

# Crowds improve home court advantage in the NBA, study finds

February 22 2023

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Playing in front of fans improves the home court advantage of elite basketball teams, new research has found.

A Monash University-led study of the COVID-affected 2020-2021 U.S. National Basketball Association (NBA) regular season confirmed the importance of having a crowd at home games.

Due to COVID, less than half of that season's regular games had [crowds](#), enabling researchers to directly compare those with fans present to those without.

Published in the *Journal of Sports Sciences*, they found that home teams won 58.65 percent of matches with crowds, compared with just 50.6 percent of crowd-free home games.

"This is the first study to examine NBA games with and without crowds during a season where travel and venue familiarity were representative of typical NBA schedules, unlike during the Orlando Bubble (where all games were played in the same place)," the researchers wrote.

"In addition, this research provides a novel approach to the sports science literature by examining three potential mechanisms by which crowds may influence performance: inspiring effort, distracting opponents, and influencing referees."

While it remains to be seen whether Australian elite sports such as AFL and NRL would mirror these findings, researchers say it is fair to speculate that they might produce similar results.

First Author Josh Leota, a Turner Institute for Brain and Mental Health Ph.D. candidate, said previous studies had shown that NBA crowds contributed to home advantage by inspiring home team effort, distracting opponents, and influencing referees.

Until now, however, quantifying the effect of crowds had been challenging due to potential co-occurring drivers of home advantage such as travel, location and familiarity.

Mr. Leota said in a league where marginal gains had immense competitive, financial, and historic consequences, any advantage was significant. "These findings have important implications for NBA franchises, whose fortunes can shift dramatically on a single made basket," he said.

The 2020-2021 NBA season created a "natural experiment" with no crowds at 53.4 percent of regular season matches. In games with crowds, home teams won 58.65 percent of games, and on average, outrebounded and outscored their opponents.

Without crowds, home teams won 50.60 percent of games, and on average, failed to outrebound or outscore their opponents.

Expressed as a percentage, having crowds was associated with a 15.91 percent increase in home team winning percentage.

This was comparable to the difference between the winning percentages of teams that finished fifth (58.3 percent) and 10th (49.0 percent) out of 15 total Western Conference teams that season.

"For context, this differential represents a guaranteed playoff spot (fifth) and having to win two play-in games on the road to make the playoffs (tenth)," Mr. Leota said.

Senior author Dr. Elise Facer-Childs, a SIEF STEM+ Business Fellow and lead of the Sleep and Performance Program within the Turner Institute, said having crowds was associated with an increase in home team rebounding differential—a measure of effort—but not with

changes in foul differential—a measure of referee bias—or free throw percentage—a measure of away team distraction.

"Taken together, these data suggest that home advantage during the 2020-2021 NBA regular season was predominantly driven by the presence of home crowds and their diametric influence on the effort exerted by home and away teams to rebound the ball," Dr. Facer-Childs said.

The study didn't collect Australian data, so the authors couldn't make definitive claims about whether this phenomenon would translate to Australia's elite sporting competitions.

"However, given the immense popularity of elite sports in Australia and the similarities in sports fandom with the US, we speculate that future research would likely find a similar crowd effect in Australian elite sports leagues like the AFLM, AFLW, NRL, and NRLW," Mr. Leota said.

"If so, then there would be significant implications for ticket sales and competitive balance in leagues like the AFL, where teams often play on neutral grounds, including in the Grand Final."

**More information:** Josh Leota et al, Home is where the hustle is: the influence of crowds on effort and home advantage in the National Basketball Association, *Journal of Sports Sciences* (2022). [DOI: 10.1080/02640414.2022.2154933](https://doi.org/10.1080/02640414.2022.2154933)

Provided by Monash University

Citation: Crowds improve home court advantage in the NBA, study finds (2023, February 22)

retrieved 17 July 2024 from <https://phys.org/news/2023-02-crowds-home-court-advantage-nba.html>

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