

Exercise 9. Dependency Ratio

Purpose: This exercise will give you the opportunity to calculate dependency ratios for California cities. These can be sorted and compared to look for similar locations or other qualities among the cities. In California one might expect cities with larger Mexican-origin populations to have higher Youth Dependency Ratios due to higher birth rates and cities that appeal to retirees to have higher Elder Dependency Ratios.

The Youth Dependency Ratio

1. Load *CalifCitiesAgeSex.xls* into Excel. This spreadsheet contains a set of age categories for males and then a repeat of the categories for females. You may find it helpful to split the spreadsheet for calculations.

2. In a new column to the right calculate the total population age 15 to 64 by adding all contained age groups for males with those for females.

3. In another new column to the right, calculate the number of persons 0 to 14 years of age by adding the three age columns for males with the three age columns for females.

4. Compute the Youth Dependency ratio for all the cities by dividing the age 0 – 14 population count by the age 18 – 64 population count.

5. Copy the YDR category and the city names to a new space and sort the cities by decreasing value of the ratio.

6. Which cities have the highest YDR and which have the lowest? Do any of these cities seem to have anything in common?

7. Compare the city values to those for the State of California and the U.S.

	United States	California	Los Angeles City	Glendale City
	Persons	Persons	Persons	Persons
Less than 15 years	60,253,375	7,783,683	839,417	36,030
15 - 64 years	186,176,778	22,492,307	2,498,274	131,829
Greater than 64 years	34,991,753	3,595,658	357,129	27,114
YDR	0.324	0.346	0.336	0.273
EDR	0.188	0.160	0.143	0.206
DR	0.512	0.506	0.479	0.479

The Elder Dependency Ratio

1. In a new column add all the age categories for males age 65 and older with all those for females age 65 and older.

2. Compute the Elder Dependency Ratio by dividing the age 65 and older population by the age 18 – 64 population.

3. Copy the EDR values and the city names to new columns and sort them by decreasing value of the EDR.

4. Which cities have the highest EDR and which have the lowest? Do any of these cities seem to have anything in common?

5. Compare the EDR and YDR cities.

6. Compare the high and low EDR values to those for the State of California and for the U.S.

The Dependency Ratio

- 1. Calculate an overall Dependency Ratio by adding the age 0 – 14 category with that of the age 65 and over category and then dividing the result by the age 18 – 64 category.**
- 2. Again copy and sort the resulting calculation along with the city names in a new set of columns.**
- 3. Compare the values at the ends of the ranking. Also compare the values with those for California and the U.S.**
- 4. What types of needs can you foresee for areas that have either high EDR or YDR populations? In addition to the ratios you should look at the actual numbers of people behind the calculations.**

Exercises

- 1. Use SF4 and download Table P8 for one or more specific ethnic groups by state to obtain the age/sex breakdown for those groups. Do various groups have distinctly different dependency ratios?**
- 2. Calculate the dependency ratios for all states. What differences do you observe in different parts of the United States?**