

# Data for Dollar\$

## Census Data for Grant Proposals

Census 2010 Open House  
Seattle City Hall  
March 1, 2010

# Part I: Operational Improvements to the Decennial Census in 2010

- Address List Development
- Groups Quarters Enumeration
- Household Enumeration and Coverage
- Significant Improvements in Nonresponse Followup (NRFU)
- More Household Enumeration and Coverage
- Other Field Operations
- Geography Programs
- Questionnaires: Coverage
- Data Products / Release Dates

# Part II: Electronic Improvements

- Re-engineered American FactFinder
- DADS II (Data Access and Dissemination System II)

# Re-engineered American FactFinder - - 1

- American FactFinder (AFF) Release 1
  - Public release February 2011
  - Functionality includes
    - Improved search and navigation services
    - Table services
      - Basic table manipulation (e.g., sorting and filtering)
      - Transposition of rows and columns
    - Mapping services
      - Thematic mapping “on the fly” – more functionality
    - Basic Embargo capability
  - Legacy AFF to be retired sometime after September 2011

# Re-engineered American FactFinder - - 2

- American FactFinder Release 2
  - Public release Summer / Fall 2011
  - Table services update
    - Create user defined geographic areas
    - Aggregate data for user defined areas and / or data categories, or within a radius
    - Display errata and geographic change notes
    - Calculate statistical significance
  - Charting services
  - Archiving of older data
  - Enhanced Embargo capability

# Re-engineered American FactFinder - - 3

- Reinstatement of Advanced Query function
  - Being examined by Census Bureau staff
  - Cost and resources issues
  - Final decision expected no sooner than March 2010

# DADS II (Data Access and Dissemination System II)

- Other American FactFinder activities
  - Tabulate 2010 Census
  - Prepare for migration and full release of Population Estimates Data (October 2012)
  - Prepare to release 2010 printed reports
  - Prepare 2010 PUMS system
  - Prepare Island Areas dissemination activities
  - Develop Web Services Support

# Part III: Data for Needs Assessments

- Key differences: Census and the ACS
- ACS data releases
- ACS methodology
- ACS multiyear estimates
- Making comparisons

# ACS and the Decennial Census

## Key Differences

- Residency
  - ACS uses “two-month” rule
  - Decennial census based on concept of “usual residence”
- Employment
  - Both ACS and Decennial ask respondents if they worked for pay “last week”
  - ACS collects data year-round and produces an average of the data collected for the period

# ACS and the Decennial Census

## Key Differences (continued)

- Income
  - Decennial census income data refer to the previous calendar year
  - ACS asks for income for the previous 12 months
- School enrollment
  - Decennial census asks if a person attended school “any time since February 1”
  - ACS asks if a person attended school during the “last 3 months”

# American Community Survey

## Data Releases

- Goal is to produce estimates comparable to the Census 2000 long form data
  - Estimates cover the same small areas (down to the block group level) as Census 2000 long form, but with smaller sample sizes
- Caveat
  - Smaller sample size = Reductions in reliability

# American Community Survey

## Data Releases: Period Estimates

- *Period estimates* describe the average characteristics over a specific time period
- *Point-in-time* estimates describe characteristics as of a specific date
- ACS releases 1-year, 3-year, and 5-year estimates for geographic areas that meet specific population thresholds

# American Community Survey

## Data Releases: Schedule

Data Product	Population Threshold	Year of Data Release							
		2006	2007	2008	2009	2010	2011	2012	2013
		Year(s) of Data Collection							
1 - year Estimates	65,000+	2005	2006	2007	2008	2009	2010	2011	2012
3 - year Estimates	20,000+			2005- 2007	2006- 2008	2007- 2009	2008- 2010	2009- 2011	2010- 2012
5 - year Estimates	All Areas*					2005- 2009	2006- 2010	2007- 2011	2008- 2012

\*All legal, administrative and statistical geographic areas down to the tract and block group level.

# American Community Survey

## Methodology

- Sample includes about 250,000 addresses per month, or 3 million addresses each year,
- Group quarters populations included in the ACS since 2006
- Data collected continuously throughout the year by three modes
  - Mail
  - Phone
  - Personal visit

# American Community Survey

## Methodology: Caveats

- ACS data are estimates
- ACS data are not counts of the population or housing
- Population counts are produced from the Decennial Census
  - Counts are updated throughout the decade through the Population Estimates Program

# American Community Survey

## Methodology: Sampling error

- The **uncertainty** associated with an estimate that is based on data gathered from a *sample* of the population rather than the *full* population
- Margin of error (MOE) measures the precision of an estimate at a given level of confidence
- MOEs at the 90% confidence level for all published ACS estimates

# American Community Survey

## Multiyear Estimates

- Definition
- A period estimate that encompasses more than one calendar year
- Period for ACS multiyear estimates is either 3 or 5 calendar years
  - First release for 3-year estimate was 2008 (for period 2005-2007)
  - First release for 5-year estimate is 2010 (for period 2005-2009)

# American Community Survey

## Multiyear Estimates: Constructing

- Data are pooled across 36 or 60 months
- Data are weighted to produce estimates
- Estimates are controlled for age, sex, race, and Hispanic origin
- Multiyear estimates are not an average of 1-year estimates

# American Community Survey

## Multiyear Estimates: When to Use

- No one-year estimate is available
- Margins of error for 1-year estimates are larger than required
- Analyzing data for small population groups

# American Community Survey

## Multiyear Estimates: Currency vs. Reliability

Currency	Reliability
1-year estimates provide information based on the last year	Larger sample sizes produce estimates that are more statistically reliable
3-year estimates provide information based on the last year and the 2 years before that	3-year estimates are based on 3 times as many sample cases as 1-year estimates
5-year estimates provide information based on the last year and the 4 years before that	5-year estimates are based on 5 times as many sample cases as 1-year estimates

# American Community Survey

## Multiyear Estimates: How to Label

- Multiyear estimates do not represent any one year nor the midpoint of a period
- ACS estimates based on data collected from 2006-2008 should not be labeled “2007” or “2008” estimates
- Correct labeling for multiyear estimate: “The child poverty rate for the 2006-2008 period was X percent.”

# American Community Survey

## Multiyear Estimates: Inflation Adjustment

- Dollar-valued data items are inflation adjusted to the most recent year for the period
- Income, rent, home value, and energy costs
- Adjusted using inflation factors based on the Consumer Price Index (CPI)
- Adjustment designed to put the data into dollars with equal purchasing power

# American Community Survey

## Multiyear Estimates: Population Controls

- Estimates of housing units and people controlled to the population estimates derived from the Population Estimates Program
- Multiyear estimates controlled to the average of the individual year's estimates for the period

# American Community Survey

## Multiyear Estimates: Geographic Boundaries

- Multiyear estimates are based on geographic boundaries as of January 1 of the last year in the multiyear period
- Boundary Annexation Survey collects boundary changes
- Boundaries of other statistical areas will be updated every decade in conjunction with the decennial census

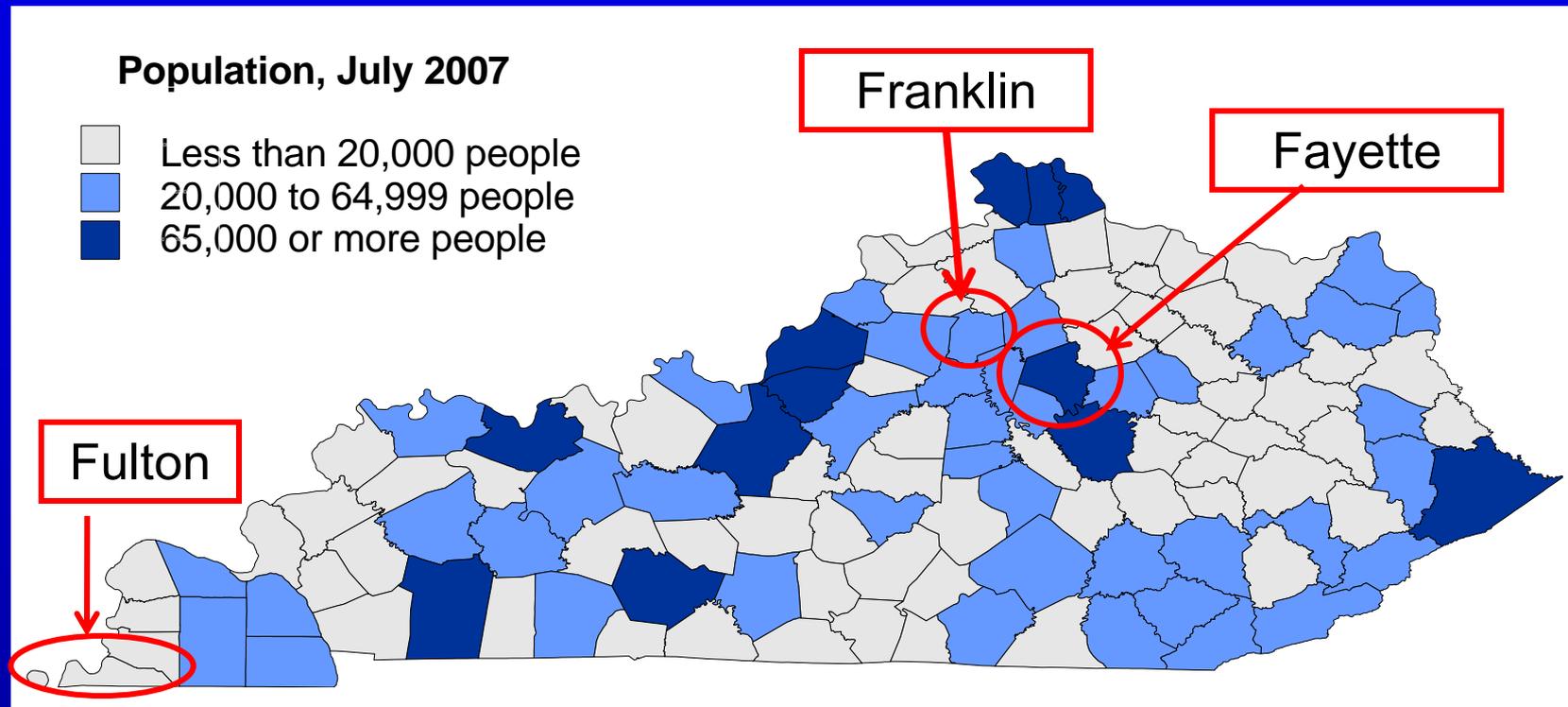
# American Community Survey

## Making Comparisons: Across Geographies

- Only compare the same type of estimate
  - 1-year estimates to other 1-year estimates
  - 3-year estimates to other 3-year estimates
  - 5-year estimates to other 5-year estimates
- Use same time period

# American Community Survey

## Making Comparisons: Kentucky Counties



Source: U.S. Census Bureau,  
American Community Survey Handbook for General Audiences

# American Community Survey

## Making Comparisons: Across Geographies

	<b>2009</b>	<b>2007-2009</b>	<b>2005-2009</b>
Fayette County	X	X	X
Franklin County		X	X
Fulton County			X

# American Community Survey

## Making Comparisons: ACS Questionnaire Changes

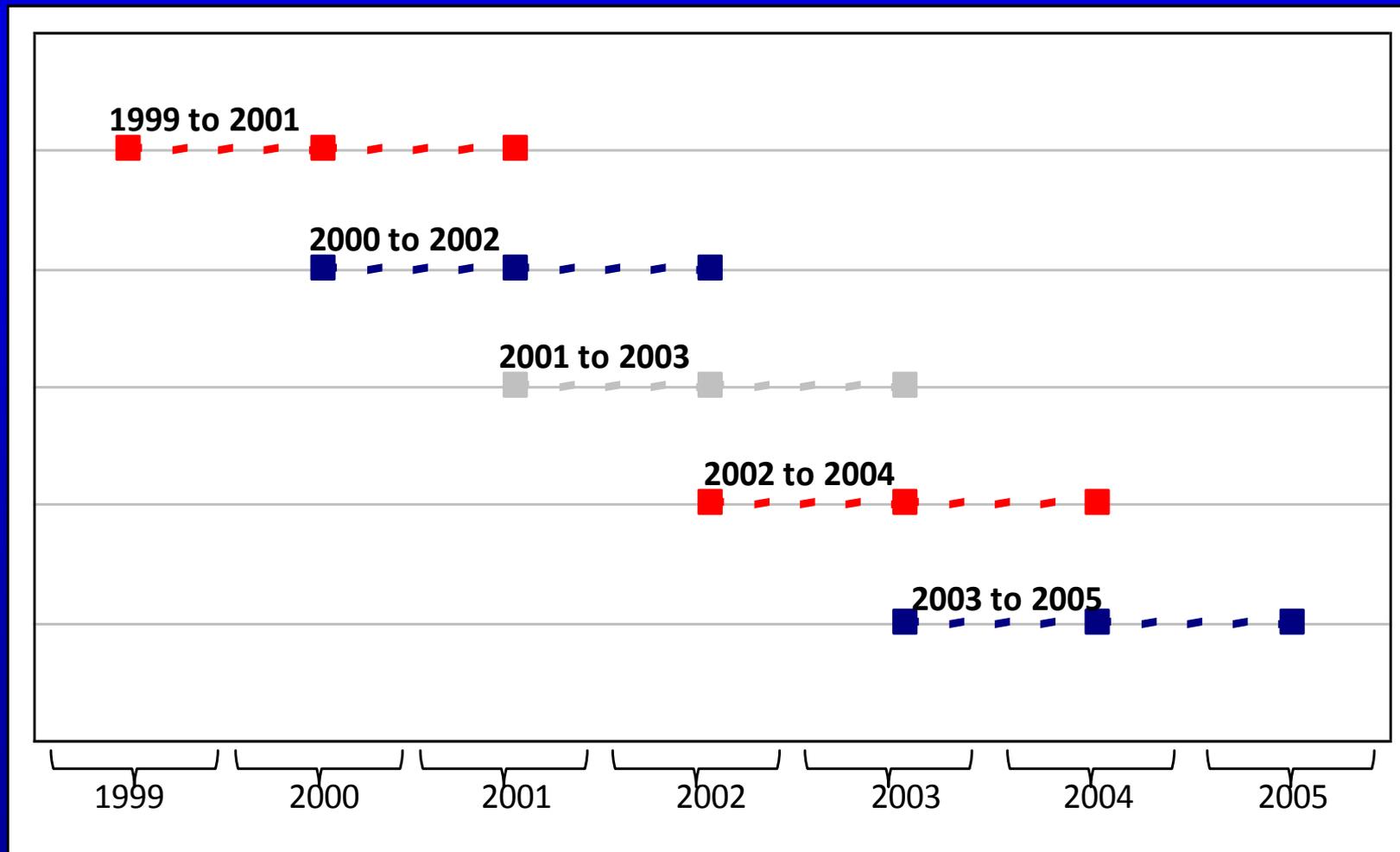
### The American Community Survey (ACS) Mail Questionnaire from 2005 to 2009

2005 and 2006 Content	2007 Content	2008 Content	2009 Content	Description of Changes from 2008 to 2009
<p><b>Start Here</b></p> <p>This form asks for three types of information:</p> <ul style="list-style-type: none"> <li>• basic information about the people who are living or staying at the address on the mailing label above</li> <li>• specific information about this house, apartment, or mobile home</li> <li>• more detailed information about each person living or staying here</li> </ul> <p>➔ <b>What is your name?</b> Please PRINT the name of the person who is filling out this form. Include the telephone number so we can contact you if there is a question, and today's date.</p> <p>Last Name <input type="text"/></p> <p>First Name <input type="text"/> MI <input type="text"/></p> <p>Area Code + Number <input type="text"/></p> <p>Date (Month/Day/Year) <input type="text"/></p>	<p><b>Start Here</b></p> <p>Please fill out this form as soon as possible after receiving it in the mail.</p> <p>This form asks for three types of information:</p> <ul style="list-style-type: none"> <li>• basic information about the people who are living or staying at the address on the mailing label above</li> <li>• specific information about this house, apartment, or mobile home</li> <li>• more detailed information about each person living or staying here</li> </ul> <p>➔ <b>What is your name?</b> Please PRINT the name of the person who is filling out this form. Include the telephone number so we can contact you if there is a question, and today's date.</p> <p>Last Name <input type="text"/></p> <p>First Name <input type="text"/> MI <input type="text"/></p> <p>Area Code + Number <input type="text"/></p> <p>Today's date (Month/Day/Year) <input type="text"/></p>	<p><b>Start Here</b></p> <p>➔ Please print today's date. Month Day Year <input type="text"/> <input type="text"/> <input type="text"/></p> <p>➔ Please print the name and telephone number of the person who is filling out this form. We may contact you if there is a question.</p> <p>Last Name <input type="text"/></p> <p>First Name <input type="text"/> MI <input type="text"/></p> <p>Area Code + Number <input type="text"/></p>	<p><b>Start Here</b></p> <p>➔ Please print today's date. Month Day Year <input type="text"/> <input type="text"/> <input type="text"/></p> <p>➔ Please print the name and telephone number of the person who is filling out this form. We may contact you if there is a question.</p> <p>Last Name <input type="text"/></p> <p>First Name <input type="text"/> MI <input type="text"/></p> <p>Area Code + Number <input type="text"/></p>	Unchanged
<p>➔ <b>How many people are living or staying at this address?</b></p> <p>Number of people <input type="text"/></p>	<p>➔ <b>How many people are living or staying at this address?</b></p> <p>Number of people <input type="text"/></p>	<p>➔ <b>How many people are living or staying at this address?</b></p> <p>• INCLUDE yourself if you are living here for more than 2 months.</p> <p>• INCLUDE anyone else staying here who does not have another place to stay, even if they are here for 2 months or less.</p> <p>• DO NOT INCLUDE anyone who is living somewhere else for more than 2 months, such as a college student living away at someone in the Armed Forces on deployment.</p> <p>Number of people <input type="text"/></p>	<p>➔ <b>How many people are living or staying at this address?</b></p> <p>• INCLUDE everyone who is living or staying here for more than 2 months.</p> <p>• INCLUDE yourself if you are living here for more than 2 months.</p> <p>• INCLUDE anyone else staying here who does not have another place to stay, even if they are here for 2 months or less.</p> <p>• DO NOT INCLUDE anyone who is living somewhere else for more than 2 months, such as a college student living away or someone in the Armed Forces on deployment.</p> <p>Number of people <input type="text"/></p>	Unchanged
<p>➔ Please turn to the next page to continue.</p>	<p>➔ Please turn to the next page to continue.</p>	<p>➔ Fill out pages 2, 3, and 4 for everyone, including yourself, who is living or staying at this address for more than 2 months. Then complete the rest of the form.</p>	<p>➔ Fill out pages 2, 3, and 4 for everyone, including yourself, who is living or staying at this address for more than 2 months. Then complete the rest of the form.</p>	Unchanged

See: About the ACS > Survey Questionnaire > ACS  
– Summary of Questionnaire Changes

# American Community Survey

## Making Comparisons: Which to Compare



States™  
US

2010

# American Community Survey

## Making Comparisons: Different Time Periods

- Same geographic area
  - Use caution if geographic boundaries have changed over time
  - Easier to compare non-overlapping periods
  - Make comparisons using the same length time period

# American Community Survey

## Making Comparisons: Between Data Sets

- Differences exist between ACS and Census 2000
- Comparisons can be made for most population and housing subjects
- Crosswalk available
  - “Compare”
  - “Compare with Caution”
  - “Do Not Compare”

<http://www.census.gov/acs/www/UseData/compACS.htm>

# American Community Survey

## Summary on Multiyear Estimates

- Multiyear estimates are period estimates and should be interpreted / labeled as such
- Data users should consider the tradeoffs of currency versus reliability
- Comparisons between estimates of different geographies should be based on ACS data from the same time periods
- It is easier to compare estimates from non-overlapping periods



# Thank you!

**Linda Clark**  
**Information Services Specialist**  
[linda.clark@census.gov](mailto:linda.clark@census.gov)  
**425-908-3060**

**Seattle Regional Census Center  
Partnership & Data Services  
19820 North Creek Parkway  
Bothell, WA 98011**