

# Using the American Community Survey for the Measurement of Migration

John F. Long  
USA Demography

[johnlong@usademography.com](mailto:johnlong@usademography.com)

Chaire Quetelet, Louvain-la-Neuve, Belgium  
16-18 November, 2011

# Search for Comprehensive Migration Measures in the U.S.

- No population register for migration
- Alternative census, survey, and administrative record sources
- “Combining migration data from different sources in the United States” Chaire Quetelet 1983
- Full implementation of American Community Survey

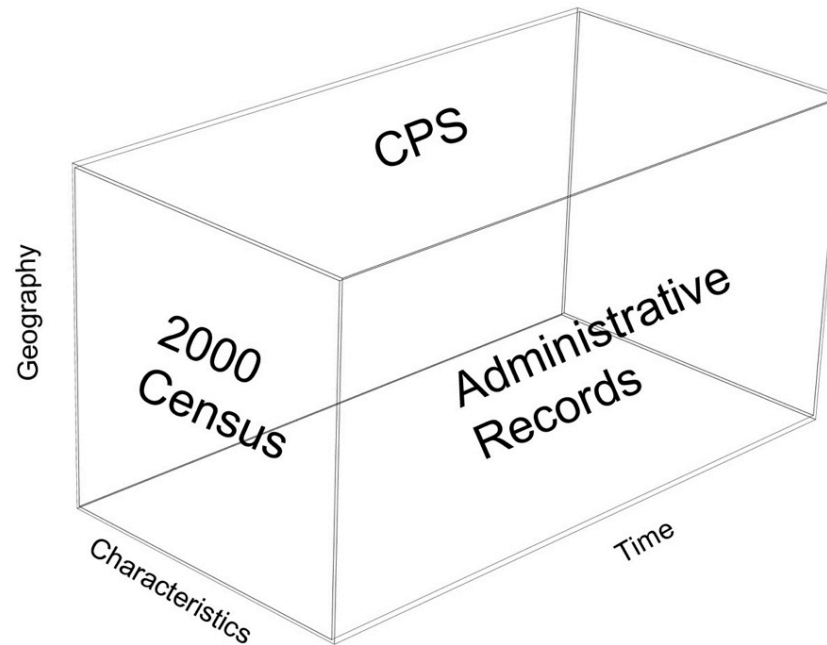
# Migration Data Dimensions

Data Collection Method	Geography	Characteristics	Time
2000 Census	X	X	
Administrative Records (IRS)	X		X
Household Surveys (CPS)		X	X

# Combining Migration Data Sets: Geography, Characteristics, and Time

2000 Census, Current Population Surveys, Administrative Records

## MIGRATION DIMENSIONS BY DATA SOURCE



# Migration Data Dimensions

Data Collection Methods	Geography	Characteristics	Time
2010 Census			
Administrative Records (IRS)	X		X
Household Surveys (CPS)		X	X
American Community Survey (ACS)	X	X	X

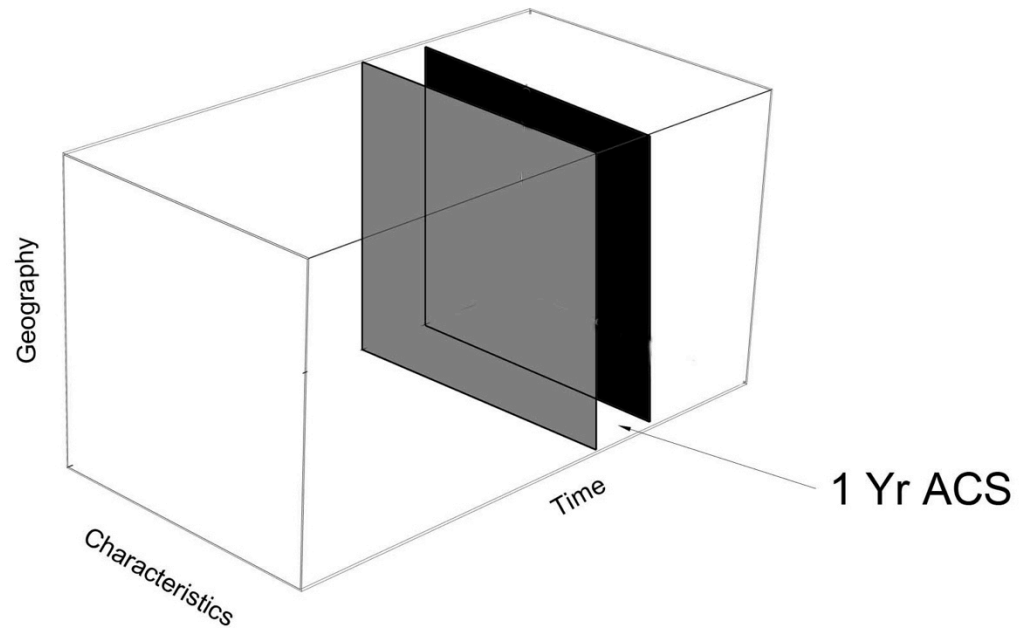
# American Community Survey (ACS)

- Large-scale continuous survey controlled to postcensal population estimates
- Includes data on residence one year ago and major demographic, social, and economic characteristics
- 3 million households each year
- Sampling frame includes all housing units and larger group quarters
- Yearly data provided for all areas with populations greater than 65,000

# American Community Survey (ACS)

Annual Migration Data with Geographic and Characteristic Detail

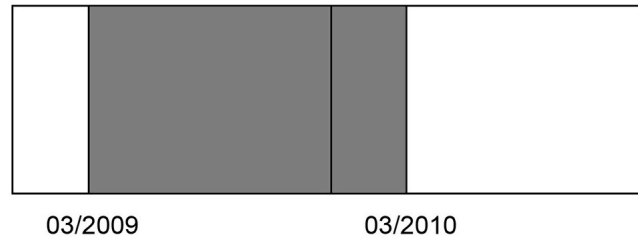
## MIGRATION DIMENSIONS BY DATA SOURCE



# Data Collection Differences: CPS and ACS

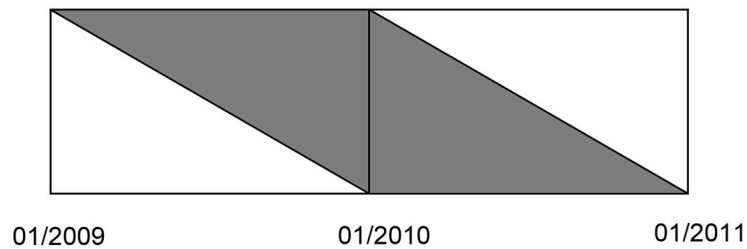
Point in time measurement vs. average of continuous measurements

March CPS Migration Period (2010)



100,000 households

1-Year ACS Migration Period (2010)



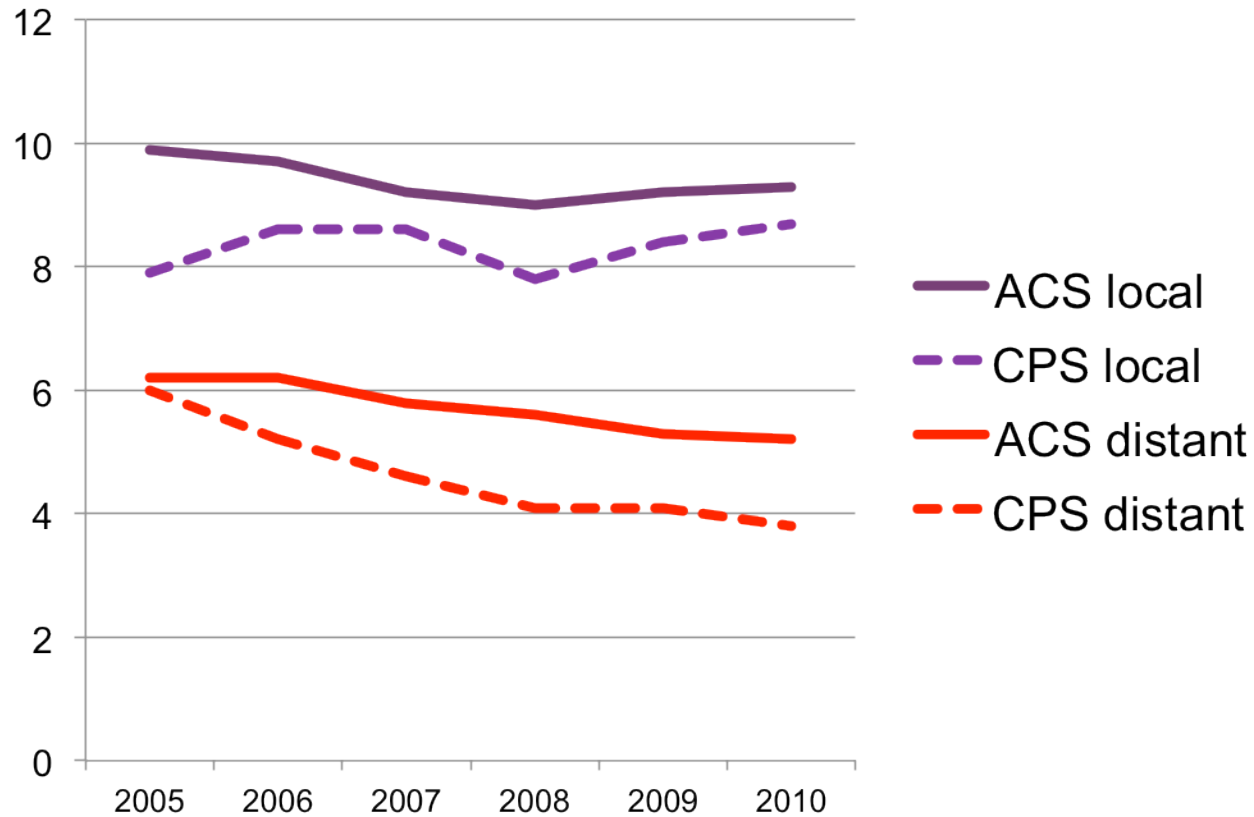
3 million households

(includes group quarters population)



# Annual Mobility: ACS vs. CPS

Percent of the household population moving within county (local) and between counties or from abroad (distant)



Source: US Census Bureau

# American Community Survey

## Data Products Release Schedule

Data Product	Population Size of Area	Data released in:					
		2006	2007	2008	2009	2010	2011**
1-Year Estimates for Data Collected in:	65,000+	2005	2006	2007	2008	2009	2010
3-Year Estimates for Data Collected in:	20,000+			2005-07	2006-08	2007-09	2008-10
5-Year Estimates for Data Collected in:	All Areas*					2005-09	2006-10

- Data sets in red denote the latest available data as of Nov. 2011.

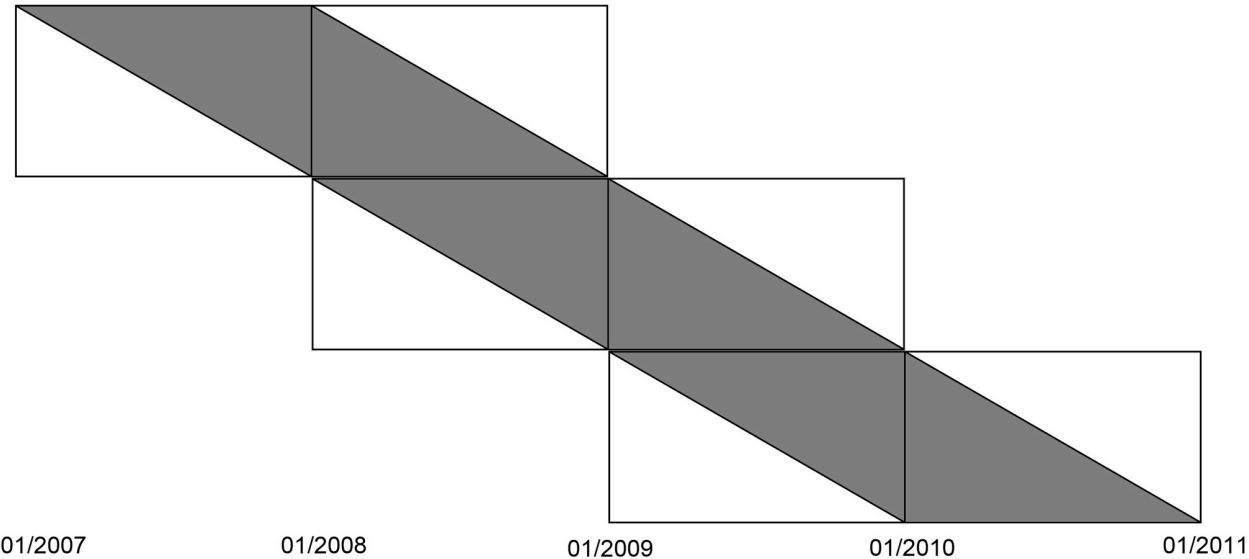
\* Five-year estimates available for areas as small as census tracts and block groups.

\*\* Data released in 2011 are controlled to population estimates based on the 2010 census counts

Source: US Census Bureau

# Migration data collection over a 3-year period

Combines data collected over three years to get average annual migration rate



# Multi-year ACS Samples

3-year samples provide data for all metropolitan areas, large cities, and most counties.

Samples for 2005-07 and 2008-10 provide comparable non-overlapping samples for periods before and during the economic crisis.

5-year samples provide data for all areas down to census tracts and block groups subject to sampling error and confidentiality constraints.

First five year data set available for 2005-09. The 2006-10 data set (consistent with the 2010 census counts) will be released in December, 2011.

# Comparing ACS net migration data with migration data from postcensal estimates

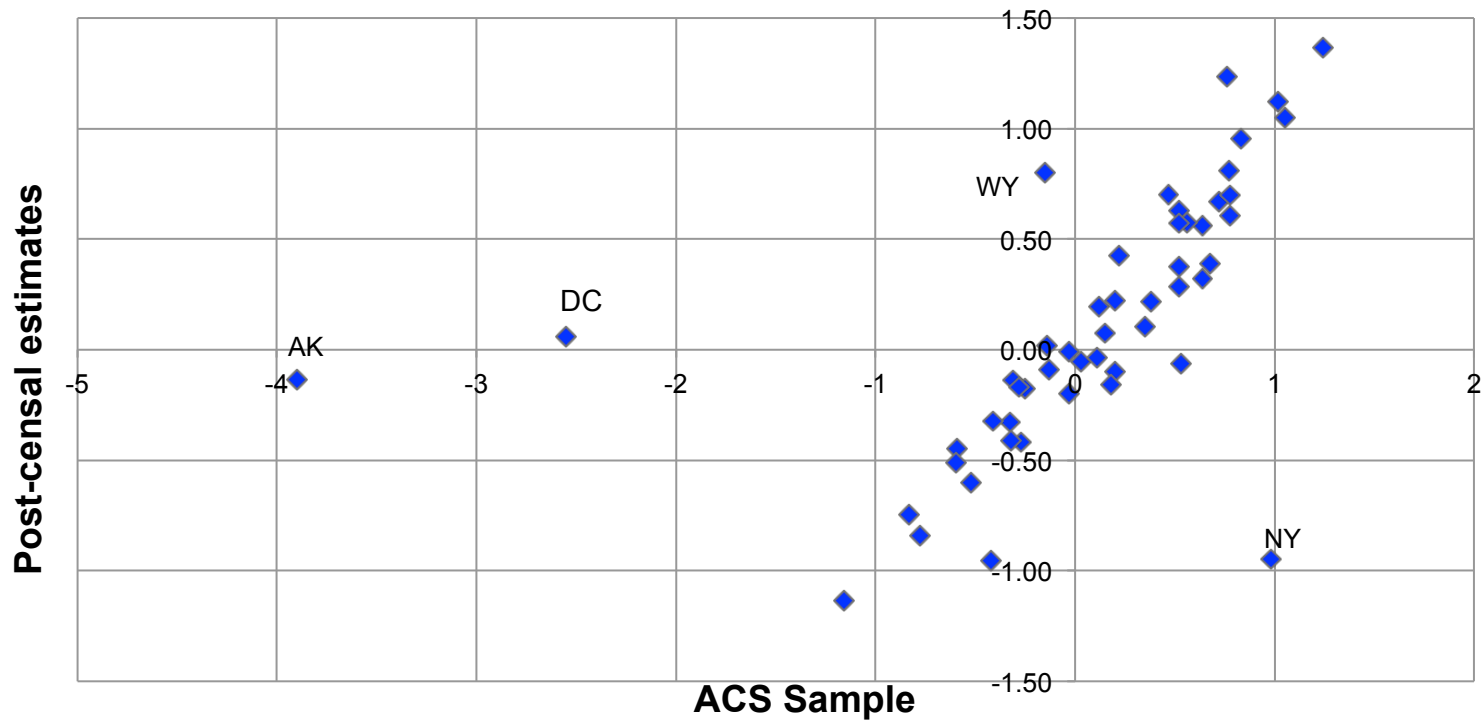
Postcensal estimates produce net migration estimates of domestic migration based on comparing addresses on tax returns between two years to estimate annual net migration. These data can be combined into a 5 year period to compare with the 2005-2009 ACS net migration data for states.

Net interstate migration data from ACS are quite similar to state data from the postcensal estimates program with the exception of a few outlying states.

# Average Annual Net Interstate Migration: 2005-2009

ACS sample vs. post-censal estimates using administrative records

Net migration as a percent of state population



Note: Margins of error in state ACS rates are between 0.03 and 0.47.

Source: U.S. Census Bureau

# ACS Comparability with Migration Data from Prior Censuses

- Prior censuses used a question on residence 5 years earlier
- 5-years of annual ACS data is not equivalent to a migration period of 5-years (due to return and repeat migration)
- However net migration balance for an area can be compared across data sets since the effects of return and repeat migration cancel out
- Small geographic areas require use of multi-year averages
- Sampling error can mask demographic change – especially for net migration.

# Conclusion

While the U.S. still has no migration register, the ACS provides a much more comprehensive view of the migration process than previous measures.

Attention to sampling errors and the effects of overlapping multiyear samples is necessary.

Comparing results across data collection systems requires care and an understanding of methodological differences.



# Using the American Community Survey for the Measurement of Migration

John F. Long  
USA Demography

For more details visit

[www.usademography.com](http://www.usademography.com)