

Intro to Two-Population Confidence Intervals

Def: Two-Pop. Conf Int

Two numbers that we think the difference between Pop. parameters is in between.

Def: Difference

The answer to a subtraction problem.

Ex: $17 - 5 = 12$

Difference is Positive

1st # (17) is 12 units larger than 2nd # (5).

Ex: $8 - 14 = -6$

Difference is Negative

1st # (8) is 6 units smaller than the 2nd # (14).

Ex: $9 - 9 = 0$

Difference is zero.

1st # is the same as the 2nd #.

Ex: (95% conf level) Two-pop. Mean Conf. Interval

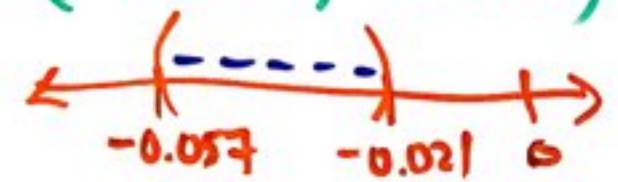
(17.3 kg, 29.8 kg)



We are 95% confident that the mean for Pop 1 is between 17.3 kg and 29.8 kg larger than the pop mean for Pop 2.

Ex: (99% conf level) Two-Pop Proportion Conf Int

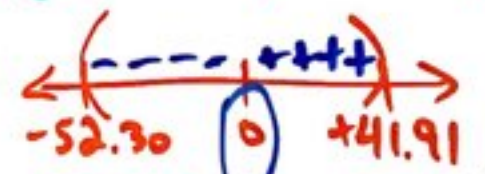
(-0.057, -0.021)



We are 99% confident that the pop. percentage for Pop 1 is between 2.1% and 5.7% smaller than the pop percentage for Pop 2.

Ex: (90% conf. level) Two-pop. mean Conf Int

(-\$52.30, \$41.91)



We are 90% confident that there is no sig difference between the pop means for Pop 1 and Pop 2.