



MAPPING AND ANALYZING RACE AND ETHNICITY

TEACHER VERSION

Subject Level:

High School Geography

Grade Level:

8-12

Approx. Time Required:

60-75 minutes

Learning Objectives:

- Students will be able to compare, contrast, and describe the geographic distribution of races and ethnicities in the United States.
- Students will be able to speculate what factors might have influenced the spatial concentration of racial or ethnic groups in specific geographic areas.

Activity Description

Students will use the Census Data Mapper data access tool to map, visualize, and analyze the geographic distribution of various races and ethnicities in the United States.

Suggested Grade Level:

8-12

Approximate Time Required:60-75 minutes

Learning Objectives:

- Students will be able to compare, contrast, and describe the geographic distribution of races and ethnicities in the United States.
 - Students will be able to speculate what factors might have influenced the spatial concentration of racial or ethnic groups in specific geographic areas.
-

Topics:

- Choropleth maps
- Migration
- Political geography
- Race and ethnicity

Skills Taught:

- Comparing and contrasting data
 - Creating maps
 - Reading and interpreting maps
-

Materials Required

- The student version of this activity, 21 pages; it contains images that should be printed in color.
- Teacher computer with Internet access and a projector to display web sites

A computer with Internet access for each student is preferred but optional.

Activity Items

The following items are part of this activity. Items, their sources, and any relevant instructions for viewing them online appear at the end of this teacher version.

- Item 1: Largest Ancestry, 2000
- Item 2: “Analyzing the Distribution of Race and Ethnicity in the United States” Presentation

This activity also uses the following online tool:

- Census Data Mapper www.census.gov/geo/maps-data/maps/datamapper.html

For more information to help you introduce your students to the Census Bureau, read “[Census Bureau 101 for Students](#).” This information sheet can be printed and passed out to your students as well.

Standards Addressed

See charts below. For more information, read

“[Overview of Education Standards and Guidelines Addressed in Statistics in Schools Activities](#).”

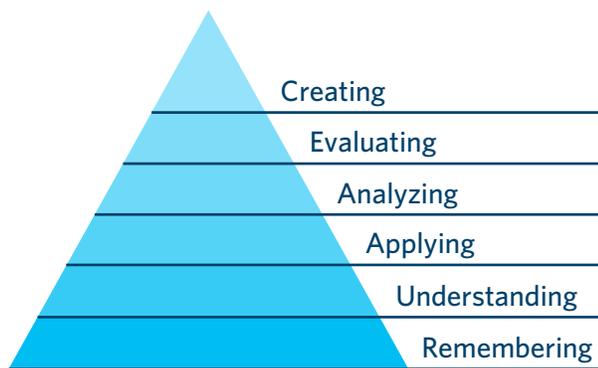
National Geography Standards

Standard	Grade	The student knows and understands:
1 – How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information	8	Using Geospatial Data to Construct Geographic Representations. Geospatial technologies—Internet-based mapping applications, GIS, GPS, geovisualization, and remote sensing—can be used to construct geographic representations using geospatial data.
3 – How to analyze the spatial organization of people, places, and environments on Earth’s surface	12	Spatial Concepts. The meaning and use of complex spatial concepts, such as connectivity, networks, hierarchies, to analyze and explain the spatial organization of human and physical phenomena

Standard	Grade	The student knows and understands:
17 - How to apply geography to interpret the past	12	Changes in Geographic Contexts. The causes and processes of changes in the geographic characteristics and spatial organization of places, regions, and environments over time

Bloom's Taxonomy

Students will **create** thematic maps to compare, contrast, and describe different race or ethnicity concentrations and distributions in the United States.



Teacher Notes

Before the Activity

Students must understand the following key terms:

- **Concentration** – the spread (how close together or far apart) of a gathering of people or things
- **Clustered** – a type of high concentration, where people or things are close together
- **Dispersed** – a type of low concentration, where people or things are far apart
- **Distribution** – an arrangement of a particular variable’s values that shows the frequency of each value’s occurrence in a data set and that can be described by its center, shape, and spread
- **Scale** – the ratio of the distance on a map to the corresponding actual distance on the ground. For example, one inch measured on a map equals one mile on the ground
- **Large-scale map** – a map with a relatively small ratio between its map and ground units, usually with higher resolution and covering a smaller region (e.g., city maps)
- **Small-scale map** – a map with a relatively large ratio between its map and ground units, usually with lower resolution and covering a larger region (e.g., state and national maps)

Students should have a basic understanding of the following ideas and concepts:

- How to calculate percentages
- How historical events have influenced settlement patterns (e.g., colonialism, American Indian migrations)

During the Activity

Teachers should review with students the key terms mentioned earlier, using the different concentrations from **Item 1** to ask the following questions:

- Are those with African-American ancestry clustered or dispersed? **Clustered**
- Are those with Italian ancestry clustered or dispersed? **Clustered**
- Are those with German ancestry clustered or dispersed? **Dispersed**
- Are those with American Indian ancestry clustered or dispersed? **Dispersed nationally; clustered locally**
- What else do you notice? **Student answers will vary.**

Next, teachers will model for students how to use the Census Data Mapper data access tool (datamapper.geo.census.gov/map.html) by making the following customizations:

- Data theme: Age and Sex
- Data table: Percent 65 years and over

- Color palette: [Teacher's choice]
- Number of classes: 5
- Classification type: Equal Interval

Teachers will click "Make Your Map," and then ask students:

- At a national scale, where do you see clusters of counties with a large percentage of people 65 or older?
Student answers will vary but could include Arizona, Florida, the Midwest, and New Mexico.
- What factors do you think influence whether an area becomes an "older" part of the United States?
Student answers will vary but could include climate (benefiting Arizona and Florida, for example) and the ability of its residents to relocate (with some areas more likely to experience emigration than others based on their industries and socioeconomic factors).

Teachers should then click on "Display Data Table" at the top left and ask:

- In which state is the county with the smallest percentage of people 65 and older? **Alaska**

Teachers should zoom in on Alaska on the map and then explore the state by hovering the cursor over each county, asking:

- Which region of Alaska has the largest percentage of people 65 and older?
Southern Alaska

Then teachers should explore the school's state and look for clusters of counties with people 65 and older, asking:

- What is the distribution of people 65 and older in our state?
Student answers will vary.

Following this demonstration, teachers should give students 20–30 minutes to complete the first two columns of the graphic organizer in part 1 of the activity, either in pairs or individually. If students do not have access to computers, teachers could display each map on the projector and give the whole class time to complete these columns for each section.

Teacher will then display the slides from **Item 2** to lead a class discussion on how today's racial or ethnic distributions are connected to historical migrations, after which students should add their observations to the third column of their graphic organizers. Teachers should help students complete the portion of this column that relates to the historical events in their school's state.

Teachers will then direct students to complete parts 2 and 3 of the activity.

After the Activity

Teachers could use **Item 2** to lead a whole-class discussion on the shortcomings of choropleth maps.

Extension Ideas

- Teachers could have students interact with the 2011 Language Mapper (www.census.gov/hhes/socdemo/language/data/language_map.html) to observe the distribution of languages spoken in the United States.
- Teachers could have students research and create a presentation on one of the historic migrations tied to the races and ethnicities presented in the activity. Students could use the Census Data Mapper to create a U.S. map showing the distribution of some of the “Family and Housing” characteristics.

Student Activity

Click [here](#) to download a printable version for students.

Student Learning Objectives

- I will be able to compare, contrast, and describe the distribution of races and ethnicities in the United States.
- I will be able to speculate what factors might have influenced the spatial concentration of racial or ethnic groups in specific geographic areas.

Activity Items

The following items are part of this activity and appear at the end of this student version.

- Item 1: Largest Ancestry, 2000
- Item 2: “Analyzing the Distribution of Race and Ethnicity in the United States” Presentation

This activity also uses the following online tool:

- Census Data Mapper www.census.gov/geo/maps-data/maps/datamapper.html

Part 1 - Explore Population Maps

In this activity you will use the Census Data Mapper tool to compare and contrast spatial concentrations of races and ethnicities in the United States. Follow the steps below in the online tool to create your maps:

1. Set the data theme to “Population and Race.”
2. Set the data table to the race or ethnicity that matches each table title below (e.g., “Percent White” or “Percent Black or African-American”).
3. Choose whatever color palette you prefer.
4. Set the number of classes to 5.
5. Set the classification type to “Equal Interval.”
6. Click “Make Your Map.”
7. Zoom in and out and use the Display Data Table feature to complete the first two columns of the graphic organizer below.
8. Complete the third column of the graphic organizer after your teacher shows the slides from **Item 2: “Analyzing the Distribution of Race and Ethnicity in the United States” Presentation**. (You can follow along with the slide printouts at the end of this activity.)

Percent White

Area	Geographic Distributions	Possible Historical Explanations	Presentation Notes
Nation	<p>Student answers will vary but could include: Most counties in the United States are 60 percent or more white.</p> <p>Exceptions include the Southeast, the Southwest, Southern California, and major cities.</p>	<p>Student answers will vary but could include:</p> <ul style="list-style-type: none"> • Original 13 colonies from England • Major waves of European emigration during the 18th and early 19th centuries, through Ellis Island and New York City 	<p>Student answers should reflect any additional information from Item 2.</p>
My State	<p>Student answers will vary but should consider the differences among rural, urban, and primarily retirement areas, as well as capital cities.</p>	<p>Student answers will vary but should consider the state’s early economy and the locations of its earliest settlements and newer areas.</p>	<p>Student answers should include information about the state’s history and demographics.</p>

Percent Black or African-American

Area	Geographic Distributions	Possible Historical Explanations	Presentation Notes
Nation	<p>Student answers will vary but could include:</p> <ul style="list-style-type: none"> • Largest clusters in the Southeast and northern cities • Largest percentages in Mississippi and Alabama • High concentration along Mississippi River 	<p>Student answers will vary but could include:</p> <ul style="list-style-type: none"> • Forced migration of Africans to the American South during slavery • Great Migration to northern cities 	<p>Student answers should reflect any additional information from Item 2.</p>
My State	<p>Student answers will vary but should consider the differences among rural, urban, and primarily retirement areas, as well as capital cities.</p>	<p>Student answers will vary but should consider the state's early economy and the locations of its earliest settlements and newer areas.</p>	<p>Student answers should include information about the state's history and demographics.</p>

Percent American Indian and Alaska Native

Area	Geographic Distributions	Possible Historical Explanations	Presentation Notes
Nation	<p>Student answers will vary but could include:</p> <ul style="list-style-type: none"> Four Corners region North Dakota, South Dakota, Montana 	<p>Student answers will vary but could include:</p> <ul style="list-style-type: none"> Indian Removal Act Creation of American Indian reservations Trail of Tears 	<p>Student answers should reflect any additional information from Item 2.</p>
My State	<p>Student answers will vary but should consider the differences among rural, urban, and primarily retirement areas, as well as capital cities.</p>	<p>Student answers will vary but should consider the state's early economy and the locations of its earliest settlements and newer areas.</p>	<p>Student answers should include information about the state's history and demographics.</p>

Percent Asian

Area	Geographic Distributions	Possible Historical Explanations	Presentation Notes
Nation	<p>Student answers will vary but could include: There are clusters of Asian people in California and the Pacific Northwest.</p>	<p>Student answers will vary but could include:</p> <ul style="list-style-type: none"> Transcontinental railroad Angel Island California Gold Rush 	<p>Student answers should reflect any additional information from Item 2.</p>
My State	<p>Student answers will vary but should consider the differences among rural, urban, and primarily retirement areas, as well as capital cities.</p>	<p>Student answers will vary but should consider the state's early economy and the locations of its earliest settlements and newer areas.</p>	<p>Student answers should include information about the state's history and demographics.</p>

Percent Hispanic or Latino

Area	Geographic Distributions	Possible Historical Explanations	Presentation Notes
Nation	<p>Student answers will vary but could include: There are clusters in the Southwest, near the U.S.-Mexico border, in the Pacific Northwest, and in Florida.</p>	<p>Student answers will vary but could include:</p> <ul style="list-style-type: none"> • Cuban emigration • Spanish settlement of the American Southwest • Proximity to Mexico’s border • Legal and illegal immigration 	<p>Student answers should reflect any additional information from Item 2.</p>
My State	<p>Student answers will vary but should consider the differences among rural, urban, and primarily retirement areas, as well as capital cities.</p>	<p>Student answers will vary but should consider the state’s early economy and the locations of its earliest settlements and newer areas.</p>	<p>Student answers should include information about the state’s history and demographics.</p>

Part 2 - Test Your Understanding

Choose the best answer for the following multiple-choice questions.

1. Which term refers to the spread (e.g., clustered or dispersed) of people or things across space?
 - a. Concentration**
 - b. Scale
 - c. Pattern
 - d. Region
2. Which best describes the geographic distribution of blacks or African-Americans (based on the percentage of the total population) in the United States?
 - a. Clustered in southeastern states and northern cities**
 - b. Clustered in Northern California and Pacific Northwest cities
 - c. Clustered along the U.S.-Mexico border
 - d. Clustered on reservations dispersed among midwestern and western states
 - e. Make up 60 percent or more of the population in most U.S. counties
3. Which best describes the geographic distribution of whites (based on the percentage of the total population) in the United States?
 - a. Clustered in southeastern states and northern cities
 - b. Clustered in Northern California and Pacific Northwest cities
 - c. Clustered along the U.S.-Mexico border
 - d. Clustered on reservations dispersed among midwestern and western states
 - e. Make up 60 percent or more of the population in most U.S. counties**
4. Which best describes the geographic distribution of Asians (based on the percentage of the total population) in the United States?
 - a. Clustered in southeastern states and northern cities
 - b. Clustered in Northern California and Pacific Northwest cities**
 - c. Clustered along the U.S.-Mexico border
 - d. Clustered on reservations dispersed among midwestern and western states
 - e. Make up 60 percent or more of the population in most U.S. counties

5. Which best describes the geographic distribution of Hispanics or Latinos (based on the percentage of the total population) in the United States?
- a. Clustered in southeastern states and northern cities
 - b. Clustered in Northern California and Pacific Northwest cities
 - c. Clustered along the U.S.-Mexico border**
 - d. Clustered on reservations dispersed among midwestern and western states
 - e. Make up 60 percent or more of the population in most U.S. counties
6. Which best describes the geographic distribution of American Indians and Alaska Natives (based on the percentage of the total population) in the United States?
- a. Clustered in southeastern states and northern cities
 - b. Clustered in Northern California and Pacific Northwest cities
 - c. Clustered along the U.S.-Mexico border
 - d. Clustered on reservations dispersed among midwestern and western states**
 - e. Make up 60 percent or more of the population in most U.S. counties

Part 3 – Reflect on Population Distributions

1. Identify and explain three ways the geographic distribution of races or ethnicities varies in the United States.

Student answers will vary but could include observations from their graphic organizers.

- a.
- b.
- c.

2. Identify and discuss how a historic migration influenced the distribution and concentration of a particular race or ethnicity in America.

Student answers will vary but could include observations from their graphic organizers.

3. How does the variation of races or ethnicities impact the overall cultural landscape (e.g., religion, language, education, cuisine, politics) of the United States?

Student answers will vary but could include the following:

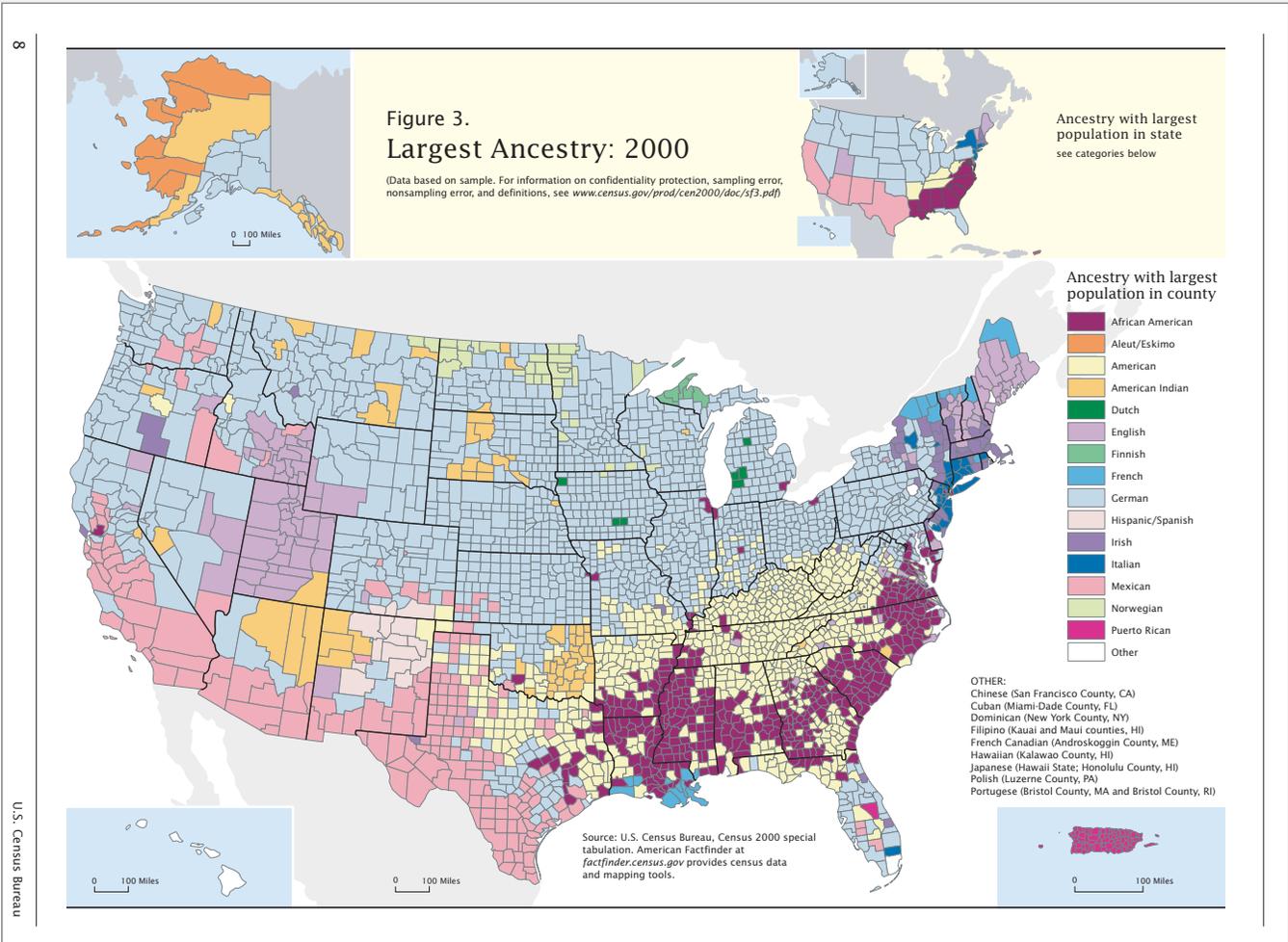
- **Each group brought religious practices (of Roman Catholicism, Protestantism, Buddhism, etc.).**
- **Each group has contributed different types of foods to American cuisine.**
- **Each group brings new perspectives and political values to the areas where its populations live.**

4. Which geographic patterns concerning race or ethnicity surprised you about the United States? Why?

Student answers will vary but could include the following:

- **The large number of American Indian reservations in America**
- **A lack of high concentrations of Asians beyond Northern California and the Pacific Northwest**

Item 1: Largest Ancestry, 2000

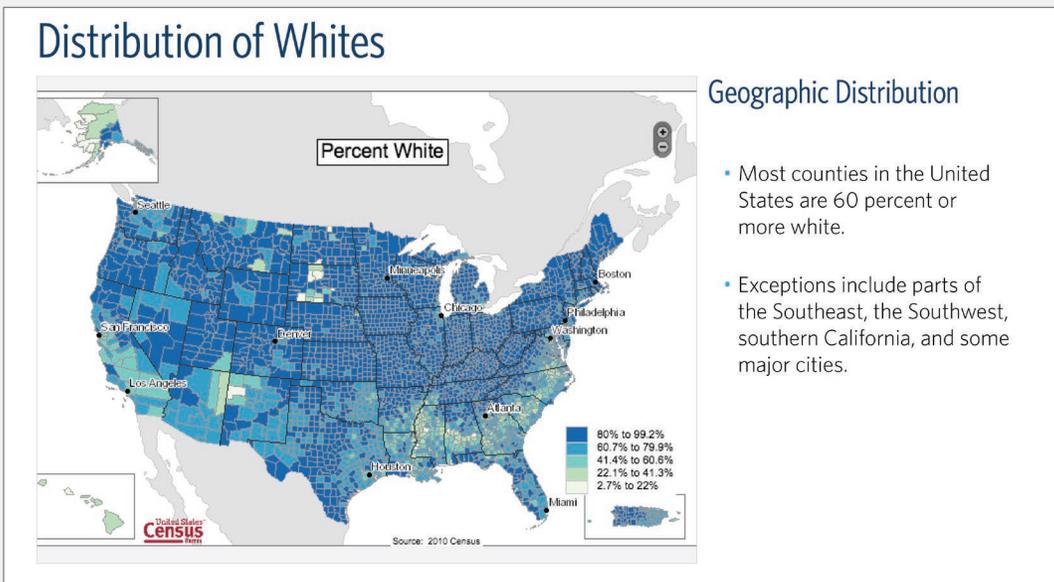


www.census.gov/prod/2004pubs/c2kbr-35.pdf

To view the item online, click on the link above and go to Page 8.

Item 2: “Analyzing the Distribution of Race and Ethnicity in the United States” Presentation

Analyzing the Distribution of Race and Ethnicity in the United States



datamapper.geo.census.gov/map.html

To recreate the map online, click on the link above and follow the steps outlined for students in part 1 of the activity.

Item 2: “Analyzing the Distribution of Race and Ethnicity in the United States” Presentation (Continued)

Distribution of Whites (Continued)



Statue of Liberty and New York Harbor, 1891 (Library of Congress, Prints and Photographs Division)

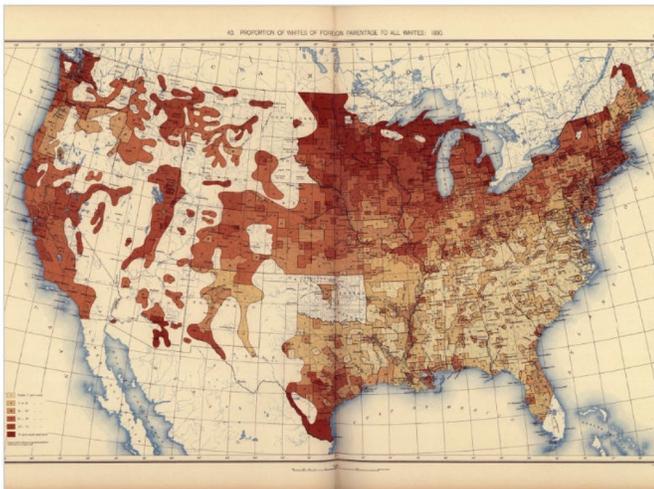
Historical Explanations

- The English, Scots, and Dutch migrated to America during the colonial period.
- During the 18th century, the majority of immigrants came to America from all parts of Europe.
- The major East Coast center was Ellis Island.

www.loc.gov/pictures/item/2002716179

Click on the link above to view the image online.

Distribution of Whites (Continued)



Proportion of Whites of Foreign Parentage, 1890 (Library of Congress, Geography and Map Division)

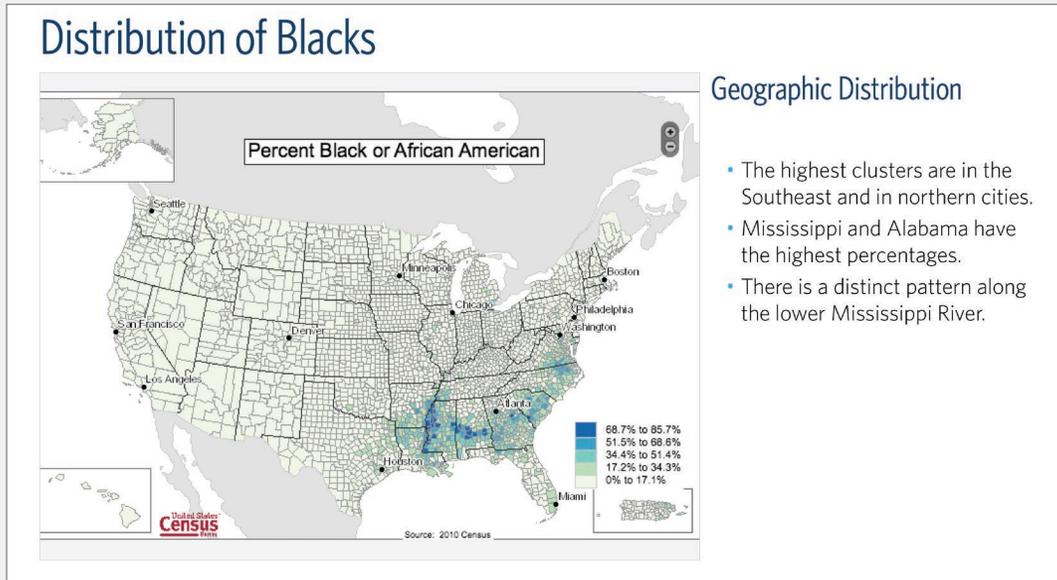
Historical Explanations

- The English, Scots, and Dutch migrated to America during the colonial period.
- During the 18th century, the majority of immigrants came to America from all parts of Europe.
- The major East Coast center was Ellis Island.

www.loc.gov/resource/g3701gm.gct00010/?sp=33

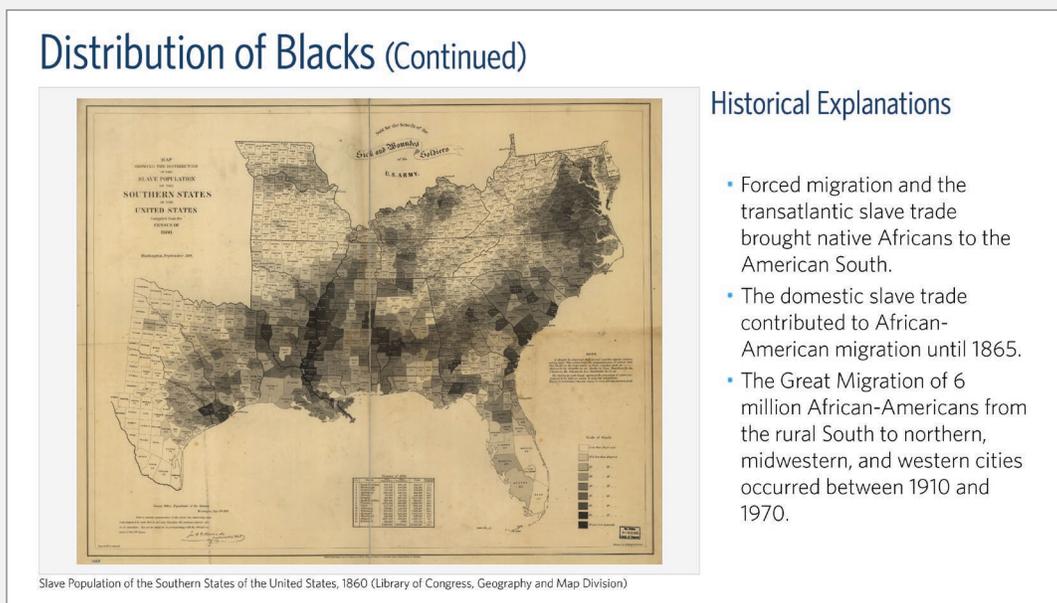
Click on the link above to view the map online.

Item 2: “Analyzing the Distribution of Race and Ethnicity in the United States” Presentation (Continued)



datamapper.geo.census.gov/map.html

To recreate the map online, click on the link above and follow the steps outlined for students in part 1 of the activity.

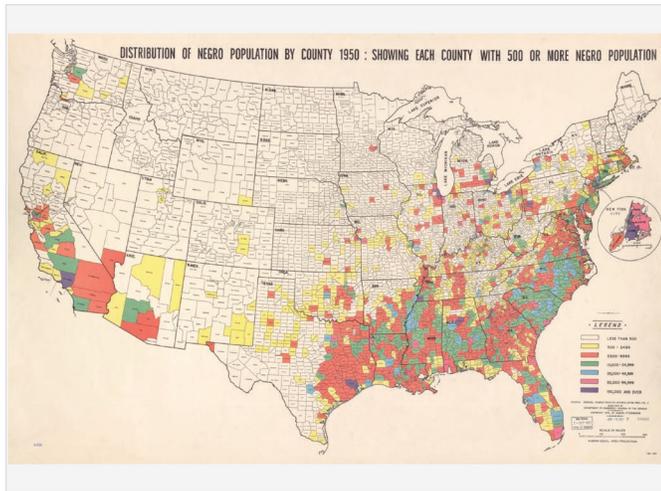


www.loc.gov/resource/g3861e.cw0013200

Click on the link above to view the map online.

Item 2: “Analyzing the Distribution of Race and Ethnicity in the United States” Presentation (Continued)

Distribution of Blacks (Continued)



Distribution of Negro Population by County 1950 (Library of Congress, Geography and Map Division)

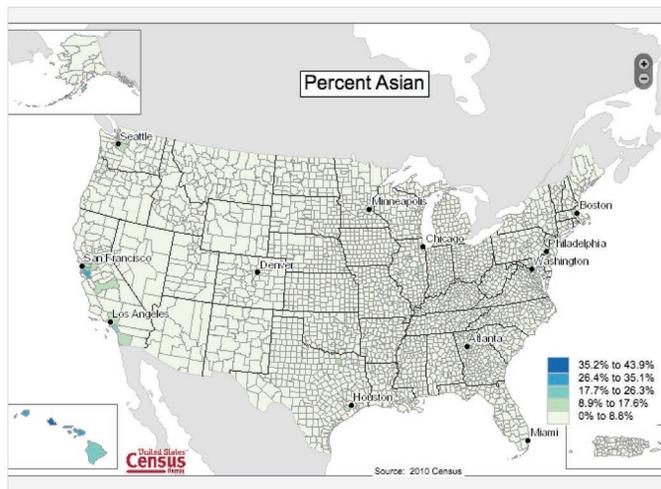
Historical Explanations

- Forced migration and the transatlantic slave trade brought native Africans to the American South.
- The domestic slave trade contributed to African-American migration until 1865.
- The Great Migration of 6 million African-Americans from the rural South to northern, midwestern, and western cities occurred between 1910 and 1970.

www.loc.gov/item/2013593062

Click on the link above to view the map online.

Distribution of Asians



Geographic Distribution

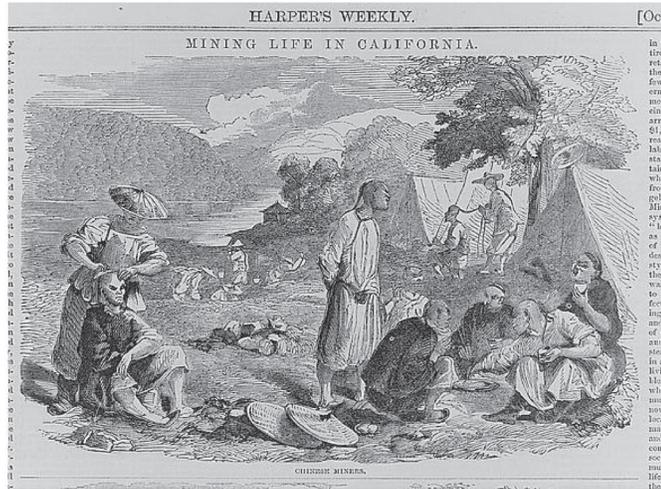
- Clusters are in California and the Pacific Northwest.

datamapper.geo.census.gov/map.html

To recreate the map online, click on the link above and follow the steps outlined for students in part 1 of the activity.

Item 2: “Analyzing the Distribution of Race and Ethnicity in the United States” Presentation (Continued)

Distribution of Asians (Continued)



Mining Life in California - Chinese miners, 1857 (Library of Congress, Prints and Photographs Division)

Historical Explanations

- Historic migration occurred during the California Gold Rush and with the Transcontinental Railroad.
- Ethnic neighborhoods (Chinatown) were established in both New York City and San Francisco.

www.loc.gov/pictures/item/2001700332

Click on the link above to view the image online.

Distribution of Asians (Continued)



The Vegetable Peddler, Chinatown, San Francisco (1896-1906) (Library of Congress, Prints and Photographs Division)

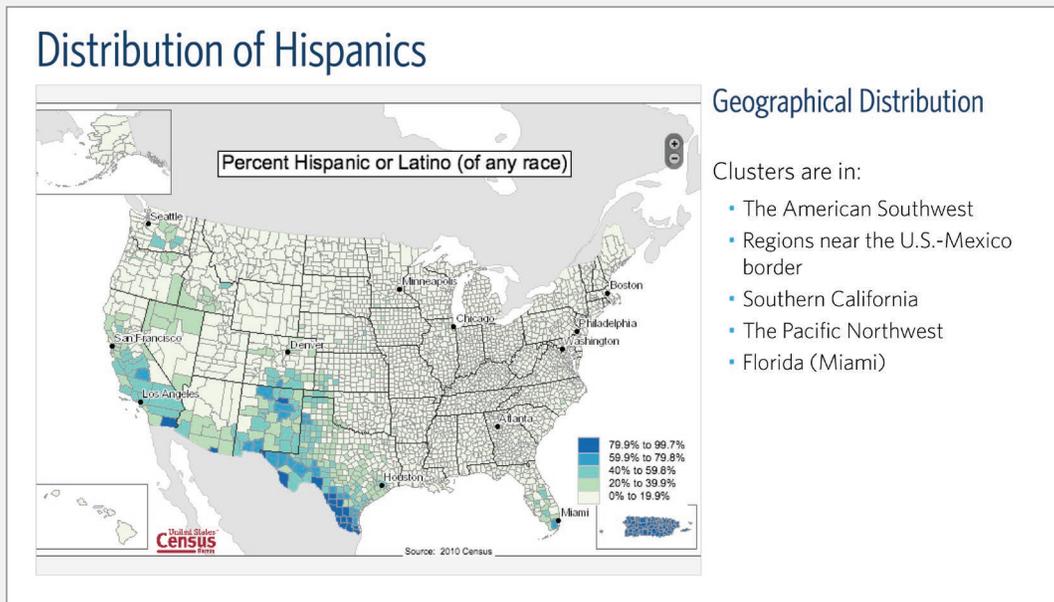
Historical Explanations

- Historic migration occurred during the California Gold Rush and with the Transcontinental Railroad.
- Ethnic neighborhoods (Chinatown) were established in both New York City and San Francisco.

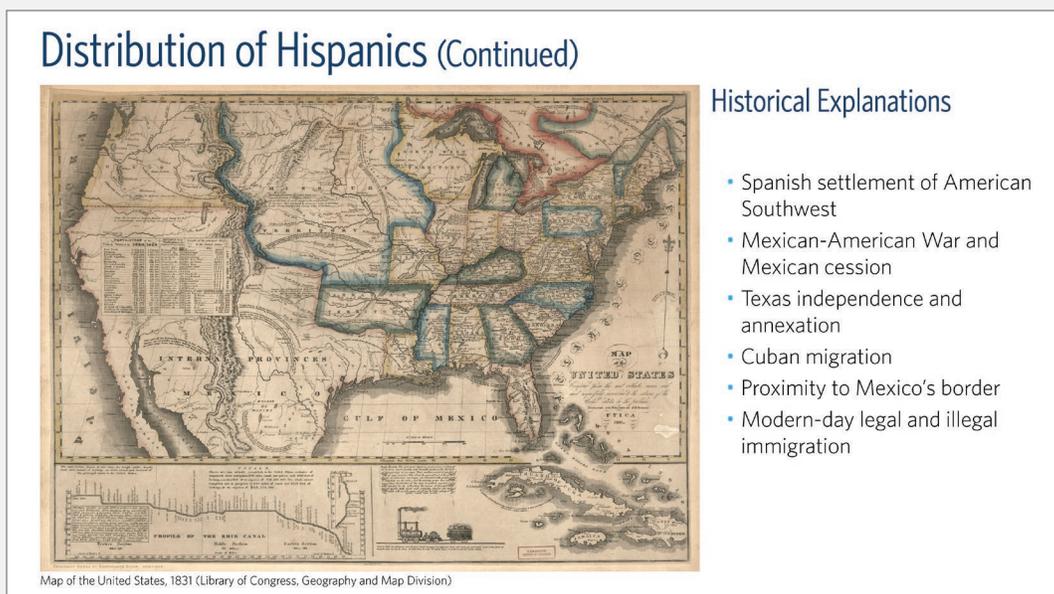
www.loc.gov/pictures/item/agc1996001224/PP

Click on the link above to view the image online.

Item 2: “Analyzing the Distribution of Race and Ethnicity in the United States” Presentation (Continued)



To recreate the map online, click on the link above and follow the steps outlined for students in part 1 of the activity.



Click on the link above to view the map online.

Item 2: “Analyzing the Distribution of Race and Ethnicity in the United States”
Presentation (Continued)

Distribution of Hispanics (Continued)



Mapa de los Estados Unidos de Méjico, 1847 (Library of Congress, Geography and Map Division)

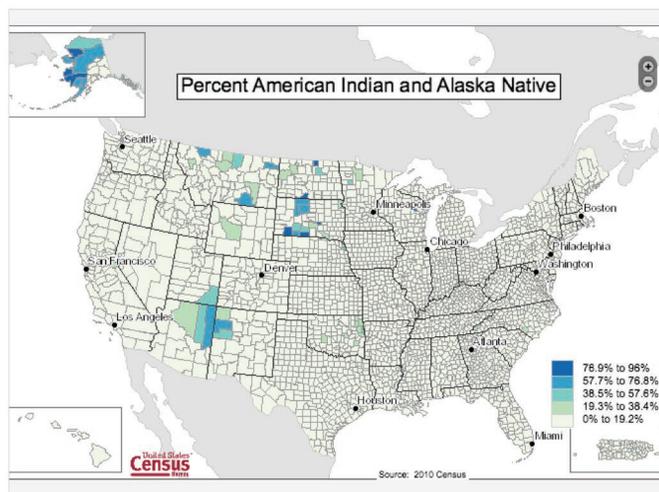
Historical Explanations

- Spanish settlement of American Southwest
- Mexican-American War and Mexican cession
- Texas independence and annexation
- Cuban migration
- Proximity to Mexico’s border
- Modern-day legal and illegal immigration

www.loc.gov/item/2004627240

Click on the link above to view the map online.

Distribution of American Indians



Geographic Distribution

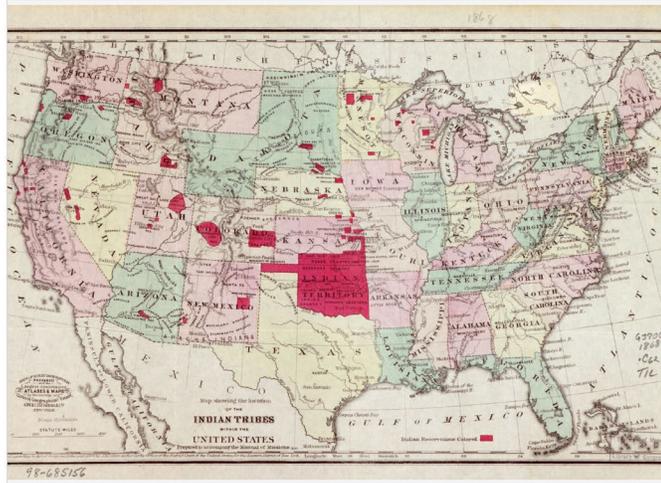
- Clusters are in:
- The Four Corners region
 - North Dakota, South Dakota, and Montana
 - Eastern Oklahoma

datamapper.geo.census.gov/map.html

To recreate the map online, click on the link above and follow the steps outlined for students in part 1 of the activity.

Item 2: “Analyzing the Distribution of Race and Ethnicity in the United States”
Presentation (Continued)

Distribution of American Indians (Continued)



Indian Tribes Within the United States, 1868 (Library of Congress, Geography and Map Division)

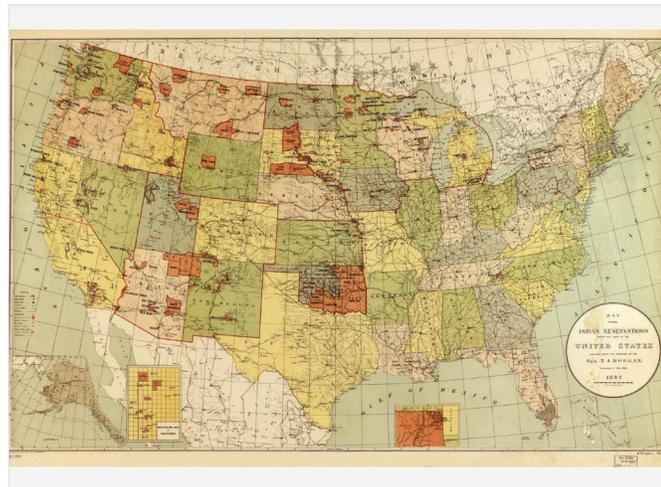
Historical Explanations

- Indian Removal Act
- Forced migration during the Trail of Tears
- Creation of Indian reservations, mostly in the Midwest and West

www.loc.gov/item/98685156

Click on the link above to view the map online.

Distribution of American Indians (Continued)



American Indian Reservations Within the Limits of the United States, 1892 (Library of Congress, Geography and Map Division)

Historical Explanations

- Indian Removal Act
- Forced migration during the Trail of Tears
- Creation of Indian reservations, mostly in the Midwest and West

www.loc.gov/resource/g3701g.ct002305

Click on the link above to view the map online.

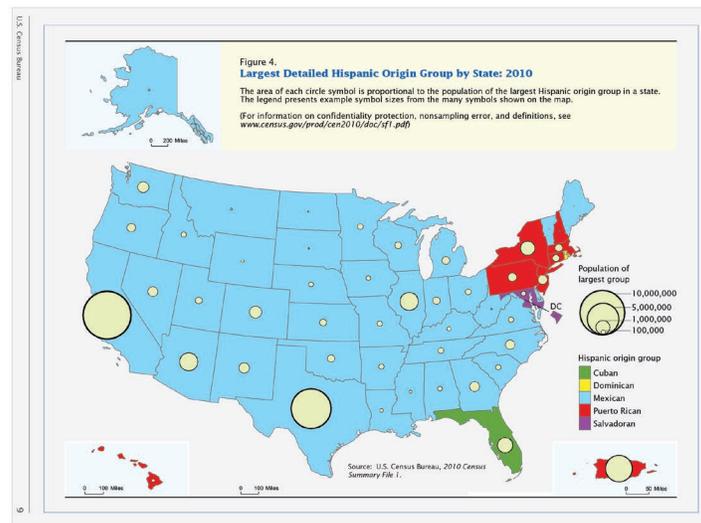
Item 2: “Analyzing the Distribution of Race and Ethnicity in the United States”
Presentation (Continued)

Shortcomings of Choropleth Maps

Choropleth maps can be valuable for showing distributions of race and ethnicity in America, but they do have limitations:

- Choropleth maps by their nature generalize data distribution. The distributions and concentrations that they show will change depending on the scale or level of analysis.
- The key takeaway: The more localized the analysis, the more accurately the distributions are mapped and visualized. The following slides showcase how the distribution of Hispanics and Latinos in California can look different at different scales (i.e., at the state, county, census tract, and census block levels).

Hispanic and Latino Distribution (State Level)

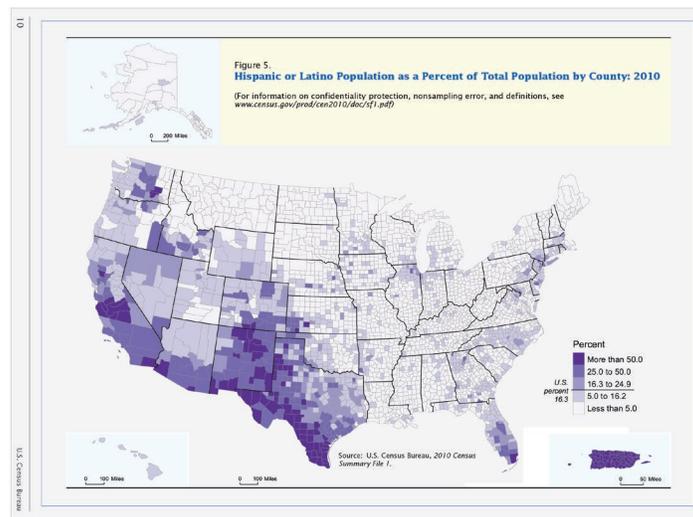


www.census.gov/prod/cen2010/briefs/c2010br-04.pdf

To view the map online, click on the link above and go to Page 9.

Item 2: “Analyzing the Distribution of Race and Ethnicity in the United States” Presentation (Continued)

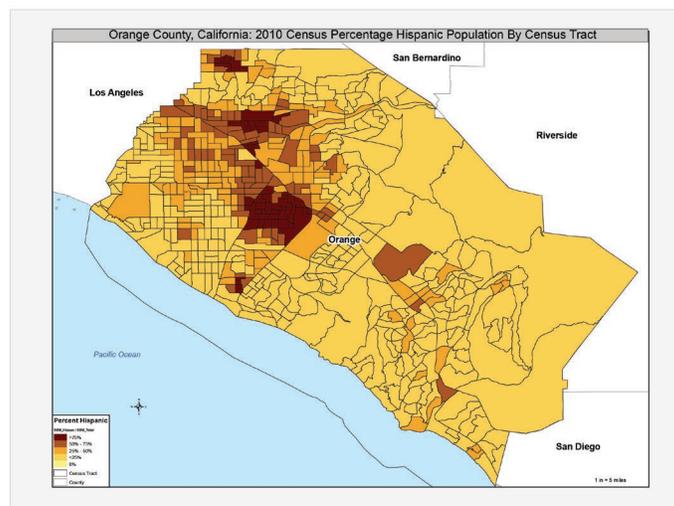
Hispanic and Latino Distribution (County Level)



www.census.gov/prod/cen2010/briefs/c2010br-04.pdf

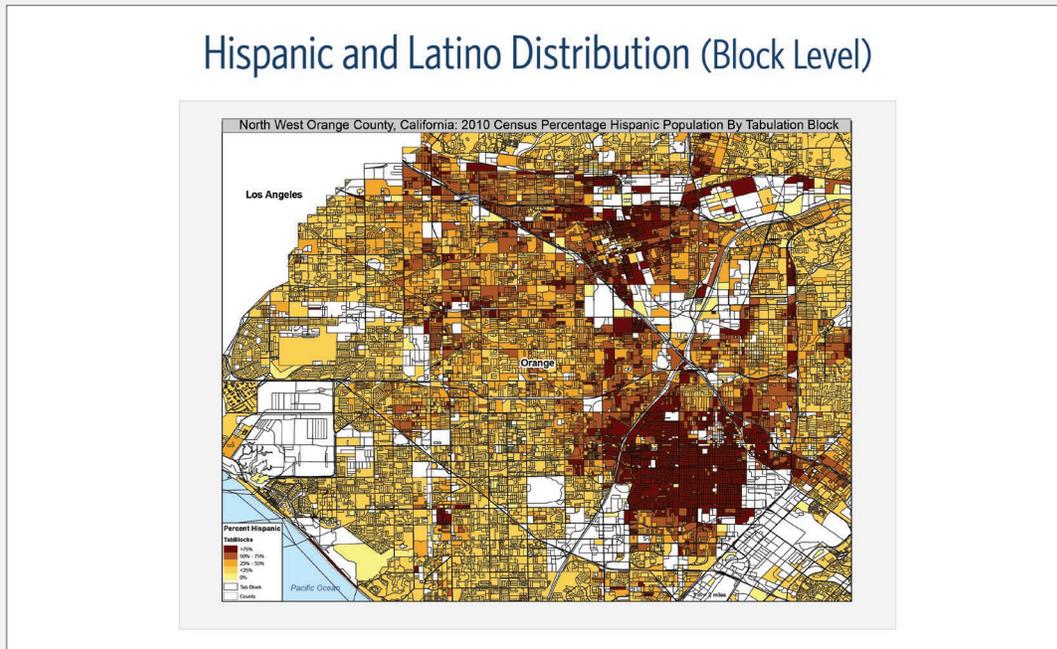
To view the map online, click on the link above and go to Page 10.

Hispanic and Latino Distribution (Tract Level)



Source data: Northwest Orange County, California. 2010 Census, Percentage Hispanic Population.

Item 2: “Analyzing the Distribution of Race and Ethnicity in the United States”
Presentation (Continued)



Source data: Northwest Orange County, California. 2010 Census, Percentage Hispanic Population.