

* Central Limit Theorem

* Roman letters = sample statistic
 Greek " " = population parameters

- Standard deviation - measure of spread
- variance = sd^2
- IQR - spread
- ~~Standard error~~
- Mean
- Standard error

→ Confidence intervals

* 39-68-95-99.7%

* Normal Distribution

$\frac{1}{\sqrt{n}}$ precision in sample mean
 as n sample size

TERMS PEOPLE
 HIGHLIGHTED
 IN POINTS OF SIGNIFICANCE

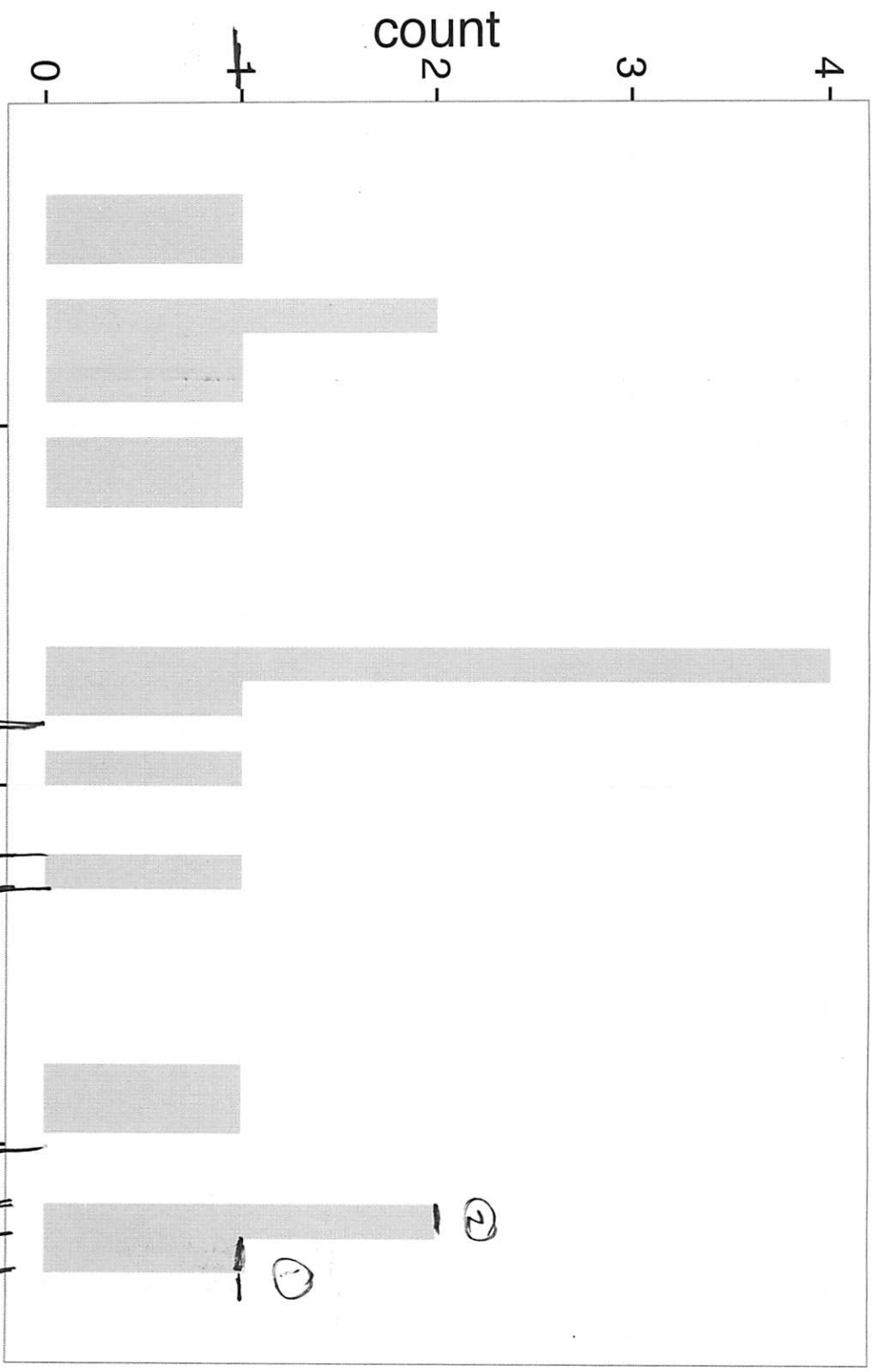
calculate in samples
 exist in populations

Descriptive & Inferential

* Sampling Distribution of a statistic

- ① Sample mean
- ② Sample Distribution of the sample
- ③ Population distribution

$n = 20$

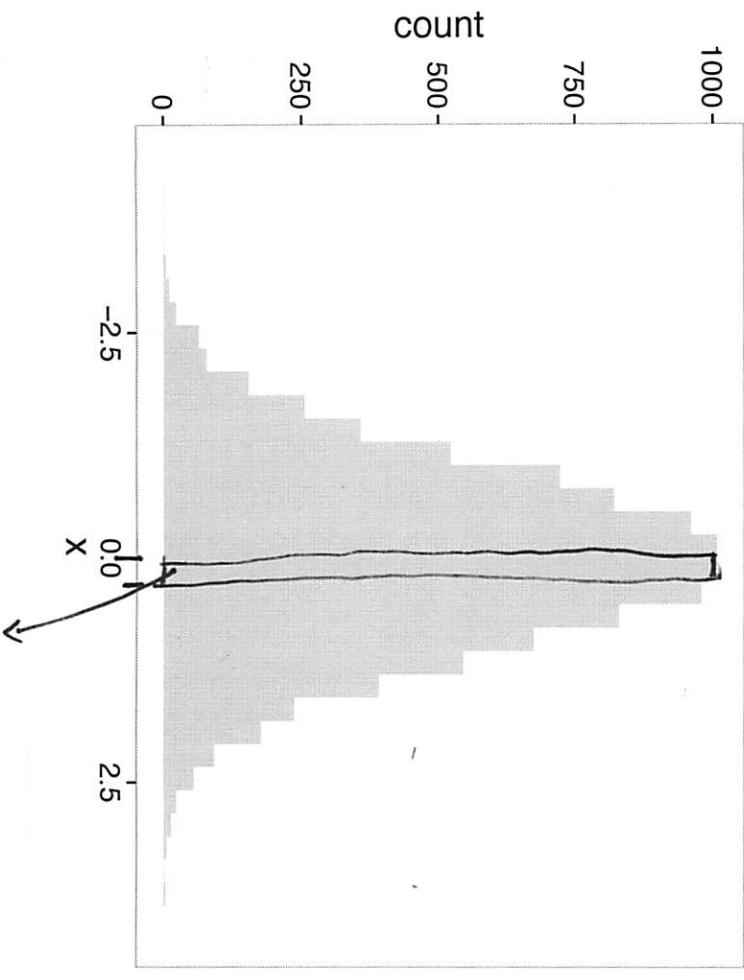


$1 + 2 = 3$

center?
center?
x
center?

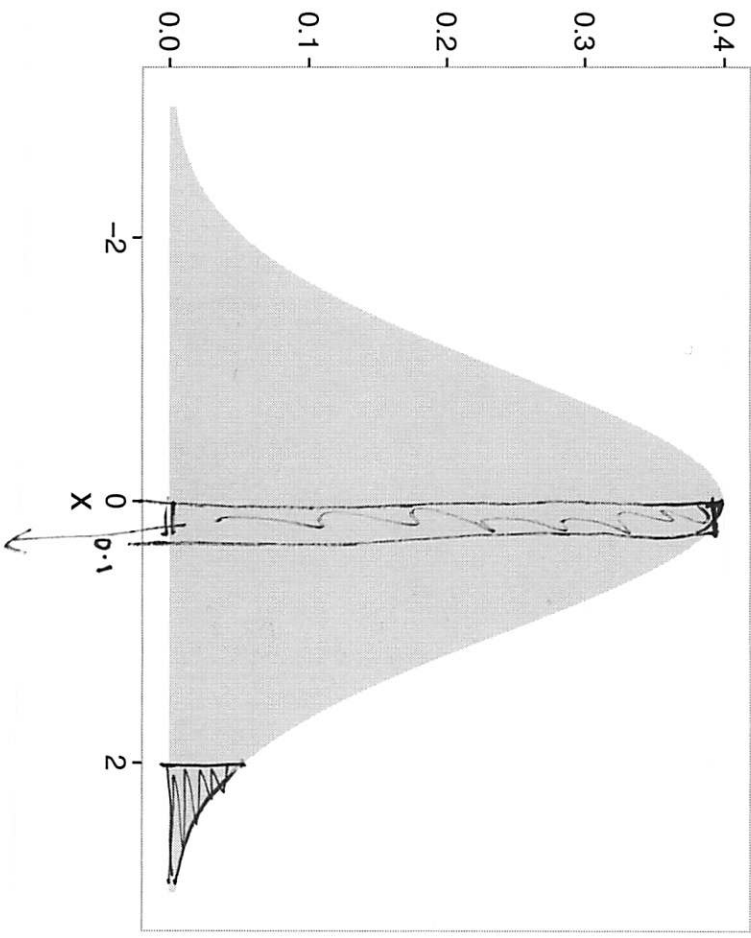


↓ $n = 10,000$ draws from a Normal Distribution -



near X is # obs between 0.0 and 0.1

↓ probability distributions
Normal Distribution



near X is probability an obs is between 0.0 and 0.1