

Competitiveness in the Olympics

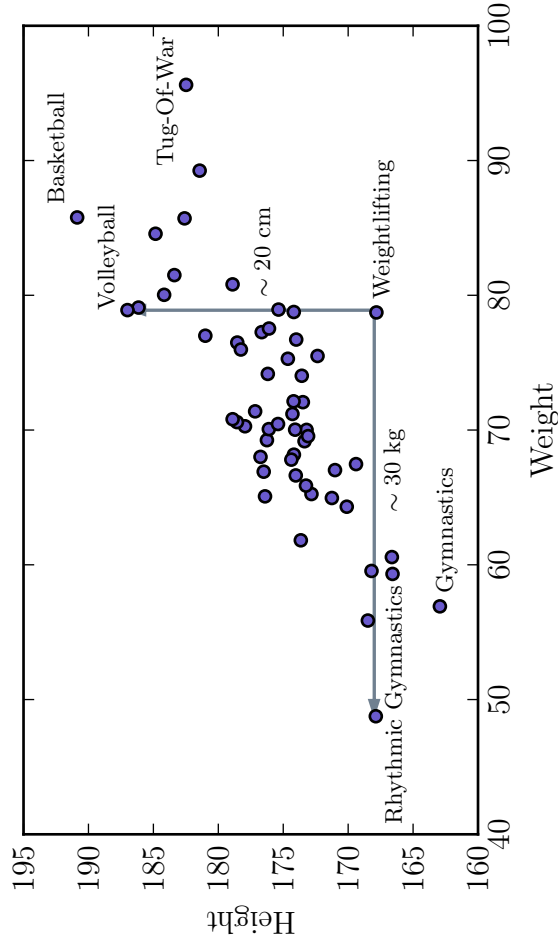


Figure 1: Mean athletes' Height and Weight for each Olympic sports (only some outliers are marked for clarity).

- For some sports, having the right body type is crucial
- Weightlifters are ~ 30 kg heavier than Rhythmic Gymnasts while of the same height
- At the same time, Volleyball players are as heavy as Weightlifters, but are ~ 20 cm taller

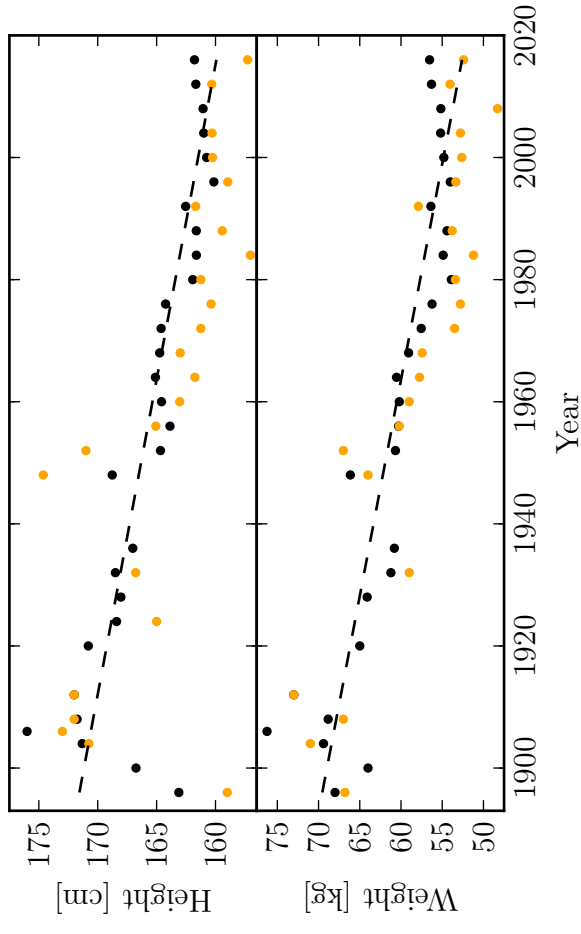


Figure 2: Mean (black) and gold medalist's (orange) weight and height in Gymnastics. Dashed line is a linear fit to mean values. Missing points are due to missing data.

- Example: Gymnastics
- Notice – from 1960 onward gold medalists are lighter and shorter than the average competitor
- Participating athletes gradually became shorter and lighter over the decades, arguably due to the competition
- Love gymnastics but haven't got the right body type?... tough luck

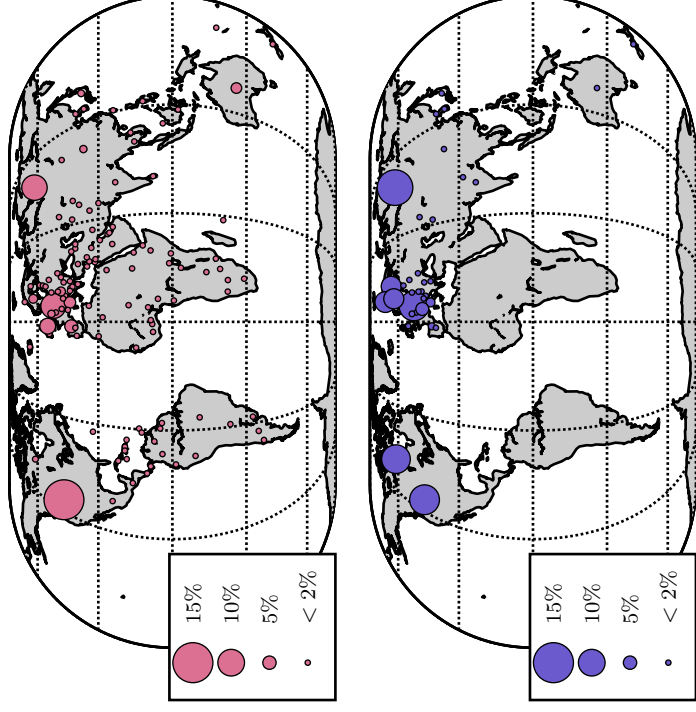


Figure 3: Proportion of the total Gold medals ever won by any country, during the Summer (top) and Winter (bottom) Olympics. Proportion of a given country's victories is proportional to the bubble area, with a lower cap at 2%.

- Country's climate clearly plays a role in preparing the athletes, providing a competitive advantage or disadvantage
- While most countries have won at least one Gold medal during the Summer Olympics, Winter Olympics are dominated by northern countries
- Notice – countries from the African and South American continents have never won a Winter Olympics Gold. No snow, no way to practice

The End