## Activity

## How Far Would Your Money Go in Another State?

## Working With Price Differences

Do you ever wonder about living in a different state? You might move with your family, go to a college in another state, or move for your career. In many cases, you'd notice that living in a new place is more expensive or less expensive than where you are now.

What if you were job-hunting and received offers in two different states for about the same pay? How could you make a more informed decision about which job to take? It would be a good idea to check out living costs in both areas. Would your paycheck buy more goods and services, including rent, in one place than the other?

You can compare price levels between two places by using regional price parities, or RPPs, produced by the U.S. Bureau of Economic Analysis. An area's RPP for all items compares its price level for all goods and services to the national average, which is set at 100.

Prices can vary greatly even within the same state. BEA produces RPPs for all 50 states and the District of Columbia, for metropolitan statistical areas, and for the nonmetropolitan portion of each state. They are published along with real personal income data in the Regional Data section of BEA's Interactive Data at https://apps.bea.gov/itable/.

You can also see the latest state RPPs within the real personal income release found at https://www.bea.gov/data/prices-inflation/regional-price-parities-state-and-metro-area.

## Using Regional Price Parities to Compare Price Levels

To compare the price levels of two states, you can use RPPs in this formula:
(State A's RPP / State B's RPP) x 100
For example, using Colorado and Ohio:

1) Find the states' all items RPPs in BEA's Regional Interactive Data or by using the chart included as a resource with this lesson, Regional Price Parities by State in 2017.

Colorado's RPP is 103.2.
Ohio's RPP is 88.9.
2) Divide Colorado's higher RPP by Ohio's lower RPP. Multiply the answer by 100 :

## $(103.2 / 88.9) * 100=116.1$

Rounding to a whole number, average prices in Colorado are 116 percent of average prices in Ohio. Goods and services that cost $\$ 100$ in Ohio would cost you $\$ 116$ on average in Colorado.

In other words, Colorado's prices are 16 percent higher than Ohio's.
To use Colorado's price level as your starting point, divide Ohio's lower RPP by Colorado's higher RPP. Multiply the answer by 100 :

## $(88.9 / 103.2) * 100=0.86$

Ohio's prices are 86 percent of Colorado's prices. Goods and services that cost $\$ 100$ in Colorado would cost you $\$ 86$ on average in Ohio.

## Activities

Answer the following questions using state RPP data.

## Activities Part A:

1. What is your state's all items RPP? $\qquad$
2. At what number is the U.S. RPP always set? $\qquad$
3. Is your state's price level higher or lower than the U.S. level (or the same)?

Circle one: Higher Lower The same
4. If your state's RPP is higher or lower than the U.S. level, fill in the correct blank:

My state's price level is $\qquad$ percent higher than the national average.

## OR

My state's price level is $\qquad$ percent lower than the national average.

## Activities Part B:

5. Showing your work, calculate the difference between the price levels of California and South Dakota to fill in the blank in the sentence below (round to a whole number when writing the percentage). Hint: Remember the formula you learned above.

California is $\qquad$ percent more expensive than South Dakota.

## Activities Part C:

Using the states' RPPs, answer these questions:
6. Which state has the highest prices?
7. Why do you think prices might be higher there than in other states?
8. Which state has the lowest prices?
9. How much higher are prices in the most expensive state, compared with the least expensive state? Calculate using their RPPs.

Prices in $\qquad$ are $\qquad$ percent higher than in $\qquad$ .

## Activities Part D:

Imagine you received job offers paying $\$ 50,000$ per year from three different companies, each located in a different state: the state you live in now, Hawaii, and Mississippi.

You want to figure out which job offers the most purchasing power in its location, in other words, how far your money would go there.

- If you had to guess, do you think $\$ 50,000$ would buy more goods and services in Hawaii or Mississippi?
- Do you think living in your state is relatively expensive or inexpensive?

Use the states' regional price parities to find out in the problems below. (If you live in Hawaii or Mississippi now, choose a third state to use as "your state" in the problems.)

Show your work. This formula will help:
Nominal Income / (RPP / 100) = Income adjusted for regional price levels
In this case, the nominal income will be $\$ 50,000$.
10. What is the RPP-adjusted value of $\$ 50,000$ for your state?
11. What is the RPP-adjusted value of $\$ 50,000$ for Hawaii?
12. What is the RPP-adjusted value of $\$ 50,000$ for Mississippi?
13. Based solely on statewide price levels, in which state does a job paying $\$ 50,000$ have the most purchasing power? $\qquad$

