# 2012-2016 American Community Survey (ACS) 5-Year Estimates

Pre-Embargo Webinar November 28, 2017

Access the Audio

Toll free number: 1-888-972-9338

Participant passcode: 7803057



# **Speakers**

Host Kristina Barrett

**Public Affairs Specialist** 

**Public Information Office** 

Presenter | Justin Keller

Survey Statistician

**American Community Survey Office** 

### **Webinar Outline**

- Upcoming ACS Data Releases
- ACS Basics
- 5-Year ACS Geography and Products
- ACS Documentation
- Q&A
- Accessing Block Group Data



# **Upcoming ACS Data Releases**



### **ACS Data Release**

### MEDIA EMBARGO: Tuesday, December 5, 2017

- Embargo at 10 a.m. (EST), Includes 2012-2016 ACS 5-Year Estimates:
  - 5-Year Data Products (including 5-Year Comparison Profiles)

### PUBLIC RELEASE: Thursday, December 7, 2017

- Release at 12:01 a.m. (EST), Includes 2012-2016 ACS 5-Year Estimates:
  - 5-Year Data Products (including 5-Year Comparison Profiles)
  - Narrative Profile
  - DataFerrett, API, QuickFacts



# Thursday, December 7th

### News Release:

- Highlights on commuting, income, poverty, gross rent
- Estimates on the five new language categories introduced in 2016

### • Blogs:

- Examining the Effect of Off-Campus College Students on Poverty Rates
- Gross Rents Continue to Rise

### News Graphics:

- Limited English-speaking households by county / 5 new language categories
- Average commute time and use of public transport in metropolitan areas
- Interactive visualization tool showing data at the county level

# **Upcoming ACS Releases**

### • January 18, 2018

- ACS 5-Year Public Use Microdata Sample (PUMS)
- ACS 5-Year Variance Replicate Estimate Tables
- 1-Year & 5-Year Spanish Versions of the Puerto Rico Community Survey

# **ACS Basics**



# **The American Community Survey**

- Ongoing survey that samples about 3.5 million addresses per year
- Collects data on a wide range of social, economic, housing, and demographic characteristics
- Designed to produce critical information that was previously collected in the decennial census
- Fully implemented in 2005
- Publishes annual estimates for small geographic areas and population groups

### **ACS Content**

### Social

Ancestry
Citizenship Status
Disability Status
Educational Attainment & School
Enrollment
Fertility
Grandparents as Caregivers
Language Spoken at Home
Marital History; Marital Status
Migration/Residence 1 Year Ago
Period of Military Service
Place of Birth
Undergraduate Field of Degree
Veteran Status
Year of Entry

### **Demographic**

Age
Hispanic or Latino Origin
Race
Relationship to Householder
Sex

### **Economic**

Commuting (Journey to Work) & Place of Work
Employment Status
Food Stamps/SNAP
Health Insurance Coverage
Income and Earnings
Industry, Occupation, & Class of Worker
Poverty Status
Work Status Last Year

### Housing

**Bedrooms** Computer and Internet Use House Heating Fuel Kitchen Facilities Occupancy/Vacancy Status Occupants Per Room **Plumbing Facilities** Rent Rooms Selected Monthly Owner Costs Telephone Service Available Tenure (Owner/Renter) Units in Structure Value of Home Vehicles Available Year Householder Moved into Unit Year Structure Built



### **5-Year Estimates**

- Describe the average characteristics over a specific period of time, not a single point in time
- Data are pooled across 60 months, weighted to produce estimates, and controlled for age, sex, race, and Hispanic origin
  - 5-year estimates are NOT an average of 1-year estimates
- Estimates are based on geographic boundaries as of January 1 of the last year in the 5-year period
- Dollar-value estimates are inflation adjusted to the most recent year for the period

# **Availability of ACS Data Products**

Estimated Population of Geographic Area	1-Year Estimates	1-Year Supplemental Estimates	5-Year Estimates
65,000 or more	X	X	X
20,000 or more		X	X
Less than 20,000			X
Release Date	September 14, 2017	October 19, 2017	December 7, 2017



## When to Use 5-Year Estimates?

- No 1-year estimate is available
- Margins of error for 1-year estimates are larger than desired
- Analyzing data for small population groups
- Comparing various geographies when one or more of them do not receive 1-year estimates

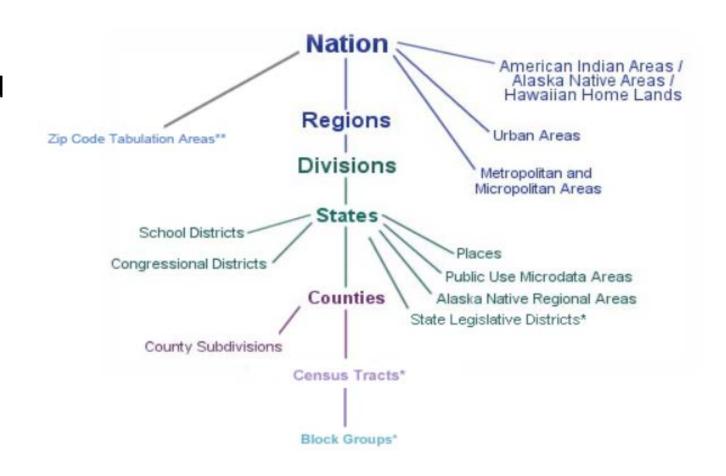
# **5-Year Comparisons**

- Only compare non-overlapping time periods (e.g., 2012-2016 and 2007-2011)
- Only compare estimates from the same dataset (e.g., 5-Year to 5-Year)
- Compare across geographies and subpopulations
- Compare percentages, means, medians and rates whenever possible

# 5-Year Geography and Products

# **5-Year Geography**

- All geographic areas down to the tract and block group level
- Over 578,000 geographic areas
- 87 different geography summary levels available



census.gov/programs-surveys/acs/geography-acs.html



## **5-Year Data Products**

Data Profiles (5)

(Social, Economic, Housing, Demographic,

Selected Social Characteristics - Puerto Rico)

Comparison Profiles (5)

(2012-2016 and 2007-2011)

- Geographic Comparison Tables (92)
- Subject Tables (78)
- Detailed Tables (1,046)
- Narrative Profiles
- Data Tools

(API, DataFerrett, QuickFacts, My Tribal Area, Census Business Builder)

	Occupied housing units		
Subject	Estimate	Margin of Error	
Occupied housing units	116,291,033	+/-141,632	
UNITS IN STRUCTURE			
1, detached	62.8%	+/-0.1	
1, attached	6.0%	+/-0.1	
2 apartments	3.6%	+/-0.1	
3 or 4 apartments	4.4%	+/-0.1	
5 to 9 apartments	4.7%	+/-0.1	
10 or more apartments	12.7%	+/-0.1	
Mobile home or other type of housing	5.8%	+/-0.1	

#### YEAR STRUCTURE BU 2010 or later

2000 to 2009 1980 to 1999 1960 to 1979 1940 to 1959

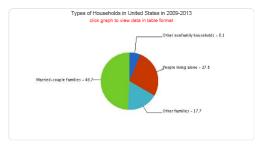
1939 or earlier

#### Households and Families

In 2009-2013 there were 115.6 million households in United States. The average household size was 2.6 people

Families made up 86 percent of the households in United States. This figure includes both married-couple families (49 percent) and other families (18 percent). Of other families, 7 percent are female households married with no household prosent and own children under 18 years. Nordfamily households made up 34 percent of all households in United State Most of the nordfamily households were people living alone, but some were composed of people living in households in which no one was related to the households.

In United States, 33 percent of all households have one or more people under the age of 18; 25 percent of all household have one or more people 65 years and over.



Among persons 15 and older, 51 percent of males and 47 percent of females are currently marrie

Population 15 years and over		Females
Never married	35.4	29.1
Now married, except separated	50.6	47.0

# **Noteworthy Data and Product Improvements**

### Language Coding and Presentation Improvements:

- Expanded coding categories to conform to industry standards used by most translators
- Allows better differentiation of language categories
- Provides better data products for a variety of users
- Maintains comparability over time with past language data, whenever possible

## **ACS New and Modified Tables**

#### **New Tables:**

- C16001: Language Spoken at Home for Population 5 Years and Over
- C16002: Household Language by Household Limited English Speaking Status (formerly B16002)

#### **Modified Tables:**

- B16001: Language Spoken at Home by Ability to Speak English for the Population 5 Years and Over
- B09021: Title changed from Living Arrangements of Adults 18 Years and Over in the United States to Living Arrangements of Adults 18 Years and Over by Age
- B98021: Added a category for Maximum Contact Attempts Reached
- B98031, B98032, B99\*: Revised terminology to state 'allocation' rather than 'imputation'

	Line					
Table ID	Number	Description				
		LANGUAGE	SPOKEN	AT HOME FOR THE POPULATION 5 YEARS AND OVER		
C16001		Universe: Po	Universe: Population 5 years and over			
C16001	1	Total:				
C16001	2	Speak only	/ English			
C16001	3	Spanish:				
C16001	4	Speak E	nglish "ver	y well"		
C16001	5	Speak E	nglish less	than "very well"		
C16001	6	French, Ha				
C16001	7	Speak E	nglish "ver	y well"		
C16001	8			than "very well"		
C16001	9			t Germanic languages:		
C16001	10		nglish "ver			
C16001	11			than "very well"		
C16001	12			ther Slavic languages:		
C16001	13		nglish "ver			
C16001	14	Speak E	Speak English less than "very well"			
C16001	15	Other Indo-European languages:				
C16001	16	Speak English "very well"				
C16001	17	Speak English less than "very well"				
C16001	18	Korean:				
C16001	19	Speak E	nglish "ver	y well"		
C16001	20		Line			
C16001	21	Table ID	Number	Description		
C16001	22	C16002		HOUSEHOLD LANGUAGE BY HOUSEHOLD LIMITED EN	IGLISH SPEAKING STAT	
C16001	23	C16002		Universe: Households		
C16001	24	C16002	1	Total:		
C16001	25	C16002	2	English only		
C16001	26	C16002	3	Spanish:		
C16001	27	C16002	4	Limited English speaking household		
C16001	28	C16002	5	Not a limited English speaking household		
C16001	29	C16002	6	Other Indo-European languages:		
C16001	30	C16002	7	Limited English speaking household		
C16001	31	C16002	8	Not a limited English speaking household		
C16001	32	C16002	9	Asian and Pacific Island languages:		
C16001	33	C16002	10	Limited English speaking household		
C16001	34	C16002	11	Not a limited English speaking household		
C16001	35	C16002	12	Other languages:		
C16001	36	C16002	13	Limited English speaking household		
C16001	37	C16002	14	Not a limited English speaking household		
C16001	38	C10002	114	Not a illilited English speaking household		

www2.census.gov/programs-surveys/acs/tech\_docs/table\_shells/2016/



# 2012-2016 ACS 5-Year Variance Replicate Estimate Tables

- Expanded versions of Detailed Tables in American FactFinder
- Include a set of 80 variance replicate estimates to calculate margins of error when combining ACS estimates within a table or between geographies
- Access via FTP site with links in American FactFinder

census.gov/programs-surveys/acs/data/variance-tables.html

# **5-Year Comparison Profiles**

- Product based on media and data user requests
- 5 profiles compare current 5-Year period (2012-2016) with most recent nonoverlapping period (2007-2011) with statistical significance testing
- Available for nation, states, congressional districts, metro/micro areas, counties and places with populations of 5,000 or more

	United States			
Subject	2011-2015 Estimates	2006-2010 Estimates	Statistical Significance	
EX AND AGE				
Total population	316,515,021	303,965,272		
Male	49.2%	49.1%		
Female	50.8%	50.9%		
Under 5 years	6.3%	6.6%		
5 to 9 years	6.5%	6.6%		
10 to 14 years	6.5%	6.8%		
15 to 19 years	6.7%	7.3%		
20 to 24 years	7.1%	7.0%		
25 to 34 years	13.5%	13.2%		
35 to 44 years	12.8%	13.9%		
45 to 54 years	13.9%	14.6%		
55 to 59 years	6.6%	6.2%		
60 to 64 years	5.8%	5.1%		
65 to 74 years	7.9%	6.7%		
75 to 84 years	4.3%	4.3%		
85 years and over	1.9%	1.7%		
Median age (years)	37.6	36.9		
18 years and over	76.7%	75.6%		
21 years and over	72.4%	71.2%		
62 years and over	17.5%	15.6%		
65 years and over	14.1%	12.7%	1	

# **American FactFinder (AFF)**



factfinder.census.gov



Educational Attainment (2014 ACS, S1501)

# 5-Year Summary File

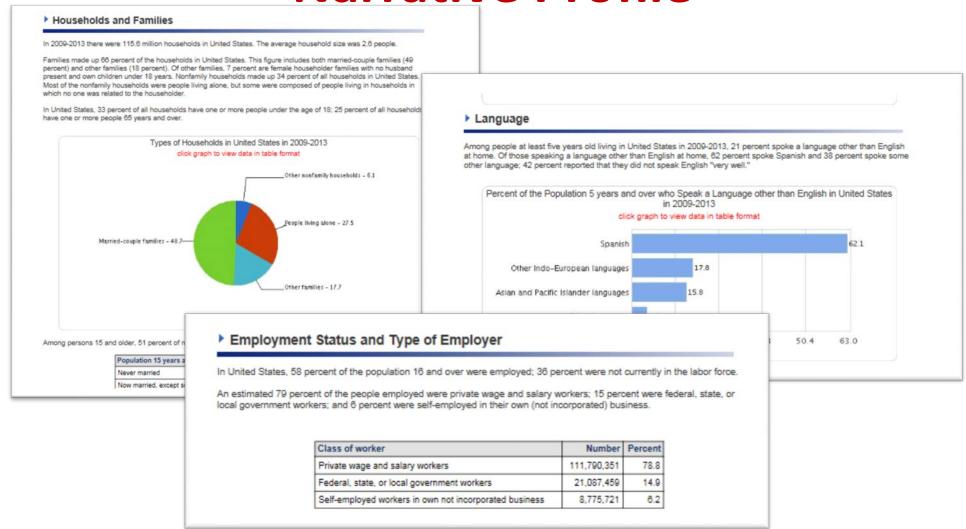


census.gov/programs-surveys/acs/data/summary-file.html



Custom Tables

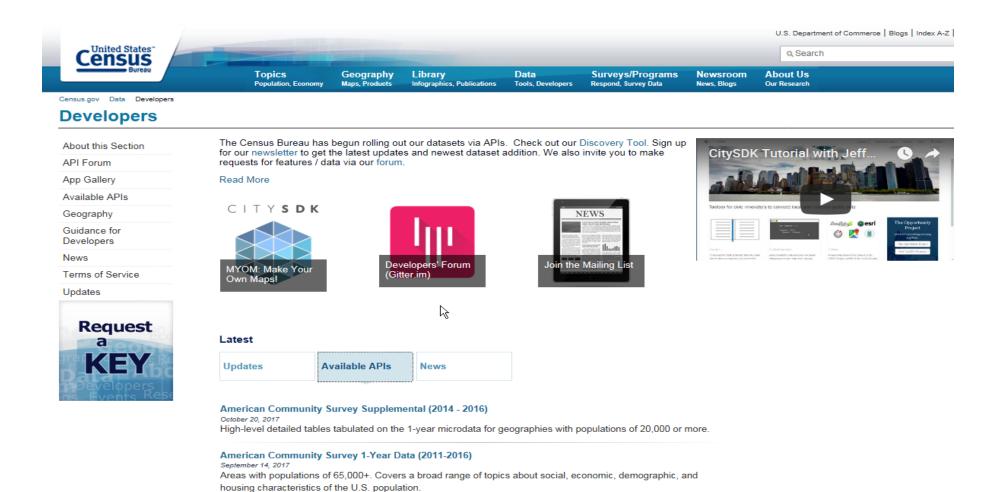
# **Narrative Profile**



census.gov/acs/www/data/data-tables-and-tools/narrative-profiles/



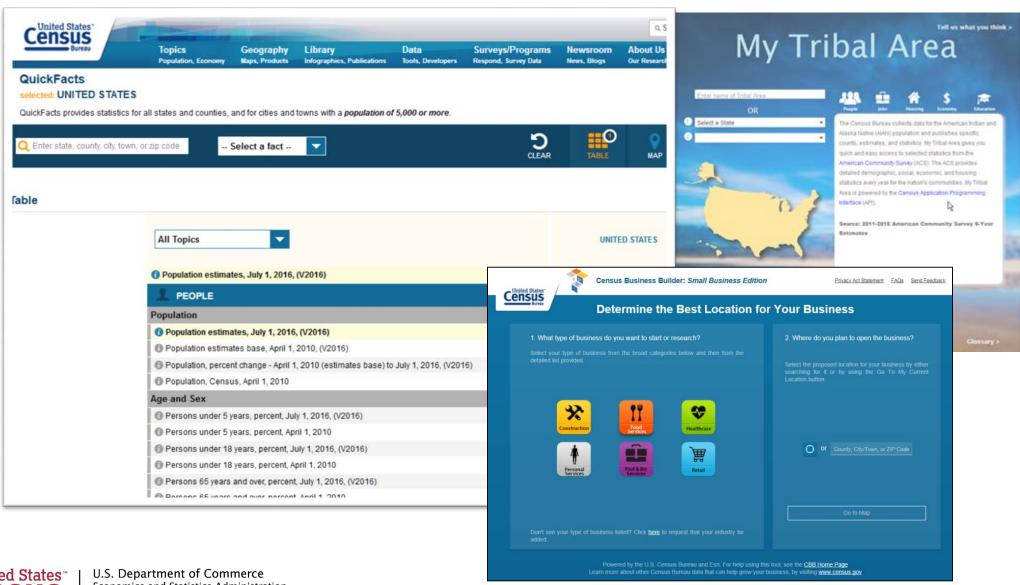
# **Application Programming Interface (API)**



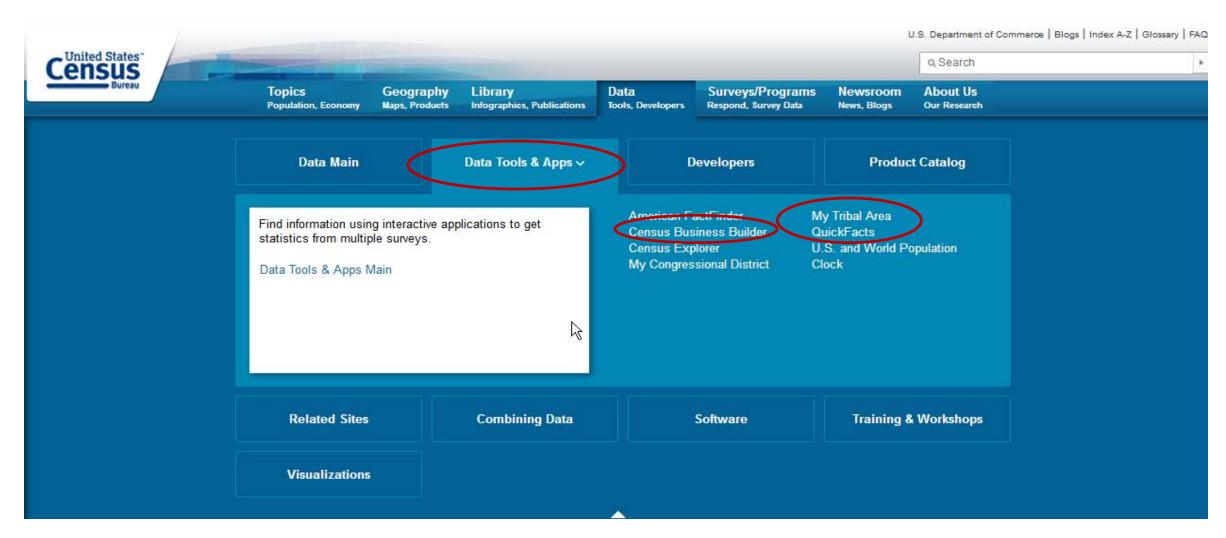
census.gov/developers



# **Data Tool Updates**



# **Accessing Data Tools**





census.gov

# Data.census.gov



# Data.census.gov - Preview Platform



### **Explore Census Data**

The Census Bureau serves as the leading source of quality data about the nation's people and economy.



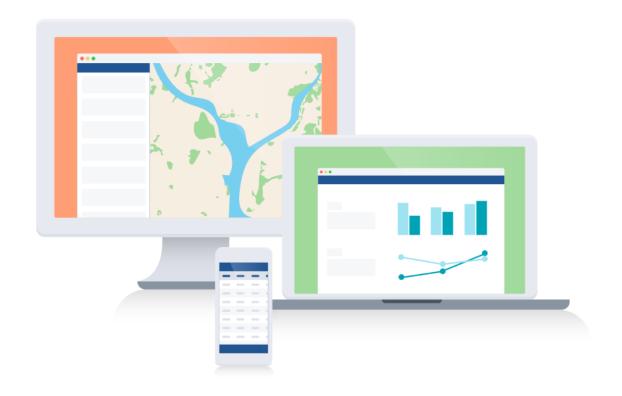




### **Explore Census Data**

The Census Bureau serves as the leading source of quality data about the nation's people and economy.











<u>data.census.gov</u> > <u>Search Results</u> > **Anne Arundel County, Maryland** 

### **Anne Arundel County**

County, or equivalent in: Maryland

#### At a Glance

Covering 414.8 square miles, Anne Arundel County is the 13th largest county in Maryland by area. Anne Arundel County is bordered by Baltimore city, Queen Anne's County, Talbot County, Kent County, Prince George's County, Howard County, Baltimore County, and Calvert County in Maryland



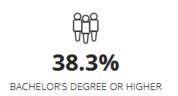


POPULATION









### People and Population





data.census.gov > Search Results > Anne Arundel County, Maryland > People and Population

Foreign Born

8.1%

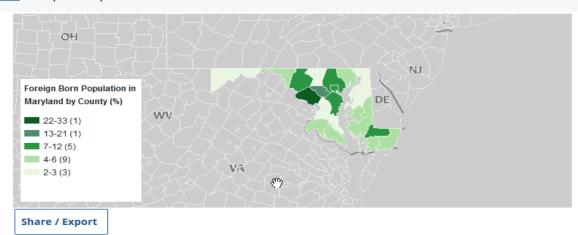
**Foreign Born** 

13.2% +/- 0.1%

Foreign Born in the United States

Survey/Program: 2015 American Community Survey 5-Year Estimates

Table: DP02



Language

10.5%

Language other than English spoken at home

21.0% +/- 0.1%

Language other than English spoken at home in the United States

Types of Language Spoken at Home in Anne Arundel County



Please visit <u>data.census.gov</u>, and let us know what you think at <u>cedsci.feedback@census.gov</u>!



# **ACS Documentation**



### **ACS Website**

Census Bureau

Topics
Population, Economy

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

9 Search

Census.gov Our Surveys & Programs American Community Survey (ACS)

#### **American Community Survey (ACS)**

About the Survey

Respond to the Survey

News & Updates

Data

Guidance for Data Users

Geography & ACS

Technical Documentation

Methodology

Library

Operations and Administration

Contact Us



The American Community Survey helps local officials, community leaders and businesses understand the changes taking place in their communities. It is the premier source for detailed information about the American people and workforce.









U.S. Department of Commerce | Blogs | Index A-Z | Glossary | FAQs

#### Latest

Data News Events Library	Data	News	Events	Library
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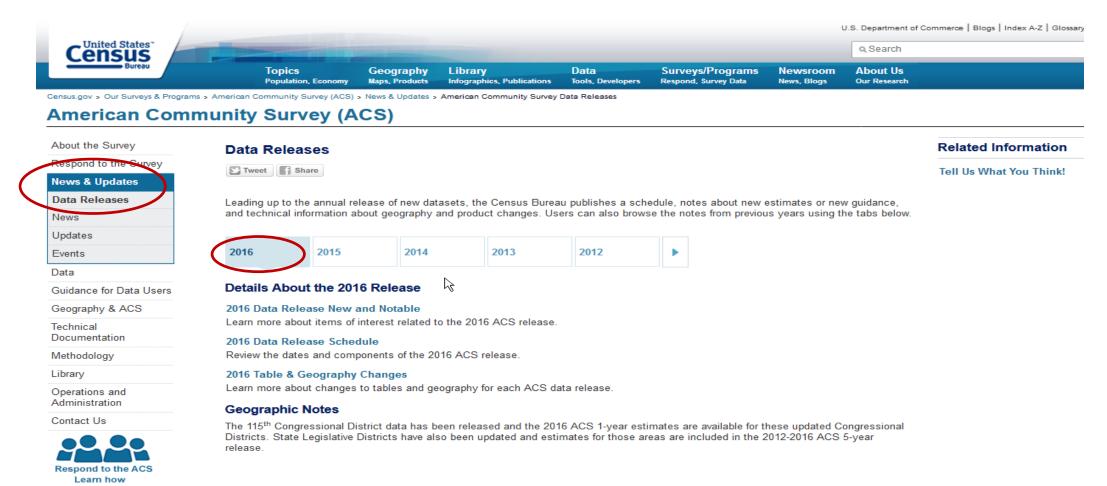
#### 2016 Data Release

Learn more about ACS data releases, including the October 19th release of 2016 ACS 1-year Supplemental Estimates and Public Use Microdata Sample (PUMS) Files.

census.gov/acs



## **Data Release Information**



census.gov/programs-surveys/acs/news/data-releases.html



# **Technical Documentation**



Census.gov > Our Surveys & Programs > American Community Survey (ACS) > Technical Documentation

#### **American Community Survey (ACS)**

About the Survey

Respond to the Survey

News & Updates

Data

Guidance for Data Users

Geography & ACS

#### Technical Documentation

Code Lists, Delinitions and Accuracy

User Notes

Errata

Data Suppression

Table & Geography

Changes
Table Shells

.....

Summary File Documentation

PUMS Documentation

Variance Replicate Tables Documentation

Race/Ethnicity and American Indian & Alaska Native Documentation

#### **Technical Documentation**

Tweet Share

The American Community Survey provides various documentation to assist users with our data releases. Click on the links below to learn more about these resources.

#### Code Lists, Definitions, and Accuracy

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

#### Errata

Learn more about errors and/or corrections related to the ACS.

#### **Table & Geography Changes**

Learn more about changes to tables and geography for each ACS data release.

#### **PUMS Documentation**

Learn more about how to work with the ACS Public Use Microdata Sample (PUMS) files.

#### **User Notes**

Learn more about issues impacting the ACS, including design, collection, production, and data release.

#### **Data Suppression**

October 01, 2016

Learn more about why certain ACS estil ates are not available due to data suppression.

Related Information

Tell Us What You Think!

#### **Summary File Documentation**

View technical documents and user tools available for the ACS Summary File.

#### Race/Ethnicity and American Indian & Alaska Native

#### Documentation

View documentation for the American Community Survey Selected Population Tables and American Indian and Alaska Native Tables

Tell Us What You Think!

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census.gov/programs-surveys/acs/technical-documentation.html





Con	ipari	son	Guidance		<b>.</b>	U.S. Department of Commerce   Blogs   Index A-Z   Glossary   FAQs		
						Q Search	<b>&gt;</b>	
Geography	Library	Data	Surveys/Programs	Newsroom	Abo	out Us		ı

Census.gov > American Community Survey (ACS) > Guidance for Data Users > Comparing ACS Data > 2016

#### 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 Table or Tool Should LUse? When to Use 1-year, 3-year, or 5-year Estimates Handbooks Comparing ACS Data Comparisons 2016 2014

United States

#### Comparing 2016 American Community Survey Data



Learn more about making the following comparisons:

ACS 1-year estimates, please reference:

- Comparing the 2016 ACS estimates with Census 2000 (second column below)
- Comparing the 2016 ACS 1-year with the 2015 ACS 1-year estimates (third column below)
- Comparing the 2016 ACS estimates with 2010 Census (fourth column below)

Comparison Guide page. If you would like to compare the 2016 ACS 1-year with estimates with ACS estimates prior to the 2015 ACS, please refer to the year-byyear comparison guidance throughout the entire time span. For example, to compare the 2016 ACS 1-year estimates with the 2014

To learn more about comparing the 2012-2016 ACS 5-year estimates with the 2007-2011 ACS 5-year estimates visit tie 5-year to 5-year

- Guidance for comparing 2016 ACS 1-year with 2015 ACS 1-year estimates
- Guidance for comparing 2015 CS 1-year with 2014 ACS 1-year estimates

Subject	2016 ACS (2016 ACS 1-Year and	2016 ACS 1-Year with 2015 ACS	2016 ACS (2016 ACS 1-Year and
Area*	2012-2016 ACS 5-Year) with Census	1-Year	2012-2016 AC\$ 5-Year) with 2010
	2000		Census

Expand All

census.gov/programs-surveys/acs/guidance/comparing-acs-data/2016.html



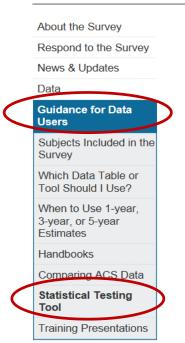
2013

# **Statistical Testing Tool**



Census.gov > Our Surveys & Programs > American Community Survey (ACS) > Guidance for Data Users > Statistical Testing Tool

#### **American Community Survey (ACS)**

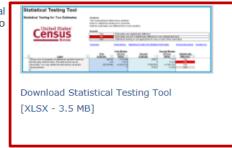


#### **Statistical Testing Tool**



Comparing American Community Survey (ACS) estimates involves more than determining which statistic is higher or lower. Users should also conduct statistical testing to make sure differences are statistically significant and are unlikely to have occurred by chance. This testing takes into account the margin of error (MOE) associated with survey estimates, which are based on responses from only a sample of the full population.

Looking for an easy way to conduct statistical testing? Try the Census Bureau's new Statistical Testing Tool. Simply copy or download ACS estimates and their MOEs into the spreadsheet to get instant results of statistical tests.



#### **Tool Features:**

- Compares up to 3,230 pairs of estimates at once
- Compares multiple estimates simultaneously (up to 150 estimates)
- Displays statistical testing results ("Yes", "No") automatically

census.gov/programs-surveys/acs/guidance/statistical-testing-tool.html



# **Questions?**



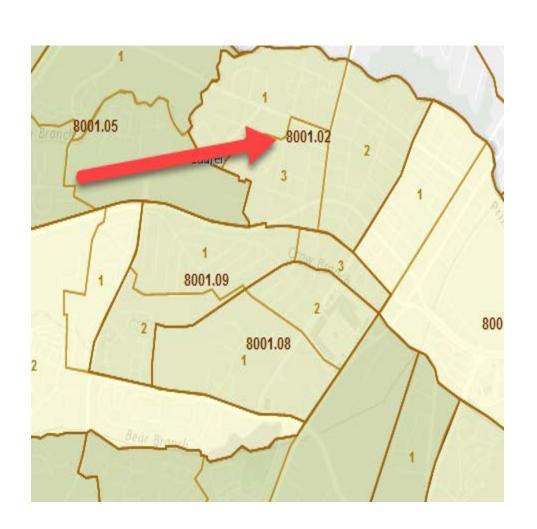
Dial \*1 for the Operator

After Questions Stay for a Demo:
How to Access 5-Year Block Group Data on
American FactFinder

# Accessing ACS 5 Year Block Group Data in American Factfinder



# What is a Block Group?



Population of:

Block Group 1 = 740

+Block Group 2 = 1565

+Block Group 3 = 577

\_\_\_\_\_

Tract 8001.02 = 2882



## **Access American FactFinder**

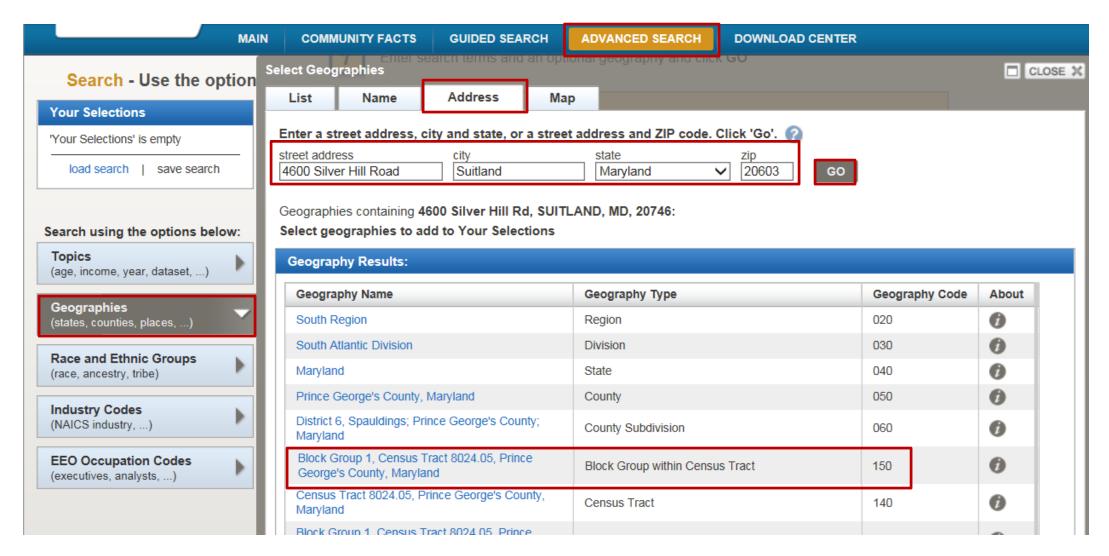


**Popular Tables** 

factfinder.census.gov

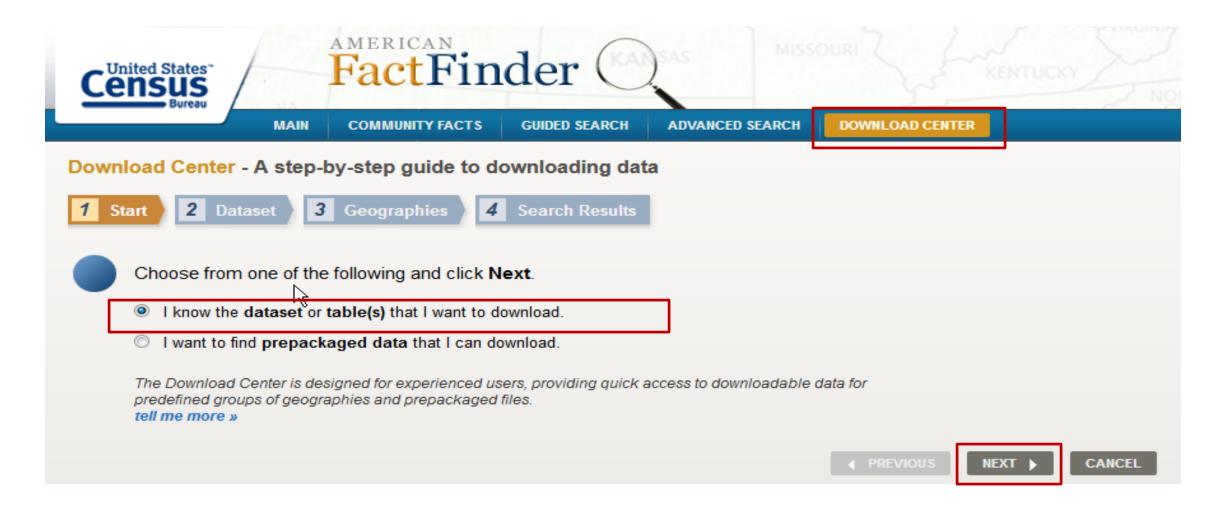


## Finding Your Block Group in American FactFinder



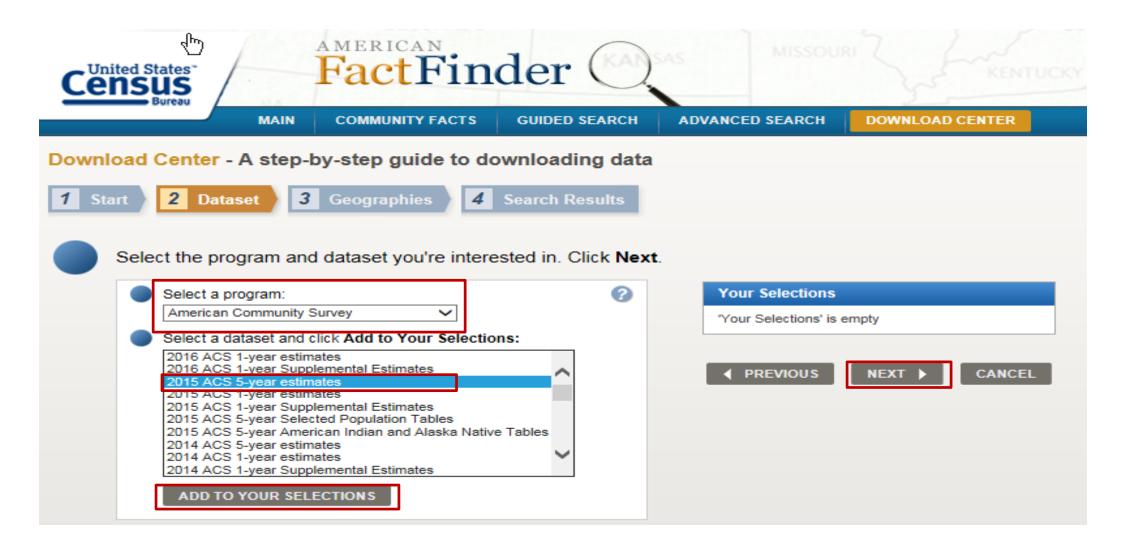


## 1. Start



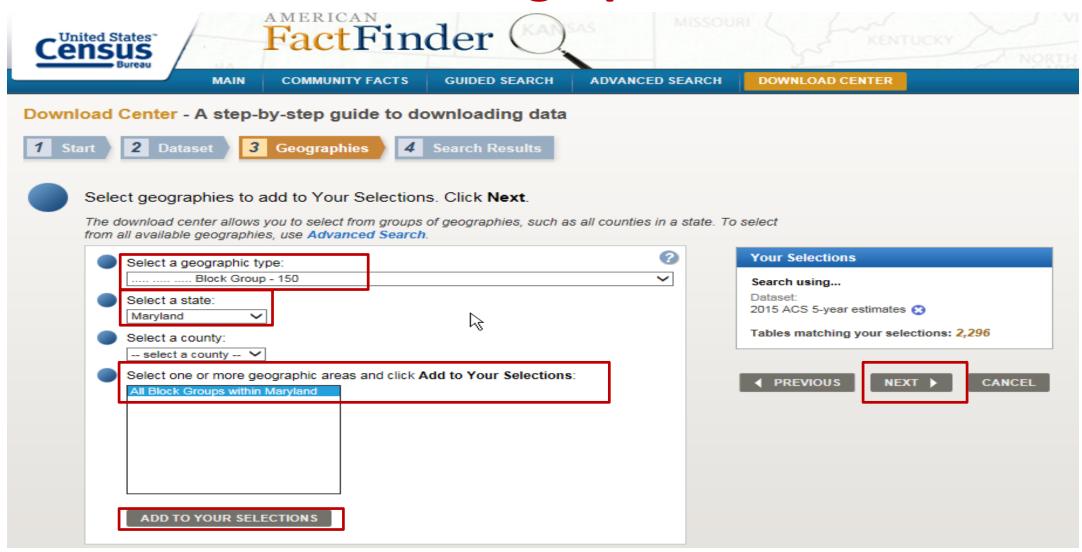


#### 2. Dataset



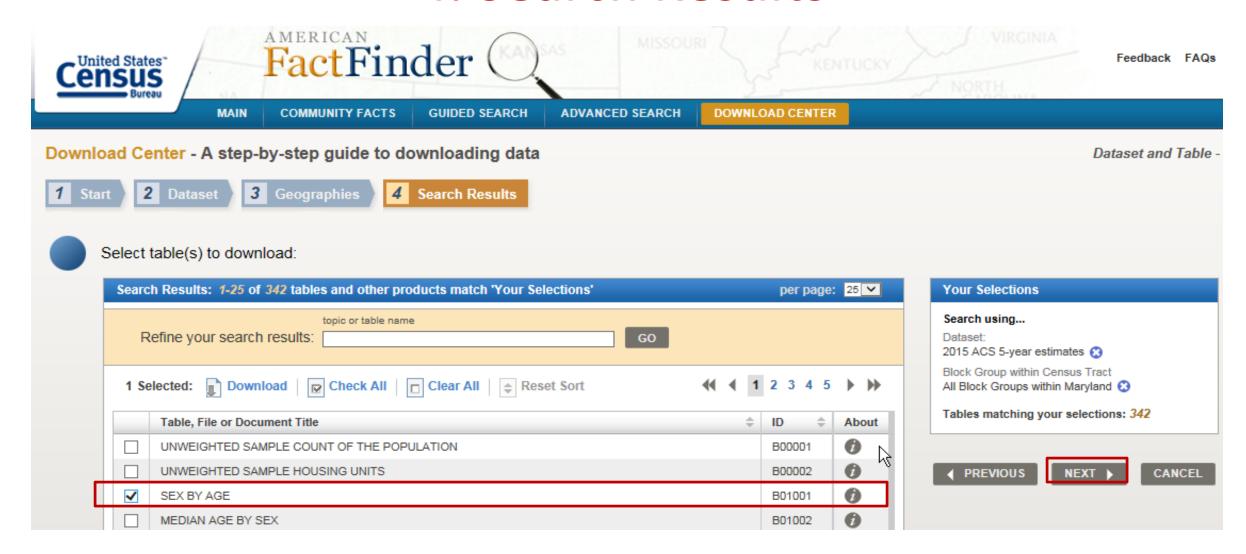


# 3. Geographies



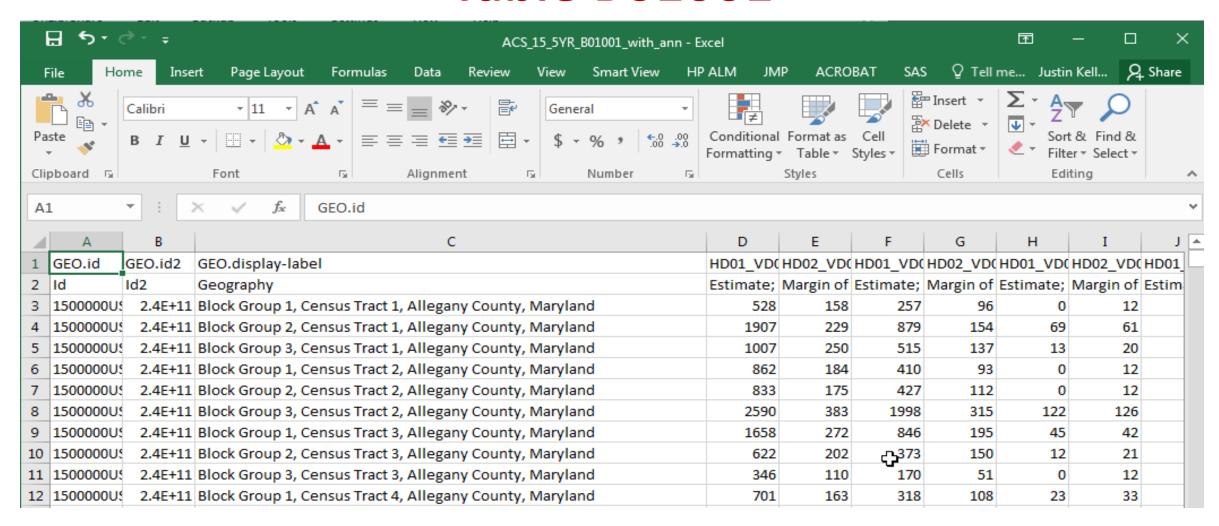


## 4. Search Results





## **Table B01001**





# **Questions?**



Dial \*1 for the Operator

\* Please Stay to Fill Out an Online EVALUATION FORM



#### 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

acsdatacommunity.prb.org

# **Need Local Stats or Training?**

## We Can Help!

Regional Data Staff

-census.askdata@census.gov

State Data Centers

& Census Information Centers

-census.gov/sdc





# **Questions?**



Dial \*1 for the Operator

\* Please Stay to Fill Out an Online EVALUATION FORM

#### For Further Information

Media Public Information Office

pio@census.gov

301-763-3030

**Non-Media** Customer Service Center

1-800-923-8282 or

301-763-INFO (4636)

**Press Kit** 



#### **Continue the Conversation #ACSData**







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# **Evaluation**



