

2006-2010 ACS County-to-County Migration Files Documentation

Introduction:

The U.S. Census Bureau released the first county-to-county migration flow estimates based on the American Community Survey (ACS) in April 2012. It used data collected from 2005 through 2009 that composed the first ACS 5-year dataset. The ACS program combines consecutive yearly datasets to increase the sample size and provide reliable estimates for smaller areas. Even though estimates are produced for 1-year and 3-year datasets, estimates are only published for geographic areas of 65,000 and 20,000 population, respectively. Only the 5-year datasets provide estimates for all counties and county equivalents in the U.S.

This release consists of the same tables using 2006-2010 ACS 5-year data. Additional tables are added to the table package for certain characteristics: age, sex, race and Hispanic or Latino origin. Besides county-to-county migration flows, the table package also contains flow data for minor civil divisions (MCD) for a few select states in which they are commonly used as the primary substate aggregate unit instead of counties.¹

Disclosure Avoidance:

Due to the amount of data released through standard 5-year ACS data products (11 billion estimates, not all unique, covering more than 670,000 distinct geographies for 2006-2010 ACS²), as well as the public use microdata samples (PUMS), and that sequential annual 5-year estimates contain overlapping samples; the Census Bureau must be vigilant in order to protect confidentiality of the respondents. Any data products that the Census Bureau releases must be reviewed and approved by the Disclosure Review Board based on disclosure avoidance rules to assure confidentiality of the respondents is protected according to Section 9 of Title 13 of the United States Code. It states "Neither the Secretary, nor any other officer or employee of the Department of Commerce or bureau or agency thereof, or local government census liaison may...make any publication whereby the data furnished by any particular establishment or individual under this title can be identified..."³

Record swapping⁴, used to protect confidentiality is applied to the dataset used to create the straight flow files. Additional disclosure avoidance measures, such as suppressing flows containing only one or two persons from different households, are applied for any flows with characteristics. Flow counts and mover counts without characteristics, however, are not suppressed. The exact measures are determined by the Disclosure Review Board before each future product is released.

¹ The 2005-2009 ACS County-to-County and County/MCD-to-County/MCD Migration Flow Products along with documentation and analysis can be found at <http://www.census.gov/hhes/migration/data/acs/county-to-county.html>.

² For more information, see news release for the 2006-2010 ACS at http://www.census.gov/newsroom/releases/archives/american_community_survey_acs/cb11-208.html.

³ For more information on how Census data are protected see http://www.census.gov/privacy/data_protection/.

⁴ Data swapping was the main procedure used for protecting Census 2000 tabulations and is also used for ACS tabulations. In each case, a small percentage of household records are swapped. Pairs of households in different geographic regions are swapped. The selection process for deciding which households should be swapped is highly targeted to affect the records with the most disclosure risk. Pairs of households that are swapped match on a minimal set of demographic variables. All data products are created from the swapped data files. (Design and Methodology, 2009)

For the characteristic files, flows that have only one or two persons from different households are summed to the state of residence 1 year level. In these cases, the value of 'XXX' is assigned for county of residence 1 year ago and 'XXXXX' for MCD of residence 1 year, when applicable. If there still are not enough cases, then the flow is suppressed.

The supplemental statistics for each county or minor civil division (e.g., number of nonmovers, movers to a different state) were previously published through the ACS standard data products available through American FactFinder. Detailed table B07001 contains geographical mobility estimates by age for current residence and B07401 for residence 1 year ago. B07003 contains geographical mobility estimates by sex for current residence and B07403 for residence 1 year ago. B07004A through G contain geographical mobility estimates for various race categories for current residence and B07404A through G for previous residence. B07004H contain geographical mobility estimates for Hispanic or Latino origin for current residence and B07404H for residence 1 year ago. B07004I contain geographical mobility estimates for White alone, not Hispanic or Latino origin for current residence and B07404I for residence 1 year ago.⁵ The Census Bureau applies separate disclosure avoidance rule to the tables consisting residence 1 year ago estimates. The universe for each table must have at least 50 unweighted cases for the Census Bureau to publish the table. The same rules are applied to the county-to-county and county/MCD-to-county/MCD tables. If there are not a sufficient number of cases, the supplemental statistics for county of residence 1 year ago or MCD of residence 1 year ago by characteristics is not shown.

Blank Values:

There are any of four reasons an estimate may be blank.

1. The estimate is out of scope for the ACS sample – such as the population 1 year and over for Europe.
2. The estimate does not exist –such as movers to a different county in the same state for the District of Columbia.
3. The supplemental statistics for county of residence 1 year ago or MCD of residence 1 year ago were suppressed due to disclosure avoidance. (Characteristic files only)
4. No records for the estimate were surveyed. The margin of errors (MOE) for these zero count estimates cannot be calculated using the standard replicate variance formula.⁶ For published ACS data products, the MOE for a zero count estimate is calculated using the average weights at the state and national levels. Zero count estimates within the state of current residence use the MOE based upon that state's average weight.

⁵ There is not a detailed table on AFF for Other race besides white alone, or two or more races; not Hispanic or Latino. The supplemental statistics for county of residence 1 year ago or MCD of residence 1 year ago are suppressed if there are not at least 50 unweighted cases in that group 1 year and over.

⁶ For more information concerning the calculation of margin of errors, see chapter 12 of *Design and Methodology: American Community Survey*.

Flows with no records in the dataset are not included in the files. There are also zero count estimates. The margin of errors for the zero count estimates are in the following table.

State of Current Residence	MOE for zero count estimate	State of Current Residence	MOE for zero count estimate	State of Current Residence	MOE for zero count estimate
Alabama	119	Maryland	127	South Carolina	132
Alaska	109	Massachusetts	127	South Dakota	99
Arizona	132	Michigan	109	Tennessee	127
Arkansas	119	Minnesota	93	Texas	127
California	132	Mississippi	127	Utah	119
Colorado	123	Missouri	114	Vermont	93
Connecticut	123	Montana	104	Virginia	127
Delaware	119	Nebraska	99	Washington	123
District of Columbia	132	Nevada	136	West Virginia	119
Florida	136	New Hampshire	114	Wisconsin	99
Georgia	132	New Jersey	123	Wyoming	119
Hawaii	123	New Mexico	127	Puerto Rico	123
Idaho	119	New York	123		
Illinois	119	North Carolina	127		
Indiana	119	North Dakota	93		
Iowa	99	Ohio	119		
Kansas	109	Oklahoma	109		
Kentucky	123	Oregon	123		
Louisiana	123	Pennsylvania	109		
Maine	104	Rhode Island	127		

Coverage and Group Quarter Population:

The American Community Survey covers the entire population residing in the U.S. and Puerto Rico, both in housing units and group quarter facilities. Each year, independent housing unit address samples are selected for each county equivalent in the U.S. and Puerto Rico. Samples of group quarters facilities and persons in group quarters are done at the state level, including Puerto Rico and District of Columbia.

The group quarters population include people living in correctional institutions, juvenile dentition facilities, nursing homes, other long-term care facilities, college dormitories, military facilities, and other noninstitutional facilities. In ACS, the weighting for the group quarters population is controlled at the state level. Additionally,

higher rates of inter-county migration for people in group quarters compared to the general public, this can lead to an occasional anomaly in the number of movers between a county pair. The 2006-2010 ACS inter-county mover rates for group quarters are shown in the table below. The estimated group quarters population for a county can be found in detailed table B26001 on American Community Survey.

	Total Population 1 Year and Over		Percent Movers Between Counties within U.S.		Percent Movers from Abroad	
	Percent	MOE	Percent	MOE	Percent	MOE
Total:	300,061,429	+/-13,120	5.7%	+/-0.1	0.6%	+/-0.1
Group Quarters:	7,992,593	+/-654	32.3%	+/-0.2	1.7%	+/-0.1
Adult correctional facilities	2,239,192	+/-1,702	36.9%	+/-0.3	0.8%	+/-0.1
Nursing facilities/skilled facilities	1,542,764	+/-718	8.7%	+/-0.2	0.1%	+/-0.1
College/university housing	2,467,049	+/-697	44.9%	+/-0.4	2.6%	+/-0.1

Source: U.S. Census Bureau, 2006-2010 American Community Survey, Subject Table S2601B

Format of the Files:

There are separate text and Excel files for flows between counties and flows between minor civil divisions (MCDs) in some selected states. In several states, minor civil divisions are county subdivisions that are the primary governmental or administrative divisions of a county. The MCD governments, in 12 states, serve as general-purpose local governments similar to incorporated municipalities.⁷ In some of these states, county government is limited or non-existent; therefore, MCDs are used as the main substate aggregate unit rather than counties. These 12 states are assigned MCD codes for residence 1 year ago during the geocoding process for ACS.

County-to-County Flow Files with No Characteristics

The County-to-County Flows files are provided in two formats. There is one fixed field length national text file sorted by current residence geography. There is also a 1997-2003 Excel file containing a worksheet for each state of current residence, including Puerto Rico and District of Columbia, and another Excel file containing a worksheet for each state of residence 1 year ago.

Besides the county of current residence, county of residence 1 year ago, and the number of movers between the two, the files also contain additional geographical mobility estimates for each county, along with the margin of error (MOE) at the 90-percent confidence level. (For further information about the geographies used for the files see Appendix A.)

The layout of the text file is as follows:

⁷ For more information on geographic terms and concepts, see <www.census.gov/geo/www/reference.html>.

Field Description	Field Position
Current Residence FIPS State Code	1-3
Current Residence FIPS County Code	4-6
Residence 1 Year Ago FIPS State Code/U.S. Island Areas Code/Foreign Region Code	7-9
Residence 1 Year Ago FIPS County Code	10-12
Current Residence State Name	14-43
Current Residence County Name	44-78
Population 1 Year and Over Current County – Estimate	80-87
Population 1 Year and Over Current County – MOE	89-96
Nonmovers Current County – Estimate	98-104
Nonmovers Current County – MOE	106-112
Movers within the U.S. for Current County – Estimate	114-120
Movers within the U.S. for Current County – MOE	122-128
Movers within the Same County for Current County – Estimates	130-136
Movers within the Same County for Current County – MOE	138-144
Movers from a Different County in the Same State for Current County – Estimate	146-152
Movers from a Different County in the Same State for Current County – MOE	154-160
Movers from a Different State for Current County – Estimate	162-168
Movers from a Different State for Current County – MOE	170-176
Movers from Abroad – Estimate	178-184
Movers from Abroad – MOE	186-192
Residence 1 Year Ago State Name/U.S. Island Areas/Foreign Region	194-223
Residence 1 Year Ago County Name	224-258
Population That Lived in County 1 Year Ago – Estimate	260-267
Population That Lived in County 1 Year Ago – MOE	269-276
Nonmovers County of Residence 1 Year Ago – Estimate	278-284
Nonmovers County of Residence 1 Year Ago– MOE	286-292
Movers within the U.S. for County of Residence 1 Year Ago – Estimate	294-300
Movers within the U.S. for County of Residence 1 Year Ago – MOE	302-308
Movers within the Same County for County of Residence 1 Year Ago – Estimates	310-316
Movers within the Same County for County of Residence 1 Year Ago – MOE	318-324
Movers to a Different County in the Same State for County of Residence 1 Year Ago – Estimate	326-332
Movers to a Different County in the Same State for County of Residence 1 Year Ago – MOE	334-340
Movers to a Different State for County of Residence 1 Year Ago – Estimate	342-348
Movers to a Different State for County of Residence 1 Year Ago – MOE	350-356
Movers to Puerto Rico – Estimate	358-364
Movers to Puerto Rico – MOE	366-372
Movers within Flow – Estimate	374-380

County-to-County Flow Files by Characteristics

The county-to-county characteristic flow files have the same fields as the county-to-county flow files with the addition field for characteristic code in positions 13-14. The field either contains an age code, sex code, race code, or Hispanic or Latino origin code depending upon the file.

The layout of the text file is as follows:

Field Description	Field Position
Current Residence FIPS State Code	1-3
Current Residence FIPS County Code	4-6
Residence 1 Year Ago FIPS State Code/U.S. Island Areas Code/Foreign Region Code	7-9
Residence 1 Year Ago FIPS County Code	10-12
Age Code: 01 = 1 to 4 years 02 = 5 to 17 years 03 = 18 to 19 years 04 = 20 to 24 years 05 = 25 to 29 years 06 = 30 to 34 years 07 = 35 to 39 years 08 = 40 to 44 years 09 = 45 to 49 years 10 = 50 to 54 years 11 = 55 to 59 years 12 = 60 to 64 years 13 = 65 to 69 years 14 = 70 to 74 years 15 = 75 years and over Sex Code: 01 = Male 02 = Female Race Code: 01 = White alone 02 = Black or African American alone 03 = Asian alone 04 = Other race alone or Two or more races Hispanic or Latino Origin:	13-14

01 = White alone, not Hispanic or Latino 02 = Not white alone, not Hispanic or Latino 03 = Hispanic or Latino	
Current Residence State Name	16-45
Current Residence County Name	46-80
Population 1 Year and Over Current County – Estimate	82-89
Population 1 Year and Over Current County – MOE	91-98
Nonmovers Current County – Estimate	100-106
Nonmovers Current County – MOE	108-114
Movers within the U.S. for Current County – Estimate	116-122
Movers within the U.S. for Current County – MOE	124-130
Movers within the Same County for Current County – Estimates	132-138
Movers within the Same County for Current County – MOE	140-146
Movers from a Different County in the Same State for Current County – Estimate	148-154
Movers from a Different County in the Same State for Current County – MOE	156-162
Movers from a Different State for Current County – Estimate	164-170
Movers from a Different State for Current County – MOE	172-178
Movers from Abroad – Estimate	180-186
Movers from Abroad – MOE	188-194
Residence 1 Year Ago State Name/U.S. Island Areas/Foreign Region	196-225
Residence 1 Year Ago County Name	226-260
Population That Lived in County 1 Year Ago – Estimate	262-269
Population That Lived in County 1 Year Ago – MOE	271-278
Nonmovers County of Residence 1 Year Ago – Estimate	280-286
Nonmovers County of Residence 1 Year Ago – MOE	288-294
Movers within the U.S. for County of Residence 1 Year Ago – Estimate	296-302
Movers within the U.S. for County of Residence 1 Year Ago – MOE	304-310
Movers within the Same County for County of Residence 1 Year Ago – Estimates	312-318
Movers within the Same County for County of Residence 1 Year Ago – MOE	320-326
Movers to a Different County in the Same State for County of Residence 1 Year Ago – Estimate	328-334
Movers to a Different County in the Same State for County of Residence 1 Year Ago – MOE	336-342
Movers to a Different State for County of Residence 1 Year Ago – Estimate	344-350
Movers to a Different State for County of Residence 1 Year Ago – MOE	352-358
Movers to Puerto Rico – Estimate	360-366
Movers to Puerto Rico – MOE	368-374
Movers within Flow – Estimate	376-382
Movers within Flow – MOE	384-390

County/MCD-to-County/MCD Flow Files

The County/MCD-to-County/MCD files are similar to the County-to-County files except that minor civil divisions are used instead of counties for Connecticut, Maine, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, and Wisconsin.

There is one fixed field length national text file sorted by current residence geography. There is also a 1997-2003 Excel file containing a worksheet for each state of current residence, including Puerto Rico and District of Columbia, and an another Excel file containing a worksheet for each state of residence 1 year ago.

In addition to the county or MCD of current residence, county or MCD of residence 1 year ago, and the number of movers between the two, the files also contain additional geographical mobility estimates for each county or MCD, along with the margin of error (MOE) at the 90-percent confidence level. (For further information about the geographies used for the files see Appendix A.)

The layout of the text file is as follows:

Field Description	Field Position
Current Residence FIPS State Code	1-3
Current Residence FIPS County Code	4-6
Current Residence FIPS MCD Code (CT, ME, MA, MN, MI, NH, NJ, NY, PA, RI, VT, WI only)	7-11
Residence 1 Year Ago FIPS State Code/U.S. Island Areas Code/Foreign Region Code	12-14
Residence 1 Year Ago FIPS County Code	15-17
Residence 1 Year Ago FIPS MCD Code (CT, ME, MA, MN, MI, NH, NJ, NY, PA, RI, VT, WI only)	18-22
Current Residence State Name	24-53
Current Residence County Name	54-88
Current Residence MCD Name (CT, ME, MA, MN, MI, NH, NJ, NY, PA, RI, VT, WI only)	89-133
Population 1 Year and Over Current County/MCD – Estimate	135-142
Population 1 Year and Over Current County/MCD – MOE	144-151
Nonmovers Current County/MCD – Estimate	153-159
Nonmovers Current County/MCD – MOE	161-167
Movers within the U.S. for Current County/MCD – Estimate	169-175
Movers within the U.S. for Current County/MCD – MOE	177-183
Movers within the Same County/MCD for Current County/MCD – Estimates	185-191
Movers within the Same County/MCD for Current County/MCD – MOE	193-199
Movers from a Different County/MCD in the Same State for Current County/MCD – Estimate	201-207
Movers from a Different County/MCD in the Same State for Current County/MCD –	209-215

MOE	
Movers from a Different State for Current County/MCD – Estimate	217-223
Movers from a Different State for Current County/MCD – MOE	225-231
Movers from Abroad – Estimate	233-239
Movers from Abroad – MOE	241-247
Residence 1 Year Ago State Name/U.S. Island Area/Foreign Region	249-278
Residence 1 Year Ago County Name	279-313
Residence 1 Year Ago MCD Name (CT, ME, MA, MN, MI, NH, NJ, NY, PA, RI, VT, WI only)	314-358
Population That Lived in County/MCD 1 Year Ago – Estimate	360-367
Population That Lived in County/MCD 1 Year Ago – MOE	369-376
Nonmovers County/MCD of Residence 1 Year Ago – Estimate	378-384
Nonmovers County/MCD of Residence 1 Year Ago– MOE	386-392
Movers within the U.S. for County/MCD of Residence 1 Year Ago – Estimate	394-400
Movers within the U.S. for County/MCD of Residence 1 Year Ago – MOE	402-408
Movers within the Same County/MCD for County/MCD of Residence 1 Year Ago – Estimates	410-416
Movers within the Same County/MCD for County/MCD of Residence 1 Year Ago – MOE	418-424
Movers to a Different County/MCD in the Same State for County/MCD of Residence 1 Year Ago – Estimate	426-432
Movers to a Different County/MCD in the Same State for County/MCD of Residence 1 Year Ago – MOE	434-440
Movers to a Different State for County/MCD of Residence 1 Year Ago – Estimate	442-448
Movers to a Different State for County/MCD of Residence 1 Year Ago – MOE	450-456
Movers to Puerto Rico – Estimate	458-464
Movers to Puerto Rico – MOE	466-472
Movers within Flow – Estimate	474-480
Movers within Flow – MOE	482-488

County/MCD-to-County/MCD Flow Files by Characteristics

The county/MCD-to-county/MCD characteristic flow files have the same fields as the county/MCD-to-county/MCD flow files with the addition field for characteristic code in positions 23-24. The field either contains an age code, sex code, race code, or Hispanic or Latino origin code depending upon the file.

The layout of the text file is as follows:

Field Description	Field Position
Current Residence FIPS State Code	1-3
Current Residence FIPS County Code	4-6
Current Residence FIPS MCD Code (CT, ME, MA, MN, MI, NH, NJ, NY, PA, RI, VT, WI only)	7-11
Residence 1 Year Ago FIPS State Code/U.S. Island Areas Code/Foreign Region Code	12-14
Residence 1 Year Ago FIPS County Code	15-17
Residence 1 Year Ago FIPS MCD Code (CT, ME, MA, MN, MI, NH, NJ, NY, PA, RI, VT, WI only)	18-22
Age Code: 01 = 1 to 4 years 02 = 5 to 17 years 03 = 18 to 19 years 04 = 20 to 24 years 05 = 25 to 29 years 06 = 30 to 34 years 07 = 35 to 39 years 08 = 40 to 44 years 09 = 45 to 49 years 10 = 50 to 54 years 11 = 55 to 59 years 12 = 60 to 64 years 13 = 65 to 69 years 14 = 70 to 74 years 15 = 75 years and over Sex Code: 01 = Male 02 = Female Race Code: 01 = White alone 02 = Black or African American alone	23-24

03 = Asian alone 04 = Other race alone or Two or more races Hispanic or Latino Origin: 01 = White alone, not Hispanic or Latino 02 = Not white alone, not Hispanic or Latino 03 = Hispanic or Latino	
Current Residence State Name	26-55
Current Residence County Name	56-90
Current Residence MCD Name (CT, ME, MA, MN, MI, NH, NJ, NY, PA, RI, VT, WI only)	91-135
Population 1 Year and Over Current County/MCD – Estimate	137-144
Population 1 Year and Over Current County/MCD – MOE	146-153
Nonmovers Current County/MCD – Estimate	155-161
Nonmovers Current County/MCD – MOE	163-169
Movers within the U.S. for Current County/MCD – Estimate	171-177
Movers within the U.S. for Current County/MCD – MOE	179-185
Movers within the Same County/MCD for Current County/MCD – Estimates	187-193
Movers within the Same County/MCD for Current County/MCD – MOE	195-201
Movers from a Different County/MCD in the Same State for Current County/MCD – Estimate	203-209
Movers from a Different County/MCD in the Same State for Current County/MCD – MOE	211-217
Movers from a Different State for Current County/MCD – Estimate	219-225
Movers from a Different State for Current County/MCD – MOE	227-233
Movers from Abroad – Estimate	235-241
Movers from Abroad – MOE	243-249
Residence 1 Year Ago State Name/U.S. Island Area/Foreign Region	251-280
Residence 1 Year Ago County Name	281-315
Residence 1 Year Ago MCD Name (CT, ME, MA, MN, MI, NH, NJ, NY, PA, RI, VT, WI only)	316-360
Population That Lived in County/MCD 1 Year Ago – Estimate	362-369
Population That Lived in County/MCD 1 Year Ago – MOE	371-378
Nonmovers County/MCD of Residence 1 Year Ago – Estimate	380-386
Nonmovers County/MCD of Residence 1 Year Ago – MOE	388-394
Movers within the U.S. for County/MCD of Residence 1 Year Ago – Estimate	396-402
Movers within the U.S. for County/MCD of Residence 1 Year Ago – MOE	404-410
Movers within the Same County/MCD for County/MCD of Residence 1 Year Ago – Estimates	412-418
Movers within the Same County/MCD for County/MCD of Residence 1 Year Ago –	420-426

MOE	
Movers to a Different County/MCD in the Same State for County/MCD of Residence 1 Year Ago – Estimate	428-434
Movers to a Different County/MCD in the Same State for County/MCD of Residence 1 Year Ago – MOE	436-442
Movers to a Different State for County/MCD of Residence 1 Year Ago – Estimate	444-450
Movers to a Different State for County/MCD of Residence 1 Year Ago – MOE	452-458
Movers to Puerto Rico – Estimate	460-466
Movers to Puerto Rico – MOE	468-474
Movers within Flow – Estimate	476-482
Movers within Flow – MOE	484-490

Appendix A: Geography

County Equivalents

Counties are the primary legal division in most states, but a few states have equivalent divisions known by different names. In order to get a complete partition of the United States and Puerto Rico, the following divisions are treated as county equivalents in the tables.

Borough (Alaska)

Census Area (Alaska)

City and Borough (Alaska)

County (All except Alaska, District of Columbia, Louisiana, and Puerto Rico)

District of Columbia

Independent City (Maryland, Missouri, Nevada, Virginia⁸)

Municipality (Alaska)

Municipio (Puerto Rico)

Parish (Louisiana)

Minor Civil Divisions

The MCD/county-to-MCD/county tables include minor civil division estimates for the 12 states (Connecticut, Maine, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, and Wisconsin) in which they also serve as general-purpose local governments. The 12 states have various names for their minor civil divisions.

Connecticut (City, Town)

Maine (City, Gore, Indian Reservation, Plantation, Town, Unorganized Territory)

Massachusetts (City, Town)

Michigan (Charter Township, City, Township)

Minnesota (City, Township, Unorganized Territory)

New Hampshire (City, Grant, Location, Town, Township)

New Jersey (Borough, City, Purchase, Town, Township, Village)

New York (Borough, City, Indian Reservation, Town)

Pennsylvania (Borough, City, Town, Township)

Rhode Island (City, Town)

Vermont (City, Gore, Grant, Town)

Wisconsin (City, Town, Village)

⁸ In previous county-to-county flow products, some counties and independent cities were collapsed into single entities due to cognitive and geographic coding problems with migration data for places. (For the Census 2000 list of combined Virginia counties and independent cities see appendix B in Migration DVD documentation at http://www.census.gov/population/www/cen2000/migration/mig_dvd.html).

Puerto Rico

Prior to 2008 ACS, the questionnaire only requested respondents to answer “Puerto Rico” if they lived in Puerto Rico 1 year ago. The Puerto Rico questionnaire asked for a municipio or a U.S. county for movers, along with other geographic information; therefore, municipio level migration flow data from Puerto Rico to the U.S. are not available prior to 2008 but are available for flow from the U.S. to Puerto Rico.

The question was revised in 2008 to ask for the same geographic information on the Puerto Rico and stateside information allowing for estimates to be calculated for both flow directions. Because of the limited data for flows between Puerto Rico and the United States before 2008, municipios are aggregated to Puerto Rico for flows from Puerto Rico to stateside counties for the 2006-2010 county-to-county flow files. Flows between municipios and from U.S. counties to municipios are represented in the files.

U.S. Island Areas and Foreign Countries

Outmigration from the United States and Puerto Rico to U.S. Island Areas or Foreign Countries is not available from the American Community Survey since only housing units and group quarters (e.g., college dormitories, military barracks, prisons) within the United States and Puerto Rico are sent questionnaires. The American Community Survey does collect data for U.S. Island Area or Foreign Country of residence 1 year ago. The tables include immigration from outside the United States and Puerto Rico aggregated to U.S. Island Areas and foreign region. A three letter code is used to identify these areas.

U.S. Island Areas (ISL):

American Samoa, Baker Island, Guam, Howland Island, Jarvis Island, Johnston Atoll, Kingman Reef, Northern Marianas Islands, Midway Islands, Navassa Island, Palmyra Atoll, U.S. Virgin Islands, Wake Island, U.S. Island Areas not specified.

Europe (EUR):

Albania, Andorra, Austria, Azores Islands, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Czechoslovakia, Czech Republic, Denmark, England, Estonia, Faroe Islands, Finland, France, Germany, Gibraltar, Greece, Guernsey, Hungary, Iceland, Ireland, Isle of Man, Italy, Jan Meyan, Jersey, Kosovo, Latvia, Liechtenstein, Lithuania, Luxembourg, Macedonia, Malta, Madeira Islands, Moldova, Monaco, Montenegro, Netherlands, Northern Ireland, Norway, Poland, Portugal, Romania, Russia, San Marino, Scotland, Serbia, Slovakia, Slovenia, Spain, Svalbard, Sweden, Switzerland, Ukraine, United Kingdom, USSR, Vatican City, Wales, Yugoslavia, Europe not specified

Asia (ASI):

Afghanistan, Armenia, Azerbaijan, Bahrain, Bangladesh, Bhutan, Brunei, Cambodia, China, Cyprus, East Timor, Georgia, Hong Kong, India, Indonesia, Iran, Iraq, Israel, Japan, Jordan, Korea, Kazakhstan, Kyrgyzstan, Kuwait, Laos, Lebanon, Macau, Malaysia, Maldives, Mongolia, Myanmar (Burma), Nepal, North Korea, Oman, Pakistan, Paracel Islands, Philippines, Qatar, Saudi Arabia, Singapore, South Korea, Spratley Islands, Sri Lanka, Syria, Taiwan, Tajikistan, Thailand, Turkey, Turkmenistan, United Arab Emirates, Uzbekistan, Vietnam, Yemen, Asia not specified

Northern America (NAM):

Bermuda, Canada, Greenland, St. Pierre & Miquelon, North American not specified

Central America (CAM):

Belize, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Central America not specified

Caribbean (CAR):

Anguilla, Antigua and Barbuda, Aruba, Bahamas, Barbados, British Virgin Islands, Cayman Islands, Cuba, Dominica, Dominican Republic, Grenada, Guadeloupe, Haiti, Jamaica, Martinique, Montserrat, Netherland Antilles, St. Barthelemy, St. Kitts-Nevis, St. Lucia, St. Vincent and the Grenadines, Trinidad and Tobago, Turks and Caicos Islands, West Indies not specified

South America (SAM):

Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Falkland Islands, French Guiana, Guyana, Paraguay, Peru, Suriname, Uruguay, Venezuela, South American not specified

Africa (AFR):

Algeria, Angola, Benin, Botswana, British Indian Ocean Territory, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Congo, Democratic Republic of Congo, Djibouti, Egypt, Equatorial Guinea, Ethiopia, Eritrea, Europa Island, Gabon, Gambia, Ghana, Glorioso Islands, Guinea, Guinea-Bissau, Ivory Coast, Juan de Nova Island, Kenya, Lesotho, Liberia, Libya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mayotte, Morocco, Mozambique, Namibia, Niger, Nigeria, Reunion, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, St Helena, Sudan, Swaziland, Tanzania, Togo, Tromelin Island, Tunisia, Uganda, Western Sahara, Zambia, Zimbabwe, Africa not specified

Oceania and At Sea (OCE):

Australia, Christmas Island, Cook Islands, Coral Sea Islands, Heard and McDonald Islands, Fiji, French Polynesia, Kiribati, Marshall Islands, Micronesia, Nauru, New Caledonia, New Zealand, Niue, Norfolk Island, Palau, Papua New Guinea, Pitcairn Islands, Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu, Wallis and Futuna Islands, Samoa, Oceania not specified, At sea

References:

Bortlein, Celia G. and Alan K. Peterson. *Evaluation Report Covering Residence 1 Year Ago*, 2007.

(http://www.census.gov/acs/www/Downloads/library/2007/2007_Boertlein_01.pdf)

U.S. Census Bureau. *American Community Survey Multiyear Accuracy of the Data (3-year 2008-2010 and 5-year 2006-2010)*.

(http://www.census.gov/acs/www/Downloads/data_documentation/Accuracy/MultiyearACSAccuracyofData2010.pdf)

U.S. Census Bureau. *Design and Methodology: American Community Survey*. Washington, D.C.: U.S Government Printing Office, 2009.

(http://www.census.gov/acs/www/Downloads/survey_methodology/acs_design_methodology.pdf)

U.S. Census Bureau. *Puerto Rico Community Survey Multiyear Accuracy of the Data (3-year 2008-2010 and 5-year 2006-2010)*.

(http://www.census.gov/acs/www/Downloads/data_documentation/Accuracy/MultiyearPRCSAccuracyofData2010.pdf)

Zayatz, Laura. "Disclosure Avoidance Practices and Research at the U.S. Census Bureau: An Update." *Research Report Series 2005-06*. Statistical Research Division, U.S. Census Bureau, Washington, D.C., August 31, 2005.

(<http://www.census.gov/srd/papers/pdf/rrs2005-06.pdf>)