

Arsenal Season Stats, EPL '24-'25

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Overview

A(r)senal Analysis is an analytical exploration of Arsenal's performance in the **2024-2025** season of the **English Premier League**. The team was chosen because of their ability to outperform league leaders and top contenders in the UEFA Champion's League (particularly their 3-0 win over Real Madrid) yet showing recurring inconsistencies in front of goal.

Throughout the season, fans and pundits alike heralded it as "*Arsenal's year*." With Manchester City's dominance waning, the path to the title seemed open. Yet by May, Liverpool sat atop the table while Arsenal once again finished second. The central question, then, is this: how can a squad strong enough to reach the Champions League semi-finals and challenge England's best still struggle to convert that dominance into goals?

Methodology

I scraped aggregated match data from FBRef and used Kaggle datasets for player-level statistics and the official fixture list. The datasets were stored in a Docker-based MariaDB instance in my homelab for reproducible querying. Using VSCode's SQL extensions, I cleaned and normalized data directly in SQL, then connected RStudio to the database for statistical exploration and visualization.

Data Sources

- EPL Player Match Data: <https://www.kaggle.com/datasets/aesika/english-premier-league-player-stats-2425> (1 row per player, aggregated statistics for the 2024-2025 season)
- EPL Fixture Data: <https://www.kaggle.com/datasets/secretglory/epl-fixtures-list-2024-2025> (Official match schedule as published)
- EPL Match Data: Scraped from <https://fbref.com/en/comps/9/2024-2025/schedule/2024-2025-Premier-League-Scores-and-Fixtures> (Aggregated match statistics, per team, for the entire season)
- EPL Season Table, 2024-2025: <https://fbref.com/en/comps/9/2024-2025/2024-2025-Premier-League-Stats> (League table from 2024 for context review)

- Arsenal Squad Data from 2023-2024: <https://fbref.com/en/squads/18bb7c10/2024-2025/matchlogs/c9/schedule/Arsenal-Scores-and-Fixtures-Premier-League> (Previous season summary stats for context review)
- EPL Season Table, 2023-2024: <https://fbref.com/en/comps/9/2023-2024/2023-2024-Premier-League-Stats> (League table from 2023 for context review)

Definition of Terms

- **GF**: Goals for
- **GA**: Goals against
- **GD**: Goal difference, (GF - GA)
- **xG**: Expected goals; the number of goals a team/player is expected to score in a match. **Higher is better**
- **xGA**: Expected goals against; the number of goals a team is expected to concede in a match. **Lower is better**
- **xGD**: Expected goal difference; The difference between xG and xGA. **Higher is better**

Performance in Perspective

Arsenal FC is a Premier League club with a storied history. Over the years, they’ve won 13 English top-flight titles, 14 FA Cups, and 17 FA Community Shields, among other honors. The club also produced *The Invincibles*, the legendary 2003–2004 squad that went an entire Premier League season unbeaten.

Unfortunately, that level of dominance was not to last. Financial constraints, largely attributed to the construction of the Emirates Stadium, forced a period of austerity that saw the club struggle for more than a decade before showing real signs of resurgence. Enter Mikel Arteta. The former Arsenal captain returned to the club mid-season in 2019 to take up the managerial role. Despite securing an FA Cup title later that season, it would take several years of rebuilding before consistent improvement began to show.

Uphill Battles

The renewed optimism surrounding Arsenal at the start of the 2024–2025 season stemmed from their remarkable form in 2023–2024. There was room to grow, but this was the most competitive the team had been in a long while. Finishing 2nd, the team stood out for a couple of reasons.

First, the defensive structure they’d developed. For a team long associated with defensive lapses, Arsenal’s 2023 season marked a significant turnaround, recording an xGA of **27.9**, the lowest in the league. This led to the team conceding only **29** goals throughout the season, with 2023 champions Manchester City conceding **34** in that same season.

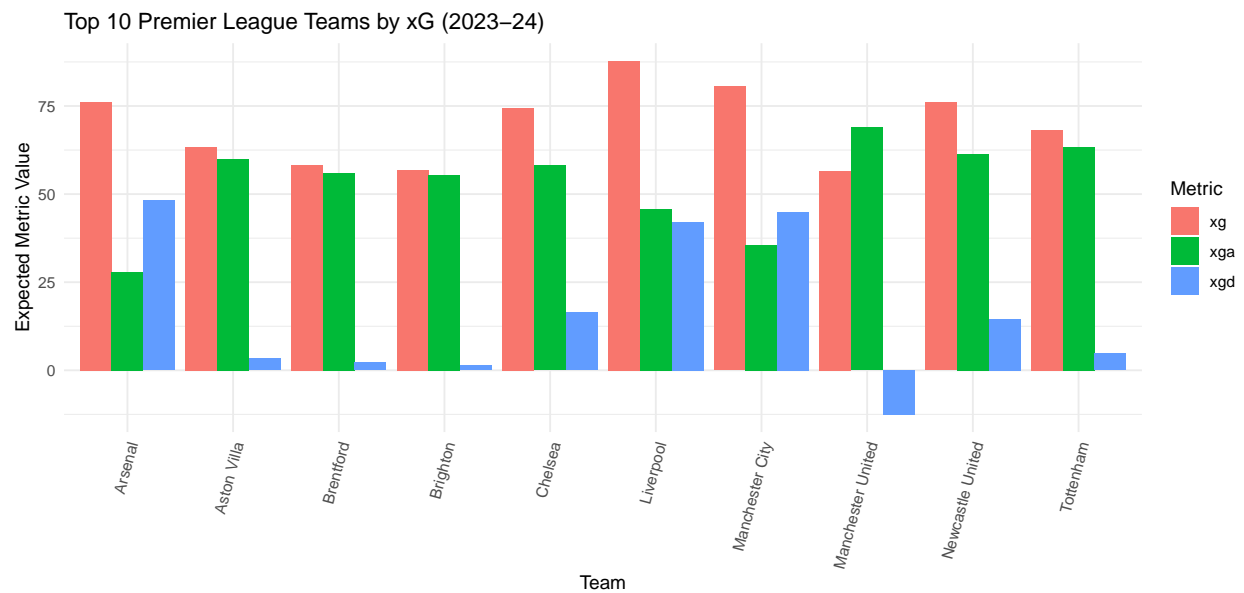
Table 1: figure 1, Premier League Table, 2023

rk	team_name	gf	ga	gd	pts
1	Manchester City	96	34	62	91
2	Arsenal	91	29	62	89
3	Liverpool	86	41	45	82
4	Aston Villa	76	61	15	68
5	Tottenham	74	61	13	66
6	Chelsea	77	63	14	63
7	Newcastle United	85	62	23	60
8	Manchester United	57	58	-1	60
9	West Ham United	60	74	-14	52

rk	team_name	gf	ga	gd	pts
10	Crystal Palace	57	58	-1	49
11	Brighton	55	62	-7	48
12	Bournemouth	54	67	-13	48
13	Fulham	55	61	-6	47
14	Wolves	50	65	-15	46
15	Everton	40	51	-11	40
16	Brentford	56	65	-9	39
17	Nottingham Forest	49	67	-18	32
18	Luton Town	52	85	-33	26
19	Burnley	41	78	-37	24
20	Sheffield United	35	104	-69	16

Liverpool, who followed with an xGA of **45.7**, conceded **41** goals which underscored how much Arsenal had closed the defensive gap with the very best.

Arsenal's attack, meanwhile, showed potential despite the lack of a traditional number 9 player. Taking a look at the xGs of the top 10 teams, we can see that Arsenal counted themselves among the top when it came to expected goals.



The combination of a strong defence with a budding attacking mindset would result in an xGD of **48.2**. Manchester City, on the other hand, finished the season with an xGD of **45**, a little lower than Arsenal's.

Arsenal FC would then end that campaign with a mean of **2.39** goals per match. Combined with an average **0.76** goals conceded per match, the team appeared poised for another strong run in the following season.

Who Needs A Striker?

Which brings us to the actual season in question. As an overview, let's take a look at the Premier League table at the end of the 2024-2025 season.

Table 2: figure 3, Premier League Table, 2024

rk	team_name	gf	ga	gd	pts
1	Liverpool	86	41	45	84
2	Arsenal	69	34	35	74
3	Manchester City	72	44	28	71
4	Chelsea	64	43	21	69
5	Newcastle United	68	47	21	66
6	Aston Villa	58	51	7	66
7	Nottingham Forest	58	46	12	65
8	Brighton	66	59	7	61
9	Bournemouth	58	46	12	56
10	Brentford	66	57	9	56
11	Fulham	54	54	0	54
12	Crystal Palace	51	51	0	53
13	Everton	42	44	-2	48
14	West Ham	46	62	-16	43
15	Manchester United	44	54	-10	42
16	Wolves	54	69	-15	42
17	Tottenham	64	65	-1	38
18	Leicester City	33	80	-47	25
19	Ipswich Town	36	82	-46	22
20	Southampton	26	86	-60	12

Again, second place despite having the league's best defensive structure. Arsenal's defensive structure conceded only **34** goals conceded throughout the season, beating the champions Liverpool who conceded **41** goals. This only makes it apparent that their difficulties in getting the ball to the back of the net still outweighed their defensive capabilities.

But who is responsible for that task? At this point in time, Arsenal had its traditional number 9 in the form of Kai Havertz. Combined with their aggressive midfield, we can see where Arsenal pulled most of its goals from.

Arsenal Goal Share, 2024–25

Proportion of team goals per player

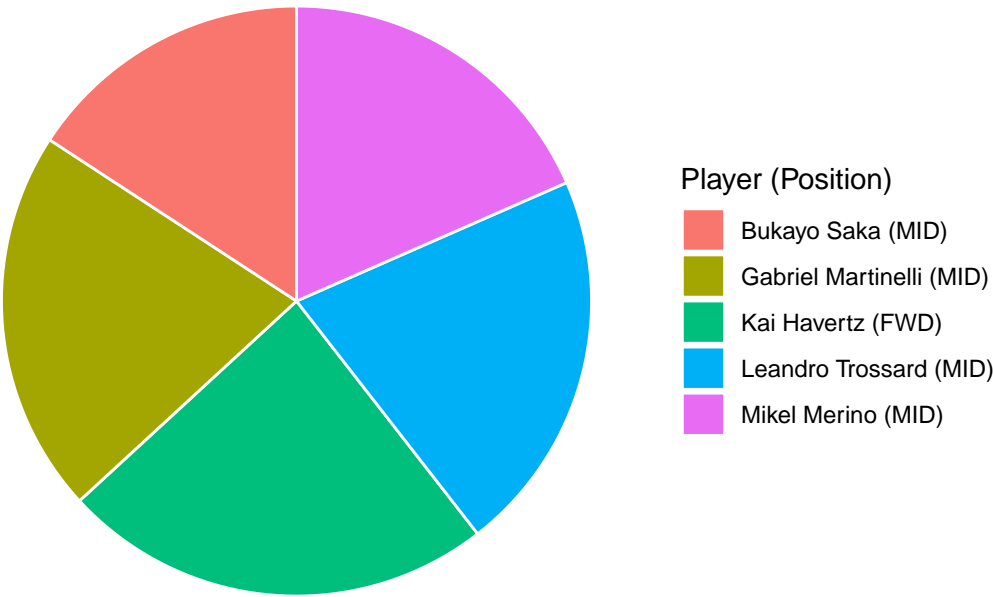


figure 4, Arsenal Player Goal Contribution, 2024–25

On this chart we have the top 5 goal shares from that season. We can see that most of the team’s goals are from a combination of the midfield players but that’s not to say Kai Havertz is doing bad, claiming **13%** of the team’s total goals.

Table 3: figure 5, Cumulative goal share, 2024

player_name	goals	goal_share	cum_share
Kai Havertz	9	0.1363636	0.5909091
Gabriel Martinelli	8	0.1212121	0.4242424
Leandro Trossard	8	0.1212121	0.7121212
Mikel Merino	7	0.1060606	0.8636364
Bukayo Saka	6	0.0909091	0.0909091

In fact, in terms of cumulative shares, Kai Havertz, Gabriel Martinelli, and Leandro Trossard all claim a combined **71.21%** of Arsenal’s total goals from 2024-2025.

Now, we take a look at Arsenal’s goal scoring trends over the season.

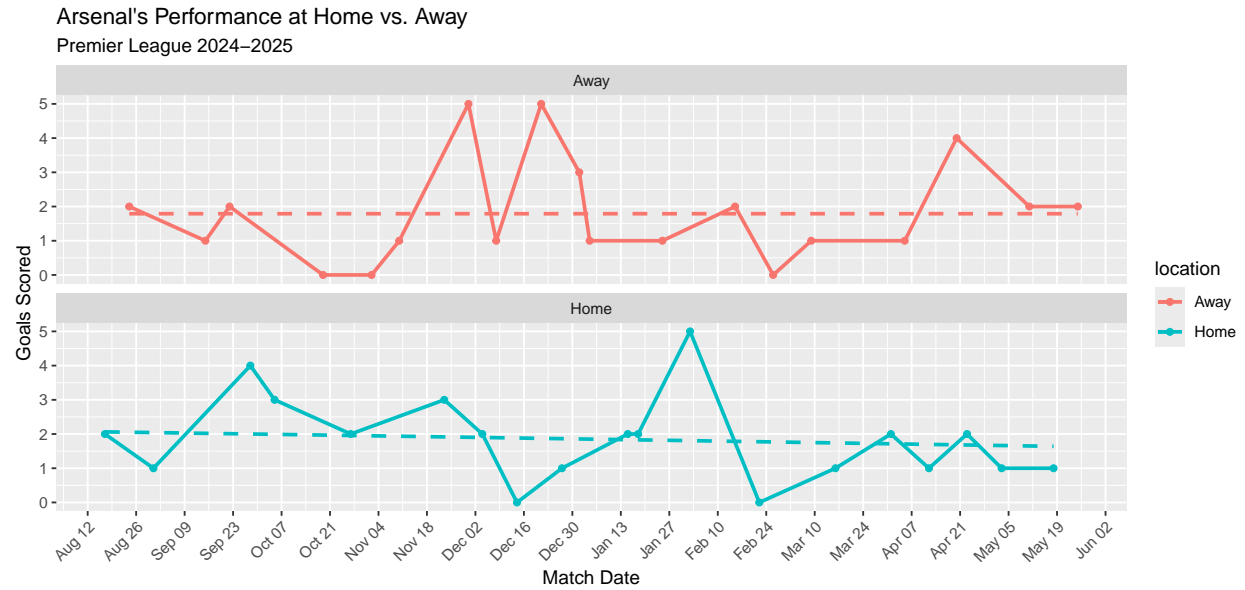


figure 6, Arsenal Home vs. Away Goals, 2024–2025

A downward trend in *Home* goals over the season is visible while *Away* games show an almost flat trend line. Both can be attributed to drastic changes in performance given how high scoring games are countered by multiple low scores, including consecutive zero (0) goals in two *Away* match ups.

Defe