For my research project, i examined the pacific decadal oscillation to see if it had any impact on precipitation amounts in Santa Barbara. I got PDO data from the University of Washington’s JISAO website at http://jisao.washington.edu/pdo/PDO.latest. I got climate data from NOAA’s national climate data center. The climate data was mostly consistent from 1930 to the present with some gaps in the 80’s and early 90’s.

At first I tried to directly compare the monthly PDO anomaly with total rainfall in that month, however there were many months with zero rainfall amounts that skewed results. Then I tired to only use the months of december and january which are during Santa Barbara’s rainy season. However the resulting scatter plot did not show any sort of correlation.
I then averaged the pdo and climate data for the rainy season (October-April) and did a scatter plot of those. The results were more interesting.

Although there is still a lot of inconsequential data, it looks like there may be a trend that associates positive PDO anomalies with higher possible maximum rainfall amounts. So if the nearby Pacific Ocean is warmer then there may be a higher possibility for higher amounts of rainfall.

If I were to continue this research I would want to see if could add more data, possibly from other coastal cities to see if the trend really exists. I would also like to add in ENSO data to possibly get a truer picture. Climate is such a delicate thing with many factors adding to the balance that it can be very difficult to find a direct correlation between one cause and an effect.