

Is There Big Market Bias in the



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Overview

- Analyze big market vs. small market free throw and personal foul from 1990-present compared to the playoff league average in the same period
- Big Market Teams: Los Angeles Lakers, Boston Celtics, New York Knicks, Philadelphia 76ers, Miami Heat, Chicago Bulls, Golden State Warriors*
Warriors were big market from 2020-present
- Every series from 1990 to 2024 that featured a big market and a small market team

Criteria for the Teams

Big Market Criteria

- Large Metro Population/Free Agent Destination
- Multi-time champion
- Large fanbase

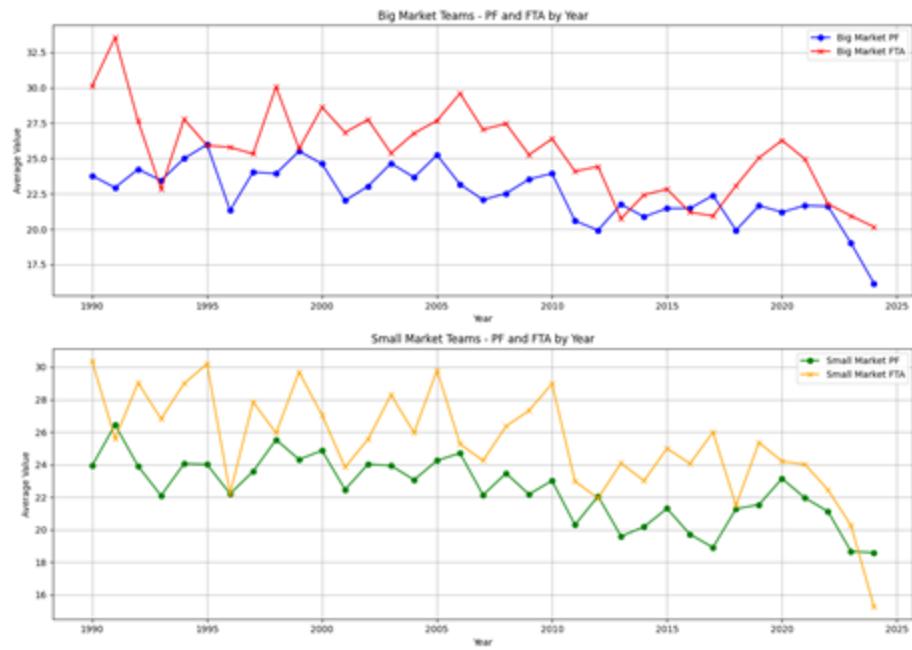
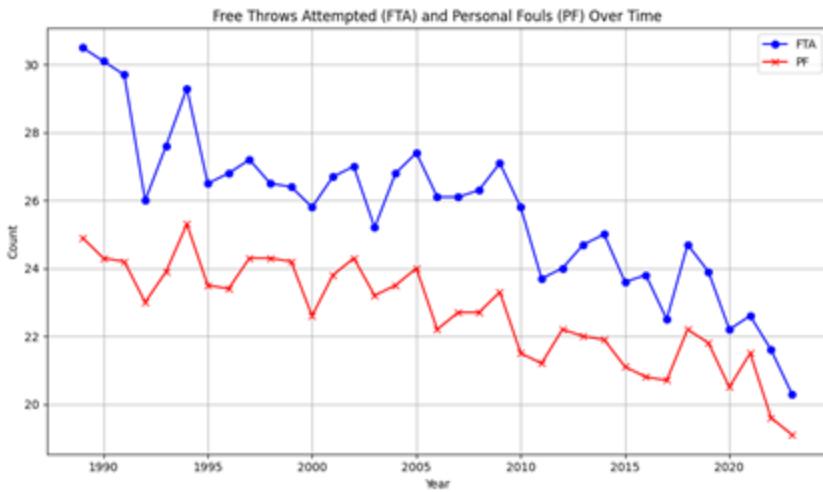
Small Market Criteria

- Small Metro Population/Small Free Agent Destination
- Not a “basketball city”
- Small fanbase
- “Little brother” teams

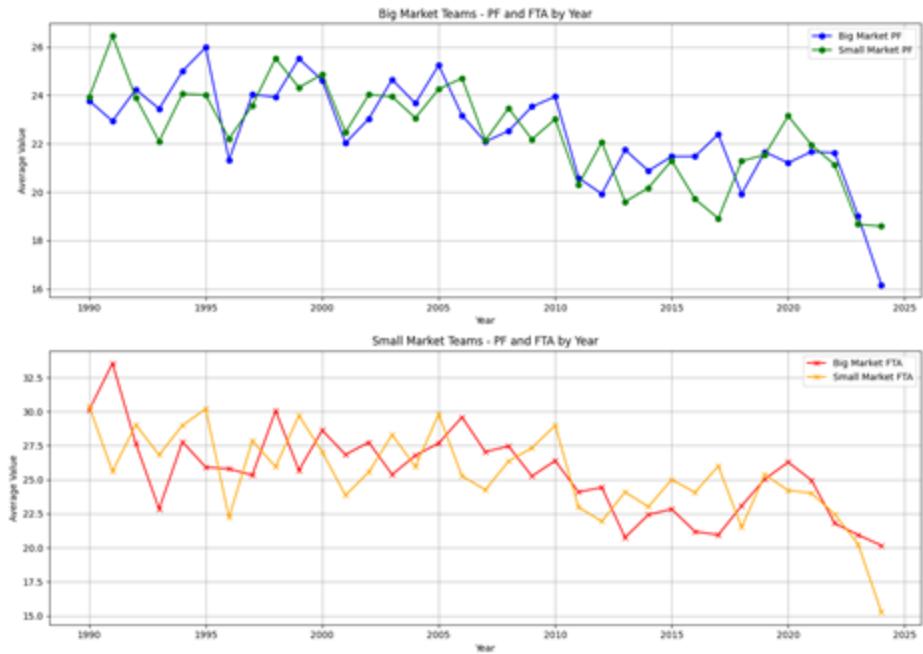
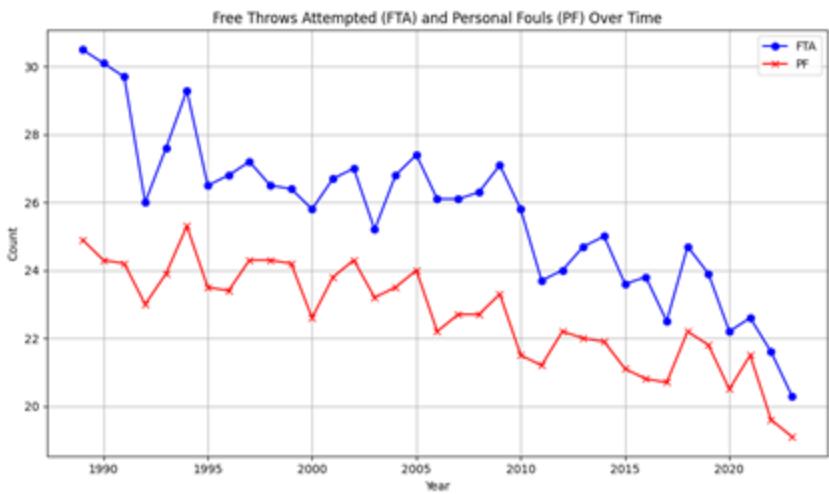
Purpose

- Analyzing series' with alleged on-court controversy
- Looking for a correlation in other playoff series'
- 2006 Miami Heat vs Dallas Mavericks
- 2002 Los Angeles Lakers vs. Sacramento Kings
- 2001 Milwaukee Bucks vs Philadelphia 76ers
- *2010 Boston Celtics vs Los Angeles Lakers*

Findings



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- H0: Big Market teams and Small Market teams get the same amount of calls vs Ha: Big Market teams get more favorable calls than Small Market teams
- Used anova for this hypothesis (1 for fouls and 1 for free throw attempts)
- P-value for both above 5% and F-statistic for both .01
- Suggest no significant difference between Big Market and Small Market teams in fouls and free throw attempts
- Suggest the averages for Big Market and Small Market fouls and free throw attempts is small

Limitations/Weaknesses

- Criteria for Big vs Small is subjective
- Small Market teams with superstars
 - Lebron, Durant, etc.
- P-value was too large to find a correlation for winning
- Assume large residual for win correlation
 - More to basketball
- Did not use the results part of the data collected
- Failed to find a linear correlation model

Conclusion

- Our investigation into potential refereeing bias between big market and small market teams revealed no significant discrepancy in foul calls
- Additionally, we found no strong correlation between foul volume and team success (wins), suggesting officiating is not a major driver of competitive imbalance
- While perception of bias may persist among fans and media, the data does not support a systematic advantage for big market teams in foul-related calls
- Future research may explore situational fouls, high-leverage moments, or referee-specific tendencies for deeper insight