Defenders Beat by Pass

A new insight on the most effective and direct passers of the ball during the 2022 FIFA World Cup

By Will Sivolella
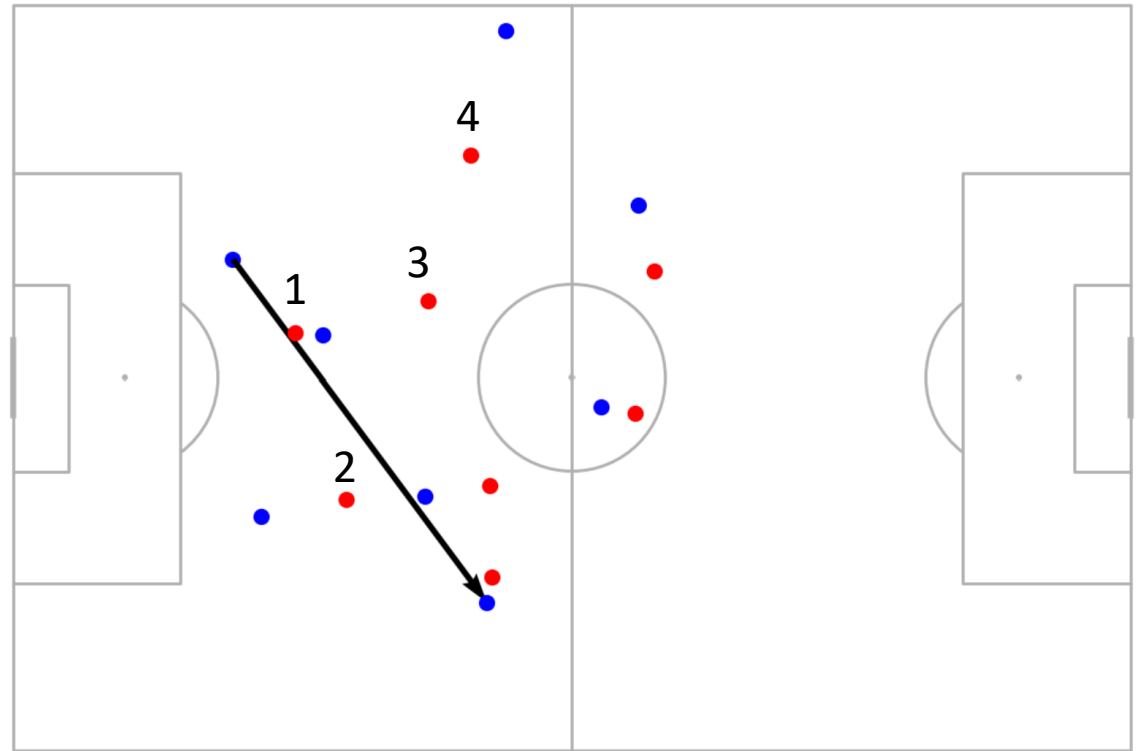
What is the *Defenders Beat by Pass* Statistic?

- **Definition**: Difference between the number of opponent players behind the location of the ball when it was played and the location of the ball when it was received for a forward pass

- **Data:** Access to Defender (i.e. opponent player) location data at time of pass and at time when ball was received

- **Note:** Chose to use Defender location at time when ball was received to account for defensive recovery while pass is traveling

- Used x-coordinates, goal-to-goal axis of the soccer field

- **Why?:** Indicates how well a pass advances the ball, how many Defenders are temporarily taken out of the play and end up behind the ball

Visualization of Statistic

- Team in possession: **Blue**
- Team Defending: **Red**
- Pass Vector: **Black**

- Pass beats 4 Defenders in this instance

- In other words, between the time the pass is played and received, 4 more Defenders are behind the ball

Pass by Dayot Upamecano to Ousmane Dembele during the 2022 World Cup Final

Overview of StatsBomb Free Data

- Has seasonal data of 70 different high-level competitions
  - Seven competitions with matches from 2022 and after

- Corresponding match data for matches in each competition
  - For a lot of competitions does not contain all matches or is very limited in the amount of matches

- Corresponding event data for each match

- Corresponding event360 data that can be paired with events
  - Extremely limited

Why 2022 World Cup Data?

- Want relatively recent competition so that *Defenders Beat by Pass* statistic provides insight to currently relevant players

- StatsBomb free data has complete event data for all 64 matches of the 2022 World Cup

- Has event360 data for all 64 matches
  - Necessary to get off-ball player location information

- Limitation: Not all forward completed passing events have corresponding ball recipient data and off-ball player location data (covers 79.25% of relevant events)
  - 79.25% of relevant events is still extremely significant and insightful

Results Part and Analysis, Part 1

Top 15 Players with Highest Total Defenders Beat by Passes

	Player	Team	Total_Defenders_Beat	Forward_Completed_Passes	Avg_Defenders_Beat_per_Pass
0	Luka Modrić	Croatia	706	267	2.64
1	Rodrigo Hernández Cascante	Spain	583	380	1.53
2	Pedro González López	Spain	549	198	2.77
3	Lionel Andrés Messi Cuccittini	Argentina	526	152	3.46
4	Marcelo Brozović	Croatia	471	244	1.93
5	Joško Gvardiol	Croatia	463	311	1.49
6	Nicolás Hernán Otamendi	Argentina	454	326	1.39
7	Rodrigo Javier De Paul	Argentina	443	173	2.56
8	Enzo Fernandez	Argentina	435	227	1.92
9	John Stones	England	432	281	1.54
10	Achraf Hakimi Mouh	Morocco	431	168	2.57
11	Aurélien Djani Tchouaméni	France	424	218	1.94
12	Mateo Kovačić	Croatia	418	175	2.39
13	Aymeric Laporte	Spain	391	287	1.36
14	Luke Shaw	England	390	147	2.65

- These players were most influential (in terms of sheer volume) when it comes to advancing the ball through passing

- High Total_Defenders_Beat and low (relatively) Avg_Defenders_Beat_per_Pass indicates how often players get on the ball
    - Applies to 2/3 of Spanish players on this list, makes sense as Spain is famously a possession based-side

- *Top 15 Players* all on teams that made it to knockout-phase of tournament
    - Makes sense as more games means more opportunities

- All world-class or elite players

- A lot of midfield players, only one forward, Messi (no surprise there)
    - Messi drops into midfield a lot

Results Part and Analysis, Part 2

Top 15 Players with Highest Avg. Defenders Beat per Completed Forward Pass

*minimum 100 completed forward passes

	Player	Team	Total_Defenders_Beat	Forward_Completed_Passes	Avg_Defenders_Beat_per_Pass
0	Lionel Andrés Messi Cuccittini	Argentina	526	152	3.46
1	Antoine Griezmann	France	332	102	3.25
2	Theo Bernard François Hernández	France	328	108	3.04
3	Daley Blind	Netherlands	326	114	2.86
4	Borna Sosa	Croatia	302	107	2.82
5	Jordi Alba Ramos	Spain	353	127	2.78
6	Pedro González López	Spain	549	198	2.77
7	Jules Koundé	France	329	121	2.72
8	Carlos Henrique Casimiro	Brazil	288	108	2.67
9	Luke Shaw	England	390	147	2.65
10	Luka Modrić	Croatia	706	267	2.64
11	Josip Juranović	Croatia	386	146	2.64
12	Éder Gabriel Militão	Brazil	346	132	2.62
13	Achraf Hakimi Mouh	Morocco	431	168	2.57
14	Rodrigo Javier De Paul	Argentina	443	173	2.56

- Indicates players who were most efficient in terms of completed forward passes

- Players who may not have been on the ball as much as players at the top of the list on the previous slide, but did the most with it in terms of advancing play with passes

- Again, *Top 15 Players* on teams who made the knockout-phase of the tournament

- Again, all world-class or elite players

- Again, mostly midfielders and defenders, only two forwards, Messi and Griezmann
  - Both players play as 10s for their respective teams

Results Part and Analysis, Part 3

Top 15 Players with Highest Avg. Defenders Beat per Completed Forward Pass

*minimum 50 completed forward passes

	Player	Team	Total_Defenders_Beat	Forward_Completed_Passes	Avg_Defenders_Beat_per_Pass
0	Lionel Andrés Messi Cuccittini	Argentina	526	152	3.46
1	Ngoran Suiru Fai Collins	Cameroon	194	57	3.40
2	Weston McKennie	United States	212	65	3.26
3	Antoine Griezmann	France	332	102	3.25
4	Rasmus Nissen Kristensen	Denmark	196	61	3.21
5	Yahia Attiyat allah	Morocco	163	51	3.20
6	Abdulelah Al Amri	Saudi Arabia	183	58	3.16
7	Steven Berghuis	Netherlands	163	52	3.13
8	Kevin De Bruyne	Belgium	162	52	3.12
9	Neymar da Silva Santos Junior	Brazil	213	69	3.09
10	Silvan Widmer	Switzerland	194	63	3.08
11	Antonee Robinson	United States	250	82	3.05
12	Theo Bernard François Hernández	France	328	108	3.04
13	Mohammed Kanoo	Saudi Arabia	176	58	3.03
14	Bruno Miguel Borges Fernandes	Portugal	245	81	3.02

- New criteria of fewer completed forward passes

- Insight on players who were on teams that were not as successful or did not have as much of the ball as the teams of players shown in the previous two slides
  - Insight on underappreciated players

- Interesting to notice players from Cameroon, USA and Denmark in top 5
  - Important to still be aware of smaller sample size

- Cool to see two USA players on this list!

Conclusions/Further Considerations

- *Defenders Beat by Pass* indicates how well a pass advances the play and bypasses the opponents
  - Cumulative version of statistic applied to each player shows how well a player is able to accomplish this
  - Shows how direct a player is with their passing
- Important to consider bias of players on top teams
  - These teams usually have a large share of possession
  - These teams have players who can effectively create space and open passing lanes more frequently than lesser teams
- Player scouting implications
  - If soccer operations department is looking to find players with a very direct style of play, *Defenders Beat by Pass* statistic can be a good metric to measure this criteria
- Further development and implementation of statistic
  - Consider forward passes that beat defenders/opponents and lead to goal/shot on target within same possession (not all passes are created equal)
  - Consider horizontal passes where recipients are able to carry the ball in open space to bypass defenders
  - Apply to player performances in other competitions