

## Outcomes of Poverty

This module focuses on outcomes for kids living in poverty

1. Begin by going to the KIDS COUNT web site (<http://www.kidscount.org>) and click on “Kids Count Data Book Online” and look at how “percent children living in poverty” varies across states.
  - Click on map and choose “Percent children living in poverty” as your indicator and click on next step
  - Choose the most recent year for which data is available and go on to next step
    - a. Eyeballing the map, which region or regions of the country have a higher percentage of children living in poverty?
    - b. Click on ranking and repeating the steps of choosing an indicator and year, determine which state has the highest rate of children living in poverty and record the percentage for that state. Note that you should skip the step of choosing a region since we are interested in all 50 states.
      - Record which state(s) has the best (in this case lowest percentage) ranking and the percentage for that state.
      - Record which state(s) has the worst (in this case highest percentage) ranking and the percentage for that state.
      - Subtract the low from the high percentage to determine the range of variation for “Percent children living in poverty.”

State Ranking	Percent children living in poverty
(Best)	
(Worst)	
<b>Variation (High – Low Percent)</b>	

2. Examine “percent children living in poverty” as a trend over time.
  - First, click on line graphs
  - Choose the United States, Minnesota and one other state. Consider choosing one of the worst or best-ranked states as a comparison.

- Choose the “percent children living in poverty” indicator
  - Graph data from 1990-1999
    - a. Describe the overall national trend. Was there an increase, decrease, or did it stay the same. Nationally are we experiencing more or less child poverty?
    - b. Describe the trend for Minnesota and the other state chosen. Do these state trends differ from the national trend? Describe any similarities and differences.
3. Weber uses the term “life chances” to reveal how social class position influences the experiences that people are more or less likely to have. People living in poverty may belong to the “working poor” or underclass, which some sociologists use to refer to those on welfare. Poverty then means occupying a lower social class position. If we emphasize the “life” of life chances, we would predict that living in poverty impacts death rates and other health indicators.
- a. Write a hypothesis stating the relationship you predict between poverty and infant mortality
  - b. To test the relationship between the percent children living in poverty and health indicators, open the excel file called “tool\_us.xls” file.
    - Make a scatter plot by using the pull down menu
    - Let x be Poverty (“percent of children living in poverty 1999”) and y be “infant mortality 1999”
    - Cut and paste the plot into a Word file and record the correlation coefficient.
  - c. Write an interpretation of the correlation coefficient summarizing the relationship between percent children living in poverty and infant mortality. See below for an explanation of the correlation coefficient.

- d. Are there any data points that seem to stand out --not part of the cluster of data points? These are called outliers. Click on an outlier to see which state is represented.
  - e. Was the hypothesis confirmed? Explain your answer
4. Repeat this analysis using “teen death rate 1999” as the new y variable.
- a. Write a hypothesis stating the relationship you predict between poverty and teen death rate
  - b. To test the relationship between the percent children living in poverty and teen death rate, use the “tool\_us.xls” file.
    - Make a scatter plot by using the pull down menu
    - Let x be Poverty (“percent of children living in poverty 1999”) and y be Teen Deaths (“teen death rate 1999”)
    - Cut and paste the plot into a Word file and record the correlation coefficient.
  - c. Write an interpretation of the correlation coefficient summarizing the relationship between percent children living in poverty and teen death rate. See below for an explanation of the correlation coefficient.
  - d. Are there any data points that seem to stand out --not part of the cluster of data points? These are called outliers. Click on an outlier to see which state is represented.
  - e. Was the hypothesis confirmed? Explain your answer

**Correlation Coefficient Explanation:**

The correlation coefficient or Pearson's  $r$  is a measure of the degree of linear association existing between two variables. We want to pay close attention to both the direction and strength of the association. A positive correlation is indicated by the absence of a negative sign and means that variables are changing in the same direction. An increase or decrease in one variable corresponds to the same change in another variable. For example, we would expect that the more time a student studies for an exam ( $x$ ) the higher the exam score ( $y$ ). A negative relationship is indicated by a minus sign and means that as one variable increases there is a corresponding decrease in another variable. The strength of a relationship is indicated by the numeric value of the coefficient. Coefficients range from 1.0 to  $-1.0$ . These values are examples of perfect correlations. In reality most values are found in between 1.0 and  $-1.0$ . Correlations of .30 or less (either + or -) are considered weak, .31 - .70 (either + or -) are deemed moderate and .71 and above (either + or -) considered strong. These are not absolute rules but should be used as a guide in interpretation. Note that the higher the correlation coefficient (either positive or negative), the more closely clustered the data points are in the shape of a diagonal line.

5. Poverty also influences the health of children including both access to preventive care and future health problems.
  - a. Develop a hypothesis accessing the relationship between “percent children living in poverty” and “Percent of two year olds immunized”.
  - b. Test this relationship using the “tool\_us.xls” file.
    - Make a scatter plot by using the pull down menu
    - Let  $x$  be Poverty (“percent children living in poverty 1999”) and  $y$  be %2-Year-OldsImmunized (“Percent two year olds immunized 1999.”)
    - Cut and paste scatter plot into word file and record the correlation coefficient.
    - Interpret your findings.
6. Choose your own variable that you think may be a *health-related* outcome of child poverty.

- a. Develop a hypothesis accessing the relationship between child poverty (x) and \_\_\_\_\_(y).
- b. Test this relationship using the “tool\_us.xls” file.
  - Make a scatter plot by using the pull down menu
  - Let x be Poverty (“percent children living in poverty 1999”) and y be \_\_\_\_\_1999.
  - Cut and paste scatter plot into word file and record the correlation coefficient.
  - Interpret your findings.