

## Exercise 6. Location Quotient

**Purpose:** The *Location Quotient* indicates whether a place has a greater or less than expected proportion of a subpopulation. Ideally, a place would have the same proportion as a larger reference area such as the entire state or the nation. In this case the proportion of the total population that is in an ethnic group will be examined. However, the measure is commonly used to gauge employment differences.

### Calculating the Location Quotient

1. From the table below, calculate the proportion of the total population that is represented by each of the ethnic groups in the State of California.

Totalpop	NHWalo	Blackalo	Asianalo	Latino
33,871,648	15,771,163	2,219,190	3,682,975	10,969,132

2. Open the *CalifCities* file and then copy the City Names, Total Population, *NHWalo*, *Blackalo*, *Asianalo*, and *Latino* variables to a new spreadsheet.

3. Create four new columns for the ethnic groups and in each divide the city proportion ethnic by the proportion for the State. In other words for Non-Hispanic Whites the proportion white for each city would be divided by 0.4656, the value for the entire State.

4. When done, sort the cities based on the location quotient for each of the groups. Those places with scores above 1 have a greater than expected share of whites. A score of 2 would indicate twice as many whites as expected and a score of 0.5 would indicate half as many.

5. Can you offer any explanation of why some cities are very high or very low? For the latter, it usually means an especially high concentration of another ethnic group such as Black or Latino.

### Exercises

1. Download occupational or industry data (*P50* or *P51*) and compute the proportion of males and females employed in different industries for California. Note you may want to use only the summary variables for the many values listed.

2. Use *SF4* to download the same data for selected ethnic groups (*PCT86* or *PCT87*) and compare ethnic ratios to those for all males and females in the entire State.