

# Apportioning Seats in the U.S. House of Representatives Using the 2013 Estimated Citizen Population

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## Summary

Congressional apportionment is the process of determining the number of Representatives to which each state is entitled in the U.S. House of Representatives based on the decennial census of population. Congressional redistricting, often confused with apportionment, is the process of revising the geographic boundaries of areas from which voters elect Representatives to the House. The apportionment process is a function of four factors: (1) population size, (2) the number of Representatives or seats to be apportioned, (3) the number of states, and (4) the method of apportionment.

Recently, some commentators and Members of Congress have called for a change in the nature of the population used to apportion seats in the U.S. House of Representatives, advocating a change from using all “persons” to using all “citizens.” Section 2 of the 14<sup>th</sup> Amendment to the U.S. Constitution states that “Representatives shall be apportioned among the several States according to their respective numbers, counting the whole number of persons in each State, excluding Indians not taxed.” Consequently, such a change would appear to necessitate a constitutional amendment.

This report examines the impact on the apportionment of seats in the House of Representatives if such a change were to occur, using an estimate of the 2013 citizen population in place of the 2010 apportionment population to determine the potential distribution of seats in the House of Representatives for the 114<sup>th</sup> Congress. In addition, the apportionment of the House of Representatives is shown using an estimate of the 2013 total apportionment population, as well.

If the apportionment of seats in the House of Representatives for the 114<sup>th</sup> Congress were to be based on the 2013 estimated citizen apportionment population rather than the 2010 total apportionment population, as required by the Constitution, it is estimated that seven seats would shift among 11 states. California would lose four seats relative to its actual distribution of seats as a result of the 2010 apportionment. Texas, Florida, and New York would each lose one seat relative to the number of seats received in the 2010 apportionment.

On the other hand, Louisiana, Missouri, Montana, North Carolina, Ohio, Oklahoma, and Virginia would each pick up a single seat, if the 2013 citizen population were used to apportion seats rather than the 2010 total apportionment population. Using citizenship status to apportion the seats in the U.S. House of Representatives tends to benefit states with smaller immigrant populations and cost states with larger immigrant populations.

For those seeking to change the current population standard for apportioning the seats in the House of Representatives, there appears to be at least three possible choices. First, and most obvious, amend the U.S. Constitution. Second, use the citizen population in the redistricting process to geographically define the congressional districts. Or third, change the apportionment law to adopt an apportionment formula that, when used with the total population, mimics the apportionment distribution that occurs when using the citizen population.

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## Introduction and Background

How seats in the U.S. House of Representatives are apportioned among the states is determined, in part, by the U.S. Constitution and, in part, by federal legislation and legal determinations by the courts. The U.S. Constitution determines the maximum and minimum size of the House of Representatives as well as the nature of the population upon which any apportionment is determined.

Historically, the issue of the nature of the population upon which the apportionment of the House of Representatives is based has been raised periodically. Rather than “persons,” as is required in the Constitution, historical proposals have advocated “free Citizens,” “legal voters,” “male citizens,” “the voting population,” “citizens,” or “exclude aliens” as the basis for the apportionment population.<sup>1</sup>

From time to time, commentators and Members of Congress raise the issue, proposing to change the population upon which the apportionment of House seats is based from “persons” to “citizens.”<sup>2</sup> This report examines the impact on the apportionment of seats in the House of Representatives if such a change were to occur, using an estimate of the 2013 citizen population in place of the 2010 apportionment population to determine the distribution of seats in the House of Representatives for the 114<sup>th</sup> Congress. In addition, the apportionment of seats in the 114<sup>th</sup> Congress is shown using an estimate of the 2013 total apportionment population as well.

## Constitutional Issue

According to Section 2 of the 14<sup>th</sup> Amendment to the U.S. Constitution,

Representatives shall be apportioned among the several States according to their respective numbers, **counting the whole number of persons in each State**, excluding Indians not taxed. But when the right to vote at any election for the choice of electors for President and Vice President of the United States, Representatives in Congress, the Executive and Judicial officers of a State, or the members of the Legislature thereof, is denied to any of the male inhabitants of such State, being twenty-one years of age, and citizens of the United States, or in any way abridged, except for participation in rebellion, or other crime, the basis of representation therein shall be reduced in the proportion which the number of such male citizens shall bear to the whole number of male citizens twenty-one years of age in such State. (Emphasis added.)

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<sup>1</sup> For the Constitutional Convention and the debate over the 14<sup>th</sup> Amendment to the Constitution, see Charles A. Kromkowski, *Recreating the American Republic, Rules of Apportionment, Constitutional Change, and American Political Development, 1700-1860* (Cambridge: Cambridge University Press, 2002), pp. 275, 378-379, 414-416; for the debate over the apportionment bills of the 1920s and 1930s, see Charles W. Eagles, *Democracy Delayed, Congressional Reapportionment and Urban-Rural Conflict in the 1920's* (Athens, GA: University of Georgia Press, 1990), pp. 28, 34, 70-71, 77-78, 80, 118.

<sup>2</sup> See, John S. Baker and Elliott Stonecipher, “Our Unconstitutional Census,” *Wall Street Journal*, August 9, 2009; Dudley L. Poston, Jr., Steven A. Camarota, and Amanda K. Bauble, *Remaking the Political Landscape, The Impact of Illegal and Legal Immigration on Congressional Apportionment*, Center for Immigration Studies, Backgrounder, Washington, DC, October 2003; Charles Wood, “Losing Control of America’s Future—The Census, Birthright Citizenship and Illegal Aliens,” *Harvard Journal of Law and Public Policy*, vol. 22, no. 2 (Spring 1999), pp. 465-522; Michael Regan, “2010 Census: Who Should Count?,” *The Hartford Courant*, September 30, 2007, at <http://www.courant.com/news/local/hc-reapportion0930.artsep30,0,1255793.story>; Jack Martin, *Who Represents Illegal Aliens?*, Federation for American Immigration Reform (FAIR), Washington, DC, September 2008, at [http://www.fairus.org/site/News2?page=NewsArticle&id=21695&security=1601&news\\_iv\\_ctrl=1007](http://www.fairus.org/site/News2?page=NewsArticle&id=21695&security=1601&news_iv_ctrl=1007).

As stated, it has been taken to mean that the apportionment population is all persons residing in the United States. As Section 1 of this same amendment defines U.S. citizenship, the use of the term “persons” rather than “citizens” has not been taken to be an oversight by most.<sup>3</sup> Thus, changing the meaning of population in the apportionment process is, most likely, going to require a constitutional amendment.<sup>4</sup>

## **Practicalities**

The U.S. Supreme Court has held that, for purposes of apportionment only, actual population counts from the census must be used. Population estimates based on sample surveys cannot be used to apportion the seats in the House of Representatives.<sup>5</sup>

Currently, as will be highlighted below, the only source for information on citizenship status is the U.S. Census Bureau’s American Community Survey (ACS), a sample survey.<sup>6</sup> Even assuming that a constitutional amendment were to be passed and ratified by the required number of states relatively quickly, without the Census Bureau conducting a special census prior to the scheduled 2020 census, the earliest that another apportionment using citizenship status information is likely to occur is 2020. If such an amendment were to be passed, presumably the Census Bureau would ask a question about citizenship status of all persons in the 2020 census.

## **Recent Congressional Interest<sup>7</sup>**

While no legislation has been introduced in the most recent congresses, in the 111<sup>th</sup> Congress, Representative Candice Miller introduced H.J.Res. 11, a constitutional amendment that provided for the apportionment of seats in the House of Representatives based on the citizen population rather than total population.<sup>8</sup> The proposed amendment had 28 cosponsors.

At the same time, Representative Virginia Foxx and Senator Robert F. Bennett introduced The Fairness in Representation Act (H.R. 3797/S. 1688). The proposed legislation would have amended Title 13 to require that the Census Bureau include on the 2010 census questionnaire “a checkbox or other similar option for respondents to indicate citizenship status or lawful presence in the United States.” The proposed legislation further required that the Secretary of Commerce adjust the total population figures to assure that only the citizen population was used in apportioning seats to the House of Representatives.

In addition, Senator David Vitter introduced an amendment to the Commerce, Justice, Science, and Related Agencies Appropriations Act, 2010 (S.Amdt. 2635 to H.R. 2847). The amendment

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<sup>3</sup> CRS Report R41048, *Constitutionality of Excluding Aliens from the Census for Apportionment and Redistricting Purposes*, by Margaret Mikyung Lee and Erika K. Lunder.

<sup>4</sup> *Ibid.*, pp. 3-7.

<sup>5</sup> 525 U.S. 316, 119 S.Ct. 765 (1999). Also see, CRS Report RL30870, *Census 2000: Legal Issues re: Data for Reapportionment and Redistricting*, by Margaret Mikyung Lee.

<sup>6</sup> CRS Report R41532, *The American Community Survey: Development, Implementation, and Issues for Congress*, by Jennifer D. Williams.

<sup>7</sup> For a brief review of selected legislation on this topic from previous Congresses, see the Appendix of CRS Report R41048, *Constitutionality of Excluding Aliens from the Census for Apportionment and Redistricting Purposes*, pp. 11-13.

<sup>8</sup> The amendment reads as follows, “Representatives shall be apportioned among the several States according to their respective numbers, which shall be determined by counting the number of persons in each State who are citizens of the United States.”

stated, in part, that “none of the funds provided in this Act or any other act for any fiscal year may be used for collection of census data that does not include questions regarding United States citizenship and immigration status.” The amendment was subsequently ruled non-germane.

Prior to the 2010 Census, in the 111<sup>th</sup> Congress, there was also opposition to the idea of restricting the apportionment based on the citizen population. Representative Joe Baca introduced the Every Person Counts Act (H.R. 3855). This bill would have prevented the Census Bureau from collecting information about U.S. citizenship or immigration status in any census.

None of the above legislation came to a vote.

## **Potential Impact of Using the Citizen Population to Apportion Seats in the House**

In the 1990 and 2000 censuses, estimates of citizenship status were derived from the results of such questions on the “long-form” questionnaires. Both censuses included two types of questionnaires, a “short-form” questionnaire, which included a few basic questions on age, sex, race, and Hispanic heritage, and a “long-form” questionnaire, which included all of the questions from the short form and a large number of other demographic questions, including citizenship status. The long-form questionnaire was sent to a probability sample of about one-sixth of the U.S. households. The other five-sixths received only the short form. For the 1990 and 2000 censuses, the information derived from the short form and the long form constituted the results of the census.

Plans for the 2010 census were dramatically different. While the basic set of similar questions from the short form would again be posed on the census questionnaire going to the American public on April 1, 2010, there would be no comparable long form sent out at the same time. Rather, the information originally collected on the long form now would be collected by the American Community Survey (ACS), a cumulative, rolling sample survey that would collect, starting in 2006, the same or similar information collected in the previous long form used in the 1990 and 2000 censuses.<sup>9</sup> Again, like in 1990 and 2000, the ACS is the only source for geographically detailed information about citizenship status.

## **Estimating the Total and Citizen Apportionment Populations**

### **Limitations and Caveats**

#### ***Citizenship Verification***

Counts of citizens derived from the ACS are based on how respondents answered a question related to their citizenship status.<sup>10</sup> The Census Bureau does nothing to attempt to verify whether

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<sup>9</sup> For a full description of the history and nature of the ACS, see CRS Report R41532, *The American Community Survey: Development, Implementation, and Issues for Congress*, by Jennifer D. Williams.

<sup>10</sup> The ACS question on citizenship status reads as follows: “Is this person a citizen of the United States?” There are five response categories: (1) Yes, born in the United States; (2) Yes, born in Puerto Rico, Guam, the U.S. Virgin Islands, or Northern Marianas; (3) Yes, born abroad of U.S. citizen parent or parents; (4) Yes, U.S. citizen by (continued...)

or not the person responding is or is not a citizen by asking for legal documentation that could establish this fact. And, unless such a request was required by law, it is very doubtful that, even if the Census Bureau were to include such a question on the 2020 Census form, they would attempt such legal verification.

### ***Residence Measurement***

Partly because the census collects information on the population for purposes of apportionment, the concept of “usual residence,” as measured by the census is meant to measure the legal address of the respondent as of census day (i.e., a *de jure* measure). On the other hand, the concept of residence as used by the ACS is better described as “where the respondent is residing when he or she completes the questionnaire” (i.e., a *de facto* measure).<sup>11</sup> Using the result of a survey that defines residence in one way to estimate a number for the census, which defines residence in a different way, may not prove meaningful. If one were to ask the citizenship status question on the census questionnaire, it is possible that there would be differences in the results (specifically where geographically the counts were to apply) and estimates based on the ACS might be due to differences in the definition of residence used by each survey. The possible impact of this difference on estimating the total 2013 citizen population from the ACS, is difficult, if not impossible, to gauge.

### ***Sampling Error***

The results of the decennial census are based on an attempt to count every person residing in the United States. The ACS, unlike this 100 percent count, is based on a sample survey, albeit a large sample survey. Sample surveys are, unlike censuses, subject to sampling error. Therefore, any estimate of the 2013 citizen population based on the ACS is also subject to sampling error. These sampling errors have been calculated and are shown in the tables below.

### ***Different Time Frames between the Census and the ACS***

While the decennial census figures are mythically based on the concept of collecting the information on a single day, April 1, 2010, in fact, the information for the census is collected over many months. However, this information, whether collected on April 1, or on September 9, 2010, refers back to the single date of April 1, 2010. This is the reference date for census data.<sup>12</sup>

The ACS, on the other hand, is designed very differently.<sup>13</sup> Each month, a new, large sample of households (about 250,000) is mailed the ACS questionnaire. Over the course of a full year, about 3 million households receive the ACS questionnaires. Yearly estimates (ACS-1Yr)—the most

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(...continued)

naturalization (year of naturalization requested); and (5) No, not a U.S. citizen. For purposes of this report, the first four categories constitute the citizen population.

<sup>11</sup> For a thorough discussion of this issue, see *Once, Only Once, and in the Right Place: Residence Rules in the Decennial Census*, ed. Daniel L. Cork and Paul R. Voss, 1<sup>st</sup> ed. (Washington, DC: National Research Council, 2006).

<sup>12</sup> If a household fails to return the mail form, an interviewer follows up with a personal visit to collect information. If a child is born after April 1 to the household, but before the follow-up interview, the interviewer is instructed to not count that child in the census because the child was not a resident on census day. Similarly, if a person in the household dies after April 1, but before the follow-up interview, that person is counted because, on Census Day, that person was alive and a resident of the household.

<sup>13</sup> U.S. Census Bureau, *A Compass for Understanding and Using American Community Survey Data: What General Data Users Need to Know*, U.S. Government Printing Office, Washington, DC, pp. 1-4.



frequently published figures—are based on the accumulated results from samples over the whole year—accurate for geographical areas containing populations of 65,000 persons or more. Thus, the time frame for the ACS-1Yr is not a single day, but a year of monthly household samples. Rather than a specific time reference as with the census, ACS results are analogous to a yearly average. Consequently, the time reference for the information collected differs between the 2010 census and the ACS. Like the difference with respect to residency, the possible impact of the difference in time references between the two sets of information on any estimated figures is difficult to gauge.

## Estimation Method Used to Estimate the 2013 Total and Citizen Apportionment Population

Since 1970, with one exception, the apportionment population for each state has consisted of two components: (1) the state’s resident population; and (2) the overseas military and civilian federal employee population and their dependents living with them.<sup>14</sup>

### 2010 Apportionment Population and Its Components

**Table 1** shows this information for each state for the 2010 apportionment population. In addition, the ratio of the overseas population to the residential population in 2010 is calculated for each state. This ratio subsequently will be used to estimate the size of the overseas military and civilian federal employee population for 2013, under the assumption that the actual ratio calculated on the basis of the 2010 Census is the same as the ratio would be if one were to use the actual 2013 resident population and the actual 2013 overseas military and civilian federal employee population.

**Table 1. 2010 Apportionment Population and Components**

State	2010 Apportionment Population <sup>a</sup>			Ratio of Overseas to Resident Pop.
	Total	Resident Population	U.S. Overseas Population	
Alabama	4,802,982	4,779,736	23,246	0.004863449
Alaska	721,523	710,231	11,292	0.015899053
Arizona	6,412,700	6,392,017	20,683	0.003235755
Arkansas	2,926,229	2,915,918	10,311	0.003536108
California	37,341,989	37,253,956	88,033	0.002363051
Colorado	5,044,930	5,029,196	15,734	0.003128532
Connecticut	3,581,628	3,574,097	7,531	0.002107106
Delaware	900,877	897,934	2,943	0.003277524
Florida	18,900,773	18,801,310	99,463	0.005290216

<sup>14</sup> Only the resident population was used to apportion seats in 1980. Theoretically, all of the overseas U. S. population could be used in the apportionment of seats to the states. However, there is no dependable source of information about “home” state of residence for the overseas population. The overseas military and civilian federal employee population and their dependents, on the other hand, are required to designate their home state of residence. This information is available to the U.S. Census Bureau, and, consequently, allows the U.S. Census Bureau to add this overseas population appropriately.

State	2010 Apportionment Population <sup>a</sup>			
	Total	Resident Population	U.S. Overseas Population	Ratio of Overseas to Resident Pop.
Georgia	9,727,566	9,687,653	39,913	0.004119987
Hawaii	1,366,862	1,360,301	6,561	0.004823197
Idaho	1,573,499	1,567,582	5,917	0.003774603
Illinois	12,864,380	12,830,632	33,748	0.002630268
Indiana	6,501,582	6,483,802	17,780	0.002742218
Iowa	3,053,787	3,046,355	7,432	0.002439637
Kansas	2,863,813	2,853,118	10,695	0.003748531
Kentucky	4,350,606	4,339,367	11,239	0.002590009
Louisiana	4,553,962	4,533,372	20,590	0.004541873
Maine	1,333,074	1,328,361	4,713	0.003547981
Maryland	5,789,929	5,773,552	16,377	0.002836555
Massachusetts	6,559,644	6,547,629	12,015	0.001835015
Michigan	9,911,626	9,883,640	27,986	0.002831548
Minnesota	5,314,879	5,303,925	10,954	0.002065263
Mississippi	2,978,240	2,967,297	10,943	0.003687868
Missouri	6,011,478	5,988,927	22,551	0.003765449
Montana	994,416	989,415	5,001	0.005054502
Nebraska	1,831,825	1,826,341	5,484	0.003002725
Nevada	2,709,432	2,700,551	8,881	0.003288588
New Hampshire	1,321,445	1,316,470	4,975	0.003779045
New Jersey	8,807,501	8,791,894	15,607	0.001775158
New Mexico	2,067,273	2,059,179	8,094	0.003930693
New York	19,421,055	19,378,102	42,953	0.002216574
North Carolina	9,565,781	9,535,483	30,298	0.003177395
North Dakota	675,905	672,591	3,314	0.004927214
Ohio	11,568,495	11,536,504	31,991	0.002773024
Oklahoma	3,764,882	3,751,351	13,531	0.003606967
Oregon	3,848,606	3,831,074	17,532	0.004576262
Pennsylvania	12,734,905	12,702,379	32,526	0.002560623
Rhode Island	1,055,247	1,052,567	2,680	0.002546156
South Carolina	4,645,975	4,625,364	20,611	0.004456082
South Dakota	819,761	814,180	5,581	0.00685475
Tennessee	6,375,431	6,346,105	29,326	0.004621102
Texas	25,268,418	25,145,561	122,857	0.004885833
Utah	2,770,765	2,763,885	6,880	0.00248925

State	2010 Apportionment Population <sup>a</sup>			
	Total	Resident Population	U.S. Overseas Population	Ratio of Overseas to Resident Pop.
Vermont	630,337	625,741	4,596	0.007344892
Virginia	8,037,736	8,001,024	36,712	0.004588413
Washington	6,753,369	6,724,540	28,829	0.004287133
West Virginia	1,859,815	1,852,994	6,821	0.00368107
Wisconsin	5,698,230	5,686,986	11,244	0.001977146
Wyoming	568,300	563,626	4,674	0.008292733
Total	309,183,463	308,143,815	1,039,648	

**Source:** U.S. Census Bureau, 2010 Census at <http://www.census.gov/population/apportionment/data>.

**Notes:**

- a. Includes the resident population for the 50 states, as ascertained by the 2010 Census under Title 13, U.S. Code, and counts of overseas U.S. military and federal civilian employees (and their dependents living with them) allocated to their home state, as reported by the employing federal agencies. The apportionment population does not include the resident or the overseas population of the District of Columbia.

The values in columns 2-4 in **Table 1** were the population values used in determining the allocation of seats in the U.S. House of Representatives to the states for the 2012 apportionment process, which produced the seat distribution in the U.S. House of Representatives for the 113<sup>th</sup> Congress. Column 5, labelled “Ratio of Overseas to Resident Pop.,” subsequently will be used to estimate the 2013 overseas population by multiplying this ratio by the 2013 estimated resident population.

### Estimating the 2013 Apportionment Population

**Table 2** shows the process of estimating the 2013 apportionment population for each of the states. The U.S. Census Bureau, using a demographic methodology referred to as a “cohort components method,”<sup>15</sup> estimates the resident population of the United States, the states, the counties, and Puerto Rico every year between censuses.<sup>16</sup>

Column 3, labelled “Resident Population Estimate (as of July 1, 2013),” shows the U.S. Census Bureau’s state population estimates as of July 1, 2013.<sup>17</sup> Column 4 displays the “2010 Ratio of Overseas to Resident Pop.,” computed in **Table 1**. Multiplying this ratio by the estimated 2013 resident population produces estimates of the 2013 overseas population for each state, shown in column 5. Adding the 2013 estimated resident population to the 2013 estimated overseas population produces the 2013 estimated apportionment population, shown in column 2.

<sup>15</sup> U.S. Department of Commerce, U.S. Census Bureau, *Methodology for the United States Population Estimates: Vintage 2014*, Washington, DC, 2015, at <http://www.census.gov/popest/methodology/index.html>.

<sup>16</sup> U.S. Department of Commerce, U.S. Census Bureau, *Population and Housing Unit Estimates*, Population Estimates, Washington, DC, at <http://www.census.gov/popest/index.html>.

<sup>17</sup> The most recent population estimates from the U.S. Census Bureau’s population estimation program are as of July 1, 2014. However, as the estimates for the citizen population from the American Community Survey (ACS) are for the year 2013, it was felt by the author that total population estimates should correspond. It should be noted that estimates of the population derived from the U.S. Census Bureau’s population estimation program are considered by the Bureau as the “official” population estimates. While it is possible to derive population estimates from the ACS, these are not considered to be “official” by the Bureau.

**Table 2. 2013 Estimated Apportionment Population by States**

State	2013 Apportionment Population, Estimated <sup>a</sup>	Resident Population Estimate (as of July 1, 2013) <sup>b</sup>	2010 Ratio of Overseas to Resident Pop. <sup>c</sup>	2013 Overseas Population Estimate <sup>d</sup>
Alabama	4,857,506	4,833,996	0.004863449	23,510
Alaska	748,981	737,259	0.015899053	11,722
Arizona	6,656,466	6,634,997	0.003235755	21,469
Arkansas	2,969,228	2,958,765	0.003536108	10,463
California	38,522,208	38,431,393	0.002363051	90,815
Colorado	5,288,580	5,272,086	0.003128532	16,494
Connecticut	3,606,925	3,599,341	0.002107106	7,584
Delaware	928,272	925,240	0.003277524	3,032
Florida	19,704,001	19,600,311	0.005290216	103,690
Georgia	10,035,937	9,994,759	0.004119987	41,178
Hawaii	1,415,783	1,408,987	0.004823197	6,796
Idaho	1,618,931	1,612,843	0.003774603	6,088
Illinois	12,924,458	12,890,552	0.002630268	33,906
Indiana	6,588,731	6,570,713	0.002742218	18,018
Iowa	3,099,885	3,092,341	0.002439637	7,544
Kansas	2,906,656	2,895,801	0.003748531	10,855
Kentucky	4,410,978	4,399,583	0.002590009	11,395
Louisiana	4,650,310	4,629,284	0.004541873	21,026
Maine	1,333,416	1,328,702	0.003547981	4,714
Maryland	5,955,583	5,938,737	0.002836555	16,846
Massachusetts	6,721,185	6,708,874	0.001835015	12,311
Michigan	9,926,220	9,898,193	0.002831548	28,027
Minnesota	5,433,258	5,422,060	0.002065263	11,198
Mississippi	3,003,241	2,992,206	0.003687868	11,035
Missouri	6,067,679	6,044,917	0.003765449	22,762
Montana	1,019,994	1,014,864	0.005054502	5,130
Nebraska	1,874,581	1,868,969	0.003002725	5,612
Nevada	2,800,674	2,791,494	0.003288588	9,180
New Hampshire	1,327,614	1,322,616	0.003779045	4,998
New Jersey	8,927,321	8,911,502	0.001775158	15,819
New Mexico	2,095,098	2,086,895	0.003930693	8,203
New York	19,739,337	19,695,680	0.002216574	43,657
North Carolina	9,880,211	9,848,917	0.003177395	31,294
North Dakota	727,424	723,857	0.004927214	3,567

State	2013 Apportionment Population, Estimated <sup>a</sup>	Resident Population Estimate (as of July 1, 2013) <sup>b</sup>	2010 Ratio of Overseas to Resident Pop. <sup>c</sup>	2013 Overseas Population Estimate <sup>d</sup>
Ohio	11,604,094	11,572,005	0.002773024	32,089
Oklahoma	3,867,016	3,853,118	0.003606967	13,898
Oregon	3,946,044	3,928,068	0.004576262	17,976
Pennsylvania	12,814,024	12,781,296	0.002560623	32,728
Rhode Island	1,056,036	1,053,354	0.002546156	2,682
South Carolina	4,793,193	4,771,929	0.004456082	21,264
South Dakota	851,306	845,510	0.006854750	5,796
Tennessee	6,527,294	6,497,269	0.004621102	30,025
Texas	26,635,139	26,505,637	0.004885833	129,502
Utah	2,910,013	2,902,787	0.002489250	7,226
Vermont	631,459	626,855	0.007344892	4,604
Virginia	8,308,293	8,270,345	0.004588413	37,948
Washington	7,003,639	6,973,742	0.004287133	29,897
West Virginia	1,860,418	1,853,595	0.003681070	6,823
Wisconsin	5,754,308	5,742,953	0.001977146	11,355
Wyoming	588,060	583,223	0.008292733	4,837
Total	316,917,008	315,848,420		1,068,588

**Source:** Derived by CRS from 2010 Apportionment Population, U. S. Census Bureau, and Resident Population Estimates, 2010-2014, U.S. Census Bureau. U.S. Census Bureau, Population Division, "Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2014," May 2015.

**Notes:**

- 2013 apportionment population consists of U.S. resident population as of July 1, 2013 plus the estimated 2013 overseas U.S. populations (i.e., sum of values in columns 3 and 5 for each state).
- U.S. Census Bureau, Population Division, "Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2014," release date: May 2015.
- Ratio computed using 2010 resident population and 2010 overseas population in **Table I**.
- 2013 overseas population estimate is based on multiplying the ratio of the 2010 overseas population to the 2010 resident population, derived from the 2010 census, by the July 1, 2013 U.S. Census Bureau resident population estimate. This implies that the distribution of the 2013 overseas population is distributed among the states as it was in 2010.

## 2013 American Community Survey Citizenship Status

**Table 3** below displays the results from the “citizenship” question posed in the 2013 American Community Survey (ACS) for each state. In addition, as the results are based on a sample survey, each estimate is associated with a measurement of error (MoE).<sup>18</sup> By adding or subtracting the value of the associated MoE to the estimate, one calculates the upper and lower bounds for that estimated value at the 90% confidence level.

According to the documentation for the 2013 ACS, citizenship status/U.S. citizenship status was defined in the following way:

The data on citizenship status were derived from answers to Question 8 in the 2013 American Community Survey (ACS). This question was asked about Persons 1 through 5 in the ACS.

Respondents were asked to select one of five categories: (1) born in the United States, (2) born in Puerto Rico, Guam, the U.S. Virgin Islands, or Northern Marianas, (3) born abroad of U.S. citizen parent or parents, (4) U.S. citizen by naturalization, or (5) not a U.S. citizen. Respondents indicating they are a U.S. citizen by naturalization also are asked to print their year of naturalization. People born in American Samoa, although not explicitly listed, are included in the second response category.

For the Puerto Rico Community Survey, respondents were asked to select one of five categories: (1) born in Puerto Rico, (2) born in a U.S. state, District of Columbia, Guam, the U.S. Virgin Islands, or Northern Marianas, (3) born abroad of U.S. citizen parent or parents, (4) U.S. citizen by naturalization, or (5) not a U.S. citizen. Respondents indicating they are a U.S. citizen by naturalization also are asked to print their year of naturalization. People born in American Samoa, although not explicitly listed, are included in the second response category.

When no information on citizenship status was reported for a person, information for other household members, if available, was used to assign a citizenship status to the respondent.<sup>19</sup>

<sup>18</sup> This table is a subset of **Table A-1** in the **Appendix** and displays MoE for a 90% estimate of error (MoE<sub>90</sub>). The MoE and its derivation are discussed more fully in the **Appendix**.

<sup>19</sup> U.S. Department of Commerce, U.S. Census Bureau, *American Community Survey and Puerto Rico Community Survey, 2013 Subject Definitions*, Washington, DC, 2014, p. 54, at [http://www2.census.gov/programs-surveys/acs/tech\\_docs/subject\\_definitions/2013\\_ACSSubjectDefinitions.pdf](http://www2.census.gov/programs-surveys/acs/tech_docs/subject_definitions/2013_ACSSubjectDefinitions.pdf).

**Table 3. 2013 American Community Survey (ACS), Citizen Population Estimates with 90% Measurement of Errors (MoE<sub>90</sub>)**

State	Total U.S. population		U.S. citizen, born in United States		U.S. citizen, born in Puerto Rico or U.S. island areas		U.S. citizen, born abroad of American parent(s)		U.S. citizen by naturalization		Not a U.S. citizen	
	Estimate	MoE	Estimate	MoE <sub>90</sub> <sup>a</sup>	Estimate	MoE <sub>90</sub> <sup>a</sup>	Estimate	MoE <sub>90</sub> <sup>a</sup>	Estimate	MoE <sub>90</sub> <sup>a</sup>	Estimate	MoE <sub>90</sub> <sup>a</sup>
AL	4,833,722	*****	4,631,111	8,249	6,570	1,762	33,815	3,628	59,782	4,481	102,444	6,739
AK	735,132	*****	668,628	4,080	4,433	1,316	11,311	2,074	28,509	2,559	22,251	3,384
AZ	6,626,624	*****	5,649,584	18,091	14,163	2,665	66,567	4,612	342,265	11,609	554,045	17,068
AR	2,959,373	*****	2,804,722	6,755	3,099	1,285	17,664	2,799	43,677	4,184	90,211	5,360
CA	38,332,521	*****	27,543,007	52,221	79,653	5,398	398,661	9,591	5,006,979	29,801	5,304,221	48,531
CO	5,268,367	*****	4,693,854	12,075	7,168	1,329	66,711	4,468	197,600	7,513	303,034	10,144
CT	3,596,080	*****	2,971,430	12,464	88,069	5,401	36,938	3,254	244,730	7,996	254,913	11,997
DE	925,749	*****	833,503	4,459	9,674	2,114	5,804	1,243	34,625	3,031	42,143	3,706
FL	19,552,860	*****	15,085,372	35,380	449,721	16,458	219,705	9,889	2,028,738	27,417	1,769,324	28,881
GA	9,992,167	*****	8,891,411	18,901	36,621	4,973	93,156	5,844	375,460	10,785	595,519	16,129
HI	1,404,054	*****	1,118,050	10,918	12,466	2,480	27,074	2,984	139,732	6,178	106,732	7,673
ID	1,612,136	*****	1,502,000	6,361	1,532	867	13,079	2,360	35,903	3,561	59,622	4,402
IL	12,882,135	*****	10,943,606	23,904	50,918	4,405	80,143	5,403	852,962	17,158	954,506	21,734
IN	6,570,902	*****	6,212,385	10,199	10,692	2,655	33,324	2,976	110,657	5,837	203,844	9,173
IA	3,090,416	*****	2,925,682	7,387	2,118	777	13,494	2,126	55,195	4,323	93,927	6,079
KS	2,893,957	*****	2,674,173	8,174	2,485	900	19,126	2,179	66,850	4,793	131,323	7,374
KY	4,395,295	*****	4,216,441	7,527	4,924	1,666	24,914	2,691	56,085	4,121	92,931	5,579
LA	4,625,470	*****	4,412,731	7,904	6,321	1,651	23,859	2,803	76,033	4,780	106,526	6,599
ME	1,328,302	*****	1,269,681	3,487	1,078	480	12,856	1,541	25,351	2,768	19,336	2,805
MD	5,928,814	*****	5,000,878	17,115	18,442	3,266	67,244	4,092	420,344	11,398	421,906	11,434

	Total U.S. population		U.S. citizen, born in United States		U.S. citizen, born in Puerto Rico or U.S. island areas		U.S. citizen, born abroad of American parent(s)		U.S. citizen by naturalization		Not a U.S. citizen	
State	Estimate	MoE	Estimate	MoE <sub>90</sub> <sup>a</sup>	Estimate	MoE <sub>90</sub> <sup>a</sup>	Estimate	MoE <sub>90</sub> <sup>a</sup>	Estimate	MoE <sub>90</sub> <sup>a</sup>	Estimate	MoE <sub>90</sub> <sup>a</sup>
MA	6,692,824	*****	5,475,165	18,340	113,620	6,250	57,884	3,661	549,009	14,653	497,146	14,628
MI	9,895,622	*****	9,206,167	12,843	11,334	2,117	61,335	4,192	315,064	9,394	301,722	10,578
MN	5,420,380	*****	4,978,189	9,717	5,003	1,604	33,674	2,719	207,945	8,017	195,569	8,357
MS	2,991,207	*****	2,908,659	5,986	5,292	1,290	14,357	2,748	24,044	2,757	38,855	4,889
MO	6,044,171	*****	5,772,869	9,174	5,394	1,954	32,647	3,444	105,387	5,456	127,874	7,704
MT	1,015,165	*****	987,034	2,902	615	427	8,051	1,564	11,127	1,756	8,338	1,402
NE	1,868,516	*****	1,730,401	5,014	1,441	631	13,492	1,657	41,774	3,508	81,408	5,157
NV	2,790,136	*****	2,215,002	10,319	11,839	2,452	34,131	4,494	250,949	7,732	278,215	9,255
NH	1,323,459	*****	1,234,128	4,865	3,966	1,460	10,190	1,751	40,448	3,147	34,727	4,082
NJ	8,899,339	*****	6,753,607	22,017	138,987	7,594	80,972	5,130	1,021,084	17,262	904,689	19,525
NM	2,085,287	*****	1,849,232	10,862	3,687	1,244	21,119	2,432	72,651	4,458	138,598	9,193
NY	19,651,127	*****	14,798,608	33,209	296,387	10,788	172,821	8,545	2,359,247	27,804	2,024,064	29,025
NC	9,848,060	*****	8,989,881	12,867	30,673	4,460	78,080	4,907	239,232	9,499	510,194	13,191
ND	723,393	*****	695,779	2,852	207	181	6,300	1,638	6,548	1,418	14,559	2,288
OH	11,570,808	*****	11,003,182	15,677	33,237	3,772	57,052	5,042	237,404	9,075	239,933	11,011
OK	3,850,568	*****	3,596,428	6,828	5,043	1,496	30,665	2,712	76,353	3,959	142,079	5,755
OR	3,930,065	*****	3,496,761	10,453	4,974	1,475	37,124	3,163	155,415	6,872	235,791	10,303
PA	12,773,801	*****	11,768,250	19,416	140,784	7,773	68,608	4,700	410,524	11,354	385,635	14,764
RI	1,051,511	*****	891,444	6,797	14,424	2,412	9,671	1,791	69,709	4,196	66,263	5,347
SC	4,774,839	*****	4,491,687	9,702	12,465	1,921	39,409	4,124	89,661	5,397	141,617	7,537



	Total U.S. population		U.S. citizen, born in United States		U.S. citizen, born in Puerto Rico or U.S. island areas		U.S. citizen, born abroad of American parent(s)		U.S. citizen by naturalization		Not a U.S. citizen	
State	Estimate	MoE	Estimate	MoE <sub>90</sub> <sup>a</sup>	Estimate	MoE <sub>90</sub> <sup>a</sup>	Estimate	MoE <sub>90</sub> <sup>a</sup>	Estimate	MoE <sub>90</sub> <sup>a</sup>	Estimate	MoE <sub>90</sub> <sup>a</sup>
SD	844,877	*****	816,396	3,194	78	127	3,944	972	8,035	1,593	16,424	2,611
TN	6,495,978	*****	6,137,131	11,202	9,110	1,768	44,936	4,554	114,362	6,811	190,439	8,525
TX	26,448,193	*****	21,717,032	35,268	78,803	7,972	283,087	11,815	1,491,058	22,794	2,878,213	37,483
UT	2,900,872	*****	2,634,377	10,880	3,616	1,547	25,925	2,868	88,045	5,601	148,909	9,201
VT	626,630	*****	594,234	2,480	277	180	5,107	911	15,904	1,783	11,108	2,020
VA	8,260,405	*****	7,169,317	15,915	30,964	3,709	111,161	4,765	477,236	11,110	471,727	15,730
WA	6,971,406	*****	5,911,639	16,825	22,077	2,942	94,026	6,306	436,834	12,244	506,830	13,390
WV	1,854,304	*****	1,818,241	2,935	1,977	793	7,765	1,376	13,343	1,806	12,978	2,173
WI	5,742,713	*****	5,423,701	8,914	16,507	2,973	27,818	2,690	119,720	4,926	154,967	8,161
WY	582,658	*****	560,963	2,348	358	265	3,308	912	7,083	1,291	10,946	1,829

**Source:** U.S. Census Bureau, American Factfinder (<http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>), American Community Survey (<http://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>). Select : **Topics = People, Origin, Citizenship; Geographies = States, All states plus PR**. This action produces Table ID B05001, ACS 2013 1-year estimates—file, ACS\_13\_1YR\_B05001\_with\_ann.csv. When this .csv file is converted to an Excel .xlsx file, it equals the table, above. The values for Puerto Rico and the District of Columbia have been removed.

a. The measurement of error at the 90% confidence level. See the **Appendix** for a discussion.

Summing the estimated values in columns 4, 6, 8, and 10 from **Table 3**, one arrives at the 2013 estimated total resident citizen population based on the 2013 ACS survey. This sum is displayed in column 6 in **Table 4**, below. The calculation of the associated Margin of Error at the 95% confidence level (MoE<sub>95</sub>) for this calculated sum, and consequently, the upper and lower bound population estimates is discussed in the **Appendix**, and the MoE<sub>95</sub> for the resident citizen population is shown in **Table A-2**.

### *Estimating the ACS 2013 Citizen Apportionment Population*

**Table 4** displays the 2013 ACS resident citizen population estimate and the upper and lower bound populations of that estimate for each state (columns 6, 7, and 8). In addition, column 5 displays the estimated 2013 overseas population initially calculated in **Table 2** for each state. The apportionment population is the resident population plus the overseas population as defined by the U.S. Census Bureau. Consequently, summing the estimated 2013 overseas population with each of the resident citizen population values shown in columns 6, 7 and 8 above produces the matching apportionment population estimates as shown in columns 2, 3 and 4 in **Table 4** below. The value in column 2, the 2013 citizen apportionment population estimate, is the state values used in this report to calculate the apportionment of seats for the U.S. House of Representatives.<sup>20</sup>

**Table 4. 2013 Citizen Apportionment Estimates with 95% Upper and Lower Error Bounds**

Derived from 2013 American Community Survey (ACS)

State	2013 Citizen Apportionment Population			2013 Overseas Population Estimate <sup>a</sup>	2013 ACS Resident Citizen Population		
	Estimate <sup>b</sup>	95% Upper Bound <sup>c</sup>	95% Lower Bound <sup>d</sup>		Estimate <sup>e</sup>	95% Upper Bound <sup>f</sup>	95% Lower Bound <sup>f</sup>
Alabama	4,754,788	4,766,962	4,742,614	23,510	4,731,278	4,743,452	4,719,104
Alaska	724,603	731,045	718,161	11,722	712,881	719,323	706,439
Arizona	6,094,048	6,120,434	6,067,662	21,469	6,072,579	6,098,965	6,046,193
Arkansas	2,879,625	2,889,779	2,869,471	10,463	2,869,162	2,879,316	2,859,008
California	33,119,115	33,191,945	33,046,285	90,815	33,028,300	33,101,130	32,955,470
Colorado	4,981,827	4,999,659	4,963,995	16,494	4,965,333	4,983,165	4,947,501
Connecticut	3,348,751	3,367,928	3,329,574	7,584	3,341,167	3,360,344	3,321,990
Delaware	886,638	893,695	879,581	3,032	883,606	890,663	876,549
Florida	17,887,226	17,945,256	17,829,196	103,690	17,783,536	17,841,566	17,725,506
Georgia	9,437,826	9,465,319	9,410,333	41,178	9,396,648	9,424,141	9,369,155
Hawaii	1,304,118	1,319,764	1,288,472	6,796	1,297,322	1,312,968	1,281,676
Idaho	1,558,602	1,567,790	1,549,414	6,088	1,552,514	1,561,702	1,543,326
Illinois	11,961,535	11,997,564	11,925,506	33,906	11,927,629	11,963,658	11,891,600
Indiana	6,385,076	6,399,862	6,370,290	18,018	6,367,058	6,381,844	6,352,272
Iowa	3,004,033	3,014,582	2,993,484	7,544	2,996,489	3,007,038	2,985,940
Kansas	2,773,489	2,785,123	2,761,855	10,855	2,762,634	2,774,268	2,751,000
Kentucky	4,313,759	4,324,657	4,302,861	11,395	4,302,364	4,313,262	4,291,466
Louisiana	4,539,970	4,551,638	4,528,302	21,026	4,518,944	4,530,612	4,507,276

<sup>20</sup> Both the upper and lower bound values were also used to calculate the seat distribution, as well. Using these two populations resulted in no difference in the seat distribution from that of using the estimate. However, that does not necessarily mean that sampling error would have no effect. Each state estimate ranges from a high value to a low value. While calculating the impact of all the low values for all states or for all the high values at once did not reveal an impact, a distribution of state values with a high in some states combined with low values in other states might produce such a difference.

State	2013 Citizen Apportionment Population				2013 ACS Resident Citizen Population		
	Estimate <sup>b</sup>	95% Upper Bound <sup>c</sup>	95% Lower Bound <sup>d</sup>	2013 Overseas Population Estimate <sup>a</sup>	Estimate <sup>e</sup>	95% Upper Bound <sup>f</sup>	95% Lower Bound <sup>f</sup>
Maine	1,313,680	1,319,322	1,308,038	4,714	1,308,966	1,314,608	1,303,324
Maryland	5,523,754	5,549,036	5,498,472	16,846	5,506,908	5,532,190	5,481,626
Massachusetts	6,207,989	6,237,260	6,178,718	12,311	6,195,678	6,224,949	6,166,407
Michigan	9,621,927	9,641,694	9,602,160	28,027	9,593,900	9,613,667	9,574,133
Minnesota	5,236,009	5,251,483	5,220,535	11,198	5,224,811	5,240,285	5,209,337
Mississippi	2,963,387	2,972,032	2,954,742	11,035	2,952,352	2,960,997	2,943,707
Missouri	5,939,059	5,952,624	5,925,494	22,762	5,916,297	5,929,862	5,902,732
Montana	1,011,957	1,016,436	1,007,478	5,130	1,006,827	1,011,306	1,002,348
Nebraska	1,792,720	1,800,311	1,785,129	5,612	1,787,108	1,794,699	1,779,517
Nevada	2,521,101	2,537,631	2,504,571	9,180	2,511,921	2,528,451	2,495,391
New Hampshire	1,293,730	1,301,149	1,286,311	4,998	1,288,732	1,296,151	1,281,313
New Jersey	8,010,469	8,045,546	7,975,392	15,819	7,994,650	8,029,727	7,959,573
New Mexico	1,954,892	1,969,255	1,940,529	8,203	1,946,689	1,961,052	1,932,326
New York	17,670,720	17,724,868	17,616,572	43,657	17,627,063	17,681,211	17,572,915
North Carolina	9,369,160	9,389,789	9,348,531	31,294	9,337,866	9,358,495	9,317,237
North Dakota	712,401	716,674	708,128	3,567	708,834	713,107	704,561
Ohio	11,362,964	11,385,814	11,340,114	32,089	11,330,875	11,353,725	11,308,025
Oklahoma	3,722,387	3,732,489	3,712,285	13,898	3,708,489	3,718,591	3,698,387
Oregon	3,712,250	3,727,724	3,696,776	17,976	3,694,274	3,709,748	3,678,800
Pennsylvania	12,420,894	12,449,796	12,391,992	32,728	12,388,166	12,417,068	12,359,264
Rhode Island	987,930	998,098	977,762	2,682	985,248	995,416	975,080
South Carolina	4,654,486	4,668,782	4,640,190	21,264	4,633,222	4,647,518	4,618,926
South Dakota	834,249	838,659	829,839	5,796	828,453	832,863	824,043
Tennessee	6,335,564	6,352,234	6,318,894	30,025	6,305,539	6,322,209	6,288,869
Texas	23,699,482	23,752,319	23,646,645	129,502	23,569,980	23,622,817	23,517,143
Utah	2,759,189	2,774,277	2,744,101	7,226	2,751,963	2,767,051	2,736,875
Vermont	620,126	623,930	616,322	4,604	615,522	619,326	611,718
Virginia	7,826,626	7,850,845	7,802,407	37,948	7,788,678	7,812,897	7,764,459
Washington	6,494,473	6,520,616	6,468,330	29,897	6,464,576	6,490,719	6,438,433
West Virginia	1,848,149	1,852,670	1,843,628	6,823	1,841,326	1,845,847	1,836,805
Wisconsin	5,599,101	5,612,142	5,586,060	11,355	5,587,746	5,600,787	5,574,705
Wyoming	576,549	579,936	573,162	4,837	571,712	575,099	568,325

**Source:** Calculated by CRS from values in **Table 2** and **Table 3**.

**Notes:**

- a. See **Table 2**, column 5. For an explanation of why this value is used here, see footnote 14, above.
- b. For each state, the sum of the value in column 6, the 2013 resident citizen population estimate, and the value in column 5, the 2013 overseas military and civilian federal employee population estimate.
- c. For each state, the sum of the value in column 7, the 95% upper bound of the 2013 resident citizen population estimate (based on adding the MoE<sub>95</sub> value to the 2013 resident citizen population estimate) and the value in column 5, the 2013 overseas military and civilian federal employee population estimate. For the value of MoE<sub>95</sub>, see **Table A-2**.
- d. For each state, the sum of the value in column 8, the 95% lower bound of the 2013 resident citizen population estimate (based on subtracting the MoE<sub>95</sub> value from the 2013 resident citizen population estimate) and the value in column 5, the 2013 overseas military and civilian federal employee population estimate. For the value of MoE<sub>95</sub>, see **Table A-2**.
- e. For each state, the value is the sum of the counts for the different types of citizen populations shown in **Table 3**, above, columns 4, 6, 8, and 10 and in **Table A-1**.

- f. For each state, the value shown constitutes either the addition to (column 7) or the subtraction from (column 8) of the  $MoE_{95}$  (the margin of error for the resident citizen population,  $MoE_{CIT}$ ) for the sum of the counts for the different types of citizen populations shown in **Table 3**, above, columns 4, 6, 8, and 10 and in **Table A-1**, to the 2013 resident citizen population estimate, (column 6). The calculation of the  $MoE_{95}$  for the sum of the counts, often referred to as the square root of the sum of squared errors, is shown in **Table A-2**, and described in the **Appendix**.

## Apportioning Seats to the House of Representatives Using Citizen Population Estimates

If the citizen population had been the basis of apportioning the seats in the House of Representatives after the 2000 census, it was estimated that nine seats would have shifted among 13 states relative to the actual apportionment.<sup>21</sup> California would have received six fewer Representatives than it actually did. Florida and Texas, scheduled to receive two additional seats, each would have lost one of those two seats. New York, scheduled to lose two seats in the 2000 apportionment, would lose an additional seat if the 2000 citizen population had been used to apportion the seats in the House. And nine states would have gained one more Representative than they actually received in the 2000 apportionment.

Columns 2 and 3 in **Table 5** display the actual 2010 apportionment population, as well as the 2012 apportionment of seats in the U.S. House of Representatives (i.e., the current apportionment of seats).

Column 4 shows the 2013 total apportionment population estimate based upon the 2013 total state resident populations calculated in **Table 2**. Based on this estimated population, if an apportionment of the seats in the U.S. House of Representatives were to be conducted today, the distribution of seats among the states would be that shown in column 5 of **Table 5**. As can be seen in column 6, to the extent the estimated 2013 population reflects population changes among the states, then it would appear that Minnesota would lose a seat and North Carolina would gain a seat in an apportionment today, relative to the actual apportionment based on the 2010 population.

Column 7 displays the estimated state citizen population for 2013 as derived in **Table 3**. If the apportionment of the seats of the U.S. House of Representatives was to be conducted today, and, was based on the estimated 2013 population of U.S. citizens in each state, then the distribution of House seats among the states would be that shown in column 8 of **Table 5**. As can be seen in column 9, to the extent the 2013 citizen population estimate is an accurate representation of the citizen population in the states, the distribution of seats in the House based on that population would create a 7 seat change affecting 11 states, relative to the actual 2010 seat distribution among the states.

California would lose 4 seats, and Florida, New York, and Texas would each lose 1 seat. On the other hand, Louisiana, Missouri, Montana, North Carolina, Ohio, Oklahoma, and Virginia would each pick up a single seat, if the estimated 2013 citizen population were used to apportion seats today rather than the 2010 census population.<sup>22</sup>

<sup>21</sup> David C. Huckabee, *Apportioning Representatives Among the States by Citizen Population Instead of Total State Population*, Congressional Research Service, Government & Finance Division, CRS Congressional Distribution Memorandum, Washington, DC, May 11, 2005, pp. 1-2. This report is available from the author upon request.

<sup>22</sup> It should be noted that the magnitude of the impact of using the citizen population as opposed to the resident population for apportionment is a one-time event. If the citizen population were used in multiple apportionments, such dramatic changes in the number of seats would be rare from apportionment to apportionment.

**Table 5. Impact of Apportioning Seats in the House of Representatives Using the Estimated 2013 Total and Citizen Population**

State	2012 Actual Apportionment		2013 Apportionment		SEAT DIFFERENCE: Actual 2012 vs. 2013 based on Total Pop.	2013 Apportionment		SEAT DIFFERENCE: Actual 2012 vs. 2013 based on Citizen Pop.
	2010 Census Apportionment Pop. <sup>a</sup>	Actual House Seats	2013 Total Apportionment Pop. Estimate <sup>b</sup>	House Seats		2013 Citizen Apportionment Pop. Estimate <sup>c</sup>	House Seats	
AL	4,802,982	7	4,857,506	7	0	4,754,788	7	0
AK	721,523	1	748,981	1	0	724,603	1	0
AZ	6,412,700	9	6,656,466	9	0	6,094,048	9	0
AR	2,926,229	4	2,969,228	4	0	2,879,625	4	0
CA	37,341,989	53	38,522,208	53	0	33,119,115	49	-4
CO	5,044,930	7	5,288,580	7	0	4,981,827	7	0
CN	3,581,628	5	3,606,925	5	0	3,348,751	5	0
DE	900,877	1	928,272	1	0	886,638	1	0
FL	18,900,773	27	19,704,001	27	0	17,887,226	26	-1
GA	9,727,566	14	10,035,937	14	0	9,437,826	14	0
HI	1,366,862	2	1,415,783	2	0	1,304,118	2	0
ID	1,573,499	2	1,618,931	2	0	1,558,602	2	0
IL	12,864,380	18	12,924,458	18	0	11,961,535	18	0
IN	6,501,582	9	6,588,731	9	0	6,385,076	9	0
IA	3,053,787	4	3,099,885	4	0	3,004,033	4	0
KS	2,863,813	4	2,906,656	4	0	2,773,489	4	0
KY	4,350,606	6	4,410,978	6	0	4,313,759	6	0
LA	4,553,962	6	4,650,310	6	0	4,539,970	7	1
ME	1,333,074	2	1,333,416	2	0	1,313,680	2	0
MD	5,789,929	8	5,955,583	8	0	5,523,754	8	0
MA	6,559,644	9	6,721,185	9	0	6,207,989	9	0
MI	9,911,626	14	9,926,220	14	0	9,621,927	14	0
MN	5,314,879	8	5,433,258	7	-1	5,236,009	8	0
MS	2,978,240	4	3,003,241	4	0	2,963,387	4	0
MO	6,011,478	8	6,067,679	8	0	5,939,059	9	1
MT	994,416	1	1,019,994	1	0	1,011,957	2	1
NB	1,831,825	3	1,874,581	3	0	1,792,720	3	0
NV	2,709,432	4	2,800,674	4	0	2,521,101	4	0
NH	1,321,445	2	1,327,614	2	0	1,293,730	2	0
NJ	8,807,501	12	8,927,321	12	0	8,010,469	12	0

State	2012 Actual Apportionment		2013 Apportionment		SEAT DIFFERENCE: Actual 2012 vs. 2013 based on Total Pop.	2013 Apportionment		SEAT DIFFERENCE: Actual 2012 vs. 2013 based on Citizen Pop.
	2010 Census Apportionment Pop. <sup>a</sup>	Actual House Seats	2013 Total Apportionment Pop. Estimate <sup>b</sup>	House Seats		2013 Citizen Apportionment Pop. Estimate <sup>c</sup>	House Seats	
NM	2,067,273	3	2,095,098	3	0	1,954,892	3	0
NY	19,421,055	27	19,739,337	27	0	17,670,720	26	-1
NC	9,565,781	13	9,880,211	14	1	9,369,160	14	1
ND	675,905	1	727,424	1	0	712,401	1	0
OH	11,568,495	16	11,604,094	16	0	11,362,964	17	1
OK	3,764,882	5	3,867,016	5	0	3,722,387	6	1
OR	3,848,606	5	3,946,044	5	0	3,712,250	5	0
PA	12,734,905	18	12,814,024	18	0	12,420,894	18	0
RI	1,055,247	2	1,056,036	2	0	987,930	2	0
SC	4,645,975	7	4,793,193	7	0	4,654,486	7	0
SD	819,761	1	851,306	1	0	834,249	1	0
TN	6,375,431	9	6,527,294	9	0	6,335,564	9	0
TX	25,268,418	36	26,635,139	36	0	23,699,482	35	-1
UT	2,770,765	4	2,910,013	4	0	2,759,189	4	0
VT	630,337	1	631,459	1	0	620,126	1	0
VA	8,037,736	11	8,308,293	11	0	7,826,626	12	1
WA	6,753,369	10	7,003,639	10	0	6,494,473	10	0
WV	1,859,815	3	1,860,418	3	0	1,848,149	3	0
WI	5,698,230	8	5,754,308	8	0	5,599,101	8	0
WY	568,300	1	588,060	1	0	576,549	1	0
Totals	309,183,463	435	316,917,008	435		294,552,403	435	

**Source:** All calculations performed by CRS.

**Notes:**

- a. Includes the resident population for the 50 states, as ascertained by the Twenty-Third Decennial Census under Title 13, United States Code, and counts of overseas U.S. military and federal civilian employees and their dependents living with them.
- b. See **Table 2**, above.
- c. See **Table 4**, above.

## **Taking the Citizen Population into Account in the Apportionment Process: Some Possible Options**

As is shown above, using the citizen population to apportion the seats in the House of Representatives, as some have advocated, would have an impact on the distribution of seats among the states. For those who favor the current method and outcome, no change in policy is necessary. However, for those who wish, for whatever reason, to make sure only the citizen population has an impact on the apportionment process, there are several options.

### **Constitutional Amendment**

First, and most obviously, proponents of such a policy can propose and attempt to pass and ratify a constitutional amendment changing the term “persons” to “citizens” in the 14<sup>th</sup> Amendment. This strategy was apparent, for example, in the proposed legislation introduced by Representative Candice Miller in the 111<sup>th</sup> Congress (H.J.Res. 11). Short of this action, however, it would appear that apportioning the seats in the House of Representatives by using the citizen population is not likely to occur, as it most likely would be unconstitutional.<sup>23</sup>

### **Using the Citizen Population in the Redistricting Process Rather than in the Apportionment Process**

The apportionment process determines the number of House seats that are allocated to each state (and, subsequently, the number of electoral votes). Once that process is completed, currently the next step, usually carried out by the state legislatures or state redistricting commissions, is to determine, within the state, what geographic area is to be represented by each seat. That is, the redistricting process draws the boundary lines for each of the congressional seats within each multi-member state. While the Constitution appears clear that the apportionment of seats is to be based on “persons,” it is silent with respect to how congressional district boundaries are drawn and on what basis.

### **Legal Considerations**

The federal courts have established criteria for the drawing of congressional districts (as well as state and local political jurisdictions), and it would appear that redistricting, currently, does not necessarily have to use total population, but could, if allowed by the state, use some other well-defined population—like the state’s citizen population.<sup>24</sup>

### **Practicalities**

Currently, the U.S. Census Bureau is required to deliver census information to be used in the redistricting process by one year following census day (i.e., most recently, by April 1, 2011). The

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<sup>23</sup> CRS Report R41048, *Constitutionality of Excluding Aliens from the Census for Apportionment and Redistricting Purposes*, 3-7. Also see, CRS Report R42483, *Legal Issues Regarding Census Data for Reapportionment and Redistricting*, by Margaret Mikyung Lee.

<sup>24</sup> CRS Report R41048, *Constitutionality of Excluding Aliens from the Census for Apportionment and Redistricting Purposes*, by Margaret Mikyung Lee and Erika K. Lunder, pp. 7-9. Also see, CRS Report R42483, *Legal Issues Regarding Census Data for Reapportionment and Redistricting*, by Margaret Mikyung Lee.



information includes block level information on age, sex, race, and Hispanic-origin of all persons living in the states. It does not include citizenship status on all persons living in the states. Such information, if collected on the decennial census form, could be used to draw boundaries for congressional districts rather than total population. The Fairness in Representation Act (H.R. 3797/S. 1688), or something similar, proposed by Representative Foxx and Senator Bennett in the 111<sup>th</sup> Congress would require the Census Bureau to collect this information on the 100% census form.

However, the states do have information for very small areas like blocks and precincts. Most states have voter registration information at the address level. As one must be a citizen to vote in most elections, this information could serve as a surrogate for the citizen population.<sup>25</sup> The major drawback would be that not every citizen is registered. However, it is very likely that many congressional and state legislative district boundaries already are based on much of this information. To the extent that boundaries are drawn to enhance the power positions of political parties, it is almost certain that voter registration information has been used by the map makers.<sup>26</sup>

Of course, Congress could pass legislation with respect to congressional redistricting requiring that the citizen population be used in the redistricting of seats for the U.S. House of Representatives in all states. Whether the states choose to follow this path or Congress chooses to, such a procedure could determine the population to be “represented” in the Congress, even if the number of seats for each state is determined by the total population.

## Changing the Apportionment Method

The apportionment of the seats in the U.S. House of Representatives is determined by four factors: the population size within the states, the number of seats to be allocated, the method or formula used, and the number of states in which seats are apportioned. Currently, the method of equal proportions is used to apportion the seats. The method is defined by law and, consequently, can be changed by Congress.<sup>27</sup>

In a 1941 journal article, Walter F. Willcox, the leading proponent of the major fractions method of apportionment at the time, and a noted mathematician from Cornell University, proposed using the method of smallest divisors on the total population as a method that came closest to simulating the impact of using the citizen population with either the method of major fractions or the method of equal proportions.<sup>28</sup> In his words,

Let me now explain why I have come to prefer the method of smallest divisors to any of the others, even that of major fractions which I advocated for many years.

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<sup>25</sup> The Court may come to a more definitive conclusion about the issue next year. In May 26, 2015, the U.S. Supreme Court agreed to hear an appeal in *Evanwel v. Abbott*, a one-person, one vote case involving the population used in the creation of Texas senate districts (i.e., in the redistricting process). Although, strictly speaking, the issue in this case is about redistricting, the Equal Protection clause, and “one-person, one-vote,” and the use of the eligible voter population to construct boundaries, one must be a citizen to vote in all elections in the State of Texas. See, CRS Legal Sidebar WSLG1325, Supreme Court Agrees to Consider Redefinition of One-Person, One-Vote in State Legislative Redistricting in *Evenwel v. Abbott*, by Dennis W. Polio.

<sup>26</sup> It is difficult to imagine how one could politically gerrymander without available political information like voter registration or voting data.

<sup>27</sup> For a full discussion of the method, see CRS Report R41357, *The U.S. House of Representatives Apportionment Formula in Theory and Practice*, by Royce Crocker. Also see, CRS Report R41382, *The House of Representatives Apportionment Formula: An Analysis of Proposals for Change and Their Impact on States*, by Royce Crocker.

<sup>28</sup> Walter F. Willcox, “A Role of Mathematics in Congressional Apportionment: A Reply,” *Sociometry*, vol. 4, no. 3 (August 1941), pp. 293-298.



My reasons are:

1. It secures the smallest average population per district and the narrowest range between the largest and the smallest average district.
2. It is the easiest method for the average citizen to understand and judge.
3. The theory underlying it is persuasive to the non-mathematical mind.
4. Its results based on the whole population come close to those of the method of major fractions or the method of equal proportions based on the citizen population.<sup>29</sup>

The method of smallest divisors (also referred to as the Adams method, after John Quincy Adams, a proponent) rounds up to the next seat for any fractional remainder. The rounding point between 1 and 2, for example, would be any fraction exceeding 1 with similar rounding points for all other integers. The method of smallest divisors (which has never been used in practice to apportion seats in the U.S. House of Representatives) may be defined in the following manner for a 435-seat House:

Find a number so that when it is divided into each state's population and resulting quotients that include fractions are rounded up, the total number of seats will sum to 435. (In all cases where a state would be entitled to less than one seat, it receives one anyway because of the constitutional entitlement.)<sup>30</sup>

The method of smallest divisors tends to favor states that are less populated. In general, with respect to the non-citizen population, the smallest divisors method tends to favor geographic areas where non-citizens are less likely to be located—less populated areas with fewer jobs or less-urban states. As a consequence, it could be argued that such a method is less representative than the current method.

**Table 6**, below, shows a comparison for 2013 between the apportionment of seats using the equal proportion method (the current method) for both the 2013 total population estimate and the 2013 citizen population estimate as compared to the smallest divisor method using the total 2013 total population estimate.

As can be seen in columns 7 and 8, while the distribution of seats based solely on the citizen population using the method of equal proportions is not exactly the same as that based on the total population using the method of smallest divisors, the impact of using the method of smallest divisors appears to fall somewhere between the distributions using the method of equal proportions on the 2013 total and citizen apportionment population estimates.

This is only one example. It is possible that other methods of apportioning the total population could be developed that would mimic the results one would get using the equal proportion methods with the citizen population more closely. The point is that an alternative to pursuing a constitutional amendment to replace the total population with the citizen population for apportionment purposes could be to change the apportionment method.

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<sup>29</sup> Ibid., p. 294.

<sup>30</sup> CRS Report R41382, *The House of Representatives Apportionment Formula: An Analysis of Proposals for Change and Their Impact on States*, p. 11, and also see Table 2 in that report for a comparison of its impact relative to other methods of apportionment, pp. 13-15.

**Table 6. Comparing the Seat Distributions: The Method of Equal Proportions (EqPro.) Using the Estimated 2013 Citizen Population to the Method of Smallest Divisor Using the Estimated 2013 Total Apportionment Population**

State	2013 Total Apportionment Population Estimate <sup>a</sup>	2013 Seats Based on Total Pop. Using EqPro. Method <sup>b</sup>	2013 Citizen Apportionment Population Estimate <sup>c</sup>	2013 Seats Based on Citizens Pop. Using EqPro. Method <sup>b</sup>	SEAT DIFFERENCE Between Total & Citizen Pop. Using EqPro. Method	2013 Seats Based on Total Pop. Using Smallest Divisor Method <sup>d</sup>	SEAT DIFFERENCE Between EqPro. Method Using Citizen Pop. & Smallest Divisor Method Using Total Population
Alabama	4,857,506	7	4,754,788	7	0	7	0
Alaska	748,981	1	724,603	1	0	1	0
Arizona	6,656,466	9	6,094,048	9	0	9	0
Arkansas	2,969,228	4	2,879,625	4	0	4	0
California	38,522,208	53	33,119,115	49	-4	51	2
Colorado	5,288,580	7	4,981,827	7	0	7	0
Connecticut	3,606,925	5	3,348,751	5	0	5	0
Delaware	928,272	1	886,638	1	0	2	1
Florida	19,704,001	27	17,887,226	26	-1	26	0
Georgia	10,035,937	14	9,437,826	14	0	14	0
Hawaii	1,415,783	2	1,304,118	2	0	2	0
Idaho	1,618,931	2	1,558,602	2	0	3	1
Illinois	12,924,458	18	11,961,535	18	0	17	-1
Indiana	6,588,731	9	6,385,076	9	0	9	0
Iowa	3,099,885	4	3,004,033	4	0	5	1
Kansas	2,906,656	4	2,773,489	4	0	4	0
Kentucky	4,410,978	6	4,313,759	6	0	6	0
Louisiana	4,650,310	6	4,539,970	7	1	7	0
Maine	1,333,416	2	1,313,680	2	0	2	0
Maryland	5,955,583	8	5,523,754	8	0	8	0
Massachusetts	6,721,185	9	6,207,989	9	0	9	0
Michigan	9,926,220	14	9,621,927	14	0	13	-1
Minnesota	5,433,258	7	5,236,009	8	1	8	0
Mississippi	3,003,241	4	2,963,387	4	0	4	0
Missouri	6,067,679	8	5,939,059	9	1	8	-1
Montana	1,019,994	1	1,011,957	2	1	2	0
Nebraska	1,874,581	3	1,792,720	3	0	3	0

State	2013 Total Apportionment Population Estimate <sup>a</sup>	2013 Seats Based on Total Pop. Using EqPro. Method <sup>b</sup>	2013 Citizen Apportionment Population Estimate <sup>c</sup>	2013 Seats Based on Citizens Pop. Using EqPro. Method <sup>b</sup>	SEAT DIFFERENCE Between Total & Citizen Pop. Using EqPro. Method	2013 Seats Based on Total Pop. Using Smallest Divisor Method <sup>d</sup>	SEAT DIFFERENCE Between EqPro. Method Using Citizen Pop. & Smallest Divisor Method Using Total Population
Nevada	2,800,674	4	2,521,101	4	0	4	0
New Hampshire	1,327,614	2	1,293,730	2	0	2	0
New Jersey	8,927,321	12	8,010,469	12	0	12	0
New Mexico	2,095,098	3	1,954,892	3	0	3	0
New York	19,739,337	27	17,670,720	26	-1	26	0
North Carolina	9,880,211	14	9,369,160	14	0	13	-1
North Dakota	727,424	1	712,401	1	0	1	0
Ohio	11,604,094	16	11,362,964	17	1	16	-1
Oklahoma	3,867,016	5	3,722,387	6	1	6	0
Oregon	3,946,044	5	3,712,250	5	0	6	1
Pennsylvania	12,814,024	18	12,420,894	18	0	17	-1
Rhode Island	1,056,036	2	987,930	2	0	2	0
South Carolina	4,793,193	7	4,654,486	7	0	7	0
South Dakota	851,306	1	834,249	1	0	2	1
Tennessee	6,527,294	9	6,335,564	9	0	9	0
Texas	26,635,139	36	23,699,482	35	-1	35	0
Utah	2,910,013	4	2,759,189	4	0	4	0
Vermont	631,459	1	620,126	1	0	1	0
Virginia	8,308,293	11	7,826,626	12	1	11	-1
Washington	7,003,639	10	6,494,473	10	0	10	0
West Virginia	1,860,418	3	1,848,149	3	0	3	0
Wisconsin	5,754,308	8	5,599,101	8	0	8	0
Wyoming	588,060	1	576,549	1	0	1	0
Totals	316,917,008	435	294,552,403	435		435	

**Source:** Table 2 and Table 4. All seat apportionment calculations performed by CRS.

**Notes:**

- See Table 2 for derivation.
- For a description of the Method of Equal Proportions (EqPro.), the current apportionment formula, CRS Report R41357, *The U.S. House of Representatives Apportionment Formula in Theory and Practice*, by Royce Crocker.
- See Table 4 for derivation.

- d. For a comparison of other formulas used in apportioning the U.S. House of Representatives over its history see, CRS Report R41382, *The House of Representatives Apportionment Formula: An Analysis of Proposals for Change and Their Impact on States*, by Royce Crocker.

## Appendix. Calculating the Sampling Errors

The 2013 ACS total population, with respect to citizenship status is composed of five parts: (a) native born citizens (NB), (b) native born citizens born in Puerto Rico, Guam, the Virgin Islands, or the Northern Marianas (PR), (c) citizens born abroad of American parents (BA), (d) naturalized citizens (NAT), and (e) non-citizens (NON). The citizen population is made up of the first four parts of the total population (parts a-d). These values are presented in **Table 3**, along with the associated measurement of error (MoE), as the values are estimates derived from a sample survey.

As the ACS is a sample survey, estimates derived from the survey results are subject to sampling error. When constructing tables from the ACS, the American Factfinder application produces the margin of error (MOE) for all appropriate estimates at a 90 percent confidence level. For purposes of this paper, all MoEs for population estimates have been converted to MoEs at the 95 percent confidence level using the formula described in the U.S. Census Bureau's description of how to use ACS data.<sup>31</sup> To create MoEs at the 95 percent confidence level, one multiplies each of the MoE values provided by the Census Bureau by the ratio (1.960/1.645). These values (MoE<sub>95</sub>), along with the values provided by the U.S. Census Bureau (the estimates and the matching MoE<sub>90</sub>) are displayed in **Table A-1**.

### Calculating the Measurement Errors for the Citizen Population Estimate

As noted above, the citizen population estimate is composed of the sum of the persons responding to the four categories in the citizenship status question (native born; native born in Puerto Rico, Guam, the Virgin Islands, and the Northern Marianas; born abroad to American parents; and naturalized). Consequently, the estimate of the citizen population merely consists of the sum of the values in these four categories. However, estimates of the sampling error for this sum are somewhat more complicated. The first step in calculating the MOEs for the aggregated counts for each state consists of using the following general formula,

the MOE<sub>CIT</sub> for the citizen population is

$$\text{MOE}_{\text{CIT}} = \pm \sqrt{(\text{MOE}_{\text{NB}}^2 + \text{MOE}_{\text{PR}}^2 + \text{MOE}_{\text{BA}}^2 + \text{MOE}_{\text{NAT}}^2)}$$

for each state.<sup>32</sup>

These calculations for the MoE<sub>90</sub> and MoE<sub>95</sub> for the sum are shown in the last two columns of **Table A-2**, below. Estimating the upper and lower bound for any estimate consists of adding and subtracting the value of the MoE to the estimate. Thus, the 95% upper and lower bound for the 2013 ACS resident citizen population estimate for each state shown in **Table 4** in the text above consists of adding (upper bound) and subtracting (lower bound) the matching state value for the MoE<sub>95</sub> shown in column 11 of **Table A-2** to the 2013 ACS resident citizen population estimated value for each state in **Table 4**.

<sup>31</sup> U.S. Census Bureau, *A Compass for Understanding and Using American Community Survey Data: What General Data Users Need to Know*, "Appendix 3. Measures of Sampling Error," (GPO: Washington, October 2008), p. A-12.

<sup>32</sup> Ibid., p. A-14.

**Table A-I. 2013 American Community Survey (ACS), Citizen Population Estimates with Measurement of Errors (MoE)**  
(Error Levels at the 90% and 95%)

	Total U.S. Population		U.S. citizen, born in United States			U.S. citizen, born in Puerto Rico or U.S. Island Areas			U.S. citizen, born abroad of American parent(s)			U.S. citizen by naturalization			Not a U.S. citizen		
State	Estimate	MoE	Estimate	MoE <sub>90</sub>	MoE <sub>95</sub>	Estimate	MoE <sub>90</sub>	MoE <sub>95</sub>	Estimate	MoE <sub>90</sub>	MoE <sub>95</sub>	Estimate	MoE <sub>90</sub>	MoE <sub>95</sub>	Estimate	MoE <sub>90</sub>	MoE <sub>95</sub>
AL	4,833,722	*****	4,631,111	8,249	9,829	6,570	1,762	2,099	33,815	3,628	4,323	59,782	4,481	5,339	102,444	6,739	8,029
AK	735,132	*****	668,628	4,080	4,861	4,433	1,316	1,568	11,311	2,074	2,471	28,509	2,559	3,049	22,251	3,384	4,032
AZ	6,626,624	*****	5,649,584	18,091	21,555	14,163	2,665	3,175	66,567	4,612	5,495	342,265	11,609	13,832	554,045	17,068	20,336
AR	2,959,373	*****	2,804,722	6,755	8,049	3,099	1,285	1,531	17,664	2,799	3,335	43,677	4,184	4,985	90,211	5,360	6,386
CA	38,332,521	*****	27,543,007	52,221	62,221	79,653	5,398	6,432	398,661	9,591	11,428	5,006,979	29,801	35,508	5,304,221	48,531	57,824
CO	5,268,367	*****	4,693,854	12,075	14,387	7,168	1,329	1,583	66,711	4,468	5,324	197,600	7,513	8,952	303,034	10,144	12,086
CT	3,596,080	*****	2,971,430	12,464	14,851	88,069	5,401	6,435	36,938	3,254	3,877	244,730	7,996	9,527	254,913	11,997	14,294
DE	925,749	*****	833,503	4,459	5,313	9,674	2,114	2,519	5,804	1,243	1,481	34,625	3,031	3,611	42,143	3,706	4,416
FL	19,552,860	*****	15,085,372	35,380	42,155	449,721	16,458	19,610	219,705	9,889	11,783	2,028,738	27,417	32,667	1,769,324	28,881	34,411
GA	9,992,167	*****	8,891,411	18,901	22,520	36,621	4,973	5,925	93,156	5,844	6,963	375,460	10,785	12,850	595,519	16,129	19,218
HI	1,404,054	*****	1,118,050	10,918	13,009	12,466	2,480	2,955	27,074	2,984	3,555	139,732	6,178	7,361	106,732	7,673	9,142
ID	1,612,136	*****	1,502,000	6,361	7,579	1,532	867	1,033	13,079	2,360	2,812	35,903	3,561	4,243	59,622	4,402	5,245
IL	12,882,135	*****	10,943,606	23,904	28,481	50,918	4,405	5,249	80,143	5,403	6,438	852,962	17,158	20,444	954,506	21,734	25,896
IN	6,570,902	*****	6,212,385	10,199	12,152	10,692	2,655	3,163	33,324	2,976	3,546	110,657	5,837	6,955	203,844	9,173	10,930
IA	3,090,416	*****	2,925,682	7,387	8,802	2,118	777	926	13,494	2,126	2,533	55,195	4,323	5,151	93,927	6,079	7,243
KS	2,893,957	*****	2,674,173	8,174	9,739	2,485	900	1,072	19,126	2,179	2,596	66,850	4,793	5,711	131,323	7,374	8,786
KY	4,395,295	*****	4,216,441	7,527	8,968	4,924	1,666	1,985	24,914	2,691	3,206	56,085	4,121	4,910	92,931	5,579	6,647
LA	4,625,470	*****	4,412,731	7,904	9,418	6,321	1,651	1,967	23,859	2,803	3,340	76,033	4,780	5,695	106,526	6,599	7,863
ME	1,328,302	*****	1,269,681	3,487	4,155	1,078	480	572	12,856	1,541	1,836	25,351	2,768	3,298	19,336	2,805	3,342
MD	5,928,814	*****	5,000,878	17,115	20,392	18,442	3,266	3,891	67,244	4,092	4,876	420,344	11,398	13,581	421,906	11,434	13,623
MA	6,692,824	*****	5,475,165	18,340	21,852	113,620	6,250	7,447	57,884	3,661	4,362	549,009	14,653	17,459	497,146	14,628	17,429
MI	9,895,622	*****	9,206,167	12,843	15,302	11,334	2,117	2,522	61,335	4,192	4,995	315,064	9,394	11,193	301,722	10,578	12,604

	Total U.S. Population		U.S. citizen, born in United States			U.S. citizen, born in Puerto Rico or U.S. Island Areas			U.S. citizen, born abroad of American parent(s)			U.S. citizen by naturalization			Not a U.S. citizen		
State	Estimate	MoE	Estimate	MoE <sub>90</sub>	MoE <sub>95</sub>	Estimate	MoE <sub>90</sub>	MoE <sub>95</sub>	Estimate	MoE <sub>90</sub>	MoE <sub>95</sub>	Estimate	MoE <sub>90</sub>	MoE <sub>95</sub>	Estimate	MoE <sub>90</sub>	MoE <sub>95</sub>
MN	5,420,380	*****	4,978,189	9,717	11,578	5,003	1,604	1,911	33,674	2,719	3,240	207,945	8,017	9,552	195,569	8,357	9,957
MS	2,991,207	*****	2,908,659	5,986	7,132	5,292	1,290	1,537	14,357	2,748	3,274	24,044	2,757	3,285	38,855	4,889	5,825
MO	6,044,171	*****	5,772,869	9,174	10,931	5,394	1,954	2,328	32,647	3,444	4,103	105,387	5,456	6,501	127,874	7,704	9,179
MT	1,015,165	*****	987,034	2,902	3,458	615	427	509	8,051	1,564	1,863	11,127	1,756	2,092	8,338	1,402	1,670
NE	1,868,516	*****	1,730,401	5,014	5,974	1,441	631	752	13,492	1,657	1,974	41,774	3,508	4,180	81,408	5,157	6,145
NV	2,790,136	*****	2,215,002	10,319	12,295	11,839	2,452	2,922	34,131	4,494	5,355	250,949	7,732	9,213	278,215	9,255	11,027
NH	1,323,459	*****	1,234,128	4,865	5,797	3,966	1,460	1,740	10,190	1,751	2,086	40,448	3,147	3,750	34,727	4,082	4,864
NJ	8,899,339	*****	6,753,607	22,017	26,233	138,987	7,594	9,048	80,972	5,130	6,112	1,021,084	17,262	20,567	904,689	19,525	23,264
NM	2,085,287	*****	1,849,232	10,862	12,942	3,687	1,244	1,482	21,119	2,432	2,898	72,651	4,458	5,312	138,598	9,193	10,953
NY	19,651,127	*****	14,798,608	33,209	39,568	296,387	10,788	12,854	172,821	8,545	10,181	2,359,247	27,804	33,128	2,024,064	29,025	34,583
NC	9,848,060	*****	8,989,881	12,867	15,331	30,673	4,460	5,314	78,080	4,907	5,847	239,232	9,499	11,318	510,194	13,191	15,717
ND	723,393	*****	695,779	2,852	3,398	207	181	216	6,300	1,638	1,952	6,548	1,418	1,690	14,559	2,288	2,726
OH	11,570,808	*****	11,003,182	15,677	18,679	33,237	3,772	4,494	57,052	5,042	6,007	237,404	9,075	10,813	239,933	11,011	13,119
OK	3,850,568	*****	3,596,428	6,828	8,135	5,043	1,496	1,782	30,665	2,712	3,231	76,353	3,959	4,717	142,079	5,755	6,857
OR	3,930,065	*****	3,496,761	10,453	12,455	4,974	1,475	1,757	37,124	3,163	3,769	155,415	6,872	8,188	235,791	10,303	12,276
PA	12,773,801	*****	11,768,250	19,416	23,134	140,784	7,773	9,261	68,608	4,700	5,600	410,524	11,354	13,528	385,635	14,764	17,591
RI	1,051,511	*****	891,444	6,797	8,099	14,424	2,412	2,874	9,671	1,791	2,134	69,709	4,196	4,999	66,263	5,347	6,371
SC	4,774,839	*****	4,491,687	9,702	11,560	12,465	1,921	2,289	39,409	4,124	4,914	89,661	5,397	6,430	141,617	7,537	8,980
SD	844,877	*****	816,396	3,194	3,806	78	127	151	3,944	972	1,158	8,035	1,593	1,898	16,424	2,611	3,111
TN	6,495,978	*****	6,137,131	11,202	13,347	9,110	1,768	2,107	44,936	4,554	5,426	114,362	6,811	8,115	190,439	8,525	10,157
TX	26,448,193	*****	21,717,032	35,268	42,021	78,803	7,972	9,499	283,087	11,815	14,077	1,491,058	22,794	27,159	2,878,213	37,483	44,661
UT	2,900,872	*****	2,634,377	10,880	12,963	3,616	1,547	1,843	25,925	2,868	3,417	88,045	5,601	6,674	148,909	9,201	10,963
VT	626,630	*****	594,234	2,480	2,955	277	180	214	5,107	911	1,085	15,904	1,783	2,124	11,108	2,020	2,407
VA	8,260,405	*****	7,169,317	15,915	18,963	30,964	3,709	4,419	111,161	4,765	5,677	477,236	11,110	13,237	471,727	15,730	18,742

State	Total U.S. Population		U.S. citizen, born in United States			U.S. citizen, born in Puerto Rico or U.S. Island Areas			U.S. citizen, born abroad of American parent(s)			U.S. citizen by naturalization			Not a U.S. citizen		
	Estimate	MoE	Estimate	MoE <sub>90</sub>	MoE <sub>95</sub>	Estimate	MoE <sub>90</sub>	MoE <sub>95</sub>	Estimate	MoE <sub>90</sub>	MoE <sub>95</sub>	Estimate	MoE <sub>90</sub>	MoE <sub>95</sub>	Estimate	MoE <sub>90</sub>	MoE <sub>95</sub>
WA	6,971,406	*****	5,911,639	16,825	20,047	22,077	2,942	3,505	94,026	6,306	7,514	436,834	12,244	14,589	506,830	13,390	15,954
WV	1,854,304	*****	1,818,241	2,935	3,497	1,977	793	945	7,765	1,376	1,639	13,343	1,806	2,152	12,978	2,173	2,589
WI	5,742,713	*****	5,423,701	8,914	10,621	16,507	2,973	3,542	27,818	2,690	3,205	119,720	4,926	5,869	154,967	8,161	9,724
WY	582,658	*****	560,963	2,348	2,798	358	265	316	3,308	912	1,087	7,083	1,291	1,538	10,946	1,829	2,179

**Source:** U.S. Census Bureau, American Factfinder (<http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>), American Community Survey (<http://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>). Select : Topics = People, Origin, Citizenship; Geographies = States, All states plus PR. This produces Table ID B05001, ACS 2013 1-year estimates—file, ACS\_13\_1YR\_B05001\_with\_ann.csv. When this .csv file is converted to an Excel .xlsx file, it equals the table, above, except for the MoE95 values. These values, for each cell, are equal to  $((1.96/1.645) * (\text{the population estimate}))$ .



**Table A-2. Margin of Error (MOE) at the 90 and 95 Percent Level  
for 2013 Citizenship Status**

Component Parts and Total

State	Native Born U.S. Citizens (MOE <sub>90</sub> (+/-))	Native Born U.S. Citizens (MOE <sub>95</sub> (+/-))	U.S. Citizens, Born in Puerto Rico or Islands (MOE <sub>90</sub> (+/-))	U.S. Citizens, Born in Puerto Rico or Islands (MOE <sub>95</sub> (+/-))	U.S. Citizens, Born Abroad of Amer. Parent(s) (MOE <sub>90</sub> (+/-))	U.S. Citizens, Born Abroad of Amer. Parent(s) (MOE <sub>95</sub> (+/-))	U.S. Citizen by Natural- ization (MOE <sub>90</sub> (+/-))	U.S. Citizen by Natural- ization (MOE <sub>95</sub> (+/-))	2013 Estimated Total Citizen Population (Margin of Error (+/-) for 90%	2013 Estimated Total Citizen Population (Margin of Error (+/-) for 95%
AL	8,249	9,829	1,762	2,099	3,628	4,323	4,481	5,339	10,217	12,174
AK	4,080	4,861	1,316	1,568	2,074	2,471	2,559	3,049	5,406	6,442
AZ	18,091	21,555	2,665	3,175	4,612	5,495	11,609	13,832	22,146	26,386
AR	6,755	8,049	1,285	1,531	2,799	3,335	4,184	4,985	8,522	10,154
CA	52,221	62,221	5,398	6,432	9,591	11,428	29,801	35,508	61,125	72,830
CO	12,075	14,387	1,329	1,583	4,468	5,324	7,513	8,952	14,966	17,832
CT	12,464	14,851	5,401	6,435	3,254	3,877	7,996	9,527	16,095	19,177
DE	4,459	5,313	2,114	2,519	1,243	1,481	3,031	3,611	5,923	7,057
FL	35,380	42,155	16,458	19,610	9,889	11,783	27,417	32,667	7,342	8,748
GA	18,901	22,520	4,973	5,925	5,844	6,963	10,785	12,850	48,704	58,030
HI	10,918	13,009	2,480	2,955	2,984	3,555	6,178	7,361	23,075	27,493
ID	6,361	7,579	867	1,033	2,360	2,812	3,561	4,243	13,131	15,646
IL	23,904	28,481	4,405	5,249	5,403	6,438	17,158	20,444	7,711	9,188
IN	10,199	12,152	2,655	3,163	2,976	3,546	5,837	6,955	30,239	36,029
IA	7,387	8,802	777	926	2,126	2,533	4,323	5,151	12,410	14,786
KS	8,174	9,739	900	1,072	2,179	2,596	4,793	5,711	8,853	10,549
KY	7,527	8,968	1,666	1,985	2,691	3,206	4,121	4,910	9,764	11,634
LA	7,904	9,418	1,651	1,967	2,803	3,340	4,780	5,695	9,146	10,898
ME	3,487	4,155	480	572	1,541	1,836	2,768	3,298	9,793	11,668
MD	17,115	20,392	3,266	3,891	4,092	4,876	11,398	13,581	4,736	5,642
MA	18,340	21,852	6,250	7,447	3,661	4,362	14,653	17,459	21,219	25,282
MI	12,843	15,302	2,117	2,522	4,192	4,995	9,394	11,193	24,567	29,271
MN	9,717	11,578	1,604	1,911	2,719	3,240	8,017	9,552	16,590	19,767
MS	5,986	7,132	1,290	1,537	2,748	3,274	2,757	3,285	12,987	15,474
MO	9,174	10,931	1,954	2,328	3,444	4,103	5,456	6,501	7,256	8,645
MT	2,902	3,458	427	509	1,564	1,863	1,756	2,092	11,385	13,565
NE	5,014	5,974	631	752	1,657	1,974	3,508	4,180	3,759	4,479
NV	10,319	12,295	2,452	2,922	4,494	5,355	7,732	9,213	6,371	7,591
NH	4,865	5,797	1,460	1,740	1,751	2,086	3,147	3,750	13,873	16,530
NJ	22,017	26,233	7,594	9,048	5,130	6,112	17,262	20,567	6,227	7,419

State	Native Born U.S. Citizens (MOE <sub>90</sub> (+/-))	Native Born U.S. Citizens (MOE <sub>95</sub> (+/-))	U.S. Citizens, Born in Puerto Rico or Islands (MOE <sub>90</sub> (+/-))	U.S. Citizens, Born in Puerto Rico or Islands (MOE <sub>95</sub> (+/-))	U.S. Citizens, Born Abroad of Amer. Parent(s) (MOE <sub>90</sub> (+/-))	U.S. Citizens, Born Abroad of Amer. Parent(s) (MOE <sub>95</sub> (+/-))	U.S. Citizen by Naturalization (MOE <sub>90</sub> (+/-))	U.S. Citizen by Naturalization (MOE <sub>95</sub> (+/-))	2013 Estimated Total Citizen Population (Margin of Error (+/-) for 90%)	2013 Estimated Total Citizen Population (Margin of Error (+/-) for 95%)
NM	10,862	12,942	1,244	1,482	2,432	2,898	4,458	5,312	29,440	35,077
NY	33,209	39,568	10,788	12,854	8,545	10,181	27,804	33,128	12,055	14,363
NC	12,867	15,331	4,460	5,314	4,907	5,847	9,499	11,318	45,446	54,148
ND	2,852	3,398	181	216	1,638	1,952	1,418	1,690	17,314	20,629
OH	15,677	18,679	3,772	4,494	5,042	6,007	9,075	10,813	3,586	4,273
OK	6,828	8,135	1,496	1,782	2,712	3,231	3,959	4,717	19,177	22,850
OR	10,453	12,455	1,475	1,757	3,163	3,769	6,872	8,188	8,479	10,102
PA	19,416	23,134	7,773	9,261	4,700	5,600	11,354	13,528	12,987	15,474
RI	6,797	8,099	2,412	2,874	1,791	2,134	4,196	4,999	24,257	28,902
SC	9,702	11,560	1,921	2,289	4,124	4,914	5,397	6,430	8,534	10,168
SD	3,194	3,806	127	151	972	1,158	1,593	1,898	11,998	14,296
TN	11,202	13,347	1,768	2,107	4,554	5,426	6,811	8,115	3,701	4,410
TX	35,268	42,021	7,972	9,499	11,815	14,077	22,794	27,159	13,991	16,670
UT	10,880	12,963	1,547	1,843	2,868	3,417	5,601	6,674	44,346	52,837
VT	2,480	2,955	180	214	911	1,085	1,783	2,124	12,664	15,088
VA	15,915	18,963	3,709	4,419	4,765	5,677	11,110	13,237	3,192	3,804
WA	16,825	20,047	2,942	3,505	6,306	7,514	12,244	14,589	20,327	24,219
WV	2,935	3,497	793	945	1,376	1,639	1,806	2,152	21,941	26,143
WI	8,914	10,621	2,973	3,542	2,690	3,205	4,926	5,869	3,794	4,521
WY	2,348	2,798	265	316	912	1,087	1,291	1,538	10,945	13,041

**Source:** Table A-I above. Calculation performed by CRS.

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