CTPP Crash Course

Census Transportation Planning Products program

What is the CTPP?



May 31, 2012
CA State Data Center Meeting
Kristen Rohanna

(On behalf of Penelope Weinberger, CTPP Program Manager, AASHTO)

History

Background

Organizational Structure

Data

Resources

What is the CTPP

CTPP is an umbrella program of

- 1. Data Products
- 2. Custom Data Tabulations
- 3. Training
- 4. Technical Assistance
- 5. Research for the transportation community

CTPPs main focus is on data from U.S. Census Bureau and the American Community Survey (ACS)

Census Transportation Planning Products



Where it all began ~ 1960, JTW Question Arrives

OMB required-**Metro** Areas

Coded to City or County

No Special Tabulations

P28. What city and	county did he work in last week?
	in more than one city or county, give place orked most last week.
a. City or to	wn
b. If city or	the city limits? { No [
SEC. MARKET STATES	** *
7	Stafe Stafe
P29. How did he g	et to work last week? ex for principal means used last week)
P29. How did he g	et to work last week?
P29. How did he go (Check one bo	et to work last week? ox for principal means used last week)
P29. How did he go (Check one bo Railroad	et to work last week? ox for principal means used last week) Taxicab Walk only Private auto Worked at



1970--First Transportation Tables That's a picture of Alan Pisarski

Urban Transportation Planning Package

FHWA provided table specs

First DOT funding

43 Tables, "Caveat Emptor"

c. Whe	ere did he work <u>las</u>	st week?
If h	ne worked in more	than one place, print
	where he worked	most last week.
If b	e travels about in bi	is work or if the place does not
	bave a numbered	address, see instruction sheet.
(1)	Address (Number and street name)	
(2)	Name of city, town, village, etc.	
(3)	Inside the limits o	f this city, town, village, etc.?
	O Yes	
	O No	
(4)	County	
		(6) ZIP
(5)	State	Code

112 Purchasers, Local TAZs

Address coding (DIME) Block level



Called UTPP

Summarized data by

Place of Residence

Place of Work

Flows between Home and Work



Custom Geography (Local TAZs)

Unique Universes (e.g. workers in HHs)

Designed and paid for by transportation planners for transportation planners

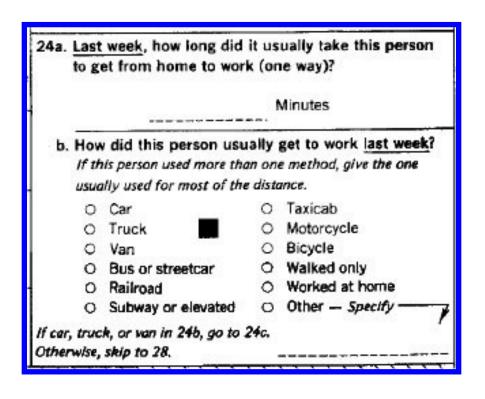
1980--UTPP Expands

Census Bureau hired JTW staff

- -- better delivery
- -- geo QC

Work trip imputation (allocation)

150 Buyers



More detail data (more modes, vehicle occupancy, travel time)

1990-2000

Census Transportation Planning Package is born

- Name changed from UTPP to CTPP
- Wall-to-Wall Coverage (AASHTO/NARC pooled fund)
- First state package
- More data (departure time, occupancy)
- Extraction software BTS CD release
- •TRB Subcommittee (est. 1998)
- List Serve (900 strong)
- Enhanced TAZ Definition process
- Improved Extraction software
- Disclosure Rules Emerge!!!

2005--The Long Form goes away

Enter the ACS era...

- Continuous Survey Methodology
- Conducted Monthly
- About 1 in 40 Households Sampled per year
- 300,000 Households Sampled per month
- Same Transportation questions as 2000 Long Form
- 3 basic Period Estimates

Annual 65K+

3-year > 20K

5-year, Block Groups and up

Smaller sample, Margins of Error (MOE)

Transformation over time

_	Buyers/Users	Direct Cost	Tables
1960	OMB	???	???
1970	112	\$0.6 M	43
1980	152	\$2.0 M	82
1990	All States	\$2.5 M	120
2000	and MPOs	\$3.0 M	203
2005 +	AASHTO Consolidated Purchase	\$5.8 M	Multiple Products

CTPP Fund Commitment

Alabama	\$86,952	Мо	ntana	\$18,324
Alaska	\$13,131	Nel	braska	\$33,465
Arizona	\$125,564	Nev	vada	\$50,898
Arkansas	\$54,389	Nev	w Hampshire	\$26,212
California	\$720,140	Nev	w Jersey	\$170,604
Colorado	\$91,402	Nev	w Mexico	\$37,461
Connecticut	\$67,678	Nev	w York	\$367,828
Delaware	\$16,730	Nor	rth Carolina	\$176,801
Dist. of Columbia	\$10,022	Nor	th Dakota	\$12,043
Florida	\$364,196	Ohi	io	\$218,994
Georgia	\$181,403	Okl	lahoma	\$67,943
Hawaii	\$25,362	Ore	egon	\$71,717
Idaho	\$28,704	Per	nnsylvania	\$238,069
Illinois	\$244,357	Pue	erto Rico	\$75,671
Indiana	\$120,924	Rhe	ode Island	\$21,124
Iowa	\$56,940	Sou	uth Carolina	\$84,121
Kansas	\$53,073	Sou	ıth Dakota	\$14,877
Kentucky	\$80,686	Ter	nnessee	\$117,873
Louisiana	\$87,261	Tex	kas	\$466,299
Maine	\$25,674	Uta	ıh	\$49,091
Maryland	\$111,708	Ver	mont	\$12,344
Massachusetts	\$125,792	We	st Virginia	\$34,603
Michigan	\$197,286	Vir	ginia	\$151,535
Minnesota	\$102,546	Wa	shington	\$123,758
Mississippi	\$56,212	Wis	sconsin	\$108,349
Missouri	\$112,032	Wy	oming	\$9,835

Cost 1.89 cents per person

2010 pop estimate done in 2005

With "real" 2010 Census pop CA \$720,140

CTPP Cost Estimates

01-1-	Resident Pop	2010 CTPP	2005 CTPP	Change	Rank by
State	(4-1- 2010)	Cost	Estimate	(savings)	Loss
California	37,253,956	\$704,099.77	\$720,140.00	-\$16,040.23	1
Michigan	9,883,640	\$186,800.80	\$197,286.00	-\$10,485.20	2
Florida	18,801,310	\$355,344.76	\$364,196.00	-\$8,851.24	3
Arizona	6,392,017	\$120,809.12	\$125,564.00	-\$4,754.88	4
New Jersey	8,791,894	\$166,166.80	\$170,604.00	-\$4,437.20	5
Maryland	5,773,552	\$109,120.13	\$111,708.00	-\$2,587.87	6
Minnesota	5,303,925	\$100,244.18	\$102,546.00	-\$2,301.82	7
Massachusetts	6,547,629	\$123,750.19	\$125,792.00	-\$2,041.81	8
Illinois	12,830,632	\$242,498.94	\$244,357.00	-\$1,858.06	9
New York	19,378,102	\$366,246.13	\$367,828.00	-\$1,581.87	10
Louisiana	4,533,372	\$85,680.73	\$87,261.00	-\$1,580.27	11
Indiana	6,483,802	\$122,543.86	\$120,924.00	\$1,619.86	40
Georgia	9,687,653	\$183,096.64	\$181,403.00	\$1,693.64	41
Pennsylvania	12,702,379	\$240,074.96	\$238,069.00	\$2,005.96	42
Tennessee	6,346,105	\$119,941.38	\$117,873.00	\$2,068.38	43
Oklahoma	3,751,351	\$70,900.53	\$67,943.00	\$2,957.53	44
Utah	2,763,885	\$52,237.43	\$49,091.00	\$3,146.43	45
South Carolina	4,625,364	\$87,419.38	\$84,121.00	\$3,298.38	46
Washington	6,724,540	\$127,093.81	\$123,758.00	\$3,335.81	47
Alabama	4,779,736	\$90,337.01	\$86,952.00	\$3,385.01	48
North Carolina	9,535,483	\$180,220.63	\$176,801.00	\$3,419.63	49
Colorado	5,029,196	\$95,051.80	\$91,402.00	\$3,649.80	50
Texas	25,145,561	\$475,251.10	\$466,299.00	\$8,952.10	51

CA Overpaid \$16,040

AASHTO CTPP Program

- All States + DC
- AASHTO Led
- Oversight Board
- Five Year period
 ~ 2011 (2012, now
 2013)

Acquire Data and Develop Products	53%
Research, Training and Outreach	39%
Manage Program	5%
Board Discretion	3%
TOTAL	\$5,844,332

Federal Technical Advisory Group TRB Subcommittee -- List Serve Quarterly Newsletter -- Outreach Several Websites

AASHTO CTPP Oversight Board (ACOB)

MPOs

Kristen Rohanna, SANDAG
Brian Lasagna, BCAG
Mell Henderson, MARC
Arash Mirzaei, NCTCOG
Guy Rousseau, ARC
Clara Reschovsky, MWCOG
Bill Schaeffer, MATPB
MaryAnn Waldinger, COMPASS

Chair: Jennifer Toth, AZ (Region IV)
Vice Chair: Susan Gorski, MI (Region III)
AASHTO Liaison: Penelope Weinberger

17 voting members: 9 states and 8 MPOs

Consensus Decision Making

Ex Officio Members

Ken Cervenka, FTA
Ed Christopher, FHWA
Rich Denbow, AMPO
Alison Fields, Census Bureau
Matt Hardy, AASHTO
Jonette Kreideweis, Consultant
Brian McKenzie, Census Bureau
Elaine Murakami, FHWA
Janet Oakley, AASHTO
Alan Pisarski, Consultant
Steven Polzin, USF. CUTR
Melanie Rapino, Census
Nanda Srinivasan, TRB
Erika Young NARC
Liang Long, Technical Adjunct

States

Laine Heltebridle, PA (Region I)
Greg Slater, MD (Region I)
Hui Wei Shen, FL (Region II)
Juyin Chen, VA (Region II)
Phillip Mescher, IA (Region III)
Cory Pope, UT (Region IV)
Ayalew Adamu, CA (Region IV)



ACS Transportation Data

Place of Work

Means of Transportation to Work

Carpool Occupancy to Work

Departure Time for Work



Travel Time to Work

Vehicles Available



2012-06-12 21:31:03

The Census Bureau used two different basic collect Census 2000 data.

A short form with seven basic questions went to all households and a long form with these same questions and additional questions went to a sample of households. The information that is

tabulated from the rulestions asked of





Key CTPP Products

- Transportation Profiles for state, county and place
- CTPP based on 3-Year ACS Data Products
 - Data access and visualization tools
- CTPP based on 5-year ACS Data Products
 - TAZ development
 - Data access and visualization tools
- National Data Products Commuting in America

The 3-year Product Design

2008 Geography

Nation (US Total)

State

State-County

State-County-MCD

State-Place

State-PUMA (red = 2000 geo.)

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

On-Line Data Retrieval

Extraction Software ~ Raw Data Download

http://ctpp.transportation.org/Documents/CTPP custom tabulations based on 3yracs2006 2008.xls



CTPP based on 2006-2008 ACS Table Summary

	NUMBER of Tables
	(excluding collapsed versions)
All Parts	204
Part 1 Residence Tables	123
Part 2 Workplace Tables	56
Part 3 Commuting Flow Tables	25

CTPP_custom_tabulations_based_on_3yracs2006_2008





Content

Presenter 2012-06-12 21:31:04

Next: geography

Characteristic	Examples	
Socioeconomic	Industry, occupation, poverty status, earnings, class of worker, usual hours worked per week, employment status	
Social and demographic	Age, minority status/race/hispanic origin, length of U.S. residence, language spoken at home, school enrollment	
Household	Household size, number of workers, age of youngest child, number of people over 16, number of people under 18, linguistic isolation, lifecycle (family type)	
Housing	Tenure, units in structure, telephone availability, vacancy status	
Urban/ rural residence	- (Part 1 only)	

Means of Transportation (MOT)- Full

Version MOT (18)

1 Total	
2 Drove alone	13 Bicycle
3 Carpooled, 2-people	14 Walked
4 Carpooled, 3 people	15 Taxicab
5 Carpooled, 4 people	16 Motorcycle
6 Carpooled- 5- or 6- people	17 Other method
7 Carpooled- 7 or more people	18 Worked at home
8 Bus, trolley bus	
9 Streetcar, trolley car, light rail	
10 Subway, elevated	
11 Railroad	
12 Ferryboat	

Means of Transportation (MOT)-

Collapsed Versions (which do not nest)

MOT (11)	MOT (7)
1 Total	1 Total
2 Drove alone	2 Drove alone
3 Carpooled, 2-person	3 Carpooled
4 Carpooled, 3 or more people	5 Carpooled
5 Bus, trolley bus	
6 Streetcar, light rail, subway	4 Public transportation
7 Railroad, ferryboat	
8 Bicycle	5 Bicycle or walked
9 Walked	o bicycle of walked
10 Taxi, motorcycle, other	6 Taxi, motorcycle, other
method	method
11 Worked at home	7 Worked at home

Means of Transportation (MOT)-

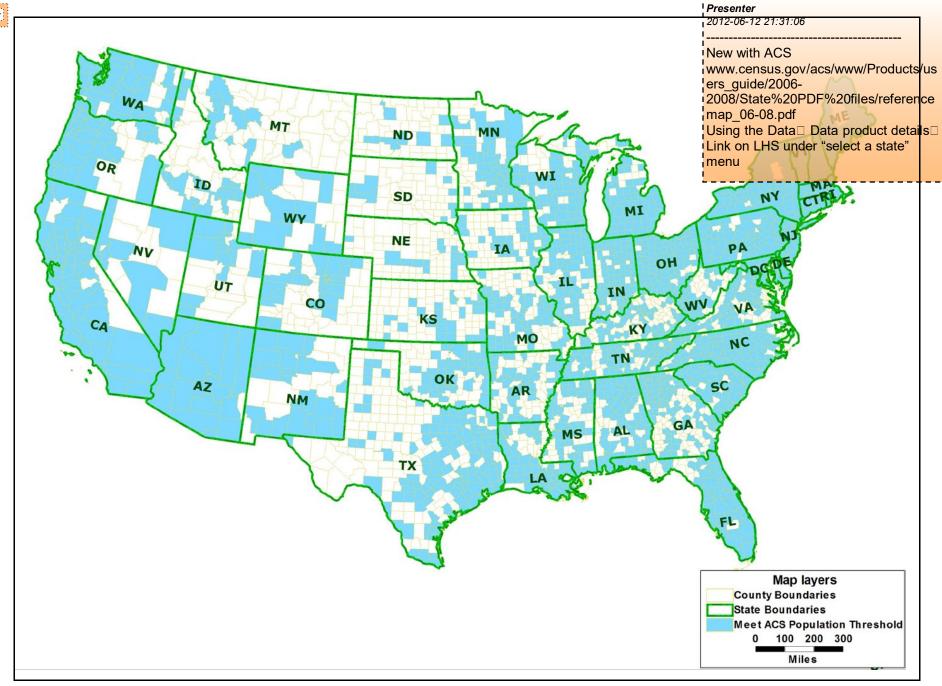
Collapsed Versions

MOT (6)	MOT (4)
1 Total	1 Total
2 Drove alone	2 Drove alone
3 Carpooled, 2-person	3 Carpooled
4 Carpooled, 3 or more people	5 Carpooled
5 Public transportation, bicycle,	4 Public transportation, bicycle,
walked, taxi, motorcycle, other	walked, taxi, motorcycle, other
method	method, and worked at home
6 Worked at home	



Content-Journey-to-Work

- Besides means of transportation, other commuting tables are included:
 - Travel time (minutes)
 - Departure time from home / arrival time at workplace
 - Vehicles available in household
 - Number of vehicles and carpools used
 - Workers per carpool, vehicle ridership





Geography Levels

- Workplace and Residence data is available at the following levels for areas with population 20,000 or greater:
 - Nation
 - State
 - County
 - County Subdivision
 - Place
 - PUMA (Public Use Microdata Area) place of work PUMAs are slightly different from residence ones
 - Metropolitan Statistical Area (MSA)
 - MSA Principal City



Geography Levels

- Flow data is available at the following levels (residence-to-workplace):
 - State to state
 - County to county
 - County-subdivision to county-subdivision
 - Place to place
 - PUMA to PUMA
 - Principal-city to principal-city
 - County to place
 - County-subdivision to place
 - PUMA to place



Accessing the 3-year data

- All available on a single easy-to-use free website
 - Free to use, but you do need to register
 - Online help and tutorials help users along the way
- 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



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.

3-year CTPP Product Summary

Highlights	Low Lights
Based on CTPP2000 Tables	Incomplete Coverage
	Rounded
Many NEW Univariate Tables	Reduced Number of Crosstabs with Mode
More Age Tables	Travel time Household income
Streamlined Race Tables	Vehicle availability Age
More HH and HH	Time leaving home
Lifecycle Tables	Tables will have
More English	Suppression
Proficiency Tables	Means based on 3 values 3 records in Flow
Way more Flows Tables	Large MOEs (@ 90%)



A few notes about CTPP based on 5 year ACS (2006 – 2010)

- Includes all size geography
 - Down to TAD, Tract, Block Group or TAZ
- Two sets of tables for each part dependent upon variables
 - "real" data
 - "perturbed or privacy protected" data
- NCHRP 8-79 Producing Transportation Data Products from the American Community Survey that Comply with Disclosure Rules
- Coming in 2013

5-year CTPP Data Product

Product Structure

3-Parts

Part 1- Residence

Part 2- Workplace

Part 3- Flows between

Home and Work

On-Line Data Retrieval

Extraction Software

Raw Data Download

CTPP 5-Year Main Product

Summer 2013

2006, '07, '08, '09, 2010

Small Areas

(TAD, Tract, TAZ, Block Group)

New TAZs and TADS

Modeled and Actual Data and Flows

Requires Disclosure Proofing

5-year Geography and Flows

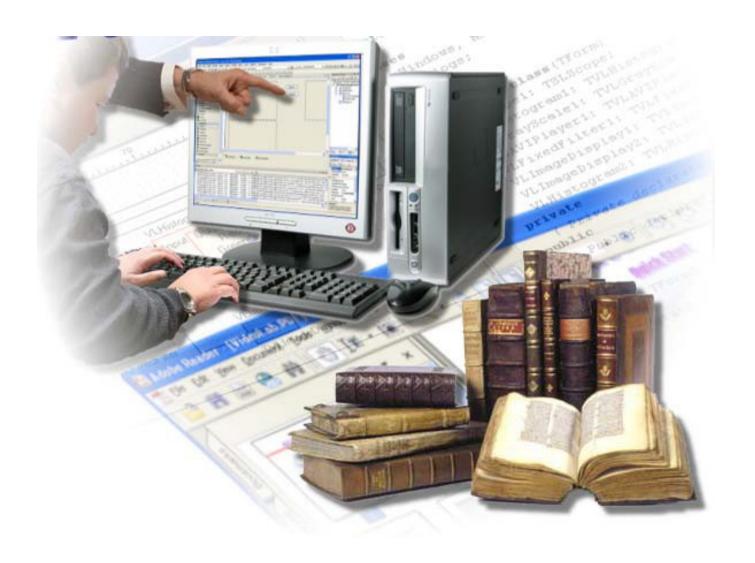
FROM / Residence	TO / Workplace
State	State
State-County	State-County
State-County-MCD (all states)	State-County-MCD (all states)
State-County-Place	State-Place
MSA (each Principal City)	MSA (each Principal City)
State-County	State-Place
State-County-MCD (all states)	State-Place
State-PUMA	State-Place
PUMA	PUMA
Tract	Tract
TAD	TAD
Locally Defined Small Area	Locally Defined Small Area
TAD	Locally Defined Small Area
Locally Defined Small Area	TAD
State-Place	Locally Defined Small Area
Locally Defined Small Area	Place

- Asymmetrical Flows (in red)
- Small Areas defined by MPOs in MPO areas and States Elsewhere
- Tracts are Defaults for Small Areas
- Default TADs by AASHTO

5-year CTPP Product Summary

Highlights	Low Lights
Also Based on	Rounded
CTPP2000 Tables	More Crosstabs with
Many NEW Univariate	Mode (but still not as many as CTPP2000)
Tables	Travel time
More Age Tables	Household income
	Vehicle availability Age
Streamlined Race Tables	Time leaving home (time
More HH and HH	arriving for workplace geo)
Lifecycle Tables	Presence of Children Minority Status
	Number of Workers
More English	Suppression
Proficiency Tables	Suppression Means based on 3 values
Way more Flows Tables	3 records in Flow
	Not as large as 3-year MOEs (@ 90% confidence)

Resources



Special Staff and Contacts

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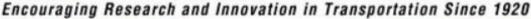
liang.long@dot.gov



CTPP List Serve

Census Data for Transportation Planning

TRB Subcommittee on Census Data for Transportation Planning, ABJ30(1)













Site Navigation

Home

Calendar

Notes & News
CTPP Data Products

Internet Mailing List

Newsletters

AASHTO Oversight

Links

TRB Publications

TAZUP / WORKUP

Welcome to our web site. We hope you find this site fun, informative and above all useful. We are organized under the <u>Committee on Urban Transportation Data and Information Systems</u> of the Transportation Research Board. We are very interested in census data matters as they relate to transportation planning. As a result, our focus spans the entire spectrum of census related activities including applied uses of the data, the content of censuses, collection procedures and dissemination programs all within the context of past, present and future censuses. This site was developed to help provide a forum for those with an interest in transportation planning and census data.

What's New

- Most recent CTPP Newsletter (PDF only) [30-Jan-2012]
- 3-Year ACS CTPP Data [20-January-2011]
- 3-Year ACS CTPP County Flow Data [7-Sept-2010]
- NCHRD Proposal Identifying Methods for ACS 5-year Tabe

http://trbcensus.com

"Status Report" newsletter

CTPP Status Report

The "Status Report" is a newsletter developed by the CTPP Planning Group, friends and anyone else wishing to write about the Census Transportation Planning Products, its use or any other census data for transportation planning issues. Its purpose is to inform the transportation planning community on matters relating to the developments of the CTPP and other census data issues of relevance to their needs.

PDF files can be viewed with the Acrobat® Reader®

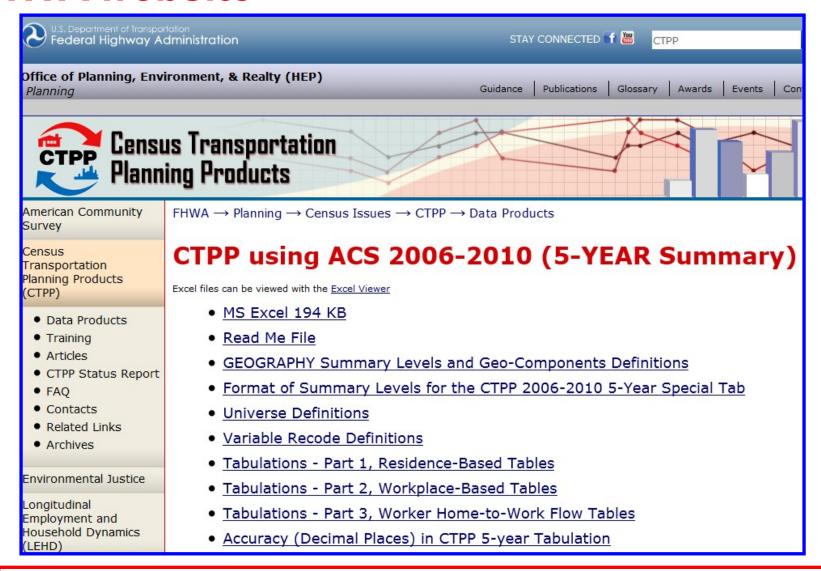
Index of Articles in the Previous Status Reports

- Current (January 2012) in <u>HTML</u> or <u>PDF</u> (375 KB)
- August 2011 in <u>HTML</u> or <u>PDF</u> (3.7 MB)
- May 2011 in <u>HTML</u> or <u>PDF</u> (168 KB)
- January 2011 in HTML or PDF (500 KB)
- August 2010 in HTML or PDF (252 KB)
- May 2010 Status Report in HTML or PDF (411 KB)
- December 2009 Status Report in <u>HTML</u> or <u>PDF</u> (182 KB)

http://www.fhwa.dot.gov/planning/census issues/ctpp/status report/

http://www.trbcensus.com/newsletters.html

FHWA website



http://www.fhwa.dot.gov/planning/census issues/ctpp/

AASHTO website



http://ctpp.transportation.org/

Developing Training Materials

AASHTO CTPP Website

http://ctpp.transportation.org/Pages/trainingresources.aspx

E-Learning

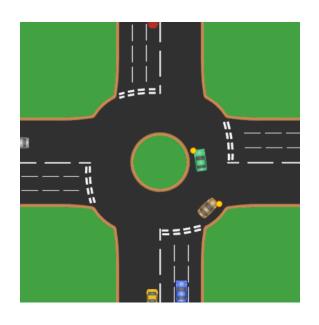
http://ctpp.transportation.org/Pages/elearningmodules.aspx

Recorded Webinars

http://ctpp.transportation.org/Pages/webinardirectory.aspx

CTPP websites





http://www.fhwa.dot.gov/planning/census issues/ctpp/

http://www.TRBcensus.com

http://ctpp.transportation.org