

Labor Discrimination - an alternative model¹ In-Class Problem²

Let's use a different scenario than that presented in the In-Class Problem titled "Discrimination Model" and seek to discuss an alternative model for labor market discrimination. In fact, this model is only slightly different from the "Discrimination Model" and can be directly connected to it.

Suppose that CottonCo employs middle-aged females in a small chain of local fabric shops because management knows these workers will work hard, are reliable, but may not have been in the organized workforce while during their child-rearing years and will work cheap – as such they have a labor supply relation of $L_S^W = -20 + 4W$. They're preferable to CottonCo because they find that their labor productivity results in an MRP_L equal $16 - \frac{1}{4}L$, but since the management at CottonCo is willing to exploit these workers by offering them low wages, which they'll accept, CottonCo's labor demand relation could be quantified as $L_D^W = 60 - 4W$. CottonCo believes this relationship enhances the firm's profit potential.

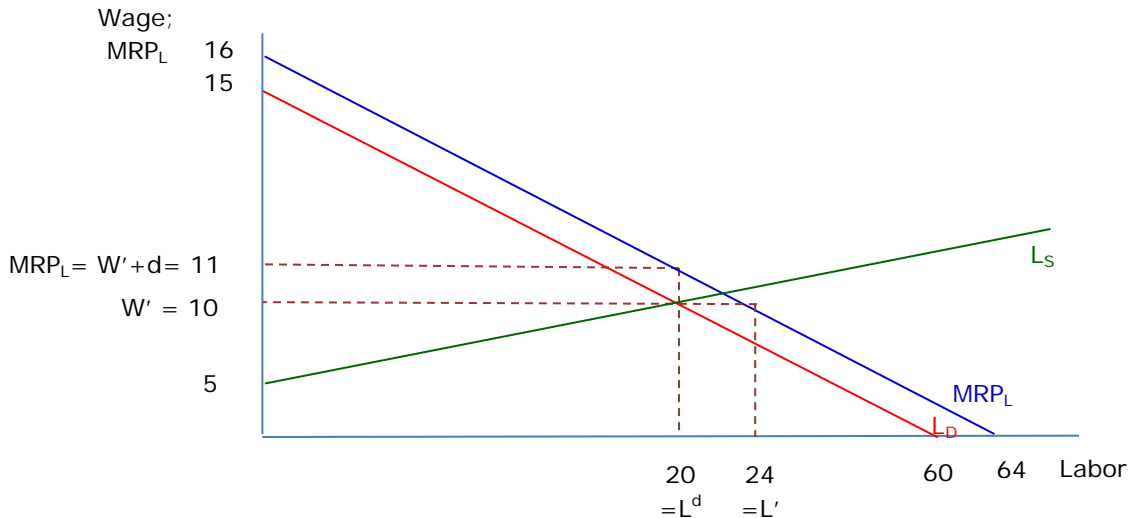
- a) **Based on the information given, present a complete labor market discrimination model for CottonCo representing the decision the firm's management is making. Be sure to include all relevant values.**

Find the Intercepts

$$\begin{aligned} L_S^W &= -20 + 4W \\ W = 0: L &= -20 \\ L = 0: 0 &= -20 + 4W \\ 4W &= 20 \\ W &= 5 \end{aligned}$$

$$\begin{aligned} L_D^W &= 60 - 4W \\ W = 0: L &= 60 \\ L = 0: 0 &= 60 - 4W \\ 4W &= 60 \\ W &= 15 \end{aligned}$$

$$\begin{aligned} MRP_L &= 16 - \frac{1}{4}L \\ L = 0: MRP_L &= 16 \\ MRP_L = 0: 0 &= 16 - \frac{1}{4}L \\ \frac{1}{4}L &= 16 \\ L &= 64 \end{aligned}$$



¹ This In-Class Problem is intended to present an abbreviated discussion of the included economic concepts and is not intended to be a full or complete representation of them or the underlying economic foundations from which they are built.

² This problem was developed by Rick Haskell (rick.haskell@utah.edu), Ph.D. Student, Department of Economics, College of Social and Behavioral Sciences, The University of Utah, Salt Lake City, Utah (2014).

b) How much would we expect CottonCo to pay these workers?

CottonCo is just one employer in a market of many employers in which these types of workers receive wages lower than their productivity might otherwise suggest, so CottonCo isn't alone in their discrimination. So CottonCo pays a wage equal to the equilibrium value of L_D and L_S for these workers.

$$L_D^W = 60 - 4W \text{ and } L_S^W = -20 + 4W$$

$$60 - 4W = -20 + 4W$$

$$8W = 80$$

$$W' = 10$$

c) How many of these workers will CottonCo hire?

CottonCo will only hire the number suggested by $L_D = L_S$ at the wage given as W' , so we'll use

$$L_D^W = 60 - 4(10) = 20 \text{ and we'll call this } L'$$