ACS Data Products for Use in Transportation Planning: 2004 and Beyond

By Phillip Salopek

Chief, Journey to Work and Migration Statistics Branch

Population Division

ACS Data Products

- With release of 2004 data later this year, the ACS product line is changing

- Plans were announced in Federal Register last year, giving data users opportunity to comment

- Many agencies and organizations, including the US DOT, provided comments on the plans

- Most concerns that DOT raised have been addressed in the new product line

ACS Data Products

- From 2000-2003, there were four main product types

- Detailed Tables (most basic, dist. for each item)

- Ranking Tables (selected items, summary measures)

- Data Profiles (four groups, selected items)

- Public Use Microdata Sample - PUMS

ACS Data Products

- For 2004 and beyond, there will be six basic product types

  - Base Tables (renamed and expanded)
  - Ranking Tables (expanded content)
  - Comparison Data Profiles (multi-year)
  - Subject Tables (new)
  - Selected Population Profiles (new)
  - Public Use Microdata Sample - PUMS

ACS Data Products

- Ranking Tables: five transportation-related ranking tables will be produced at the state level

  – Mean travel time to work

  – Percent carpooled

  – Percent drove alone

  – Percent used public transit

  – Percent worked outside county of residence

ACS Data Products
Example of a Ranking Table

United States and States
Mean Travel Time to Work of Workers 16 Years and Over Who Did Not Work at Home (Minutes): 2003
Universe: Workers 16 years and over who did not work at home
2003 American Community Survey Summary Tables

NOTE. Data are limited to the household population and exclude the population living in institutions, college dormitories, and other group quarters. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see Survey Methodology.

Rank ↓	State ↓	Average	Lower Bound	Upper Bound
	United States	24.3	24.2	24.4
1	New York	30.4	30.1	30.7
2	Maryland	30.2	29.7	30.7
3	New Jersey	28.5	28.1	28.9
4	District of Columbia	28.4	27.7	29.1
5	Illinois	27.0	26.6	27.5
6	California	26.5	26.1	27.0
7	Georgia	26.1	25.2	27.0
8	Massachusetts	26.0	25.6	26.4
9	Virginia	25.8	25.2	26.4
10	Florida	24.8	24.4	25.1
10	Washington	24.8	24.0	25.7
12	West Virginia	24.7	24.4	25.1

USCENSUSBUREAU
Helping You Make Informed Decisions

ACS Data Products

- Comparison Data Profiles

    – Demographic

    – Social

    – Economic

    – Housing

    – Narrative (single year)

ACS Data Products
Example of a Comparison Profile Table

United States
Selected Economic Characteristics: 2003
2003 American Community Survey Summary Tables

Demographic - Sex and Age, Race, Relationship, Household by Type
Social - Education, Marital Status, Fertility, Grandparents...
Economic - Income, Employment, Occupation, Commuting to Work...
Housing - Occupancy and Structure, Housing Value and Costs, Utilities...

NOTE. Data are limited to the household population and exclude the population living in institutions, college dormitories, and other group quarters. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see Survey Methodology.

An * indicates that the data is significantly different than data from the most current year. A 'c' indicates the data are controlled; showing whether they are significantly different is not appropriate.

Selected Economic Characteristics	2003 Percent Distribution	2002 Percent Distribution		2001 Percent Distribution		2000 Percent Distribution	
EMPLOYMENT STATUS							
Population 16 years and over	218,256,211	216,841,422	*	212,724,547	*	209,825,756	*
In labor force	65.99%	66.17%	*	66.07%		66.18%	*
Civilian labor force	65.69%	65.83%		65.72%		65.82%	
Employed	60.87%	60.94%	*	61.67%	*	62.31%	*
Unemployed	10,952,053	10,564,620	*	8,805,823	*	7,357,898	*
Percent unemployed	7.8	7.4	*	6.2	*	5.3	*
Armed Forces	0.30%	0.34%	*	0.36%	*	0.36%	*
Not in labor force	34.01%	33.83%	*	33.93%		33.82%	*
Females 16 years and over	112,503,779	111,948,318	*	110,438,213	*	108,852,870	*
In labor force	59.01%	59.15%		58.92%		59.08%	
Civilian labor force	58.93%	59.07%		58.82%		58.99%	

ACS Data Products

- PUMS

    - Data at state level

    - Approx. 40 percent of original sample will be included

ACS Data Products

- Selected Population Profile Tables (new product)

- These show the chars. of a particular group

- One "transportation" table: Workers by place of residence
  - Attachment A in handout
  - 20 demographic, social, economic, and housing variables crossed by sex
  - Including mode of travel, occupation, industry, class of worker, earnings, workers in household, and vehicles available

ACS Data Products

- Subject Tables (new product): collection of tables with a common theme or particular topic emphasis

- Three "transportation" subject tables

  - Commuting characteristics by sex for residence geography
  - Selected chars. by means of trans. for residence geography
  - Selected chars. by means of trans. for workplace geography

ACS Data Products

- New Subject Table: Commuting characteristics by sex for residence geography

- Attachment B in handout

- Means of transportation, place of work recodes, time leaving, travel time, vehicles available, and imputation rates by sex

ACS Data Products

- New Subject Table: Selected characteristics by means of transportation for residence geography

- Attachment C in handout

- Demographic, social, economic, and housing variables by drove alone, carpool, transit, and mean travel time

ACS Data Products
Example of a Subject Table

| DRAFT | Attachment C -- ACS Subject Table by Place of Residence
Table 2. Selected Characteristics by Means of Transportation | | | | DRAFT |

Selected Characteristics for Residence Geography	Total	Car, truck, or van -- drove alone	Car, truck, or van -- carpooled	Public transportation (excluding taxicab)	Mean travel time to work (minutes) for workers who did not work at home
Workers 16 years and over	#	#	#	#	#
AGE					
16 to 19 years	%	%	%	%	#
20 to 24 years	%	%	%	%	#
25 to 44 years	%	%	%	%	#
45 to 54 years	%	%	%	%	#
55 to 59 years	%	%	%	%	#
60 to 61 years	%	%	%	%	#
62 to 64 years	%	%	%	%	#
65 years and over	%	%	%	%	#
Median age (years)	#	#	#	#	(X)
SEX					
Male	%	%	%	%	#
Female	%	%	%	%	#

ACS Data Products

- New Subject Table: Selected characteristics by means of transportation for workplace geography

- Attachment E in handout

- First ever release of workplace data in a Census Bureau standard product

- Demographic, social, economic, and housing variables by drove alone, carpool, and transit

ACS Data Products

- Base Tables

- Detailed Tables from 2000-2003 are being renamed for 2004 and beyond as the Base Tables

- There were 15 "transportation" detailed tables in past

  - Mode of trans., travel time, time by mode, aggregate time by mode, time leaving, private vehicle occupancy, mode by race and Hispanic origin, three place of work recode matrices, and five imputation tables

ACS Data Products

- For 2004 and thereafter, there are many more "transportation" base tables than previously available

- Base tables are used to create the subject tables

- There are base tables for residence geography and base tables for workplace geography

ACS Data Products
Example of a Base Table

Detailed Tables

You are here: Main ▸ All Data Sets ▸ Data Sets with Detailed Tables ▸ Geography ▸ Tables ▸ **Results**

Use the links above to change your results | **Options** | **Print / Downlo**

P047. MEANS OF TRANSPORTATION TO WORK FOR WORKERS 16 YEARS AND OVER - Universe: WORKERS 16 YEARS AND OVER
Data Set: 2003 American Community Survey Summary Tables

NOTE. Data are limited to the household population and exclude the population living in institutions, college dormitories, and other group quarters. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see Survey Methodology.

United States	Estimate	Lower Bound	Upper Bound
Total:	129,141,982	128,905,839	129,378,125
Car, truck, or van:	113,899,963	113,670,743	114,129,183
Drove alone	100,416,861	100,167,389	100,666,333
Carpooled	13,483,102	13,347,344	13,618,860
Public transportation:	6,230,997	6,155,284	6,306,710
Bus or trolley bus	3,390,499	3,320,749	3,460,249
Streetcar or trolley car	82,463	73,526	91,400
Subway or elevated	1,864,154	1,819,549	1,908,759
Railroad	682,568	658,662	706,474
Ferryboat	52,632	34,063	71,201
Taxicab	158,681	144,754	172,608
Motorcycle	147,703	136,496	158,910
Bicycle	483,145	454,826	511,464
Walked	2,934,433	2,857,488	3,011,378
Other means	927,358	891,122	963,594
Worked at home	4,518,383	4,441,432	4,595,334

U S C E N S U S B U R E A U
Helping You Make Informed Decisions

18

ACS Data Products

- Transportation-related base tables for residence geography

  - Table titles, universes, and cell counts are shown in Attachment D of the handout
  - There are 71 tables, usually crossing a transportation variable by a demographic, social, economic, or housing variable
  - Included are three tables specifically requested by US DOT and tabulated for households instead of workers
  - These three tables cross household size, vehicles available, and number of workers in the household by each other

ACS Data Products

- Transportation-related base tables for workplace geography

- Table titles, universes, and cell counts are shown in Attachment F of the handout

- There are 30 tables, again usually crossing a transportation variable by a demographic, social, economic, or housing variable

ACS Data Products

- The lists of table titles and universes for the residence and workplace base tables in the handout do not show the specific categories used for each variable

- The number of categories used for some items varies from table to table. For example, means of transportation may contain six, seven, twelve, or twenty-one categories

- Attachment G of the handout shows breakdown of the categories used in each of the transportation base tables

ACS Data Products
Illustration of an ACS Release schedule

Type of Data	Population Size of Area	Data For The Previous Year Released In The Summer Of:							
		2003	2004	2005	2006	2007	2008	2009	2010+
Annual estimates	250,000+	■	■	■					➤
Annual estimates	65,000+								➤
3-year averages	20,000+								➤
5-year averages	Census Tract and Block Group*								➤

■ Data reflect American Community Survey testing through 2004

For Further Information

- On Journey to Work Data
  - Phillip.A.Salopek, Celia.G.Boertlein, Clara.A.Reschovsky (@census.gov)
  - (301) 763-2454

- On the American Community Survey
  - cmo.acs@census.gov
  - (888) 456-7215