

STAD29 / STA1007

Statistics for the Life and Social Sciences

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What we (might) cover

Section 1

Review of statistical inference; 2-sample t

- Consists of:
 - objects or people of interest to us (*individuals*)
 - things measured or counted on those individuals (*variables*)
- About the individuals:
 - which ones do we care about? All of them, the *population*.
 - which ones do we know about? The ones we happened to look at, the *sample*.
- Sample is (or should be) randomly chosen from population, with no favoritism.

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Sample to population: confidence interval

- Want to know about population (parameter), but don't. Only have sample (statistic). Eg. population mean, only have sample mean.
- Logic:
 - If we knew about population, could figure out kinds of samples that might appear (math).
 - In particular, can figure how far apart sample statistic and population parameter might be.
 - Use this to construct *confidence interval* for population parameter: says eg. "based on my sample, I think population mean between a and b ".