From a researcher’s point of view, the attractiveness of professional baseball lies in the fact that ability and performance are highly correlated with salary and that the productivity of baseball players is observable and quantifiable. It is also true that other factors, such as quantity and quality of education, intelligence, personal contacts are not crucial factors determining productivity. The overriding variable determining productivity is sheer inherent ability. While other types of occupations are subject to the vagaries of quality and quantity of education, occupational expenses, monopoly restrictions (licensing or trade unions) in the determination of wages, baseball players’ salaries are determined by ability.

Two recent studies have attempted to determine whether salary discrimination is present in baseball. Rapping and Pascal (1971) found no evidence of salary discrimination against black baseball players. However, they did find a racial performance differential. Scully (1974) estimated salary equations for each racial group and found salary discrimination against black infielders and outfielders, but not black pitchers. However, both results are questionable for several reasons. First, both studies selected performance measures solely on empirical grounds rather than derived from the theory of marginal productivity. Second, both studies excluded significant explanatory variables. Finally, both studies overlooked the effects of the entry barrier that had existed against Blacks prior to 1947.

This study addresses itself to these problems by developing a theoretical model which is then estimated empirically to test for the existence of salary discrimination.

**SALARY BARGAINING MODEL**

If employers discriminate against Blacks, either or both of the following statements must be true.

1. White and nonwhite players with identical productivity should receive different salaries.
2. White and nonwhite players with identical productivity receive identical salaries, but there exists a barrier to entry against nonwhites.

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In order to standardize for baseball players' productivity, it is necessary to formulate a salary bargaining model. Baseball salaries are established through negotiations and bargaining between the player and the owner after each completed season. Economic theory commonly assumes that labor is paid according to the value of its marginal product (VMP), and baseball should be no exception. However, professional baseball players are also paid on the basis of the value of their lifetime product (VLTP) for all previous seasons of major league experience.

A player who has had a particularly productive season relative to the previous season (high VMP) bargains on the basis of his VMP. If the player has had a particularly unproductive season relative to the previous season (low VMP), but previous productive seasons, he will negotiate on the basis of his VLTP. If a player has productive seasons both currently and previously (high VMP and high VLTP), he will bargain on the basis of both.

The salary negotiations are similar to the cobweb pattern—except that instead of the lagged adjustment being by demand, the lagged adjustment is by supply. That is, the demand for productive services in the current period is a function of the supply of productive services in the previous period or periods.

In addition, the salaries of baseball players are extremely rigid downward. A player's salary may not be reduced by more than 25 percent in any season. In practice reductions in salary appear to be quite rare. This means that looking at absolute salary levels tends to bias a salary bargaining model. For example, assume a player had a particularly high VMP relative to the previous season and received a salary increase of 100 percent. In the next year the same player had a very low VMP relative to the previous season and received no salary increase. Looking at the player's absolute salary level, too much weight would be given to his VLTP and not enough weight to the change in his VMP. For unbiased results, it is best to consider only the differences in salary from the previous season.

If one uses the change in salary as the dependent variable, then white and nonwhite players may receive the same salary increase, but from a different salary base. To control for this, a player's previous salary is included in the model. In addition, one expects that independent of productivity, given a player's previous salary the smaller his increase in salary because the closer his salary is becoming to his true value. The owner is unlikely to grant a large salary increase since the size of the monopoly rent he earns is decreasing.

In order to be able to identify changes in a player's salary due to changes