

Commuting in America

Using the ACS to Develop a
National Report on Commuting
Patterns and Trends

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What is the CTPP?



- The Census Transportation Planning Products Program
- A Technical Service Program of the American Association of State Highway and Transportation Officials (AASHTO)
- Uses a special or custom tabulation of the ACS – Journey to Work data
- Transportation agencies have purchased JTW Census data since 1970 – National coordinated effort began in 1980
- Current program funded through 2018, anticipates purchase of seventh large scale tabulation based on 2012 – 2016 ACS

Besides Data...

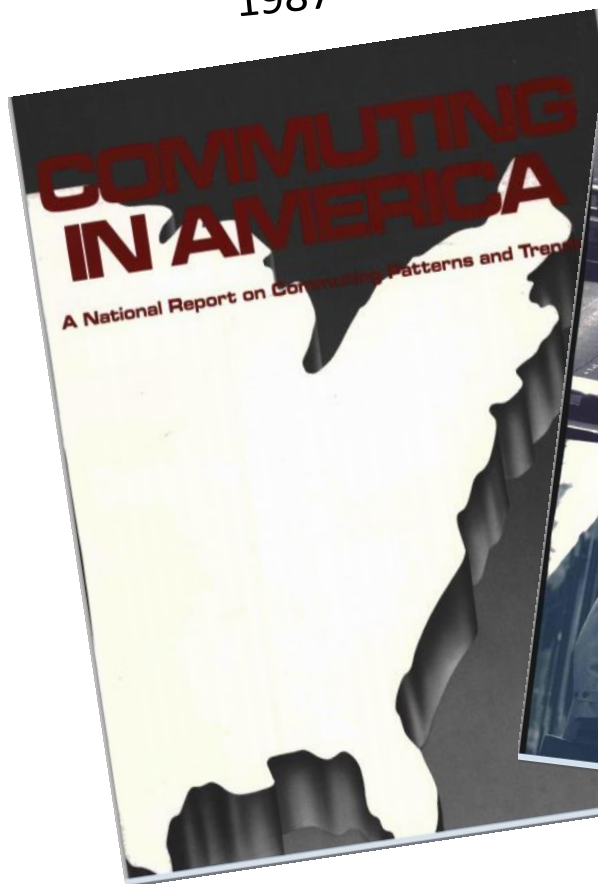


- Training and technical assistance
 - Workshops
 - Classes
 - E-Learning
 - Webinars
 - Short videos
- Research
 - Transportation Research Board
 - Self funded

(historic) Commuting in America



1987



1996



2006



Data Sources for previous CIAs



- Census 2000 Long Form data (and predecessors) and Decennial Census
- Census Transportation Planning Products (CTPP2000)
- National Household Travel Survey/Nationwide Personal Transportation Survey
- American Housing Survey
- Consumer Expenditure Survey
- Transportation Energy Book

Commuting in America



- Research is partly CTPP direct funded (\$275,000) and partly NCHRP 8-36 Task 111 (\$125,000)
- NCHRP task developed data
- The rest was for analysis, writing, production, etc.



Project Team



- Dr. Steven Polzin, Center for Urban Transportation Research, USF
- Alan Pisarski, Consultant
- Dr. Bruce Spear, Cambridge Systematics
- Nancy McGuckin, Consultant
- Dr. Liang Long, Cambridge Systematics
- Dr. Matthew Hardy, AASHTO

Topics in CIA



- The Role of Commuting in Overall Travel
- Population and Worker Trends
- Population and Worker Dynamics
- The Nature and Pattern of Jobs
- Job Dynamics
- Vehicle and Transit Availability
- Consumer Spending on Transportation
- How Commuting Influences Travel
- Commuting Mode Choice
- Commuting Departure Time and Trip Time
- Auto Commuting
- Transit Commuting
- Bicycling and Walk Commuting
- Commuting Flow Patterns
- The Evolving Role of Commuting

www.traveltrends.transportation.org



Major findings

- Commuting:
 - 16% of person trips
 - 19% of Person Miles and Travel Time
 - 28% of Household Vehicle Miles of Travel
 - Drove Alone increasing
 - Carpool declining
 - 38% of workers leave for work between 7 and 8:30
 - Commute time increases with income
 - Work at home also increases with income
 - Change has been modest

Data Sources



- American Community Survey
- CTPP based on 2006 – 2010 ACS
- National Household Travel Survey
 - Decennial Census
 - American Housing Survey
 - Consumer Expenditure Survey
 - Longitudinal Employment Household Dynamics
 - 2012 National Population Projections
 - National Intercensal Estimates (2000-2010)
 - Current Population Survey
 - Transportation Energy Data Book
 - National Transit Database



ACS Data

- 2005, 06, 07, 08, 09, 10, 11 DP03 Selected Economic Characteristics
- 2007 – 2011 DP03 Selected Economic Characteristics
- 2010 DP04 Selected Housing Characteristics
- 2010 S0201 Selected Population Profile
- 2011 S2301 Employment Status
- 2011 B23001 Sex by Age by Employment Status
- 2011 B08202 Household Size by Number of Workers
- 2011 S2302 Employment Characteristics of Families
- 2011 S0701 Geographic Mobility
- 2011 S0702 Movers Among Regions
- 2006 – 2010 Commuter Adjusted Daytime Population
- 2011 ACS PUMS – many custom tabulations



And of Course:

- 2010 B08301 Means of Transportation to Work (MOT)
- 2010 B08303 Travel Time to Work
- 2010 B08101 MOT by Age
- 2010 S0801 Commuting Characteristics by Sex
- 2010 B08006 Sex by MOT
- 2010 B08105 MOT (Black, American Indian, Asian, White, non-Hispanic, Hispanic)
- 2010 C08203 Workers by Vehicles Available
- 2010 B08141 MOT by Vehicles Available
- 2010 B08124 MOT by Occupation
- 2010 B08126 MOT by Industry
- 2007 – 2011 GCT0801 Mean Travel Time to Work
- 2010 B08534 - Means of Transportation to Work by Travel Time to Work for Workplace Geography
- 2010 B08007 - Sex of Workers by Place of Work

So Basically



- Age
- Race/Ethnicity
- Sex
- Mobility
- Employment
- Industry
- Occupation
- Income
- Every Means of Transportation table you can think of, Arrival Time, and Auto Ownership
- Custom Public Use Micro Sample tabs

About the data



- Sole nationwide, detailed geographically comprehensive source of data on commuting patterns
- Uniform
- Definitional comparability
- Sample was once 17% of households per decade; is now ~2% annually (large Margins of Error)



Limitations of ACS

- No Multiple Modes (Single mode collected – longest distance portion of trip)
- No second jobs
- No variation in “usual” pattern (occasional or regular but not always telecommute)
- No trip chains
- Lack of “three way” tabulations
- Period estimates conflict with point in time data



Improvements in ACS

- More workplace data than ever before
- More current/Continuous
- More consistent with data sets that come out more regularly such as CEX
- FactFinder strong on MOE awareness
- No more 5 – 6 year wait for data
- No more 10 – 12 year gap for trend analysis



Questions?