



Using ACS Estimates and Margins of Error

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Outline

- What is the Margin of Error (MOE)
- Why do MOEs Matter
- Statistical Testing Using the MOE
- Approximating the MOE
- Resources and References
- Questions

What is the Margin of Error

B01001 | SEX BY AGE
 Universe: Total population ⓘ
 2010-2014 American Community Survey 5-Year Estimates

Table View

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This table is displayed with default geographies. ⓘ
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Although the American Community Survey (ACS) produces population, demographic and housing unit estimates for the nation, states, counties, cities and towns and estimates of housing units for states and counties.

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	United States	
	Estimate	Margin of Error
Total:	314,107,084	*****
Male:	154,515,159	+/-5,811
Under 5 years	10,205,881	+/-3,420
5 to 9 years	10,437,256	+/-13,962
10 to 14 years	10,590,658	+/-14,675
15 to 17 years	6,482,243	+/-2,995
18 and 19 years	4,548,783	+/-4,506
20 years	2,454,800	+/-11,452
21 years	2,385,111	+/-12,983
22 to 24 years	6,622,417	+/-16,347
25 to 29 years	10,845,393	+/-4,509

What is the Margin of Error?

ACS is a sample and different samples would yield different estimates of the actual population value

The MOE is a measure of the possible variation of the estimate around the population value

Data users can be certain at a given confidence level that the estimate and the actual population value differ by no more than the value of the MOE

Measures of Sampling Variability

Variance



$$\text{Standard Error (SE)} = \sqrt{\text{Variance}}$$



$$\text{MOE} = 1.645 \times \text{SE}$$

(90 percent Confidence Level)

(Census Bureau standard is
90 percent confidence level)

Alternate Confidence Levels

Confidence Level	Margin of Error (MOE)
90%	1.645 x SE
95%	1.96 x SE
99%	2.58 x SE

Can convert MOE to different confidence level

$$\text{MOE}_{95\% \text{ confidence level}} = \frac{1.96}{1.645} \times \text{MOE}_{90\% \text{ confidence level}}$$

Why Do MOEs Matter

Geography	Median Household Income (\$)	MOE
Block Group 1	37,284	20,922

- Lower Bound = $37,284 - 20,922 = 16,362$
- Upper Bound = $37,284 + 20,922 = 58,206$
- Confidence Interval (\$16,362, \$58,206)
(90% Confidence Level)

Why Do MOEs Matter

Geography	Median Household Income (\$)	MOE
Block Group 1	37,284	
Block Group 2	42,750	
Block Group 3	56,875	
Block Group 4	66,750	
Block Group 5	76,833	

Why Do MOEs Matter

Geography	Median Household Income (\$)	MOE
Block Group 1	37,284	20,922
Block Group 2	42,750	21,302
Block Group 3	56,875	20,956
Block Group 4	66,750	32,130
Block Group 5	76,833	47,268

Testing for Statistical Significance

Definition

A test to determine if a difference is unlikely to occur by chance

To be “statistically different” means there is statistical evidence that there is a difference

ACS Comparison Profile

Year to Year Change





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CP02 | **COMPARATIVE SOCIAL CHARACTERISTICS IN THE UNITED STATES** ⓘ
2013 American Community Survey 1-Year Estimates

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An * indicates that the estimate is significantly different (at a 90% confidence level) than the estimate from the most current year. A "c" indicates the estimates for that year and the current year are both controlled; a statistical test is not appropriate.

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2014

2013 ▶

Subject	United States								
	2013 Estimate	2012 Estimate	2013 - 2012 Statistical Significance	2011 Estimate	2013 - 2011 Statistical Significance	2010 Estimate	2013 - 2010 Statistical Significance	2009 Estimate	2013 - 2009 Statistical Significance
HOUSEHOLDS BY TYPE									
Total households	116,291,033	115,969,540	*	114,991,725	*	114,567,419	*	113,616,229	*
Family households (families)	65.9%	66.0%		66.2%	*	66.4%	*	66.5%	*
With own children under 18 years	28.6%	29.0%	*	29.4%	*	29.7%	*	30.3%	*
Married-couple family	48.0%	48.1%		48.3%	*	48.6%	*	49.1%	*
With own children under 18 years	19.1%	19.3%	*	19.6%	*	20.0%	*	20.6%	*
Male householder, no wife present, family	4.8%	4.8%		4.7%	*	4.7%	*	4.6%	*
With own children under 18 years	2.3%	2.3%	*	2.3%		2.3%		2.3%	

ACS Ranking Tables



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R0205 **PERCENT OF THE TOTAL POPULATION WHO ARE NATIVE HAWAIIAN AND OTHER PACIFIC ISLANDER ALONE - United States -- States; and Puerto Rico**
 Universe: Total population ⓘ
 2013 American Community Survey 1-Year Estimates

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To view this table with statistical significance, select With Statistical Significance in the Action menu.
 A # next to a geography indicates when an estimate is not statistically significant from the estimate for the selected geography.
 The ## indicates the selected geography.

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Geography: United States ▼

Stat Sig: Geographical Area: United States ▼

Rank	Geographical Area	Stat Sig?	Percent	Margin of Error
<< 1	United States	##	0.2	+/-0.1
1	Hawaii		9.8	+/-0.4
2	Alaska		1.2	+/-0.1
3	Utah		0.9	+/-0.1
4	Nevada		0.7	+/-0.1
5	Washington		0.6	+/-0.1
6	California		0.4	+/-0.1
6	Oregon		0.4	+/-0.1
8	Arizona	#	0.2	+/-0.1
8	Colorado	#	0.2	+/-0.1
10	Delaware		0.1	+/-0.1
10	Idaho		0.1	+/-0.1
10	Iowa		0.1	+/-0.1

Statistical Testing

S0201	SELECTED POPULATION PROFILE IN THE UNITED STATES 			
	2011 American Community Survey 1-Year Estimates			
	United States			
	Total population		Asian alone or in combination with one or more other races (400-499) & (100-299) or (300, A01-Z99) or (400-999)	
Subject	Estimate	Margin of Error	Estimate	Margin of Error
TOTAL NUMBER OF RACES REPORTED				
Total population	311,591,919	*****	17,673,522	+/-25,721
One race	97.2%	+/-0.1	85.0%	+/-0.2
Two races	2.6%	+/-0.1	12.9%	+/-0.2
Three races	0.2%	+/-0.1	1.9%	+/-0.1
Four or more races	0.0%	+/-0.1	0.3%	+/-0.1
SEX AND AGE				
Total population	311,591,919	*****	17,673,522	+/-25,721
Male	49.2%	+/-0.1	47.9%	+/-0.1
Female	50.8%	+/-0.1	52.1%	+/-0.1
Under 5 years	6.4%	+/-0.1	7.4%	+/-0.1
5 to 17 years	17.3%	+/-0.1	18.2%	+/-0.1
18 to 24 years	10.0%	+/-0.1	10.6%	+/-0.1
25 to 34 years	13.3%	+/-0.1	16.2%	+/-0.1
35 to 44 years	13.1%	+/-0.1	15.9%	+/-0.1
45 to 54 years	14.3%	+/-0.1	12.9%	+/-0.1
55 to 64 years	12.2%	+/-0.1	9.9%	+/-0.1
65 to 74 years	7.2%	+/-0.1	5.3%	+/-0.1
75 years and over	6.1%	+/-0.1	3.6%	+/-0.1
Median age (years)	37.3	+/-0.1	33.5	+/-0.2
18 years and over	76.3%	+/-0.1	74.4%	+/-0.1
21 years and over	71.8%	+/-0.1	69.9%	+/-0.1
62 years and over	16.7%	+/-0.1	11.5%	+/-0.1
65 years and over	13.3%	+/-0.1	9.0%	+/-0.1

Statistical Testing

Generic formula:

$$\frac{|Est_1 - Est_2|}{\sqrt{MOE_{est1}^2 + MOE_{est2}^2}}$$

Statistical Testing

Median Age:

- Asian alone or in combo: 33.5 +/- 0.2
- Total Population: 37.3 +/- 0.1

STEP	Process	Result
1	Take the difference of the estimates	$33.5 - 37.3 = -3.8$
2	Take the absolute value of step 1	$ -3.8 = \text{abs}(-3.8) = 3.8$
3	Square the MOEs	$0.2^2 = 0.04$ $0.1^2 = 0.01$
4	Add the squared MOEs together	$0.04 + 0.01 = 0.05$

Statistical Testing

STEP	Process	Result
5	Take the square root of step 4	$\sqrt{0.05} \approx 0.224$
6	Divide step 2 by step 5	$3.8 / 0.224 = 16.99$
7	Compare to 1.0	$16.99 > 1.0$

- If step 7 is greater than 1.0 then the estimates are significant different.

Statistical Testing

Generic formula:

$$\frac{|Est_1 - Est_2|}{\sqrt{MOE_{est1}^2 + MOE_{est2}^2}}$$

Example:

$$\frac{|33.5 - 37.3|}{\sqrt{(0.2)^2 + (0.1)^2}} = 16.99$$

Statistical Testing

This method is used for:

- Any type of estimate (count, percent, median, rate, etc.)
- Between years
- Between non-overlapping multi-year periods
- Across geographic areas
- Between surveys (e.g. ACS vs Census)
 - Provided the ACS estimate is comparable to the Census

<https://www.census.gov/programs-surveys/acs/guidance/comparing-acs-data.html>

Statistical Testing Tool

United States Census Bureau

Legend

Estimates are statistically different.	Yes
Estimates are NOT statistically different.	No
Estimate is compared to itself.	X
Statistical Testing is not appropriate.	-
Confidence Level (default = 90)	90
MOE or SE? (default = MOE)	MOE

How to use this spreadsheet:

- (Optional) Sort the data in the "Estimates" field in ascending or descending order.
- Insert Geography or Statistical Variable keyword into "Label"
- Insert percentage or number estimate into "Estimate" field
- Insert Margin of Error into "Margin of Error" field

Overview Compare 2 Estimates

Label	Estimate	Margin of Error (MOE) or Standard Error (SE)	Label	United States	Alaska	New Mexico	South Dakota	Oklahoma	Montana	North Dakota	Arizona	Wyoming	Washington	Idaho	Oregon	Nevada	North Carolina	Utah	Colorado	Minnesota	Nebraska	Miscouri	Kansas	California	Arkansas	Louisiana	Maine	Michigan	Alabama	Rhode Island	Delaware	Mississippi	Missouri		
1 United States	1	+/-0.1	United States	X	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
2 Alaska	14	+/-0.4	Alaska	Yes	X	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
3 New Mexico	10	+/-0.2	New Mexico	Yes	Yes	X	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
4 South Dakota	8	+/-0.3	South Dakota	Yes	Yes	Yes	X	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
5 Oklahoma	8	+/-0.1	Oklahoma	Yes	Yes	Yes	Yes	X	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
6 Montana	7	+/-0.2	Montana	Yes	Yes	Yes	Yes	Yes	X	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
7 North Dakota	5	+/-0.3	North Dakota	Yes	Yes	Yes	Yes	Yes	Yes	X	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
8 Arizona	4	+/-0.1	Arizona	Yes	Yes	Yes	Yes	Yes	Yes	Yes	X	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
9 Wyoming	3	+/-0.3	Wyoming	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	X	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
10 Washington	1	+/-0.1	Washington	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	X	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
11 Idaho	1	+/-0.2	Idaho	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	X	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
12 Oregon	1	+/-0.1	Oregon	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	X	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
13 Nevada	1	+/-0.1	Nevada	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	X	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
14 North Carolina	1	+/-0.1	North Carolina	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	X	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
15 Utah	1	+/-0.1	Utah	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	X	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
16 Colorado	1	+/-0.1	Colorado	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	X	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
17 Minnesota	1	+/-0.1	Minnesota	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	X	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
18 Nebraska	1	+/-0.1	Nebraska	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	X	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
19 Wisconsin	1	+/-0.1	Wisconsin	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	X	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
20 Kansas	1	+/-0.1	Kansas	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	X	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
21 California	1	+/-0.1	California	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	X	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
22 Arkansas	1	+/-0.1	Arkansas	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	X	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
23 Louisiana	1	+/-0.1	Louisiana	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	X	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
24 Maine	1	+/-0.1	Maine	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	X	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
25 Michigan	1	+/-0.1	Michigan	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	X	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
26 Alabama	1	+/-0.1	Alabama	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	X	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Special Case Controlled Estimates

- Controlled estimates:
 - MOE = ***** (5 asterisks)
 - Set MOE = 0 for statistical testing

B01001		SEX BY AGE Universe: Total population ⓘ 2013 American Community Survey 1-Year Estimates	
		United States	
		Estimate	Margin of Error
Total:		316,128,839	*****
Male:		155,627,698	+/-26,501
	Under 5 years	10,109,150	+/-17,055
	5 to 9 years	10,516,217	+/-41,359
	10 to 14 years	10,622,312	+/-38,115
	15 to 17 years	6,402,435	+/-12,852

Special Case

Zero Estimate MOEs

- Zero estimates will have an MOE
- MOEs for zero estimates are model-based

	Delaware		District of Columbia		Maryland		Virginia	
	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error
Total:	567	+/-337	233	+/-94	2,570	+/-367	5,633	+/-541
Male:	261	+/-159	134	+/-90	1,271	+/-263	2,697	+/-336
Under 5 years	36	+/-56	0	+/-29	29	+/-23	132	+/-62
5 to 9 years	0	+/-27	0	+/-29	110	+/-93	82	+/-47
10 to 14 years	0	+/-27	34	+/-48	55	+/-50	324	+/-117
15 to 17 years	0	+/-27	0	+/-29	78	+/-82	141	+/-97
18 and 19 years	3	+/-8	0	+/-29	20	+/-25	144	+/-89
20 to 24 years	2	+/-4	0	+/-29	363	+/-314	340	+/-186
25 to 29 years	2	+/-6	0	+/-29	131	+/-99	419	+/-170

Special Case

Medians and Aggregates

- Median and Aggregates with too few observations:
 - Estimate = “-”, MOE = “**”
- Medians in upper or lower category:
 - Median income in the past 12 months
 - Estimate = “\$2,500-”, MOE = “***”
- NO statistical testing possible

Deriving New Estimates

Must approximate the MOE

B01001 | SEX BY AGE
 Universe: Total population ⓘ
 2009-2013 American Community Survey 5-Year Estimates

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		United States	
		Estimate	Margin of Error
49	Total:	311,536,594	*****
4	Male:	155,247,412	+/-8,039
	Under 5 years	10,247,162	+/-4,089
	5 to 9 years	18,481,811	+/-15,882
	10 to 14 years	10,591,348	+/-16,135
	15 to 17 years	6,540,597	+/-3,232
	18 and 19 years	4,603,826	+/-3,985
	20 years	2,437,109	+/-11,422
	21 years	2,358,127	+/-11,886
	22 to 24 years	6,509,032	+/-14,156
	25 to 29 years	10,734,184	+/-4,467
	30 to 34 years	10,262,465	+/-3,770
	35 to 39 years	9,903,159	+/-18,413
	40 to 44 years	10,442,823	+/-19,066
	45 to 49 years	10,924,972	+/-4,375
	50 to 54 years	10,982,070	+/-3,757
	55 to 59 years	9,763,649	+/-13,996
	60 and 61 years	3,570,148	+/-9,941
	62 to 64 years	4,811,649	+/-11,591
	65 and 66 years	2,783,919	+/-8,745
	67 to 69 years	3,436,176	+/-10,795
	70 to 74 years	4,479,627	+/-11,127
	75 to 79 years	3,257,328	+/-8,142
	80 to 84 years	2,333,049	+/-7,965
	85 years and over	1,870,382	+/-6,909
	Female:	156,289,182	+/-8,062
	Under 5 years	9,804,950	+/-3,460
	5 to 9 years	16,884,443	+/-16,237
	10 to 14 years	10,081,261	+/-17,178
	15 to 17 years	6,203,100	+/-3,034

Approximating the MOE

Wish to calculate total number of children under the age of 5 years old

- Sum the estimates for males and females
- Approximate MOE:

$$MOE_{Aggreg} = \sqrt{MOE_{est1}^2 + MOE_{est2}^2 \dots}$$

Approximating the MOE

Characteristics	Estimate	MOE	MOE Squared
Under 5 years, Males	10,247,162	+/-4,089	16,719,921
Under 5 years, Females	9,804,950	+/-3,460	11,971,600

Total, Under 5 Years Old =
 $10,247,162 + 9,804,950 = 20,052,112$

$$MOE_{Total} = \sqrt{4,089^2 + 3,460^2} \approx 5,356.4$$

Approximating the MOE

Characteristics (Native Hawaiians)	Estimate	MOE
Under 5 years old (Delaware)	36	56
5 to 9 years old (Delaware)	0	27
Under 5 years old (Washington, D.C.)	0	29
5 to 9 years old (Washington, D.C.)	0	29
TOTAL	36	63.06

- MOE for zero estimates are based on a model
- When approximating a sum, use only the largest zero estimate MOE, once

$$MOE(Total) \approx \sqrt{56^2 + 29^2} \approx 63.06$$

Estimates with Large MOEs

B17001 POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE
 Universe: Population for whom poverty status is determined
 2008-2012 American Community Survey 5-Year Estimates

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	Census Tract 1, New Orleans city, New Orleans city, Orleans Parish, Louisiana		Census Tract 2, New Orleans city, New Orleans city, Orleans Parish, Louisiana		Census Tract 3, New Orleans city, New Orleans city, Orleans Parish, Louisiana		Census Tract 4, New Orleans city, New Orleans city, Orleans Parish, Louisiana		Census Tract 6.01, New Orleans city, New Orleans city, Orleans Parish, Louisiana		Census Tract 6.02, New Orleans city, New Orleans city, Orleans Parish, Louisiana		Census Tract 6.03, New Orleans city, New Orleans city, Orleans Parish, Louisiana		Census Tract 6.04, New Orleans city, New Orleans city, Orleans Parish, Louisiana		Census Tract 6.05, New Orleans city, New Orleans city, Orleans Parish, Louisiana	
	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error						
Total:	2,391	+/-305	1,217	+/-348	1,205	+/-324	2,180	+/-390	781	+/-356	3,147	+/-416	1,444	+/-193	4,801	+/-577	2,113	+/-390
Income in the past 12 months below poverty level:	406	+/-179	236	+/-108	448	+/-194	495	+/-209	453	+/-302	1,260	+/-375	322	+/-148	1,046	+/-540	572	+/-324
Male:	274	+/-117	121	+/-73	225	+/-125	209	+/-109	238	+/-145	535	+/-171	195	+/-97	480	+/-258	186	+/-138
Under 5 years	17	+/-26	0	+/-12	23	+/-29	28	+/-30	82	+/-137	105	+/-73	0	+/-12	175	+/-132	101	+/-117
5 years	0	+/-12	12	+/-19	0	+/-12	14	+/-22	0	+/-12	14	+/-22	5	+/-10	0	+/-12	9	+/-14
6 to 11 years	15	+/-22	13	+/-19	23	+/-36	0	+/-12	20	+/-26	143	+/-94	15	+/-19	86	+/-86	0	+/-12
12 to 14 years	0	+/-12	0	+/-12	23	+/-26	3	+/-7	15	+/-25	32	+/-42	0	+/-12	12	+/-19	4	+/-7
15 years	7	+/-12	0	+/-12	0	+/-12	20	+/-24	20	+/-26	28	+/-31	0	+/-12	0	+/-12	0	+/-12
16 and 17 years	8	+/-12	0	+/-12	12	+/-20	23	+/-22	0	+/-12	56	+/-52	34	+/-41	0	+/-12	0	+/-12
18 to 24 years	53	+/-76	11	+/-16	65	+/-59	0	+/-12	50	+/-62	27	+/-33	0	+/-12	38	+/-59	20	+/-32
25 to 34 years	47	+/-52	0	+/-12	4	+/-7	10	+/-14	0	+/-12	39	+/-37	0	+/-12	50	+/-63	11	+/-17
35 to 44 years	46	+/-56	21	+/-32	21	+/-25	42	+/-52	0	+/-12	27	+/-26	84	+/-82	38	+/-44	24	+/-30
45 to 54 years	49	+/-46	32	+/-45	12	+/-19	43	+/-53	22	+/-25	45	+/-41	33	+/-33	25	+/-28	11	+/-17
55 to 64 years	21	+/-23	32	+/-31	37	+/-39	26	+/-19	9	+/-13	15	+/-17	19	+/-32	37	+/-40	6	+/-9
65 to 74 years	11	+/-18	0	+/-12	5	+/-7	0	+/-12	20	+/-18	4	+/-6	0	+/-12	0	+/-12	0	+/-12
75 years and over	0	+/-12	0	+/-12	0	+/-12	0	+/-12	0	+/-12	0	+/-12	5	+/-9	19	+/-21	0	+/-12

Estimates with Large MOEs

- Some estimates have MOEs larger than the estimate
- This may occur for small geographies or small populations
- If this occurs
 - Use a larger geography
 - Combine estimates across characteristics, geographies or both

Collapsed Tables

Detailed Table

B01001B		SEX BY AGE (BLACK OR AFRICAN AMERICAN ALONE) Universe: People who are Black or African American alone 2013 American Community Survey 1-Year Estimates	
		United States	
		Estimate	Margin of Error
1	Total:	39,919,371	+/-55,395
9	Male:	19,055,640	+/-33,146
9	Under 5 years	1,414,472	+/-13,478
	5 to 9 years	1,463,011	+/-16,331
	10 to 14 years	1,521,983	+/-16,588
	15 to 17 years	922,690	+/-9,182
	18 and 19 years	699,003	+/-9,775
	20 to 24 years	1,746,835	+/-12,934
	25 to 29 years	1,399,241	+/-13,650
	30 to 34 years	1,313,302	+/-11,787
	35 to 44 years	2,470,927	+/-12,891
	45 to 54 years	2,548,642	+/-12,137
	55 to 64 years	2,010,474	+/-9,415
	65 to 74 years	1,001,950	+/-7,022
	75 to 84 years	422,368	+/-5,967
	85 years and over	120,742	+/-4,353
	Female:	20,863,731	+/-39,109
	Under 5 years	1,375,063	+/-13,786
	5 to 9 years	1,418,151	+/-17,863
	10 to 14 years	1,462,070	+/-15,589

Collapsed Table

C01001B		SEX BY AGE (BLACK OR AFRICAN AMERICAN ALONE) Universe: People who are Black or African American alone 2013 American Community Survey 1-Year Estimates	
		United States	
		Estimate	Margin of Error
1	Total:	39,919,371	+/-55,395
9	Male:	19,055,640	+/-33,146
9	Under 18 years	5,322,156	+/-21,007
	18 to 64 years	12,188,424	+/-25,229
	65 years and over	1,545,060	+/-7,099
	Female:	20,863,731	+/-39,109
	Under 18 years	5,139,441	+/-24,134
	18 to 64 years	13,394,099	+/-23,559
	65 years and over	2,330,191	+/-8,186

Resources

American Community Survey (ACS)

- About the Survey
- Respond to the Survey
- News & Updates
- Data
- Guidance for Data Users
- Geography & ACS
- Technical Documentation**
- Code Lists, Definitions, and Accuracy
- User Notes
- Errata
- Data Suppression
- Table & Geography Changes
- Summary File Documentation
- PUMS Documentation
- Race/Ethnicity and AIAN Release Documentation
- Methodology
- Library
- Operations and Administration
- Contact Us



Code Lists, Definitions, and Accuracy

[Tweet](#) [Share](#)

View the detailed codes and definitions for variables, statistical testing, and an explanation of sample design, methodology, and accuracy for the American Community Survey.

2014 2013 2012 2011 2010 ▶

Code Lists

Detailed codes for variables that contain a large number of coded responses, such as ancestry and occupation

[2014 Code Lists \[1.2 MB\]](#)

Subject Definitions

Definitions of population and housing variables to help you understand the results of the American Community Survey

[2014 Subject Definitions \[7.9 MB\]](#)

Group Quarters Definitions

Definitions for classifying group living situations according to the type of housing and/or services provided

[2014 Group Quarters Definitions \[1.1 MB\]](#)

Instructions for Applying Statistical Testing

Basic instructions for obtaining the ACS standard errors needed to do statistical testing.

[2010-2014 Instructions for Applying Statistical Testing to ACS 5-year Data \[221 KB\]](#)

[2014 Instructions for Applying Statistical Testing to ACS 1-year Data \[<1.0 MB\]](#)

Comparison Guidance

2014

Learn more about comparing the 2014 ACS with Census 2000, 2010 Census, and 3-year to 3-year or 5-year to 5-year estimates.

Accuracy of the Data

A basic explanation of the sample design, estimation methodology, and accuracy of the data

- [2010-2014 Multiyear Accuracy \(US\) \[3.4 MB\]](#)
- [2010-2014 Multiyear Accuracy \(Puerto Rico\) \[3.6 MB\]](#)
- [2014 ACS 1-year Accuracy of the Data \(US\) \[<1 MB\]](#)
- [2014 PRCS 1-year Accuracy of the Data \(Puerto Rico\) \[<1 MB\]](#)

<http://www.census.gov/programs-surveys/acs/technical-documentation/code-lists.html>

Compass Handbooks

American Community Survey (ACS)

About the Survey

Respond to the Survey

News & Updates

Data

Guidance for Data Users

Subjects Included in the Survey

Which Data Tool Should I Use?

When to Use 1-year, 3-year, or 5-year Estimates

Handbooks

Comparing ACS Data

Training Presentations

Geography & ACS

Technical Documentation

Methodology

Library

Operations and Administration

Handbooks for Data Users

You can use American Community Survey (ACS) data in different ways and for different reasons. Each one of our downloadable PDF Compass handbooks helps a particular group with specific how-to instructions and/or case studies.

For an introduction to ACS data, we recommend the compass handbook for General Data Users.



What Congress Needs to Know

November 2008

This handbook helps congressional staff use ACS data to respond to constituent inquiries, draft floor/press statements, conduct legislative research, and more.



What Federal Agencies Need to Know

December 2008

This handbook helps federal agencies use ACS data for eligibility determinations, allocation of funds, program parameters, and more.



What General Data Users Need to Know

October 2008

This handbook helps general data users learn how to access and use ACS data and provide concrete examples of how ACS data can answer real-world questions.

<http://www.census.gov/programs-surveys/acs/guidance/handbooks.html>

Training Presentations

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Training Presentations



Want to learn more about American Community Survey (ACS) data and data products? Need to train others how to understand the data? These compass presentations can help.



An Overview of the American Community Survey

February 2013

Basics of the American Community Survey program and website, with information on content, survey methodology, and data products.



Data Products from the American Community Survey

February 2013

Examples and suggestions for using data profiles, tables, and Public Use Microdata Sample (PUMS) Files.



Things that May Affect Estimates from the American Community Survey

February 2013

Because the American Community Survey is a sample survey, sampling error is inevitable.

<http://www.census.gov/programs-surveys/acs/guidance/training-presentations.html>

Crosswalk

American Community Survey

About the Survey

Respond to the Survey

News & Updates

Data

Guidance for Data Users

Subjects Included in the Survey

Which Data Tool Should I Use?

When to use 1, 3, or 5-year estimates

Comparing ACS Data

ACS/Census Table Lookup

2014

2013

2012

2011

2010

2009

2008

ACS/Census Table Comparison

Enter a table number below to search for a comparable table between **ACS 5-year estimates** and **Census 2000 SF3** detailed tables. Or download all [table comparisons](#) [XLS 332KB].

ACS 5-year → Census 2000 SF3

Enter ACS Detailed Table #

example: B05008

OR

Census 2000 SF3 → ACS 5-year

Enter Census 2000 SF3 Detailed Table #

example: PCT63H

SUBMIT

RESET

Related Resources

[Get ACS detailed tables](#) on American FactFinder

[Get Census 2000 SF3 detailed tables](#) on American Factfinder

[Browse ACS/Census 2000 comparison guidance](#) by subject area/topic

[contact us](#) | [website feedback](#) | [email updates](#) | [site map](#)

<http://www.census.gov/acs/www/guidance/comparing-acs-data/acscensus-table-lookup>

Design and Methodology

American Community Survey (ACS)

About the Survey

Respond to the Survey

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Methodology

Design and Methodology Report

Sample Size and Data Quality

Content Test

Questionnaire Archive

Mandatory vs. Voluntary Methods

Library

Operations and Administration

Contact Us

Design and Methodology Report



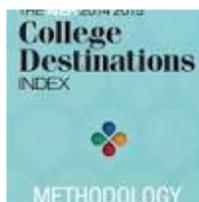
Download by chapter

-  Acknowledgements [<1.0 MB]
-  Foreword [<1.0 MB]
-  Chapter 1. Introduction [<1.0 MB]
-  Chapter 2. Program History [<1.0 MB]
-  Chapter 3. Frame Development [<1.0 MB]
-  Chapter 4. Sample Design and Selection [<1.0 MB]
-  Chapter 5. Content Development Process [<1.0 MB]
-  Chapter 6. Survey Rules, Concepts and Definitions [<1.0 MB]
-  Chapter 7. Data Collection and Capture for Housing Units [<1.0 MB]
-  Chapter 8. Data Collection and Capture for Group Quarters [<1.0 MB]
-  Chapter 9. Language Assistance Program [<1.0 MB]
-  Chapter 10. Data Preparation and Processing for Housing Units and Group Quarters [1.1 MB]
-  Chapter 11. Weighting and Estimation [<1.0 MB]
-  **Chapter 12. Variance Estimation [<1.0 MB]**
-  Chapter 13. Preparation and Review of Data Products [<1.0 MB]
-  Chapter 14. Data Dissemination [<1.0 MB]
-  Chapter 15. Improving Data Quality by Reducing Nonsampling Error [<1.0 MB]
-  Chapter 16. Research and Evaluation [<1.0 MB]
-  Appendix. Glossary [<1.0 MB]

<http://www.census.gov/programs-surveys/acs/methodology/design-and-methodology.html>

Source Us!

U.S. Census Bureau's [YYYY-YYYY] American Community Survey [1/3/5]-year [estimates/statistics/data release]



College Destinations: How We Rank Them

American Institute for Economic Research - Apr 7, 2014

Sources: U.S. Census Bureau; American Community Survey, 2011 American Community Survey 1-Year Estimates, Table B01003; using ...



NMSU Valencia County Extension providing youth develo...

New Mexico State University NewsCenter - Apr 14, 2015

... Mexico and \$53,046 for the United States, according to the U.S. Census Bureau's 2009-2013 American Community Survey 5-Year Estimate.



Census Estimates Show Progress Toward ACA Coverag...

Health Affairs (blog) - Sep 28, 2015

Source: U.S. Census Bureau, 2013 and 2014 American Community Survey 1-year estimates from Table S2701 in American Fact Finder.

Continue the Conversation #ACsdata



Sign up for and manage alerts at
<https://public.govdelivery.com/accounts/USCENSUS/subscriber/new>



facebook.com/uscensusbureau



twitter.com/uscensusbureau



More information on the American
Community Survey:
<http://www.census.gov/acs>



youtube.com/user/uscensusbureau



(800) 923-8282 or
(301) 763-1405



instagram.com/uscensusbureau



acso.users.support@census.gov



pinterest.com/uscensusbureau



AMERICAN COMMUNITY SURVEY DATA USERS GROUP

- Purpose:
 - Improve understanding of the value and utility of ACS data.
 - Promote information sharing among data users about key ACS data issues and applications
- Membership is free and open to all interested ACS data users
- Webinars and special sessions at professional meetings planned
- Users group website and online community

<http://www.acsdatausers.org/>

Need Local Stats?

- Assistance Near You!

Our regional data staff can help you access local statistics from the ACS or offer training to help build your skills.

- Contact us at:
clmso.ddb.questions@census.gov



Questions?

- Please fill out the evaluation for this presentation

Bonus Slide: Finding Your Geographies

United States Census Bureau AMERICAN **FactFinder**

MAIN COMMUNITY FACTS GUIDED SEARCH **ADVANCED SEARCH** DOWNLOAD CENTER

Search - Use the options on the left (topics, geographies, ...) to narrow your search results

Your Selections
Your Selections' is empty
load search | save search

Search using the options below:

- Topics (age, income, year, dataset, ...)
- Geographies (states, counties, places, ...)**
- Race and Ethnic Groups (race, ancestry, tribe)
- Industry Codes (NAICS industry, ...)
- EEO Occupation Codes (executives, analysts, ...)

To search for tables and other files in American FactFinder:
Enter search terms and an optional geography and click GO

Select Geographies

List Name **Address** Map

Enter a street address, city and state, or a street address and ZIP code. Click 'Go'. ?
Note: address search will use the latest available address data beginning with 2015 and working backwards, based on the contents of Your Selections.

street address city state zip GO
4600 Silver Hill Road suitland Maryland

Geographies containing 4601 Silver Hill Rd, SUITLAND, MD, 20746:
Select geographies to add to Your Selections

Geography Results:

Geography Name	Geography Type	Geography Code	About
South Region	Region	020	i
South Atlantic Division	Division	030	i
Maryland	State	040	i

Bonus Slide:

How to Determine if you are in a Survey

The screenshot shows the U.S. Census Bureau website page titled "Are You in a Survey?". The page features a navigation bar with categories like Topics, Geography, Library, Data, Surveys/Programs, Newsroom, and About Us. The main content area includes a welcome message, a "Read More" link, and three featured articles: "Verify Survey Legitimacy", "U.S. Census Bureau Staff?", and "Protecting Your Information". A large graphic on the right asks "Are You in a Survey?" with a checkmark icon. Below the main content is a "Latest" section with buttons for "How Do I Know...", "Survey FAQs", "List Of Surveys", and "Contact Us". Three informational cards are displayed: "if I am in a Household Survey?", "if I am in a Business Survey?", and "that my information will be safe?". On the right side, there is a "U.S. Population" widget showing 321,986,280 and a "COMPONENTS OF POPULATION CHANGE" section with bar charts for birth, death, and migration rates.

<http://www.census.gov/programs-surveys/are-you-in-a-survey.html>

Bonus Slide:

Why We Ask the Questions on the ACS

U.S. Department of Commerce | Bureau of Economic Analysis

Search

Topics: Population, Economy | Geography: Maps, Products | Library: Infographics, Publications | Data: Tools, Developers | Surveys/Programs: Respond, Survey Data | Newsroom: News, Blogs | About Us: Our Research

American Community Survey

About the Survey

- How Do I Respond to the Survey?
- Is the ACS Legitimate?
- Is the ACS Mandatory?
- Why Was I Selected?
- Is My Privacy Protected?
- For People Living in Group Housing
- Questions on the Form and Why We Ask**
- Sample Forms & Instructions
- About the Puerto Rico Community Survey
- ACS and 2010 Census
- Frequently Asked Questions

Respond to the Survey

- News & Updates
- Data
- Guidance for Data Users
- Geography & the ACS
- Technical Documentation
- Methodology
- Library

Questions on the Form and Why We Ask

Select a topic below to view a fact sheet containing question(s) from the form, how long the question has been in use, a description of how the federal government uses the data, and how those uses translate into community benefits.

Show entries

Filter by keywords or question number:

Why we ask about...	Question Numbers (person/housing)
Acreage, Agricultural Sales, Business on Property	h4, h5, h6
Age	p4
Ancestry	p13
Citizenship, Place of Birth, Year of Entry	p7, p8, p9
Class of Worker	p41
Computer and Internet Use	h9, h10, h11
Cost of Utilities, Condominium Fee	h14, h16
Disability	p17, p18, p19
Educational Attainment, Bachelor's Field of Degree	p11, p12
Family, Relationships	p2
Fertility	p24
Food Stamps Benefit	h15
Grandparents as Caregivers	p25
Health Insurance Coverage	p16
Hispanic Origin	p5
Home Heating Fuel	h13
Income	p47, p48

<http://www.census.gov/acs/www/about/why-we-ask-each-question/>

Bonus Slide:

Explanation of Detailed Table Code

B01001APR

- B is for Detailed Table, C is for Collapsed
- **01 is a 2-digit code for the subject**
(<https://ask.census.gov/faq.php?id=5000&faqId=1687>)
(New series: B28 for Computers and Internet)
- 001 is the table number
- A is if the table is a race/Hispanic iterated table
(A is white alone non-Hispanic, iterations are A through I)
- PR appears only if the table is published exclusively for Puerto Rico