

Consumer Discrimination in the Market for NHL Trading Cards: Are Hockey Fans Biased Against French Canadians?

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Economists have examined discrimination in professional sports extensively, in part because of the visibility of the participants as well as the relative ease with which ability can be measured in the professional sports labor market. The groups examined in such studies have included African-Americans and Hispanics in baseball, African-Americans in basketball and football, and French-Canadians in ice hockey. Much of the research in these sports has centered on wage differences attributable to employer discrimination. A smaller number of studies have examined consumer discrimination in baseball and basketball. We seek to measure the impact of consumer discrimination, if it exists, by ethnicity in the market for National Hockey League (NHL) trading cards. Because the market for sports memorabilia is dominated by serious collectors, we assume that variation in the prices of trading cards is an unbiased measure of the entertainment value to consumers of a player in the NHL.

We ask whether there are differences in the value across French-Canadian, English-Canadian, American, or European NHL players, after controlling for human capital differences. We follow closely the methodology used by Nardinelli and Simon (1990) in their study of consumer discrimination against African-Americans and Hispanics in the baseball trading card market. Professional sports discrimination studies have followed Becker (1971) in distinguishing among discrimination by employers, fellow workers, or consumers. Most studies have attempted to address discrimination by employers, while consumer discrimination has received less attention.

There is an extensive body of studies of discrimination in the NHL, and these have focused primarily on salary discrimination, thereby assuming, implicitly at least, that employers were the source of the hypothesized discrimination. The NHL studies have provided mixed results regarding salary discrimination against French-Canadians in the NHL. See for example, Jones and Walsh (1988), Lavoie, Grenier, and Coulombe (1992), Longley (1995, 2000), McLean and Veall (1992), Jones, Nadeau, and Walsh (1999), Lavoie (2000), Curme and Daugherty (2004), and Kahane (2005). Most studies of consumer discrimination in professional sports are concerned with baseball. To our knowledge no study of consumer discrimination in the NHL has been conducted. Nardinelli and Simon (1990) use the baseball trading card market in an effort to identify discrimination against African-American and Hispanic players. They point out (page 577) that "players' contracts are . . . are often complex documents containing performance clauses, [while] the prices of baseball cards are measured with comparatively little error. In contrast to studies of salaries, the link between consumer racial attitudes and the price of baseball cards is direct." They found that the prices of 1970 Topps baseball cards for African-American and Hispanic players (both hitters and pitchers) were significantly lower than white players having similar performance statistics. Fort and Gill (2000) and Scahill (2005) also found consumer discrimination against African-American and/or Hispanic players during the 1984-91 period. To determine if consumer discrimination exists with respect to ethnicity in the NHL, we followed the methodology of Nardinelli and Simon (1990). Using OLS and Tobit specifications, we regressed the value of NHL trading cards on a player's performance statistics and ethnicity to assess if ethnicity is a significant determinant of price.

We found the value of the 1985-1986 complete set of mint O-Pee-Chee trading cards using Beckett's Official 2006 Price Guide to Hockey Cards. The Beckett guide provides the 2006 price of a card released in 1985. We chose the 1985-1986 season because most of the players had retired from the NHL by 2006. We could therefore use career performance statistics as the primary characteristics affecting the value of the cards. Because young and relatively new players were eliminated from this study, the value of a player's card was not based on expected career performance. We included only forwards because the performance variables of goaltenders and defensemen are more difficult to measure. The 1985-1986 O-Pee-Chee set includes the rookie card of Mario Lemieux, who is French Canadian.

We excluded Lemieux's rookie card from our tests because it is worth \$200, which is more than four times the price of the next most valuable card. Data for performance variables were taken from *Total Hockey: The Official Encyclopedia of the National Hockey League* (2003). We scaled performance statistics by career games played to facilitate comparisons. We also included career games played in an effort to capture the intangible attributes of leadership and experience. A "Rookie Card" zero-one variable is included because a player's rookie card is almost always the player's most valuable trading card issued by a particular manufacturer. We used place of birth to categorize players as American or European. Russian-born players were categorized as

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European. We categorized Canadian-born players as English- or French Canadian based on whether their surname or first name is French. We tried both place of birth and French surname as criteria in categorizing players as French Canadian. We found statistically significant results for the performance variables, which confirmed that consumers of hockey trading cards base their value largely on the usual measures of player performance. There is only weak evidence at best that consumers regard the ethnicity of the player as relevant to a card's value. It is worth noting that the "American," "European," and "French Canadian" variables each had a negative coefficient in every regression in which they were included, while the "English Canadian" variable had a positive coefficient in every regression in which it was included. Ironically, of the three "non-English-Canadian" ethnicity variables, French-Canadians fared better than either Americans or Europeans. However, the ethnicity variables only occasionally approached weak statistical significance in the many specifications we tried. The lowest p-value for any ethnicity variable was .153 for "European" in one particular specification.

However, the card prices we used are aggregated by Beckett publications from a variety of sports card shows and stores from many locations in the US and Canada. It is possible that consumer discrimination against French-Canadian (or American or European) players exists only in the English speaking provinces of Canada. If so, the discrimination would result in lower sales of the cards of French-Canadian players in these locations. We do not have data on sales volume by locations. If, however, lower sales affected the prices of these cards, we would have captured that effect, and that does not appear to be the case.