

## OLS Metrics

Metric	Calculated per	Priority	Formula	Want to	Description
<b>n (num observations)</b>	Model	High	n/a	n/a	
<b>p (num features)</b>	Model	High	n/a	n/a	
<b>u (residual)</b>	Observation	High		Decrease	
<b>SSE (sum of squared errors)</b>	Model	Low		Decrease	SSE measures the sample variation in the
<b>SSR (sum of squared residuals)</b>	Model	Low		Decrease	measures the sample variation in the $u_i$
<b>SST (Total sum of squares)</b>	Model	Low	$= SSE + SSR$	Decrease	SST is a measure of the total sample variation in the $y_i$ ; that is, it measures how spread out the $y_i$ are in the sample
<b>R<sup>2</sup></b>	Model	Low	$SSE/SST = 1 - (SSR / SST)$	Increase	Ratio of the explained variation compared to the total variation; fraction of variance in y that is explained by the model
<b>Adjusted R<sup>2</sup></b>	Model	High	$1 - (1 - R^2)(n - 1) / (n - p - 1)$	Increase	Corrects for the fact that R <sup>2</sup> increases w/ number of regressors
<b>t (T statistic)</b>	Variable	Low	=	Increase	Test that variable coefficient should be 0 (i.e. variable is worthless)
<b>P&gt; t  (p-Value)</b>	Variable	High	$P( \text{observed } t  >  \text{actual } t )$	Decrease	Probability of the observed t-statistic is larger than the actual t statistic
<b>DF Residuals (Residual degrees of freedom)</b>	Model	Low	n-p	Increase	
<b>Model DoF</b>	Model	Low	P-1	Decrease	Number of parameters (not including intercept)
<b>Many, many others</b>					This is not an exhaustive list. There are many additional metrics to look at