

INTRODUCTION

Definition 1 *Economic discrimination occurs when two people who have equal productivity and identical tastes for working conditions, but who are members of different groups, receive different outcomes in terms of wages paid and/or access to jobs.*

Types of Evidence of Workplace Discrimination

- Direct testimony
- Auditing
- Indirect evidence from earnings regressions and/or employment patterns

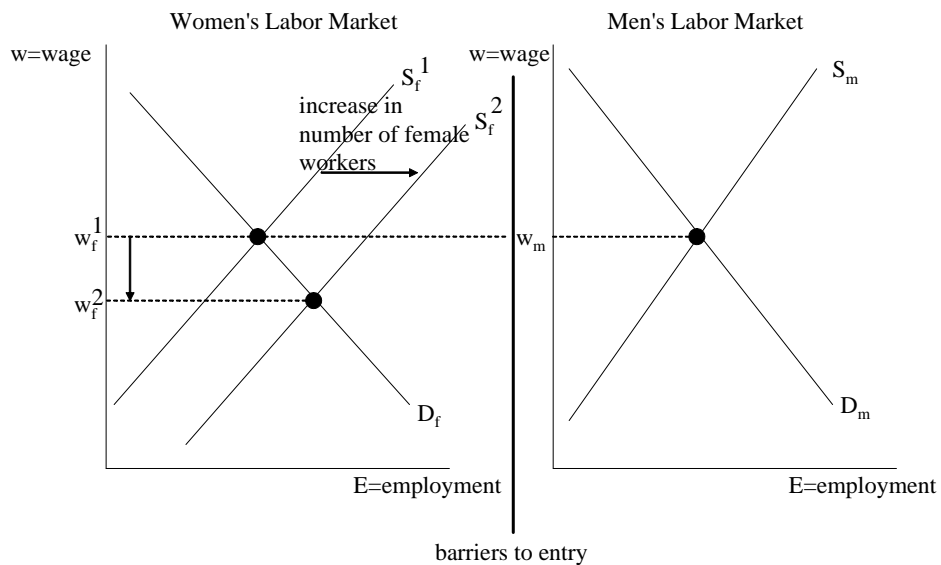
MODELS INVOLVING PERSONAL PREJUDICE

Employer Discrimination

In this model, the employer is assumed to be better off as profits increase, but also as the number of employees against whom the employer is prejudiced decreases. The employer is willing to pay “preferred” employees more. In this way an earnings differential arises between the two groups.

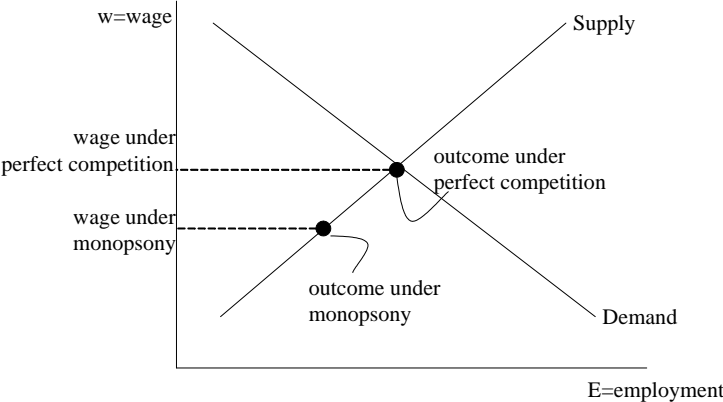
Employee or Customer Discrimination

The Crowding (Overcrowding) Model



MODELS NOT INVOLVING PERSONAL PREJUDICE

Monopsony Model



A Statistical Discrimination Model

In the following, you are given algebraic formulations of the assumptions (in parentheses), along with their descriptions, but you are **not** responsible for the **algebraic formulations**. You will be responsible for understanding the diagram near the end and what it represents.

The employer is unable to make an accurate assessment of an individual's productivity and uses information on the individual's group to make an estimate.

Its Assumptions

- Males and females have the same distributions of marginal productivities (addition to output with an additional worker).
- Individuals' marginal productivities are not known, but the individuals are tested and their test scores are used to estimate their marginal productivities. Males and females have the same average test scores. However, the variance of the error associated with the distribution of females' test scores is greater than the error associated with the distribution of males' test scores, i.e., females' test scores are seen as less reliable predictors of their marginal productivities.

(Specifically,

$$\begin{aligned}T^f &= MP^f + \varepsilon^f \\T^m &= MP^m + \varepsilon^m,\end{aligned}$$

where

$$\begin{aligned}\text{ave } \varepsilon^f &= \text{ave } \varepsilon^m = 0, \\ \text{ave } T^f &= \text{ave } MP^f = \text{ave } MP^m = \text{ave } T^m;\end{aligned}$$

it is assumed that

$$\text{var } \varepsilon^f > \text{var } \varepsilon^m.)$$

- The employer pays a (real) wage equal to the average marginal productivity of the worker given the test score and gender of the worker. It can be shown that an individual's wage depends on both his/her group's average marginal productivity and his/her test score; specifically, his/her real wage is a weighted average of his/her group's average marginal productivity and his/her test score. When test scores are seen as less reliable predictors of productivity, they are taken into account less in determining real wage. It follows that females' test scores (average marginal productivity) are (is) weighted less (more) than males' in determining real wages. Therefore, males' real wages are always closer to their test scores than are females'.

(That is,

$$w_i = E(MP_i | T_i),$$

where w_i is the real wage. It can be shown that

$$w_i = (1 - t) \text{ave } MP + tT_i,$$

where $0 < t < 1$ and t depends on $\text{var } \varepsilon$, i.e., as $\text{var } \varepsilon$ increases, t decreases.)



Lundberg-Startz Extension

Notice that up to this point, there is no prediction by the model of female-male wage differentials; however, now we consider the Lundberg-Startz extension of this model (American Economic Review 73 (1983), 340-7).

We allow for men and women, who know what the wage schedules look like, to invest in human capital accordingly (with a view toward increasing their test scores, and therefore, their real wages). Notice that given the difference in the wage schedules, the marginal return from investment in human capital is greater for men than for women. Therefore, on average, we would expect men to attain more human capital than women; this will then lead to observed wage differentials.

A FINAL MODEL

Roback, Racism as Rent Seeking, *Economic Inquiry* 27 (1989)

ASSUMPTIONS

- Utility of an individual depends on:
 - his/her consumption of a good
 - his/her conformity to a social norm
 - percentage of the population that conforms to the social norm (this is a *public good*)

As any one of these increases, utility increases.

- The individual can spend his/her income on:
 - the consumption good
 - conformity (an example of the price of conformity is the wage differential when the social norm is to hire only certain higher priced type of laborers)
 - lowering the price of conformity (as its price decreases, the percentage of the population conforming increases and your utility increases)
 - * Note that if you lower the price of conformity, then others will receive a benefit from that without paying for it. As with other public goods, conformity tends to be underfunded and therefore, underprovided, i.e., there is less than an efficient level of conformity. In this sense there exist gains from increasing the level of conformity.
 - * The author then argues that because of these unrealized gains, the government and/or politicians may step in and pass legislation to enforce the social norm.

POSSIBLE APPLICATIONS

- Racial segregation in streetcars
 - Instituted in the south around the turn of the century until the 1960's
- Educational segregation
- Occupational segregation
 - South African Colour Bar

FURTHER READING ON DISCRIMINATION

- Series of articles in Journal of Economic Perspectives, Spring 1998, on discrimination in various markets
 - Racial discrimination in consumer (Yinger; see the Ayres and Siegelman article cited there for a study on price discrimination by race and gender) and mortgage markets (Ladd)
 - Racial and gender discrimination in labor markets (Darity and Mason)
 - * They point out the distinction made in economics between in-market and pre-market discrimination and how the distinction might not be so clear cut. As an example, consider our statistical discrimination model and its Lundberg-Startz extension. The statistical discrimination model yielded different wage schedules for females and males, although average wages for both would be the same; in this sense, the model is an in-market discrimination one. Given the different wage schedules, under the Lundberg-Startz model, females and males have different incentives to accumulate human capital; given the lesser human capital accumulation by females following from the different wage schedules, average wage for females would be less than average wage for males. In this sense, the extension models a type of pre-market discrimination.
 - * The authors mention the idea of “ethnic intergenerational transmission of economic disadvantage . . . effects of past discrimination . . . are passed on to subsequent generations.”
- Comments on these articles in the same journal, same issue
 - Arrow (Nobel Prize in economics in 1972) and Loury (in two separate comments) discuss the possibility that social networks may “alter resource [i.e., labor] allocation” (in Arrow’s words). (Also, see Solow’s (Nobel Prize in economics in 1987) The Labor Market as a Social Institution, 1990, where social and cultural influences in labor markets are discussed.)
 - Heckman would view most earnings differences between blacks and whites today as due to human capital differences (and he seems to allow for feedback effects only somewhat). He is critical of the audit method (cited to some extent in all three articles and recently approved by the Equal Employment Opportunity Commission for use in researching labor market discrimination).

ADDENDUM: PERFECTLY COMPETITIVE LABOR MARKET

