

# ECON-C4100 - Capstone: Econometrics I

## On using Least Squares

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# On using Least Squares

- One often thinks that statistics are "objective" without containing a choice based on values.
- There are however many ways of choosing an objective function (or loss function); least squares is just one of them.
- Other examples:
  - ① absolute deviations
  - ② minimum
  - ③ maximum

# On using Least Squares

- The appropriate objective function may depend on the context. Think of the following examples:
  - ① Assume that the basket ball team with the tallest player wins. Restrict your attention to two teams with same average height of 200cm. How would you choose your team's players?
  - ② Think of the number of incubators in a maternal ward. Assume that a baby that is born premature will die if there is no incubator available immediately. You know that the number of premature births in a given relevant time period is 0 with probability 0.9, is on average 2 and has a median of 4, but can reach up to 10.