

NBA Draft Day Comparisons

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Quick Introduction to the NBA

NBA: National Basketball Association

30 teams: 29 in the USA, 1 in Canada

2 conferences: East and West

Playoffs: top 8 teams from each conference

Lottery: bottom 7 teams from each conference

The worse the record the higher the probability of obtaining the 1st overall pick

“Top prospects looked at being cornerstones, later picks looked at adding to a contending core”

NBA Draft

Every year, 60 athletes drafted

Mix of NCAA (college) Basketball and European League players.

Bleacher Report, NBA Real Draft etc. give comparisons


Usually done by the “eye” test

Advanced statistical reports due exist to prove



Reasoning Behind the Project



- NBA draft make or break franchises every decade they exist (ex. 2019 Toronto Raptors Roster had no lottery picks).
 - Smaller market franchises use the draft to gain talent (OKC have 35+ draft picks spread across the next 7 years)
 - NBA rookie cards have become popular: Luka Doncic RC for 4.5 million, Giannis for 1.8,
 - Investing in the right rookie cards for any collector/fan can be lucrative.
 - NBA Top Shots an NFT platform is the future of “bit” money.
 - Next NBA TV deal is worth 75 billion.
 - The wrong pick can cost you millions to billions
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Scenario: Minnesota Timberwolves 2009

Round ↕	Pick ↕	Player ↕	Position ↕	Nationality ^[n 1] ↕	Team ↕
1	1	Blake Griffin ^{*~}	PF	 United States	Los Angeles Clippers
1	2	Hasheem Thabeet	C	 Tanzania	Memphis Grizzlies
1	3	James Harden [*]	SG	 United States	Oklahoma City Thunder
1	4	Tyreke Evans [~]	SG	 United States	Sacramento Kings
1	5	Ricky Rubio	PG	 Spain	Minnesota Timberwolves (from Washington) ^[a]
1	6	Jonny Flynn	PG	 United States	Minnesota Timberwolves ^[b]
1	7	Stephen Curry [*]	PG	 United States	Golden State Warriors
1	8	Jordan Hill	PF	 United States	New York Knicks
1	9	DeMar DeRozan [*]	SG	 United States	Toronto Raptors
1	10	Brandon Jennings	PG	 United States	Milwaukee Bucks

What's wrong with this picture?

Bleacher Report and NBADraft.net

	BR	Draft Net
• Blake Griffin	Carlos Boozer	Karl Malone*
• Hasheem Thabeet	Samuel Dalembert	Dikembe Mutombo*
• James Harden	Brandon Roy	Manu Ginobili
• Tyreke Evans	Kendall Gill	Jamal Crawford
• Ricky Rubio	Jason Williams	Jose Calderon
• Jonny Flynn	Tony Delk	Damon Stoudamire
• Stephen Curry	Chauncey Billups	Mahmoud Abdul-Rauf
• Jordan Hill	Joe Smith	Chris Bosh
• DeMar DeRozan	Jason Richardson	Vince Carter
• Brandon Jennings	Terrell Brandon	Kenny Anderson
• Terrence Williams	Josh Howard	Isaiah Rider
• Gerald Henderson	John Salmons	Latrell Sprewell
• Tyler Hansbrough	Tyrone Hill	Eduardo Najera
• Earl Clark	Vladimir Radmanovic	Marvin Williams

Model's Comparisons

- Blake Griffin -> Chris Webber
- Hasheem Thabeet -> Ron Moore
- James Harden -> Dwyane Wade
- Tyreke Evans -> Lamar Odom
- Jonny Flynn -> D.J. Augustin
- Stephen Curry -> Richard Hamilton
- Jordan Hill -> Sam Bowie
- DeMar DeRozan -> Luol Deng
- Terrence Williams -> Sam Young
- Gerald Henderson -> Norm Nixon
- Tyler Hansbrough -> Shelden Williams
- Earl Clark -> Steve Downing

Results

- Stephen Curry, Hasheem Thabeet, James Harden, Terrence Williams, Earl Clark 1st
- 2nd Blake Griffin, Jonny Flynn, Jordan Hill, DeMar DeRozan
- Tyreke Evans, Gerald Henderson, Tyler Hansbrough.
- Gerald Henderson prediction is the worst one.
- Other two are very close to the others.
- My Models Average: 539
- BR Average: 595
- Draft Net Average: 928

NBA DRAFT DAY COMPARISON

Through ML:

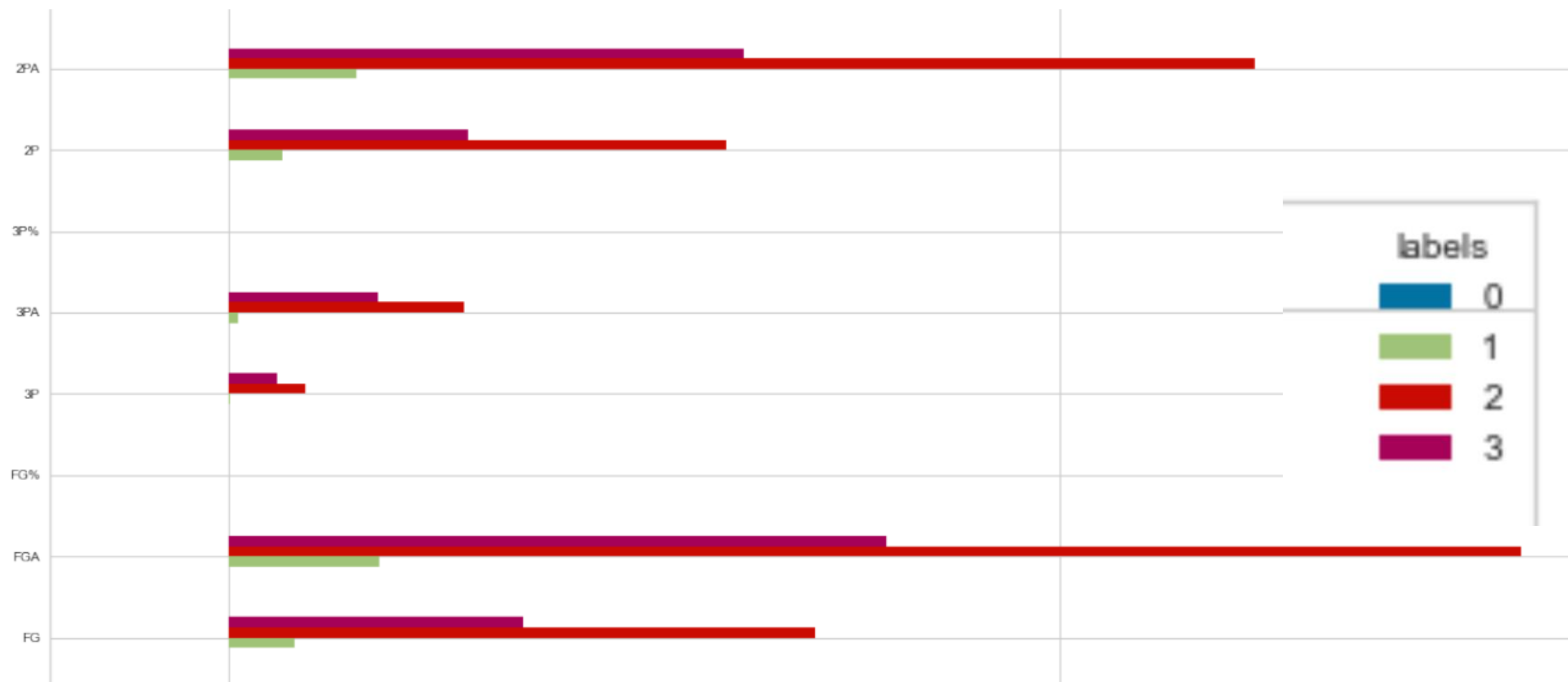
- Modeled media outlets predictions
- Scored based on accuracy of correct “predicts” (more to come)
- Create groupings separating different tiers of players

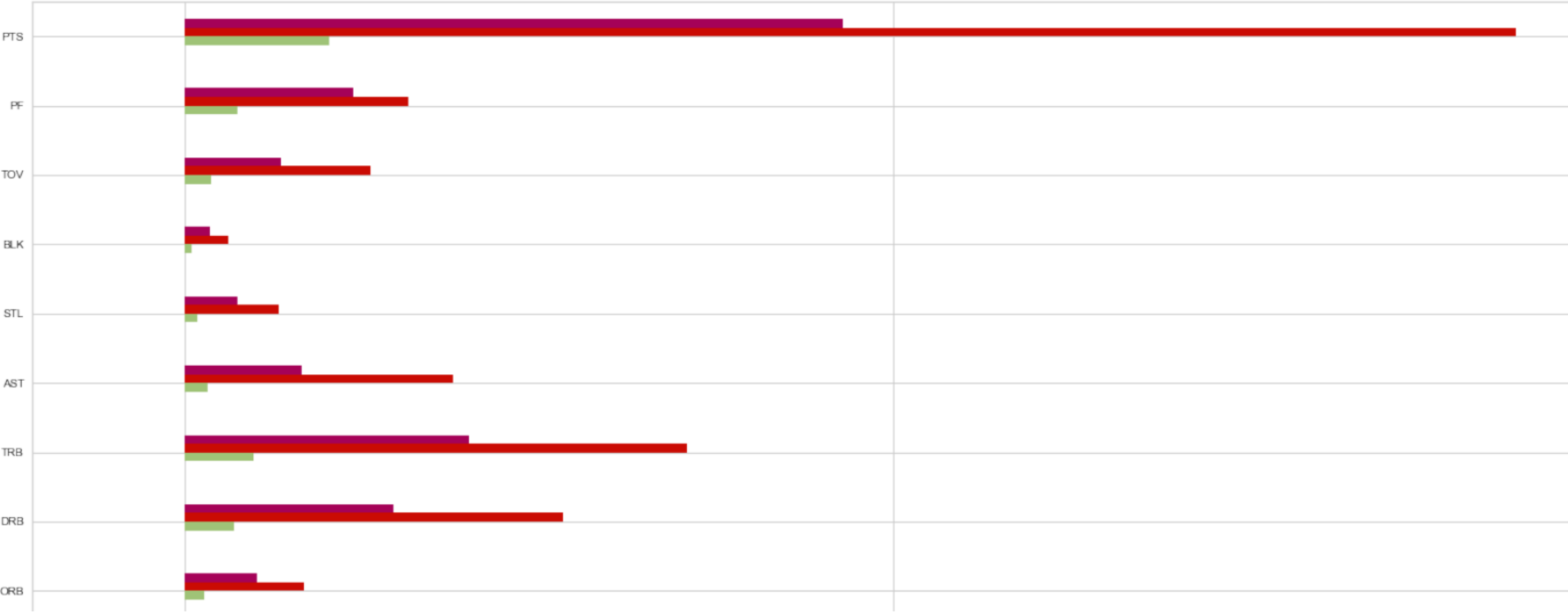
NCAA stats compared and then looked at.

Predictions based on close matches

Clustering

- 4 clusters were optimal
- Each cluster had different tiers of players.
- Cluster 2 were full of multiple time all stars and hall of famers
- Cluster 3 had up and coming stars and above average role players
- Cluster 1 were comprised of those who didn't play as much (bench warmers)
- Cluster 0 were those who did get an opportunity





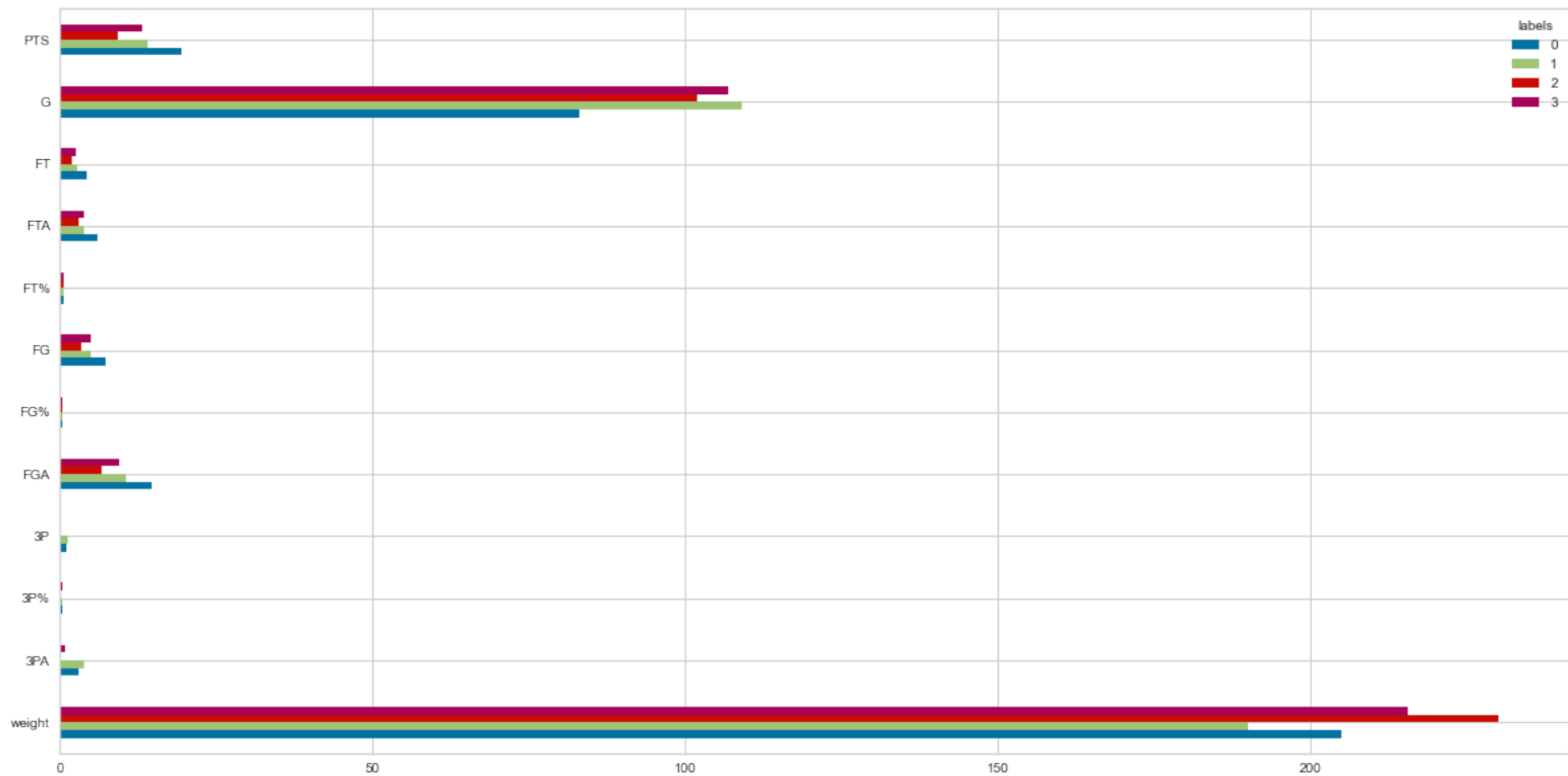
College Clusters

Cluster 0 -> clear cut above prospect heading into the draft (top 10)

Cluster 1 -> more than 1 year in the NCAA, (late) lottery projected

Cluster 2 -> Long term prospects to develop in the NBA

Cluster 3 -> Similar to cluster 1 but a tier below



Reasoning

- Bleacher Report: ~41% accuracy
- Actual NBA Draft Net ~35% Accuracy

Future Draft Predictions for 2020- 2021

- Cade Cunningham -> Eddie Griffin/Blake Griffin
- Evan Mobley -> Maurice Harkless
- Jalen Suggs -> Jayson Tatum
- Scottie Barnes -> Nerlens Noel
- Moses Moody -> Jayson Tatum
- Keon Johnson -> John Starks
- Corey Kispert -> Dorian Finney-Smith
- Kai Jones -> Charles Pittman
- Franz Wagner -> Antonio McDyess
- Ziaire Williams -> Tariq Abdul-Wahad
- James Bouknight -> Derrick Rose

Rookie Predictions

Player Name	PTS	G	MP	FGA	FG	3PA	2PA	FT	FTA	AST	TRB
Cade Cunningham	22.5	82	38	17	8.5	1	16	5	9	4	8
Evan Mobley	9	76	26	8	4	2	6	1	2	2	6
Jalen Suggs	14	80	31	11	5	3	8	3	4	2	5
Scottie Barnes	10	75	31	9	4	0	9	2	3	2	8
Moses Moody	14	80	31	11	5	3	8	3	4	2	5
Keon Johnson	8	61	20	7	3	2	5	2	2	4	2
Corey Kispert	5	81	21	4	2	2	2	1	1	1	3
Kai Jones	3	28-82	6-25	2	1	0	2	1	1	1	1
Franz Wagner	14	75	30	12	6	0	12	2	3	1	8
Ziaire Williams	7	59	17	6	3	0-1	6	1-2	2	1	2
James Bouknight	17	81	37	15	7	1	14	3	3	6	4

Looking Forward

- Improve model accuracy for predictions
- Improve distance score
- Have an NBA analyst look at it
- Marketing
- Create a dashboard
 - Redraft
 - Sabermetrics created



Thank you for your
time, Questions?