

Does Racial Discrimination Exist Within the NBA? An Analysis Based on Salary-per-Contribution*

Riguang Wen, *Zhejiang University of Finance & Economics*

Objective. To explore whether racial discrimination exists in athlete pay within the National Basketball Association (NBA). *Methods.* I use the ratio between annual salary and standardized contribution to establish a salary-per-contribution index as a basis for comparison of salary differences between black and white NBA players. According to theory of social equity (Adams, 1965. *Advances in Experimental Social Psychology* 2(4):267–99), when considering salary equality, it is necessary to consider differences in both inputs (here, contributions) and outputs (salaries) (Scully. 1974. *American Economic Review* 64(6):915–30). *Results.* For the period 1999–2016, salary-per-contribution is significantly higher for black players overall than for white players overall, being higher before 2006 (but not after). It is also higher for American (but not international) and non-rookie (but not rookie) black players than for white American and nonrookie players (respectively). A higher games started rate increases between black and white players. *Conclusion.* Given poor fit of measuring salary discrimination, existing literature exploring racism in the NBA from the perspective of salary may have inaccurate conclusions.

The issue of racial discrimination in competitive sports is a popular topic in academic research. Salary differences by race can be viewed as a concentrated expression of racism and thus have become a focal point of sports racism research. This article studies the issue of racism in the National Basketball Association (NBA) from the perspective of salary.

Racism has been and continues to be a major problem in the United States and in professional sports. It has also marked the history of the NBA: black players were not admitted to the league upon its establishment in 1946 (as the Basketball Association of America), and for a long time after the admission of the first black players (i.e., players of Sub-Saharan African descent) in 1950, black players continued to be victims of racism, with unequal salaries being only one expression of this racial discrimination. There is no particular reason to believe that this has ceased. As the NBA developed, the physical talents of many black players gradually became apparent, and black superstars such as Wilt Chamberlain, Bill Russell, “Magic” Johnson, and Michael Jordan appeared. Among these players, Jordan has had the deepest impact on modern basketball, expanding the NBA’s domestic and international market and changing the public’s conception and understanding of black people in basketball. Fans may be less prejudiced against black players than they were in the past (Hamilton, 1997).

*Direct correspondence to Riguang Wen, The School of Accounting, Zhejiang University of Finance & Economics, Xueyuan Street No. 18, Xiasha Higher Education Park, Hangzhou 310018, China (riguangwen@126.com). All data and coding are available upon request for anyone wishing to replicate this study.

There already exists a relatively large literature researching salary differences among players of different ethnicities and salary equality in the NBA generally (Koch and Vander Hill, 1988; Jenkins, 1996; Dey, 1997; Kanazawa and Funk, 2001; Kahn and Shah, 2005). These studies use absolute salary as a dependent variable and ethnicity as a main independent variable. Some studies find that the salaries of black players are lower than those of white players, on average, while others find no significant difference in salary by race. However, there is a relatively serious problem with these studies: in their consideration of salary variation among players of different ethnicities, they only consider absolute salaries and fail to consider players' contributions to their teams. Such an approach may lead one to arrive at false conclusions. To give an example: if Player A has a salary of \$10 million and Player B has a salary of \$20 million, Player A's *absolute salary* may be said to be low compared to that of Player B; however, if Player A only takes the court for a few minutes each game and does not make a large contribution to helping his team win, while Player B is a starting player and makes a significant contribution, we may see that Player A's *salary-per-contribution* is actually much higher than that of Player B. Existing research on salary variation among players of different ethnicities is largely ostensibly based on social comparison theory, proposed by Adams (1965). However, this theory defines inequality as difference in rate of output returned by input, and existing research only considers final outputs—player salaries—without considering inputs—player contributions to their teams. Thus, these analyses give a biased understanding of salary variation among players of different ethnicities and are not theoretically rigorous; as a result, they may lead to erroneous conclusions regarding the issue of whether “racism exists within the NBA.”

On the basis of existing research, this article utilizes salary-per-contribution (ratio of annual salary to standardized contribution) to investigate salary variation among players of different ethnicities and, through it, racism in the NBA. This study uses a sample composed of NBA players ranging from the 1999–2000 season to the 2015–2016 season. It first investigates whether there has existed salary variation among NBA players of different ethnicities within this sample period. Contrary to previous literature (e.g., Wallace, 1988; Kahn and Sherer, 1988; Koch and Vander Hill, 1988; Brown, Spiro, and Keenan, 1991; Hamilton, 1997; Kahn and Shah, 2005), this article finds that (average) salary-per-contribution among black players is significantly higher than among white players. Furthermore, this article proceeds to investigate the manifestation of this salary variation with regard to different periods and different player types. My empirical results show that the above result is primarily manifested prior to 2006. From 2006 onward, the salary-per-contribution of black players and white players does not differ significantly. Furthermore, the above result is only applicable to American players; with regard to international players, there is no significant variation in salary-per-contribution of black players and white players. With regard to player tenure, variation in salary-per-contribution between black players and white players is only significant in nonrookie players, not rookies. Furthermore, where a player's rate of games started is higher, black players and white players exhibit greater variation in their salary-per-contribution.

The contribution of this article lies primarily in two areas. First, this article uses salary-per-contribution to explore salary variation among players of different ethnicities. Compared to existing literature using absolute salary, this allows us to generate more empirically reliable and theoretically sound conclusions. Second, this article utilizes a large data sample covering 17 years of NBA salaries and breaks the results down by certain player characteristics other than race. In these respects, this study expands the content of existing research and generates some enlightening conclusions.

Theoretical Analysis

There is already a great deal of literature researching salary variation among NBA players of different ethnicities. Wallace (1988), Kahn and Sherer (1988), Koch and Vander Hill (1988), Brown, Spiro, and Keenan (1991), Hamilton (1997), and Kahn and Shah (2005) find that the salaries of black players are lower than those of white players on average. Furthermore, literature including Rockwood and Asher (1976), Mogull (1977, 1981), Scott, Long, and Somppi (1985), Jenkins (1996), Dey (1997), Gius and Johnson (1998), Bodvarsson and Brastow (1999), and Hill (2004) find no significant difference in salary by race. Why do the salaries of black players not dominate those of white players in this field dominated by black people (Koch and Vander Hill, 1988)? Maybe these studies neglect some important factors. As noted above, these studies fail to consider player contributions to their teams, considering only variation in absolute salaries. For this reason, the results of these papers are worthy of some skepticism. Although Scully (1974) demonstrated that a player's salary should be equal to the marginal financial value of his contribution to the team, there are no previous empirical studies using this method to explore racial discrimination, perhaps because of the lack of contribution data available. By contrast, this article uses salary-per-contribution to investigate the important issue of whether "racism exists in the NBA."

This article uses a time series to investigate whether salary-per-contribution of black and white players may have varied across the time period studied, and its evolution over time. The current dominance of the league by black players (76 percent in my sample) is reflected in their salaries. Thus, we might expect the salary-per-contribution of black players to be higher than that of white players, on average. However, this is not the case all the time. The turning point is 2006, due to the third retirement of Michael Jordan in 2003. Michael Jordan is a big man in the United States. When he first announced his retirement from the NBA, the Dow Jones composite index declined by 125 points; when he first announced his comeback to the NBA, his return added about 10 million jobs to the United States, such that Bill Clinton declared that Jordan had ended the American unemployment crisis. At the time, of course, people knew that he would not be back in the NBA forever, and Jordan's permanent retirement weakened black players' status in the NBA (Hughes, 2004; Brooks and McKail, 2008). The effect emerged about three years later, according to average years of players' salary contracting (Jenkins, 1996). Consequently, from 2006, black players' salary-per-contribution was similar to that of white players.

In addition, salary-per-contribution may vary according to player characteristics. First, with regard to international players, in addition to placing importance on the contribution of players to team wins, NBA teams primarily emphasize the market value that international players bring to the team (Zhou and Tainsky, 2017). Thus, the remuneration of black and white international players should not vary significantly from their contribution; that is, the phenomenon of salary-per-contribution of black players being higher than that of white players should primarily exist among American players. Second, because the NBA places a floor on the salaries of rookies (Kahn and Sherer, 1988), variation in salary-per-contribution between black and white rookie players may be less apparent or may only appear in nonrookie players. Third, players' rate of game starts may affect variation in salary-per-contribution by race. Because the proportion of black players in the starting group is bigger than in the nonstarting group (Koch and Vander Hill, 1988), the variation in salary-per-contribution between black and white players may be more noticeable among starting players than among nonstarting players. This is to say, among players with higher

rates of games started, the difference between salary-per-contribution of black players and white players may become more significant.

Sample and Methods

Sample and Data

The sample for this study is composed of NBA players from the 1999–2000 season through the 2015–2016 season. Data on the ethnicities of NBA players were manually collected by searching websites such as Wikipedia, Facebook, Google, and Baidu Encyclopedia; where it was impossible to make this judgment based on player data, players' pictures published on the Basketball Reference website (<http://www.basketball-reference.com>) were examined to determine ethnicity (Wallace, 1988). This article includes four kinds of player ethnicity: black, white, black-white biracial, and other ethnicities. A player is regarded as black when his father and mother are both black; a player is white when his father and mother are both white; a player is defined as a black-white biracial player when his father is black and mother white or his father is white and mother black. In the first part of the "Descriptive Statistics" section, I analyze the salary-per-contribution for each ethnicity. However, because there are not many black-white biracial players and players of other ethnicities, this article primarily focuses on the differences between black players and white players in the "Regression Analysis" section. Players' salary data are collected from the ESPN website (<http://www.espn.com/nba/salaries>); the player efficiency rating is from the ESPN website; player characteristics and other technical data come from the Basketball Reference website. Players who changed teams within a season are eliminated from the sample because the salary and contribution of these players cannot be explicitly determined in two or more teams. Players who made less than two appearances on the court within a season are also eliminated from the sample due to the lack of technological statistics.

Empirical Model

To test the difference in salary-per-contribution between black and white players, I construct the following empirical model:

$$\text{Salary-per-contribution} = \alpha + \beta \times \text{Black Player} + \gamma \times \text{Controls} + \varepsilon. \quad (1)$$

Model (1) is a regression model with pooled cross-data. The dependent variable in model (1) is the salary-per-contribution of NBA players (*Salary-per-contribution*). It is calculated as follows:

$$\text{Salary-per-contribution} = \frac{\text{Salary}}{\text{Standardized Contribution}}. \quad (2)$$

Here, *Salary* indicates the consumer price index (CPI) adjusted annual salary paid to NBA players, in millions of U.S. dollars. *Standardized Contribution* indicates the standardized contribution that the player makes to his team in the respective season. Because NBA players can make negative contributions to their teams, if I follow the original contribution calculation method, it is possible to derive a negative value for *Salary-per-contribution*. As

this makes the contribution-adjusted annual salary more difficult to understand, I have standardized the contribution variable using the following method:

$$\text{Standardized Contribution} = \frac{\text{Contribution} - \text{Min Contribution}}{\text{Max Contribution} - \text{Min Contribution}}. \quad (3)$$

Here, *Contribution* indicates the player's raw value of Win Share. Win Share is a player statistic that attempts to divvy up credit for team success among the individuals on the team. It is calculated using player, team, and league-wide statistics (see details in (<https://www.basketball-reference.com/about/ws.html>)). *Max Contribution* refers to the maximum value of the player's Win Share, while *Min Contribution* indicates the minimum value of the player's Win Share.

The independent variable in model (1) is the ethnicity of the player (*Black Player*). When the player is black, *Black Player* = 1; when the player is white, *Black Player* = 0.

On the basis of the hypotheses of this article, I include the following moderator variables:

1. Time period (*Period*). When the year of the sample is before 2006, *Period* = 0; when the year of the sample is 2006 or after, *Period* = 1.
2. International player (*International Player*). When the player is an international player, *International Player* = 1; when the player is American, *International Player* = 0.
3. Rookie player (*Rookie*). When the player is a rookie, *Rookie* = 1; when the player is not a rookie, *Rookie* = 0.
4. Games started rate (*Games Started Rate*). *Games Started Rate* is defined as the number of games in which the player started (played at the start of the game, as one of the initial players on the court) in the respective season as a proportion to the total number of games in that season.

In consideration of the related literature and the availability of data, this article also includes the following control variables:

1. *Player characteristics*. A player's physical condition and position on court are the main determinants of his precontracting performance that determines his contract salary (Kahn and Sherer, 1988; Wallace, 1988; Jenkins, 1996; Dey, 1997; Hamilton, 1997; Hill, 2004; Kahn and Shah, 2005). They may have an impact on a player's salary-per-contribution. Therefore, I control player height in inches (*Height*), weight in pounds (*Weight*), and age (*Player Age*); whether the player is a center (*Center*; when the player is a center, *Center* = 1; when the player is not a center, *Center* = 0); whether the player is a forward (*Forward*, denoted the same way as *Center*).
2. *Player performance*. A player's performance determines his contribution to his team (Koch and Vander Hill, 1988; Kahn and Sherer, 1988; Wallace, 1988; Jenkins, 1996; Dey, 1997; Hamilton, 1997; Hill, 2004; Kahn and Shah, 2005), which influences the extent of salary-per-contribution. The comprehensive measurement of a player's performance is Hollinger's *Player Efficiency Rating* (*Player Efficiency Rate*). The *Player Efficiency Rating* is a per-minute rating developed by ESPN.com columnist John Hollinger. It sums up all of a player's positive accomplishments, subtracts the negative accomplishments, and returns a per-minute rating of a player's performance. I also control player's status (*Star*; if the player's efficiency rate is in the top 50 of all players in the respective season, *Star* = 1; if not, *Star* = 0) and the team's win rate in percentage points (*Percentage of Wins*).

TABLE 1

NBA Players' Salary-per-Contribution by Race and Year

Year	Black Player	White Player	Black and White Player	Other Ethnicities Player
1999	29.593	32.021	20.923	11.469
2000	27.949	30.811	18.697	17.512
2001	30.069	22.443	23.542	25.910
2002	39.575	31.620	29.303	20.271
2003	43.276	31.861	33.860	33.309
2004	59.367	33.242	23.901	
2005	36.257	29.461	29.079	30.913
2006	38.840	41.229	28.412	46.067
2007	42.666	47.214	34.161	53.769
2008	49.207	49.591	38.228	46.338
2009	46.997	48.347	43.354	41.200
2010	43.519	54.742	40.684	38.993
2011	51.823	58.915	52.540	16.420
2012	51.261	52.926	47.350	35.715
2013	48.802	45.726	39.693	27.077
2014	53.886	49.792	53.382	43.023
2015	59.474	54.526	56.504	17.960
Average	44.007	43.995	39.706	31.618

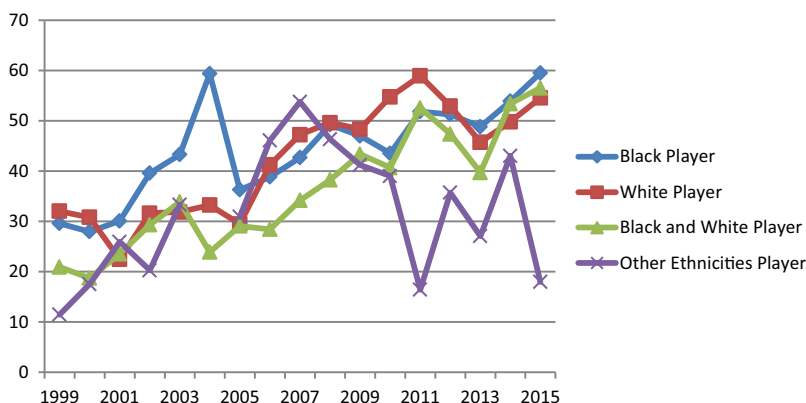
3. *Others*. A player who plays for his hometown will work harder than other players will, so I control the player's sense of belonging (*Local Team*; when the player's team is in the state of his birth, *Local Team* = 1; otherwise, *Local Team* = 0). Changing to a different team at the beginning of the season requires the player to take some time to adjust to the new team, which influences his performance in the current season (Wallace, 1988). Hence I control a player's change of team (*Change Team*; if the player began the season with a different team, *Change Team* = 1; if not, *Change Team* = 0). There is a difference in the intensity of competition in the Eastern Conference and the Western Conference, which will influence players' performance, so I control the team's region (*East*; if the player's team is in the Eastern Conference as opposed to the Western Conference, *East* = 1; if not, *East* = 0).

Results

Descriptive Statistics

Table 1 and Figure 1 show the salary-per-contribution statistics for players by ethnicity and year. Overall, black players have the highest salary-per-contribution (44.007), followed by white players (43.995), then black-white biracial players (39.706), and finally players of other ethnicities (31.618). Black players' salary-per-contribution (44.007) means that one-tenth of a standardized contribution earns 4.4007 million dollars. Others are similar. Because contribution is a comprehensive index, the economic implication of salary-per-contribution is not explicit. However, like the concept of utility in economics, the ordinal meaning of salary-per-contribution is valuable. With regard to our time series, in the year of 1999–2000 (hereafter, 1999 refers to the 1999–2000 season, 2000 refers to the 2000–2001 season, and so on), the salary-per-contribution of white players was higher than that of

FIGURE 1
NBA Players' Salary-per-Contribution by Race and Year



black players, but the difference was not large. Beginning in 2001, salary-per-contribution of black players was higher than that of white players. From 2002 to 2004, the difference gradually increased, but in 2005, it began to shrink. In 2006, there was a reversal, where the salary-per-contribution of white players again became higher than that of black players, a trend that persisted until 2012. However, in each year of this period, the difference was extremely small, except in 2010, when the salary-per-contribution of white players was slightly higher than that of black players. In 2013, there was another reversal that persisted until 2015, where the salary-per-contribution of black players was higher than that of white players, though the difference was not large. These statistical results show considerable differences from those of other studies, which can be explained by the fact that the other literature only considers the absolute salaries of players and overlooks the contributions of players.

Table 2 shows the descriptive statistics for the main variables in this article (for black players and white players only). We can see from Table 2 that the average salary-per-contribution of NBA players is 44.00, and the median value is 31.28. There is a definite difference between the median and average values here, but this difference is less than one-third of the standard deviation (45.17). From the perspective of ethnicity, black players represent 76 percent of the total number of black and white players.

Regression Analysis

Table 3 reports the basic regression results for the hypotheses of this article (for black players and white players). The regression method used was a robust ordinary least squares (OLS) method. In the full sample regression, *Black Player* was positive and statistically significant ($p < 0.01$), showing that overall, the salary-per-contribution of black players is significantly higher than that of white players. The coefficient of *Black Player* is 4.333, which means that, *ceteris paribus*, the salary-per-contribution of black players is 4.333 higher than that of white players. For example, if black players' and white players' standardized contribution is one unit, the black players' salary is 4.333 higher than white players'. This result is inconsistent with existing literature, which, as noted above, is explained by the insufficiently rigorous measurement previously used.

TABLE 2
Descriptive Results

Variables	Obs.	Mean	SD	Min.	Q1	Q2	Q3	Max.
<i>Salary-per-contribution</i>	4,170	0.76	0.43	0.00	1.00	1.00	1.00	1.00
<i>Black Player</i>	4,170	0.67	0.47	0.00	0.00	1.00	1.00	1.00
<i>Period</i>	4,170	0.19	0.39	0.00	0.00	0.00	0.00	1.00
<i>International Player</i>	4,170	0.13	0.33	0.00	0.00	0.00	0.00	1.00
<i>Rookie</i>	4,170	0.48	0.41	0.00	0.06	0.40	0.98	1.00
<i>Games Started Rate</i>	4,170	6.50	0.38	5.10	6.11	6.60	6.80	7.60
<i>Height</i>	4,170	223.18	27.73	135.00	205.00	223.00	244.00	325.00
<i>Weight</i>	4,170	26.66	4.28	18.00	23.00	26.00	30.00	40.00
<i>Player Age</i>	4,170	0.21	0.41	0.00	0.00	0.00	0.00	1.00
<i>Center</i>	4,170	0.39	0.49	0.00	0.00	0.00	1.00	1.00
<i>Forward</i>	4,170	13.78	4.63	-9.10	10.80	13.60	16.50	31.70
<i>Player Efficiency Rate</i>	4,170	0.50	0.15	0.11	0.39	0.51	0.61	0.89
<i>Percentage of Wins</i>	4,170	0.05	0.22	0.00	0.00	0.00	0.00	1.00
<i>Local Team</i>	4,170	0.19	0.39	0.00	0.00	0.00	0.00	1.00
<i>Change Team</i>	4,170	0.18	0.38	0.00	0.00	0.00	0.00	1.00
<i>Star</i>	4,170	0.51	0.50	0.00	0.00	1.00	1.00	1.00
<i>East</i>	4,170	0.76	0.43	0.00	1.00	1.00	1.00	1.00

As for our split-sample regression, *Black Player* was significant and positive ($p < 0.01$) in the regression of our pre-2006 sample. However, this variable was not significant from 2006 onward. From 2006 onward, the difference in salary-per-contribution between black and white players is not significant. In addition, *Black Player* is only significant in our regression for American players ($p < 0.01$), not for international players; thus, there is no significant difference in the salary-per-contribution of black and white international players. In our regression of nonrookie players, *Black Player* was significant and positive ($p < 0.01$), while it was not significant for rookies. This shows that the difference between black and white players' salary-per-contribution is only applicable to nonrookie players, not rookie players. Finally, the interaction term of *Black Player* and *Games Started Rate* was significant and positive ($p < 0.01$), showing that as a player's games started rate increases, the difference between the salary-per-contribution of white players and black players becomes more significant.

Robust Analysis

In the basic regression analysis above, in order to simplify our sample, I only compared the salary-per-contribution of black players and white players. If I instead compare black players with nonblack players, what will be the result? This article establishes a new variable for this purpose: *Black Player2*. When the player is a black player, *Black Player2* = 1; if not, *Black Player2* = 0. I use *Black Player2* to replace *Black Player* in a new regression, the results of which are shown in Table 4. We can see from Table 4 that *Black Player2* is positive and significant ($p < 0.01$), illustrating that, generally, the salary-per-contribution of black players is higher than that of nonblack players.

Figure 1 shows that in 2004, the salary-per-contribution of black players (59.367) was much higher than that of white players (33.242). A t -test shows that they are significantly different ($p < 0.01$). So, are the results reached in the previous analysis arrived at solely because of the inclusion of 2004 sample data? To answer this question, I have eliminated

TABLE 4
Robustness Test

	Salary-per-Contribution		
	Black Players and Nonblack Players	Delete Samples of 2004	Winsorized Salary-per-Contribution
<i>Black Player</i>		3.904** (2.49)	3.552** (2.52)
<i>Black Player2</i>	4.785*** (3.69)		
Control variables	Yes	Yes	Yes
Year	Yes	Yes	Yes
Team	Yes	Yes	Yes
<i>N</i>	4589	4102	4,170
Adj. <i>R</i> ²	0.194	0.192	0.226
<i>F</i>	16.679	15.175	18.522

Note: Robust; *t*-value in parentheses; *, **, and *** indicate significance at 10, 5, and 1 percent levels (two-tailed), respectively.

the 2004 sample data and rerun our regression, the results of which are shown in Table 4. As the table shows us, *Black Player* remains significant and positive ($p < 0.05$), illustrating that the conclusions reached above are not only a result of the 2004 sample.

Table 2 has shown us that considering the minimum and maximum values, there may be outlier values within the *Salary-per-contribution* variable; it is for this reason that I conducted Winsorization here (1 and 99 percent). Winsorizing is the transformation of statistics by limiting extreme values in the statistical data to reduce the effect of possibly spurious outliers (Hastings et al., 1947). It is often used to tackle outlier problems in the fields of finance and economics. I reran our regression, the results of which are shown in Table 4. As seen, *Black Player* remains positive and significant ($p < 0.05$), illustrating that possible outliers do not affect the primary conclusions of this article.

Conclusions

This article explores variation in salary-per-contribution between black and white NBA players, examining the issue of whether “racism exists within the NBA” from the perspective of salary differences. The research reveals that, generally speaking, black players have higher salary-per-contribution than do white players. This result is at odds with the conclusions of the existing literature. The reason for this is that the existing literature considers only the absolute salaries of players when researching salary variation and neglects to consider the contribution of players to their teams, meaning that the results of these studies may be worthy of some skepticism—skepticism that the present study’s results seem to show is borne out. In my further analysis, I have discovered that the above result primarily manifests itself prior to 2006; from 2006 onward, the difference between the salary-per-contribution of black players and white players is not significant. In addition, the above result is only applicable to American players; for international players, the variation in salary-per-contribution between black and white players is not significant. As for player characteristics, the variation in salary-per-contribution between black and white players only exists for nonrookie players; the difference is insignificant for rookie players. Furthermore, where the

games started rate is higher, the difference in salary-per-contribution between black and white players becomes more significant.

The conclusions described above imply that from a salary perspective, the NBA no longer exhibits racism against black players, although this does not necessarily imply that African Americans have achieved proper equality within American society. Because of deep-seated racist ideology, white people may still maintain racist views toward African Americans. Although this article may not completely determine whether "racism exists within the NBA," it does show the utility of using a more rigorous method to explore differences in the salaries of NBA players; thus, this article has importance for our understanding and conception of the issue of racism within the NBA and, if extended, potentially professional sports in general.

REFERENCES

- Adams, J. S. 1965. "Inequity in Social Exchange." *Advances in Experimental Social Psychology* 2(4):267–99.
- Bodvarsson, Ö. B., and R. T. Brastow. 1999. "A Test of Employer Discrimination in the NBA." *Contemporary Economic Policy* 17(17):243–55.
- Brooks, S. N., and M. A. McKail. 2008. "A Theory of the Preferred Worker: A Structural Explanation for Black Male Dominance in Basketball." *Critical Sociology* 34(3):369–87.
- Brown, E., R. Spiro, and D. Keenan. 1991. "Wage and Nonwage Discrimination in Professional Basketball: Do Fans Affect It?" *American Journal of Economic and Sociology* 50(3):333–45.
- Dey, M. S. 1997. "Racial Differences in National Basketball Association Players' Salaries: A New Look." *American Economist* 41(2):84–90.
- Gius, M., and D. Johnson. 1998. "An Empirical Investigation of Wage Discrimination in Professional Basketball." *Applied Economics Letters* 5(11):703–05.
- Hamilton, B. H. 1997. "Racial Discrimination and Professional Basketball Salaries in the 1990s." *Applied Economics* 29(3):287–96.
- Hastings, C., F. Mosteller, J. W. Tukey, and C. P. Winsor. 1947. "Low Moments for Small Samples: A Comparative Study of Order Statistics." *Annals of Mathematical Statistics* 18(3):413–26.
- Hill, J. R. 2004. "Pay Discrimination in the NBA Revisited." *Quarterly Journal of Business & Economics* 43(1–2):81–92.
- Hughes, G. 2004. "Managing Black Guys: Representation, Corporate Culture, and the NBA." *Sociology of Sport Journal* 21(2):163–84.
- Jenkins, J. A. 1996. "A Reexamination of Salary Discrimination in Professional Basketball." *Social Science Quarterly* 77(3):594–608.
- Kahn, L. M., and M. Shah. 2005. "Race, Compensation and Contract Length in the NBA: 2001–2002." *Industrial Relations* 44(3):444–62.
- Kahn, L. M., and P. D. Sherer. 1988. "Racial Differences in Professional Basketball Players' Compensation." *Journal of Labor Economics* 6(1):40–61.
- Kanazawa, M. T., and J. P. Funk. 2001. "Racial Discrimination in Professional Basketball: Evidence from Nielsen Ratings." *Economic Inquiry* 39(4):599–608.
- Koch, J. V., and C. W. Vander Hill. 1988. "Is There Discrimination in the 'Black Man's Game'?" *Social Science Quarterly* 69(1):82–94.
- Mogull, R. G. 1977. "A Note on Racial Discrimination in Professional Basketball: A Reevaluation of the Evidence." *American Economist* 21(2):71–75.
- . 1981. "Salary Discrimination in Professional Sports." *Atlantic Economic Journal* 9(9):106–10.
- Rockwood, C. E., and E. Asher. 1976. "Racial Discrimination in Professional Basketball Revisited." *American Economist* 20(1):59–64.

- Scott, F. A., J. E. Long, and K. Somppi. 1985. "Salary vs. Marginal Revenue Product Under Monopsony and Competition: The Case of Professional Basketball." *Atlantic Economic Journal* 13(3):50–59.
- Scully, G. W. 1974. "Pay and Performance in Major League Baseball." *American Economic Review* 64(6):915–30.
- Wallace, M. 1988. "Labor Market Structure and Salary Determination Among Professional Basketball Players." *Work & Occupation* 15(3):294–312.
- Zhou, Y., and S. Tainsky. 2017. "Enhanced Brand Credibility of American Athletes with International Teammates." *Sport Marketing Quarterly* 26(2):63–74.

Copyright of Social Science Quarterly (Wiley-Blackwell) is the property of Wiley-Blackwell and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.