Congressional Apportionment

2020 Census Briefs

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INTRODUCTION

Congressional apportionment is the process of distributing the 435 memberships, or seats, in the U.S. House of Representatives among the 50 states. It is the constitutional basis for conducting a decennial census of the population. Apart from the 1920 Census, an apportionment has been made by the U.S. Congress based on each decennial census from 1790 to 2020.

The 2020 Census apportionment population was 331,108,434, and the resulting apportionment shifted seven House seats among 13 states. Six states gained seats and seven states lost seats. Among the states gaining seats, one state gained two seats, while each of the other states gained one. Among the states losing seats, each state lost one seat.

This brief discusses the 2020 Census apportionment results and puts them into context with apportionment results from previous decades. It also identifies regional trends and describes how apportionment is calculated. Additional topics on congressional apportionment are also provided in informational boxes. This report is part of a series that analyzes population and housing data collected in the 2020 Census.

APPORTIONMENT RESULTS

The 2020 Census apportionment population of the 50 states, which includes the resident population and the overseas population, was 331,108,434 (Table 1). This was a 21,924,971 (7.1 percent) increase since the 2010 Census. The resident population of the 50 states was 330,759,736, a 22,615,921 (7.3 percent) increase since 2010; the overseas population was 348,698.

ABOUT APPORTIONMENT

Article I, Section 2 of the U.S. Constitution mandates an apportionment of representatives among the states every 10 years, based on the state population counts from each decennial census.

Title 13, U.S. Code requires that the apportionment population counts for each state be delivered to the president within 9 months of the census date, and it requires that the census date is April 1 of the census year. This means that the statutory deadline for delivering the counts to the president is December 31 of the census year. However, due to data collection and processing delays stemming from the COVID-19 pandemic, the 2020 Census apportionment population counts were delivered on April 26, 2021.

The number of seats in the U.S. House of Representatives has remained constant at 435 since 1912, except for a temporary increase to 437 at the time of admission of Alaska and Hawaii as states just prior to the apportionment in 1960.

When calculating apportionment, each of the 50 states gets one seat in the U.S. House of Representatives. Then the Method of Equal Proportions is used to distribute the rest of the seats based on each state's apportionment population.

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Table 1.

Apportionment Population Based on the 2020 Census and Apportionment of the U.S. House of Representatives: 1920 to 2020

State	2020 apportionment population[1]			Number of representatives										
	Total	Resident population	U.S. population overseas	2020	2010	2000	1990	1980	1970	1960	1950	1940	1930	1920[2]
Total	**331,108,434**	**330,759,736**	**348,698**	**435**	**435**	**435**	**435**	**435**	**435**	**435**	**[3]437**	**435**	**435**	**435**
Alabama	5,030,053	5,024,279	5,774	7	7	7	7	7	7	8	9	9	9	10
Alaska.	736,081	733,391	2,690	1	1	1	1	1	1	1	1	X	X	X
Arizona	7,158,923	7,151,502	7,421	9	9	8	6	5	4	3	2	2	1	1
Arkansas	3,013,756	3,011,524	2,232	4	4	4	4	4	4	4	6	7	7	7
California	39,576,757	39,538,223	38,534	52	53	53	52	45	43	38	30	23	20	11
Colorado	5,782,171	5,773,714	8,457	8	7	7	6	6	5	4	4	4	4	4
Connecticut	3,608,298	3,605,944	2,354	5	5	5	6	6	6	6	6	6	6	5
Delaware	990,837	989,948	889	1	1	1	1	1	1	1	1	1	1	1
Florida	21,570,527	21,538,187	32,340	28	27	25	23	19	15	12	8	6	5	4
Georgia	10,725,274	10,711,908	13,366	14	14	13	11	10	10	10	10	10	10	12
Hawaii.	1,460,137	1,455,271	4,866	2	2	2	2	2	2	2	1	X	X	X
Idaho	1,841,377	1,839,106	2,271	2	2	2	2	2	2	2	2	2	2	2
Illinois.	12,822,739	12,812,508	10,231	17	18	19	20	22	24	24	25	26	27	27
Indiana	6,790,280	6,785,528	4,752	9	9	9	10	10	11	11	11	11	12	13
Iowa	3,192,406	3,190,369	2,037	4	4	5	5	6	6	7	8	8	9	11
Kansas	2,940,865	2,937,880	2,985	4	4	4	4	5	5	5	6	6	7	8
Kentucky	4,509,342	4,505,836	3,506	6	6	6	6	7	7	7	8	9	9	11
Louisiana	4,661,468	4,657,757	3,711	6	6	7	7	8	8	8	8	8	8	8
Maine	1,363,582	1,362,359	1,223	2	2	2	2	2	2	2	3	3	3	4
Maryland	6,185,278	6,177,224	8,054	8	8	8	8	8	8	8	7	6	6	6
Massachusetts . . .	7,033,469	7,029,917	3,552	9	9	10	10	11	12	12	14	14	15	16
Michigan	10,084,442	10,077,331	7,111	13	14	15	16	18	19	19	18	17	17	13
Minnesota	5,709,752	5,706,494	3,258	8	8	8	8	8	8	8	9	9	9	10
Mississippi	2,963,914	2,961,279	2,635	4	4	4	5	5	5	5	6	7	7	8
Missouri	6,160,281	6,154,913	5,368	8	8	9	9	9	10	10	11	13	13	16
Montana.	1,085,407	1,084,225	1,182	2	1	1	1	2	2	2	2	2	2	2
Nebraska	1,963,333	1,961,504	1,829	3	3	3	3	3	3	3	4	4	5	6
Nevada.	3,108,462	3,104,614	3,848	4	4	3	2	2	1	1	1	1	1	1
New Hampshire . .	1,379,089	1,377,529	1,560	2	2	2	2	2	2	2	2	2	2	2
New Jersey	9,294,493	9,288,994	5,499	12	12	13	13	14	15	15	14	14	14	12
New Mexico.	2,120,220	2,117,522	2,698	3	3	3	3	3	2	2	2	2	1	1
New York.	20,215,751	20,201,249	14,502	26	27	29	31	34	39	41	43	45	45	43
North Carolina . . .	10,453,948	10,439,388	14,560	14	13	13	12	11	11	11	12	12	11	10
North Dakota	779,702	779,094	608	1	1	1	1	1	1	2	2	2	2	3
Ohio	11,808,848	11,799,448	9,400	15	16	18	19	21	23	24	23	23	24	22
Oklahoma	3,963,516	3,959,353	4,163	5	5	5	6	6	6	6	6	8	9	8
Oregon.	4,241,500	4,237,256	4,244	6	5	5	5	5	4	4	4	4	3	3
Pennsylvania.	13,011,844	13,002,700	9,144	17	18	19	21	23	25	27	30	33	34	36
Rhode Island.	1,098,163	1,097,379	784	2	2	2	2	2	2	2	2	2	2	3
South Carolina . . .	5,124,712	5,118,425	6,287	7	7	6	6	6	6	6	6	6	6	7
South Dakota	887,770	886,667	1,103	1	1	1	1	1	2	2	2	2	2	3
Tennessee	6,916,897	6,910,840	6,057	9	9	9	9	9	8	9	9	10	9	10
Texas.	29,183,290	29,145,505	37,785	38	36	32	30	27	24	23	22	21	21	18
Utah	3,275,252	3,271,616	3,636	4	4	3	3	3	2	2	2	2	2	2
Vermont.	643,503	643,077	426	1	1	1	1	1	1	1	1	1	1	2
Virginia.	8,654,542	8,631,393	23,149	11	11	11	11	10	10	10	10	9	9	10
Washington.	7,715,946	7,705,281	10,665	10	10	9	9	8	7	7	7	6	6	5
West Virginia	1,795,045	1,793,716	1,329	2	3	3	3	4	4	5	6	6	6	6
Wisconsin	5,897,473	5,893,718	3,755	8	8	8	9	9	9	10	10	10	10	11
Wyoming.	577,719	576,851	868	1	1	1	1	1	1	1	1	1	1	1

X Not applicable.

[1] 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.

[2] No reapportionment was made based on the 1920 Census.

[3] The 1950 apportionment originally resulted in the previously fixed House size of 435 representatives; but in 1959, Alaska and Hawaii were both newly admitted to the United States, and each was granted one representative—temporarily increasing the size of the House to 437. Then the 1960 apportionment reverted back to the fixed size of 435.

Note: Information on confidentiality protection, nonsampling error, and definitions is available at <https://www2.census.gov/programs-surveys/decennial/2020/technical-documentation/complete-tech-docs/summary-file/2020Census_PL94_171Redistricting_StatesTechDoc_English.pdf>.

Source: U.S. Census Bureau, 2020 Census, <www.census.gov/data/tables/2020/dec/2020-apportionment-data.html>.

APPORTIONMENT POPULATION VS. RESIDENT POPULATION

The apportionment population count for each of the 50 states includes the state's total resident population plus a count of the overseas federal employees (and dependents) who have that state listed as their home state in their employers' administrative records. The state's resident population includes all people (citizens and noncitizens) of all ages (even newborn babies) who are living there at the time of the census.

The resident population also includes military and civilian employees of the U.S. government who are deployed outside the United States (while stationed or assigned in the United States) and can be allocated to a usual residence address in the United States based on administrative records from the U.S. Department of Defense.

The resident population counts for the District of Columbia, Puerto Rico, and the U.S. Island Areas are not included in apportionment calculations (because those areas do not have voting seats in the U.S. House of Representatives), but they are included in other data products.

The counts of overseas federal employees include military and civilian employees of the U.S. government who are stationed or assigned outside the 50 states (and the District of Columbia) and their dependents living with them overseas. The counts also include U.S. military personnel assigned to U.S. military vessels that have a homeport outside the United States. Agencies and departments of the U.S. government provide the U.S. Census Bureau with these counts of their overseas employees (and their dependents living with them) by their home state based on their administrative records.

Also, some people who are deployed outside the United States (while stationed or assigned in the United States) cannot be included in the resident population because administrative records are insufficient to allocate them to a usual residence address in the United States. In those cases, the Census Bureau uses administrative records from the Department of Defense to allocate them to their home state and include them in the counts of overseas federal employees.

The counts exclude any overseas federal employees who cannot be successfully allocated back to their home state based on their employers' administrative records. The counts also exclude private U.S. citizens living overseas who are not employed by the U.S. government.

Based on the 2020 Census apportionment population counts, seven seats shifted among 13 states, while the number of representatives for most states remained unchanged since the 2010 Census apportionment (Tables 2a and 2b). This is the smallest number of seats shifting for any decade since the Method of Equal Proportions was first used for the 1940 Census apportionment. Texas gained two seats, and five states each gained one seat: Colorado, Florida, Montana, North Carolina, and Oregon. Seven states each lost one seat: California, Illinois, Michigan, New York, Ohio, Pennsylvania, and West Virginia.
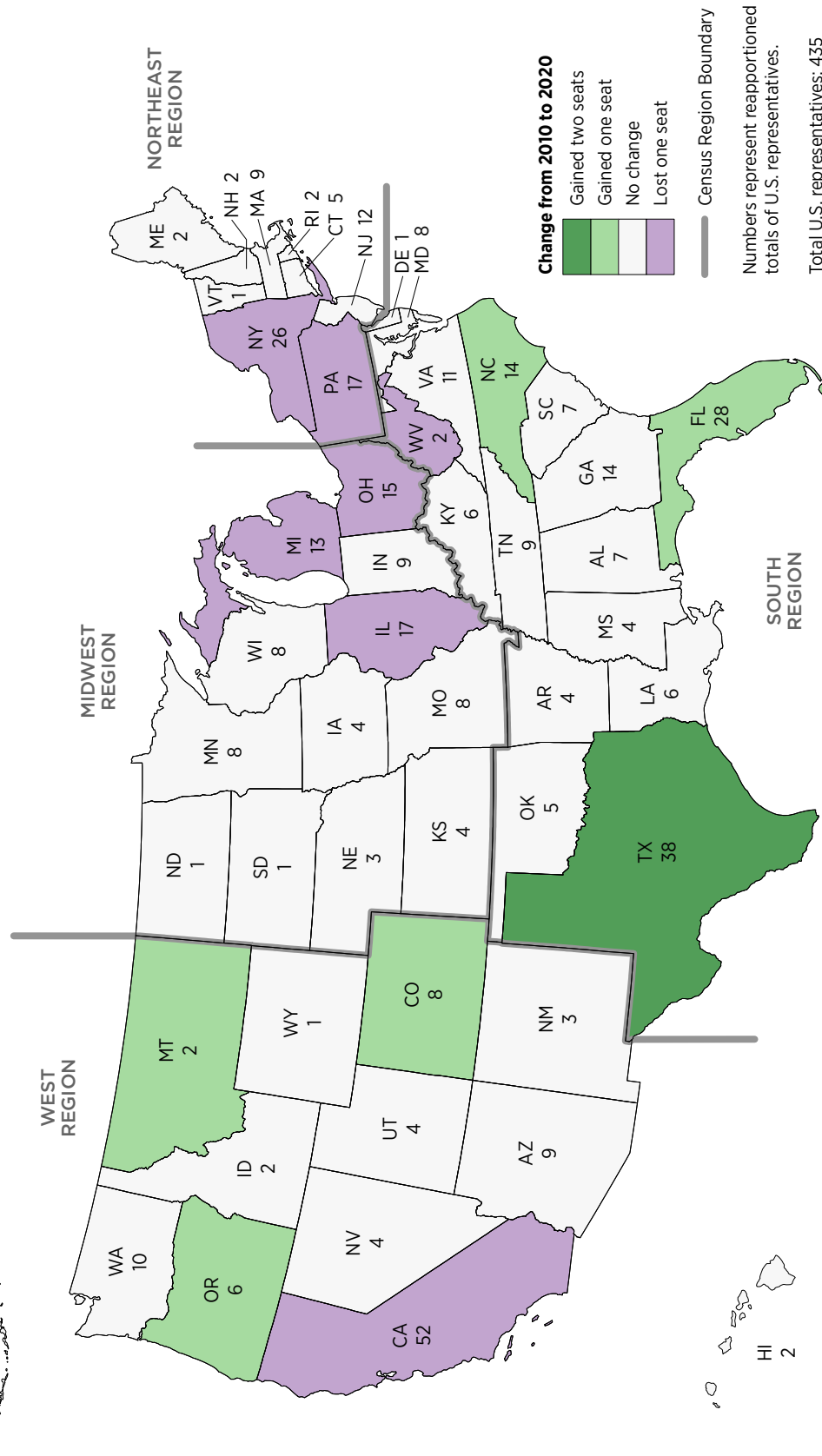
The four most populous states (California, Texas, Florida, and New York, respectively) each had a 2020 Census apportionment population over 20 million, and each was allocated more than 25 House seats (Figure 1). Together, these four states received about one-third of all House seats since the 1990 Census. Meanwhile, according to the 2020 Census, the six least populous states (Wyoming, Vermont, Alaska, North Dakota, South Dakota, Delaware, respectively) each had an apportionment population under 1 million and were allocated only one seat each.

In comparison with 2020, the 2010 Census apportionment shifted 12 seats among 18 states. Two of the six states that gained seats following the 2020 Census also gained seats following the 2010 Census: Florida and Texas (Table 2a). Five of the seven states that lost seats following the 2020 Census also lost seats following the 2010 Census: Illinois, Michigan, New York, Ohio, and Pennsylvania (Table 2b). Like 2010, however, the 2000 Census apportionment shifted 12 seats as well.

The 2020 Census apportionment continued a regional trend, with gains in representation seen for the South and West and losses seen for the Northeast and Midwest (Table 3 and Figure 1). The net increase of three seats in the South reflected a gain of four seats across three states and a loss of one seat. The West gained three seats and lost one. The Northeast lost two seats and gained none. The Midwest lost three seats and gained none.

Figure 1.
Apportionment of the U.S. House of Representatives Based on the 2020 Census

NORTHEAST REGION

ME 2
NH 2
VT 1
MA 9
RI 2
CT 5
NY 26
PA 17
NJ 12
DE 1
MD 8
VA 11
WV 2
OH 15

MIDWEST REGION

MI 13
IN 9
IL 17
WI 8
MN 8
IA 4
MO 8
ND 1
SD 1
NE 3
KS 4

SOUTH REGION

NC 14
SC 7
FL 28
GA 14
KY 6
TN 9
AL 7
MS 4
AR 4
LA 6
OK 5
TX 38
NM 3
AZ 9

WEST REGION

MT 2
WY 1
CO 8
UT 4
ID 2
WA 10
OR 6
NV 4
CA 52
AK 1
HI 2

Change from 2010 to 2020

Gained two seats
Gained one seat
No change
Lost one seat

Census Region Boundary

Numbers represent reapportioned totals of U.S. representatives.

Total U.S. representatives: 435

Note: Information on confidentiality protection, nonsampling error, and definitions is available at <https://www2.census.gov/programs-surveys/decennial/2020/technical-documentation/complete-tech-docs/summary-file/2020Census_PL94_171Redistricting_StatesTechDoc_English.pdf>.

Source: U.S. Census Bureau, 2020 Census and 2010 Census at <www.census.gov/data/tables/2020/dec/2020-apportionment-data.html>.

Table 2a.
States That Gained Seats in the U.S. House of Representatives: 2020, 2010, and 2000

State	Seat gain		
	2020 (in 6 states)	2010 (in 8 states)	2000 (in 8 states)
Total gain	**7**	**12**	**12**
Arizona	0	1	2
California	0	0	1
Colorado	1	0	1
Florida	1	2	2
Georgia	0	1	2
Montana	1	0	0
Nevada	0	1	1
North Carolina	1	0	1
Oregon	1	0	0
South Carolina	0	1	0
Texas	2	4	2
Utah	0	1	0
Washington	0	1	0

Note: Information on confidentiality protection, nonsampling error, and definitions is available at <https://www2.census.gov/programs-surveys/decennial/2020/technical-documentation/complete-tech-docs/summary-file/2020Census_PL94_171Redistricting_StatesTechDoc_English.pdf>.
Source: U.S. Census Bureau, 2020 Census, 2010 Census, and 2000 Census, <www.census.gov/data/tables/2020/dec/2020-apportionment-data.html>.

Table 2b.
States That Lost Seats in the U.S. House of Representatives: 2020, 2010, and 2000

State	Seat loss		
	2020 (in 7 states)	2010 (in 10 states)	2000 (in 10 states)
Total loss	**7**	**12**	**12**
California	1	0	0
Connecticut	0	0	1
Illinois	1	1	1
Indiana	0	0	1
Iowa	0	1	0
Louisiana	0	1	0
Massachusetts	0	1	0
Michigan	1	1	1
Mississippi	0	0	1
Missouri	0	1	0
New Jersey	0	1	0
New York	1	2	2
Ohio	1	2	1
Oklahoma	0	0	1
Pennsylvania	1	1	2
West Virginia	1	0	0
Wisconsin	0	0	1

Note: Information on confidentiality protection, nonsampling error, and definitions is available at <https://www2.census.gov/programs-surveys/decennial/2020/technical-documentation/complete-tech-docs/summary-file/2020Census_PL94_171Redistricting_StatesTechDoc_English.pdf>.
Source: U.S. Census Bureau, 2020 Census, 2010 Census, and 2000 Census, <www.census.gov/data/tables/2020/dec/2020-apportionment-data.html>.

Table 3.
Change in the Number of U.S. Representatives by Region: 2020, 2010, and 2000

Region	2020			2010			2000		
	Gain	Loss	Net	Gain	Loss	Net	Gain	Loss	Net
Northeast	0	2	–2	0	5	–5	0	5	–5
Midwest	0	3	–3	0	6	–6	0	5	–5
South	4	1	3	8	1	7	7	2	5
West	3	1	2	4	0	4	5	0	5

Note: Information on confidentiality protection, nonsampling error, and definitions is available at <https://www2.census.gov/programs-surveys/decennial/2020/technical-documentation/complete-tech-docs/summary-file/2020Census_PL94_171Redistricting_StatesTechDoc_English.pdf>.
Source: U.S. Census Bureau, 2020 Census, 2010 Census, and 2000 Census, <www.census.gov/data/tables/2020/dec/2020-apportionment-data.html>.

Based on the 2010 Census apportionment, the net increase of seven seats in the South reflected a gain of eight seats across four states and a loss of one seat. States in the West gained four seats and lost none. States in the Northeast lost five seats and gained none. And finally, states in the Midwest lost six seats and gained none.

Similar regional shifts occurred after the 2000 Census. At that time, the net increase of five seats in the South reflected a gain of seven seats in four states and a loss of two seats. The West gained five seats across four states and lost none. The Northeast and Midwest each lost five seats and gained none.

Based on the 2020 Census, the ten states with the most representatives are California, Texas, Florida, New York, Pennsylvania, Illinois, Ohio, Georgia, North Carolina, and Michigan, respectively (Figure 2). These states have more than ten representatives each, ranging from 13 in Michigan to 52 in California, and account for 53.8 percent (234 of 435) of the seats in the House.

The top ten states with the most representatives in the House have changed each census since 1920, with states from the Northeast and Midwest dropping in rank and those in the South and West rising in rank. California currently has the most representatives, yet as recently as 1920 was not among the top ten. Florida, in the South, debuted in the top ten at rank nine in 1960, tying with Massachusetts, and has the third-largest number of representatives following the 2020 Census.

New York, ranked number one in 1920, dropped in rank to number four after the 2020 Census. Similarly, eight other states in the top ten in 1920 dropped in rank or were no longer ranked in the top ten after 2020. Texas (ranked number five in 1920 and number two in 2020) is the exception. In addition to Texas, five other states have been in the top ten since 1920. Those states are Illinois, Michigan, New York, Ohio, and Pennsylvania.

Also, based on the 2020 Census, the average apportionment population per representative for the United States was 761,169 (Figure 3). Because the total number of House seats has remained at 435 (except for a temporary increase to 437 when Alaska and Hawaii became states in 1959), the average apportionment population per representative has increased by nearly 215 percent (519,305 people) since 1920, when the average per representative was 241,864. The average apportionment population per representative based on the 2020 Census increased by 50,402 people from the average of 710,767 based on the 2010 Census.

HOW APPORTIONMENT IS CALCULATED

The Constitution requires that each state have a minimum of one seat in the U.S. House of Representatives. The apportionment calculation is then used to distribute the remaining 385 seats among the 50 states.

Congress decides the method used to calculate apportionment, and the method has changed over time. Congress adopted the current method, the Method of Equal Proportions, in 1941. It was first used after the 1940 Census and has been used after each subsequent census, as mandated in Title 2, United States Code.

Mathematically speaking, the goal of the Method of Equal Proportions is to minimize the relative (or percentage) differences in representation (the number of people per representative) among the states.
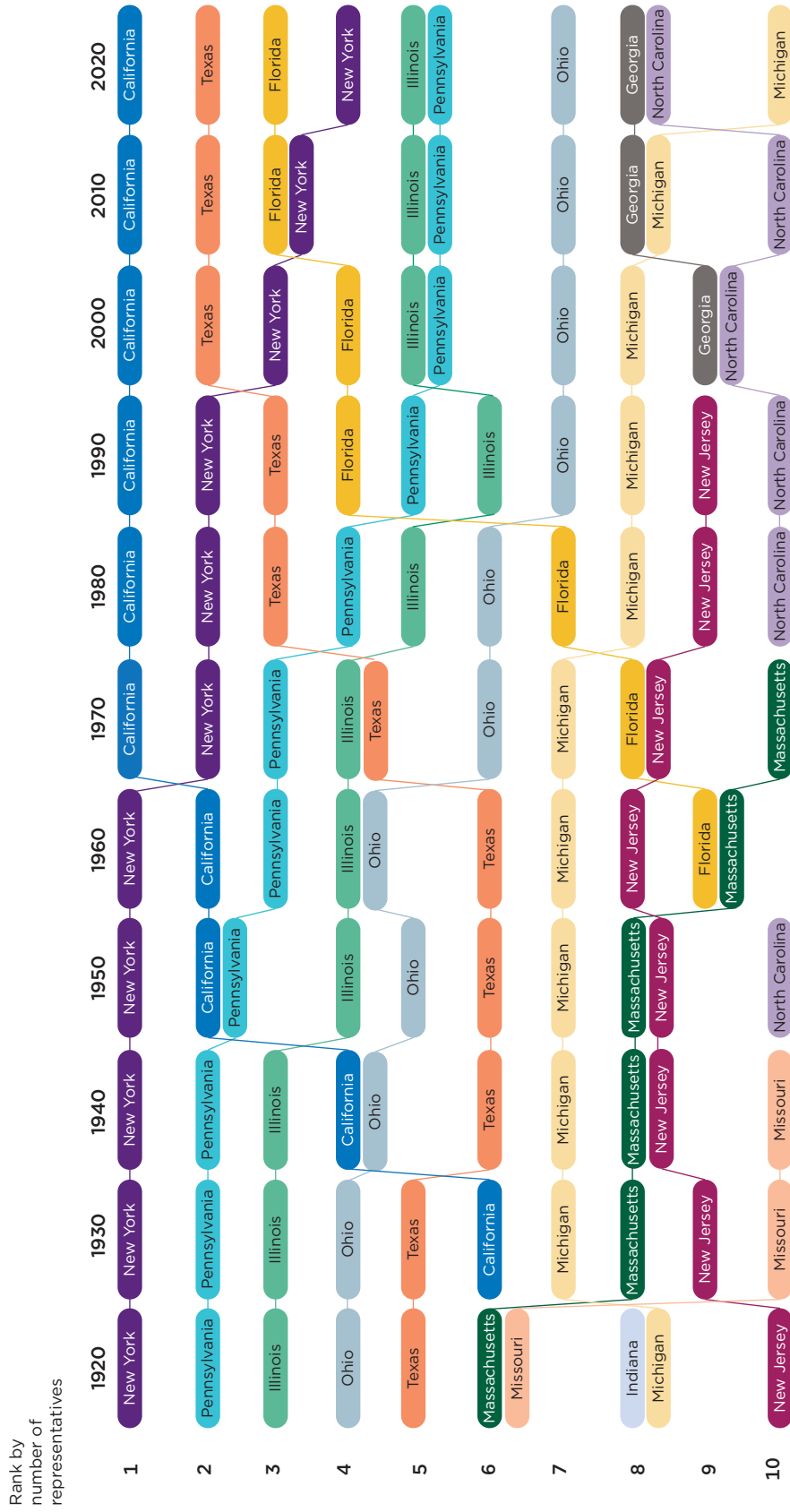
APPORTIONMENT VS. REDISTRICTING

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. The statutory deadline for delivering apportionment population counts to the President is December 31 of the census year.

Redistricting is the process of revising the geographic boundaries of areas from which people elect representatives to the U.S. House of Representatives, a state legislature, a county or city council, a school board, etc. The statutory deadline for delivering the redistricting data to the states is April 1 of the year after the census.

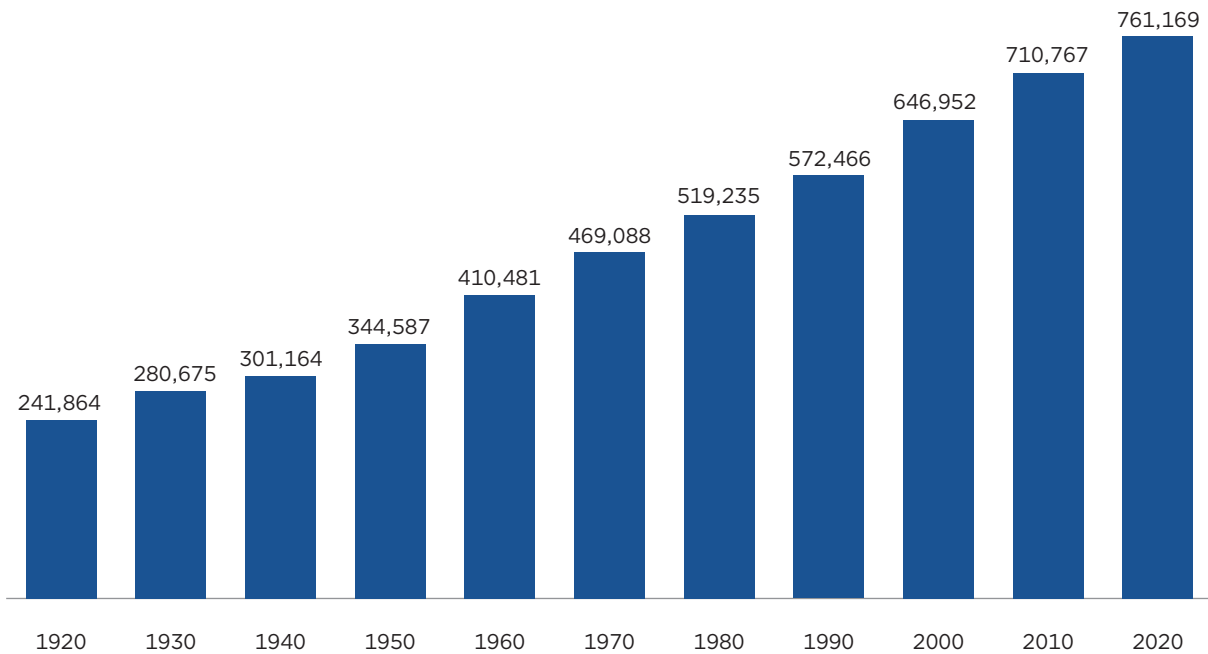More information on redistricting is available at <www.census.gov/programs-surveys/decennial-census/about/rdo.html>.

Figure 2.
Change in Ranks of States by Representation: 1920–2020

Rank by number of representatives

Note: Information on confidentiality protection, nonsampling error, and definitions is available at
<https://www2.census.gov/programs-surveys/decennial/2020/technical-documentation/complete-tech-docs/summary-file/2020Census_PL94_171Redistricting_StatesTechDoc_English.pdf>.
Source: U.S. Census Bureau, 2020 Census, <www.census.gov/data/tables/2020/dec/2020-apportionment-data.html>.

Figure 3.
Average Apportionment Population Per Representative: Census Years 1920–2020

Note: Information on confidentiality protection, nonsampling error, and definitions is available at
<https://www2.census.gov/programs-surveys/decennial/2020/technical-documentation/complete-tech-docs/summary-file/2020Census_PL94_171Redistricting_StatesTechDoc_English.pdf>.
Source: U.S. Census Bureau, 2020 Census at <www.census.gov/data/tables/2020/dec/2020-apportionment-data.html>.

In practice, we use this method to determine the number of seats each state receives by:

1. Calculating a set of "priority values" for each state, based on the state's apportionment population.
2. Combining the priority values for all states into a single list.
3. Sorting those values from largest to smallest.
4. Allocating a seat to a state each time one of its priority values is included in the largest 385 values in the list.

We calculate the priority values by dividing the state's apportionment population by the geometric mean of its theoretical current and next seats.

The formula for calculating priority values is as follows:

$$V = \frac{P}{\sqrt{n(n-1)}}$$

- *V* represents a priority value.
- *P* represents a state's apportionment population.

- *n* represents the number of seats a state would have if it gained a seat.

Because all states automatically receive one seat, we start with "seat one" being the current seat, and "seat two" being the next seat. The priority value for each seat follows this pattern:

- The priority value for a state's "seat two" equals its apportionment population divided by the square root of 2(2-1).
- The priority value for a state's "seat three" equals its apportionment population divided by the square root of 3(3-1), and so on.

We need to calculate enough priority values for each state to account for the largest possible number of seats any one state could theoretically receive. The most populous state currently has more than 50 seats. Therefore, out of an abundance of caution, we calculate priority values for each state's potential seat numbers 2 through 70. This leads to a total of 3,450 priority values that we rank to identify the largest 385 values, and then we determine which states and seat numbers those values belong to.

MORE INFORMATION

For more information about congressional apportionment based on the 2020, 2010, and 2000 decennial censuses, visit the U.S. Census Bureau's website at <www.census.gov/topics/public-sector/congressional-apportionment.html>. Apportionment data from the 2020 Census are available at <www.census.gov/data/tables/2020/dec/2020-apportionment-data.html>. Information on confidentiality protection, nonsampling error, and definitions is available at <https://www2.census.gov/programs-surveys/decennial/2020/technical-documentation/complete-tech-docs/summary-file/2020Census_PL94_171Redistricting_StatesTechDoc_English.pdf>.

For more information about the 2020 Census, including data products, call our Customer Services Center at 1-800-923-8282. You can also visit our Question and Answer Center at <https://ask.census.gov> to submit your questions online.