



**UPDATED ANALYSIS: 2004/05, 2005/06 AND 2006/07 NBA SEASONS.**

The analysis in our recent working paper “Racial Discrimination Among NBA Referees” is based on data from regular season games, from the 1991/92 season through to 2003/04 (excluding the referee strikes). That sample yielded over a quarter of a million player-game observations, and around 600,000 foul calls.

We have been asked whether the patterns observed over that period persist in more recent data. As such, we have collected boxscore information from nba.com for the 2004/05, 2005/06 and 2006/07 regular season games, and conducted a preliminary analysis. These three seasons provide an additional 71,579 player-game observations, and provide a true “out-of-sample” test of our earlier findings.

The table on the following page provides an analysis of these data, using the same approach as in Table 3 of our research paper. As can be seen, the analysis of this three-year sample yields very similar results to our larger sample. We interpret this as suggesting that the own-race bias identified for the 1991/92-2003/04 seasons has persisted over recent years.

We should emphasize that this is a preliminary analysis of these data, and that this finding has not yet received the same level of econometric scrutiny as the larger sample in our paper. We should also emphasize that, as a rule, larger samples are to be preferred to smaller samples, and so we refer the reader to our main analysis for the large sample analysis. We should also emphasize that the same qualifications that apply to the analysis in our main analysis apply with at least equal force to these more recent data, and refer the reader to that paper for a discussion of these qualifications.

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**OWN-RACE BIAS: ESTIMATES USING DATA FROM 2004/05-2006/07 REGULAR SEASON GAMES**

**Analysis of Averages: Fouls Earned per 48 Minutes Played**

**SIMPLEST VERSION**

	<b>Black Players</b>	<b>White Players</b>	<b><i>Difference: Black – White Foul Rate</i></b>
<b>Majority white refs</b>	4.341 (0.018)	4.768 (0.034)	-0.427*** (.038)
<b>Majority black refs</b>	4.406 (0.024)	4.965 (0.046)	-0.559*** (.052)
<b><i>Difference: Majority White - Majority Black</i></b>	-0.065** (0.029)	-0.197*** (0.059)	<i>Diff-in-diff</i> 0.132** (0.064) [p=.039]

**DETAILED VERSION**

	<b>Black Players</b>	<b>White Players</b>	<b><i>Difference: Black – White Foul Rate</i></b>	<b><i>Slope: <math>\Delta(\text{Black-White}) /</math> <math>\Delta\% \text{White Refs}</math></i></b>
<b>0% White Refs</b>	4.437 (0.063)	5.126 (0.120)	-0.690 (0.139)	
<b>33% White Ref</b>	4.401 (0.026)	4.938 (0.049)	-0.537 (0.056)	0.458 (0.443)
<b>67% White Refs</b>	4.366 (0.021)	4.797 (0.040)	-0.430 (0.045)	0.321 (0.215)
<b>100% White Refs</b>	4.276 (0.034)	4.693 (0.065)	-0.417 (0.071)	0.038 (0.256)
<b><i>Average slope: <math>\Delta\text{Fouls} / \Delta\% \text{White Refs}</math></i></b>	-0.162*** (0.053)	-0.405*** (0.107)		<i>Diff-in-diff</i> 0.243** (0.116) [p=.035]

Notes: Sample=71,579 player-game observations, weighted by minutes played.  
(Standard errors in parentheses).

\*\*\*, \*\*, and \* denote statistically significant at 1%, 5% and 10%, respectively.