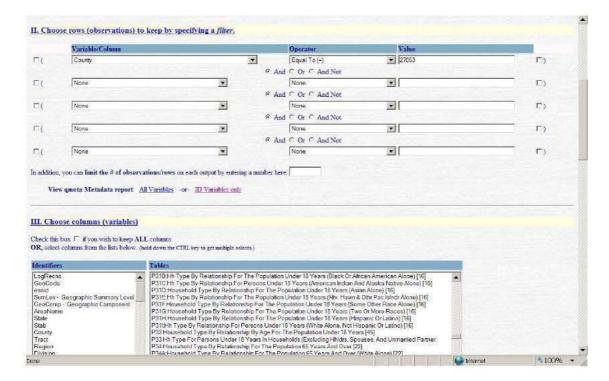


Figure 4. Missouri Census Data Center Website



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Using 2006-2008 CTPP in Planning for San Juan Light Rail Transit Study

Robert G. Schiffer, AICP, Principal, Cambridge Systematics, Inc.

Planning has been underway for several years on a proposed light rail transit corridor connecting Old San Juan with the region's existing heavy rail system, Tren Urbano. Over the past three years, planning for Tren Liviano, as the light rail corridor is called, has passed from preliminary feasibility through Alternatives Analysis and into the Draft Environmental Impact Study (DEIS) phase. While Tren Liviano is not being proposed for FTA New Starts funding, accurate estimates of potential ridership are critical to receiving local funding and gaining the attention of potential private constructors in a design, build, operate, and maintain project proposal. Data from the CTPP 2006-2008 has been a critical component in quantifying the performance of the regional travel demand model being used for the DEIS.

The regional model being used to forecast ridership had been inherited from a similar study being done on another corridor project within the greater San Juan area. This model had been validated in the absence of recent household travel diary surveys (the last one was conducted in the early 1990s). A series of onboard transit surveys have been conducted recently to quantify model assumptions on transit riders but the CTPP 2006-2008 was the only recent available travel characteristics information on the automobile mode. There were essentially three key areas in which the CTPP was used in refining the San Juan travel demand forecasting model.

First, the CTPP was used as a source for model validation benchmarks on the following statistics:

- Average persons per dwelling unit (trip generation);
- Average trip length for work trips (trip distribution); and
- Work mode splits for single occupant auto, carpool, transit, and other (mode choice).

The above statistics from the model were compared against the same statistics from the CTPP as a part of validation and reasonableness checking.

The second use of CTPP in the San Juan model was related to calibration of trip distribution. In addition to the earlier benchmark statistics, the CTPP was used to check trip distribution performance at a finer level of detail:

- Plotting of trip length frequency distribution curves (CTPP versus model Home-Based Work (HBW)).
- Calculation of coincidence ratios (the deviations between CTPP and HBW distributions). The coincidence ratio is 0.82 between the original CTPP data and model output and it was improved to 0.86 after the CTPP data was smoothed out.¹
- Verification of district-to-district work travel movements (trips traveling between counties of the greater San Juan region, aka municipios).

Finally, CTPP was useful in developing mode choice calibration targets for an effort focused on adjusting logit model constants to best match HBW mode splits against CTPP observed mode splits. The CTPP targets complimented those from the onboard transit surveys and some generalized statistics from the 1990s era household travel survey.

The following page provides a few visuals based on comparisons between CTPP and modeled HBW trips.

¹ The trip lengths were grouped into 5-minute increments and this was his attempt to smooth out the distribution.

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Figure 5. Trip Length Frequency Distribution in Minutes

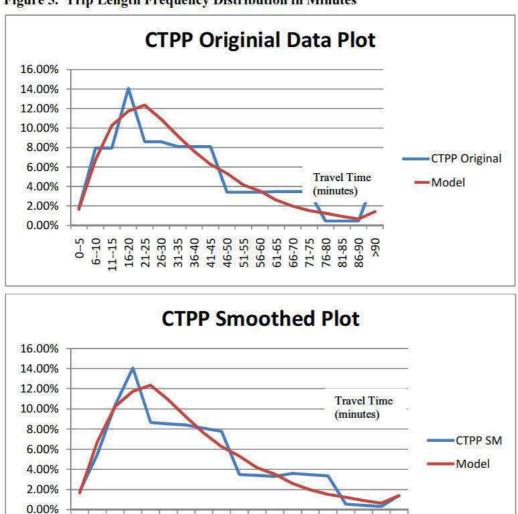


Table 2. Percent Difference Trips between CTPP and Model Output

0--5 6--10 11--15 16-20 21-25 26-30 31-35 36-40 41-45 46-50 51-55 56-60 61-65 61-65 61-65 76-80 71-75 76-80 81-85 86-90

Percent Difference Trips between CTPP versus Model Output	Workplace Total	Percent Destination	
Aguas Buenas Municipio	-15%	-7%	
Aibonito Municipio	-16%	-8%	
Barranquitas Municipio	5%	15%	
Bayamon Municipio	-3%	7%	
Caguas Municipio	-11%	-2%	
Canõvanas Municipio	-28%	-21%	
Carolina Municipio	-17%	-9%	
Cataño <mark>Municipi</mark> o	32%	44%	
Cayey Municipio	-20%	-12%	

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CTPP Hotline – 202/366-5000 **E-mail:** ctpp@dot.gov

CTPP Listserv: http://www.chrispy.net/mailman/listinfo/ctpp-news

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

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

2005-2007 ACS Profiles: http://ctpp.transportation.org/profiles_2005-2007/ctpp_profiles.html

AASHTO Website for CTPP: http://ctpp.transportation.org

1990 and 2000 CTPP Data Downloadable via Transtats: http://transtats.bts.gov/

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

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CTPP Listserv

The CTPP Listserv serves as a web-forum for posting questions, and sharing information on Census and ACS. Currently, over 700 users are subscribed to the listserv. To subscribe, please register by completing 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 web site also includes an archive of past e-mails posted to the listsery.