What Is the Census Transportation Planning Products program?

*Mission:* The CTPP is a State DOT-funded, cooperative program that produces special tabulations of American Community Survey (ACS) data that have enhanced value for transportation planning, analysis, and strategic direction. Additionally, the program provides universal access to that data, funds and conducts research, and provides training and technical assistance to the transportation planning community, all to increase understanding of the needs of the traveling public in support of policy and programming decision making.

CTPP also refers to the collection of Census data products used by the transportation planning community. The CTPP program produces a set of special tabulations from the US Census Bureau’s ACS that include: residence-based data, workplace-based data, and commuter flows from home to work, commonly known as Journey-to-Work (JTW). The ACS is an on-going survey that provides information annually. The Census releases the data according to a population threshold in one and five year aggregations. The CTPP tabulations provide household, personal, and commuting characteristics in addition to the geographic pattern of the home-to-work commute.

How Is CTPP Used by the Transportation Planning Community?

The transportation community’s interest in the CTPP data stems from a combination of both the data collected and the geography at which it is aggregated. Unlike standard Census products, the CTPP data products are designed by the State DOT’s and MPO’s for use in transportation planning and travel demand model development and myriad other transportation applications.

CTPP data are used for:

- Forecasting population,
- Performing environmental justice and equity analysis,
- Examining household lifecycles,
- Analyzing demography,
- Vehicle ownership models, and
- Travel demand model validation.

CTPP tabulations provide unique combinations of industry and occupation, travel mode, travel time, and arrival time at the workplace. Connecting residence and workplace geographies together in flow tabulations, by mode is only available either through local household surveys or CTPP data. Often, household survey samples are too small and too infrequent to suffice for local planning, but their value increases dramatically when merged with CTPP for small geography.

There are at least three distinct uses of CTPP for local planning:

1. CTPP is the single source of commute trip data for small geographies. Work trips are the most significant consideration in planning studies. No source of data has a large enough sample to create a regional trip pattern other than CTPP.
2. CTPP provides breakdowns of demographic information such as occupation, household income, vehicle availability, and household lifecycle, in small geographies down to the Census Tract level. In many cases, transportation planners are satisfied with available CTPP geography levels, though there are recognized data quality issues. In some cases, transportation planners need to use the ACS Public Use Microdata Sample (PUMS), which is restricted to very large geography.

3. CTPP provides commuter trip data which is used in land-use planning.

**Why Should State DOTs Support CTPP?**

State DOTs should support CTPP; it is a valuable and cost effective program with a five year funding request at 1.7 cents per person based on State population counts for year 2018 (see attached chart). The states benefit from the economy of scale for data, training, software, and planning process improvements. For any state and MPO to receive data, training, software and technical support for 1.7 cents per capita for five years is an excellent investment. With a fully funded CTPP, all states can request training from AASHTO, use the online material created for self-training, and use peer exchanges and expert resources that AASHTO provides for CTPP, ACS, and census data.

**What Happens if We Do Not Have CTPP?**

Without CTPP, local planners have to "invent" the home-to-work data with no independent source to validate their model assumptions. The industry has become dangerously innovative in this regard. Synthesizing techniques have become easier to use and they have created an illusion of reality. Lack of CTPP data would create a void and introduce high levels of subjectivity in transportation studies. If an important source of information in the planning process is lost without replacement, consequences for transportation planning can be extreme. CTPP data is often considered the ground truth of commuting data.

**Is LEHD LODES for home-to-work analysis an adequate substitute for CTPP?**—Efforts in LEHD Origin Destination Employment Statistics (LODES) have shown improvement in recent years, but the data do not include self-employed or the military, and workplace location is assigned algorithmically for people who work for a business with multiple locations in a county. The benefit of LEHD LODES improves with the ability to combine with CTPP results. Please see the NCHRP 08-36 task 098 Improving Employment Data for Transportation Planning at: http://onlinepubs.trb.org/onlinepubs/nchrp/docs/NCHRP08-36(98)_FR.pdf

**Is cellphone-based home-to-work aggregate data an adequate substitute for CTPP?**—Origin-destination patterns from aggregate cellphone data could provide excellent O/D patterns by time of day, but will not include variables needed for travel demand models such as household income, household size, vehicle ownership, occupation or industry of the worker.

**What Funds Can Be Used to Pay for CTPP?**

Under the FAST Act, State Planning and Research (SPR) and Metropolitan Planning (PL) funds can still be used. CTPP has approval from FHWA to waive the state funding match when SPR funds are used, however, PL funds will require a local match if they are used for CTPP.