- If SS_M is large, then the regression model is better than the mean in terms of predicting values of the outcome variable.

- If SS_M is small, then the regression model is not much better than the mean in terms of predicting values of the outcome variable.

- We can calculate the proportion of improvement in prediction by looking at the ratio of SS_M to SS_T.

- Actually, this is called R^2 so:

$$R^2 = \frac{SS_M}{SS_T}$$

And this is the <u>same</u> R^2 that we worked out by squaring the Pearson correlation coefficient…..