STAB57 Lecture 2

⊙ Class	STAB57
⊙ Created	@Sep 16, 2020 3:07 PM
⊙ Type	Lecture

Statistical Inference

Stanford Heart Transplant Study: to determine whether or not a heart transplant program is in fact producing the intended outcome (increased length of life).

We want to compare lifelengths of patients receiving transplant with patients who didn't receive any transplant (control).

`Ft` : probability distribution of the `treatment` group
`Fc` : probability distribution of the `control` group

We need to compare `Ft` and `Fc` in some way, for example the `mean` of both groups.

Let `Yt` be the life expectancy distribution of the treatment patients. `Yc` be the control. Then, both distributions are Exponential, because your life expectancy is at maximum when you are born. Now certainly the mean wouldn't be a good measure.

This is because in Exponential distribution, the `Mean` is easily skewed and influenced by extreme observations.