**Common Notation in Statistics**

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| ***CONCEPT*** | ***POPULATION*** | ***SAMPLE*** |
| Mean |  |  |
| Covariance |  | , cov(x,y) |
| Variance |  | , s2, var(x) |
| Standard Deviation |  | , s, sd(x) |
| Correlation |  | *rxy , r, corr(x,y)* |
| Standard Error | There is none!!! | , *SE(b1)* |

*Greek letters tend to be used for population parameters, Roman for sample parameters, and hats tend to be used for predictions.*

Sums of Squares:

TSS = Total Sum of Squares, TSS = ESS + RSS

ESS = Explained Sum of Squares OR Error Sum of Squares

RSS = Regression Sum of Squares OR Residual Sum of Squares

*Pay attention to ESS and RSS because the mean opposite things, depending up on the abbreviation!*