



# ***Census Transportation Planning Products Program***

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Conference  
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# What is the CTPP Program?

The CTPP is an umbrella program of data products, custom tabulations, training, technical assistance, and research for the transportation community.

CTPP uses American Community Survey (ACS) data from U.S. Census Bureau.

## **WARNING!**

Decennial Census has no Long Form –

There is No JTW data in Decennial Census!



# History of CTPP

	<b>Buyers/Users</b>	<b>Direct Cost</b>	<b>Tables</b>
<b>1960</b>	<b>OMB</b>	<b>???</b>	<b>???</b>
<b>1970</b>	<b>Individual contracts (112)</b>	<b>\$0.6 M</b>	<b>43</b>
<b>1980</b>	<b>Individual contracts (152)</b>	<b>\$2.0 M</b>	<b>82</b>
<b>1990</b>	<b>Nationwide covering all States and MPOs</b>	<b>\$2.5 M</b>	<b>120</b>
<b>2000</b>		<b>\$3.0 M</b>	<b>203</b>
<b>today</b>		<b>\$5.8 M</b>	<b>200*</b>



# CTPP Program Activities and Costs

<b>Develop specialized data products</b>	<b>63%</b>
<b>Conduct research, training and outreach</b>	<b>27%</b>
<b>Manage the program</b>	<b>10%</b>
<b>Total Program Costs</b>	<b>\$5,844,332</b>

***5-Year Program: 2008 ~ 2012***



# Research

- NCHRP 8-79
  - Producing Transportation Data Products from the American Community Survey That Comply with Disclosure Rules
- Using Census Data for Transportation Applications Conference
- Commuting in America
- NCHRP 8-36
  - Enhancing the American Community Survey Data as a source for Home-to-Work Flows: ACS LEHD Comparisons”–
  - Improving Home-to-Work and Employment Data for Transportation Planning



# Training and Outreach

- Six Webinars
- E-Learning
- Site Visits
- Conference Workshops
- Technical Assistance
- Software help
- CTPP Status Report



# Data Products

- Archival Data
- Profiles
- 3 year tabulations
- 5 year tabulations
- Census transportation Analysis Zones and Districts (TAZ/TAD)
- Workplace Allocation



# Quick Overview of ACS

- Period Estimate, not Point in Time
- ~ 1 in 9 sample for 5-year data
- Household based
- Collected monthly and accumulated
- One year
  - Data released for areas 65,000 or greater
- Three Year
  - Data released for areas 20,000 or greater
- Five Year
  - Data released for All Geographies
- Subject to Disclosure Rules, of course



# The 3-year Product Design



## 2000 Geography

Nation (US Total)
State
State-County
State-County-MCD
State-Place
State-PUMA
State-POW PUMA
Metropolitan Statistical Area
MSA – EACH Principal City

## Product Structure

### 3-Parts

**Part 1-** Place of Residence

**Part 2-** Place of Work

**Part 3-** Flows between  
Home and Work

with On-Line  
Extraction Software



# 3-year CTPP Product Summary

<b>Highlights</b>	<b>Low Lights</b>
<p><b>Based on CTPP2000 Tables</b></p> <p><b>Many NEW Univariate Tables</b></p> <p><b>More Age Tables</b></p> <p><b>Streamlined Race Tables</b></p> <p><b>More HH and HH Lifecycle Tables</b></p> <p><b>More English Proficiency Tables</b></p> <p><b>Way more Flows Tables</b></p> <p><b>MOEs</b></p>	<p><b>Incomplete Coverage</b></p> <p><b>Rounded</b></p> <p><b>Reduced Number of Crosstabs with Mode</b></p> <ul style="list-style-type: none"><li>-- <b>Travel time</b></li><li>-- <b>Household income</b></li><li>-- <b>Vehicle availability</b></li><li>-- <b>Age</b></li><li>-- <b>Time leaving home</b></li></ul> <p><b>Tables will have Suppression</b></p> <ul style="list-style-type: none"><li>-- Means based on 3 values</li><li>-- 3 records in Flow</li></ul> <p><b>MOEs</b></p>



# Some Issues to be aware of

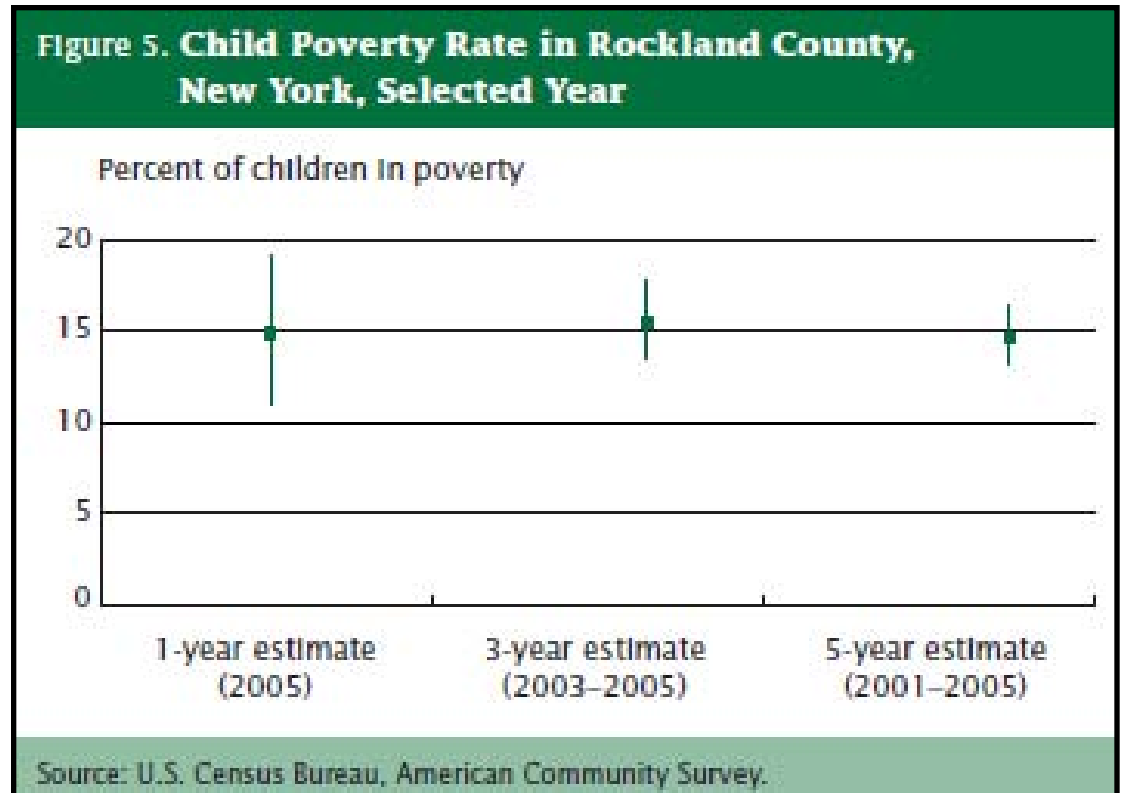
**3-year ACS (2006, 2007, 2008)**

**What year is the data?**

**Period Estimate brought forward to year of release**

**What Data to use?**

**Reliability vs. Currency**





# CTPP products collapsing schema

Total	Total	Total	Total	Total
Drove Alone	Drove Alone	Drove Alone	Drove Alone	Drove Alone
2 Person Carpool	2 Person Carpool	Carpooled	2 Person Carpool	Carpooled
3 Person Carpool	3+ Person Carpool		3+ Person Carpool	
4-person carpool				
5/6-person carpool				
7+ person carpool				
Bus/Trolley Bus	Bus/Trolley Bus	Public Transportation	Public Transportation, Bicycle/Walked, Taxicab/Motorcycle Other Means	Everything Else (incl Worked at Home)
Streetcar/trolley	Streetcar, Trolley, Subway, Elevated			
Subway/Elevated	Railroad/Ferryboat			
Railroad				
Ferryboat	Bicycle/Walked			
Bicycle				
Walked	Taxicab/Motorcycle or Other Means	Taxicab/Motorcycle or Other Means		
Taxicab				
Motorcycle				
Other Means	Worked at Home	Worked at Home	Worked at Home	
Worked at Home				
<b>18 Modes</b>	<b>11 Modes</b>	<b>7 Modes</b>	<b>6 Modes</b>	<b>4 Modes</b>



# CTPP Basics

- Planning Support for over 20 federal planning requirements
- Data for supporting a wide variety of transportation planning tasks
  - Policy studies
  - Travel demand modeling
  - Congestion management
  - Emergency preparedness
  - Corridor and project studies
  - Transit new start and service planning
  - Environmental justice studies
  - Air quality conformity
  - Environmental justice reviews
  - Trends analyses



# AKA

- How many people live here and work there?
- What's the average commute time to my city?
- How many or what percentage of workers use transit in my MSA?
- What is the approximate income of workers commuting from the suburbs to the city?
- What industries are located in my city?
- What proportion of transit users are automobile owners?
- What percentage of work trips are made in carpools?
- What proportion of people telecommute?



# Accessing the 3-year data

- Available on the web
  - Free to use, but you do need to register
  - Online help and tutorials

<http://ctpp.transportation.org/Pages/3yrdas.aspx>



### CTPP

- Home
- CTPP 3-year Data Based On 2006 - 2008 ACS
- Transportation Analysis Zones (TAZ)
- Training Resources
- Transportation Profiles
- 2005 TRB Conference Census Data
- CTPP2000 Training Materials
- CTPP Oversight Board

### Census Transportation Planning Package (CTPP) 2000 Profile Sheets

[AASHTO](#) > [CTPP](#) > CTPP 3-year Data Based On 2006 - 2008 ACS

The **CTPP data product based on 2006 – 2008 3-year American Community Survey (ACS) Data** is designed to help transportation analysts and planners understand where people are commuting to and from, and how they get there. The information is organized by where workers live, where they work, and by the flow between those places.

The link below will take you to the CTPP data product based on 2006 – 2008 3-year ACS Data.

The Data Product is a special tabulation of census data designed by transportation planners, for transportation planners. The Data Product contains commuter flows, not available in other data sets. This Data Product is limited to geographies with populations 20,000 or greater. It contains over 200 tabs and cross tabs and will help planners answer such questions as:

- How many people live here and work there?
- What's the average commute time to my city?
- How many or what percentage of workers use transit in my MSA?
- What is the average income of workers commuting from the suburbs to the city?
- What industries are located in my city?
- What proportion of transit users are automobile owners?
- What percentage of work trips are made in carpools?
- What proportion of people telecommute?







# Accessing the 3-year data

- Create sessions, which are groups of tables with a common geography selection
  - Select geography using a map and/or drill down through the geographic hierarchy
- Search for tables by dimension name or any relevant word
  - Either within one of the parts or across all parts



# Census Transportation Planning Products

citygate



Reports Table Chart



Useful links



Search

Advanced search

Folders

- All reports
- CTPP Full Data Release
- My Sessions
  - Oklahoma
  - Oklahoma (1)
  - Montgomery County
  - Montgomery County F
  - MOco to DC

<input type="checkbox"/>	Name
<input type="checkbox"/>	32100 - Combined - Total workers (1) (Workers 16 years and over) ⓘ
<input type="checkbox"/>	32100 - County-Place - Total workers (1) (Workers 16 years and over) ⓘ
<input type="checkbox"/>	32106 - Combined - Means of transportation (18) (Workers 16 years and over) ⓘ
<input type="checkbox"/>	32106 - County-Place - Means of transportation (18) (Workers 16 years and over) ⓘ
<input type="checkbox"/>	32118 - Combined - Travel time to work (12) (Workers 16 years and over) ⓘ
<input type="checkbox"/>	32118 - County-Place - Travel time to work (12) (Workers 16 years and over) ⓘ
<input type="checkbox"/>	32104 - Combined - Industry (15) (Workers 16 years and over) ⓘ
<input type="checkbox"/>	32104 - County-Place - Industry (15) (Workers 16 years and over) ⓘ
<input type="checkbox"/>	32226 - Combined - Time leaving home (5) by Means of transportation (7) (Workers 16 years and over) ⓘ
<input type="checkbox"/>	32226 - County-Place - Time leaving home (5) by Means of transportation (7) (Workers 16 years and over) ⓘ
<input type="checkbox"/>	33211 - Combined - Vehicles available (4) by Means of transportation (7) (Workers 16 years and over in households) ⓘ
<input type="checkbox"/>	33211 - County-Place - Vehicles available (4) by Means of transportation (7) (Workers 16 years and over in households) ⓘ
<input type="checkbox"/>	33100 - Combined - Household income in past 12 months (2008\$) (9) (Workers 16 years and over in households) ⓘ
<input type="checkbox"/>	33100 - County-Place - Household income in past 12 months (2008\$) (9) (Workers 16 years and over in households) ⓘ



Reports Table Chart



12100 - Total workers (1) (Workers 16 years and over) ⓘ

Other:

MEASURES	Estimate	MOE
RESIDENCE	↑↓	↑↓
Warren County, Virginia	18,270	635

Reports Table Chart



Useful links



Beyond 20/20  
WEB DATA SERVER



12106 - Means of transportation (18) (Workers 16 years and over) ⓘ

Other:

MEANS18	RESIDENCE	MEASURES	Total, means of transportation	Car, truck, or van -- Drove alone	Car, truck, or van -- In a 2-person carpool	Car, truck, or van - In a 3-person carpool	Car, truck, or van - In a 4-person carpool	Car, truck, or van - In a 5-or-6-person carpool	Car, truck, or van - In a 7-or-more-person carpool	Bus or trolley bus	Streetcar or trolley car	Subway or elevated	Railroad	Ferryboat	Bicycle	Walked	Taxicab	Motorcycle	Other method
			↑↓	↑↓	↑↓	↑↓	↑↓	↑↓	↑↓	↑↓	↑↓	↑↓	↑↓	↑↓	↑↓	↑↓	↑↓	↑↓	↑↓
	Warren County, Virginia	Estimate	18,270	13,990	1,915	410	85	15	160	75	0	0	35	0	25	295	40	45	125
		MOE	635	776	387	217	77	30	109	74	165	165	41	165	41	168	69	63	95



# Census Transportation Planning Products

Reports Table Chart

Useful links



32100 - County-Place - Total workers (1) (Workers 16 years and over)

Other: RESIDENCE - Warren County, Virginia

MEASURES	Estimate	MOE
WORKPLACE	↑↓	↑↓
Winchester city, Virginia	950	260
Manassas city, Virginia	455	158
Reston CDP, Virginia	330	163
Washington city, District of Columbia	240	146
Chantilly CDP, Virginia	225	137
Arlington CDP, Virginia	175	118
Fairfax city, Virginia	170	118
McLean CDP, Virginia	160	100
Lake Ridge CDP, Virginia	125	188
Leesburg town, Virginia	125	89
Oakton CDP, Virginia	85	72
Centreville CDP, Virginia	75	81
Herndon town, Virginia	75	71
Alexandria city, Virginia	65	72
Rockville city, Maryland	55	56
Linton Hall CDP, Virginia	50	58
Lorton CDP, Virginia	50	76
West Springfield CDP, Virginia	50	64





Reports Table **Chart**

Useful links ABC ?



12211 - Industry (15) by Earnings in the past 12 months (2008\$) (11) (Workers 16 years and over) ⓘ

Other: RESIDENCE - Warren County, Virginia MEASURES - Estimate ◀▶

EARNINGS11	Total, workers' earnings in the past 12 months	\$1 to \$9,999 or loss	\$10,000 to \$14,999	\$15,000 to \$24,999	\$25,000 to \$34,999	\$35,000 to \$49,999	\$50,000 to \$64,999	\$65,000 to \$74,999	\$75,000 to \$99,999	\$100,000 or more	No. of workers
INDUSTRY	↑↓	↑↓	↑↓	↑↓	↑↓	↑↓	↑↓	↑↓	↑↓	↑↓	↑↓
Total, all industries	18,270	2,630	1,425	2,110	2,790	3,260	2,520	1,345	975	1,215	
Educational, health and social services	3,425	635	280	570	795	545	320	25	145	115	
Construction	2,745	180	195	140	430	740	575	250	140	90	
Retail trade	2,700	690	235	355	375	430	315	175	65	65	
Professional, scientific, management, administrative, and waste management services	2,215	240	175	215	270	280	325	195	150	365	
Public administration	1,335	35	0	35	125	265	385	105	210	170	
Manufacturing	1,275	20	15	125	195	320	235	85	125	160	
Finance, insurance, real estate and rental and leasing	995	45	70	205	185	75	20	210	75	110	
Transportation and warehousing, and utilities	930	0	85	135	205	210	175	95	0	30	
Arts, entertainment, recreation, accommodation and food services	885	390	150	85	130	100	0	0	15	10	
Other services (except public administration)	885	275	155	100	45	155	60	35	15	45	
Information	345	0	0	35	0	105	20	160	20	15	
Wholesale trade	310	85	0	110	15	10	60	15	15	0	
Agriculture, forestry, fishing and hunting, and mining	180	35	65	0	20	25	0	0	0	35	
Armed forces	40	0	0	0	0	0	40	0	0	0	



# Viewing the data

- Open any table, either in your “session” or from the public view.
- From there, you can customize your view of the data:
  - Rearrange dimensions
  - Make selections on any dimension
  - View charts
  - View the data on a thematic map
  - Aggregate items using standard functions or provide a formula (margin of error will be recalculated for you for simpler formulas)
  - Save your report for future use
  - Save your selections and aggregations for use in other tables



# Exporting the Data

- Once you have set up the table you want to see, you can export it:
  - Export the data in CSV, XLS or Beyond 20/20 (IVT) format for use in your own analysis tools
  - Export SHP files for viewing maps in your own GIS engine
- Entire sessions can be exported in a single operation.



Home Insert Page Layout Formulas Data Review View Acrobat

Paste Font Alignment Number Styles Cells

Clipboard Font Alignment Number Styles Cells

F27

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	12211 - Industry (15) by Earnings in the past 12 months (2008\$) (11) (Workers 16 years and over)													
2	US Census Bureau, ACS 2006-2008 3yr est., Special Tabs for CTPP													
3														
4	RESIDENCE	Warren Co	MEASURES	Estimate										
5														
6	EARNINGS11	Total, work	\$1 to \$9,999 or	\$10,000 to	\$15,000 to	\$25,000 to	\$35,000 to	\$50,000 to	\$65,000 to	\$75,000 to	\$100,000 c	No earnings in the past 12 m		
7	INDUSTRY													
8	Total, all industries	18270	2630	1425	2110	2790	3260	2520	1345	975	1215	0		
9	Educational, health and soc	3425	635	280	570	795	545	320	25	145	115	0		
10	Construction	2745	180	195	140	430	740	575	250	140	90	0		
11	Retail trade	2700	690	235	355	375	430	315	175	65	65	0		
12	Professional, scientific, man	2215	240	175	215	270	280	325	195	150	365	0		
13	Public administration	1335	35	0	35	125	265	385	105	210	170	0		
14	Manufacturing	1275	20	15	125	195	320	235	85	125	160	0		
15	Finance, insurance, real est	995	45	70	205	185	75	20	210	75	110	0		
16	Transportation and warehous	930	0	85	135	205	210	175	95	0	30	0		
17	Arts, entertainment, recreati	885	390	150	85	130	100	0	0	15	10	0		
18	Other services (except publi	885	275	155	100	45	155	60	35	15	45	0		
19	Information	345	0	0	35	0	105	20	160	20	15	0		
20	Wholesale trade	310	85	0	110	15	10	60	15	15	0	0		
21	Agriculture, forestry, fishing	180	35	65	0	20	25	0	0	0	35	0		
22	Armed forces	40	0	0	0	0	0	40	0	0	0	0		
23														
24														
25														
26														
27														
28														
29														
30														
31														
32														



# Resources

- CTPP at AASHTO:  
<http://ctpp.transportation.org/Pages/default.aspx>
- CTPP at FHWA:  
<http://www.fhwa.dot.gov/ctpp/>
- Ed the Fed  
<http://www.edthefed.com/>
- TRB Census Data Subcommittee  
<http://www.trbcensus.com/>