PROJECT 1

The dynamics of powerlifting

Powerlifting Competitions & Relevance

Squat

Bench Press
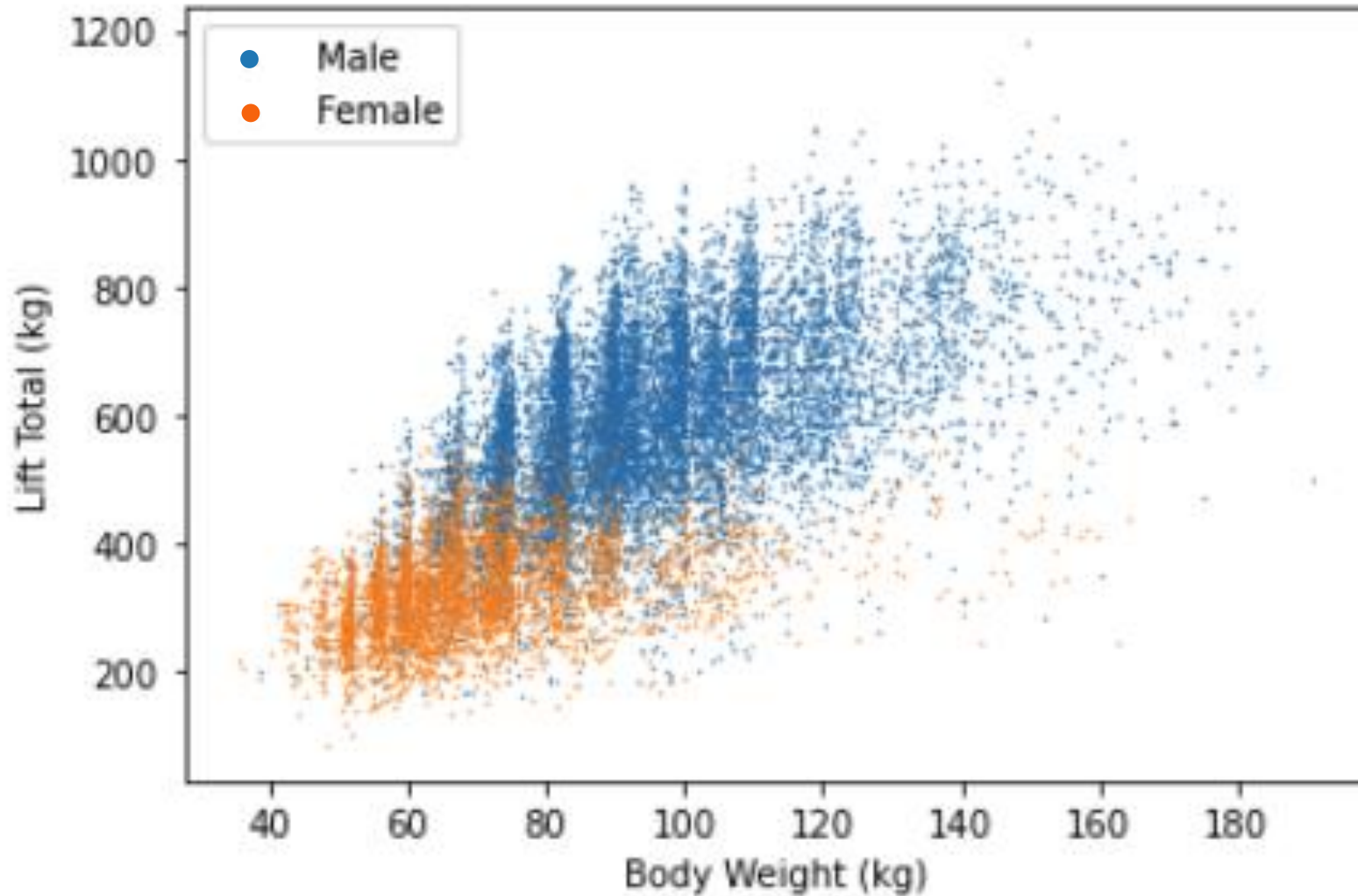
Deadlift

Squat + Bench Press + Deadlift = total

Body Weight VS Lift Totals

Data: Open Powerlifting, 2019

-Men generally have higher totals than woman

-Men generally weigh more then woman

-Positive relationship between body weight and lifting total

-Vertical lines show competitors sit at the upper limit of weight division

Methodology:

- Data separated into male and female using python

-Female and male body weight plotted along x-axis and against lift totals along y-axis using scatter plot function in python

Number of Competitors vs Age


Data: Open Powerlifting, 2019
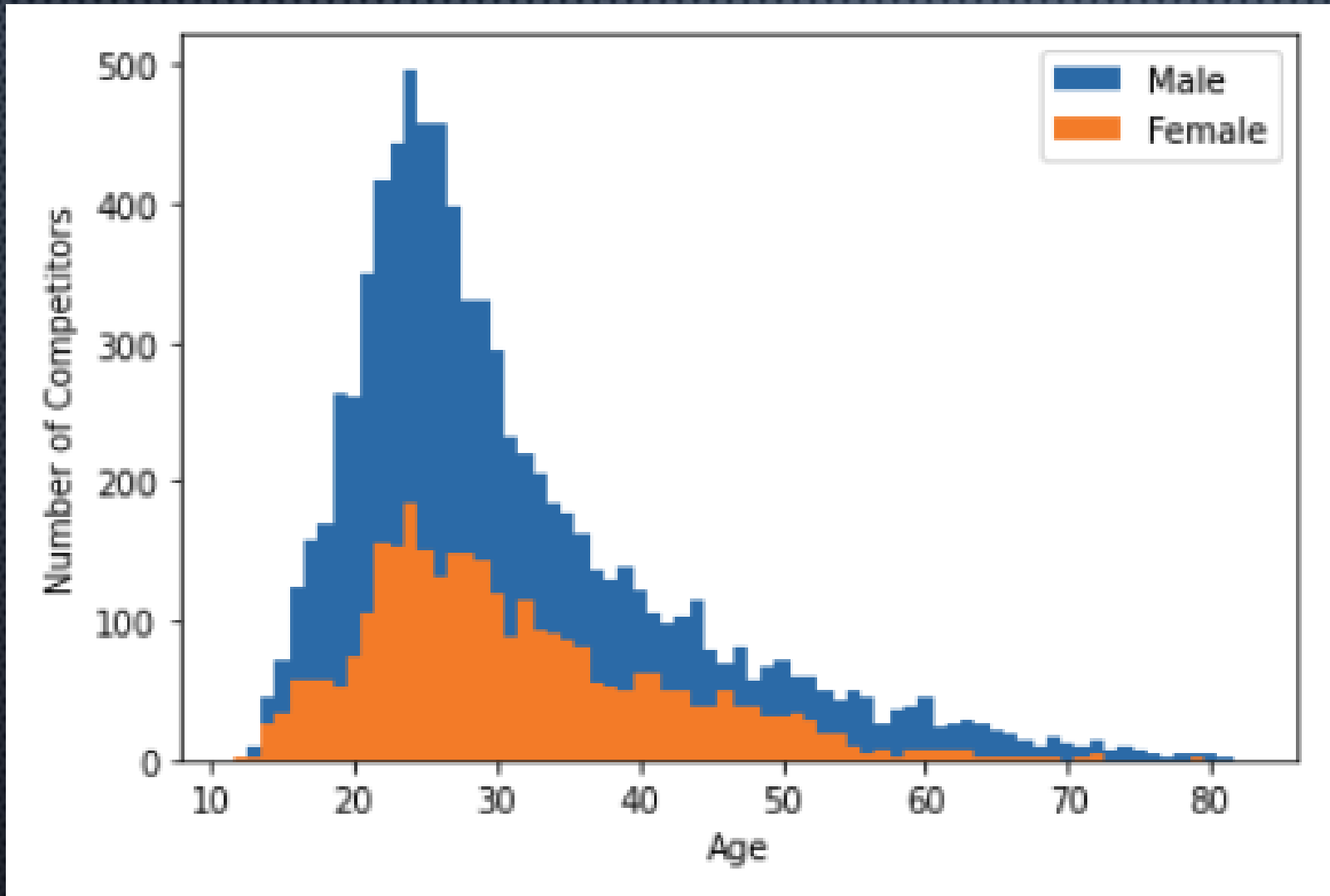
Key Take-aways:

-There are far more men competitors then woman

-Majority of men competing are aged between 18 and 33

-Majority of women competing are aged between 22 and 37

-Positively skewed distribution

Methodology:

-Data separated into male and female using python

-Array of frequency created by using counter function to count the occurrences of each age

-Female and male ages plotted along x-axis and against frequency of each along y-axis using bar graph function

Equipment Type vs Lifting Total
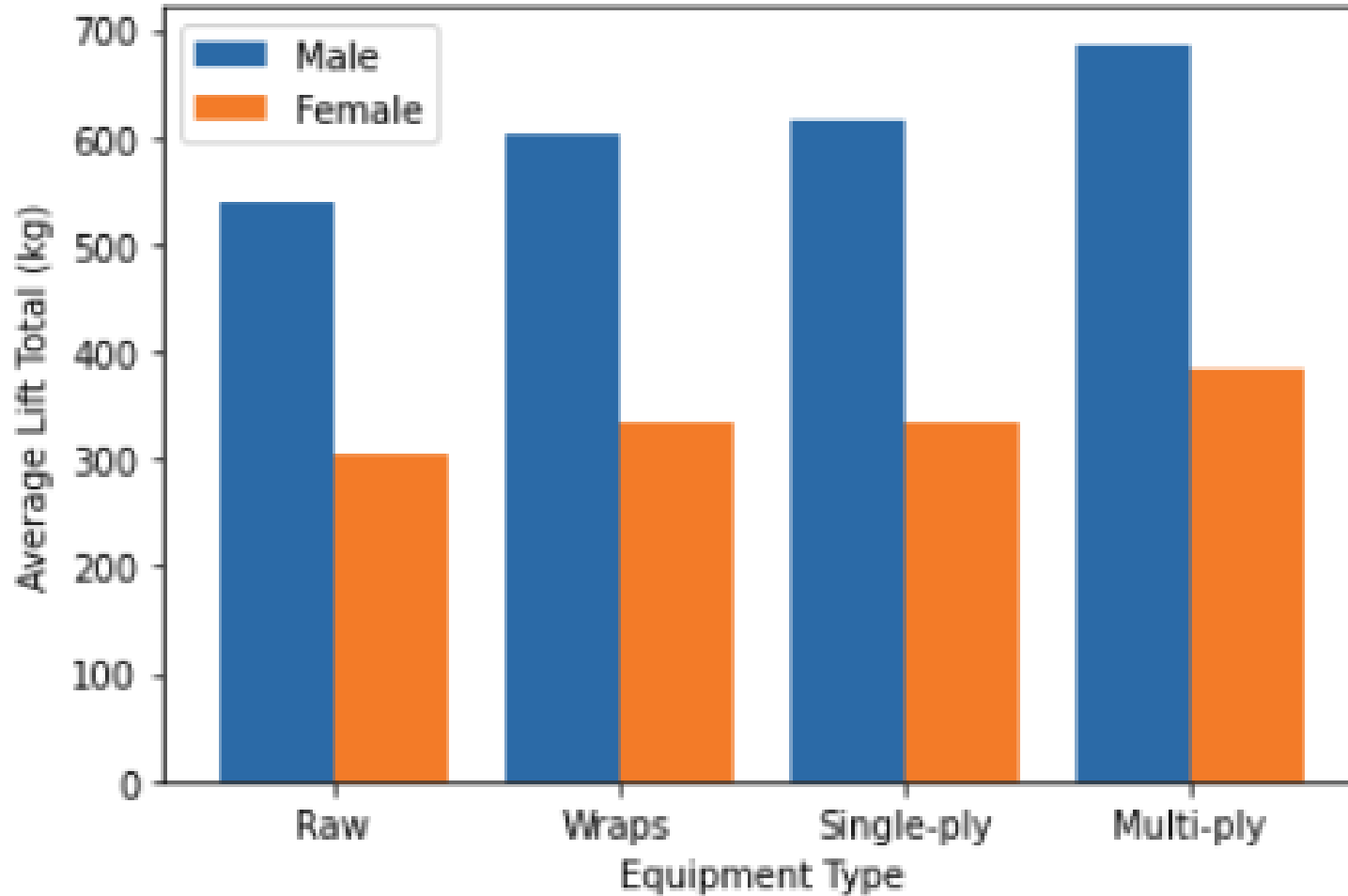
Key Take-aways:

-Any additional equipment provides significant advantage over no assistance equipment

-Difference between Wraps and Single-ply is very small, possibly indicating why single-ply competitions are rare

-Best to Worst assistance: raw, wraps, single-ply, multi-ply

Methodology:

-Data divided into male and female

-For each: frequency of each equipment type and sum of totals for each equipment type found then used to calculate average total for each equipment type.

-Equipment type plotted along x-axis and against average lift totals for each type along y-axis using bar plot function in python

Age vs Lift Total

Data: Open Powerlifting, 2019
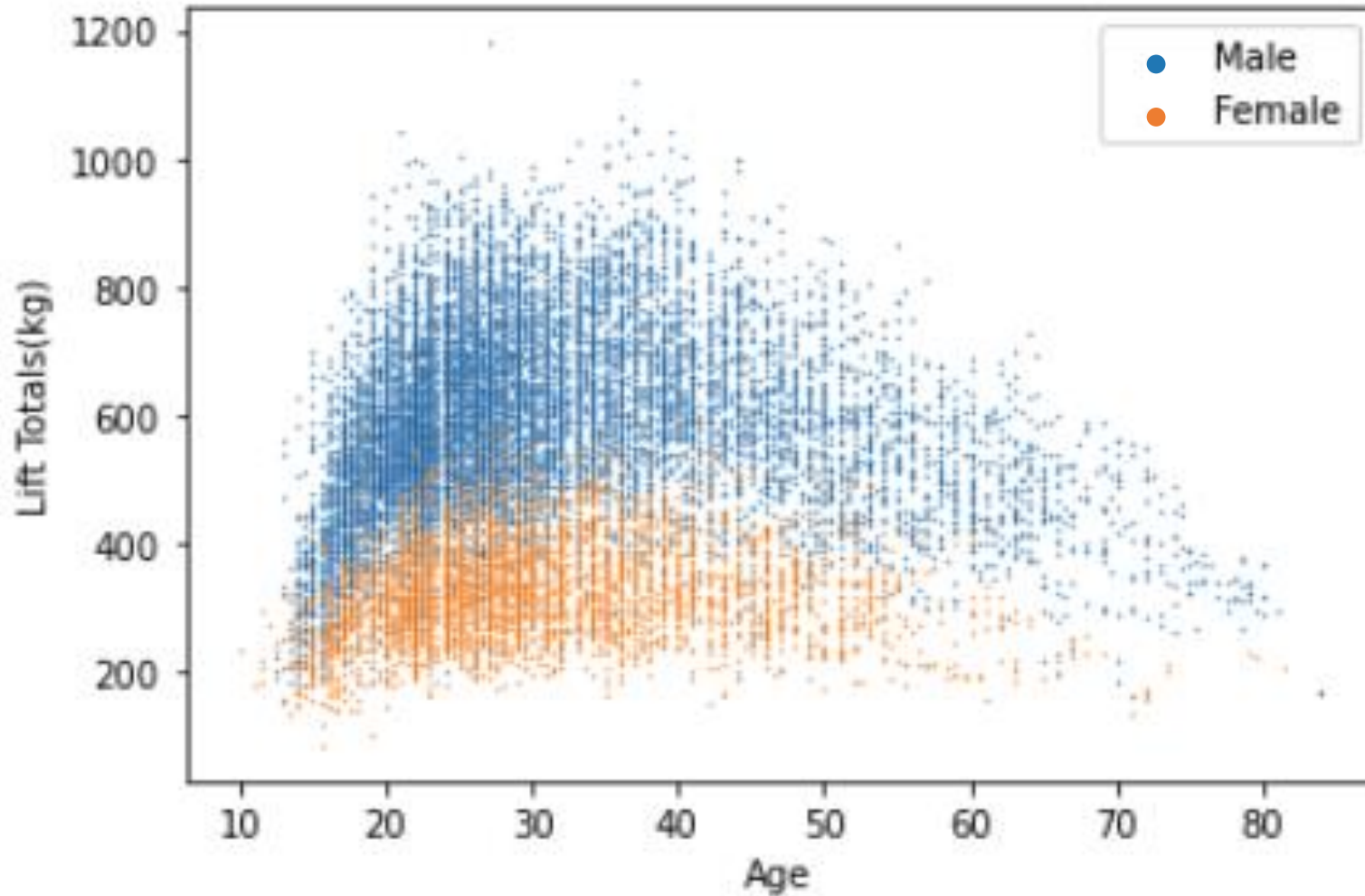
Key Take-aways:

-Individuals are strongest between 20 and 30

-Strength begins to quickly taper off after 40

-Very few competitors above 50

Methodology:

-Data separated into male and female using python

-Female and male ages plotted along x-axis and against lift totals along y-axis using scatter plot function in python

Reference List:

OpenPowerlifiting, 2019. *Powerlifting Database*. [online] Available at: <https://www.kaggle.com/datasets /open-powerlifting/powerlifting-database?resource=download> [Accessed 23 August 2022]