Home court advantage isn’t what it used to be

What Changed in 2015–16

- Shot clock: 35 → 30s
- Restricted arc + freedom-of-movement
- Timeout trims
- Goal: faster pace, better flow

How we're defining "home-court advantage"

- **Main yardstick — HRE (Home–Road Edge, pts):**
  - HRE = (home margin) − (road margin), where **margin = points scored − points allowed**.
    - Bigger HRE ⇒ team performs much better at home than on the road.

- **"Venue effect" (pts):**
  - **≈ HRE ÷ 2.** Think of it as how many points the building is worth vs a neutral court..

Support metrics (to explain HRE, not to define it):

- **Shooting lifts (pp):** home% − road%.
- **Free-throw rate lift (FTA/FGA).**
- **Fouls per game:** home − road (negative = fewer fouls at home).
- **Turnovers per game:** road − home (positive = fewer TOs at home).
- **Rebounds per game:** home − road.
- **Tempo edge:** home − road **possessions per team-game.**

Assumptions & scope

- **Scope:** D-I men’s basketball (2014–17)
- **Exclusions:** No tournaments / no neutrals
- **Normalization:** ≥8 home & ≥8 road games per team-season
- **Conference Tiers:**
  - **Power Six =** ACC, Big Ten, Big 12, Pac-12, SEC, Big East
  - **Mid-Majors =** AAC, A-10, MWC, WCC, MVC
  - **Other D-I =** remaining conferences
- **Sample size:** ~350 team-seasons per year
- **Language:** Results coincide with rule changes (not causal proof)

What we expected vs what we saw

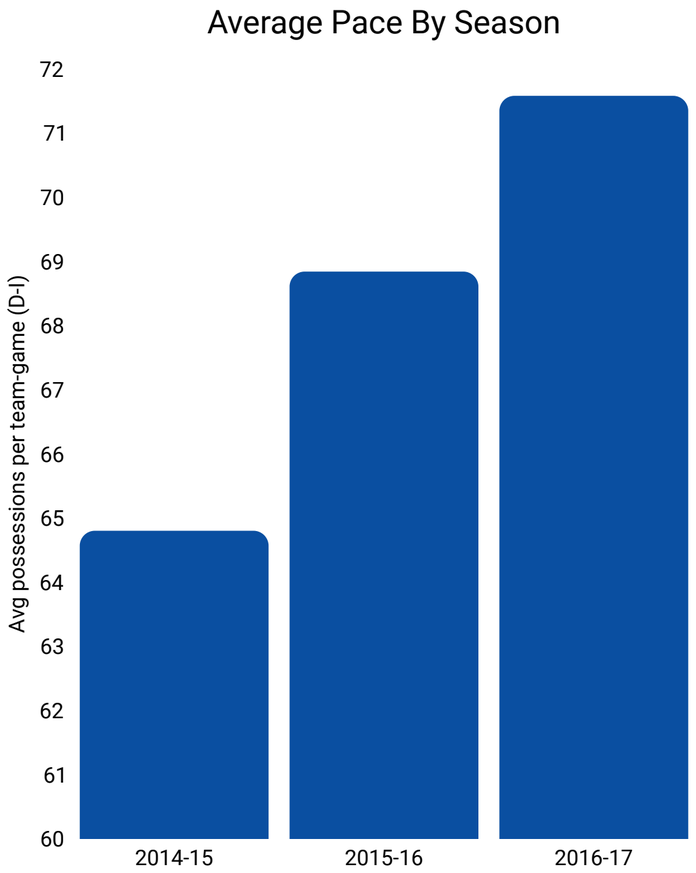
Faster games? ✅

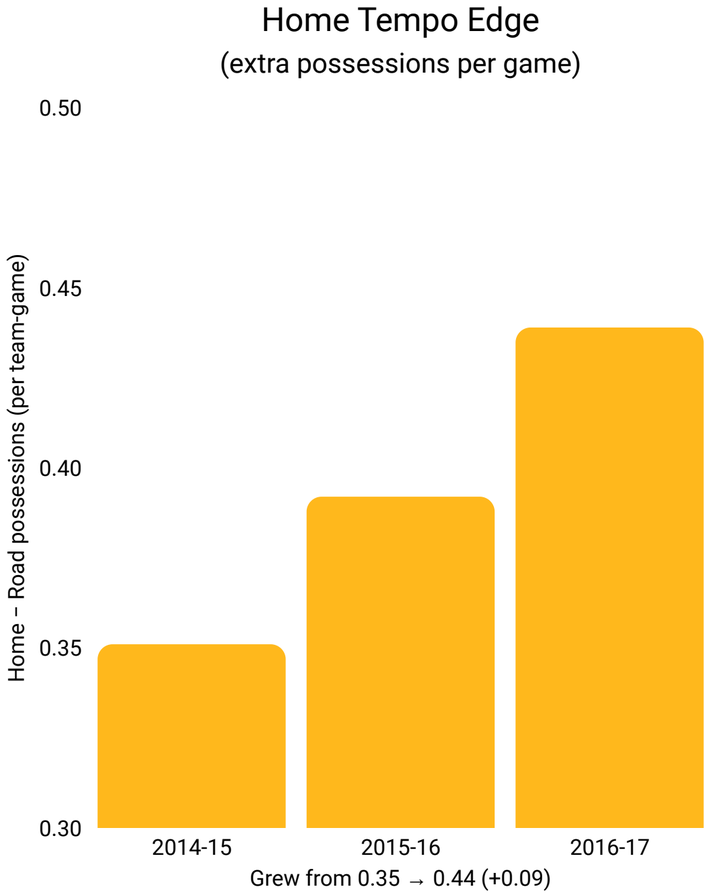
Bigger home bump from extra possessions? ❌

Instead: the home bump shrank.

🏃‍♂️ The Game Got Faster

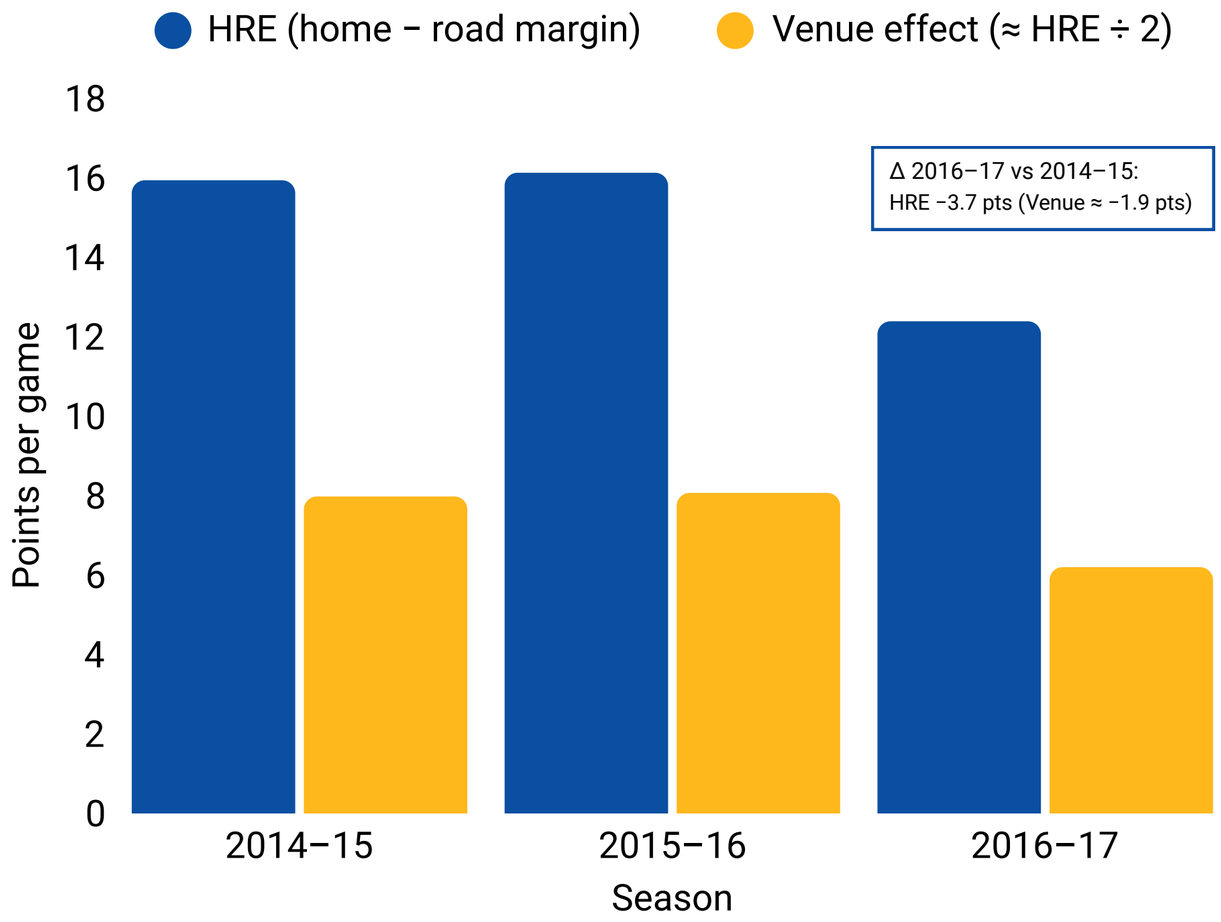
After the 2015–16 rules, the game sped up; home teams kept a small tempo edge.





Note: Possessions ≈ FGA − ORB + TO + 0.475×FTA (college standard).

Home Edge Has Softened Since 2015–16

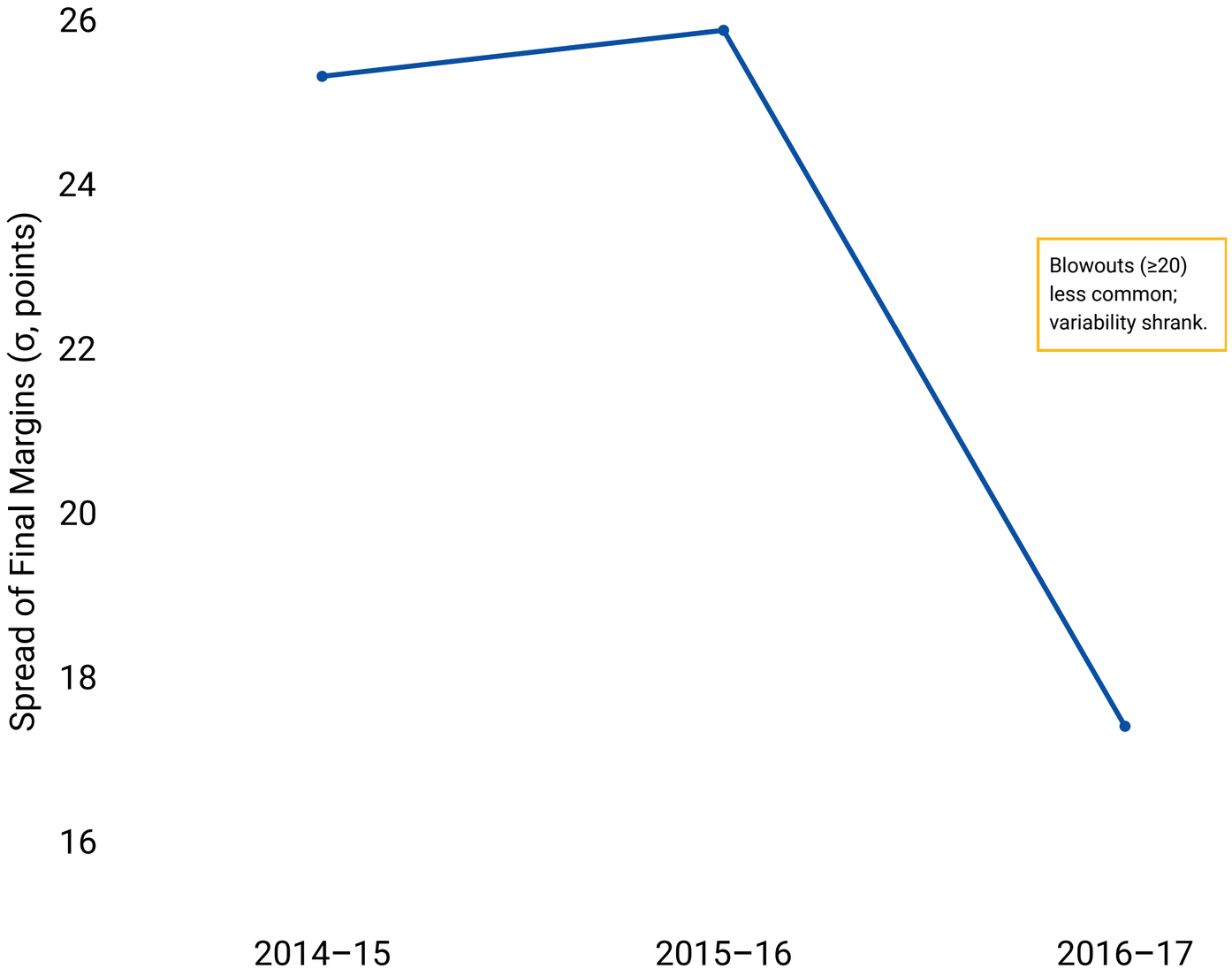


So-what: home bump ≈ 2 pts smaller → ~4–5% fewer home wins in close games.

Note: HRE = avg home margin − avg road margin. Venue effect (HCA) ≈ HRE ÷ 2.

Games tightened up

Fewer blowouts after 2015–16



So what?
Close games didn't rise — ≤5 pts ≈ 26% each year; ≤10 pts ≈ 49%. The drop came from fewer big wins; more games fell in the 6–20-pt middle.

Note: Smaller spread = fewer extreme results. Average margin didn't shift this much — it's about blowouts disappearing.

Not the usual suspects

If the home edge softened, you’d expect whistles, FT rate, turnovers, boards, shooting, or pace to shift.

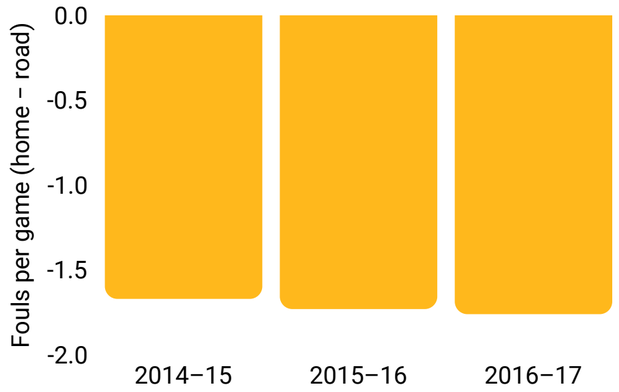
They didn’t.

The classic home bumps held steady.

Classic Levers Held Steady

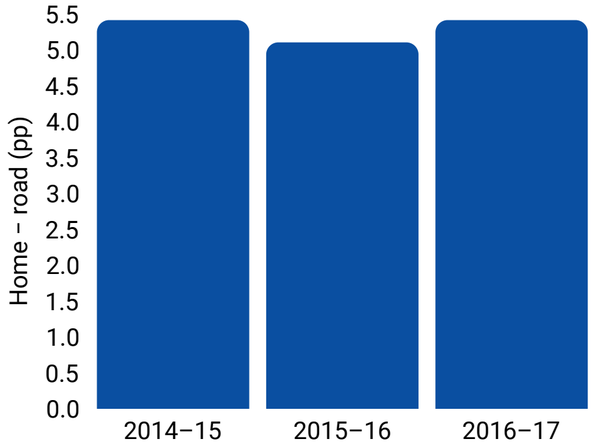
Fouls per Game

Negative = fewer fouls at home.



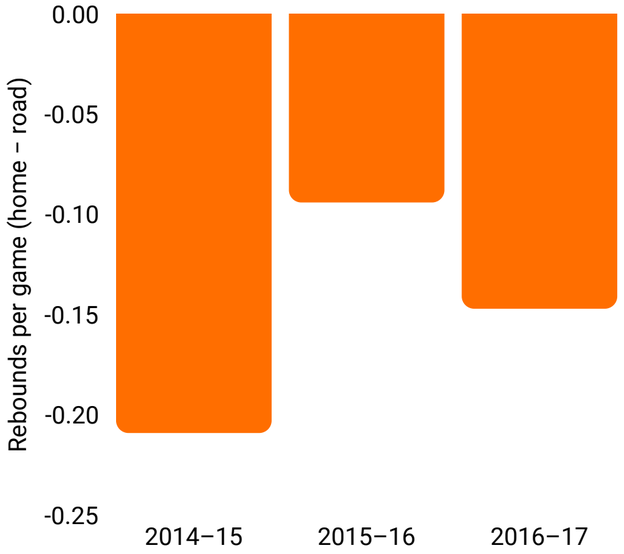
Home teams were called for ~1.7 fewer fouls per game, steady across seasons.

Free-Throw Rate (FTA/FGA)



Steady home lift (~5 pp)

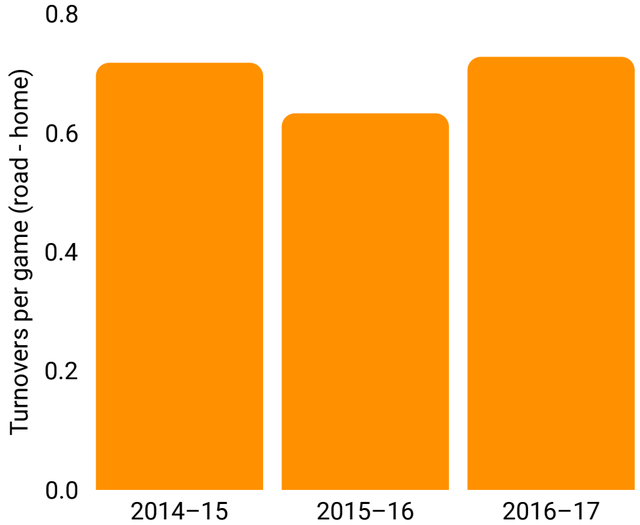
Rebounds per Game



No consistent edge; differences within ±0.2 rebounds per game.

Turnovers per Game

Positive = fewer TOs at home



Home teams committed ~0.7 fewer TOs per game; steady.

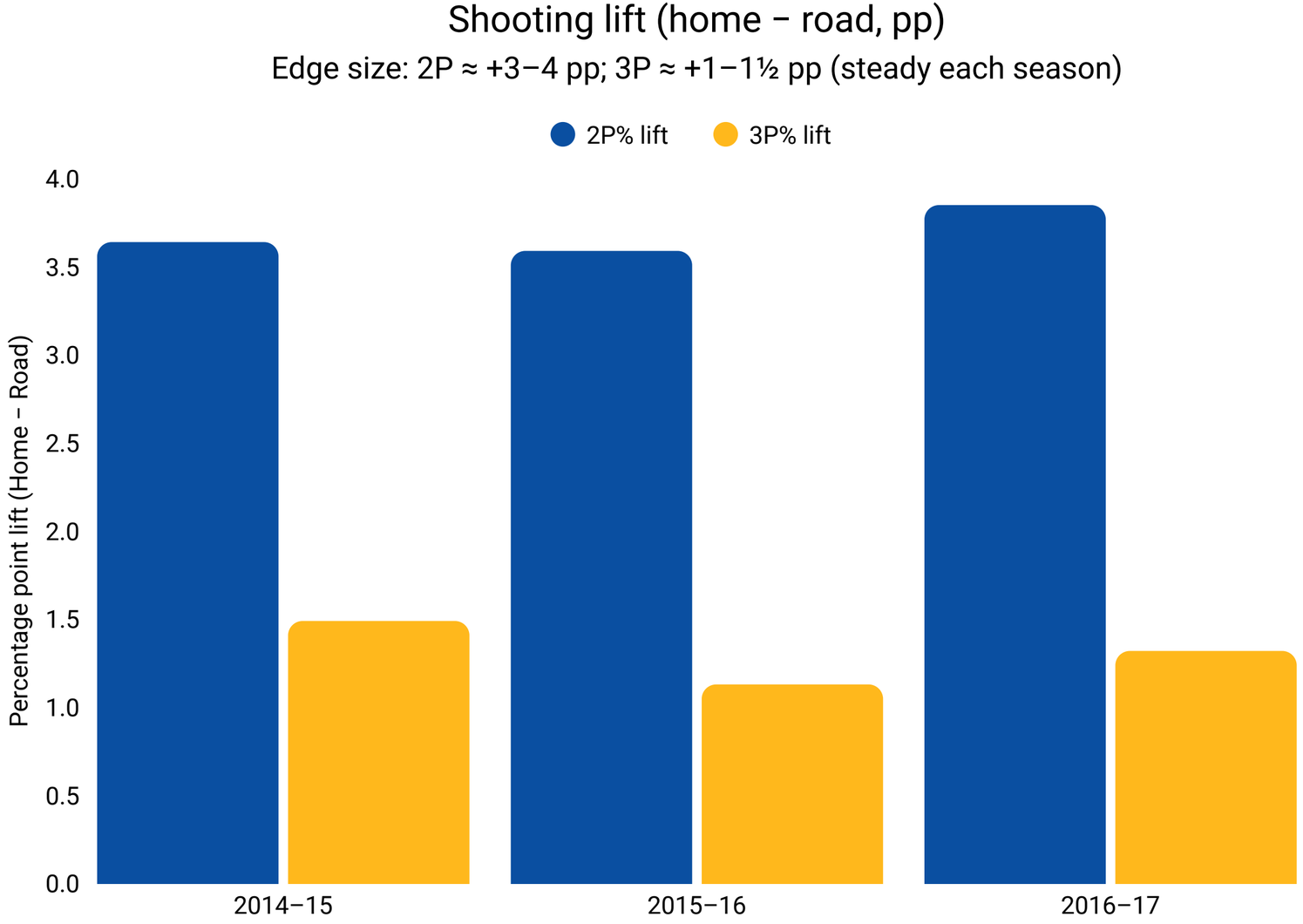
So what?

No movement across seasons — the usual drivers can't explain the HCA drop.

Note: D-I men's basketball, 2014–17; team-season averages, ≥8 home & ≥8 away games

Shooting Boost Didn’t Budge

Home sightline & comfort advantages held steady



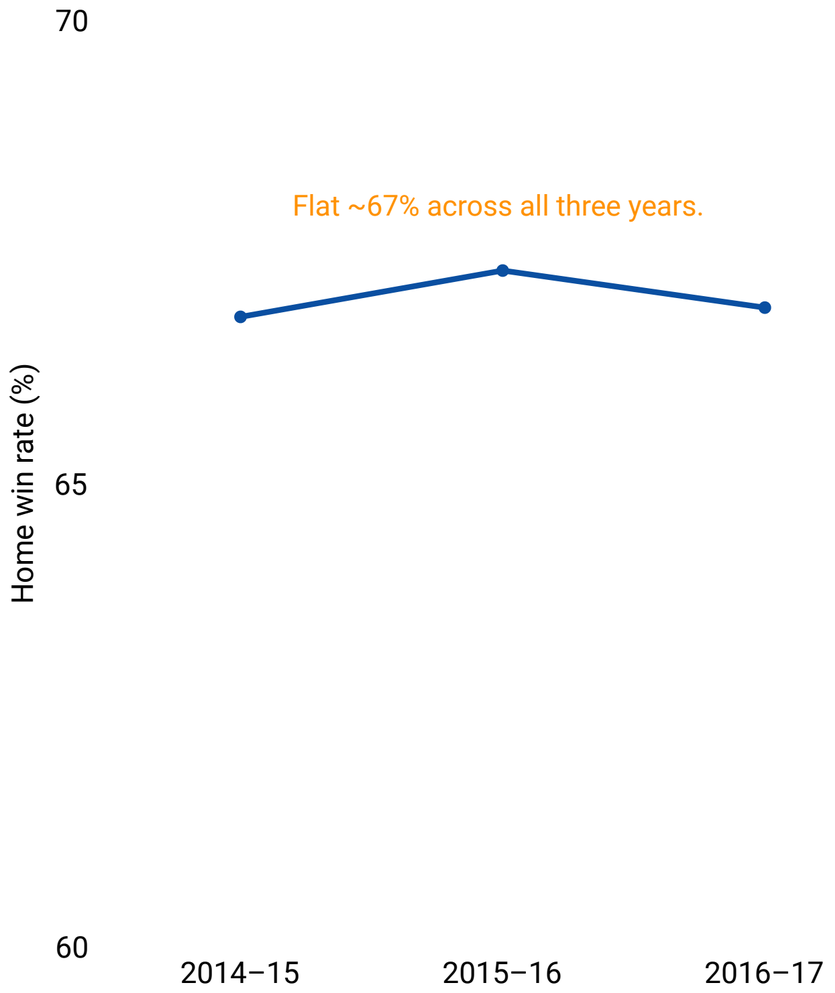
So what?

Home shooting edge didn’t change—2s still got the bigger bump—so this isn’t why home court advantage softened.

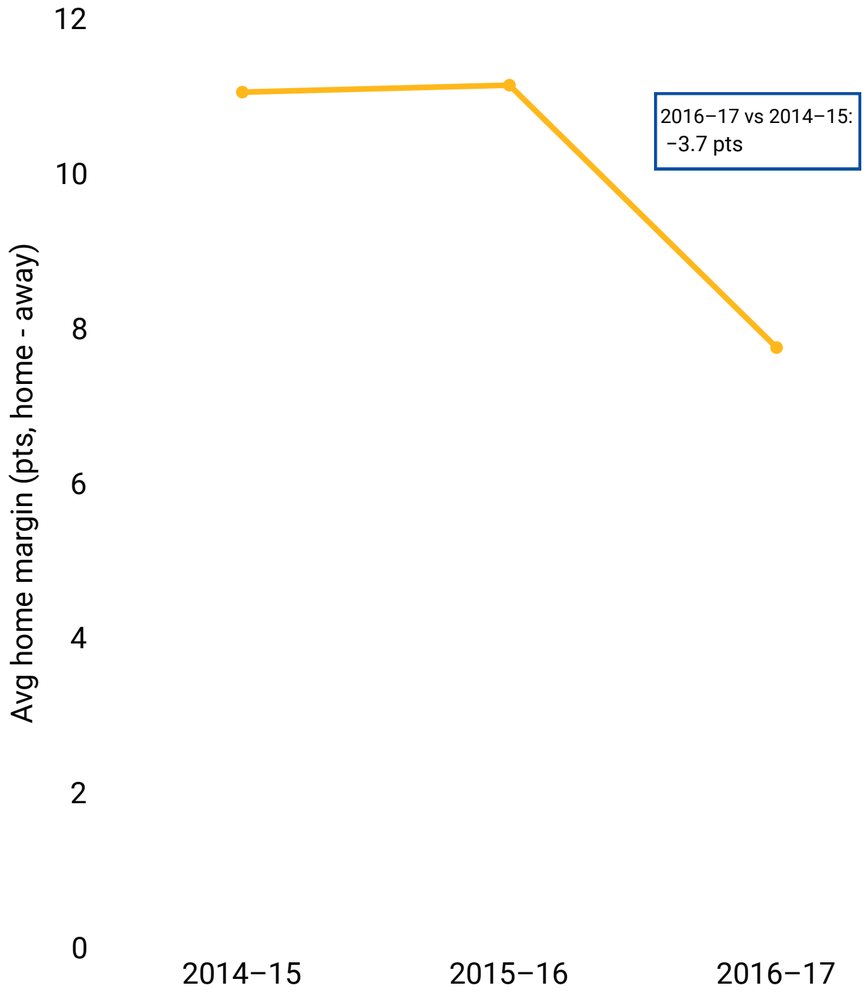
Note: D-I men’s basketball, 2014–17; team-season averages, ≥8 home & ≥8 away games.

Win% Stayed Flat — Margins Showed the Real Drop

Home win rate held steady (~67%)



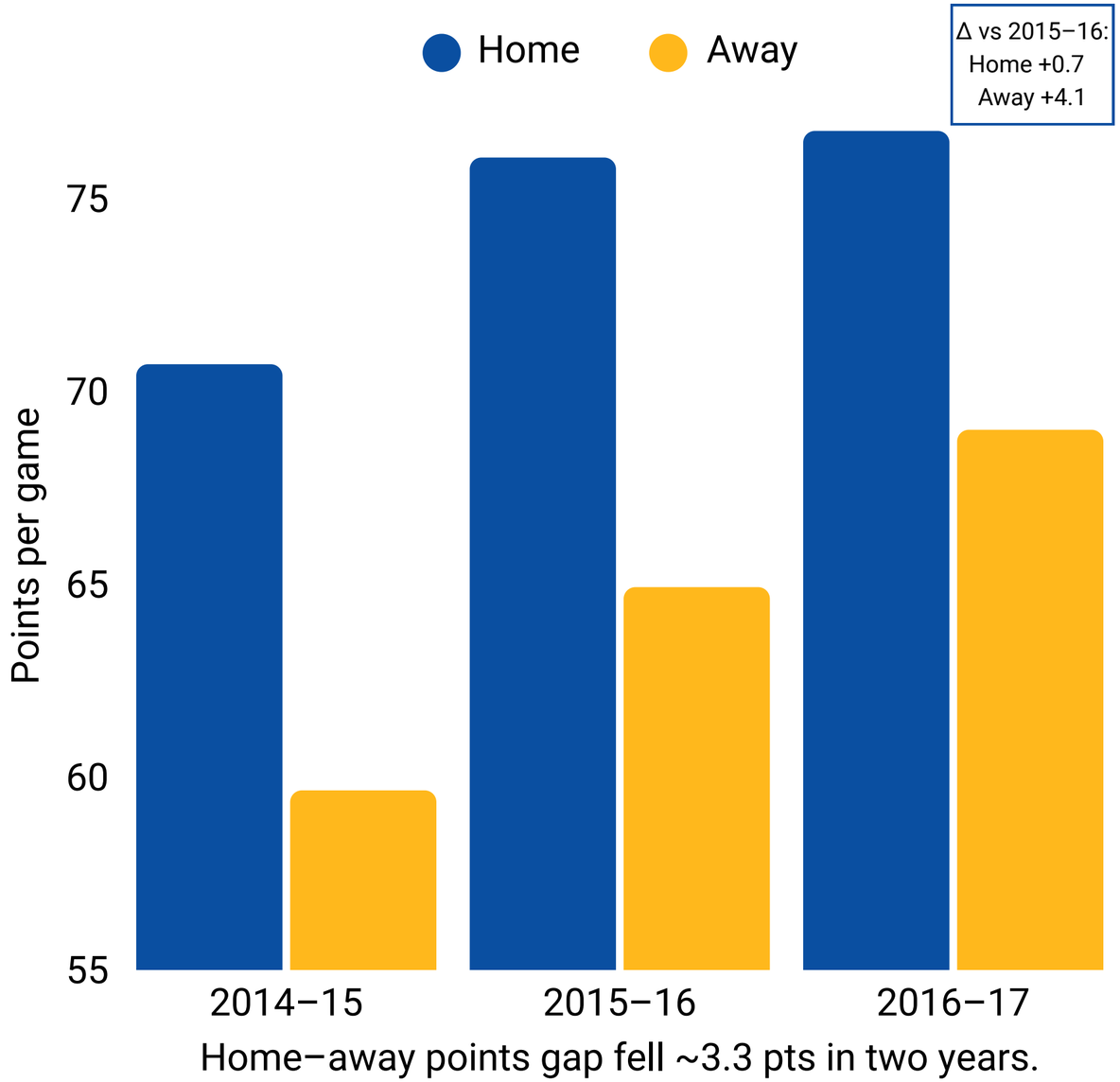
Home scoring margin fell ~4 pts



So what?
Home teams didn't win less often—they just won by fewer points.

Road scoring rose faster — home edge in points shrank

Away +9.3 ppg vs Home +6.1 ppg
gap 11.1 → 7.8 pts (−3.3)



Home–away points gap fell ~3.3 pts in two years.

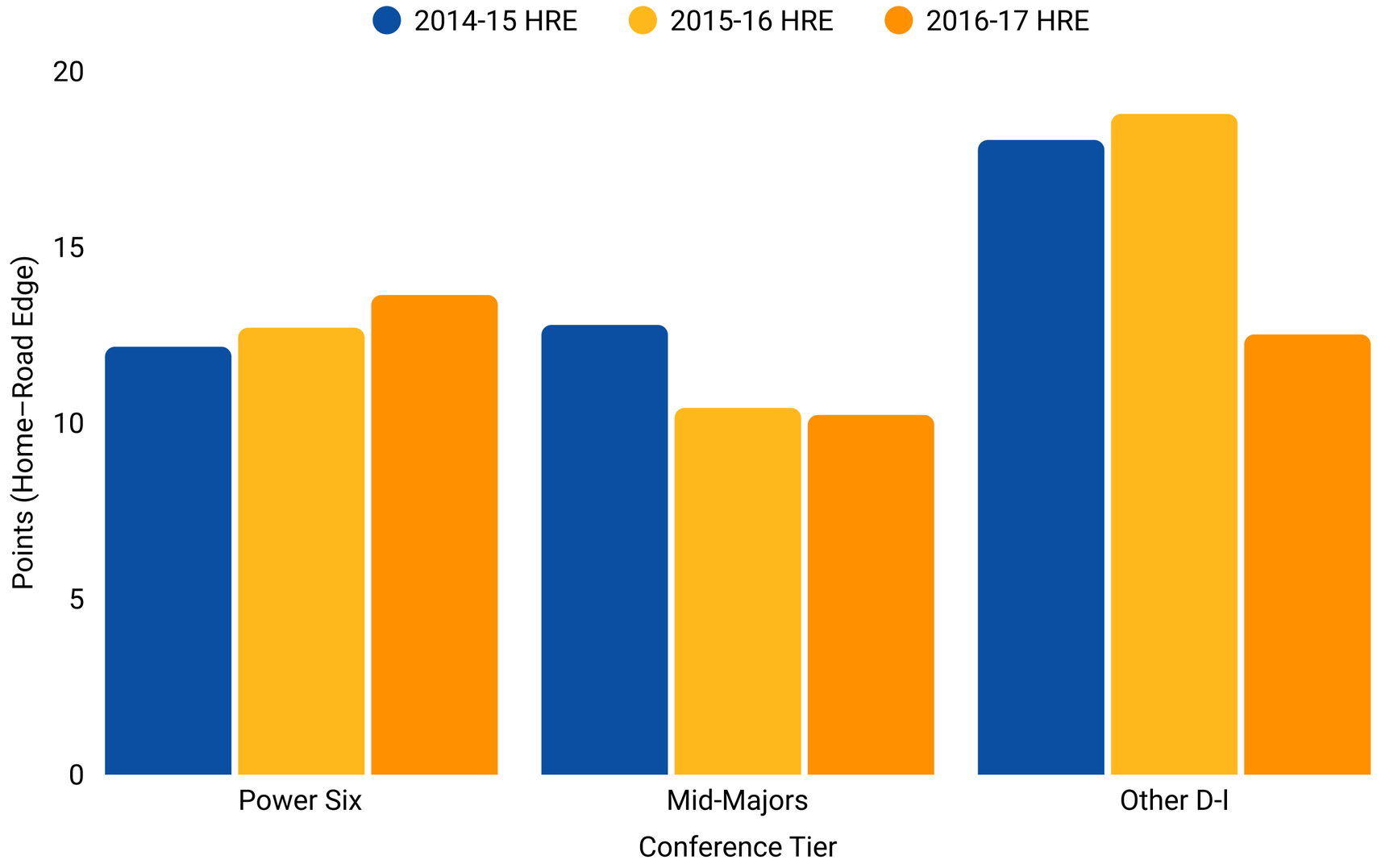
So what?
Venue effect softened—home is less of a cushion; outcomes hinge more on team quality and matchups.

But is this true everywhere?

Let’s check the major conferences.

Not the Same Everywhere

The drop in home edge wasn’t universal — it came from Mid-Majors & Other D-I.



So what?
The post-change dip in home edge wasn’t universal — it was concentrated outside the Power Six.

Conference tiers (2014-2017):
Power Six = ACC, Big Ten, Big 12, Pac-12, SEC, Big East
Mid-Majors = AAC, A-10, MWC, WCC, MVC
Other D-I = all remaining conferences.

Does the Power Six hold the key?

Since they moved differently, perhaps the answer sits in their classic levers—fouls, free-throw rate, rebounds, turnovers, shooting, pace.

And guess what…

They don’t.

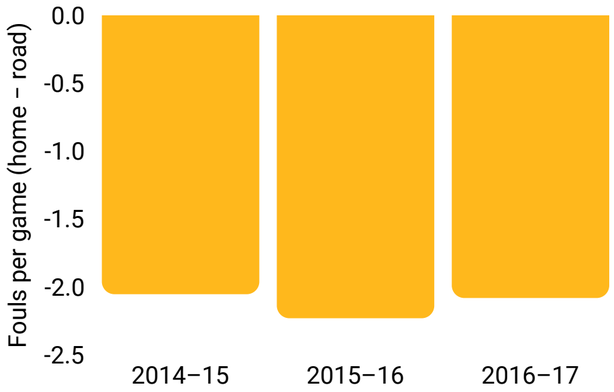
Or, if they do, I haven’t been able to find it, yet.

Nope — not here, either!

Fouls, FT rate, boards, and turnovers were steady across 2014–17—no smoking gun..

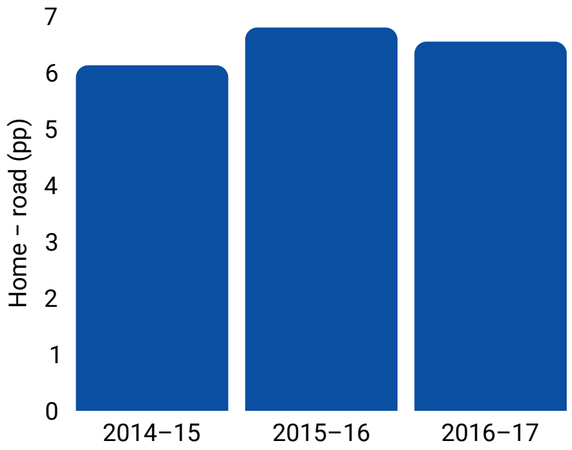
Fouls per Game

Negative = fewer fouls at home.



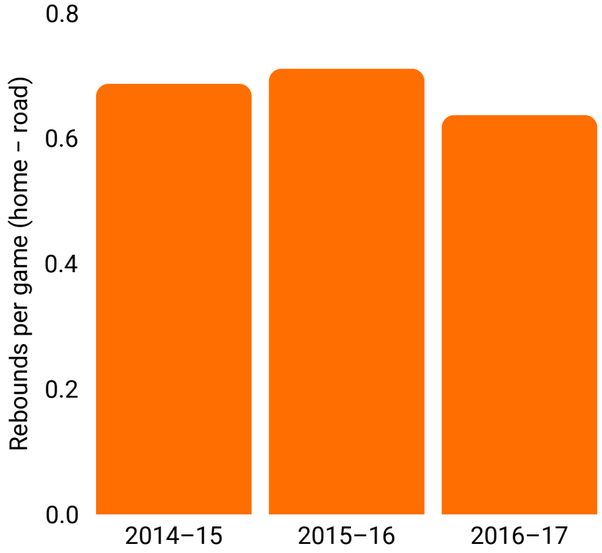
Home teams were called for ~2 fewer fouls per game, steady across seasons.

Free-Throw Rate (FTA/FGA)



Small, steady home lift (~6-7 pp)

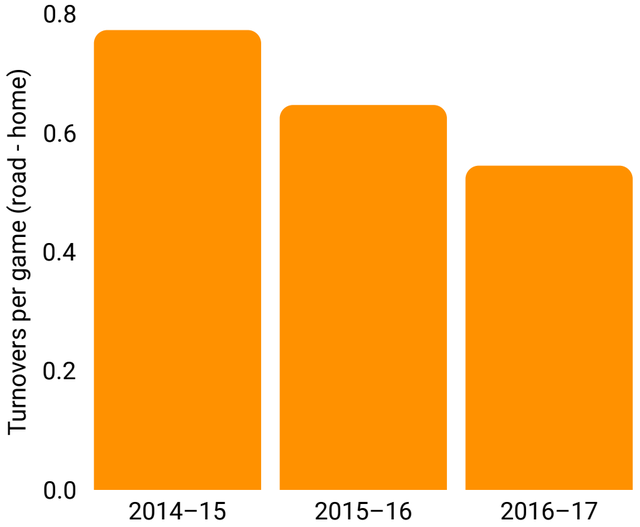
Rebounds per Game



Consistent but small home edge (~+0.6–0.7 rebounds/game)

Turnovers per Game

Positive = fewer TOs at home



Home TO edge shrank (0.77 → 0.54); not a driver.

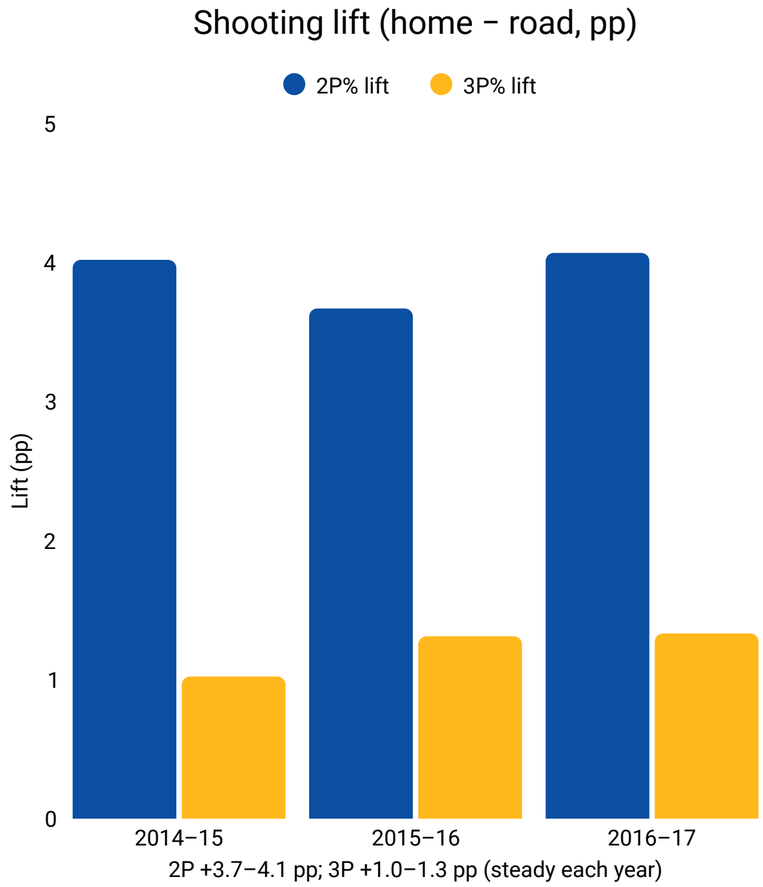
So what?

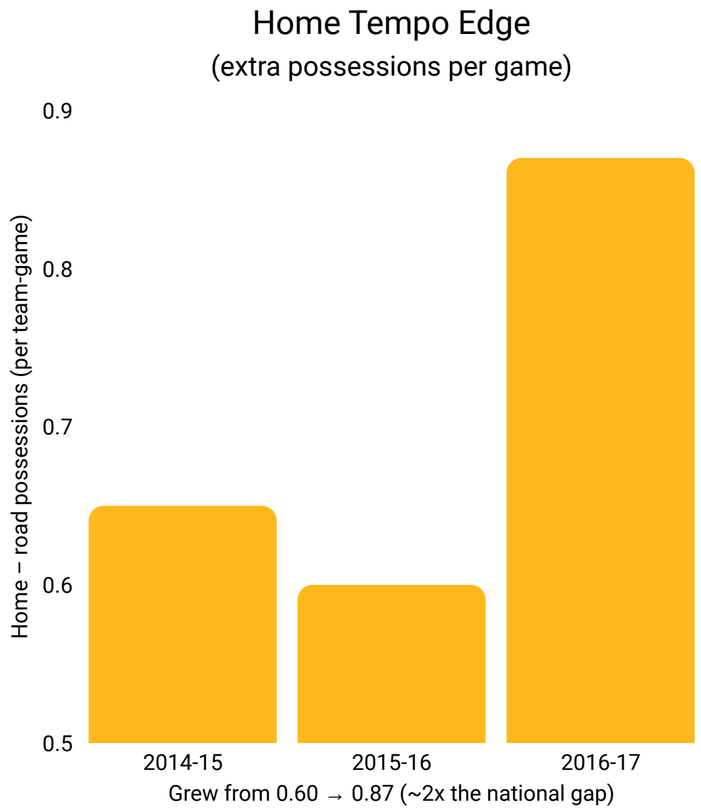
Much like everywhere else, the edges didn't shift in the Power Six.

Note: Scope restricted to Power Six only (ACC, Big Ten, Big 12, Pac-12, SEC, Big East).

Same story for Shooting and Pace (Power Six)

After the 2015–16 rule change, pace rose. Power Six home teams kept a small tempo edge; the shooting edge didn't shift (2P > 3P each season).





Note: Scope restricted to Power Six only (ACC, Big Ten, Big 12, Pac-12, SEC, Big East).

So what — what do you do with this information?

- **Business / Modelling**: Tighten close-game priors; trim default home bump nationally, but keep tier splits (Power Six steady, others ↓). Monitor FT-rate gap, foul gap, and away scoring trend monthly.

- **Coaches**: Prep for thinner cushion; emphasize late-game execution, tempo control, and limiting early looks. Home crowd won't bail you out.

- **Media / Storytelling**: Frame around matchups & possessions. Example angles: "Did the road team handle the extra possession?" "Did pace expose depth?"

The home edge is thinner — execution, depth, and pace now matter more.

Next steps — where we’d dig next

- **Nowcast:** simple venue parameter (≈ HRE ÷ 2) by tier/venue; update weekly; flag ±0.5–1.0-pt drifts.

- **Validate the pattern**
  - Rebuild team-season HRE; sanity-check possession-weighted and month splits.
  - Re-cut by tier (Power Six / Mid-Majors / Other D-I), venue size/attendance, travel distance, altitude, day/time.

- **Hunt for drivers**
  - Shot profile: transition rate, early-clock 3s, rim vs mid-range; compare 3-pt% to expected (shot quality).
  - Possession starts: live-ball vs dead-ball; ATO efficiency; breakpoints on big runs.
  - Officials & flow: foul mix, bonus minutes, review/stoppage time, media-timeout length.

- **Ground-truth checks (qualitative)**
  - Film sample (10–15 games across tiers): tag transition bursts, early-clock 3s, whistle cadence, crowd effects, end-game management.
  - Bench/floor notes: timeout/set-play usage (ATO), replay/stoppage length, in-arena quirks.
  - Quick interviews: coaches/ops/officials on pace control, adjustments to the 30-second clock, travel/venue quirks.

The Bottom Line

The game sped up.

The home bump shrank.

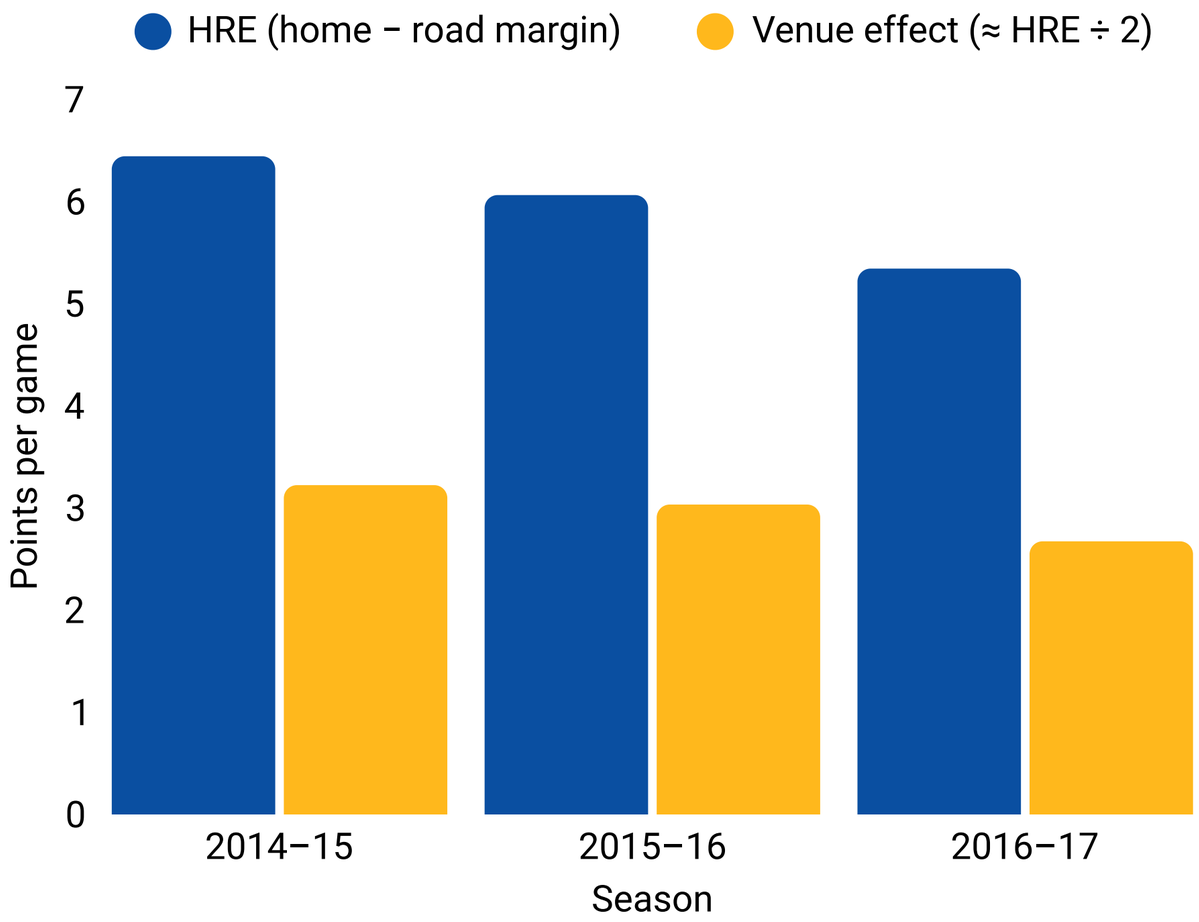
But only outside the Power Six.

Thanks — questions?

Appendix

Paired swaps (head–to–head)

Same-opponent home–away pairs

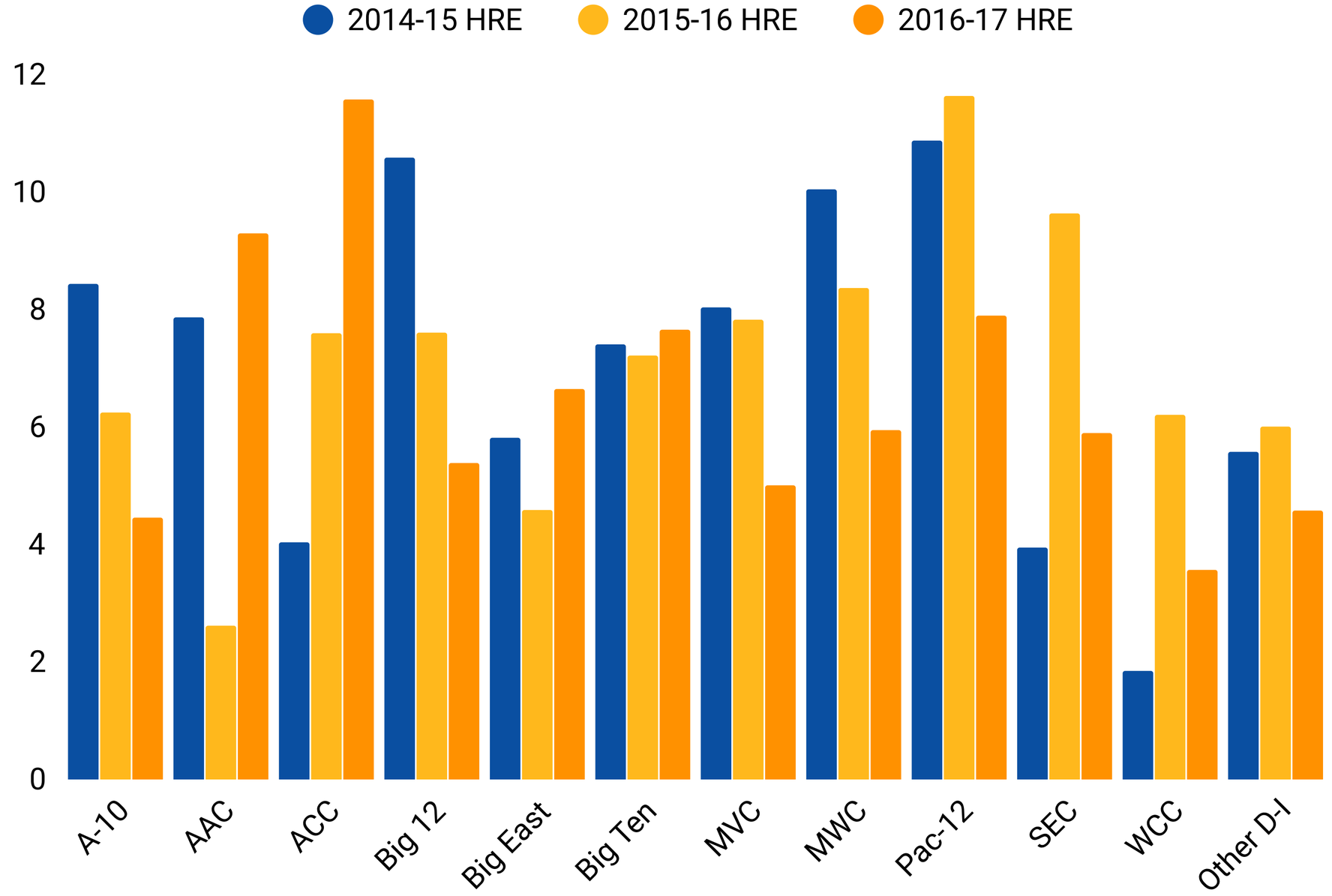


So-what?
Cleaner cut says the same thing: the venue bump softened.

Note: Same-opponent home–away pairs within season; excludes tournaments/neutral. ≈1.3k pairs/season. HRE = avg home margin − avg road margin. Venue effect (HCA) ≈ HRE ÷ 2. 2016–17 down ~0.5 pts vs 2014–15 (≈15–20%).

Appendix B

HRE by conference

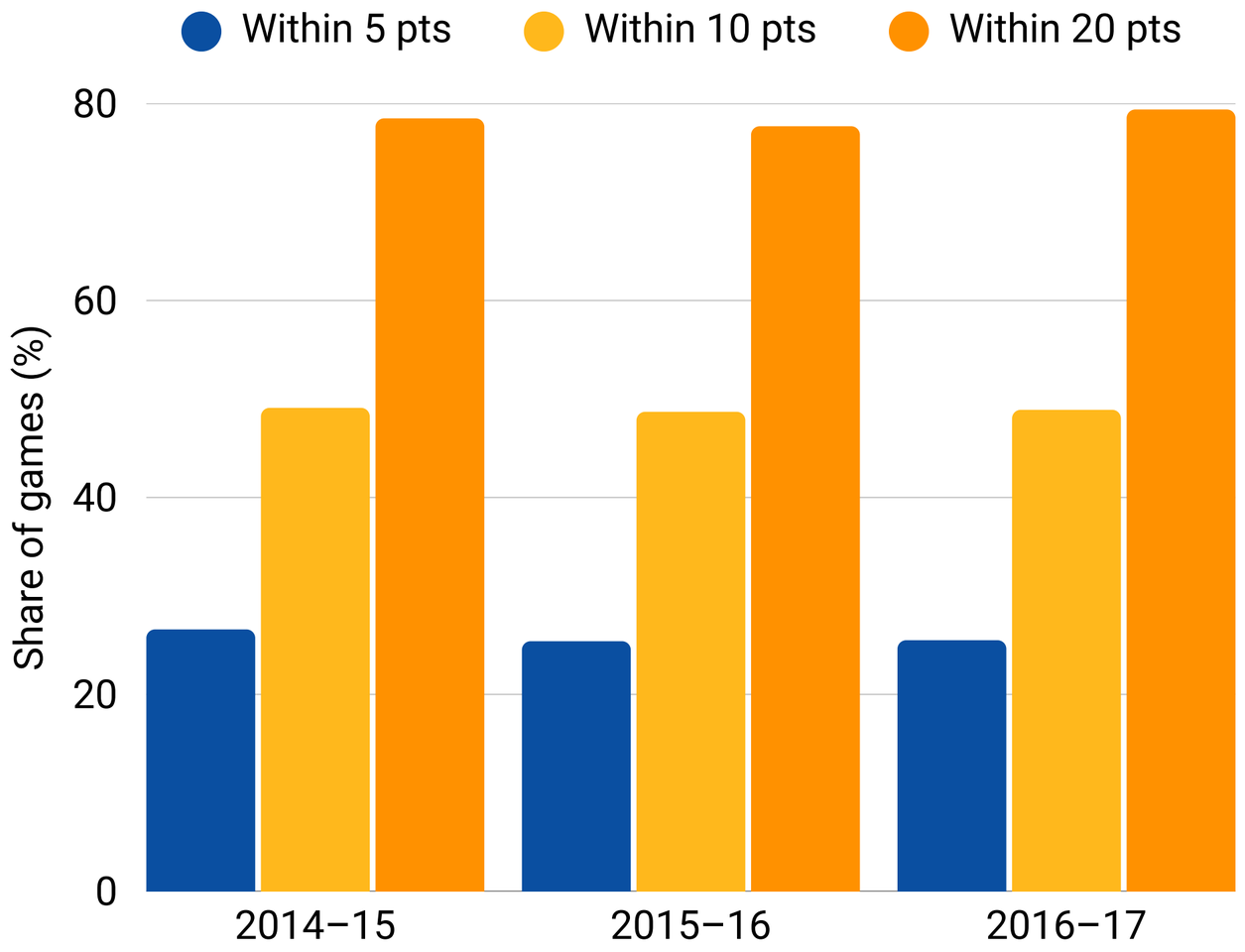


So what?
Baseline by tier; override only for clear conference outliers.

Note: HRE = avg home margin − avg road margin. Venue effect (HCA) ≈ HRE ÷ 2.

Close-game share

Close games didn’t increase



So what?
Tighter variance came from fewer blowouts, not more nail-biters.

Note: ≤5 pts ≈26% each year; ≤10 pts ≈49%. ≥20-pt games fell ~0.9 pp vs 2014–15 and ~1.7 pp vs 2015–16 (pp = percentage points).