

Faster, Stronger, Better: Insight on the Pro Athlete Body Type

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Overview

- Method
- Hypothesis
- Background
- Data
- Results



Method

1. Gather data
2. Plot all graphs
3. Analyze data



Hypothesis

- Women's soccer will not differ between positions but will be different from the average woman.
- NFL players will differ between position and from the average man.
- MLB players will differ between certain positions and be slightly taller than the average man.

Women's Soccer

- Ten field players with one goalie
- 90 minute games
- Run an estimated 7 miles per game





National Football League

- Three lines of players: offense, defense and special teams
- Four quarters of fifteen minutes
- Run an average of 1.25 miles per game depending on position

Major League Baseball

- Nine field players
- No time limit on games
- Run an estimated .046 miles per game – 242 feet



Gathering Data

- Chosen based on number of games played, stats, and positions
- Previous season
- Top four/five teams in each sport

Name	Position	# Games	Height	Weight	Age
Peralta, J	SS	155	6'2	215	33
Carpenter, M	3B	154	6'3	215	30
Heyward, J	RF	154	6'5	245	26
Wong, K	2B	150	5'9	185	25
Reynolds, M	1B	140	6'2	220	32
Molina, Y	C	136	5'11	220	33
Bourjos, P	CF	117	6'1	185	28
Holliday, M	LF	73	6'4	250	35
Lackey, J	SP	33	6'6	37	235
Lynn, L	SP	31	6'5	240	28
Wacha, M	SP	30	6'6	210	24
Martinez, C	SP	29	6'0	185	24
Garcia, J	SP	20	6'2	215	29
Siegrist, K	RP	81	6'5	215	26
Maness, S	RP	76	6'0	190	27
Choate, R	RP	71	6'1	205	40
Rosenthal, T	RP	68	6'2	220	25

USA Women's National Team

Name	Position	# Games	Height	Weight	Age
Solo	G	7	5'9	152	34
Sauerbrunn	D	7	5'7	141	30
Lloyd	MF	7	5'8	141	33
Johnston	D	7	5'7	150	23
Klingenberg	D	7	5'2	126	27
Krieger	D	7	5'6	132	31
Morgan	F	7	5'7	137	26
Wambach	F	7	5'11	179	35
Holiday	MF	6	5'8	154	28
Rapinoe	MF	6	5'7	132	30
Heath	MF	6	5'6	130	27

FIFA World Cup Champions

Women's Soccer Comparisons

FIFA

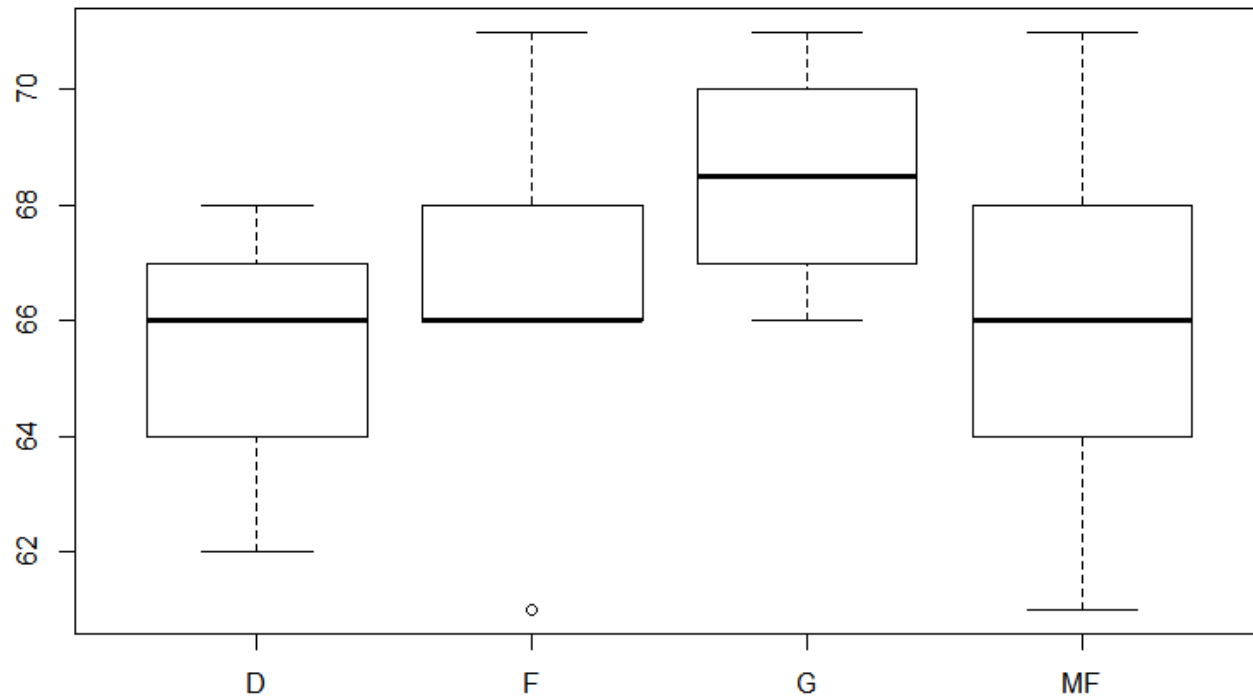
- Height: 5 ft. 6 in.
- Weight: 136 lbs.
- Age: 29

AVERAGE

- Height: 5 ft. 4 in.
- Weight: 164 lbs.

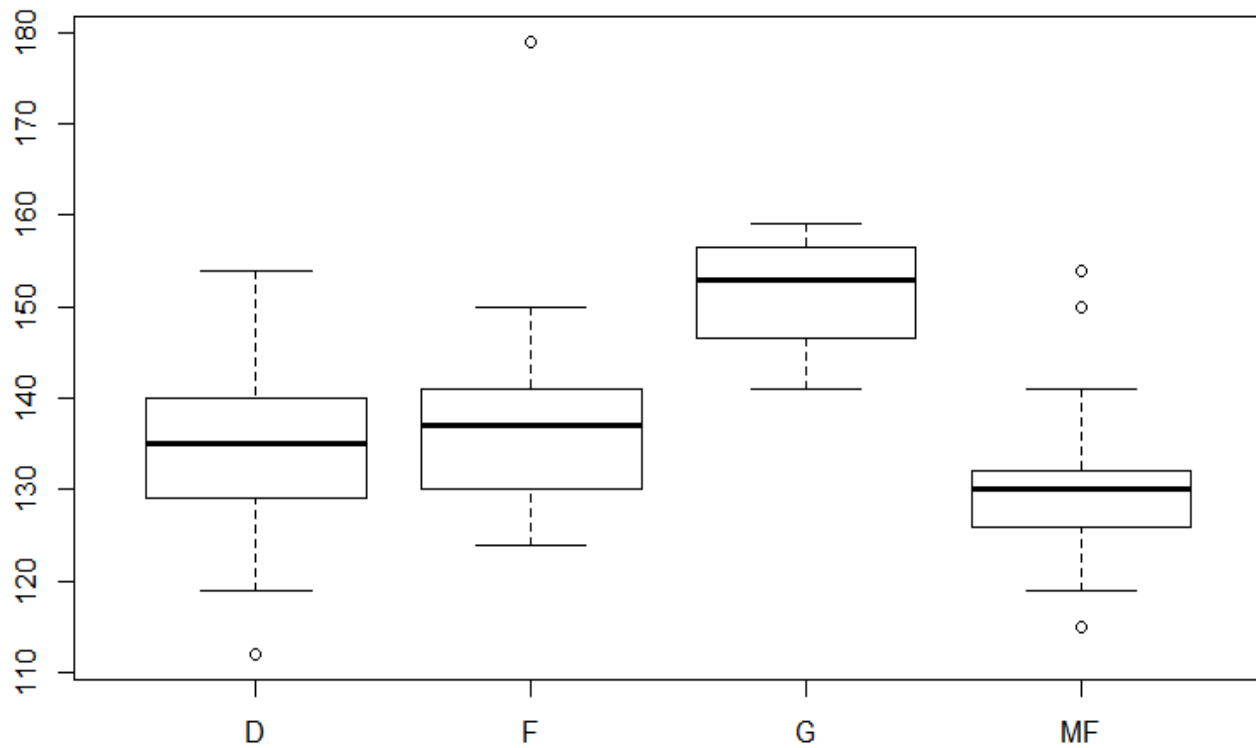


Women's Soccer Results



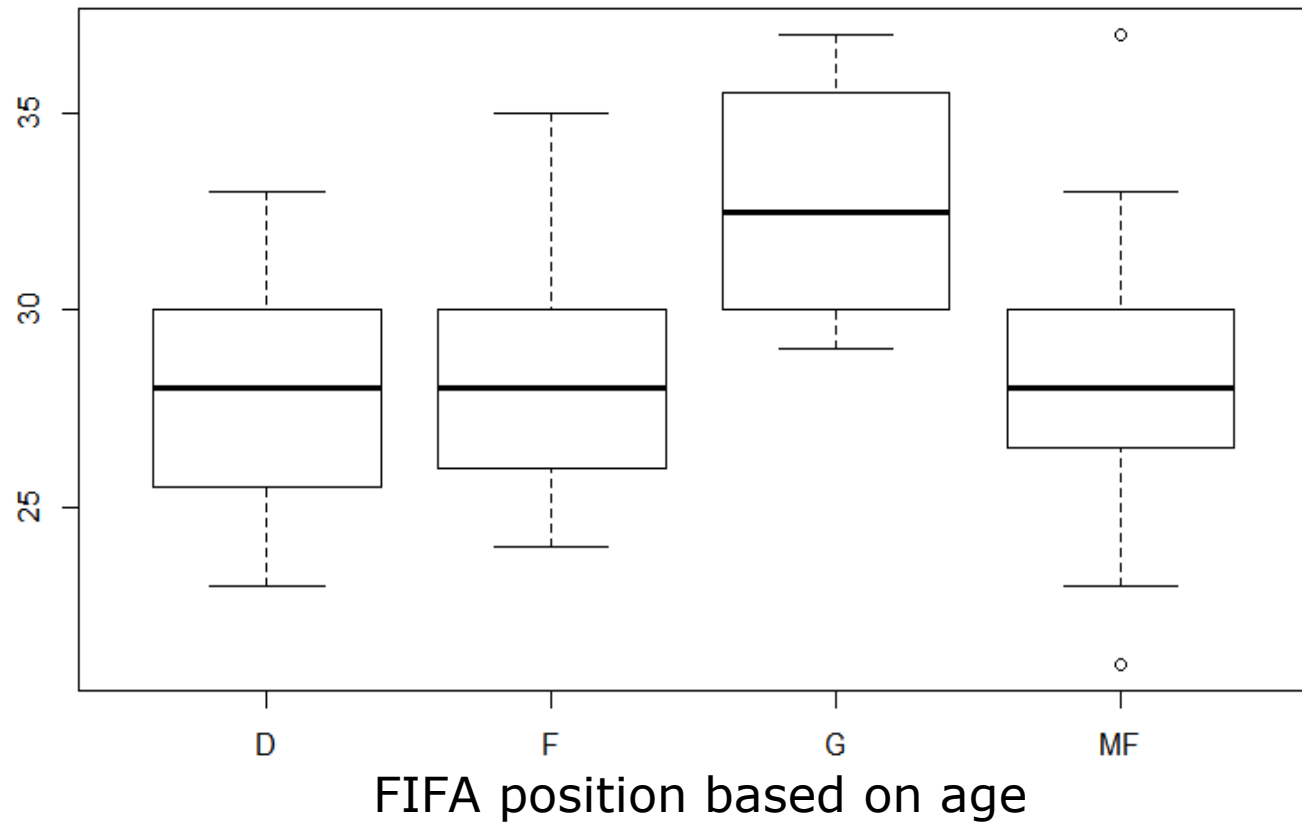
FIFA position based on height

Women's Soccer Results



FIFA position based on weight

Women's Soccer Results



Women's Soccer Results

- Goalies taller, heavier, and older
 - Need to be bigger to make saves
 - Leaders on team
- Defense, Forward, Midfield
 - Similar height, weight and age
 - Midfielders weigh less
 - ❖ Run more distance -> leaner

New England Patriots

- Finished previous season with 12-4 record
- Won Super Bowl XLIX

Player	Position	Height	Weight	Age
Tom Brady	Quarterback	6'4	225	38
Bryan Stork	Center	6'4	310	25
Dan Connolly	Offensive Guard	6'4	310	33
Ryan Wendell	Offensive Guard	6'2	300	29
Sevastian Vollmer	Offensive Tackle	6'8	325	31
Nate Solder	Offensive Tackle	6'8	325	27
Stevan Ridley	Running Back	5'11	220	26
Lagarrette Blount	Running Back	6'0	250	29
Julian Edelman	Wide Receiver	5'10	200	29
Brandon LaFell	Wide Receiver	6'3	210	29
Danny Amendola	Wide Receiver	5'11	190	30
Rob Gronkowski	Tight End	6'6	265	26
Rob Ninkovich	Defensive Lineman	6'2	260	31
Vince Wilfork	Defensive Lineman	6'2	325	34
Chandler Jones	Defensive Lineman	6'5	265	25
Sealver Siliga	Defensive Lineman	6'2	325	25
Jamie Collins	Linebacker	6'3	250	26
Don'ta Hightower	Linebacker	6'3	265	25
Jerod Mayo	Linebacker	6'1	250	29
Darrelle Revis	Cornerback	5'11	198	30
Kyle Arrington	Cornerback	5'10	195	29
Patrick Chung	Safety	5'11	215	28
Devin McCourty	Safety	5'10	195	28
Stephen Gostkowski	Kicker	6'1	215	31
Ryan Allen	Punter	6'2	220	25

NFL Comparisons

NFL

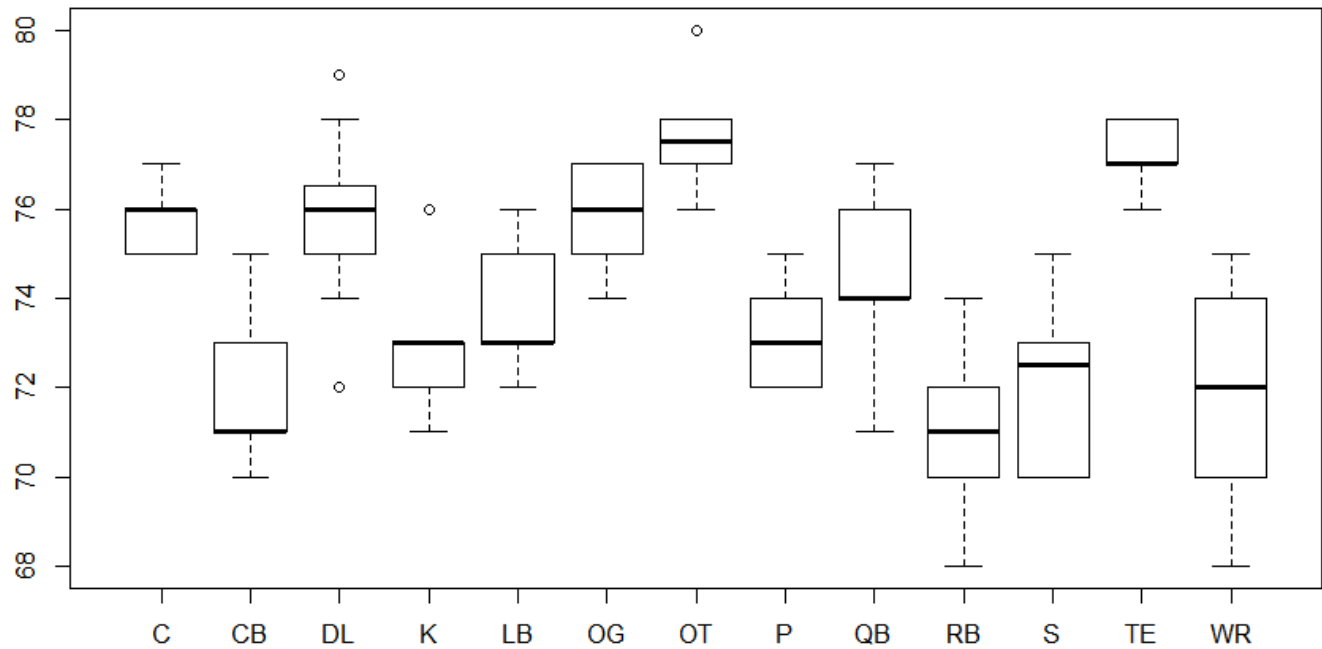
- Height: 6 ft. 2 in.
- Weight: 249 lbs.
- Age: 28

AVERAGE

- Height: 5 ft. 9 in.
- Weight: 190 lbs.

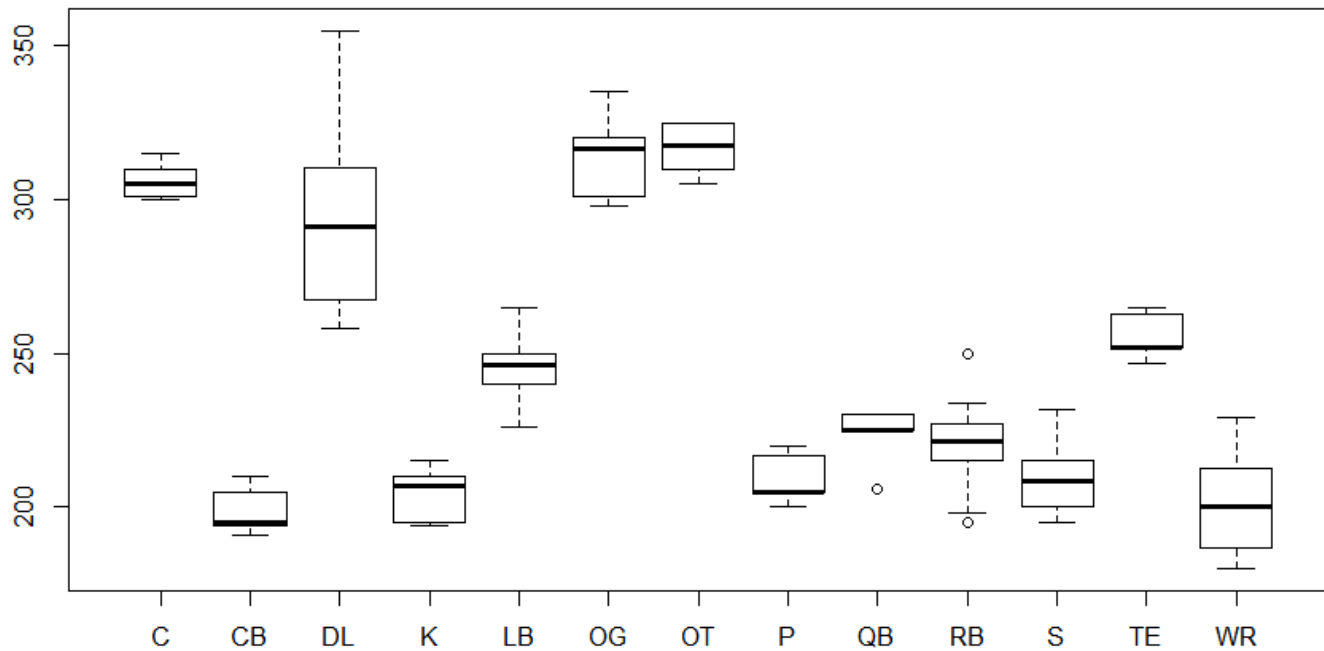


NFL Results



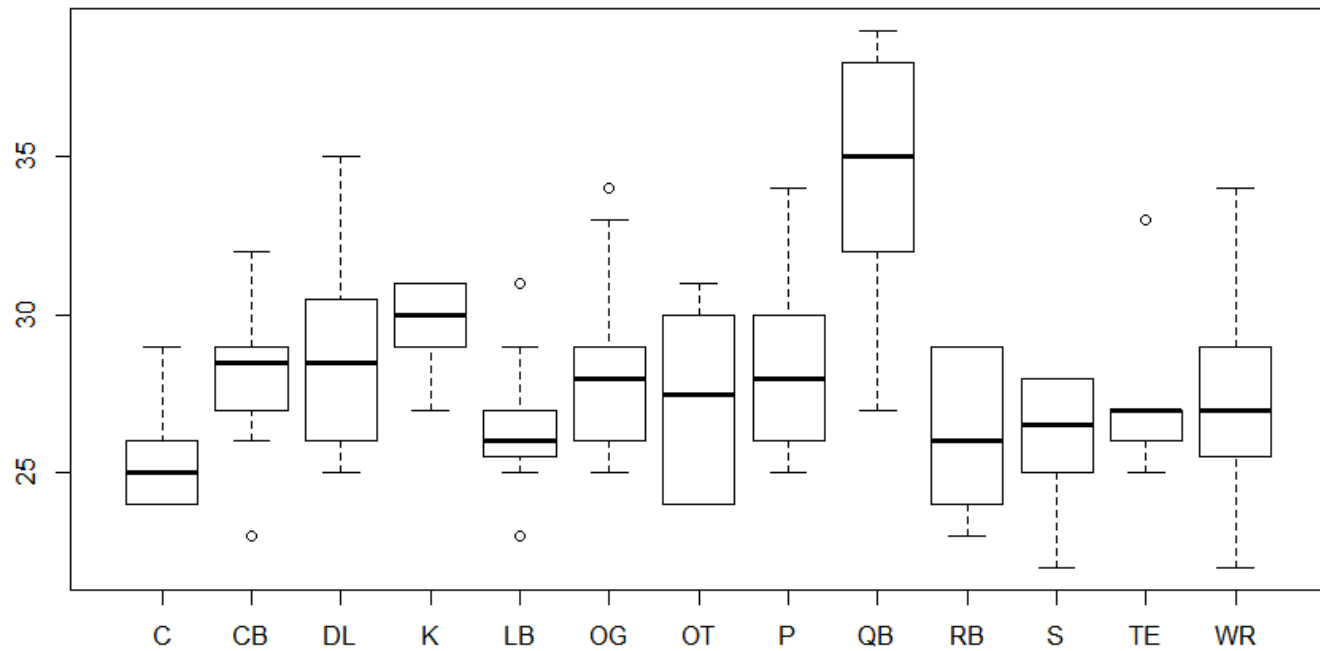
NFL position based on height

NFL Results



NFL position based on weight

NFL Results



NFL position based on age

NFL Results

- Linemen taller and heavier
 - Need to be bigger to block
 - TE weigh less -> able to run
- CB and WR weigh less
 - WR need to be able to run
 - CB need to be able to guard WR

NFL Results

- RB vs WR
 - WR taller -> catch wild throws
 - RB weigh more -> avoid being tackled
- QB older and average height and weight
 - Leaders on team
 - Position does not require special body type

St. Louis Cardinals

Name	Position	Games	Height (in)	Weight (lb)	Age
Peralta, J	SS	155	74	215	33
Carpenter	3B	154	75	215	30
Heyward, RF	RF	154	77	245	26
Wong, K	2B	150	69	185	25
Reynolds,	1B	140	74	220	32
Molina, Y	C	136	71	220	33
Bourjos, P	CF	117	73	185	28
Holliday,	LF	73	76	250	35
Lackey, J	SP	33	78	235	37
Lynn, L	SP	31	77	240	28
Wacha, M	SP	30	78	210	24
Martinez,	SP	29	72	185	24
Garcia, J	SP	20	74	215	29
Siegrist, K	RP	81	77	215	26
Maness, S	RP	76	72	190	27
Choate, R	RP	71	73	205	40
Rosenthal	RP	68	74	220	25

- Finished regular season with 100-62 record
- National League Central Division Champions

MLB Comparisons

MLB

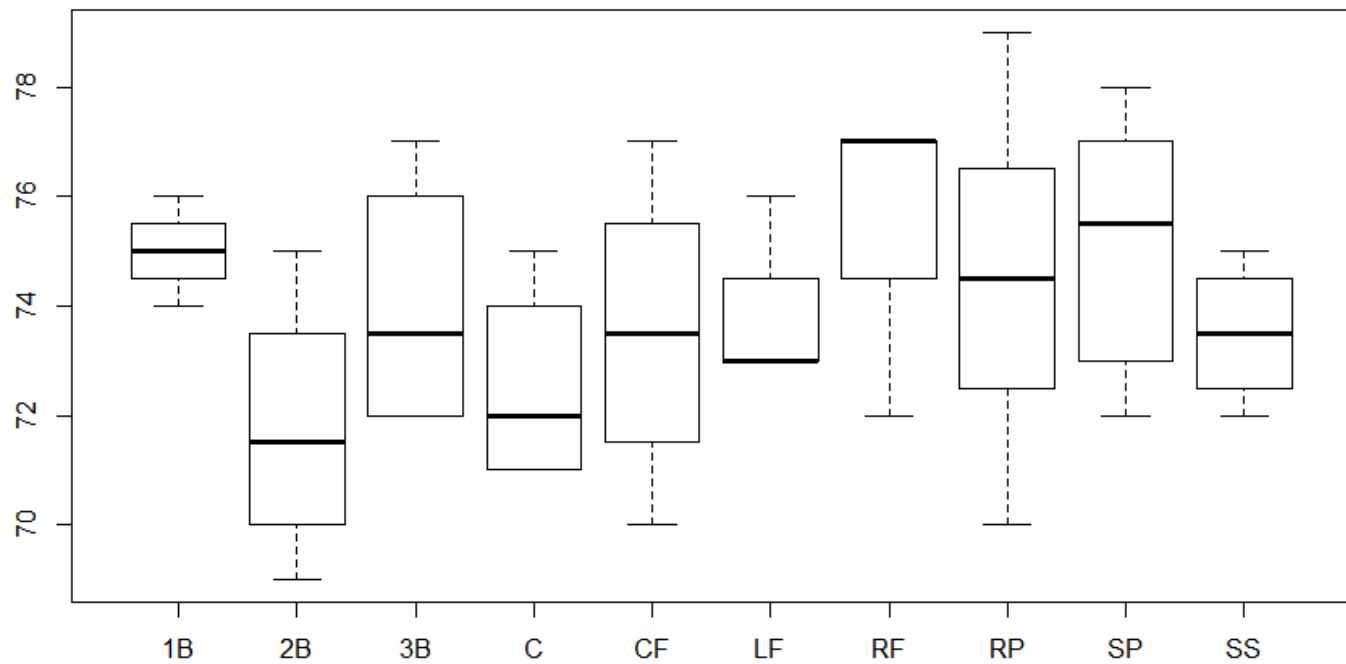
- Height: 6 ft. 2 in.
- Weight: 214 lbs.
- Age: 30

AVERAGE

- Height: 5 ft. 9 in.
- Weight: 190 lbs.

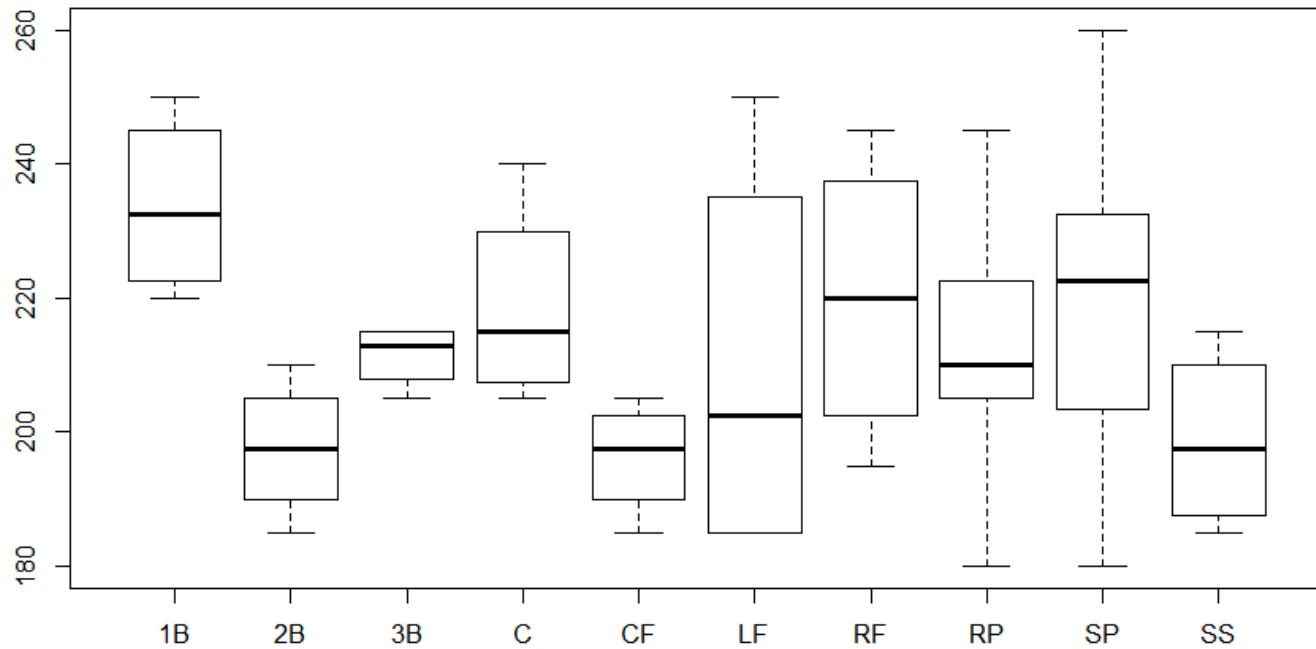


MLB Results



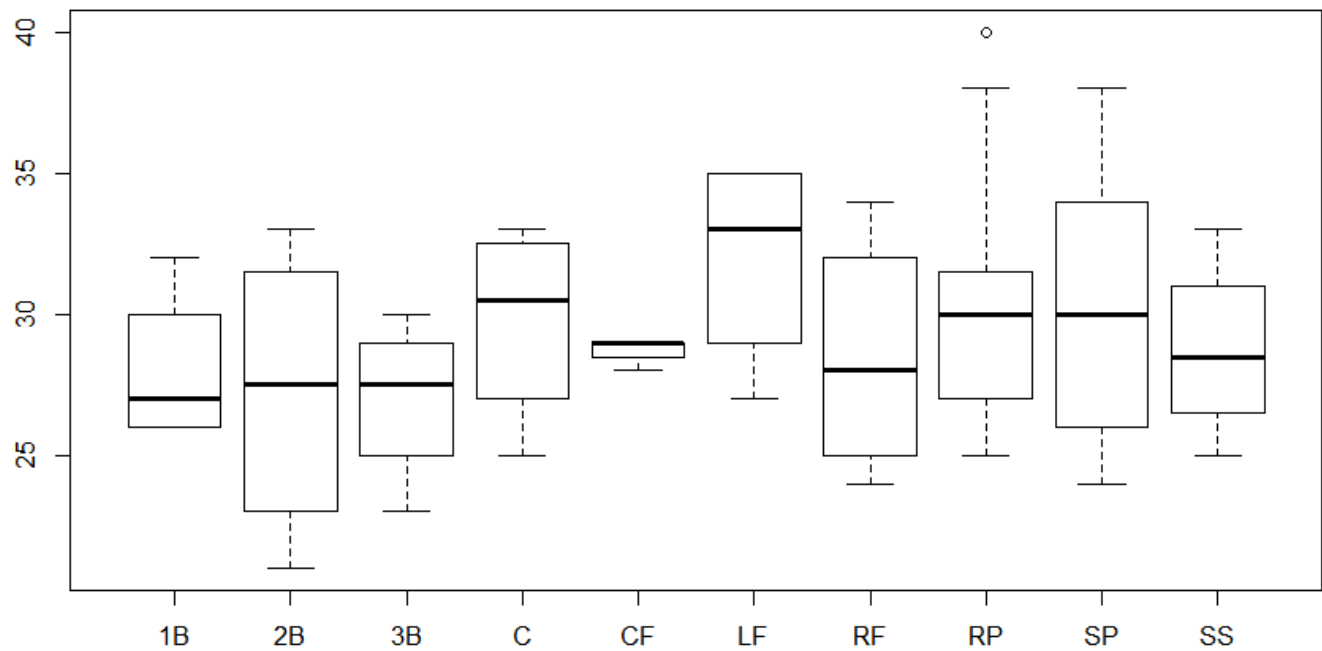
MLB position based on height

MLB Results



MLB position based on weight

MLB Results



MLB position based on age

MLB Results

- RF, P and 1B taller
 - RF needs to have longer throw to 3B and home
 - P needs to be bigger to throw harder
 - 1B needs to be taller to catch wild throws

MLB Results

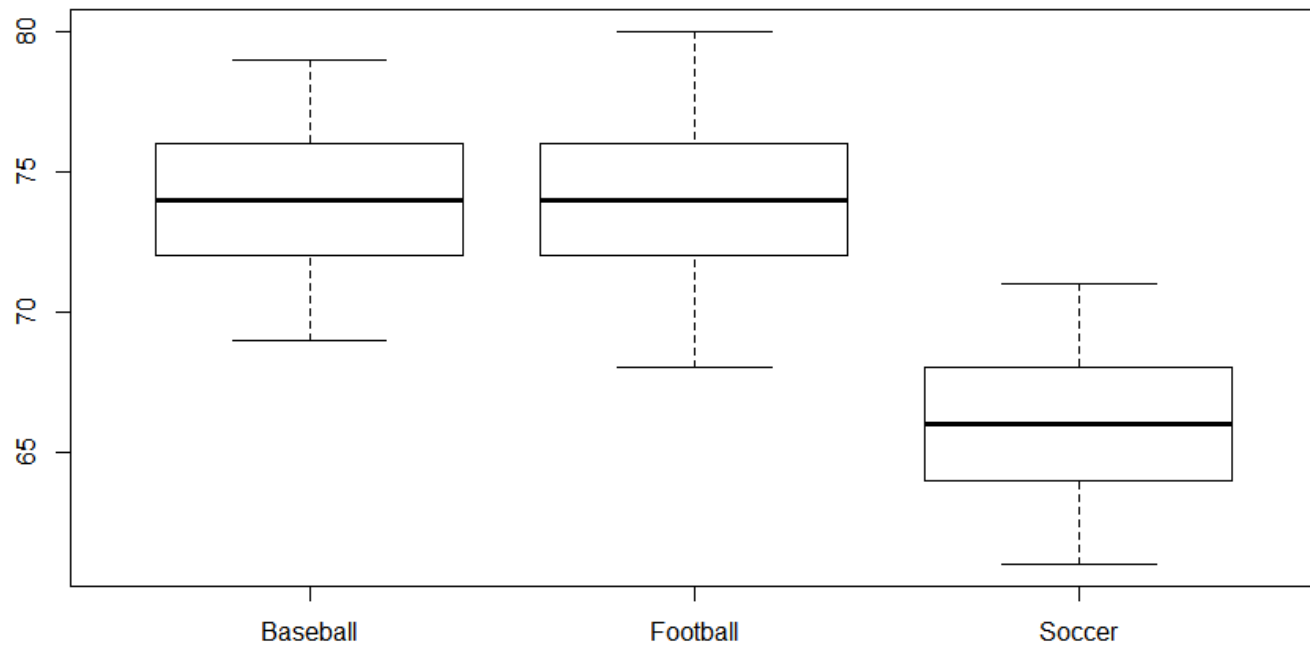
- 2B and C shorter and weigh less
 - 2B needs to be quick and agile
 - C needs to be stockier to block wild pitches
- 1B heavier
 - Good hitter
 - Position does not require agility



MLB Results

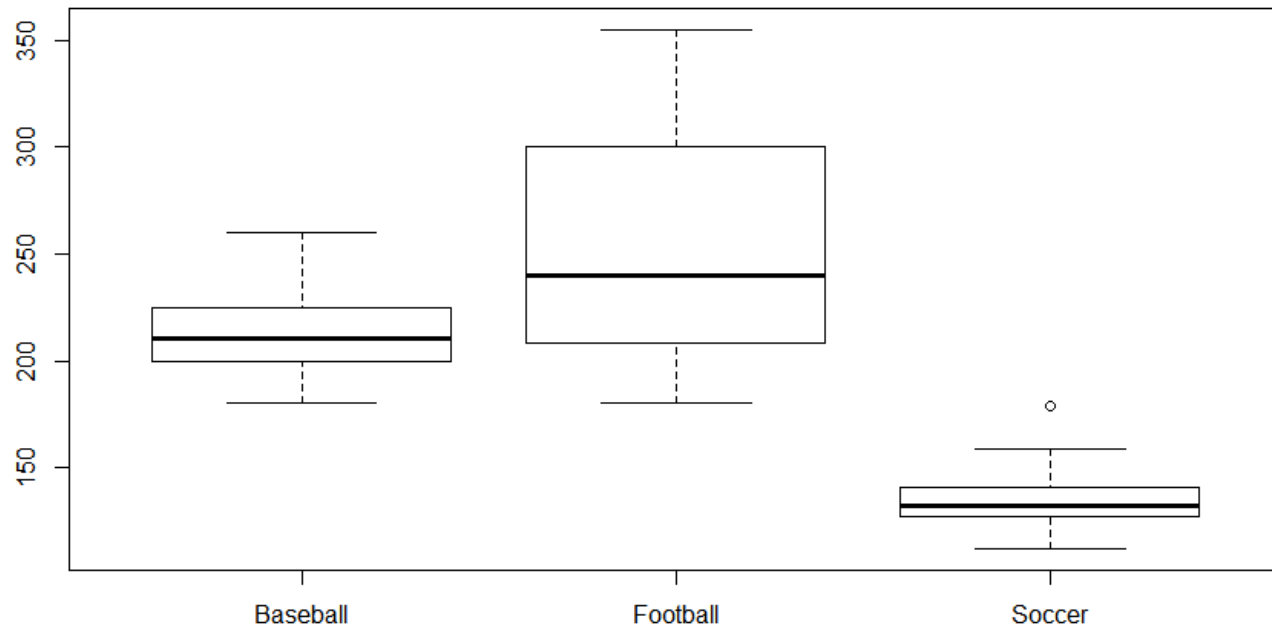
- SS and CF weigh less
 - SS needs to be quick and agile
 - CF needs to be able to cover more ground
- No significant age distinction

Comparing Sports



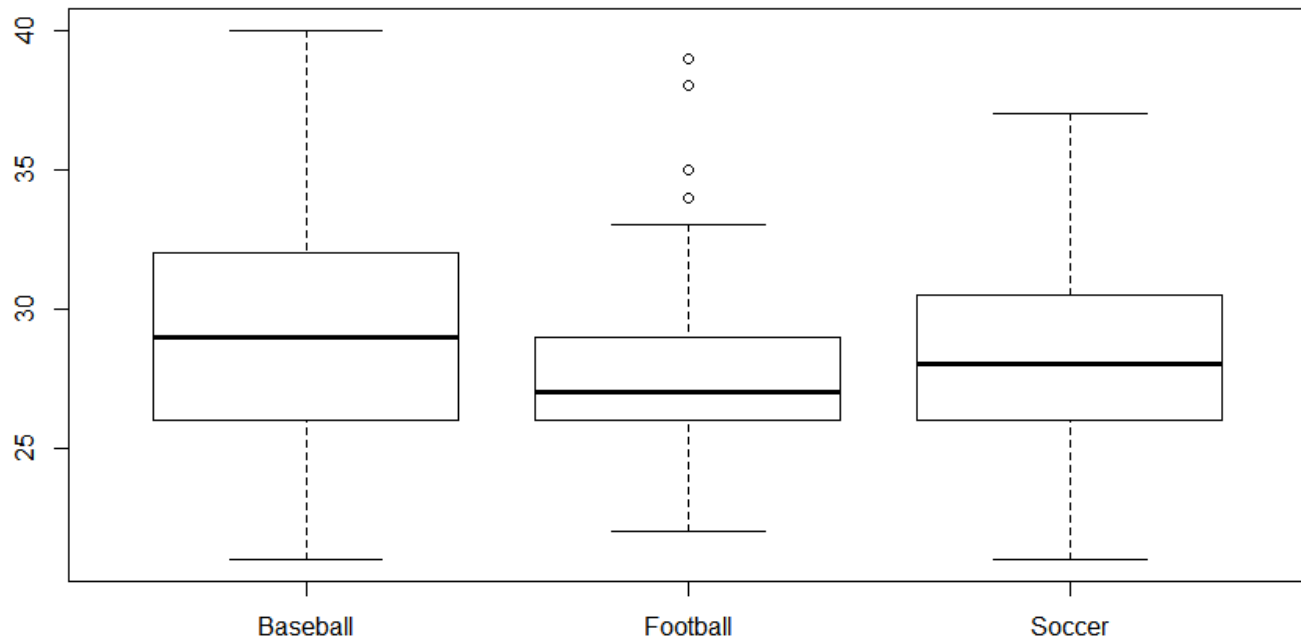
All sports based on height

Comparing Sports



All sports based on weight

Comparing Sports



All sports based on age



Comparing Sports

- Football and baseball similar in height
- Football weighs slightly more than baseball
- Women's soccer shorter and weigh less
- No significant difference in age



Conclusion

- Exists a distinction
- Look at other sports
- Look at other characteristics



References

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