

# American Community Survey Fundamentals

2009 Population Association of America  
ACS Workshop  
April 29, 2009

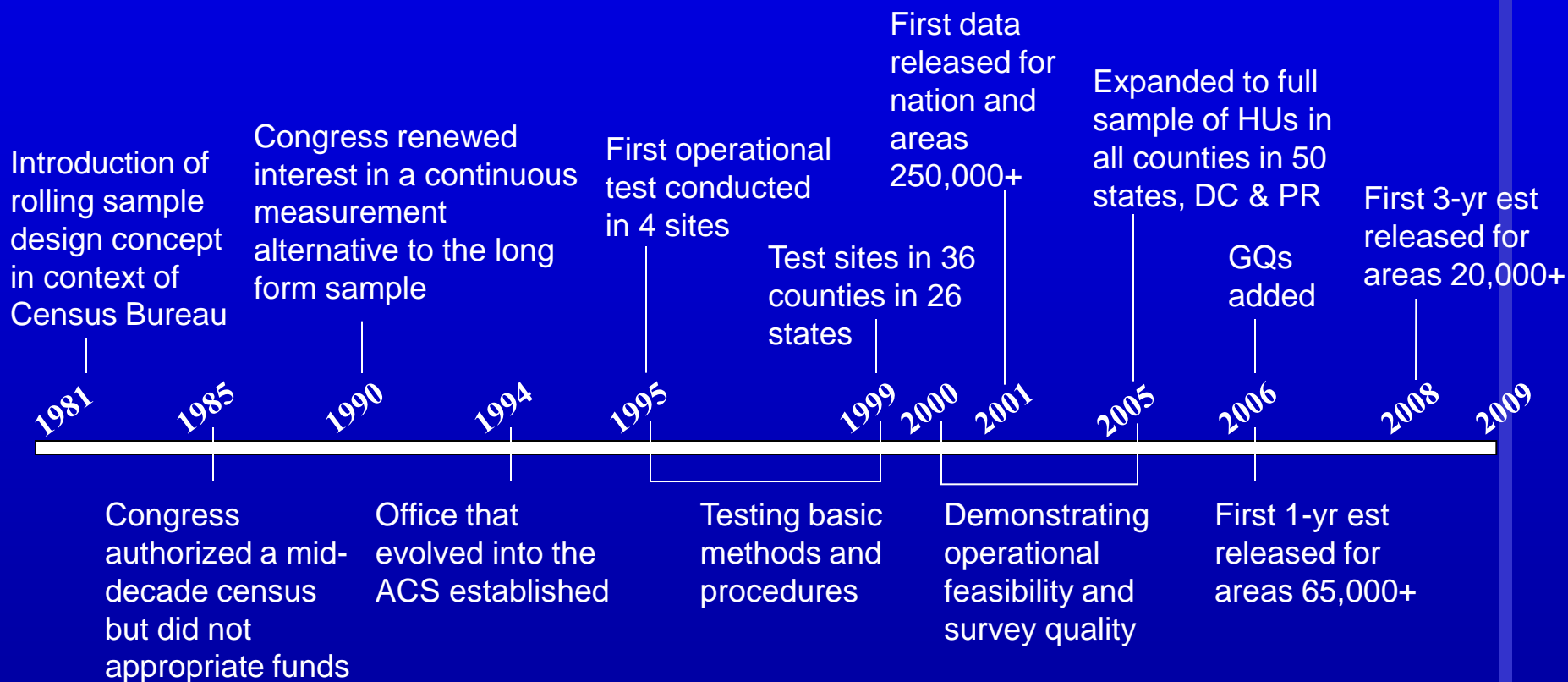
# What is the American Community Survey?

A large, continuous survey that:

- has an initial sample of about 3 million addresses per year
- produces characteristics of population and housing
- produces estimates for small areas and small population groups

# How we got here

## The evolution of the ACS



# Developing the ACS

The ACS was developed to:

1. Focus the decennial census on improving the population count
2. Provide characteristic data more than once every 10 years
3. Allow use of more current data to measure change and detect trends

# Decennial Census

- Census 2000 used 2 forms:
  1. “short” form – basic demographic and housing
  2. “long” form – collected more in-depth information
- Only a sample of the population received the long form

# Census 2000 and ACS

## Similarities

- Most questions are the same
- Many of the same basic statistics are released
- 5-year estimates will be produced for same broad set of geographic areas
  - including census tracts and block groups

# Census 2000 and ACS

## Key Differences

- ACS data now available for larger and mid-sized areas
- ACS data for small geographic areas and population groups will be produced every year starting in 2010
- ACS data describe a period of time and published data are based on 12 months, 36 months, or 60 months

# Census 2000 and ACS

## Data Quality

- Goal of the ACS: Produce data of comparable quality to Census 2000 long form
- ACS 5-year data
  - Sampling error is larger in ACS due to smaller sample size
  - Non-sampling error is smaller due to:
    - Lower rate of nonresponse
    - Higher item response rates
    - Permanent interviewing staff using automated data collection



# 2010 Census and the ACS

## 2010 Census

- U.S. population count
- Short form only
- Only long form is for U.S. territories, except Puerto Rico
- “Usual residence” rule

## ACS

- U.S. population characteristics
- Includes same short form questions as well as detailed characteristic questions
- Conducted in Puerto Rico
- “Current residence” rule

# ACS Content

- 4 types of characteristics:
  - Social
  - Economic
  - Housing
  - Demographic
- Characteristics, not population counts

# ACS Sample Design

- Sample cases selected from an updated Master Address File (MAF)
- Sample is accumulated over TIME to produce estimates at lowest levels of geographic detail
- 5 years of data are combined to publish estimates for areas and population groups with less than 20,000 population

# Operations



# Target Population

- Resident population of the United States and Puerto Rico
- Living in housing units and group quarters
- Current residents at the selected address

# Population Controls

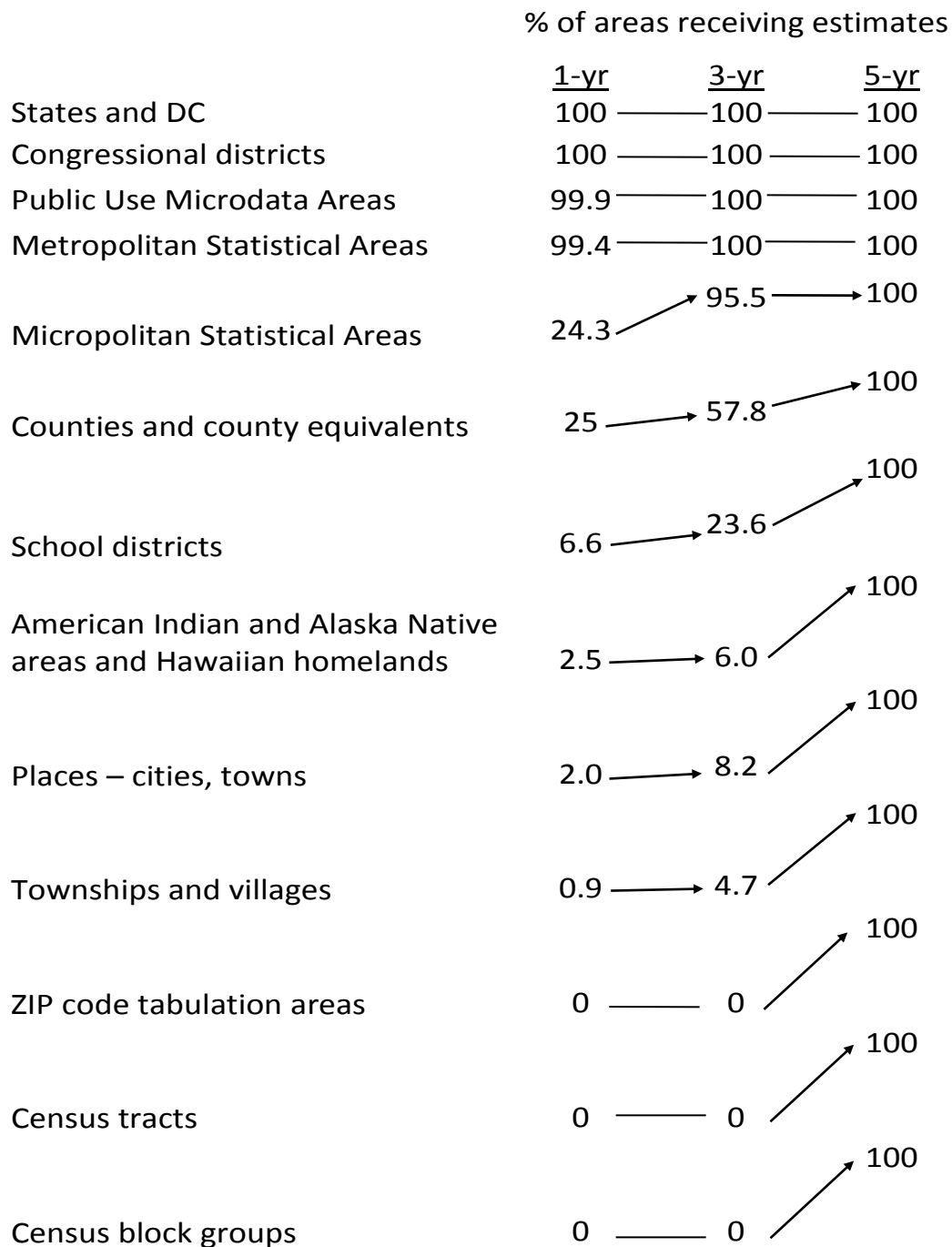
- Controls for estimates of housing units and population are derived from estimates produced by the Population Estimates Program
- Time series of population estimates are revised annually but previously released ACS estimates are not updated
- Multiyear estimates are controlled to the average of the individual year's estimates for the period
  - ACS estimates are unlikely to match any individual year's population estimate within the time period

# Types of ACS Estimates

<u>Publication thresholds</u>	<u>1-year estimates</u>	<u>3-year estimates</u>	<u>5-year estimates</u>
65,000+ people	X	X	X
20,000+ people		X	X
Less than 20,000 people			X

# ACS Geographies

Source: U.S. Census Bureau ACS Compass Products, 2008. Based on the population sizes of geographic areas from the July 1, 2007, Census Bureau Population Estimates and geographic boundaries as of January 1, 2007.





# Geographic Boundaries

- Multiyear estimates are based on geographic boundaries as of January 1 of the last year in the multiyear period

Example:

2005-2007 ACS estimates use boundaries as of Jan 1, 2007

- Boundaries of other statistical areas will be updated every decade in conjunction with the decennial census
- 2010 Census boundaries for legal entities will be used for data released in 2011

# Period Estimates

- Describe the average characteristics over a specific period of time
- Contrast with point-in-time estimates
  - Do not describe the characteristics on a specific date
- Period is 1 year, 3 years, or 5 years for ACS

# Understanding Period Estimates

From *The Washington Post*:

“...were compiled from three years of responses from the Census Bureau's American Community Survey, which collects information from more than 250,000 households a month. The recently released data cover 2005 to 2007, with information from locations with as few as 20,000 residents.”

Source: Weiss, E.M. A Dubious Distinction: The Longest Ride in U.S. *The Washington Post*. February 3, 2009:A01.

# ACS Data Release Schedule

Data Product	Population Size of Area	Data released in:						
		2006	2007	2008	2009	2010	2011	2012
1-Year Estimates for Data Collected in:	65,000+	2005	2006	2007	2008	2009	2010	2011
3-Year Estimates for Data Collected in:	20,000+			2005-2007	2006-2008	2007-2009	2008-2010	2009-2011
5-Year Estimates for Data Collected in:	All Areas*					2005-2009	2006-2010	2007-2011

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

Source: US Census Bureau

## Hypothetical situation:

*If Census 2010 contained a long form, detailed characteristic data would not be available until 2012*

# Data Products

- Profiles
  - Data Profiles
  - Narrative Profiles
  - Comparison Profiles
  - Selected Population Profiles
- Tables
  - Detailed Tables
  - Subject Tables
  - Ranking Tables (states)
  - Geographic Comparison Tables
- Thematic Maps
- Public Use Microdata Sample (PUMS) Files
  - 1-year and 3-year files

# Accessing ACS data

American FactFinder – <http://factfinder.census.gov>

The screenshot shows the American FactFinder website interface. At the top, there is a banner with the text "U.S. Census Bureau" and "American FactFinder" next to a search icon. Below the banner is a navigation menu with links for "Main", "Search", "Feedback", "FAQs", "Glossary", "Site Map", and "Help". On the left side, there is a vertical menu with categories like "POPULATION FINDER", "FACT SHEET", "PEOPLE", "HOUSING", "BUSINESS AND GOVERNMENT", "ABOUT THE DATA", "DATA SETS", "DOWNLOAD CENTER", "MAPS", and "TOOLS AND REFERENCES". The "DATA SETS" section is expanded to show "Decennial Census", "American Community Survey", "Puerto Rico Community Survey", "Annual Population Estimates", and "Annual Economic Surveys". The "American Community Survey" is selected, and the page displays a description of the survey and a list of "Other Resources" including "Public Use Microdata Sample (PUMS) - download data and view documentation". The "2007" section is also expanded, showing "2005-2007 American Community Survey 3-Year Estimates" and "2007 American Community Survey 1-Year Estimates". The "2005-2007 American Community Survey 3-Year Estimates" section is selected, and a list of options is displayed, including "Data Profiles", "Selected Population Profiles", "Subject Tables", "Detailed Tables", "Geographic Comparison Tables", "Thematic Maps", "Reference Maps", "Custom Table", "Enter a table number", "List all tables", "List all maps", "Download PUMS data", and "About this data set".

U.S. Census Bureau

American FactFinder

Main Search Feedback FAQs Glossary Site Map Help

Main ▶ Data Sets

AMERICAN COMMUNITY SURVEY

Load Query | Clear all selections

The American Community Survey is a nationwide survey designed to provide communities a fresh look at how they are changing. The Puerto Rico Community Survey is the equivalent of the American Community Survey for Puerto Rico. [more...](#)

2007 Quick Guide | Errata Notes

**Other Resources**

- [American Community Survey Main Page](#)
- [Quality Measures](#)
- [Public Use Microdata Sample \(PUMS\) - download data and view documentation](#)
- [Download Center](#)
- [Download 1996-2004 data via FTP](#)

[Explain Table and Map Formats](#)

2007

**2005-2007 American Community Survey 3-Year Estimates**

- Data from the American Community Survey and the Puerto Rico Community Survey
- Collected during calendar years 2005, 2006 and 2007
- Available for geographic areas with populations of **20,000 or more**

[Explain 1-year vs. 3-year estimates](#)

**2007 American Community Survey 1-Year Estimates**

- Data from the American Community Survey and the Puerto Rico Community Survey
- Collected during calendar year 2007
- Available for geographic areas with populations of **65,000 or more**

Select from the following:

- [Data Profiles](#)
- [Selected Population Profiles](#)
- [Subject Tables](#)
- [Detailed Tables](#)
- [Geographic Comparison Tables](#)
- [Thematic Maps](#)
- [Reference Maps](#)
- [Custom Table](#)
- [Enter a table number](#)
- [List all tables](#)
- [List all maps](#)
- [Download PUMS data](#)
- [About this data set](#)

# The ACS Compass Products

A Compass for Understanding and Using American Community Survey Data

## Released

- General Data Users
- Businesses
- High School Teachers
- Congress
- Federal Agencies
- Media
- PUMS
- State and Local Governments
- Puerto Rico Community Survey (PRCS) – in English

## Coming Soon

- Researchers
- Rural Areas
- American Indian and Alaska Native Populations
- Puerto Rico Community Survey (PRCS) – in Spanish

*[http://www.census.gov/acs/www/UseData/Compass/compass\\_series.html](http://www.census.gov/acs/www/UseData/Compass/compass_series.html)*

# For more information

Subscribe to “ACS Alert”

<http://www.census.gov/acs/www/Special/Alerts.htm>

Visit the ACS/PRCS website:

<http://www.census.gov/acs/www>

Contact by telephone:

301-763-1405

Contact by email:

[acso.users.support@census.gov](mailto:acso.users.support@census.gov)



# Contact

Pamela Klein

U.S. Census Bureau

[pamela.m.klein@census.gov](mailto:pamela.m.klein@census.gov)