

FULL-BACK VS. WING-BACK:
TYPES OF OFF-THE-BALL RUNS WHEN THE
TEAM IS IN POSSESSION. DIFFERENCES.



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# I. GLOSSARY

- **High Intensity Distance (HI):** Distance covered above 20 km/h.
- > Sprinting Distance: Distance covered above 25 km/h.

### Types of off-the-ball runs or movements:

- **Dropping off:** A movement dropping deeper to create a passing angle and gain numerical superiority in possession.
- Coming short: The player moves closer to the teammate in possession to receive a short pass.
- **Pulling wide**: The player starts the run in the half-space and finishes it in the wide channel, ending up wider than the ball carrier.
- **Pulling half space:** The player starts the run in the central lane and finishes it in the half-space between lines.
- **Support run:** The player supports from behind, trying to participate in the offensive phase or transition. Often used in fast transitions.
- **Run ahead of the ball:** The player moves forward of the teammate with the ball, making a run towards the opponent's goal, without necessarily attacking the defensive line's back.
- **Overlap**: The player makes a run in the wide or half-space, starting from behind and passing the ball carrier, ending up wider.
- Underlap: The player runs in the wide or half-space, starting from behind and passing the ball carrier, finishing more inside than the ball carrier.
- > In Behind: The player attacks the space behind the last line of defense.
- **Cross Receiver:** The player runs into the box intending to receive a cross. A cross does not need to happen, only the potential for one must be present.



# FULL-BACK VS. WING-BACK: TYPES OF OFF-THE-BALL RUNS WHEN THE TEAM IS IN POSSESSION. DIFFERENCES.

### GAME INTELLIGENCE

In modern football, data analysis has become a key tool to deeply understand the game and optimize both team and individual performance. Game Intelligence allows the tactical complexity to be broken down into objective metrics that can reveal behavioral patterns, aiding strategic decision-making.

This study focuses on how data can help distinguish the performance and roles of full-backs and wing-backs — two positions that, while seemingly similar, show very different dynamics depending on the tactical system and playing style.

These metrics not only help identify offensive and defensive patterns but also evaluate the physical load of each position: distances covered, number of sprints, high-intensity efforts, and speed variability, among other factors. Furthermore, this study goes a step further by analyzing the most commonly used types of runs by each position — such as overlaps, break runs, support runs, or runs behind the defense — and breaking them down by physical components like distance covered, peak speed, and frequency.

This approach reveals how tactical context influences the physical behavior of the player and helps understand which types of runs demand greater physical effort or generate more offensive threat. This, in turn, supports the adaptation of player profiles to meet the specific demands of each system.

In this analysis, the combination of positional and physical metrics provides key insights into how the technical and physical characteristics of full-backs and wing-backs should be adjusted based on their roles. It helps coaches and analysts identify the most suitable profiles for each system, optimizing both the tactical structure and overall team performance.



### 2. SUMMARY

This study analyzes the differences between the full-back and wing-back positions, focusing on their behavior regarding the types of offensive runs they perform. The analysis is based on data from two of the main European leagues: Spain's LaLiga and England's Premier League during the 2023–24 season.

It is important to note that throughout the study, all runs are normalized per 30 minutes of team possession (TIP). The goal is to detect differences between three-center-back systems using wing-backs and traditional four-defender formations. A new variable is also introduced: playing style. That is, the study explores correlations not only based on position but also on the playing style of each team.

This analysis highlights the need to tailor player profiles to the specific demands of each position and tactical system.

Keywords: full-backs, wing-backs, tactical systems, playing styles, dangerous runs\*.

# 3. INTRODUCCIÓN

In the following lines, we will address the similarities and differences that a specific position presents depending on the system used and the arrangement of the other teammates. This refers to the "Full-back" position, which becomes a "Wing-back" in systems with 3 central defenders, specifically the most wide players.

The peculiarity of this position in systems like 1-3-4-3, 1-3-5-2, 1-5-3-2, and other variants makes the player located in the outer lanes take on a role that is somewhat different from that of a full-back in systems such as 1-4-4-2, 1-4-2-3-1, or 1-4-3-3, and their variants. The use of full-backs for the wing-back position is widespread, with some exceptions. But we should ask ourselves the following question: are these positions truly equivalent?

Systems with three central defenders are quite common in most competitions. So far this season (2023-24) in the five major European leagues, 939 matches have been played using a system based on a four-defender line, while 487 matches were played with a system of three central defenders and two wing-backs. This means that in 65.85% of the cases, teams played with a four-defender system, and in 34.15% of the cases, they played with a three-defender line.

<sup>\*</sup> A dangerous run is defined as one where there is at least a 2% chance that the action will end in a goal within 10 seconds if the player receives the ball.



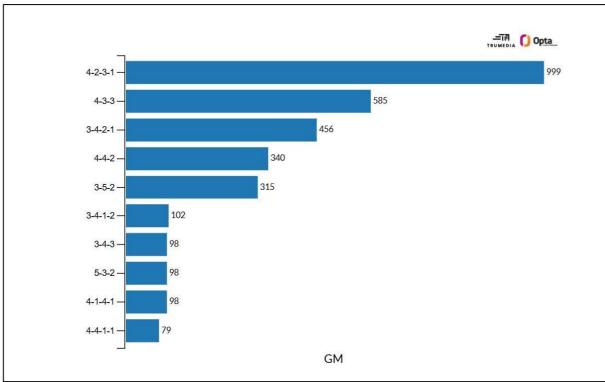


Illustration 1. 2023-24 Season. 5 Major Leagues. Number of Matches by Playing Systems.

In the 2023-24 season, the most commonly used system in the five major leagues was the 1-4-2-3-1, with a significant lead over the second most used system, which justifies it as the most common system across all competitions. The most used three-center-back system was the 1-3-4-2-1.

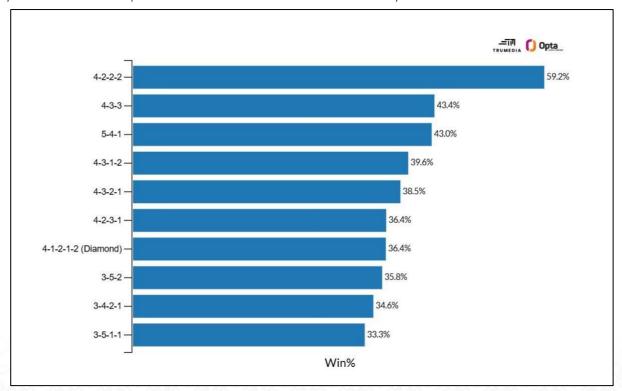


Illustration 2. 2023-24 Season. 5 Major Leagues. % of Wins by Playing Systems Used in More Than 20 Matches.

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The system with the highest win percentage was the 1-4-2-2-2 (we have only considered systems used in more than 20 matches to avoid percentage distortion caused by systems used in very few games). Several teams started matches with a 1-4-2-2-2 system, with RB Leipzig being the team that used it the most during last season, along with Augsburg, BVB, Stuttgart, Freiburg, PSG, Monaco, and Real Madrid, who also used this system occasionally.

The first wing-back-based system with a high win percentage was the 1-5-4-1 with 43%, followed by the 1-3-5-2 with 35.8%.

In the 2023-24 season, the Bundesliga 1 champion was Bayer Leverkusen, a team that played most of their matches in a 1-3-4-2-1 system, achieving the record for the most consecutive unbeaten matches in Bundesliga history.

In the world of football, it is well known that there are no magical systems or models that guarantee success in the form of victories. Therefore, in the following pages, we will explore the main differences in the playing style of Wing-backs and Full-backs in five-defender and four-defender systems, respectively. We will aim to delve into the types of runs they make when their team is in possession of the ball. To do this, we will draw from the "Off Ball Runs" data provided by Skillcorner, as well as the system descriptions from Stats Perform (this company's match system data is static—meaning we are limited by the fact that the starting system recorded by Stats Perform is taken as the system for the entire match, even if the team's formation changed during the game).

# 4. TACTICAL BEHAVIOR OF WINGS-BACKS IN ATTACK

Wing-backs are the widest players in a team with a five-defender back line, providing width to the team. They have the close support of a center-back and can push forward with or without the ball into spaces ahead of their position, as these areas are typically not occupied by other teammates. It's less common for wing-backs to use the inside channels, as these zones tend to be more congested in such systems. They have a lot of space to advance at speed and create depth for their team, either by delivering a cross or passing to players in the next line. When the ball is on the opposite wing, they often remain wide to allow for potential switches of play to the far side.

In contrast, full-backs usually share the wide lane with another teammate, who may also be occupying that same space. They can alternate between inside and outside play, but typically have less range to push forward compared to wing-backs, as they don't have the same opportunities to exploit depth. When the ball is on the opposite wing, full-backs tend to drop deeper, helping to balance the team along with the center-backs and the defensive midfielder.



### TACTICAL BEHAVIOR OF WINGS-BACKS IN DEFENSE

Defensively, the tactical behavior of a wing-back is much more similar to that of a full-back in a low block, dropping deeper to align with the center-backs and focusing on closing down wide attacks. Depending on the support their team provides ahead of their position, wing-backs may have to deal with 2-vs-1 situations more frequently than full-backs.

In medium and high defensive blocks, more significant differences can be found between the two positions, as the height of their starting position will vary depending on the assigned pressing matchups.

In defense, the wing-back can also adopt a more aggressive stance by stepping out of position, since they always have the coverage of a third center-back behind them.

# 5.1. Conditional Profile and Offensive Runs of Full-Backs and Wing-Backs.

We will begin to gradually break down the variables that can influence the position, in order to identify differences and draw conclusions related to them.

# TOTAL DISTANCE HI DISTANCE HSR DISTANCE SPRINTING DISTANCE SPRINT COUNT LINEA,3 1994.7 LINEA,3 844.8 LINEA,5 12.7 LINEA,4 9467.7 LINEA,4 818.5 LINEA,4 500.8 LINEA,4 204.5 LINEA,4 12.4 0 5000 10000 0 200 400 400 800 0 200 400 400 0 100 200 0 5 10

Illustration 3. Graphical Description of Conditional Variables for Back Lines of 4 and 5.

The metrics for wing-backs in a five-man back line are slightly higher than those for full-backs in a four-man line in terms of total distance, high-intensity distance, and sprinting distance. These differences are subtle, but they already indicate a slight shift in the physical demands of the position.



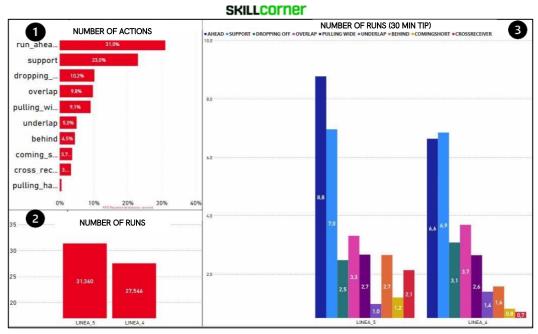


Illustration 4. Number and types of runs provided by SkillCorner for 4-man and 5-man defensive lines.

We found that wing-backs typically have a higher number of offensive runs per 30 minutes of possession compared to full-backs in a four-man defensive line (Graph 2 of Illustration 4). This difference is particularly noticeable in wing-backs, who average about 3-4 more 'breakaway runs' per match, as well as 'runs to receive crosses,' with full-backs having fewer than 1, while wing-backs exceed 2. As for the other types of runs, we did not find any significant differences.

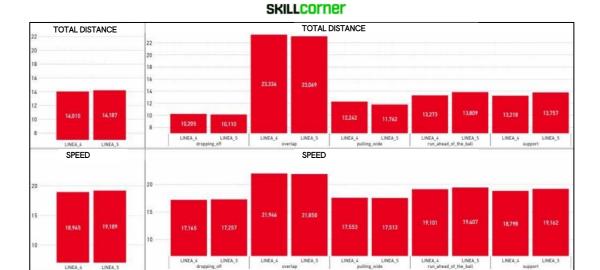


Illustration 5. Distance Covered and Speed in the 5 Most Common Types of Runs by Position.



Regarding the distance and speed of these runs, there is no significant difference between wing-backs and full-backs. On the contrary, there is a notable difference between the different types of runs. 'Overlap runs,' for example, undoubtedly require the most distance and speed compared to the others, being the most physically demanding run for the position in both distance and peak speed. The differences between wing-backs and full-backs are minimal, with only about 300 meters of distance covered between them, and the same peak speed.

There are differences in runs that are explained by the position. For example, full-backs average about 600 meters more in runs to widen the field than wing-backs, which is explained by the position's wider starting points. On the other hand, wing-backs show slightly better performance in breakaway runs (approximately 500 meters), possibly due to the higher position they occupy, always needing to provide depth support as the 'only' player on the outer lane. It might be expected that full-backs would have more 'Overlaps' than wing-backs, due to the latter's higher position, but the difference is reduced to about 300 meters, being, along with 'Dropping off,' one of the least significant differences. The wing-back also shows about 500 meters of difference with the full-back in 'Support' runs, which are support runs behind the play, offering support to the ball carrier, typically during quick transitions. This can be explained by the wing-back's closer involvement in the offensive phase.

# 5.2. Dangerous Offensive Runs by Full-Backs/Wing-Backs

The importance of the SkillCorner data lies in its ability to provide in-depth analysis. While the previous section described the types of runs used, the following paragraphs will shed light on which of these runs create real danger.

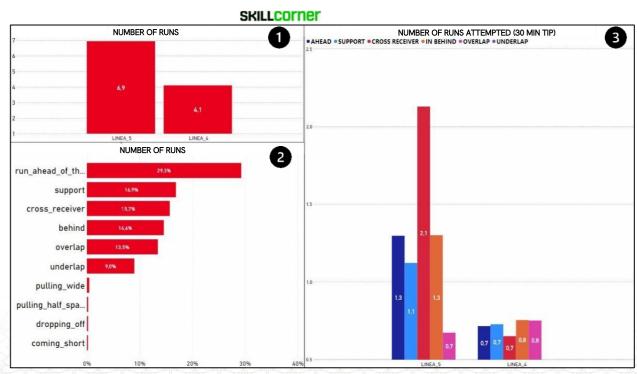


Illustration 6. Dangerous Runs Attempted by 4-man and 5-man Defensive Lines



In these types of runs, wing-backs stand out over full-backs, likely due to the higher position mentioned in previous paragraphs. They tend to make more runs that create danger. This danger is carried through breakaway runs (run ahead), followed by support runs (support), cross-receiving runs (cross receiver), runs in behind the defense (in behind), and overlaps (outside and inside). Undoubtedly, the run that most differentiates the search for dangerous situations between full-backs and wing-backs is the arrival to receive crosses (cross receiver) (Graph 3 of Illustration 6).

This detail presents one of the most interesting scenarios in the present study: the ability of wing-backs to generate danger with their entry into the attacking space to finish crosses. The positional transition from wing-back to full-back (and vice versa) is very common depending on the system used. In other words, the current football norm dictates that the wing-back position is typically covered by a full-back, but we overlook the detail of the player's ability to finish lateral crosses. Based on this study, it becomes clear that this is one of the most distinguishing features between the two positions.

Therefore, this aspect presents a new need to consider when selecting a player for the wing-back position: the ability to finish crosses from the opposite side.

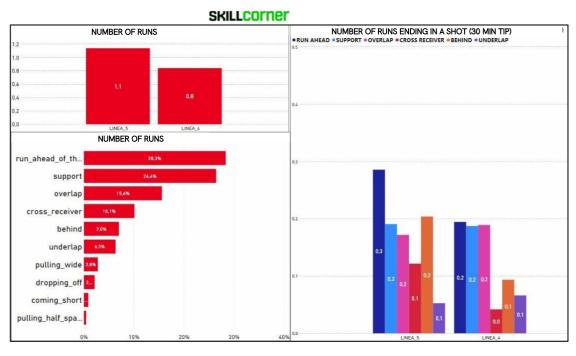


Illustration 7. Runs ending in shots for 4-man and 5-man defensive lines.

In all variables, the differences are very noticeable, minimal in some cases, but when it comes to runs into the box to seek a finish from a cross, we can see that the wing-back averages 2.1 per match, while the full-back doesn't even reach 1 per match.

Similarly, in the rest of the runs, the wing-back creates more danger than the full-back. We've already discussed the open and advanced position of the wing-back, which allows them to attack less defendable spaces. At first glance, the wing-back position facilitates the creation of danger, and according to the data, it is essential to opt for a player profile with greater offensive power, which perfectly matches the preference of coaches who favor wingers over traditional full-backs for this position.



The runs that end in shots, however, do not show as large a difference as the previous ones. In these, breakaway runs (run ahead) and support runs (support) are the most prominent, followed by overlaps (outside) and runs in behind the defense. Still, the differences are not too significant, which opens up two possible arguments. The wing-back position presents an additional danger compared to the full-back position, as we can see in the attempted runs, but these runs are not utilized by the team's system:

- o The player occupying the wing-back position is a full-back, so they are presumably not as well-equipped to effectively execute offensive actions.
- o The teams do not have an offensive mechanism that incorporates a finish linked to the wing-back's crossing action from the opposite side.

# 5.3. Full-backs and Wing-backs in LaLiga and the Premier League

The three-center-back formation began in a specific and localized manner before gradually spreading across other competitions and globally. In the five major European leagues, the three-center-back system has now become a common formation.

In the following section, we will focus on two of the most important leagues in Europe: Spain's LaLiga and England's Premier League.



Illustration 8. Distribution of 5-man and 4-man defensive systems by league.

In the previous illustration, we can see the use of full-backs and wing-backs per match in both leagues. There is a very similar number of player-match pairs for full-backs in both competitions, with 77% of the player-match pairs being full-backs versus 22% being wing-backs. In other words, the wing-back position was used in only 22% of the matches across both competitions.



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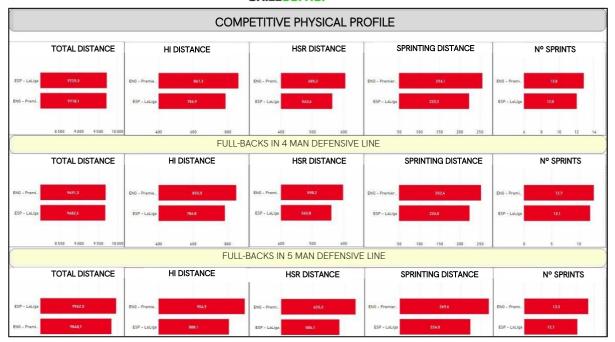


Illustration 9. Physical profiles in LaLiga and the Premier

Regarding the conditional competitive profile, we do find some interesting aspects between the two competitions. In terms of total distance covered, there are no particularly notable differences. However, when looking at distance covered at high intensity (HI and HSR) and sprint distance (D > 24 km/h), the Premier League shows higher values, indicating that efforts are more intense. This could be explained by the generally higher intensity of efforts in the Premier League compared to LaLiga, with the English league being more physically demanding.

Despite this, we find that in the wing-back position, this difference becomes even more pronounced compared to full-backs.

The conditional load for wing-backs in the Premier League is significantly higher than for the same position in LaLiga.

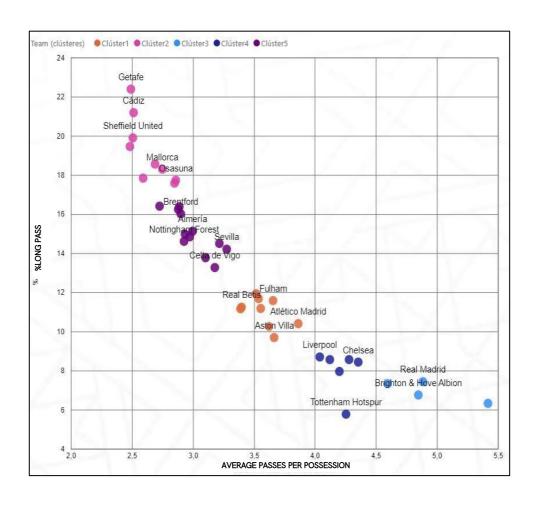
# 5.4. Full-backs and Wing-backs in relation to playing style.

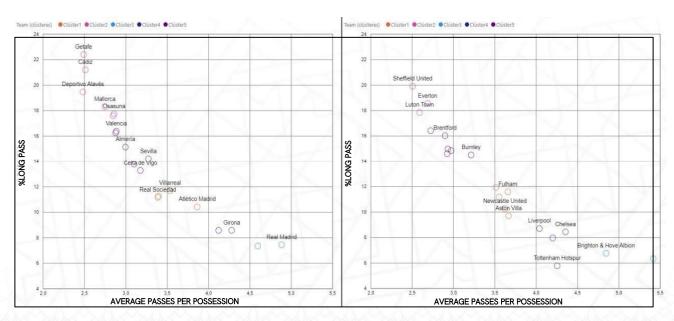
In many cases, the system with three center-backs and wing-backs is associated with greater defensive solidity, as it is often believed that accumulating more players in the back line makes a team more solid defensively. In this section, we will study the different playing styles depending on the formation.

Focusing on Playing Style, we will analyze how full-backs and wing-backs behave depending on whether their team employs a more direct or more combinative style in each league.

To do so, we have clustered the different teams from both leagues based on the percentage of long passes used and the average number of passes per possession. With this, we aim to create an approximate grouping to see where each team lies within the distribution and to identify those that most clearly define the extreme ends of each cluster:







Illustrations 10-11. Clustering of Premier League and LaLiga teams by playing style



The software generated five clusters based on the distribution of Long Pass Percentage and Average Passes per Possession. In the cluster furthest from the combinative style, we find Getafe, Cádiz, Alavés, Mallorca, Osasuna, and Granada from LaLiga, and Sheffield, Everton, and Luton from the Premier League. All of these teams fall into the group that most reliably represents the direct playing style.



Ilustración 12. Equipos clusterizados por estilos de juego

At the opposite end, in the cluster most closely associated with a combinative style, we find Real Madrid and FC Barcelona from LaLiga, and Manchester City and Brighton from the Premier League. These four teams are the clearest representatives of the Combinative Style Cluster.

To broaden the match sample, we also include teams from the nearest cluster—adding Girona and Las Palmas from LaLiga, and Tottenham, Arsenal, Chelsea, and Liverpool from the Premier League—bringing the total to ten teams in the study of combinative playing styles.

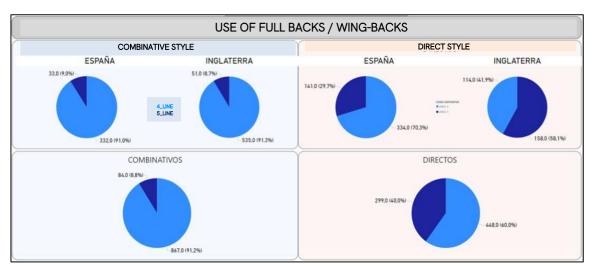


Illustration 13: Distribution by Competition and Playing Styles



Wing-backs in teams with a combinative playing style represented only 8% of the match sample, with most teams opting for four-defender systems. Conversely, in teams with a direct playing style, the trend was reversed. In the Premier League, 58% of matches involving direct-style teams used a system with wing-backs, compared to 29.7% in Spain. This suggests that in England, there may be a more direct correlation between a direct playing style and the use of a five-defender formation, whereas in Spain, this relationship appears to be more nuanced.

### SKILLCORNER

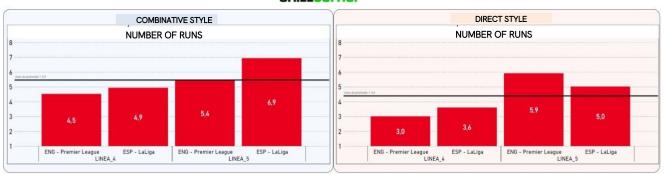


Ilustración 14. Número de carreras en función a la competición y al estilo de juego

Regarding the number of runs based on playing style, we observe greater offensive movement from wing-backs than from full-backs in both direct and combinative-style teams. This difference is particularly notable in the increased mobility of wing-backs in LaLiga.

The previous graph also shows that players in combinative-style teams—both wing-backs and full-backs—tend to have greater mobility. In contrast, full-backs in direct-style teams may remain more fixed due to the speed of attacking plays, where the quick execution of long passes makes it harder for them to get involved. The only variable that does not follow this trend is wing-backs in direct-style Premier League teams, who show slightly more mobility than wing-backs in combinative-style teams from the same league.

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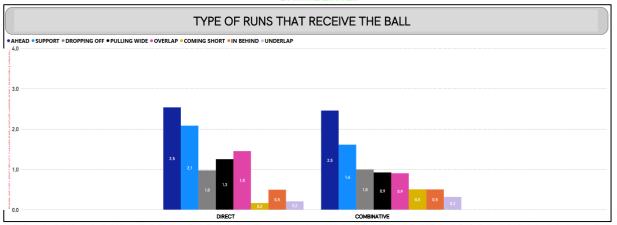


Illustration 15. Types of Runs with Ball Reception by Playing Style

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Regarding runs made while the team is in possession, no major differences were observed. Run-ahead movements are the most likely to receive passes, followed by support runs, both in combinative and direct-style teams

Finally, when analyzing dangerous runs made by full-backs/wing-backs in relation to playing style and formation, several key findings emerge::

- Wing-backs make a higher number of dangerous runs.
- In combinative-style teams, both full-backs and wing-backs perform a greater number of dangerous runs.
- Full-backs (in four-man defenses) from direct-style teams show the lowest number of dangerous runs.
- The biggest difference between styles lies in the number of runs made in behind the defensive line, particularly by wing-backs in combinative-style teams.
- In teams using a five-defender formation, wing-backs tend to make more dangerous runs into crossing areas.

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# 6. CONCLUSIONS

The analysis highlights that, although the differences between wing-backs and full-backs are subtle in terms of physical and conditional factors, they become significant when analyzing the characteristics of the runs made, especially in terms of dangerous runs or those leading to shots. These differences gain more weight when considering the playing model, the league, and the style of the teams. Wing-backs stand out for assuming more offensive and dynamic roles, while full-backs in four-man defensive systems tend to balance their defensive and offensive responsibilities more effectively.

Regarding conditional demands, while the distances covered and maximum speeds do not show marked differences between the two positions, specific runs — such as overlaps on the flanks — require greater physical and tactical effort from wing-backs. This behavior is influenced by several factors:

- La Liga vs. Premier League: In the Premier League, wing-backs perform more intense efforts and more frequent sprints, reflecting higher physical demands. In contrast, in La Liga, both wing-backs and full-backs have a slightly higher average of offensive runs per game, indicating a more dynamic and mobile approach, albeit with less intensity.
- Playing Models: Teams with a direct playing style tend to rely more on wing-backs due to their ability
  to quickly spread wide. In contrast, combinative teams prioritize shorter support patterns and offthe-ball runs, favoring buildup from deeper areas with both full-backs and wing-backs. Additionally,
  wing-backs from these teams tend to make more dangerous runs, particularly those aimed at breaking
  defensive lines.
- Runs Toward Finishing: A crucial aspect often overlooked when selecting a wing-back is the
  importance of runs into the box. Coming from such an open position, this not only makes it harder to
  mark them but also becomes an unpredictable factor for the defense, especially in situations
  involving lateral crosses. These runs can be decisive in disrupting opposing defenses and creating
  goal-scoring opportunities.



