

# The American Community Survey

## What Is It & How Does It Compare to the Census 2000 Long Form?

Presentation at Montana Association of Geographic  
Information Professionals - 2013 Spring Conference in  
Miles City, MT

*( presentation via webcam from Helena, MT)*

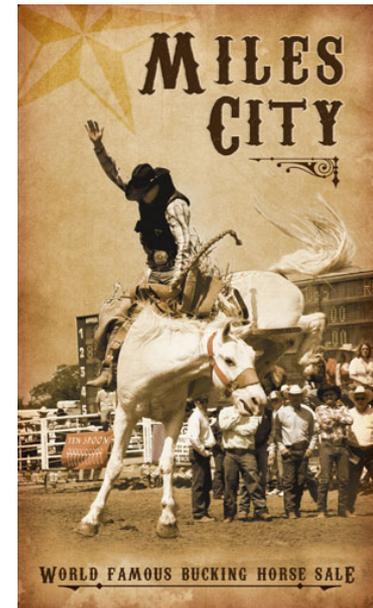
May 22<sup>nd</sup>, 2013

**JOE RAMLER,**

SENIOR ECONOMIST

MONTANA DEPARTMENT OF COMMERCE

CENSUS & ECONOMIC INFORMATION CENTER (CEIC)



# Presentation Outline

- The American Community Survey (ACS)
  - What is it?
  - What information does it provide?
  - Strengths & Weaknesses of the ACS
    - Margins of Error
  - Comparing ACS data
    - To other ACS estimates and the 2000 Census Long Form
  - Accessing ACS data
- CEIC Population Projections Plug



# Census 2010 and the ACS

- **Census 2010**
  - Decennial census is conducted once every 10 years – point-in-time count
    - Provides an official count of the entire US population to Congress
- **American Community Survey**
  - Conducted every year – rolling sample design
    - Shows how people live – education, housing, jobs, and more

# ACS and Census 2000 Long Form

## 2000 Census Long Form



**United States  
Census  
2000**



U.S. Department of Commerce  
Bureau of the Census

This is the official form for all the people at this address. It is quick and easy, and your answers are protected by law. Complete the census and help your community get what it needs — today and in the future!

**Start Here** Please use a black or blue pen.

**1** How many people were living or staying in this house, apartment, or mobile home on April 1, 2000?

Number of people

**INCLUDE** in this number:

- foster children, roomers, or housemates
- people staying here on April 1, 2000 who have no other permanent place to stay
- people living here part of the time while working, even if they have another place to live

**DO NOT INCLUDE** in this number:

- college students living away while attending college
- people in a correctional facility, nursing home, or mental hospital on April 1, 2000
- Armed Forces personnel living somewhere else
- people who live or stay at another place most of the time

➔ Please turn the page and print the names of all the people living or staying here on April 1, 2000.

**If you need help completing this form, call 1-800-471-9424 between 8:00 a.m. and 8:00 p.m., 7 days a week. The telephone call is free.**

**TDD** — Telephone display device for the hearing impaired. Call 1-800-582-8330 between 8:00 a.m. and 9:00 p.m., 7 days a week. The telephone call is free.

**¿NECESITA AYUDA?** Si usted necesita ayuda para completar este cuestionario llame al 1-800-471-9424 entre las 8:00 a.m. y las 9:00 p.m., 7 días a la semana. La llamada telefónica es gratis.

The Census Bureau estimates that, for the average household, this form will take about 38 minutes to complete, including the time for reviewing the instructions and answers. Comments about the estimate should be directed to the Associate Director for Finance and Administration, Attn: Paperwork Reduction Project 6567-0086, Room 3104, Federal Building 3, Balkow of the Census, Washington, DC 20233.

Respondents are not required to respond to any information collection unless it displays a valid approval number from the Office of Management and Budget.

OMB No. 0607-0856; Approval Expires 12/31/2006

Form **D-2**

## American Community Survey



U.S. DEPARTMENT OF COMMERCE  
Economics and Statistics Administration  
U.S. CENSUS BUREAU

13192018

**THE American Community Survey**

This booklet shows the content of the American Community Survey questionnaire.

**Start Here**

➔ Please print today's date.  
Month Day Year

➔ 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.

Last Name

First Name MI

Area Code + Number

➔ How many people are living or staying at this address?

- **INCLUDE** everyone who is living or staying here for more than 2 months.
- **INCLUDE** yourself if you are living here for more than 2 months.
- **INCLUDE** anyone else staying here who does not have another place to stay, even if they are here for 2 months or less.
- **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.

Number of people

➔ 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.

**Telephone Device for the Deaf (TDD):** Call 1-800-582-8330. The telephone call is free.

**¿NECESITA AYUDA?** Si usted habla español y necesita ayuda para completar su cuestionario, llame sin cargo alguno al 1-877-833-5625. Usted también puede pedir un cuestionario en español o completar su entrevista por teléfono con un entrevistador que habla español.

For more information about the American Community Survey, visit our web site at: <http://www.census.gov/acs/www/>

Form **ACS-1(INFO)(2012)KFI**

OMB No. 0607-0810

# What is the American Community Survey?

- The ACS replaced the Census Long Form
- The ACS is an ongoing survey
  - Provides data every year
    - Fully implemented in 2005
  - Gives communities the information they need to plan investments and services
  - Helps determine how more than \$400 billion in federal and state funds are distributed each year

# What is the American Community Survey?

- ACS questions about individual and social characteristics:
  - Gender
  - Age
  - Race/Hispanic Origin
  - Education
  - Marital Status
  - Fertility
  - Grandparent /Other Caregivers
  - Veterans
  - Disability Status
  - Place of Birth
  - Citizenship
  - Year of Entry
  - Language Spoken at Home
  - Ancestry/Tribal Affiliation

# What is the American Community Survey?

- ACS questions about economic issues and housing:
  - Income
  - Benefits
  - Employment Status
  - Occupation
  - Industry
  - Commuting to Work
  - Place of Work
  - Own or Rent Home
  - Housing Characteristics
  - Housing Value
  - Taxes & Insurance
  - Utilities
  - Mortgage/Monthly Rent

# ACS – National Sample Size

Year	Housing Units		Group Quarters	
	Initial Addresses Selected	Final Interviews	Initial Sample Selected	Final Interviews
2011	3,272,520	2,128,104	204,553	148,486
2010	2,899,676	1,917,799	197,045	144,948
2009	2,897,256	1,917,748	198,808	146,716
2008	2,894,711	1,931,955	186,862	145,974
2007	2,886,453	1,937,659	187,012	142,468
2006	2,885,384	1,968,362	189,641	145,311
2005	2,922,656	1,924,527	N/A	N/A
2004	838,293	568,966	N/A	N/A
2003	828,590	572,447	N/A	N/A
2002	742,409	512,768	N/A	N/A
2001	858,058	601,875	N/A	N/A
2000	890,698	587,519	N/A	N/A

Source: US Census Bureau, American Community Survey [http://www.census.gov/acs/www/methodology/sample\\_size\\_data/index.php](http://www.census.gov/acs/www/methodology/sample_size_data/index.php)

# ACS – Montana Sample Size

Year	Housing Units		Group Quarters	
	Initial Addresses Selected	Final Interviews	Initial Sample Selected	Final Interviews
2011	17,746	10,913	1,176	725
2010	15,036	9,256	1,085	758
2009	14,208	8,971	1,100	786
2008	14,294	9,087	979	725
2007	14,259	9,271	587	402
2006	14,302	9,482	601	478
2005	14,248	9,076	N/A	N/A
2004	7,567	5,102	N/A	N/A
2003	7,563	5,255	N/A	N/A
2002	6,904	4,712	N/A	N/A
2001	8,920	6,246	N/A	N/A
2000	8,732	5,954	N/A	N/A

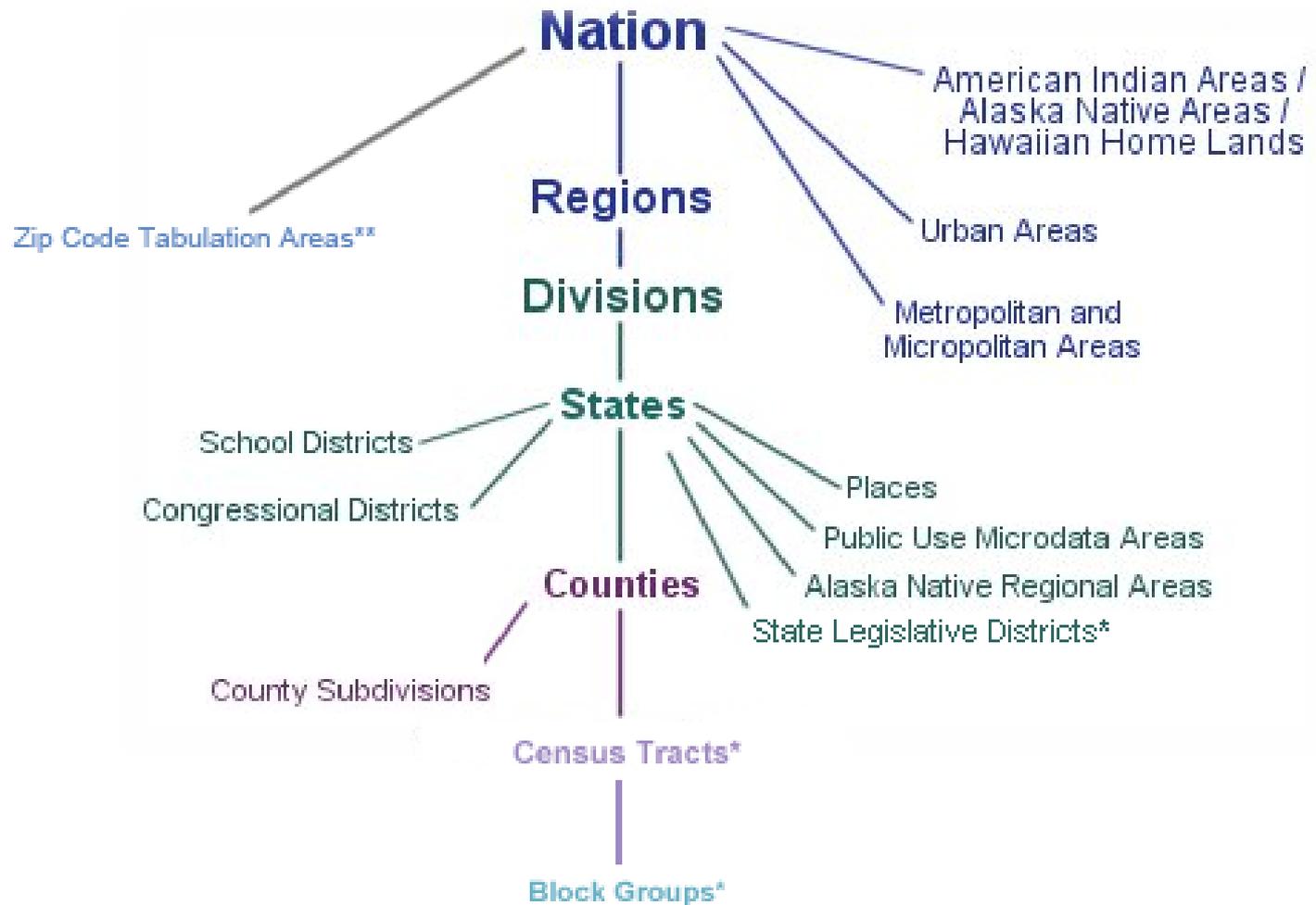
Source: US Census Bureau, American Community Survey, [http://www.census.gov/acs/www/methodology/sample\\_size\\_data/index.php](http://www.census.gov/acs/www/methodology/sample_size_data/index.php)

# ACS Data Release Rules

<b>Data collected between...</b>	<b>Data pooled to produce</b>	<b>Data published for areas with</b>
January 1, 2011 and December 31, 2011	ACS 1-year estimates Year: 2011	populations of 65,000+
January 1, 2009 and December 31, 2011	ACS 3-year estimates Years: 2009 – 2011	populations of 20,000+
January 1, 2007 and December 31, 2011	ACS 5-year estimates Years: 2007 – 2011	populations of almost any size

Source: US Census Bureau, American Community Survey ([www.census.gov/acs](http://www.census.gov/acs))

# Census Geography Hierarchy



# ACS Data

## Available Montana 1-Year Estimates (2011)

### State of Montana

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### 5 Montana Counties

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- Cascade
- Flathead
- Gallatin
- Missoula
- Yellowstone

### 2 Montana Cities

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- Billings
- Missoula

# ACS Data

Available Montana 3-Year Estimates (2009 – 2011)

## State of Montana

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### 9 Montana Counties

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- Cascade
- Flathead
- Gallatin
- Missoula
- Yellowstone
- Lake
- Lewis & Clark
- Ravalli
- Silver Bow

### 6 Montana Cities

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- Billings
- Missoula
- Bozeman
- Great Falls
- Helena
- Kalispell

# ACS Data

Available Montana 5-Year Estimates (2007 – 2011)

## **EVERYWHERE\***

- ACS 5-year estimates are available for all census geographies – block groups and larger
  - \* Not available at the block level

# ACS Data Release Schedule

Data Product	Population of Area	Data Released In:						
		2007	2008	2009	2010	2011	2012	2013
1-Year Estimates for Data Collected in:	65,000 +	2006	2007	2008	2009	2010	2011	2012
3-Year Estimates for Data Collected in:	20,000 +		2005 - 2007	2006 - 2008	2007 - 2009	2008 - 2010	2009 - 2011	2010 - 2012
5-Year Estimates for Data Collected in:	All Areas*				2005-2009	2006-2010	2007-2011	2008 - 2012

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

Source: US Census Bureau, American Community Survey

**1-year Estimates Released**

-September

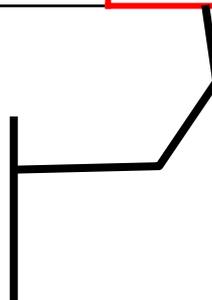
**3-year Estimates Released**

- October

**5-year Estimates Released**

- December

**Data Currently Available**



# ACS – Margin of Error



# ACS – Margin of Error

- Sample Survey
  - A **sample** of the total population is selected to fill out the survey
    - ACS, Census 2000 Long Form
- Decennial Census Survey
  - Every person in every housing unit in America fills out the survey
  - Actual **count** of ALL people and housing units
    - Census 2010, Census 2000, Census 1990, etc.

# ACS – Margin of Error

- Decennial census (Census 2010) data is based on a survey of **everyone** in a geographic area
- ACS data is based on a **sample** of the total population

## Yellowstone County, MT

	Census 2010	American Community Survey	
		2010 1-year Estimate	Margin of Error (+/-)
Total Population	10,122	10,321	568
Under 5 years old			

Source: US Census Bureau

Data: Census 2010 Summary File 1; ACS 1-year (2010) Estimates

Area: Yellowstone County, MT

# What Makes a Good Estimate?

- Relative Margin of Error (RMOE)

$$RMOE = \frac{\textit{Margin of Error}}{\textit{Estimate}}$$

- Rule of Thumb

**RMOE < 15%**                      → **Good Estimate**

15% < RMOE < 35%      → OK Estimate

35% < RMOE                      → Bad Estimate

# What Makes a Good Estimate?

- Example – Relative Margin of Error
  - ACS 5-year (2007 – 2011) estimates for Custer County

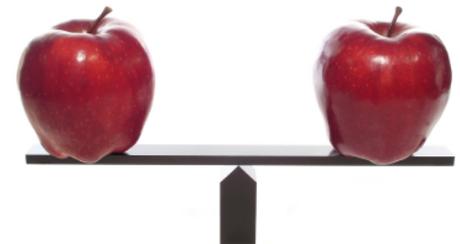
## Custer County, MT

	Estimate	Margin of Error (+/-)	Relative Margin of Error
Median Household Income	\$41,373	\$2,560	6.2%
Persons Below Poverty	1,605	280	17.4%
Males 75 years and older in Poverty	81	48	59.3%

Source: US Census Bureau, American Community Survey 5-year (2007 – 2011) Estimates

# Comparing ACS Data

- ACS data is comparable with some data...
  - ACS 1-year estimates with Census 2000 Long Form Data
    - For the most part!!!
  - ACS 1-year estimates from different years
  - ACS estimates from non-overlapping periods
    - ACS 3-year (2006-2008) estimates to ACS 3-year (2009-2011) estimates



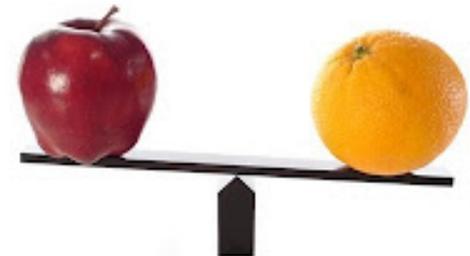
# Comparing ACS Data to 2000 Census Long Form Data

Cases where differences in question wording (Q), reference periods (RP), tabulation (T), and universes (U) may impact comparisons are noted in parentheses. Specific [item-by-item guidance](#) is also available.

- Ancestry
- Citizenship Status (T)
- Nativity
- Year of Entry
- Place of Birth
- Journey to Work (T)
- Grandparents and Grandchildren
- School Enrollment
- Educational Attainment
- Language
- Poverty (RP)
- Income and Earnings (RP)
- Veteran Status
- Period of Military Service
- Employment Status (Q)
- Hours and Weeks Worked
- Industry (T)
- Occupation (T)
- Class of Worker (T)
- Rooms and Bedrooms (Q)
- Cost of Utilities
- House Heating Fuel
- Kitchen Facilities (Q)
- Monthly Rent
- Mortgage Status
- Occupants/Room (Q)
- Owner Costs (T)
- Plumbing Facilities (Q)
- Tenure
- Units in Structure
- Home Value (Q)
- Vehicles Available
- Group Quarters Population (U)

# Comparing ACS Data

- ACS data is **NOT** comparable to other data...
  - Different time period ACS estimates should not be compared
    - i.e. ACS 3-year estimate with an ACS 1-year estimate
  - Overlapping time period estimates
    - i.e. ACS 5-year (2006-2010) estimates with ACS 5-year (2007-2011) estimates

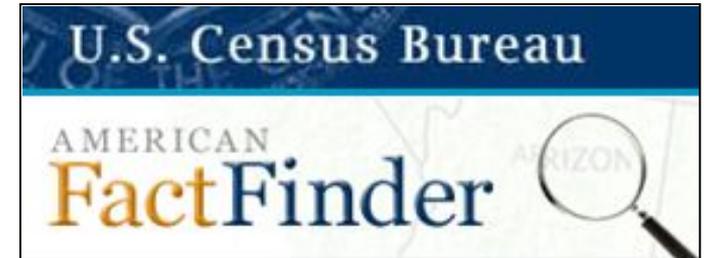


# Comparing ACS Data

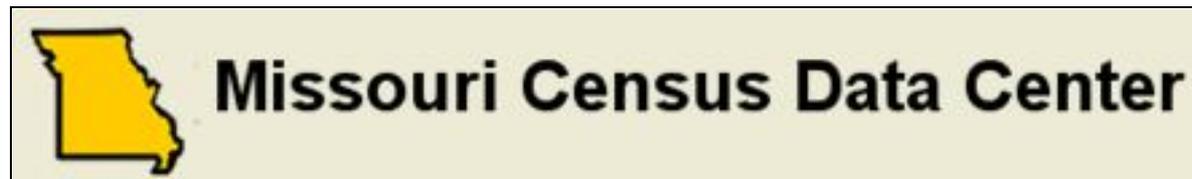
- When in doubt...
  - Go check out what you are trying to compare on the US Census Bureau's website:  
[http://www.census.gov/acs/www/guidance\\_for\\_data\\_users/comparing\\_data/](http://www.census.gov/acs/www/guidance_for_data_users/comparing_data/)
  - Give us a call or shoot us an email at the Census and Economic Information Center (contact information on last slide)

# Getting ACS Data

- US Census Bureau
    - American Fact Finder 2
- <http://factfinder2.census.gov/>



- Missouri State Data Center
- <http://mcdc1.missouri.edu/acsprofiles/acsprofilemenu.html>

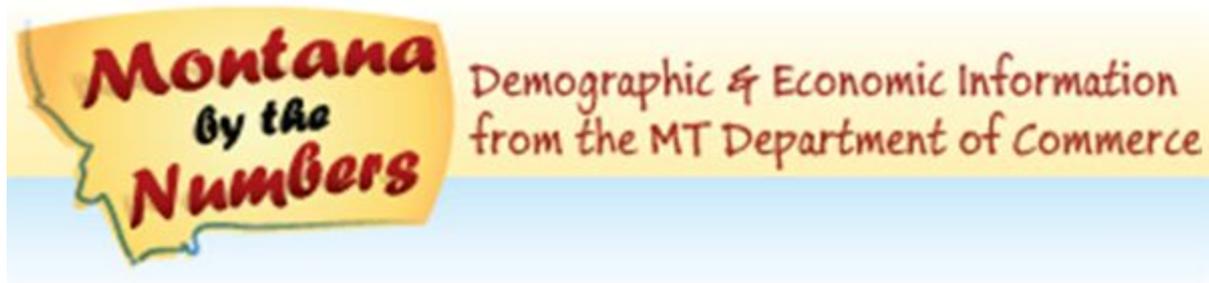


# Getting ACS Data

- Census & Economic Information Center's Website

[www.ceic.mt.gov](http://www.ceic.mt.gov)

- New County Profiles Coming Soon!!!



# MT County Population Projections Plug

- We have recently released population projections by gender by age for Montana and all of the State's 56 counties



**eREMI is a product of Regional Economic Models, Inc. (REMI) providing county level population projections for the state of Montana.**

Available Online At:

<http://ceic.mt.gov/Population/PopProjectionsTitlePage.aspx>

# Questions...

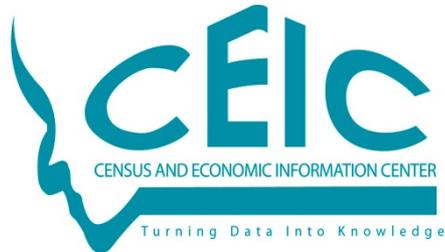
## JOE RAMLER

SENIOR ECONOMIST

406.841.2719

[JRAMLER@MT.GOV](mailto:JRAMLER@MT.GOV)

MONTANA DEPARTMENT OF COMMERCE  
CENSUS & ECONOMIC INFORMATION CENTER  
301 S. PARK AVE.  
HELENA, MT 59620-0505  
406.841.2740



[WWW.CEIC.MT.GOV](http://WWW.CEIC.MT.GOV)

