Sampling Distributions Notes

We have already learned some really valuable ideas about sampling distributio

First, we have defined **sampling distributions** as **the distribution of a statist**

This is fundamental - I cannot stress the importance of this idea. We simulated distributions in the previous ipython notebook for samples of size 5 and size 2(you will do more than once in the upcoming concepts and lessons.

Second, we found out some interesting ideas about sampling distributions that this lesson as well. We found that for proportions (and also means, as proporti 1 and 0 values), the following characteristics hold.

1. The sampling distribution is centered on the original parameter value.

2. The sampling distribution decreases its variance depending on the sampl the variance of the sampling distribution is equal to the variance of the or the sample size used. This is always true for the variance of a sample mea

In notation, we say if we have a random variable, $\mathbf{X}$, with variance of σ^2, then t (the sampling distribution of the sample mean) has a variance of $\frac{\sigma^2}{\mathbf{n}}$

Looking Ahead

The rest of this lesson will reinforce some of these ideas that you saw at work i are already being introduced to some big ideas that will continue to show up a