

Multiple-Linear Regression Instructions

- 1.) After gathering data from 2010-2014 and 2015 for Baltimore Child and Family Well-Being, add a filter to the Community Statistical Areas (CSAs) and make sure you only have the same CSAs in each dataset.
 - a. 2010-2014 data can be found on the “Children_and_Family_Health_and_” tab
 - b. 2015 data can be found on Open Baltimore under 2015 Children and Family Health and Well-Being
 - i. Link: <https://data.baltimorecity.gov/Health/Children-and-Family-Health-and-Well-Being-2015-/7v76-hknd>
- 2.) Combine the 2015 data with the 2010-2014 into one Excel file for easy access.
- 3.) [OPTIONAL] Label the columns more clearly:
 - a. Teenbir10 = Teen Birth Rate 2010
 - b. Termbir10 = Percent of Births Delivered at Term 2010
 - c. Birthwt10 = Percent of Babies Born with a Satisfactory Birth Weight 2010
 - d. Prenatal10 = Percent of Births Where Mother Received Early Prenatal Care 2010
 - e. LifeExp11 = Life Expectancy 2011
 - f. Mort1_11 = Infant Mortality Rate (IMR) 2011
- 4.) Create a new sheet for your first MLR (2011*)
 - a. Copy and Paste Infant Mortality Rate 2011 into the FIRST column of this sheet
 - i. The first column allows for IMR to be considered as the y-variable
 - b. To observe how every other variable affects IMR, copy and paste them in the following columns (Teen Birth Rate, % of Births Delivered at Term, % of Babies Born with a Satisfactory Birth Weight, % of Births Where Mother Received Early Prenatal Care, Life Expectancy)
 - c. Click on the “Data” tab
 - d. On the far right of the Data tab, click on “Data Analysis” and run a “Regression”
 - e. Input your Y-range as the values in the A column (First column)
 - f. Input your X-range as the values in the B-F columns
 - g. Indicate that there are labels
 - h. Click “OK”
 - i. You should see a “SUMMARY OUTPUT” with all of the data.
 - ii. *2010 was omitted because it did not have data for IMR or Life Expectancy
- 5.) Repeat 4 a-h for 2012-2015