Name:

Date:

School:

Facilitator:

8.05 Using Rate of Change to Analyze Population Data

**Directions: Use the SAS Curriculum Pathways Lesson to complete the questions below.**

**Northeast Region**

Generally, the Northeast region is made up of fairly small states with high population densities. Rhode Island is a highly industrialized state with a strong focus on manufacturing, boat and ship construction, and research.

1. At 1,545 square miles, Rhode Island is the smallest of the 50 states. In 1990, what was the population density of Rhode Island? Round to the nearest whole number.

1. The area of Pennsylvania is 46,056 square miles. How many "Rhode Islands" would fit in the state of Pennsylvania? Round to the nearest whole number.

1. In 1990, what was the population density of Pennsylvania (in people per square mile)? Round to the nearest whole number.

1. Would you consider Rhode Island or Pennsylvania to be more "crowded?" Why?

**Midwest Region**

After World War II, many servicemen returned home to get married and start families. During this decade, the nation experienced what is now called the "baby boom."

1. Complete the table below by finding the rates of change for Illinois, Michigan, and Ohio populations between 1920 and 1940, and between 1940 and 1960. Round to the nearest whole number.

|  |
| --- |
| **Rate of Change of Population** |
| **State** | **1920–1940(people per year)** | **1940–1960(people per year)** |
| Illinois |        |        |
| Michigan |        |        |
| Ohio |        |        |

1. Why is the period from 1945 to 1965 referred to as the "baby boom?"

**South Region**

The average maximum temperature for Orlando, Florida is 92ºF in July. The average maximum temperature for Buffalo, New York is 80.2ºF in July. Air conditioning was originally invented in the early 1900s, but it was not until the 1950s that air conditioning window units became an inexpensive and effective method to electronically cool the air.

1. What is the rate of change in Florida's population between 1950 and 1980? Round to the nearest whole number.

1. What is the rate of change in New York's population between 1950 and 1980? Round to the nearest whole number.

1. Considering this data, what is one possible effect of the invention of air conditioning?

**West Region**

Silicon Valley is an area of California that is known for start-up technology companies. Previously home to prune orchards, this large region in the South San Francisco Bay area now houses companies such as Google, Cisco, Intel, and Apple. *Silicon Valley* was an area nickname coined in 1971. The name originated from the large number of silicon chips that were being manufactured in the area, but it now encompasses all technology companies in that geographical region.

1. In California, which decade had the greatest rate of change between 1900 and 2010?

1. How do you think the success of technology companies within Silicon Valley may have affected the overall economy of California?

**Conclusion**

Consider the Focus Question: How have historical events shaped the U.S. population? As you've answered the Respond questions, you've seen how various historical events may have shifted populations.

Think of an event that occurred after 1990 that might have had an effect on population trends. Write 2-3 sentences describing the event and the type of effect you think it had on the population of the United States. Indicate the data that would back up your hypothesis.

Copyright © 2014 SAS Institute Inc., Cary, NC, USA, All Rights Reserved