



From Population to Migration: Discover Geography Classroom Resources with the U.S. Census Bureau

October 18, 2023



STATISTICS
IN SCHOOLS

Agenda



- What is the Statistics in School (SIS) Program?
- Middle School Geography Activity Spotlight
 - Getting To Know Your Neighbor
 - Examining Changes to the Environment Through Pictures and Data
- Additional Middle and High School Activities
- Geography Related Warm-Up Activities and Resources
- Discussion with a Census Bureau Geography Subject Matter Expert
- Conclusion and Q&A

What is Statistics in Schools?



- Statistics in Schools (SIS) is an education program fueled by the U.S. Census Bureau and created by teachers, for teachers.
- The program leverages census data to create engaging, free, and easily downloadable classroom activities for students in grades K through 12.
- SIS is an ongoing program that teachers across the country have been using since 2014, with more than 200 available resources.

SIS Program Goals

- Educate the public, specifically by improving statistical literacy of students.
- Increase the Census Bureau's brand recognition and improve the public's familiarity of our work.
- Encourage public cooperation in Census Bureau surveys and censuses.



Geography Activity Spotlight

- **Getting To Know Your Neighbor**

- Suggested Grade Level: 4-6
- Students will use this information to help them understand how business owners and community leaders use data on demographic characteristics to make decisions.

- **Examining Changes to the Environment Through Pictures and Data**

- Suggested Grade Level: 5-6
- Students examine how human actions and population changes can affect the environment by examining a series of photographs that compare famous landmarks across time.



Getting To Know Your Neighbor

Students will:

- Use an online tool to discover demographic characteristics of the people in their community.
- Identify the types of services or businesses that are in demand based on the demographic characteristics of their community.
- Create a visual representation of the data.



Getting To Know Your Neighbor



- **Suggested Grade Level:** 5-6
- **Approximate Time Required:** 75 minutes
- **Learning Objectives:**
 - Students will be able to describe changes they see in photographs of the same location or landmark taken in different years.
 - Students will be able to explain how population changes and other factors affect the environment.
- **Topics:**
 - Environmental changes
 - Population
- **Skills Taught:**
 - Analyzing changes over time
 - Comparing and contrasting
 - Drawing conclusions

Getting To Know Your Neighbor



All Topics	Midland County, Michigan
Population Estimates, July 1, 2022, (V2022)	83,674
PEOPLE	
Population	
Population Estimates, July 1, 2022, (V2022)	83,674
Population estimates base, April 1, 2020, (V2022)	83,498
Population, percent change - April 1, 2020 (estimates base) to July 1, 2022, (V2022)	0.2%
Population, Census, April 1, 2020	83,494
Population, Census, April 1, 2010	83,629
Age and Sex	
Persons under 5 years, percent	5.1%
Persons under 18 years, percent	20.6%
Persons 65 years and over, percent	20.4%
Female persons, percent	50.3%
Race and Hispanic Origin	

Demographic Characteristic	, 2022
Population	
Percentage of people under 5	
Percentage of people under 18	
Percentage of people 65 and older	
Percentage of people who are female	
White alone (percent)	
Black or African American alone (percent)	
American Indian and Alaska Native alone (percent)	
Asian alone (percent)	
Native Hawaiian and Other Pacific Islander alone (percent)	
Two or More Races (percent)	

Examining Changes to the Environment Through Pictures and Data

Students will:

- Examine how human actions and population changes can affect the environment.
- Review photographs that compare famous landmarks (Times Square, the Saltair Pavilion in Utah, Laguna Beach, and Niagara Falls) over time and identify changes in the environment, such as the addition of bridges and roads.
- Look at population and housing data to see what can contribute to changes in the physical environment.

Examining Changes to the Environment Through Pictures and Data

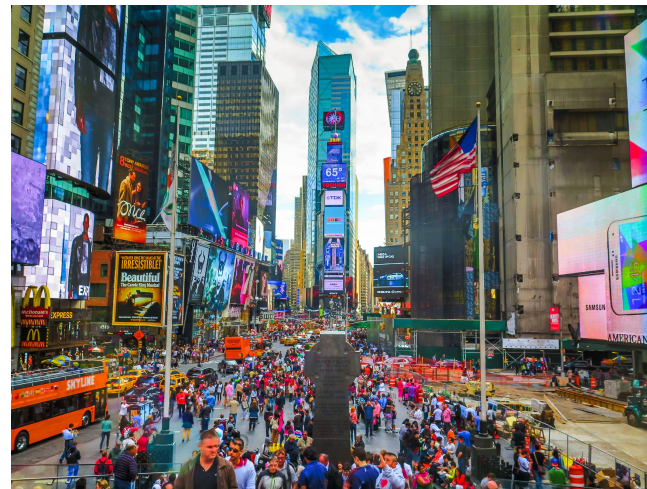


- **Suggested Grade Level:** 4-6
- **Approximate Time Required:** 60 minutes
- **Learning Objectives:**
 - Students will be able to describe changes they see in photographs of the same location or landmark taken in different years.
 - Students will be able to explain how population changes and other factors affect the environment.
- **Topics:**
 - Environmental changes
 - Population
- **Skills Taught:**
 - Analyzing changes over time
 - Comparing and contrasting
 - Drawing conclusions

Examining Changes to the Environment Through Pictures and Data



Times Square, 1903



Times Square, 2014

Examining Changes to the Environment Through Pictures and Data

New York City, NY

Category	Historical Data	Current Data
Number of houses	249,991 (1900)	3,618,635 (2020)
Number of businesses	39,776* (1900)	205,592 (2017)
Population	3,437,202 (1900)	8,804,190 (2020)

*Business data in 1900 count only manufacturers (companies who create products), not all retail or service businesses.

Examining Changes to the Environment Through Pictures and Data



Laguna Beach, 1910



Laguna Beach, 2015

Examining Changes to the Environment Through Pictures and Data

Laguna Beach, CA

Category	Historical Data	Current Data
Number of houses	131 (1920)	12,973 (2020)
Number of businesses	9*	1,113 (2017)
Population	363 (1920)	23,032 (2020)

*This number reflects only retail businesses, as there were no manufacturing or fully service-oriented businesses in Laguna Beach in 1918.

Additional Geography Activities



Analyzing Correlations of Education and Income

- Students will explore maps containing census data from 1950 through 2000. They will analyze how education levels and median household incomes have changed over time and determine how the two might be correlated.
- Suggested Grade Level: 8-12



What Role Does Geography Play in the Census?

- Students will learn about and review key geography and census terms, discover how the U.S. Census Bureau organizes space geographically, and understand why census data are collected in this way.
- Suggested Grade Level: 8-9

Additional Geography Activities

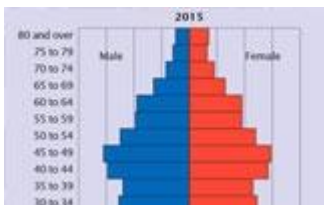


Beyond Population - Using Different Types of Density to Understand Land Use

- Students will use images, U.S. Census Bureau data, and interactive maps to visualize and calculate arithmetic (population), agricultural, and physiological densities at local, regional, and national scales.
- Suggested Grade Level: 12

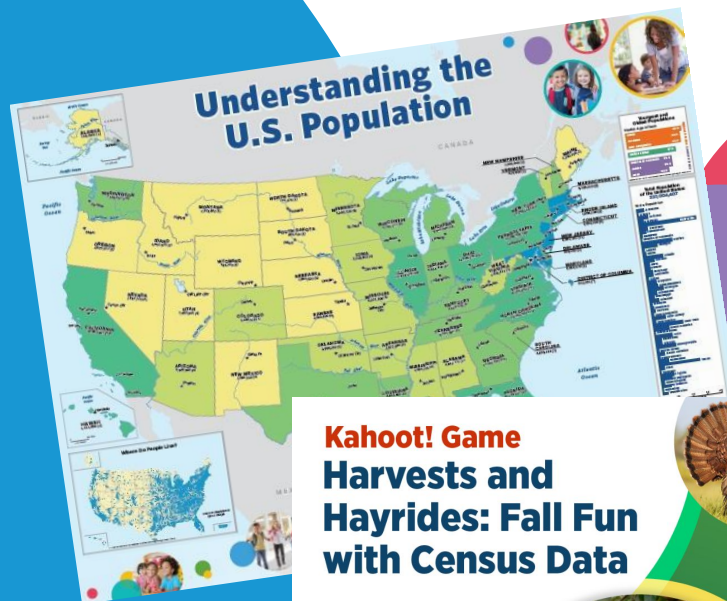
How Do U.S. Populations Stack Up? Reading, Analyzing, and Creating Population Pyramids

- Students will use U.S. Census Bureau data to learn how population pyramids describe population structures and to calculate age range population percentages for a selected state that will help them create a population pyramid.
- Suggested Grade Level: 12



Statistics in Schools Resources

- Data Tools
- Fun Facts
- Historical Documents and Images
- Kahoot! Games
- Maps
- Videos
- Warm-Up Activities

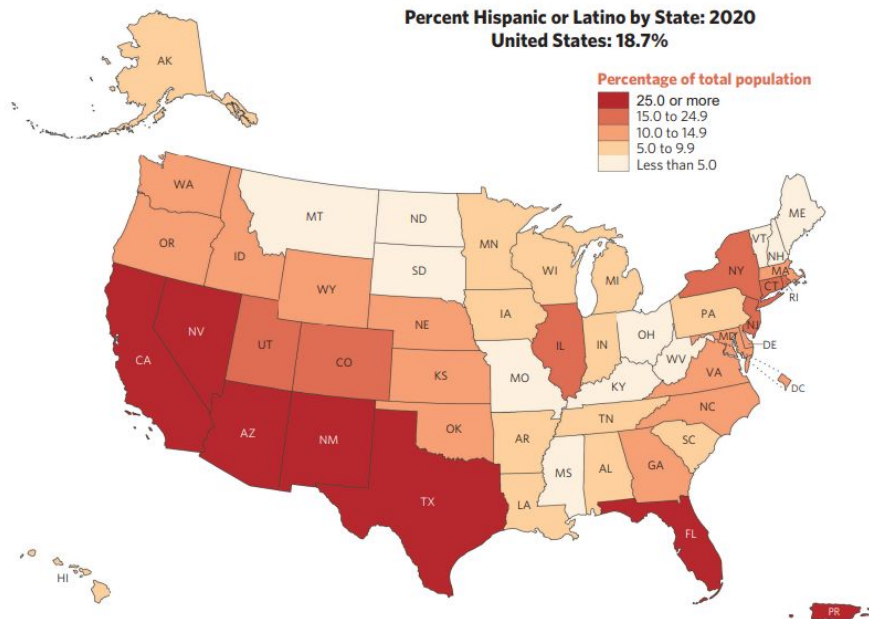


Did You Know?

Of all states, New Mexico had the highest portion of the Hispanic or Latino population in 2020 at **47.7 percent**.

5-Minute Challenge:

What is the Hispanic or Latino Population in Your State?

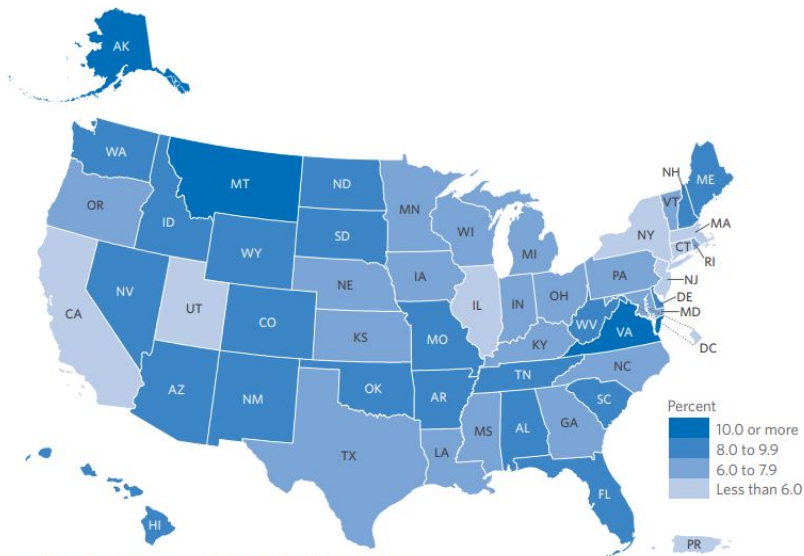


Source: 2020 Census Redistricting Data (Public Law 94-171) Summary File. <www.census.gov/library/visualizations/interactive/race-and-ethnicity-in-the-united-state-2010-and-2020-census.html>

Question Examples:

1. How many states, other than New Mexico and Puerto Rico, had Hispanic or Latino populations that accounted for 25.0 or more percent of their total population?
2. How many states had Hispanic or Latino populations that made up only a 5.0 percent or less portion of their population?

5-Minute Challenge: Honoring Those Who Served



Note: Estimates are the percentage of veterans amongst the civilian population 18 years and older.

Source: 2019 American Community Survey <<https://data.census.gov/cedsci/table?q=Veterans&tid=ACST1Y2019.S2101>>

Question Examples:

1. Do you see any trends in the data? If so, describe them.
2. Review the percentage of veterans who live in your state. Are you surprised by the percentage? If so, or if not, describe why.
3. What is one question you have about the information displayed on this map?

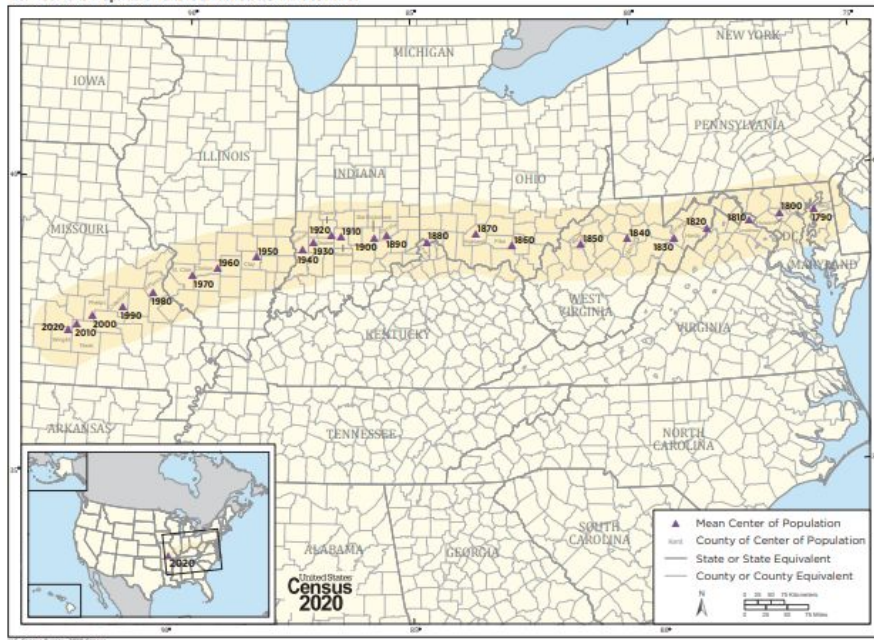
5-Minute Challenge:

Exploring Centers of Population Through the Decades

Every 10 years since the first census in 1790, the Census Bureau has used data from each census to calculate the center of population — the point where the country would balance perfectly on a flat map if everyone had the same weight of one.

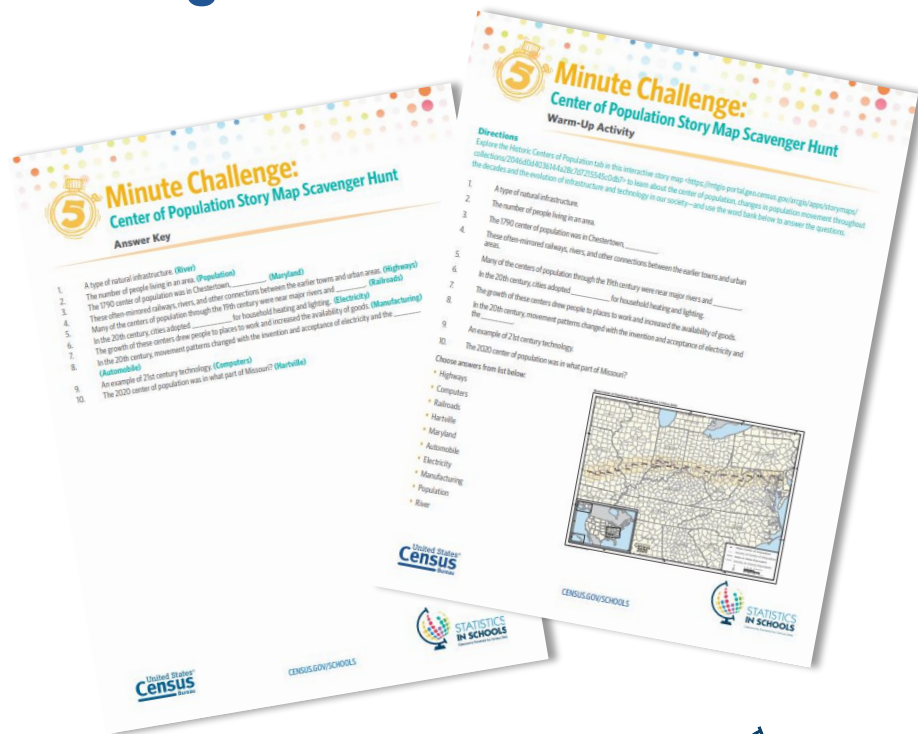
Over the years, it has moved from the colonial town of Chestertown, Maryland, in 1790, to Hartville, Missouri, in 2020.

Mean Center of Population for the United States: 1790 to 2020



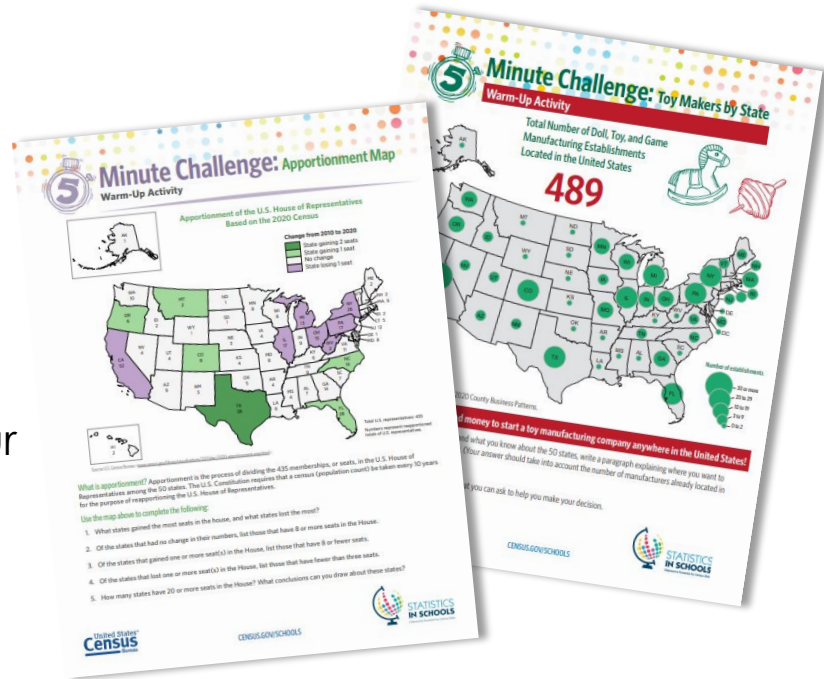
5-Minute Challenge: Center of Population Story Map Scavenger Hunt

For this activity, students use a story map, an interactive web tool with maps, text, and photos to learn about the nation's centers of population and test their knowledge about their findings.

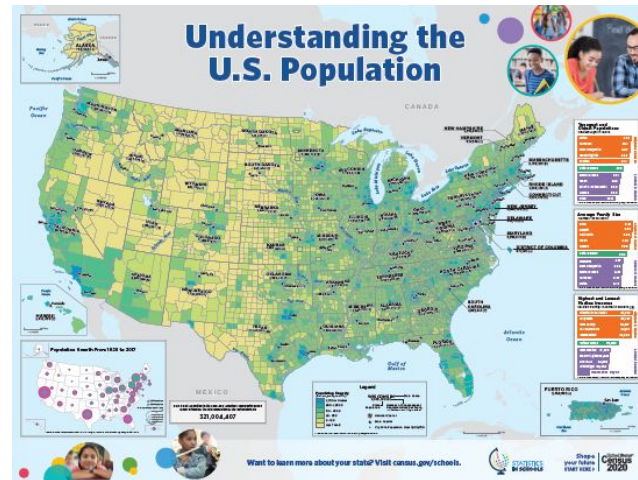


Geography Warm-Up Activities

- What Is the Hispanic or Latino Population in Your State?
- Apportionment Map
- Exploring Centers of Population Through the Decades
- Honoring Those Who Served
- How Many U.S. Representatives Does Your State Have?
- Toy Makers by State



SIS Elementary/Middle School Map: Understanding the U.S. Population



Go to: census.gov/schools
Click on “Resources”
Click on “Maps”

SIS Elementary/Middle School Map: Understanding the U.S. Population

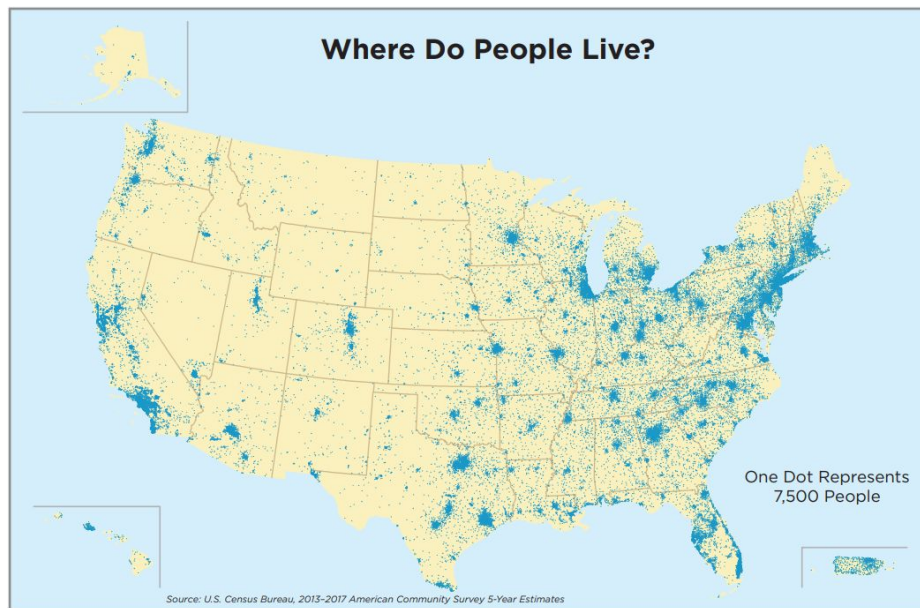
Youngest and Oldest Populations

Median Age in Years

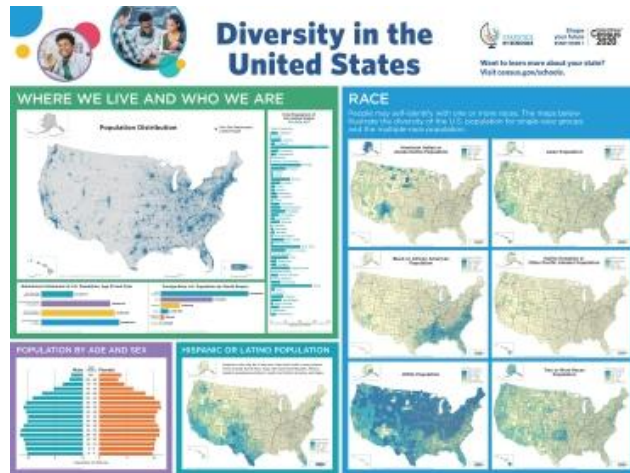
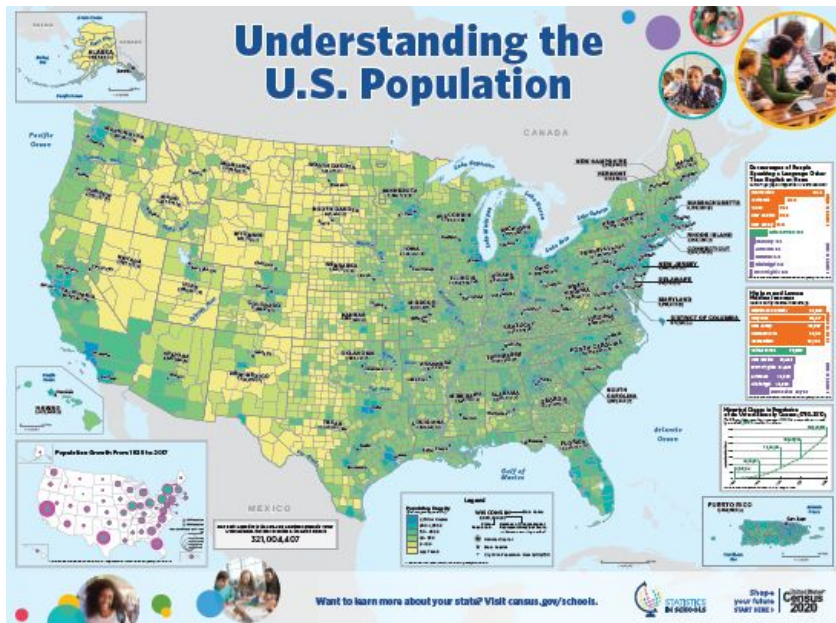
Maine	44.3
Vermont	42.8
New Hampshire	42.7
United States	37.8
District of Columbia	33.9
Alaska	33.9
Utah	30.5

Highest 3 States Lowest 3 States

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates



SIS High School Map: Diversity in the United States

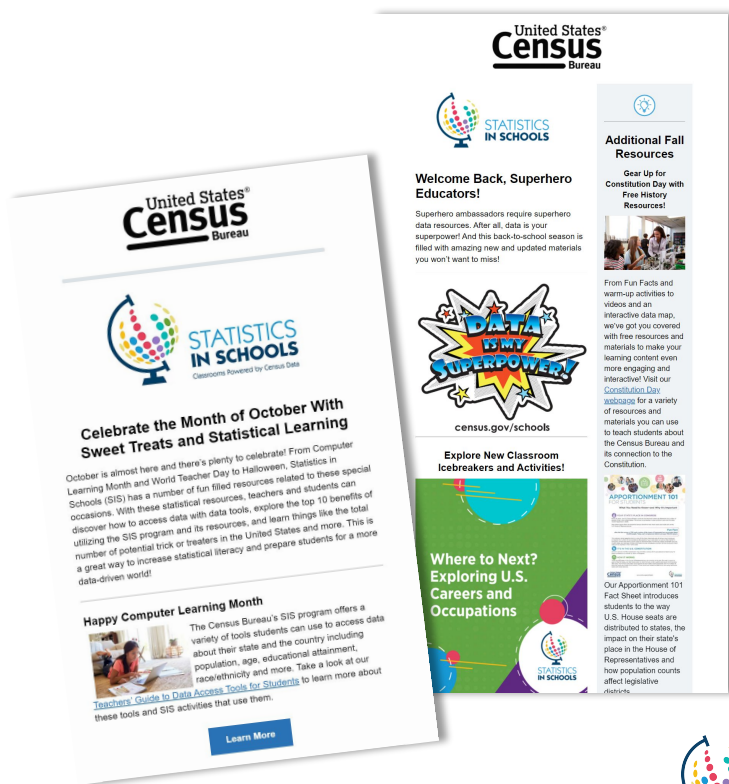


Go to: census.gov/schools
Click on "Resources"
Click on "Maps"

Sign Up for Monthly SIS Newsletters!

Sign up for the monthly newsletter that highlights timely SIS events and materials, including new classroom activities.

www.census.gov/programs-surveys/sis/about/contact.html



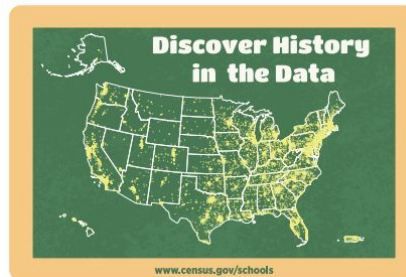
Become an SIS Ambassador

The SIS ambassador program is a collaborative effort by educators, librarians, and the Census Bureau to discuss and determine the needs of teachers and students in today's data-driven world.

Contact us at **CLMSO.SISAmbassador@census.gov** to learn how to become an SIS ambassador.



census.gov/schools



Live Website Demo