CLUTCH | RESEARCH REPORT

# Home advantage is fading: 30 years of data across five sports

We analyzed 342,613 soccer, NBA, NFL, NHL and MLB games. In European soccer and in the NBA, the edge of playing at home has nearly halved. Italy's Serie A draws close to 30,000 fans per game and has the same home advantage it had behind closed doors.

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Gennaro Pancia | Nov 11, 2026 | clutchdata.app/research/home-advantage

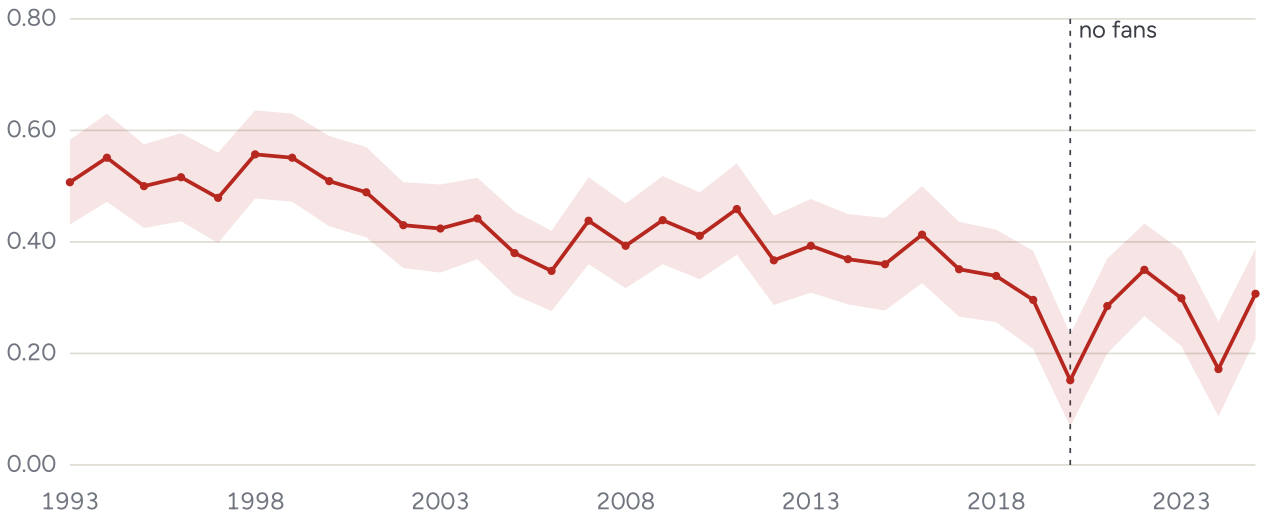
## Key findings

- In Europe's big five leagues the home team scored half a goal more per game in 1993-94 (+0.51). In 2025-26 the edge was down to +0.31. Away wins rose from 22.5% to 30.6%.
- Serie A is the starkest case: +0.58 goals per game in the 1990s, +0.18 since fans returned (2021-2026). That is the same level as the 2020-21 season played behind closed doors (+0.20), with average crowds now close to 30,000.
- It is not just Italy: home advantage fell in 17 of 21 European leagues. The exceptions are three Scottish divisions and Spain's second tier.
- Referees are more even-handed. In the big five the away team got 29% more yellow cards than the home team in 2000-2005; today the gap is 14%. The home team's share of red cards rose from 38% to 49%.
- US sports are split: NBA home win rate fell from 59.7% to 55.2% and NFL from 57.3% to 53.0%. In the NHL and MLB home advantage has barely moved.

## European soccer: half a goal became a third

The cleanest way to measure home advantage in soccer is the average gap between home goals and away goals. In the big five leagues (Premier League, LaLiga, Serie A, Bundesliga, Ligue 1) it was +0.51 goals per game in 1993-94 and stayed above +0.40 through the 1990s. From the mid-2000s it drops almost every season: +0.37 in 2014-15, +0.30 in 2019-20.

In 2020-21 soccer was played without fans and became a natural experiment: with empty stands the edge collapsed to +0.15. When crowds came back it recovered, but not to the old level: +0.31 in 2025-26 and only +0.17 in 2024-25, close to the empty-stadium season.




Home goal margin per game, big five European leagues (shaded: 95% interval). Source: Clutch.

Home wins went from 47.1% (1993-94) to 44.0% (2025-26). The bigger change is on the other side: away wins climbed from 22.5% to 30.6%. Today the visiting team wins almost one game in three.

## League by league

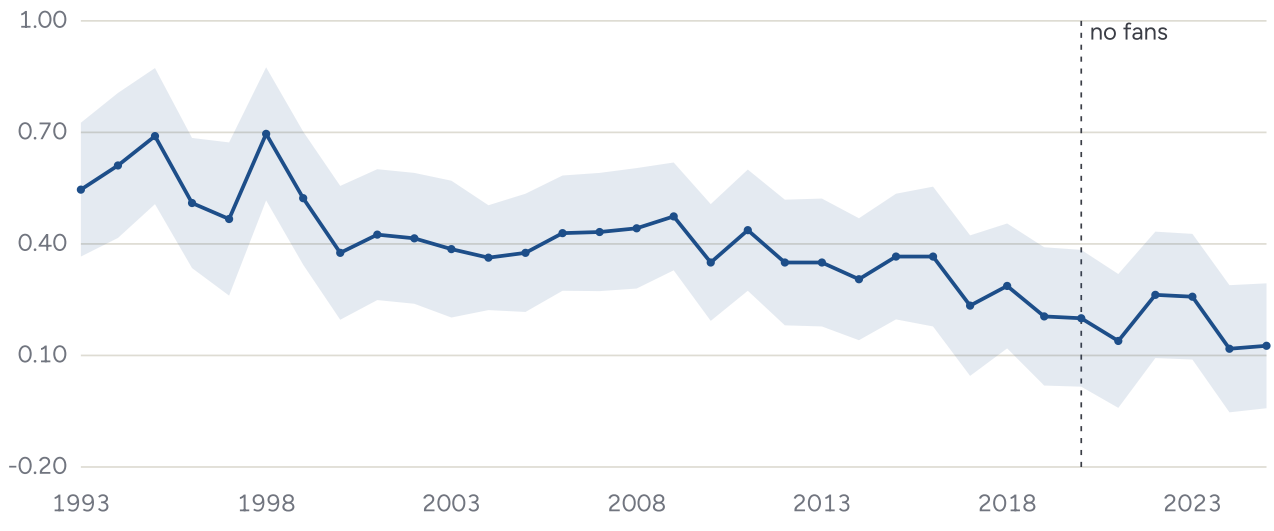
The table shows the average home goal margin per period with its 95% confidence interval. All five leagues started near half a goal. The Bundesliga is the only one that returned to its 2010s level after the pandemic. The Premier League and Ligue 1 recovered only partly.

| LEAGUE | 1993-2000 | 2000-2010 | 2010-2020 | 2020-21 NO FANS | 2021-2026 |
|---|---|---|---|---|---|
| Premier League | 0.42 ± 0.06 | 0.42 ± 0.06 | 0.36 ± 0.06 | 0.01 ± 0.19 | 0.27 ± 0.09 |
| LaLiga | 0.53 ± 0.06 | 0.42 ± 0.05 | 0.46 ± 0.06 | 0.23 ± 0.16 | 0.36 ± 0.07 |
| Serie A | 0.58 ± 0.07 | 0.41 ± 0.05 | 0.33 ± 0.06 | 0.20 ± 0.18 | 0.18 ± 0.08 |
| Bundesliga | 0.51 ± 0.08 | 0.45 ± 0.06 | 0.35 ± 0.07 | 0.32 ± 0.22 | 0.36 ± 0.10 |
| Ligue 1 | 0.60 ± 0.06 | 0.44 ± 0.05 | 0.39 ± 0.06 | 0.03 ± 0.18 | 0.26 ± 0.09 |

## The Serie A case: full stadiums, empty-stadium home advantage

In Serie A home advantage went from +0.58 goals per game in the 1990s to +0.33 in the 2010s. In the season without fans it was +0.20. Since fans returned (2021-2026) the average is +0.18: the same value, actually slightly lower.

Empty stands are not the reason. According to Transfermarkt, average attendance rose from about 22,000 per game (2014-2016) to over 30,000 (30,916 in 2023-24). In the two most recent seasons, with full stadiums, the home edge was among the lowest ever measured: +0.12 in 2024-25 and +0.13 in 2025-26. Home teams won 38.9% of games in 2025-26, against 54.9% in 1998-99.




Serie A: home goal margin per game (shaded: 95% interval). Source: Clutch.

| SERIE A SEASON | AVERAGE ATTENDANCE | HOME GOAL MARGIN |
|---|---|---|
| 2012-13 | 23,102 | 0.35 |
| 2013-14 | 23,332 | 0.35 |
| 2014-15 | 22,168 | 0.31 |
| 2015-16 | 22,213 | 0.37 |
| 2016-17 | 21,967 | 0.37 |
| 2017-18 | 24,783 | 0.23 |
| 2018-19 | 25,063 | 0.29 |
| 2019-20 | 27,226 | 0.21 |
| 2020-21 | 914 | 0.21 |
| 2021-22 | 18,236 | 0.14 |
| 2022-23 | 29,537 | 0.26 |
| 2023-24 | 30,916 | 0.26 |
| 2024-25 | 30,773 | 0.12 |
| 2025-26 | 29,892 | 0.13 |

## Not just the big leagues: 17 of 21

We compared 1993-2005 with 2021-2026 in every European league in the database. The steepest drops are in Greece, Italy and France. The only leagues where home advantage did not fall are three Scottish divisions and Spain's second tier.

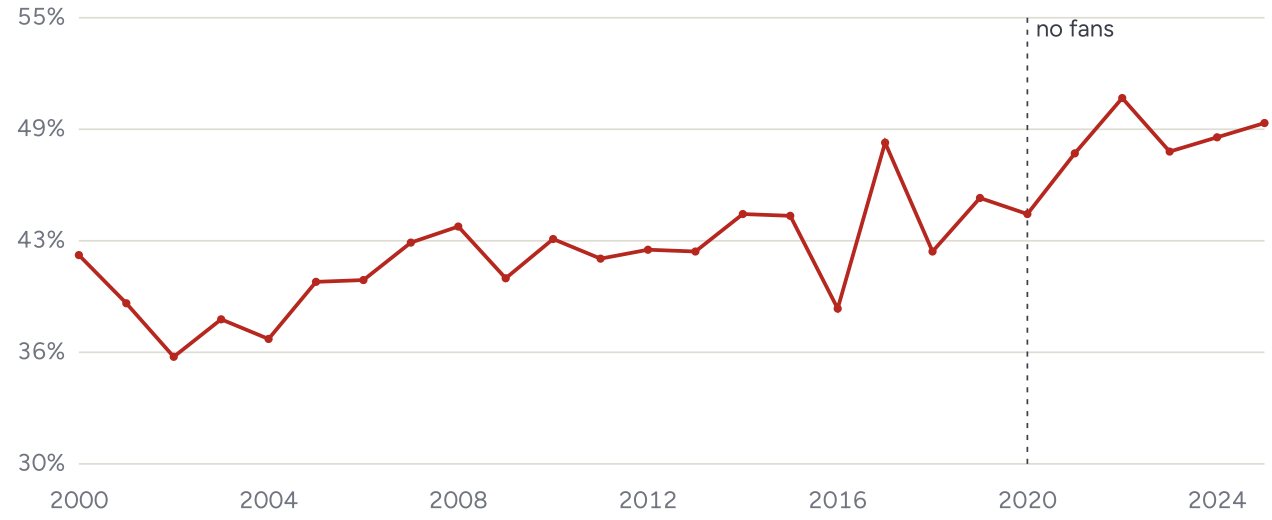
| LEAGUE | HOME MARGIN 1993-2005 | HOME MARGIN 2021-2026 | CHANGE | HOME WINS |
|---|---|---|---|---|
| Greek Super League (Greece) | 0.66 | 0.24 | -0.41 | 53.0% → 42.0% |
| Italian Serie A (Italy) | 0.50 | 0.18 | -0.32 | 47.7% → 40.4% |
| French Ligue 1 (France) | 0.57 | 0.26 | -0.30 | 49.5% → 43.5% |
| French Ligue 2 (France) | 0.49 | 0.24 | -0.26 | 46.3% → 42.3% |
| German Bundesliga 2 (Germany) | 0.52 | 0.29 | -0.24 | 47.9% → 43.5% |

| LEAGUE | HOME MARGIN 1993-2005 | HOME MARGIN 2021-2026 | CHANGE | HOME WINS |
|---|---|---|---|---|
| Portuguese Primeira Liga (Portugal) | 0.52 | 0.28 | -0.23 | 49.9% → 43.2% |
| Italian Serie B (Italy) | 0.48 | 0.27 | -0.21 | 47.0% → 40.5% |
| Belgian Pro League (Belgium) | 0.49 | 0.29 | -0.21 | 48.1% → 42.5% |
| Turkish Super Lig (Turkey) | 0.52 | 0.33 | -0.19 | 49.6% → 45.6% |
| English League Two (England) | 0.41 | 0.23 | -0.18 | 45.6% → 42.5% |
| German Bundesliga 1 (Germany) | 0.53 | 0.36 | -0.17 | 48.6% → 44.1% |
| Dutch Eredivisie (Netherlands) | 0.52 | 0.36 | -0.16 | 48.0% → 44.2% |
| Spanish Primera Division (La Liga) (Spain) | 0.50 | 0.36 | -0.14 | 48.3% → 45.7% |
| English Premier League (England) | 0.40 | 0.27 | -0.14 | 45.7% → 44.2% |
| English League Championship (England) | 0.42 | 0.29 | -0.13 | 46.1% → 43.6% |
| English League One (England) | 0.39 | 0.27 | -0.12 | 45.5% → 44.0% |
| Scottish League One (Scotland) | 0.21 | 0.16 | -0.05 | 41.7% → 40.8% |
| Spanish Segunda Division (Spain) | 0.33 | 0.35 | +0.02 | 42.4% → 45.1% |
| Scottish Championship (Scotland) | 0.20 | 0.23 | +0.03 | 40.9% → 40.7% |
| Scottish Premier League (Scotland) | 0.35 | 0.39 | +0.05 | 44.3% → 46.8% |
| Scottish League Two (Scotland) | 0.17 | 0.28 | +0.11 | 40.6% → 43.7% |

## Referees have become more neutral

One classic explanation of home advantage is crowd pressure on the referee. The card data point that way. In the big five leagues, in 2000-2005 the away team received 29% more yellow cards than the home team. In 2021-2026 the gap is 14%. In the empty-stadium season it almost disappeared (1.90 home yellows against 1.96 away).

Red cards tell the same story. In the early 2000s home teams received 38% of red cards; since 2021 they receive 49%, almost exactly half. The shift coincides with the introduction of VAR (from 2017-18 in Serie A and the Bundesliga, from 2019-20 in the Premier League), but our data alone cannot prove it is the cause.

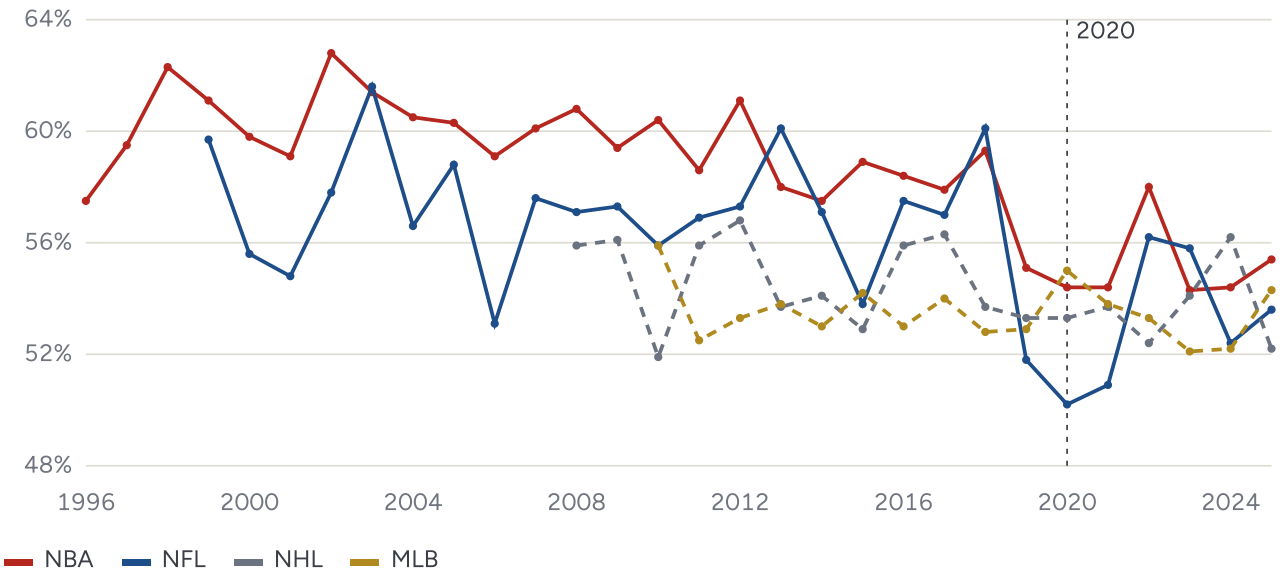



Big five leagues: home team share of red cards (%). Source: Clutch.

## US sports: yes for the NBA and NFL, no for the NHL and MLB

The same comparison for the US leagues, regular season only. In the NBA (35,537 games since 1996) home teams won 59.7% of games through 2018-19 and 55.2% since 2019-20. The average home margin fell from +3.9 points (2002-03) to +1.7 (2025-26). In the NFL (6,901 games since 1999, neutral-site games excluded) home wins went from 57.3% to 53.0%.

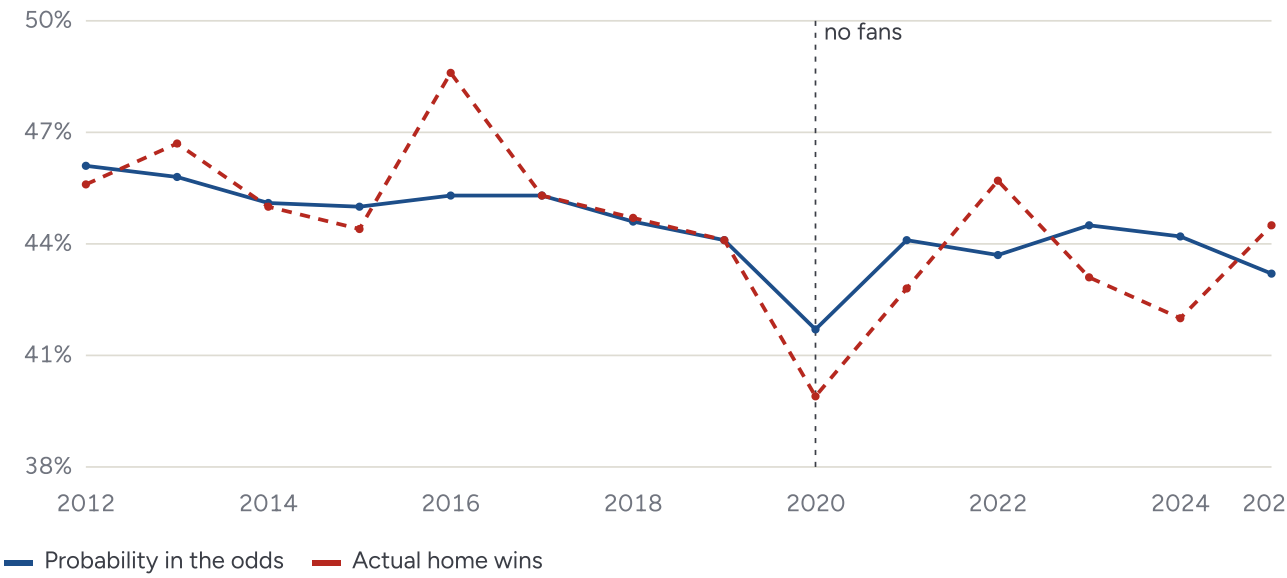
In the NHL (21,612 games since 2008) and MLB (37,343 games since 2010) home advantage is nearly flat: from 54.8% to 53.6% in hockey and from 53.6% to 53.2% in baseball. Not every sport is leveling out the same way.




Home win rate by season, regular season (%). Source: Clutch.

## The betting market noticed

Closing odds price in everything the market knows about a game. In the big five European leagues, the home win probability implied by the odds (with the margin removed) fell from 46.1% in 2012-13 to 43-44% in recent seasons. The market followed the decline season by season, usually within one or two points of the actual result.




Big five leagues: home win probability in closing odds vs actual home wins (%). Source: Clutch.

| SEASON | GAMES WITH ODDS | HOME WIN PROBABILITY IN THE ODDS | ACTUAL HOME WINS |
|---|---|---|---|
| 2012-2013 | 1,824 | 46.1% | 45.6% |
| 2013-2014 | 1,826 | 45.8% | 46.7% |
| 2014-2015 | 1,826 | 45.1% | 45.0% |
| 2015-2016 | 1,826 | 45.0% | 44.4% |
| 2016-2017 | 1,826 | 45.3% | 48.6% |
| 2017-2018 | 1,826 | 45.3% | 45.3% |
| 2018-2019 | 1,825 | 44.6% | 44.7% |
| 2019-2020 | 1,725 | 44.1% | 44.1% |
| 2020-2021 | 1,826 | 41.7% | 39.9% |
| 2021-2022 | 1,826 | 44.1% | 42.8% |
| 2022-2023 | 1,826 | 43.7% | 45.7% |
| 2023-2024 | 1,752 | 44.5% | 43.1% |
| 2024-2025 | 1,752 | 44.2% | 42.0% |
| 2025-2026 | 902 | 43.2% | 44.5% |

## What this study does not say

- This study measures that home advantage declined, not why. VAR, easier travel, sports science and data-driven tactics are all consistent with the numbers, but we did not test them one by one.
- A single season has a wide margin of error (about ±0.17 goals for a 380-game league). The firmest conclusions are the ones about multi-season periods.

- The 2019-20 NBA season includes the games played without fans in the Orlando bubble. The 2020 NFL season was played largely without fans.
- Attendance figures are reported season averages and do not account for each stadium's capacity.

## Methodology and sources

- Games: 342,613 in total. Soccer: 241,220 games from 21 European leagues, 1993-94 to 2025-26 (football-data.co.uk). Serie A attendance from Transfermarkt (transfermarkt-datasets). NBA: stats.nba.com, regular season 1996-97 to 2025-26. NFL: nflverse (CC BY 4.0), regular season 1999-2025, neutral-site games excluded. NHL: official NHL API, 2008-09 to 2025-26. MLB: official MLB API, 2010-2025.
- Soccer home advantage: average of (home goals minus away goals) per game. Other sports: home win percentage; for the NBA also the average point margin.
- 95% confidence intervals use the normal approximation (1.96 standard errors). Seasons in progress are excluded.
- Odds: home win probability implied by the closing odds of the lowest-margin sportsbook in the market (opening odds when the close is missing), with the margin removed proportionally.
- Every number is reproducible with a script that reads the databases in read-only mode. The aggregated data can be downloaded below.

## Download the data

- The full study as a PDF
- Soccer: home advantage by league and season (CSV)
- NBA, NFL, NHL, MLB: home win rate by season (CSV)

## How to cite

> **Source: Clutch (clutchdata.app), "Home advantage is fading: 30 years of data across five sports", Gennaro Pancia, November 2026.**

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