

## MEDIAN INCOME PATTERNS IN THE UNITED STATES <br> TEACHER VERSION

## Subject Level:

High School History
Grade Level:
9-10
Approx. Time Required:
60-75 minutes

## Learning Objectives:

- Students will be able to interpret a data visualization to explain varying median household income levels by county across the United States.
- Students will be able to make comparisons between counties and states with different median incomes.


## Activity Description

Students will examine, and make comparisons using, a data visualization of median household incomes by U.S. county. Students will also consider how a county's median household income could affect its economy.

Suggested Grade Level:
9-10

## Approximate Time Required:

60-75 minutes

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## Topics:

- Data visualizations
- Median household income


## Skills Taught:

- Analyzing visual data
- Making comparisons
- Using data to develop an informed opinion


## Materials Required

- The student version of this activity, 3 pages
- A teacher computer with Internet access and a projector to display web sites

A computer with Internet access for each student is optional.

## Activity Item

This activity uses the following online tool:

- Islands of High Income www.census.gov/dataviz/visualizations/019

For more information to help you introduce your students to the U.S. 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."

Common Core State Standards for English Language Arts \& Literacy in Social Studies,
Science, and Technical Subjects

| Standard | Strand | Cluster |
| :--- | :--- | :--- |
| CCSS.ELA-LITERACY.RH.9-10.7 | RH 9-10 - History/ | Integration of |
| Integrate quantitative or technical analysis (e.g., charts, <br> research data) with qualitative analysis in print or digital | Social Studies | Knowledge and Ideas |
| text. |  |  |

## UCLA National Standards for History: U.S. History Content Standards

| Era | Standard |
| :--- | :--- |
| 10 - Contemporary United | Standard 2: Economic, social, and cultural developments in contemporary |
| States (1968 to the Present) | United States |

## UCLA National Standards for History: Historical Thinking Standards

| Standard | Description |
| :--- | :--- |
| Standard 3: Historical | Consider multiple perspectives. Students will adopt the perspective of a <br> government official in counties with lower and higher median household <br> incomes. |

## Bloom's Taxonomy

Students will analyze median household income data by county.


## Teacher Notes

## Before the Activity

Students must understand the following key term:

- Median household income - the middle income when the ordered income distribution of households is divided into two equal parts: one-half below and one-half above

Teachers should be aware that this activity is designed to be teacher-led, with the teacher displaying the data tool on the screen and moving through each question as part of a class discussion. However, if students have access to computers, they could complete this activity on their own.

Teachers should ask students, "Where do you think the richest people in the United States live?" Then teachers should employ the think-aloud strategy to show students how to use the data tool, saying, for example, "I notice that there is a cluster of high-income counties (above $\$ 80,000$ ) in the Northeast," or "Why do some counties and states have very low median household incomes in the tool?"

Teachers should tell students that data are from the 2006-2010 American Community Survey (ACS), using five-year estimates for median household income in the previous 12 months in 2010 inflation-adjusted dollars. Teachers should point out that $\$ 51,914$ was the median income for the United States during those years.

The ACS is conducted monthly by the Census Bureau, which is designed to show how communities are changing. Through asking questions of a sample of the population, it produces national data on more than 35 categories of information, such as education, income, housing, and employment.

## During the Activity

Teachers should monitor students as they work.

## After the Activity

Teachers should ask students to reflect on what they learned.

## Extension Idea

- Teachers could have students read "Countries with the widest gap between rich, poor" (www.usatoday. com/story/money/business/2014/05/21/rich-poor-widest-gap/9351639/?siteID=je6NUbpObpQ-
. OYaEYJbVT_Alnl1yx4RVA), a 24/7 Wall St. piece published in USA Today in 2014, to compare the U.S. income gap with other countries' income gaps.


## Student Activity

Click here to download a printable version for students.

## Activity Item

This activity uses the following online tool:

- Islands of High Income www.census.gov/dataviz/visualizations/019


## Student Learning Objectives

- I will be able to interpret a data visualization to explain varying median household income levels by county across the United States.
- I will be able to make comparisons between counties and states with different median incomes.

1. Looking at the data visualization on the screen, write three observations and two questions about any changes you notice in the data as the slider at the bottom moves.
Student observations will vary but could include that the map goes from nearly all green to nearly all gray as the slider moves from left to right, indicating that there are very few counties with median household incomes at or above $\$ 110,000$. Student questions will vary but could include why certain parts of the country have higher median incomes than others.
2. What does the title of the data visualization tell you?

Student answers will vary but should refer to the word "islands" as an indication that some highincome areas are clusters, separated from other areas in a state that have lower incomes. There isn't one state that has just one median household income level across all counties.
3. What does the data visualization show, and what happens when you adjust the median income slider at the bottom of the tool?
The tool shows median household incomes by county. When you move the slider to the right, the tool displays counties in green that have higher median incomes, and vice versa when you move it to the left.
4. You already know that the U.S. median income for this data set was $\$ 51,914$, but what does that mean? It means that half of American households had median incomes above $\$ 51,914$ and half had incomes below $\$ 51,914$.
5. List three states that have counties with median household incomes ...
a. ... at or below $\$ 18,000$ :

Student answers will vary but could include Alabama, Louisiana, and Texas.
What is one thing you notice?
Student answers will vary but could include that most of these states are in the South.
b. ... below $\$ 40,000$ :

Student answers will vary but could include, among many, Alaska, Arizona, and Arkansas.
What is one thing you notice?
Student answers will vary but could include that these counties are all over the United States. Most states have counties with median incomes of less than \$40,000, except for a few in the Northeast, including Connecticut and New York.
c. ... above $\$ 80,000$ :

Student answers will vary but could include California, New Jersey, and New York.
What is one thing you notice?
Student answers will vary but could include that most of these states are near big cities in the Northeast.
6. Which area of the United States has counties with the highest median household incomes? Why do you think that is the case? Think about the geography and economy of that area.

The highest median household incomes are in the Northern Virginia-District of Columbia area. Student answers for the second question will vary but could include that a higher cost of living in the Northern Virginia- District of Columbia area could lead to increased wages, and that the District of Columbia is the nation's capital, so a number of its residents likely have high-paying jobs with the government.
7. Now examine the state where your school is located. Do the median household incomes for the counties in this state fall above or below (or both) the average median income for the United States in 2010? Why do you think that is the case? Again, think about the geography and economy of that area.
Student answers will vary depending on the state chosen.
8. Imagine you are a government official - such as a mayor - in the county with the lowest median household income in your school's state:
a. What political or economic challenges might you face in your position? Explain.

Student answers will vary but could include that low tax revenue would make it difficult for the government to provide and/or improve services and would limit the options for effective resource allocation.
b. Now explain how these challenges might be similar to or different from those that government officials in counties with higher median household incomes could face.
Student answers will vary but could include that counties with higher median incomes, which are usually near heavily populated cities, might collect more in taxes that must be spread out over more people.

