SS 2

CI is bigger bc it is based on mean Train throwing a rock through open doors. 1:24 MIn

Gauss Markov Theorem: Amongst the class of all linear unbiased estimators for beta the least squares estimator has the least variance for estimation. 1:33 Min OLS is the best estimator

Elasticity: The percentage change in Y given the change in X. The responsive rate of one variable based on another. The more it changes the more it is elastic \*\* There will be a question like this on the Final

K-1 is going to be on the final, you need an intercept. Collinearity trap.

The intercept is just the average for the data set by itself.

Office Hours SS2.2

Conduct a usual EDA…

What is the issue with the OLS estimator when you have hetroscadiscity?

What is the issue OLS estimator when in the presence of Hetero…

The variance and covariance matrix with the estimator is wrong.

We can not use the standard erros from OLS to conduct CI or Hypothesis testing.

WLS will give a better model in the presense of Hetero than OLS

Gauss Makov only applies when assumptions are violated.

Residual Analysis

Cone means hetero : residuals is dependent on the mean response. As the mean response goes up the variance The residual variance is changing with the scatter as it increases, what is causing that?

Three tests to conduct of gtraphical analysis for hetero.

This is a green light – saying hey you are dealing with Hetro.

Why include a square item in the model? Capture the curvature in the relationship

Graphical Analysis can be quite subjective.

Ignore G-Plot

White Test – Gnerealized test. Hi P-value means that there is no Hetero

Goldelf Test – Basic calculator equation Sorting by income dividing te data into two parts First data set = first 36 observations

Each data set is being run OLS

Braush Hagen Test