Labor Market Discrimination.

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Up until this point we have been discussing how wage differentials result from differences in educational background, training and/or risks on the job. In these cases, we assumed that the compensating differential was being paid to people with differences in job characteristics or skills, holding all other characteristics constant. But, there may be differences in earnings and/or employment opportunities among equally skilled individuals in the same job simply due to the worker's race, gender or sexual orientation. These differences are often attributed to **labor market discrimination.**

Discrimination occurs when participants in the marketplace take into account characteristics about the individual, such as their sex or race, when carrying out exchanges in the market. There are several forms of discrimination that can take place in the labor market. Discrimination does not rest entirely on the shoulder's of the employers. There can be employee discrimination and customer discrimination in addition to employer discrimination. For instance, employees may favor working with particular race, or customers may prefer to engage in transactions with particular types of workers, and employers may prefer to hire a particular type of worker. All of these are particular forms of labor market discrimination which must be taken into account when attempting to identify and control for discrimination in the workplace.

THEORIES OF LABOR MARKET DISCRIMINATION

As mentioned above, before attempting to design social programs to end discrimination in the workplace, one must understand the *sources* and

mechanisms causing it. The goal of this next section is to lay out and evaluate the different theories of discrimination proposed by economists.

A couple of the theories of discrimination include: personal prejudice and statistical discrimination.

- **Personal Prejudice – agents dislike associating with workers of a given race or sex**

    - **Employer discrimination**
    - **Employee discrimination**
    - **Customer discrimination**

- **Statistical Discrimination – employers project onto *individuals* certain perceived *group characteristics*.**

Let's start with employer discrimination:

Assumptions of the Model:
Suppose that white male *employers* are prejudiced against women and minorities but that (for simplicity's sake) customers and fellow workers are not prejudiced. (We will relax this assumption later).

This aversion to females and minorities may take the form of:

1) lack of desire to associate with females or minorities
2) desire to help fellow white males whenever possible (*nepotism*)
3) occupational segregation motivated by status considerations.

For this model, it is assumed that women and minorities are identical to white males in all other characteristics (such as education, training, skills, etc.)

It is assumed that the employer views the female or the minority as less productive than their white male counterpart. (This is their own subjective assessment based purely on the observation that the applicant is a female and/or minority.)

The competitive equilibrium for white males will be reached when the marginal revenue product equals their wage rate. That is,

$$MRP = w_M$$

where MRP = marginal revenue product for the white male, and w_M = wage rate for the white male.

For the women and the minorities, however, the firm views them as less productive than the white male counterpart. Hence, the employer's subjective assessment is that MRP is lower for the female and minorities by some amount *d*, where *d* represents the extent to which this productivity is subjectively devalued for minorities and women.

In this case, the market equilibrium will be

$$w_F = MRP - d. \quad \text{or} \quad MRP = w_F + d.$$

Because the individuals actual productivities are assumed to be equal then substituting in

$$w_M = MRP,$$

we have

$$\mathbf{w_M = w_F + \boldsymbol{d}.}$$

This implies that if $d > 0$, then

$$w_M > w_F.$$

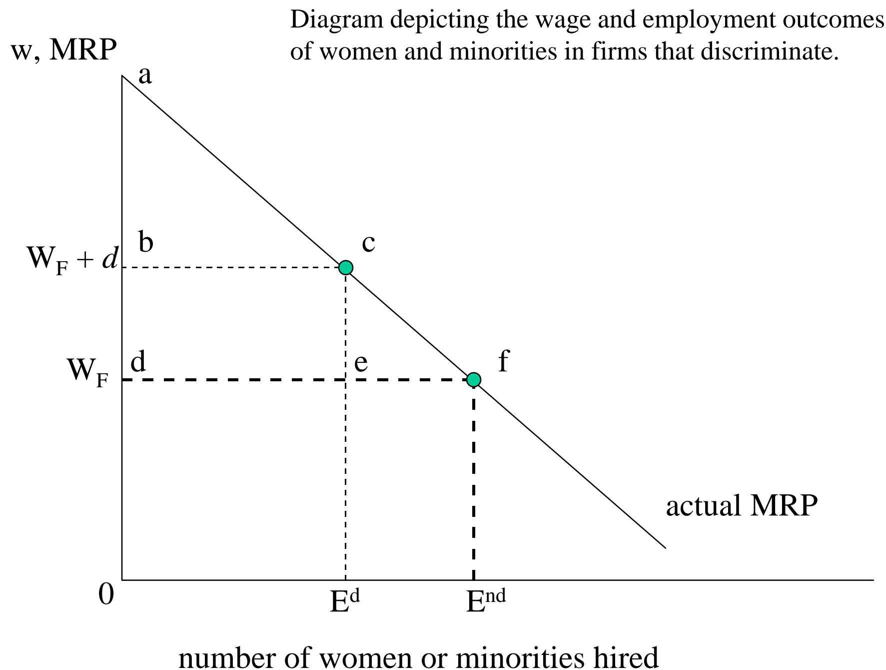
Very simply: if the actual productivity of women and minorities is devalued by employers, workers in these groups must offer their services at lower wages than their white male counterparts in order to compete for jobs.

Discrimination and Profits

Is this discriminating firm *profit-maximizing?* NO.

The model of employer discrimination has two major implications, as illustrated in the following diagram.

A discriminatory employer faced with a wage rate of w_F for women and minorities will hire E^d , for at that point the MRP = $w_F + d$.



A *profit maximizing non-discriminatory employer*, however, will hire labor up to the point where the MRP = wage rate = w_F. In the figure above, the non-discriminatory employer hires E^{nd}. Where $E^d < E^{nd}$.

The effects on the firm's profit can be readily seen by identifying that the firm's total revenue, holding capital constant, can be found as the area under the MRP curve. We can subtract the firm's total costs from this area to find the firm's profits.

For instance:
The total revenue for the employer who discriminates is ($a0E^dc$). The total costs facing the discriminatory firm is ($d0E^de$). So the profits for the firm who discriminates is (adec). The firm that does not engage in discriminatory hiring has total revenue of ($a0E^{nd}f$) and total costs given by ($d0E^{nd}f$). So the non-discriminatory firm receives profits of (adf). The non-discriminating employer receives an additional profit equal to the triangle (cef) above.

Discriminating employers end up hiring short and thus, give up profits in order to indulge their prejudices. In short, ***discrimination does not pay.***

Labor market discrimination does not rest entirely on the shoulders of the employers. Labor market discrimination can also be due to customer and employee prejudices. In the next section, we discuss the impact of personal prejudice on behalf of the consumer and its effect on economic outcomes.

Customer discrimination

Under this theory of discrimination, customers now have the "taste for discrimination". If a particular customer has discriminatory preferences, then their purchasing of goods and services will reflect the fact that they prefer to work with one race or sex versus another race or sex. They no longer view the product as having a price of $P, but rather the price must be adjusted to reveal their dislike for the person serving them. Hence, they view the product as having a cost $(P + *d*) where *d* reflects the disutility (in monetary terms) of having to deal with a person for whom they have a strong dislike. One way of interpreting this is that customers with discriminatory preferences have a willingness to pay to avoid contact with a particular type of worker. If white male customers dislike purchasing goods and services from minorities or females, then customer discrimination will reduce the demand for goods and services sold by these minorities. Because labor input is a derived demand if demand for the final product decreases, then we would expect demand for the labor input to also decline, thereby decreasing the wages paid to minorities and female.

If the preference for white males extends to jobs requiring more responsibility, such as a physician or airline pilot, and their preference for minorities or females extends to jobs with less responsibility – such as a receptionist or flight attendant – then a form of segregation referred to as "occupational segregation" can result.

So, one of the implications of customer discrimination is that it could lead to a segregated workplace. (This would be especially true in occupations with a large degree of employee/customer interactions.) Firms that have discriminatory customers will hire people from the "preferred" group to fill the "face-to-face" positions with the customer, and hire the relatively cheaper minorities (the individuals being discriminated against) to fill positions that do not require customer contact.

Customer discrimination has been put to the test in one recent paper on the study of baseball card prices. Controlling for all obvious factors on the player's performance, such as # of career home runs, career strike outs for a pitcher, and the hits for a hitter, the authors found that there was a significant difference in the price of baseball card depending on the race of the person pictured on the card. (A copy of this paper is on my homepage)

The authors found that customer discrimination does exist in the market for baseball cards. They found that among hitters, the cards of nonwhites sell for about 10% less than the cards of white players with equivalent ability. Among pitchers, the authors found a 13% decrease in the price of cards featuring nonwhites. Note, that the consumer, in this case, never has direct contact with the person on the card. Race enters only as a picture on a piece of paper, and thus should have very little impact on the price of the item being exchanged. Recall, the theory of customer discrimination state that the customer's taste for discrimination should be more prevalent in markets where personal contact is present. The authors state that one of their most important results may be the fact that customer discrimination appears to be highly significant even in a market for a product in which there is no direct contact.

Employee Discrimination

In this case, the employee has the "taste for discrimination". The employee prefers to work with coworkers of a particular race or sex. They derive disutility from having to work with a coworker for whom they have a personal prejudice. In this case, the employee requires a compensating differential in order to work with coworkers of a particular race. The non-discrimantory employer will find it optimal to sort its worker according to race in order to maximize profits.

The firm must pay a higher wage to the employee in order to induce him into working with a coworker for whom he has a strong dislike. One implication of this theory is that the employer will find it optimal to group individuals of the same race in the same types of jobs even for similarly skilled workers. The theory would predict that employers would hire on a segregated basis, so that employees of different ethnic and demographic backgrounds do not have to associate.

Statistical Discrimination

Statistical discrimination can arise even if the employer is not prejudiced against a particular type of worker. Statistical discrimination occurs when then employer projects onto individuals certain group characteristics. One's race or sex is directly apparent in the interviewing process and can be used as supplemental information by the employer. Employers must *guess* the potential productivity of its applicants in the screening process, but will not always be able to assess with certainty the productivity potential of its applicants. The only information available to the employer during the interview is information that is believed to be highly correlated with ones productivity: education, experience, age, test scores, etc. These will not always be prefect indicators of one's potential. If the employer supplements this information with subjective assessment of the person's potential based on gender or race then this could result in wage and employment outcomes that look like discrimination even though the employer does not have any deep rooted personal prejudice against a particular applicant.

Examples: Suppose that, *on average*, minorities with a high-school education are discovered to be less productive than white males with a high-school education. (Maybe due to differences in the quality of schooling). Or suppose that, on average, women have shorter career lives than their male counterparts and hence are less valuable to firms than men of equal education. Employers might use these group statistics to supplement any individual information that the firm has on the applicant The result would be that white males with given measured characteristics would be systematically preferred over women and minorities with the same characteristics, a condition that would be empirically identified as labor market discrimination.

One unfortunate side-effect of using group data to supplement individual data is that, while it could lead to the correct hiring decision by the employer on average, it assigns a group characteristic to people who may not be typical of the group. There are career women who will have very long, uninterrupted careers, just as there are likely to be minorities with high-school degrees with the ability but not the financial means to go to college. These atypical members are stigmatized by the group data. They may have actual productivity that is equal to or above those who are actually hired, but because of group stereotypes they do not get the job.

Thus, statistical discrimination could lead to a systematic preference for a particular type of worker (i.e. white male) over others with identical

measured characteristics, and it could also create a situation in which minorities and women who are equals to their white male counterparts in actual productivity are paid less because of the above-mentioned group stigma. Both problems are caused by the use of group data in making hiring decisions, but this use need not be motivated by personal prejudice. The results, however, have the same appearance and effects as if prejudice were present.