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## **DISCRIMINATING BUYERS OF BASEBALL CARDS: DOES RACE AFFECT VALUE?**

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### **ABSTRACT**

*Since the early days of racial integration in baseball, the issue of fan prejudice has been in question. Evidence of fan reaction to an individual players' race, however, has been nearly impossible to distinguish through such means as game attendance or ticket revenue. Looking at baseball cards, however, allows us to examine evidence based on individual player characteristics, including 'perceived' race. We create an original data set of 2833 player cards. Our findings show strong evidence of racial discrimination, with white player's cards priced an average of \$3.25 more than non white players all else being equal.*

*Our approach to the issue of racial discrimination by sports fans is to make use of the fact that baseball trading cards have moved from the shoebox under the bed to the showpiece of sport collectors. The wide market for these trading cards provides us with a way to look at various players both from the angle of player skill and player race. If collectors are prejudice against non-white players, then cards of players with similar stats but of different races would presumably sell for different amounts.<sup>1</sup>*

### **INTRODUCTION AND BACKGROUND**

What had been a childhood hobby, collecting baseball cards that came with sticks of sugary sweet bubble gum, has become big business. Cards that once were purchased to make special noise effects on bikes tires are now investments in 'sports memorabilia.' Some cards can now sell for thousands

of dollars. For example, a 1910 Honus Wagner card recently sold for \$640,500 (auction at Christie's in 1996).

Sports cards are seeing a surge of interest from adult collectors in the United States. This growing interest among adults, particularly, is evident from the number of sport card shops. Many retail stores (e.g. K-Mart, WalMart, and Target) reserve considerable space for these cards, and that space is in the front of the store: premium space for retail stores.

Other evidence of this growing industry is found in the number of card magazines. There is Beckett, Tuff Stuff, Sports Memorabilia, and Topps Baseball Cards, just to name a few. Most of these magazines' main function is to supply pricing information about sport cards, information that would not have interested the initial target customer of this market back in the middle of the century (pre-adolescent males). Card collecting is no longer just hobby, now it is a business, an investment for the buyer. Resale value of a particular player's card is paramount in the concern of today's buyer.

As these cards move from the hands of mere aficionados to investors, card buyers must put concerted thought into determining the resale value of these cards. Clearly, the age, condition, and rarity of the card matters, as well as the player's original popularity. Elements in this mix of player characteristics that determines value would include demonstrated player skill (stats) as well as player race.

Issues of racial prejudice are becoming very avant garde in the Economics profession. Furthermore, investigation into the evidence provided by sports on discrimination is hardly new (see Kahn, 1991 for a review, while Jewell, 2002 and others continue this type of work). For example, Rottenberg (1956), a forerunner in sports economics, was among the first to look at the labor market in baseball. Research into the area of discrimination in sports has taken many forms; a myriad of papers have examined various aspects of discrimination from many different sports. Nardinelli and Simon (1990) and, later, Gabriel, Johnson, and Stanton (1995) examined baseball memorabilia (other than trading cards) for evidence of discrimination among collectors. Fort and Gill (2000) examine much of the work done on discrimination revealed in memorabilia markets over the past decades. Other avenues of research have led to the examination of Hall of Fame voting,

promotion to major leagues, and contract/salary issues for evidence of discrimination. The application of economic principles and techniques to other sports in search of racial discrimination continues unabated with such articles as Szymanski (2000) who explores the English professional soccer leagues for evidence of discrimination and Kahn and Sherer (1988) who look into racial discrimination in basketball player salaries.

Fort and Gill (2000) suggest that previous explorations into the market for baseball cards for evidence of racial discrimination are flawed because the racial 'marker' used for the individual players is so often arbitrary (and, incidentally, the arbitrary choice of the researchers in questions, so that some level of bias may inadvertently be introduced). Our study employs a panel approach to the perception of race for individual players, with no input at all from the researchers except in the case of a tie. We note that Fort and Gill, using their continuous measure of race, find evidence of discrimination, just as we do.

Other studies, for instance Tregarthen (1992) and McGarrity, Palmer and Poitras (1999), have also explored the market for baseball cards for evidence of discrimination finding contradictory results. We attribute their discord to the fact that their approaches use a researcher determined measure of race and data set sizes that differ substantially from ours. Tregarthen (1992) looked at only a minute sample of cards, ignoring player attributes other than race. McGarrity, et al, (1999) also looked only at a small number of cards, issued in a single year. We use a very large sample (over 2,000) that incorporates player skill characteristics as well as race. These previous studies also use fairly recently issued cards. By concentrating on cards issued in the 1960's, we are able to ignore fan dedication to 'home teams' or currently winning teams or specific personalities.

## **OUR DATA AND THE MODEL**

Cards prices are from Beckett's Official Price Guide to Baseball Cards. The cards original issue dates are from 1960-1969. As mentioned above, Beckett's pricing is the most frequently used price list for baseball cards. At this time, there was only one major producer of baseball trading

cards: Topps. While they do not traditionally reveal information about production numbers, we were able to contact Mr. Bill O'Connor at Topps. He told us that while no production records still exist from the period in question, he was an employee of the company at that time and remembers what the production runs looked like. Each printed sheet of cards had only one of each player and the sheets were printed in a mass run, thereby implying that each card had identical supply. At the time, however, one of the major (and major-ly destructive) uses of baseball cards was to produce the engine sound on bicycles. As using a well-known player's card was 'cooler' than using an unknown player, there might be fewer of the well-known player's card surviving from that time. Little however can be done about the destructive characteristics of little boys. Therefore, we assume that prices are driven by demand rather than supply characteristics.

Statistics about players' performance are collected from Total Baseball IV. The perceived race of the players will be determined by opinions gathered from at least 3 separate observers, as perceived race is the issue not genetic race. Three individuals independently view each players picture and make a racial identification. In the event of disagreement between observers, we add the opinions of each researcher and then tally the results and use the 'majority rules' decision.

During the 1960's there were 4,838 distinct cards including both pitchers and non-pitchers, counting each year's card for each single player separately. Since different statistics are kept for pitchers versus other players, we had to make a decision about which group to study. A brief consideration of such names as Sandy Koufax, Warren Spahn, Jim Bunning, Whitey Ford or Juan Marichal suggests that these are enduring legends of the game. Therefore, we came to the conclusion that pitchers become so well known as personalities that even 30+ years later collectors may still base value, in part, upon these personalities. We, then, limit ourselves to the non-pitchers (and leave the pitchers as a follow-on project for the future). This leaves us with a data set containing 2,833 distinct cards.

Data on the price of the card (Price), and the player's race (W, a dummy variable where one implies a white player) were collected as described above. Other attributes of the players, included whether the player

has been voted into the hall of fame (HF), or an All Star (AS), or an MVP (MVP) and if the player was in the world series that year (WS). Furthermore, we suspected that there may be some lingering affect from a player being in a large market, so we included a dummy for being on a New York team (NY). We saw no affect from any of the other large markets. In an attempt to capture not only the overall value of the player, but the specific attributes of each year, we used data for both lifetime achievement as well as for the season in question. Therefore, we also include runs batted in (RBI) and lifetime runs batted in (LRBI), home runs (HR) and lifetime home runs (LHR), and batting average (AVE) and lifetime batting average (LAVE). That way players who might have gone had an illustrious career, but may have been suffering from a rough year, may still earn collectors' admiration. Table 1, at the end of the paper, shows a summary of our data.

We used a linear model of these variables to explain card price as follows:

$$PRICE = b_0 + b_1W + b_2HF + b_3NY + b_4HR + b_5RBI + b_6AS + b_7MVP + b_8LRBI + b_9LAVE + b_{10}LHR$$

We expected to find that a Hall of Famer (HF=1), a New Yorker (NY=1) and an All Star (AS=1) to have positive premia over other players. Additionally, we expected the performance variables (HR, LHR, RBI, LRBE, AVE and LAVE) also to boost card value. If the prices of trading cards for shows evidence of racial discrimination, we expect to find a negative coefficient on  $b_1$ , the coefficient on the race variable ( $W=1$  if a player is white) to be positive. Results are summarized in Table 2, at the end of the paper.

## RESULTS AND CONCLUSIONS

We have demonstrated that the market for trading cards shows significant racial prejudice. Card collectors cards exhibit definite signs that collectors are willing to pay more for the cards of white players than for those of non-white players. The effect of race appears to account for about \$2.66 of the average card price of \$11.43.

We suggest that we are able to demonstrate such strong evidence of discrimination, where others have usually found either weak or even no evidence is due to the nature of our data. Not only do we have substantially more observations than other studies, but we chose our players from several decades past. The fact that these players are no longer active in the sport means that collectors are not influenced as much by personalities, recent performance, or 'hometown' spirit, as they might be if the players were still in the game.

### ENDNOTES

- <sup>1</sup> Alternatively, it may not be each individual buyer who is demonstrating prejudice so much as buyers jointly assume that other buyers will display prejudice, thereby affecting price. This is something like England's famous "Page Two Girls" beauty contest where people are asked to pick what other people will think is the most attractive girl. At any rate, the result should be the same in this case: racial discrimination against non-white players should show up as reduced card price, all else equal.

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<b>Table 1: Data Summary: Means (Standard Deviations)</b>	
	Player
Price	11.435
	(32.559)
W (dummy = 1 for White)	.71529
	(.45135)
HF (dummy 1= Hall of Fame)	.07646
	(.26578)
NY (dummy 1= New York)	.10218
	(.30294)
HR (Home Runs)	8.819
	(9.948)
WS (dummy 1= World Series)	.02960
	(.16951)
RBI (Runs Batted In)	38.600
	(30.744)
LAVE (Lifetime Batting Average)	254.00
	(26.09)
LHR (Lifetime Home Runs)	113.38
	(136.33)
LRBI (Lifetime Runs Batted In)	485.41
	(441.44)
AS (dummy 1=All Star)	.13777
	(.34472)
MVP (dummy 1= Most Valuable Player)	.00669
	(.08156)



<b>Table 2: OLS Regression Results Explaining Card Price</b>	
y = Price	Coefficient
	(t stat)
Constant	-26.814
	(-3.97)**
W (dummy = 1 for white)	2.659
	(2.34)**
HF (dummy 1= Hall of Fame)	49.906
	(19.12)**
NY (dummy 1= New York)	9.340
	(5.44)**
HR (Home Runs)	.1353
	(2.30)**
WS (dummy 1 = World Series)	31.089
	(9.78)**
RBI (Runs Batted In)	-.09994
	(-2.44)**
LAVE (Lifetime Batting Average)	.12296
	(4.38)**
LHR (Lifetime Home Runs)	.07471
	(5.62)**
LRBI (Lifetime Runs Batted In)	-.017619
	(-4.06)**
AS (dummy 1=All Star)	3.558
	(1.99)**
MVP (dummy 1= Most Valuable Player)	19.291
	(3.03)**
Adj. R <sup>2</sup>	36.3%
F	148.09

