

Shao Ru Zhang  
CIS 3120- Programming for Analytics  
Project #1  
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The purpose of this homework is to create a data-driven solution to know if varsity swimmers are on average taller than their volleyball counterparts. Our goal is to utilize colleges athletic men's and women's swimming and volleyball teams' roster pages to web scrape for their name and heights. The roster pages are from five colleges: Brooklyn College, Baruch College, York College, Queens College, and John Jay College. We have three rosters per male and female volleyball and swimming team. Then, using these gathered data, concatenate and compile it into a pandas dataframe, and find the average height in each of the four dataframes. Finally, list the names and heights of the five tallest and five shortest swimmers and volleyball players for both the men's and women's teams.

According to my results, the male volleyball players have an average height of 182.88 cm, the male swimmer has an average height of 179.61 cm, the female volleyball players have an average height of 168.44 cm, and the female swimmers have an average height of 164.72 cm. On the men's team, the volleyball players were on average 3.27 cm taller. On the women's team, the volleyball team is on average 3.72 cm taller. In comparison to my results from homework #1, the men's swimming team had an average of 180.23 cm, the men's volleyball team had an average of 186.76 cm, the women's swimming team had an average of 163.90 cm, and the women's volleyball team an average of 167.10 cm. On the men's team, the volleyball team is on average 6.53 cm taller than the swimming team. On the women's team, the volleyball team is on average 3.2 cm taller than the swimming team.

The results indicate that in homework #1, the difference in height between the two sport teams was much higher for the male than in project #1. Baruch college alone had a difference of 6.53 cm between the male teams compared to 3.27 cm difference across multiple schools. This big difference attributes to the fact that homework #1 only had one dataset, so it was not as accurate as the information found in project #1. On the other hand, the women's team results remain relatively similar, with a difference of about 3 cm, across the homework and project.

Both results in homework #1 and project #1 indicates that in general, the average volleyball player is taller than the swimming team. This makes sense and is in line with my hypothesis, you need more speed in swimming rather than height since it's a race. In volleyball, taller players are needed to spike, attack, and block the ball successfully over the net. The nets are high, so it will be more advantageous to be taller when you are in the front.