

# **Brave New World**

---

**Using the**



**AMERICAN  
COMMUNITY  
SURVEY**

**U.S. CENSUS BUREAU**

---

Michele Hayslett  
May 4, 2012



Why?

## CB says ACS provides

- Better quality data
- More frequently (every year)
- Better knowledge of local areas
- Cost savings (\$1 billion)



# Better Quality Data Over Decennial Because

- **Field representatives in every county will have local knowledge**

More highly trained, greater longevity

- How to reach hard to enumerate populations
- If a language barrier exists
- How to handle local situations

- **More extensive follow-up**

Computer-assisted telephone interviews  
as well as in-person visits



# Every year means more flexible content

- [http://www.census.gov/acs/www/methodology/questionnaire\\_archive/](http://www.census.gov/acs/www/methodology/questionnaire_archive/)
- Link on the left side of the page for **Summary of Questionnaire Changes**



## New Variables in 2005

- Whether the household received food stamps in the previous 12 months and their value
- The length of time and main reason for staying at the address (for example, permanent home, vacation home, to attend school or college)
- For women ages 15-50, whether they gave birth to any children in the past 12 months.



# New Variables in 2008

- **Health insurance coverage** & through what provider (employer, military, purchased directly, etc.)
- Marital history
- VA service-connected disability rating
- DROPPED the length of time and main reason for staying at the address (for example, permanent home, vacation home, to attend school or college)



# New Variables in 2009

- Bachelor's degree field of study



# Like Census

- Still operating under Title 13
  - Universe is residents, not citizens
  - Response is required by law





Goal is not to produce a **population count** but rather to produce the **characteristics** of the population.



# Effect on Decennial Census

No more long form —

In 2010, only 100% data



# However...

**Smaller sample size – initially 12.5% instead of 17%**

- **12.5% over 5 years; about 2.5% per year**
  - **Oversampling in smallest governmental units & rural areas so “about 2.5%” actually ranges from 1.7% to 10%**
  - ***Many* tables suppressed in first five-year estimates (Appendix E 2005-2009 ACS 5-year estimates)**
- **Increased in 2011 to about 13.5% but the data for the smallest geographies using that sample (2011-2015 five-year estimates) won't be available until 2016.**



# How can they do it every year?

## Rolling sample on a five-year cycle

Huh?

*(Years reflect data collection; data is released about 9-12 months after year's end)*

<b>Year 1</b>					<b>Year 2</b>					<b>Year 3</b>				
2005					2006	2005				2007	2006	2005		
2.5% sample					5.0%					7.5%				
<b>Year 4</b>					<b>Year 5</b>					<b>Year 6</b>				
2008	2007	2006	2005		2009	2008	2007	2006	2005	2010	2009	2008	2007	2006
10.0%					12.5%					12.5%				

# 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



# Obvious Differences

- **Data for smaller communities (<65k) in 3- and 5-year averages**
  - Use larger communities' 3- and 5-year averages to compare with smaller communities
- **Margin of error more transparent**
  - All estimates presented with lower and upper bounds of 90% confidence interval
  - Can be very large compared to the estimate

## Median Value of Owner Occupied Units by Year Built

	Franklin County, Pennsylvania		Lancaster County, Pennsylvania		York County, Pennsylvania	
	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error
Median value --						
Total:	143,500	+/-4,491	158,700	+/-2,939	140,000	+/-3,373
Built 2005 or later	108,900	+/-148,426	199,000	+/-140,113	188,700	+/-67,244
Built 2000 to 2004	192,900	+/-30,777	214,100	+/-15,202	192,100	+/-20,061
Built 1990 to 1999	167,600	+/-12,139	188,000	+/-9,157	183,400	+/-11,284
Built 1980 to 1989	149,200	+/-12,492	166,700	+/-5,312	153,200	+/-11,041
Built 1970 to 1979	138,100	+/-15,103	157,400	+/-4,641	144,400	+/-7,601
Built 1960 to 1969	132,000	+/-9,088	157,600	+/-6,955	134,600	+/-5,901
Built 1950 to 1959	136,000	+/-9,941	134,800	+/-6,689	119,900	+/-5,208
Built 1940 to 1949	134,800	+/-22,649	124,200	+/-11,488	103,000	+/-9,565
Built 1939 or earlier	130,100	+/-12,370	139,000	+/-9,779	103,300	+/-6,818

Source: U.S. Census Bureau, 2005 American Community Survey

# Statistics Break!

Median

78
32
25
24
23
23
5



24

Mean

78
32
25
24
23
23
5

$$210/7 = 30$$

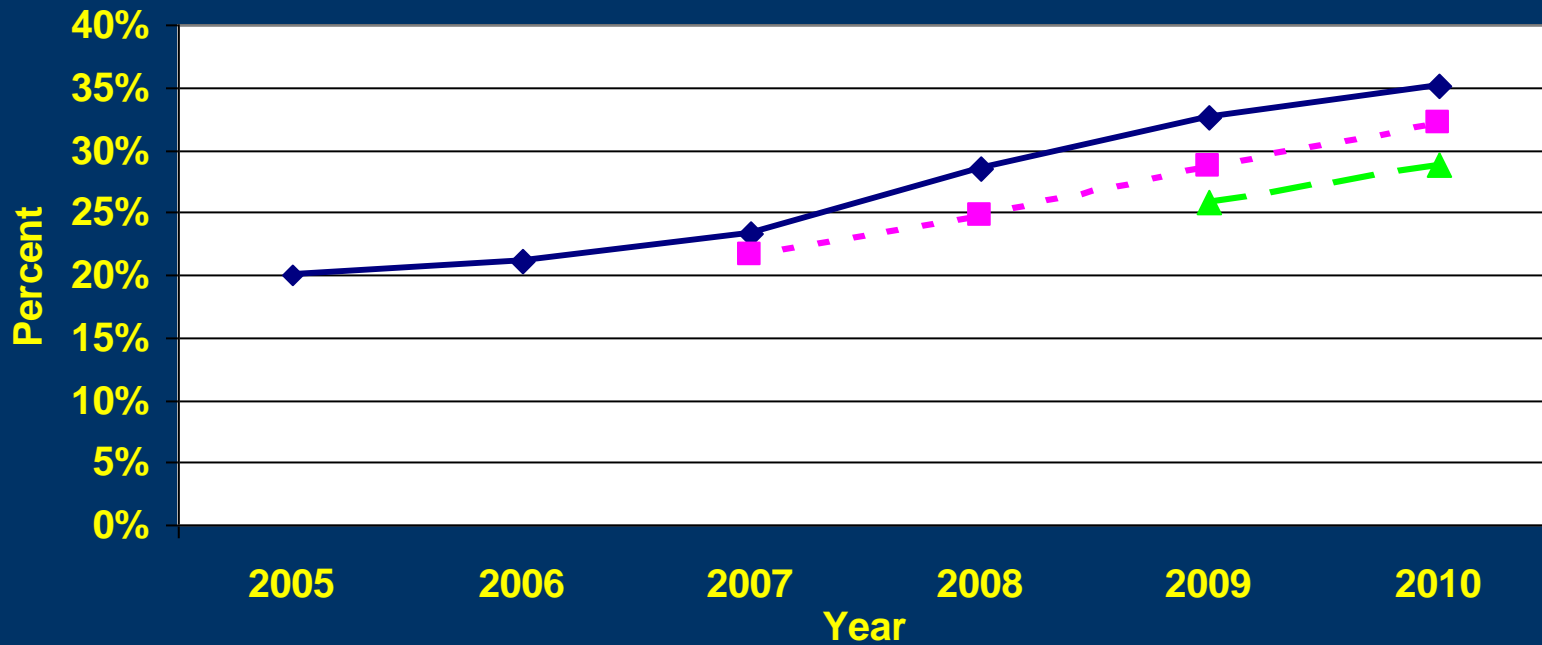




# Implications with Multi-year Averaged Data

- Estimates lag behind the actual trend
- Handicap (in beginning, especially)
  - Fluctuating figures harder to track

## Example 1: Item with year-to-year increases (Percent Foreign Born Population)

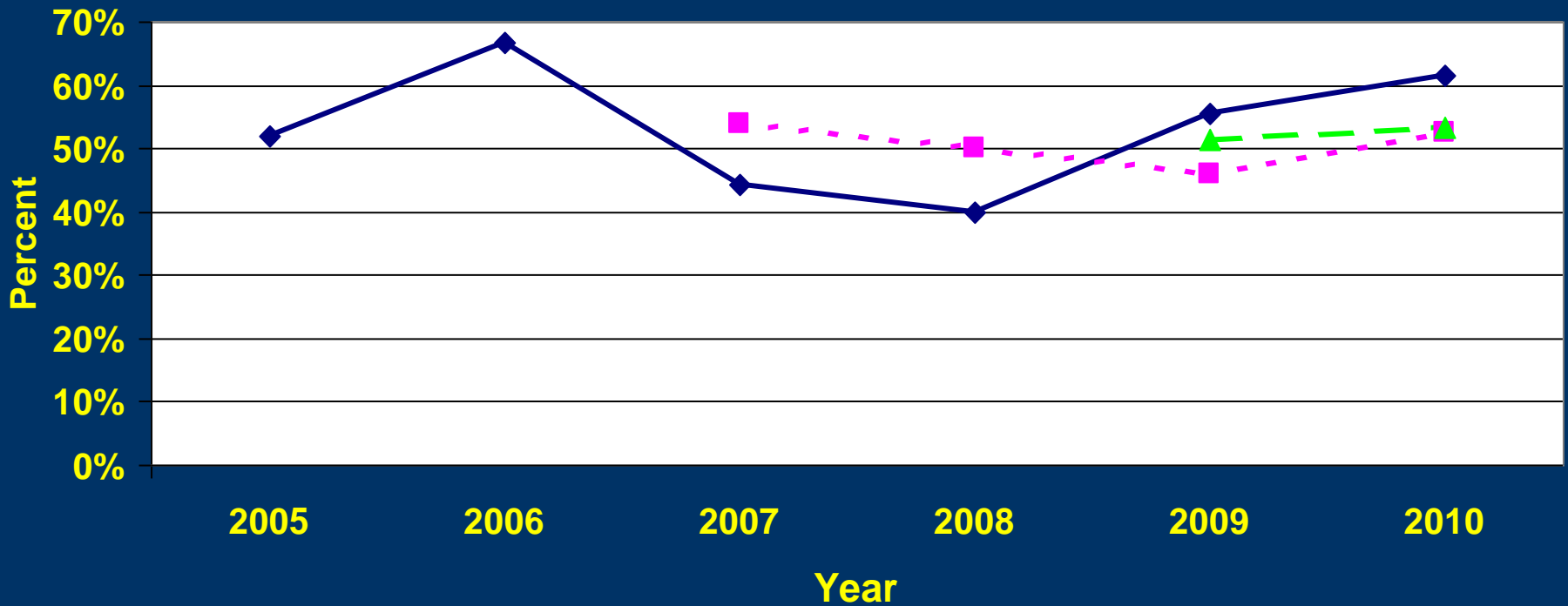


—◆— Single-year estimates

-■- 3-Year estimates

-▲- 5-Year estimates

## Example 2: Item with year-to-year increases and decreases (Homeownership rates)



◆ Single-year estimates

-■- 3-year estimates

-▲- 5-year estimates



# Implications with Multi-year Averaged Data

- What geographic boundary applies?
  - most recent within the average (will result in more TIGER updates)
- Which year's dollar value applies?
  - most recent within the average (others inflation-adjusted)

# So What's Really Different?

- 2005 ACS is Household Universe, not Total Pop (excludes Group Quarters)
- Questions dependent on point in time survey is administered
  - Age
  - School enrollment

# So What's Really Different?

- Anything to do with income
  - DC: “last year” asked on April 1st
  - ACS: “in the last 12 months”
- Residence rules
  - DC: where someone lives most of the year
  - ACS: where someone lived most of the time in the last TWO MONTHS

# How American FactFinder Fits In

- Each choice affects what you can get
  - prevents pulling data from two surveys at once
  - If choose 2000 geography, won't have option to choose 2010 variables

# How American FactFinder Fits In

- Does NOT include BG-level ACS data
  - Use Summary File Retrieval Tool or flat file download
    - SFRT & its User Guide:  
[http://www.census.gov/acs/www/data\\_documentation/summary\\_file/](http://www.census.gov/acs/www/data_documentation/summary_file/)
    - FFD: [http://www.census.gov/acs/www/data\\_documentation/data\\_via ftp/](http://www.census.gov/acs/www/data_documentation/data_via ftp/)
  - Technical Documentation Appendix E provides list of available BG tables—*many are suppressed*
    - Linked from right side of each year tab at  
[http://www.census.gov/acs/www/data\\_documentation/summary\\_file/](http://www.census.gov/acs/www/data_documentation/summary_file/)  
(2005-2009 on 2009 tab; 2006-2010 on 2010 tab)



# How American FactFinder Fits In

- Presents Margins of Error for all ACS data
  - Check out Compass Guides for tips on particular communities and figuring out whether data are accurate enough for the users' needs
    - [http://www.census.gov/acs/www/guidance\\_for\\_data\\_users/handbooks/](http://www.census.gov/acs/www/guidance_for_data_users/handbooks/)
  - Helpful CB PowerPoint at
    - [http://www.census.gov/acs/www/Downloads/library/2009/2009\\_Griffin\\_01.pdf](http://www.census.gov/acs/www/Downloads/library/2009/2009_Griffin_01.pdf)
    - >>How to Deal with Estimates with Low Reliability

# American FactFinder Quirks

- Doesn't always provide %s
- Easy to identify what survey data are from but not always easy to understand what that means

# Best Way to Tell the Difference

- Read the Technical Documentation

- Get familiar with these web sites

1. [http://www.census.gov/acs/www/guidance\\_for\\_data\\_users/comparing\\_data/](http://www.census.gov/acs/www/guidance_for_data_users/comparing_data/)
2. [http://www.census.gov/acs/www/data\\_documentation/documentation\\_main/](http://www.census.gov/acs/www/data_documentation/documentation_main/)

- Use the About button in AFF

	ID	Table, File or Document Title	Dataset	About
<input type="checkbox"/>	DP-1	Profile of General Population and Housing Characteristics: 2010	2010 Demographic Profile SF	
<input type="checkbox"/>	DP-1	Profile of General Population and Housing Characteristics: 2010	2010 SF2 100% Data	
<input type="checkbox"/>	NP01	Population and Housing Narrative Profile: 2010	2010 ACS 1-year estimates	

# Best Way to Keep Current

- Get to know the folks at your State Data Center
  - <http://www.census.gov/sdc/network.html>
  - Sign up for Alerts
- >>ACS Main page>>right side



The screenshot shows the top navigation bar of the American Community Survey website. The main title is "American Community Survey". Below the title is a navigation menu with the following items: "Main", "About the Survey", "Guidance for Data Users", "Data & Documentation", "Methodology", and "Library". Below the navigation menu are three main content areas: "Latest Updates" (with a link to "2010 ACS Content Test"), "Did You Receive a Survey?" (with an image of a survey card), and "New Data Every Year!" (with text about "2006-2010 ACS 5-Year Estimates"). On the right side of the page, there is a search bar and a "GET EMAIL UPDATES" button. A large red arrow points down to the "GET EMAIL UPDATES" button.

# Questions?

---

Michele Hayslett

Data Services Librarian

UNC at Chapel Hill

[michele\\_hayslett@unc.edu](mailto:michele_hayslett@unc.edu)