



## Making National Data Local: Using American FactFinder to Describe Local Hispanic Communities

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## Why research on low-income Hispanic children and families matters

Hispanic children currently make up roughly one in four of all children in the United States,<sup>a</sup> and by 2050 are projected to make up one in three, similar to the number of white children.<sup>b</sup> Given this, how Hispanic children fare will have a profound and increasing impact on the social and economic well-being of the country as a whole.

Notably, though, 5.7 million Hispanic children, or one third of all Hispanic children in the United States, are in poverty, more than in any other racial/ethnic group. Nearly two thirds of Hispanic children live in low-income families, defined as having incomes of less than two times the federal poverty level. Despite their high levels of economic need, Hispanics, particularly those in immigrant families, have lower rates of participation in many government support programs when compared with other racial/ethnic minority groups. High-quality, research-based information on the characteristics, experiences, and diversity of Hispanic children and families is needed to inform programs and policies supporting the sizable population of low-income Hispanic families and children.

- <sup>a</sup>Federal Interagency Forum on Child and Family Statistics. (2014). America's Children: Key National Indicators of Well-Being, 2014, Table POP3. Washington, DC: Government Printing Office. <a href="http://www.childstats.gov/americaschildren/tables.asp">http://www.childstats.gov/americaschildren/tables.asp</a>
  <sup>b</sup> Federal Interagency Forum on Child and Family Statistics. (2012). America's Children: Key National Indicators of Well-Being, 2012, Tables POP1 and POP3. Washington, DC: Government Printing Office. <a href="http://www.childstats.gov/americaschildren/tables.asp">http://www.childstats.gov/americaschildren/tables.asp</a>
- <sup>c</sup> DeNavas-Walt, C., & Proctor, B.D. (2015). *Income and Poverty in the United States: 2014, Table B-2, Current Population Reports, P60-252.* Washington, DC: U.S. Department of Commerce, U.S. Census Bureau. <a href="http://www.census.gov/content/dam/Census/library/publications/2015/demo/p60-252.pdf#TableB-2">http://www.census.gov/content/dam/Census/library/publications/2015/demo/p60-252.pdf#TableB-2</a>
  <sup>d</sup> Lopez, M. H., & Velasco, G. (2011). *Childhood Poverty Among Hispanics Sets Record, Leads Nation.* Washington, DC: Pew Research Hispanic Center. <a href="http://www.pewhispanic.org/2011/09/28/childhood-poverty-among-hispanics-sets-record-leads-nation/">http://www.pewhispanic.org/2011/09/28/childhood-poverty-among-hispanics-sets-record-leads-nation/</a>
- \*Williams, S. (2013). Public assistance participation among U.S. children in poverty, 2010. Bowling Green, Ohio: National Center for Family & Marriage Research. http://www.bgsu.edu/content/dam/BGSU/college-of-arts-and-sciences/NCFMR/documents/FP/FP-13-02.pdf

f Lichter, D., Sanders, S., & Johnson, K. (2015). Behind at the starting line: Poverty among Hispanic infants. Durham, NH: University of New Hampshire, Carsey School of Public Policy. http://scholars.unh.edu/cgi/viewcontent.cgi?article=1250&context=carsey

<sup>9</sup>Child Trends Databank. (2014). *Health care coverage*. Bethesda, MD: Child Trends. http://www.childtrends.org/?indicators=health-care-coverage Local agencies and leaders work hard to meet the service needs of low-income Hispanic populations in their communities. They actively seek ways to better serve low-income Latino children and families, better understand their community's needs, and expand their reach to those who may not be receiving the assistance they need. To meet these goals, having up-to-date, high-quality information on the local Hispanic population—and the diversity within this population—is critical.

In this guide, we describe how agencies can use the U.S. Census Bureau's American FactFinder tool to get data from the American Community Survey (ACS) for their local area. There are a wide range of questions that can be answered with American FactFinder. Here, we answer just a few, for two U.S. counties in two separate states. Using these counties as case studies, we demonstrate how to answer the following questions:

- What percentage of the population in my county is Hispanic? How does this compare to the percentage in my state?
- What percentage of the Hispanic residents in my county are foreign-born?
   How does this compare to the percentage in my state?
- What percentage of the Hispanic residents in my county do not speak English very well?

We also demonstrate how to generate results answering these questions for multiple time periods, how to export American FactFinder results into user-friendly tables, and how to interpret some basic results. Once users become familiar with American FactFinder, they will be able to answer a wide range of questions for any geographic area they are interested in. It is important to note that as new data become available, the tables and estimates available may change and search results may not look exactly as shown in this guide.

### **American FactFinder**

American FactFinder<sup>a</sup> is a free, online data tool hosted by the U.S. Census Bureau<sup>b</sup> that allows users to tabulate data on the population of the United States, Puerto Rico, and the Island Areas of the United States.<sup>c</sup> The tool uses data from several U.S. censuses and surveys,<sup>d</sup> including the American Community Survey (ACS). The ACS is a nationally representative ongoing survey designed to provide up-to-date information on the demographic, housing, social, and economic characteristics of the country and its communities.

American FactFinder includes measures across a range of topics, including population, housing, poverty, income, age, race, sex, and education. The public can tabulate data at different geographic areas, including by state, county, city, and approximate ZIP Code area. For Some of these data are available at multiple points in time, allowing one to measure stability or shifts over time. Notably, American FactFinder includes variables that measure critical aspects of diversity within the Hispanic population, including nativity (U.S.-born or foreign-born), English-language proficiency, Hispanic ancestry/heritage, citizenship status, and language spoken at home.

In this guide, we focus on three characteristics that are particularly meaningful for understanding the experiences and potential service needs of Hispanic residents in a community—population size, nativity, and English-language proficiency. However, American FactFinder can also be used to examine a wide range of other individual and household characteristics that may be of interest to community stakeholders.

### San Bernardino County, Calif. and Paulding County, Ga.

To answer the questions posed at the beginning of this guide, and to illustrate the potential of American FactFinder, we present data on population size, nativity, and English-language proficiency from two counties with very different population profiles: San Bernardino County, Calif. and Paulding County, Ga.<sup>h</sup> Having state data in addition to county data provides some useful context for the interpretation of these estimates.

- San Bernardino County is one of the 10 U.S. counties with the largest Hispanic populations. In 2011, more than one million Hispanics lived in San Bernardino County.
- Paulding County has a relatively small Hispanic population. However, as in many counties in the southeastern part of the United States, the Hispanic population in Paulding County has increased very rapidly—it is more than 4 times greater than it was in 2000.

To assess change in the Hispanic population over time, we tabulate these data from two time periods: 2005 to 2009 and 2010 to 2014.<sup>k</sup>

In this guide, we take users through the steps needed to get data for two counties. That is, we generate tables that include data for both San Bernardino County and Paulding County. This allows for comparisons across counties with very different Hispanic profiles. Users can also follow the steps in this guide to get data for just one county, or for any other geographic area of interest, if they prefer.

<sup>&</sup>lt;sup>k</sup> These estimates are from the 2005 to 2009 and 2010 to 2014 ACS 5-year estimates, respectively. Importantly, the two time periods do not overlap. Tests of differences between time periods are most reliable when periods do not overlap. Users should use caution in interpreting differences between periods with overlapping years (for example, between the 2010 and 2014 ACS 5-year estimates, which overlap in 2010).



<sup>&</sup>lt;sup>a</sup> http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml

b http://census.gov/

 $<sup>^{\</sup>mbox{\tiny c}}$  This is how the Census refers to U.S. territories in American FactFinder.

d http://factfinder.census.gov/faces/nav/jsf/pages/what\_we\_provide.xhtml

<sup>&</sup>lt;sup>e</sup> The Census Bureau uses ZIP Code Tabulation Areas (ZCTAs) based on the most frequently occurring ZIP Code in an assigned area. Read more about how the areas are created at <a href="https://www.census.gov/geo/reference/zctas.html">https://www.census.gov/geo/reference/zctas.html</a>.

<sup>&</sup>lt;sup>f</sup> It is important to note that not all data are available at all geographies or for every time period.

http://www.childtrends.org/?publications=improving-data-infrastructure-to-recognize-hispanic-diversity-in-the-united-states

h We selected these two counties based on the Pew Research Center's ranking of counties with the largest and fastest-growing Latino populations between 2000 and 2011

<sup>&</sup>lt;sup>i</sup> http://www.pewhispanic.org/2013/08/29/iii-ranking-latino-populations-in-the-nations-counties/

<sup>&</sup>lt;sup>j</sup> http://www.pewhispanic.org/2013/08/29/iii-ranking-latino-populations-in-the-nations-counties/

### **Using American FactFinder**

While the American FactFinder tool is relatively easy to use, there are multiple ways to find the same information, some of which are more complex than others. For this reason, we strongly recommend that users new to American FactFinder follow the steps as laid out below; once users become familiar with the tool, they can explore its uses more confidently.

#### 1. Getting started

To start using American FactFinder, in your Internet browser go to <a href="http://factfinder.census.gov/">http://factfinder.census.gov/</a>.

Click on "Advanced Search" and click "Show Me All."



Important Note: Save searches regularly, otherwise you will be timed out after about 15 minutes of inactivity and will lose your selections and search results.

Selecting topics is the first step presented by American FactFinder (FactFinder). However, we select geography first, as some topics/measures are not available in certain geographic areas.

On the Advanced Search page, it is possible to enter specific search terms and places. This is a great way to browse the tool. In this guide, however, we take users through clearly defined steps to ensure we select all of the criteria we are interested in.



#### 2. Select desired area

In this section, we select the type of geography we want (e.g., state or county) followed by the specific place we want (e.g., California).

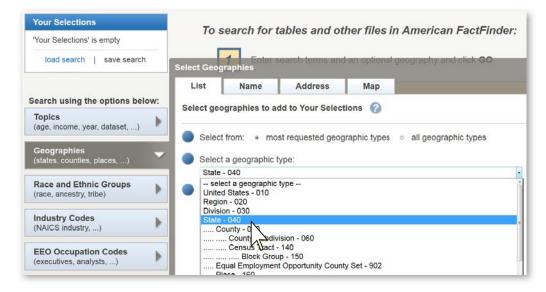
Before we start, we want to make sure there are no search criteria already stored in the "Your Selections" box. The box should say, "Your Selections' is empty":



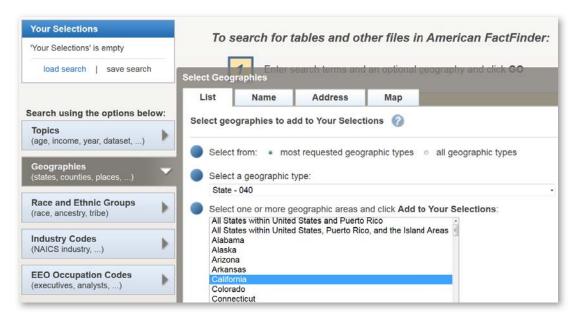
If anything is already loaded, click on "clear all selections and start a new search."

In this guide, we select specific geographies from the drop-down menu. However, FactFinder recently added a new map feature which can also be used to select and compare locations. Users interested in exploring this new feature can find information and instructions from the Census Bureau at <a href="http://factfinder.census.gov/files/Updates">http://factfinder.census.gov/files/Updates</a> to AFF R11.pdf.

- From the left-hand menu, select "Geographies."
- To select the two states in which our counties are located, make sure you are in the "List" tab (this is the default) and click on the drop-down menu for "Select a geographic type." First, select "State 040." From the resulting list of states, select California. Click "Add to your selections"—your geographic specifications will not be included in your search criteria otherwise!







Once that is done, go back to the state list, select Georgia, and add it to your selections.

Notice that in the upper left "Your Selections" box, California and Georgia are now listed. It is important to note here that FactFinder treats additions to "Your Selections" as *additional* criteria rather than alternative criteria—that is, for our geography selections, the results will present products available in both California *and* Georgia, rather than in California *or* Georgia.<sup>m</sup>



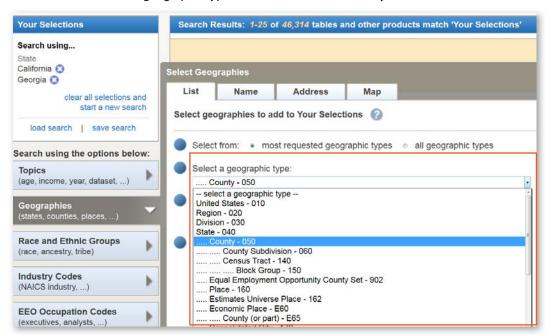
There we select two locations, in part to show how FactFinder can be used to look at more than one location. Note, however, that more products may be available when restricting a search to just one location.



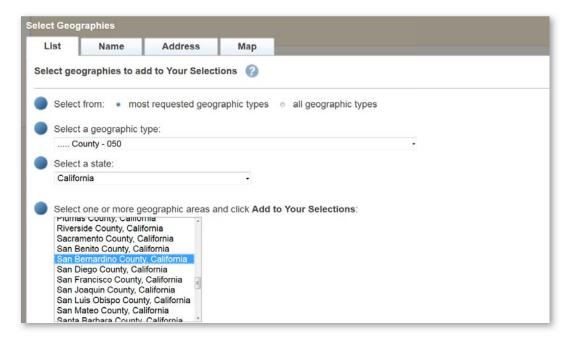
<sup>&</sup>lt;sup>1</sup> You can also use the CTRL key to select both states in the same step.

Next, we will select our counties of interest.

Go back to "Select a geographic type," and this time, select "County – 050."



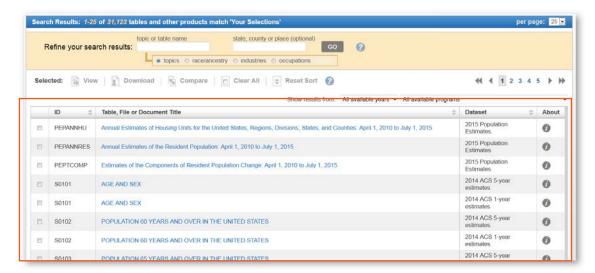
- A new menu will appear below to select a state. Select California.
- The menu below will fill in California counties. Scroll down the menu and select San Bernardino County, and then click "Add to your selections." You should now see San Bernardino County listed in the upper left box titled "Your Selections."





• To add our second county, select Georgia, then Paulding County. Now select "Add to Your Selections." In the upper left, you can see the full selection of geographic specifications.

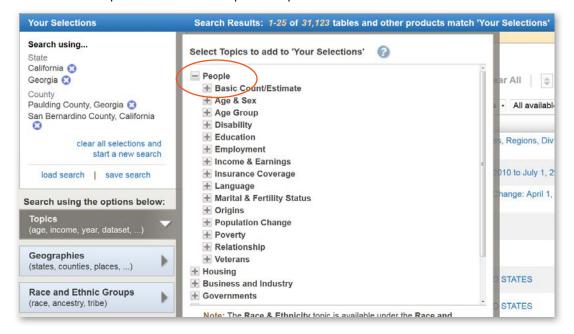
Closing the "Geographies" box, you will see a first set of search results, based on what is available for both selected geographic locations:



## 3. Getting data to answer Question 1: What percentage of the county is Hispanic? How does that compare to the state?

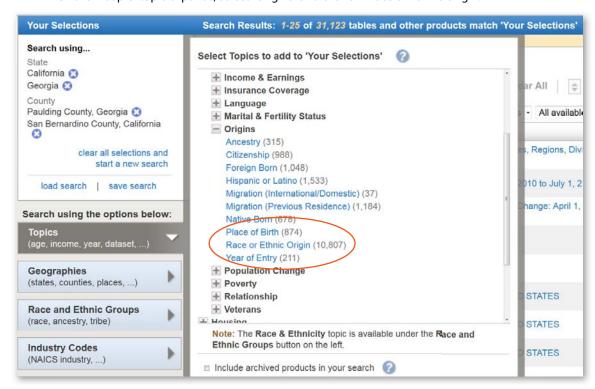
In this section, we specify search criteria that will help us identify what percentage of our counties' populations are Hispanic, and how these percentages compare to those of the counties' respective states. Later we will narrow our search to just Hispanics, but first we need to get a broader look at the racial/ethnic distribution of our counties and states.

• Go to the "Topics" box and click to expand "People."



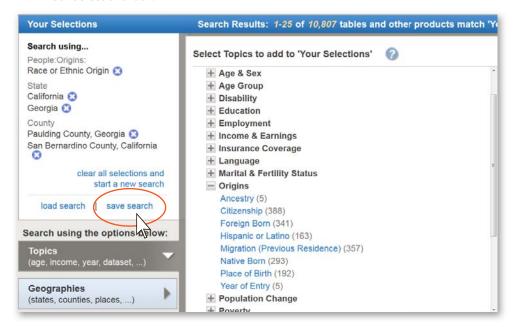


• When the "People" topic expands, select "Origins" and click on "Race or Ethnic Origin."



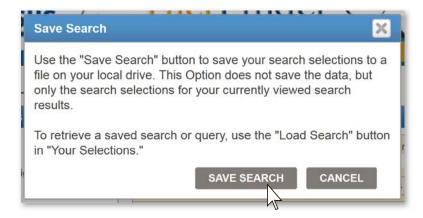
The number in parentheses after each topic indicates the number of products available for that criterion. For example, 10,807 products are available for "Race and Ethnic Origins." Note that as new datasets are released, and depending on the locations you select as you explore FactFinder, these numbers may differ from the screenshots provided in this guide.

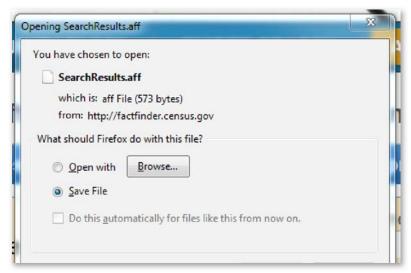
- Close the "Topics" box.
- Users have the option to "save search" (i.e., save a particular selection of search criteria), which may be helpful if you need to
  work on a search in multiple sessions or repeatedly come back to your search criteria. To do this, click on "save search" in the
  "Your Selections" box.



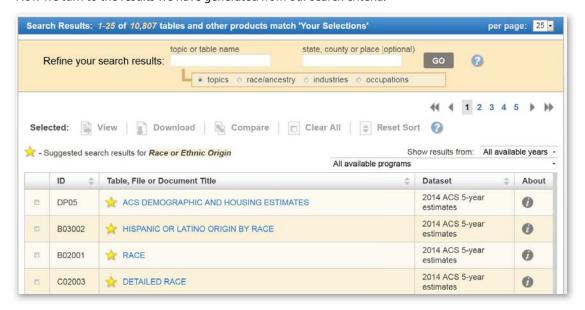


When you click to save the search, you will be presented with a FactFinder file to save on your computer, which you can then load (i.e., load your search criteria without going through all the steps again) at a later date by clicking on the "load search" link to the left of "save search."





Now we turn to the results we have generated from our search criteria.



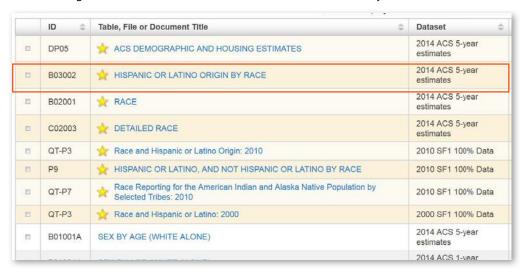


The search results will list the tables and other resources that match your search parameters. By default, the most recent resources will be listed first, but users may re-sort the list using the up/down arrow buttons in the column tabs. You can also select a specific year in the "Show results from" drop-down menu to the right above the table results, or by selecting specific datasets in the "Topics" box (e.g., 2014 ACS 5-year estimates, 2013 ACS 1-year estimates).

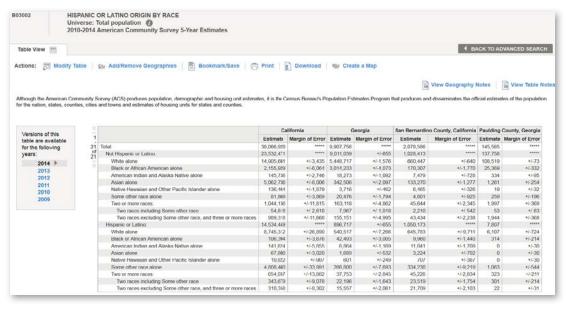
Looking at the "Dataset" column, you will notice that some of the tables use just one year of data (e.g., 1-year estimates), while others use combined data – that is, they combine data from multiple years of a survey (e.g., 5-year estimates). You may notice that multiple tables listed have the same ID and name, but use different years, or a different number of survey years (e.g., 3-year estimates vs. 5-year estimates). You should select your table carefully. Note that the order of tables will change as new data are added to FactFinder.

To find the percentage of our counties' populations that are Hispanic, select the table with **ID B03002**, "Hispanic or Latino Origin by Race," from the 2014 ACS 5-year estimates dataset.

• Click on the table title. Note that if you sorted the results in a different way, the table may not be exactly where it appears in the image below. You can enter the table ID or title in the "Refine your search results" box to find it.



This table shows the total racial/ethnic distribution of our selected states and counties, with Hispanics and non-Hispanics further broken down by race. The loaded table should look like this:

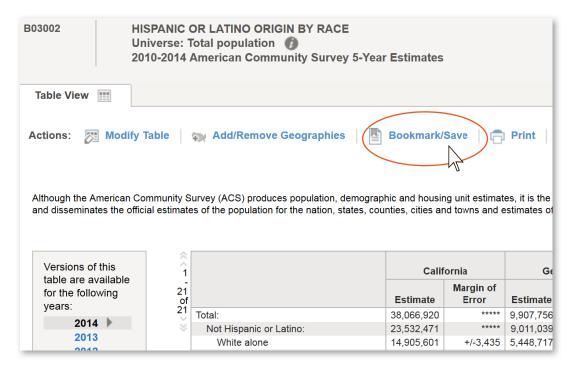


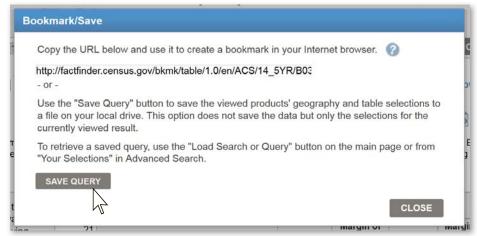
Available datasets may change with each additional search criterion. This is because specific measures for specific populations in specific geographies are not always available for every year. This is especially the case at the county level, where the ACS sample design and smaller populations often require data to be pooled across multiple years to generate reliable estimates.
HISPANIC
CHILDREN

10

Some users may want to save a permanent link to their table to use in a report or website. To do this:

- Click "Bookmark/Save" and copy the link provided, which is a permanent link—the link in the URL bar is not permanent beyond your FactFinder session.
- You can also save the query as a file on your computer so you can load it into FactFinder in the future without going through all of the search steps.





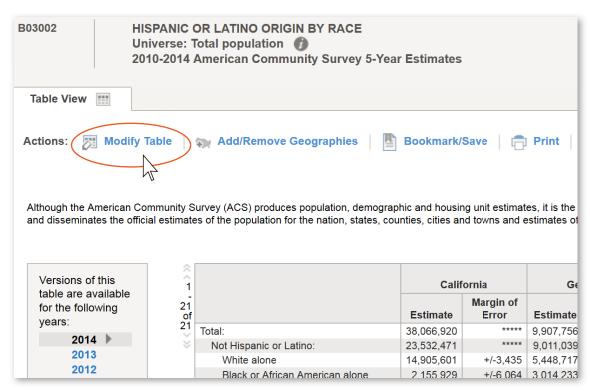


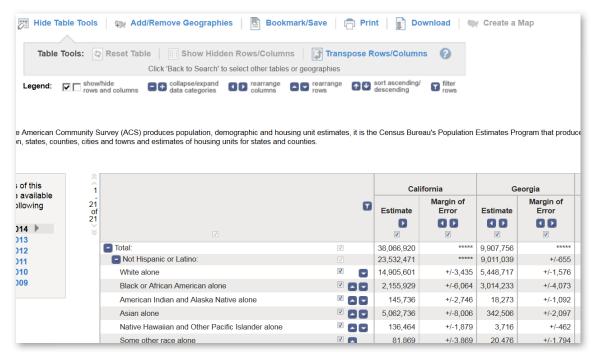
#### 4. Modify and save your table

In this section, we demonstrate how to edit or adjust the above table.

For ease of interpretation, we will rearrange columns so counties are located next to their respective states:

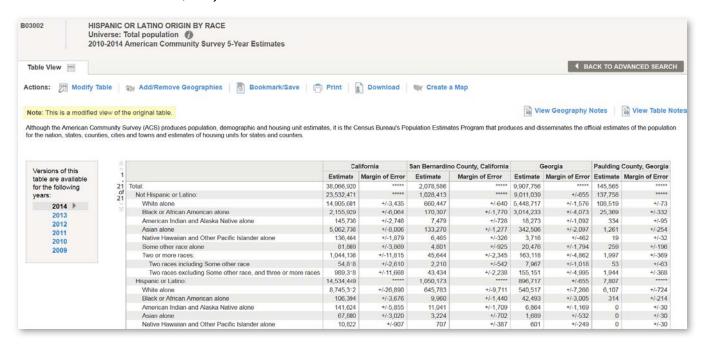
- Click on "Modify Table," listed under "Actions."
- · Arrows under column headers allow you to move columns left or right (you can also move rows up and down, if desired).







- Click the left/right arrows under "Estimate" in the columns, so that San Bernardino County comes after California, and Paulding County comes after Georgia.
- Note that you will have to do this for both the "Estimate" column and the "Margin of Error" column, for each county.
- You may uncheck the boxes under the arrows in the "Margin of Error" columns to hide them. Here we leave them, because if you wish to take the additional step of assessing whether change between time periods is statistically significant, you will need them.
- Now click "Hide Table Tools," and your table should look like this:



The highlighted note toward the upper left indicates you are looking at a modified table.

Note that to save a modified table, you will be presented only with the option to save a file, not a permanent URL.

#### 5. Export your table(s)

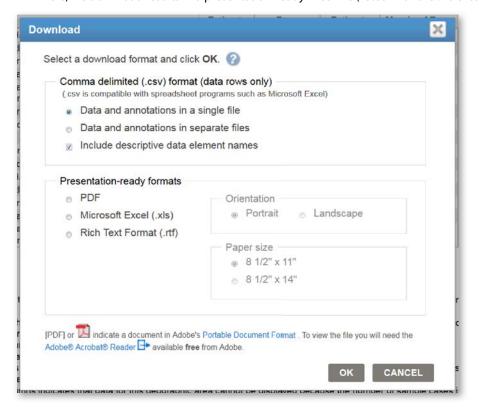
In this section, we show how to export your table(s) so it can be put in a report or PowerPoint presentation, for example. Additionally, since users may want to do additional calculations with the data, such as calculate specific totals and percentages, we demonstrate how to save the data in your table as an Excel file.

To download and export the table, click the "Download" tab and select your preferred format.

You can choose presentation-ready formats or comma delimited formats (.csv). The presentation-ready formats are useful for tables that will be viewed by people other than the user. Note that you do NOT have to download a presentation-ready format—other formats will download .csv files, which some users may prefer.



Here, we download results in a presentation-ready Excel file (listed with the .xls extension in the download box).



• Click "OK." A download progress bar will appear and you can click "Download" when the file is ready. A window will pop up so you can open the Excel file.

9		California	California	San	San	Georgia	Georgia	Paulding	Paulding
10		Estimate	Margin of	Estimate	Margin of	Estimate	Margin of	Estimate	Margin of
11	Total:	38,066,920	****	2,078,586	*****	9,907,756	*****	145,565	*****
12	Not Hispanic or Latino:	23,532,471	*****	1,028,413	*****	9,011,039	+/-655	137,758	****
13	White alone	14,905,601	+/-3,435	660,447	+/-640	5,448,717	+/-1,576	108,519	+/-73
14	Black or African American alone	2,155,929	+/-6,064	170,307	+/-1,770	3,014,233	+/-4,073	25,369	+/-332
15	American Indian and Alaska Native	145,736	+/-2.746	7,479	+/-728	18,273	+/-1,092	334	+/-95
16	Asian alone	5,062,736	+/-8,006	133,270	+/-1,277	342,506	+/-2,097	1,261	+/-254
17	Native Hawaiian and Other Pacific	136,464	+/-1,879	6,465	+/-326	3,716	+/-462	19	+/-32
18	Some other race alone	81,869	+/-3,869	4,801	+/-925	20,476	+/-1,794	259	+/-196
19	Two or more races:	1,044,136	+/-11,815	45,644	+/-2,345	163,118	+/-4,862	1,997	+/-369
20	Two races including Some other	54,818	+/-2,610	2,210	+/-542	7,967	+/-1,018	53	+/-63
21	Two races excluding Some other	989,318	+/-11,668	43,434	+/-2,238	155,151	+/-4,995	1,944	+/-368
22	Hispanic or Latino:	14,534,449	****	1,050,173	*****	896,717	+/-655	7,807	****
23	White alone	8,745,312	+/-26,890	645,783	+/-9,711	540,517	+/-7,266	6,107	+/-724
24	Black or African American alone	106,394	+/-3,676	9,960	+/-1,440	42,493	+/-3,005	314	+/-214
25	American Indian and Alaska Native	141,624	+/-5,855	11,041	+/-1,709	6.864	+/-1,169	0	+/-30
26	Asian alone	67,800	+/-3,020	3,224	+/-702	1,689	+/-532	0	+/-30
27	Native Hawaiian and Other Pacific	10,822	+/-907	707	+/-387	601	+/-249	0	+/-30
89	Some other race alone	4,808,460	+/-33,991	334,230	+/-9,219	266,800	+/-7.693	1,063	+/-544
29	Two or more races:	654,037	+/-13,882	45,228	+/-2,834	37,753	+/-2,845	323	+/-211
30	Two races including Some other	343,679	+/-9,078	23,519	+/-1,754	22,196	+/-1,643	301	+/-214
31	Two races excluding Some other	310,358	+/-8,302	21,709	+/-2,103	15,557	+/-2.061	22	+/-31

• Make sure to save your exported table to your own computer, because we will be coming back to it later to interpret our results.

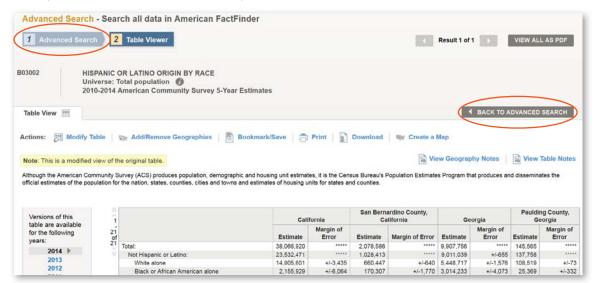


## 6. Getting data to answer Question 2: What percentage of the county's Hispanic population is foreign-born? How does that compare to the state?

In this section, we specify search criteria that will help us identify what percentage of these counties' Hispanic residents are foreign-born, and how these percentages compare to those for the counties' respective states.

Go back to the Advanced Search.

• If your FactFinder session is still active, you can click on either of the two buttons circled below and return to your search.

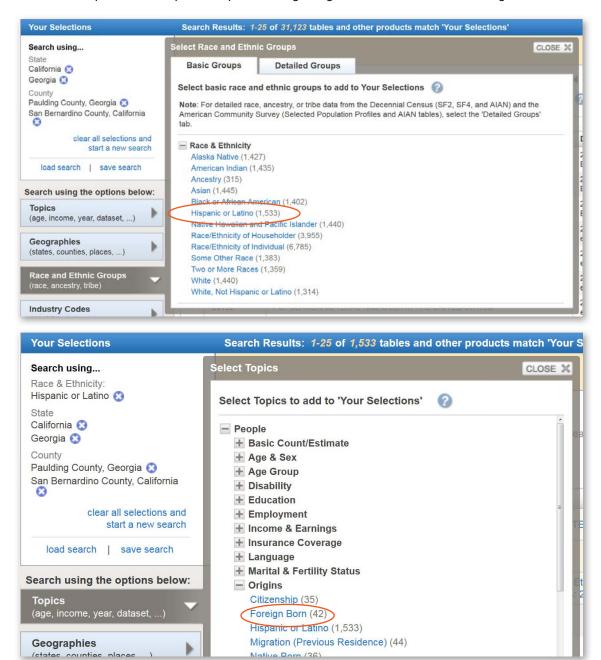


- If your FactFinder session has ended (generally after 30 minutes of inactivity), you will need to re-select your geographic criteria.
- If you previously saved your search criteria, you can re-generate your search criteria by clicking "load search."
- To choose a different indicator for our same counties and states, make sure to remove any search criteria still loaded, other than geography, by clicking the "x" to the right of each previously selected criterion.
- Verify that our states (California and Georgia) and counties (San Bernardino, CA and Paulding, GA) are selected as before.



The question we want to answer is about the foreign-born population *within* the Hispanic population, as opposed to the broader foreign-born population. Therefore, we are going to highlight a FactFinder feature that allows users to specify race/ethnicity as a search criterion to get data specific to that population.

- Under "Topics," click on "Race and Ethnic Groups."
- Under "Topics," click to expand "People" and "Origins" again, and this time click on "Foreign Born."



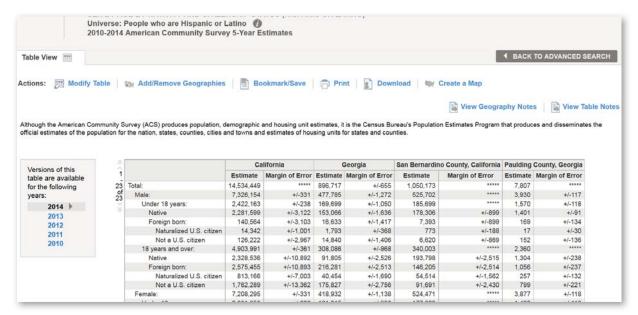
In this guide we focus on the "Hispanic or Latino" population as a group, but it is also possible to search for information on specific Hispanic (or other) subgroups by using the "Detailed Groups" tab and either browsing categories or typing your desired group (e.g., Mexican, Puerto Rican, Cuban) in the "Detailed Groups" tab's search window.

o To find data on the broader foreign-born population, we could go into "Topics," expand "People" and "Origins" as we did before, and select "Foreign Born."



The updated search results will now include products for our selected states, counties, and the Hispanic or Latino population.

- Scroll until you see table with ID B05003I, "Sex by Age by Nativity and Citizenship (Hispanic or Latino)," from the 2014
  ACS 5-year dataset.
- Click on the table. It should look like this:



- Modify the table as desired. We again move the columns so that the counties are next to their respective states (see Section 4).
- Export and download your table to Excel (see Section 5).
- Save the downloaded file; we will be coming back to it later when we interpret out results.

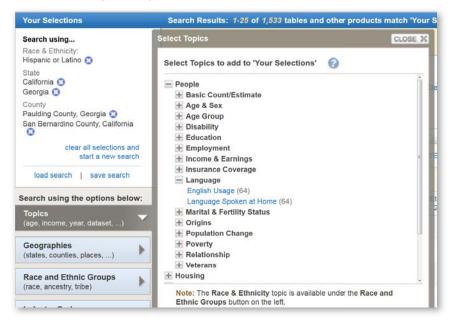
# 7. Getting data for Question 3: What percentage of the Hispanic residents in the county do not speak English very well? How does that compare to the percentage in the state?

In this section, we show how to get data on English-language proficiency among our counties' Hispanic populations.

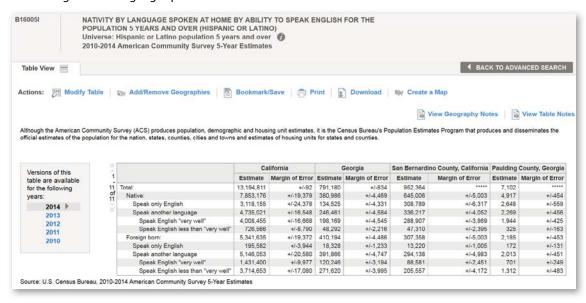
- Return to your Advanced Search. If necessary, re-select or re-load the geographic search and race/ethnicity (Hispanic or Latino) criteria.
- Remove any criteria still loaded in the search, other than geography, by clicking the "x" next to each of the previously selected criterion.



- Click on "Topics" and click to expand "People," as shown earlier.
- This time, click to expand "Language."
- Click on "English Usage."



- Close the "Topics" box.
- Click on table B16005I, "Nativity by Language Spoken at Home by Ability to Speak English for the Population 5 Years and Older (Hispanic or Latino)," from the 2014 ACS 5-year estimates dataset. This table presents estimates of Hispanics in our counties and states by nativity (i.e., whether they are foreign- or U.S.-born), and within each nativity group, estimates of English and language spoken at home. Your table should look like this:



• Confirm you have the correct sample. In this case, we can confirm the table includes the subgroup we want because it lists the universe as "Hispanic or Latino population 5 years and older."

The table presents county- and state-level estimates of English-language proficiency. It shows the number of Hispanics who "speak only English" and who "speak another language." Within that second category, the table reports the number of Hispanics who "speak English very well," or speak English "less than 'very well."



- Modify the table, adjusting column placement so that counties are next to their respective states, as we did with the earlier tables.
- Export and download the table to Excel, as shown earlier (see Section 5).

#### 8. Choosing another time period

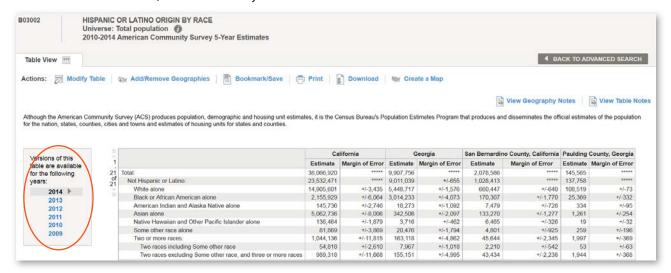
In this section, we show how to retrieve data on the first topic—the percentage of the population that is Hispanic—at a second point in time, so we can compare percentages at two time points.

Occasionally, we will want to look at how a local population has changed over time. For each of the topics reviewed above, data are available for multiple years. The steps detailed below can also be used to get data from other time periods for the other topics.

For this guide, we selected a second time period (2005 to 2009) that does not overlap with the first time period (2010 to 2014). This makes it easier to test whether any differences across the two time periods are statistically significant (discussed in more detail in Section 9).

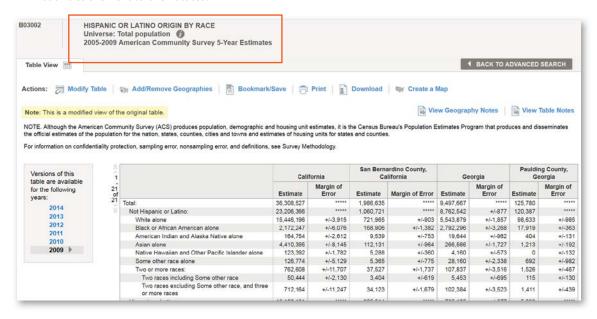
There are multiple ways to select tables for specific time periods. You can select specific years or datasets in the "Topics" box. Or, after selecting specific criteria for a search, you can scroll through the "Dataset" column for specific years. A third approach, and the one we use here, is to select another time period when reviewing a table that has already been generated with one time period. This particular approach ensures that the tables for different years are comparable.

- Return to the first table we generated (see Section 3), showing the percentages of the selected counties that are Hispanic using five-year estimates for 2010 to 2014.
- To the left of this table, a box lists all the years for which a version of this table is available.





- Click on 2009. This will give us the 5-year estimates for the time period ending in 2009 (i.e., 2005 to 2009). We can verify the years/dataset for this table in the heading.
- You will have to redo any modifications you made to the original table—in this case by moving the columns again so counties are next to their states.



Now we can export and download these results as an Excel file, as we did the 2014 table.

#### 9. Interpreting results

In this section, we take users through some selected calculations of our exported data for both San Bernardino County and Paulding County in order to answer the questions posed at the beginning of this guide. We briefly review how to manipulate the data—to create percentages, for example—and how to interpret them.

Because we generated tables for both counties at the same time, we show the calculations for both counties as the same time. If you want to answer the above questions—or any other questions—for just one county or one state, you can create a table for that one area and manipulate the data accordingly.

Many of the tables produced by FactFinder include count estimates (e.g., the number of Hispanics in a county), but not percentages (e.g., the percentage of the county that is Hispanic), which are often what we want to see. Luckily, we can easily calculate these percentages in our Excel file. When manipulating the data, it is important to clearly understand what proportions and percentages are and how they are calculated.

#### Question 1: What percentage of the county is Hispanic? How does that compare to the state?

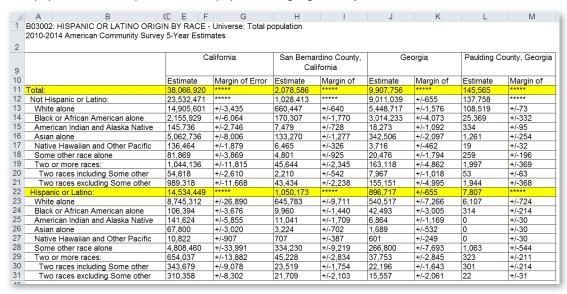
- Open the Excel workbook with the 2014 ACS 5-year data on race and ethnicity that we created in Sections 3 through 5 of this
  guide.
- Before we can do any calculations, we need to adjust the Excel file so that estimates are stored as numbers rather than text—you will see that several cells have a green marker in the top left corner, indicating that information is stored as text.
  - o Select a few cells with the population estimates in them, and a little box with an exclamation point will appear to its left. Click on that box, and you will see that "Number stored as text" is highlighted.



- o Click on "Convert to number."
- o Do this for all of the cells with that same marker in the corner (you can select and convert multiple cells at the same time), and save your file.

California	California	San
Estimate	Margin of	Estimate
Number Stored as Text	****	2,078,586
Convert to Number  Help on this error	****	1,028,413
Ignore Error	+/-3,435	660,447
Edit in <u>Formula Bar</u> Error Checking <u>Options</u>	+/-6,064	170,307
145,736	+/-2,746	7,479
5,062,736	+/-8,006	133,270
136,464	+/-1,879	6,465
81,869	+/-3,869	4,801

• Make any desired adjustments to your Excel file. We adjusted our Excel workbook, as shown below, with the rows for total population and Hispanic or Latino population highlighted in yellow:



The totals at the top of the table tell us that, on average, between 2010 and 2014 (the 2010 to 2014 ACS 5-year estimates):

- 1,050,173 Hispanics lived in San Bernardino County, Calif., out of 2,078,586 total people.
- 7,807 Hispanics lived in Paulding County, Ga., out of 145,565 total people.

P The preferred layout for a spreadsheet is subjective. However, it is important to keep column and row headers and subheaders organized, to ensure you are using the correct numbers for your calculations.



To answer the first part of Question 1, what percentage of our counties' residents is Hispanic, we divide the numbers of Hispanics by the total number of people in each county, and multiply that by 100:

#### (# Hispanic / total pop) \* 100 = % Hispanic

- 51 percent of San Bernardino County's population is Hispanic, in the 2014 ACS 5-year estimates: (1,050,173 / 2,078,586) \* 100 = 50.5.
- Five percent of Paulding County's population is Hispanic, in the 2014 ACS 5-year estimates: (7,807 / 145,565) \* 100 = 5.4.

We have written out the equations with the estimates filled in for instructive purposes, but these calculations can also be done in Excel. <sup>q</sup> We added a row at the bottom, highlighted in yellow, showing the final percentage calculations for each county and state:

		ates						
	C	alifornia	San Berna	rdino County,	Ge	orgia	Paulding C	ounty. Geor
		a	California		000.9.0			
0	Estimate	Margin of Error	Estimate	Margin of	Estimate	Margin of	Estimate	Margin of
1 Total:	38,066,920	****	2,078,586	****	9,907,756	****	145,565	****
Not Hispanic or Latino:	23,532,471	****	1,028,413	****	9,011,039	+/-655	137,758	****
White alone	14,905,601	+/-3,435	660,447	+/-640	5,448,717	+/-1,576	108,519	+/-73
Black or African American alone	2,155,929	+/-6,064	170,307	+/-1,770	3,014,233	+/-4,073	25,369	+/-332
5 American Indian and Alaska Native	145,736	+/-2,746	7,479	+/-728	18,273	+/-1,092	334	+/-95
6 Asian alone	5,062,736	+/-8,006	133,270	+/-1,277	342,506	+/-2,097	1,261	+/-254
Native Hawaiian and Other Pacific	136,464	+/-1,879	6,465	+/-326	3,716	+/-462	19	+/-32
8 Some other race alone	81,869	+/-3,869	4,801	+/-925	20,476	+/-1,794	259	+/-196
Two or more races:	1,044,136	+/-11,815	45,644	+/-2,345	163,118	+/-4,862	1,997	+/-369
Two races including Some other	54,818	+/-2,610	2,210	+/-542	7,967	+/-1,018	53	+/-63
Two races excluding Some other	989,318	+/-11,668	43,434	+/-2,238	155,151	+/-4,995	1,944	+/-368
2 Hispanic or Latino:	14,534,449	****	1,050,173	****	896,717	+/-655	7,807	****
White alone	8,745,312	+/-26,890	645,783	+/-9,711	540,517	+/-7,266	6,107	+/-724
Black or African American alone	106,394	+/-3,676	9,960	+/-1,440	42,493	+/-3,005	314	+/-214
5 American Indian and Alaska Native	141,624	+/-5,855	11,041	+/-1,709	6,864	+/-1,169	0	+/-30
Asian alone	67,800	+/-3,020	3,224	+/-702	1,689	+/-532	0	+/-30
Native Hawaiian and Other Pacific	10,822	+/-907	707	+/-387	601	+/-249	0	+/-30
Some other race alone	4,808,460	+/-33,991	334,230	+/-9,219	266,800	+/-7,693	1,063	+/-544
Two or more races:	654.037	+/-13,882	45.228	+/-2,834	37.753	+/-2.845	323	+/-211
Two races including Some other	343,679	+/-9.078	23,519	+/-1,754	22,196	+/-1,643	301	+/-214
Two races excluding Some other	310,358	+/-8.302	21.709	+/-2,103	15,557	+/-2,061	22	+/-31
6								
7 % Hispanic	38.18		50.52		9.05		5.36	

How do these percentages compare to those for California and Georgia (answering the second part of Question 1)? Here, we just need to apply the same equation using the numbers for the states.

- 38 percent of California's population is Hispanic, in the 2014 ACS 5-year estimates: (14,534,449 / 38,066,920) \* 100 = 38.2.
- Nine percent of Georgia's population is Hispanic, in the 2014 ACS 5-year estimates: (896,717 / 9,907,756) \* 100 = 9.1.

Putting these numbers into context, then, a greater percentage of San Bernardino County's population is Hispanic than is California's (51 percent versus 38 percent). Meanwhile, a slightly lower percentage of Paulding County's population is Hispanic than is Georgia's (5 percent versus 9 percent).

Question 2: What percentage of the county's Hispanics are foreign-born? How does that compare to the percentage for the state?

Go back to the table generated in Section 6.

<sup>&</sup>lt;sup>q</sup> Detailing how to use Excel functions is beyond the scope of this resource. However, there are a wide array of Excel tutorials and resources available that provide this information. A useful place to look for these is on the Microsoft website (https://support.office.com/en-us/excel) or university websites, such as from Pennsylvania State University (http://agsci.psu.edu/it/how-to/entering-simple-functions-and-use-autosum-in-an-excel-worksheet) or University of California - Los Angeles (http://www.ats.ucla.edu/stat/mult\_pkg/fag/general/ExcelTips.htm).



• Adjust the formatting of the table as desired, and make sure estimates are stored as numbers instead of text. We adjusted the format of our table, as shown below, with the total Hispanic or Latino population and the foreign-born totals highlighted in yellow. Additionally, because this table presents foreign-born estimates by gender and age separately, we have added a row (also highlighted in yellow) that sums the foreign-born estimates for each location across each of the gender and age categories (males under 18, males 18 and over, females under 18, and females 18 and over). Our table now looks like this:

1	B05003I: SEX BY AGE BY NATIVI	TY AND CITIZENSHI	P STATUS (HIS	SPANIC OR L	ATINO) - Unive	erse: People	who are Hisp	anic or Latino	)	
	2010-2014 American Community S	urvey 5-Year Estima	tes							
2										
		Calif	ornia	San Bernardino County.		Georgia		Paulding County, Georg		
9			orriid.	California		Coorgia				
0		Estimate	Margin of	Estimate	Margin of	Estimate	Margin of	Estimate	Margin of	
-	Total:	14.534.449	****	1,050,173	*****	896.717	+/-655	7,807	*****	
2	Male:	7.326.154	+/-331	525.702	****	477.785	+/-033	3.930	+/-117	
3	Under 18 vears:	2,422,163	+/-238	185.699	****	169,699	+/-1,272	1.570	+/-117	
1	Native	2.281.599	+/-3.122	178.306	+/-899	153.066	+/-1,636	1,401	+/-91	
5	Foreign born:	140.564	+/-3.103	7.393	+/-899	16.633	+/-1.417	169	+/-134	
3	Naturalized U.S. citizen	14.342	+/-1.001	773	+/-188	1.793	+/-368	17	+/-30	
7	Not a U.S. citizen	126,222	+/-2.967	6.620	+/-869	14.840	+/-1.406	152	+/-136	
3	18 years and over:	4.903.991	+/-361	340.003	****	308.086	+/-968	2.360	****	
9	Native	2.328.536	+/-10.892	193,798	+/-2.515	91.805	+/-2.526	1.304	+/-238	
0	Foreign born:	2,575,455	+/-10.893	146,205	+/-2.514	216.281	+/-2.513	1.056	+/-237	
1	Naturalized U.S. citizen	813.166	+/-7.003	54.514	+/-1.562	40.454	+/-1.690	257	+/-132	
2	Not a U.S. citizen	1.762.289	+/-13.362	91.691	+/-2.430	175.827	+/-2.756	799	+/-221	
3	Female:	7,208,295	+/-331	524.471	****	418,932	+/-1,138	3.877	+/-118	
4	Under 18 years:	2.331.958	+/-226	177,803	****	161,015	+/-996	1,430	+/-118	
5	Native	2,198,489	+/-2.683	170,307	+/-737	146,266	+/-1.494	1.395	+/-124	
3	Foreign born:	133,469	+/-2,740	7,496	+/-737	14,749	+/-1,106	35	+/-31	
7	Naturalized U.S. citizen	13,085	+/-754	572	+/-160	2,061	+/-471	0	+/-30	
3	Not a U.S. citizen	120,384	+/-2,732	6,924	+/-722	12,688	+/-1,079	35	+/-31	
9	18 years and over:	4,876,337	+/-177	346,668	****	257,917	+/-620	2,447	****	
)	Native	2,365,881	+/-9,294	199,645	+/-2,573	93,167	+/-1,976	1,514	+/-268	
1	Foreign born:	2,510,456	+/-9,265	147,023	+/-2,574	164,750	+/-1,951	933	+/-268	
2	Naturalized U.S. citizen	916,638	+/-6,840	58,879	+/-1,471	38,361	+/-1,475	317	+/-152	
3	Not a U.S. citizen	1,593,818	+/-10,172	88,144	+/-2,316	126,389	+/-2,288	616	+/-215	
В										
9	Total FB	5,359,944		308.11	7	412.41	3	2.19	33	

To determine what percentage of the county and state Hispanic populations are foreign-born, we use the following equation:

(# foreign-born / total Hispanic pop) \* 100 = % Hispanics that are foreign-born

The "# Foreign Born" will be the summed cells we added in our "Total FB" row." Solving this equation we find that:

- 29 percent of San Bernardino County's Hispanics are foreign-born, in the 2014 ACS 5-year estimates: (308,117 / 1,050,173) \* 100 = 29.3. Roughly 37 percent of California's total Hispanic population is foreign-born. Try applying the equation to see if you get the same result.
- 28 percent of Paulding County's Hispanics are foreign-born, in the 2014 ACS 5-year estimates: (2,193 / 7,807) \* 100 = 28.1. Roughly 46 of Georgia's Hispanic population is foreign-born.

Question 3: What percentage of the county's Hispanics do not speak English very well? How does that compare to percentage for the state?

Finally, we calculate the percentage of Hispanics (age 5 and older, which is the population covered by the English proficiency data) who were reported to speak English "less than 'very well," at the county and state levels.

- Refer to the exported table on "English Usage among Hispanics," from the 2014 ACS 5-year estimates (B160051), from Section
   7.
- Again, adjust the formatting as desired. We adjusted ours, as shown below, highlighting rows containing estimates for the areas' total Hispanic populations age 5 and older, and those who speak English "less than 'very well."
- As before, we also converted estimates to be saved as numbers instead of text.

We encourage you to add an additional row to calculate the percentages, as we showed earlier for the race/ethnicity percentage calculations table.



This table presents English proficiency for foreign- and native-born Hispanics separately. To get total estimates for Hispanics aged 5 and older who do not speak English very well, we will need to sum the relevant estimates across these two groups. After doing so, and adding in an additional row (Total "less than 'very well"), our table looks like this:

		Calif	ornia	San Borns	ardino County	C	oorgia	Paulding County, Geo		
9		Calli	Offiia	San Bernardino County, California		Georgia		adiding County, Georgia		
10		Estimate	Margin of	Estimate	Margin of	Estimate	Margin of	Estimate	Margin of	
11	Total:	13,194,811	+/-92	952,364	****	791,180	+/-834	7,102	****	
12	Native:	7,853,176	+/-19,379	645,006	+/-5,003	380,986	+/-4,469	4,917	+/-454	
13	Speak only English	3,118,155	+/-24,378	308,789	+/-6,317	134,525	+/-4,331	2,648	+/-559	
14	Speak another language	4,735,021	+/-16,548	336,217	+/-4,052	246,461	+/-4,584	2,269	+/-456	
15	Speak English "very well"	4,008,455	+/-16,668	288,907	+/-3,869	198,169	+/-4,545	1,944	+/-425	
16	Speak English less than "very	726,566	+/-8,790	47,310	+/-2,395	48,292	+/-2,216	325	+/-163	
17	Foreign born:	5,341,635	+/-19,372	307,358	+/-5,003	410,194	+/-4,486	2,185	+/-453	
18	Speak only English	195,582	+/-3,944	13,220	+/-1,005	18,328	+/-1,233	172	+/-131	
19	Speak another language	5,146,053	+/-20,580	294,138	+/-4,983	391,866	+/-4,747	2,013	+/-451	
20	Speak English "very well"	1,431,400	+/-9.977	88,581	+/-2,451	120,246	+/-3,194	701	+/-249	
21	Speak English less than "very	3,714,653	+/-17,080	205,557	+/-4,172	271,620	+/-3,995	1,312	+/-483	
10				1		02.10.00			1 100,000	
11	Total less than "very well"	4.441.219		252.86	7	319.91	2	1.63	37	
12										
43	% Hispanics less than "very well"	33.66		26.5	55	40.4	13	23.0	15	

To determine what percentages of our state and county Hispanic populations do not speak English very well, we use the following equation:

(#"less than 'very well"' / total Hispanic pop) \* 100 = % Hispanics that speak English "less than 'very well"

#### Here, we find that:

- 27 percent of Hispanics in San Bernardino County age 5 and older spoke English "less than 'very well'": (252,867 / 952,364) \* 100 = 26.6. It is about 34 percent for California's Hispanic population age 5 and older.
- 23 percent of Hispanics in Paulding County age 5 and older spoke English "less than 'very well": (1,637 / 7,102) \* 100 = 23.0. It is about 40 percent for Georgia's Hispanic population age 5 and older.

#### Measuring differences between time periods

Users may want to know how their estimates of interest have changed between two or more time periods. A general comparison of numbers, and corresponding calculated percentages, can be instructive.

For illustrative purposes, we compare estimates across two time periods for one of our questions. To see how the proportion of the population that is Hispanic has changed over time, refer now to the 2005 to 2009 ACS 5-year estimates we exported and downloaded in Section 8. As before, you will need to convert the estimates to be stored as numbers rather than text. We will apply the same equations to these data, as demonstrated above, and compare our results to those using data from the 2010 to 2014 ACS 5-year estimates.

#### Doing this tells us:

- 47 percent of San Bernardino County's population and 36 percent of California's population was Hispanic, in the 2005 to 2009 ACS 5-year estimates.
  - o This is slightly lower than the estimates (51 percent and 38 percent) using the 2010 to 2014 data.
- Four percent of Paulding County's population and 8 percent of Georgia's population was Hispanic, in the 2005 to 2009 ACS 5-year estimates.
  - o This is slightly lower than the estimates (5 percent and 9 percent) using 2010 to 2014 data.

The percentage differences in Hispanic population across these two time periods may look relatively small, but in areas with large populations, a small percentage change may still mean many thousands of people.



To calculate the percent change in estimates between time periods, we can use another simple equation:

[(2014 estimate – 2009 estimate) / 2009 estimate] \* 100 = % change

As an example, we calculate the percent change in the Hispanic population in San Bernardino County between the 2009 and 2014 ACS 5-year estimates: [(1,050,173 - 925,914) / 925,914] \* 100 = 13.4.

The proportion of Hispanics in San Bernardino County grew by about 13 percent between 2005 and 2010. To verify that this difference is real, we would need to test for statistical significance.

To verify whether these differences represent real change over time—and not just normal variation due to chance—we have to do some additional analyses. This entails using the margins of error (reported in our tables) to determine the *statistical significance* of differences (see <a href="http://factfinder.census.gov/help/en/statistical significance.htm">http://factfinder.census.gov/help/en/statistical significance.htm</a>). Instructing users how to perform these calculations is beyond the scope of this guide, but interested users can refer to Census Bureau documentation on calculating statistical significance using ACS 5-year estimates and FactFinder data (see <a href="http://www2.census.gov/programs-surveys/acs/tech\_docs/statistical\_testing/2014StatisticalTesting5.pdf">http://www2.census.gov/programs-surveys/acs/tech\_docs/statistical\_testing/2014StatisticalTesting5.pdf</a>).

#### Conclusion

In this guide, we show how American FactFinder can be used with relative ease to generate estimates of key characteristics of Hispanic populations in specific geographic areas. There is a wealth of information to be found using this tool, and we encourage users to explore the Census Bureau website and FactFinder to learn more about their communities.



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#### **About the Center**

The National Research Center on Hispanic Children & Families is a hub of research to help programs and policy better serve low-income Hispanics across three priority areas—poverty reduction and economic self-sufficiency, healthy marriage and responsible fatherhood, and early care and education. The Center was established in 2013 by a five-year cooperative agreement from the Office of Planning, Research, and Evaluation (OPRE) within the Administration for Children and Families (ACF) in the U.S. Department of Health and Human Services (HHS) to Child Trends in partnership with Abt Associates and New York University, University of North Carolina at Greensboro, and University of Maryland, College Park. This publication was made possible by Grant Number 90PH0025 from OPRE. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of OPRE, ACF, or HHS.

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