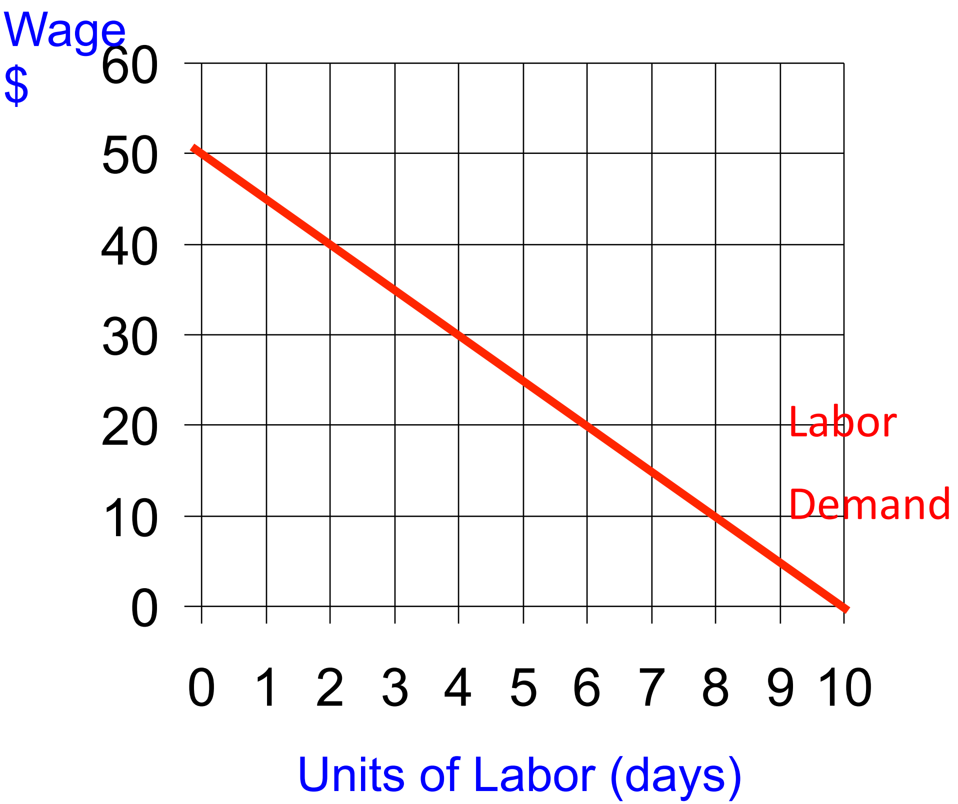
Lec: 14.2: Inequality and Unions
Order of business

- More on Unions
  - Decline in the U.S.
- The Economics of Labor Market Discrimination

Unions

Union in Econland:

- Remember S1's derived demand for Labor from 14(i), when the price of a widget was $2?



Suppose the unit of labor is "Day"

Suppose the competitive price of labor is $10 a day. Then S1 will demand 8 days of labor.

Now suppose the plant is organized by "WWI" (Widget Workers International)

Suppose union negotiates a wage hike to $20 a day but firm still in charge of running the plant (and picking employment size)

The firm will respond by having ____workers in the plant each day.

- Suppose the 8 workers initially in the plant share the reduced work.

- If the workers take off one day out of every four days, there will be 6 workers in the plant every day, which is what the firm demands at a wage of $20.

- Average take-home pay: = (3/4)*$20

  = $15

  minus union dues: -$1 = $14

And one day off out of four!

- Of course the widget workers love this!

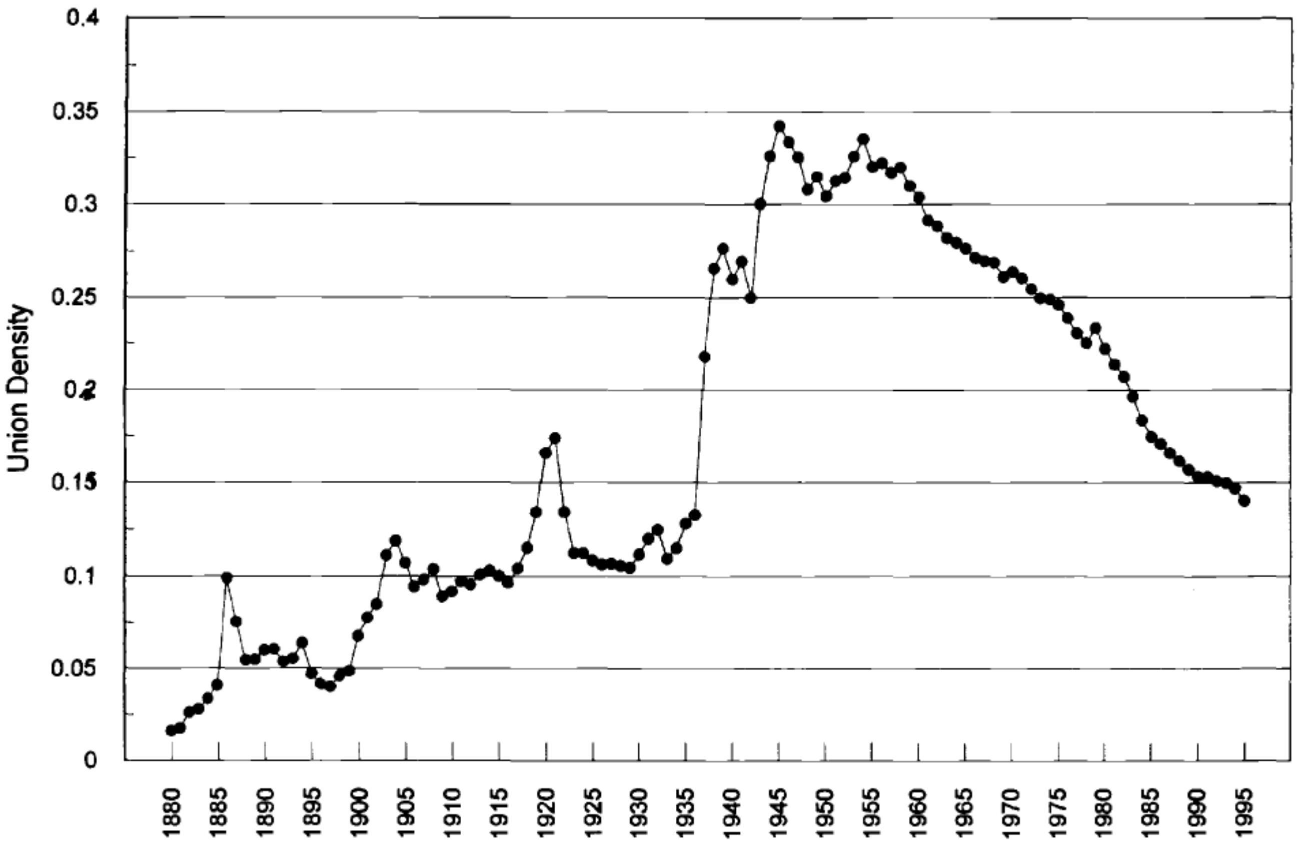
Unions: United States

- Now let's leave Econland and talk about the U.S.
- Union in the States have not been as successful: textbook cites a statistic of 10% to 20% pay differential (wage increase).

- A bit of history: There were violent early strikes (1892 Homestead Strike in the steel industry), but unions didn't make a lot headway until the law changed (1935 Wagner Act) making it easier for unions to achieve formal recognition and forcing firms to bargain with them.

- Let's look at a graph of the fraction workers in the U.S. represented by Unions

Figure 1: Changing Percentage of Non-Agricultural Workers Who Are Members of Unions, 1880-1995



- Observe the steady decline since the maximum point of 35% in 1950.

Source: Freeman, Richard, "Spurts in Union Growth: Defining Moments and Social Processes: NBER Working Paper No. 6012, April 1997

What factors have lead to the decline of unions?

Lots of factors underlying decline, including shift of industry composition:

- from manufacturing to services
- within industries from blue collar to white collar (who typically do not organize)
- Shifts of remaining manufacturing jobs from union firms ike GM and Ford, to nonunion firms like Toyota and Honda (companies not around in the US back in 1950s).

Big stories in the recent news:

- **pushback against public sector unions (Wisconsin)**
- Hostess (Twinkies!) closing last year
- Last year, Michigan legislature passed right to work law.

Unions don't have much bargaining power left.

- In 1960s, GM and Ford tried to open plants in the South of the U.S where unions are weak. The United Auto Workers (UAW) forced GM and Ford to accept unions in the southern plants.
- By 2010, Boeing had a nonunion plant in South Carolina (has reputation for most hostile state for unions). Boeing still has huge operations in Washington State represented by the Machinists. But if the Machinists make trouble, they have to worry about even further shutdowns in Washington. **Don't have the kind of leverage the UAW had over GM and Ford in the 1960s. (No way were GM and Ford going to move out of Michigan.)**

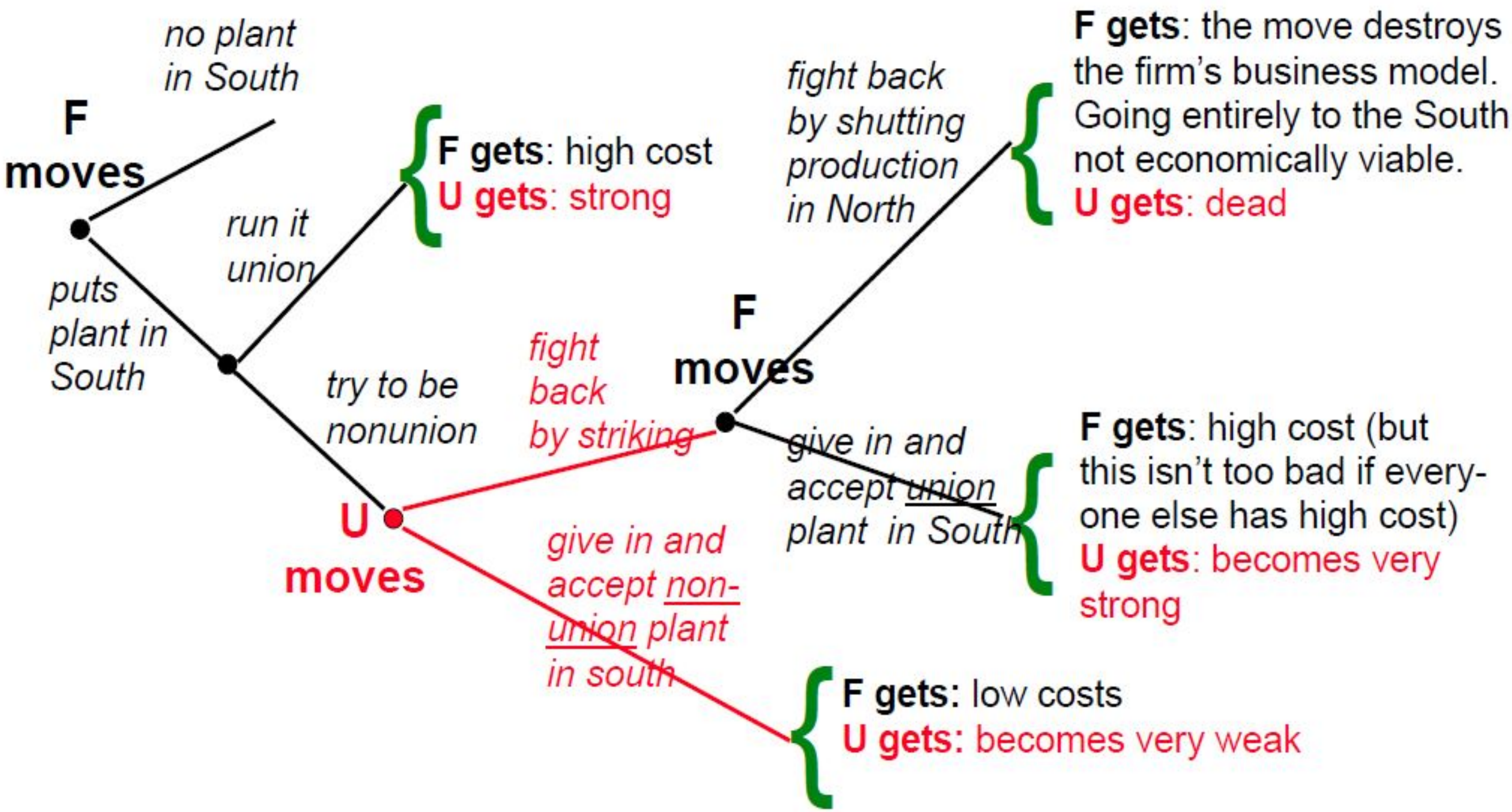
The Union Game

- We can use game theory to understand the interactions between a firm and a union. (sequential game: order of moves matter)

- Let's set up a Game Tree to specify the moves of the players and the order that the moves take place. The game tree also specifies how the payoffs depend on what takes place. (For simplicity we use words rather than converting the payoffs to numbers.)

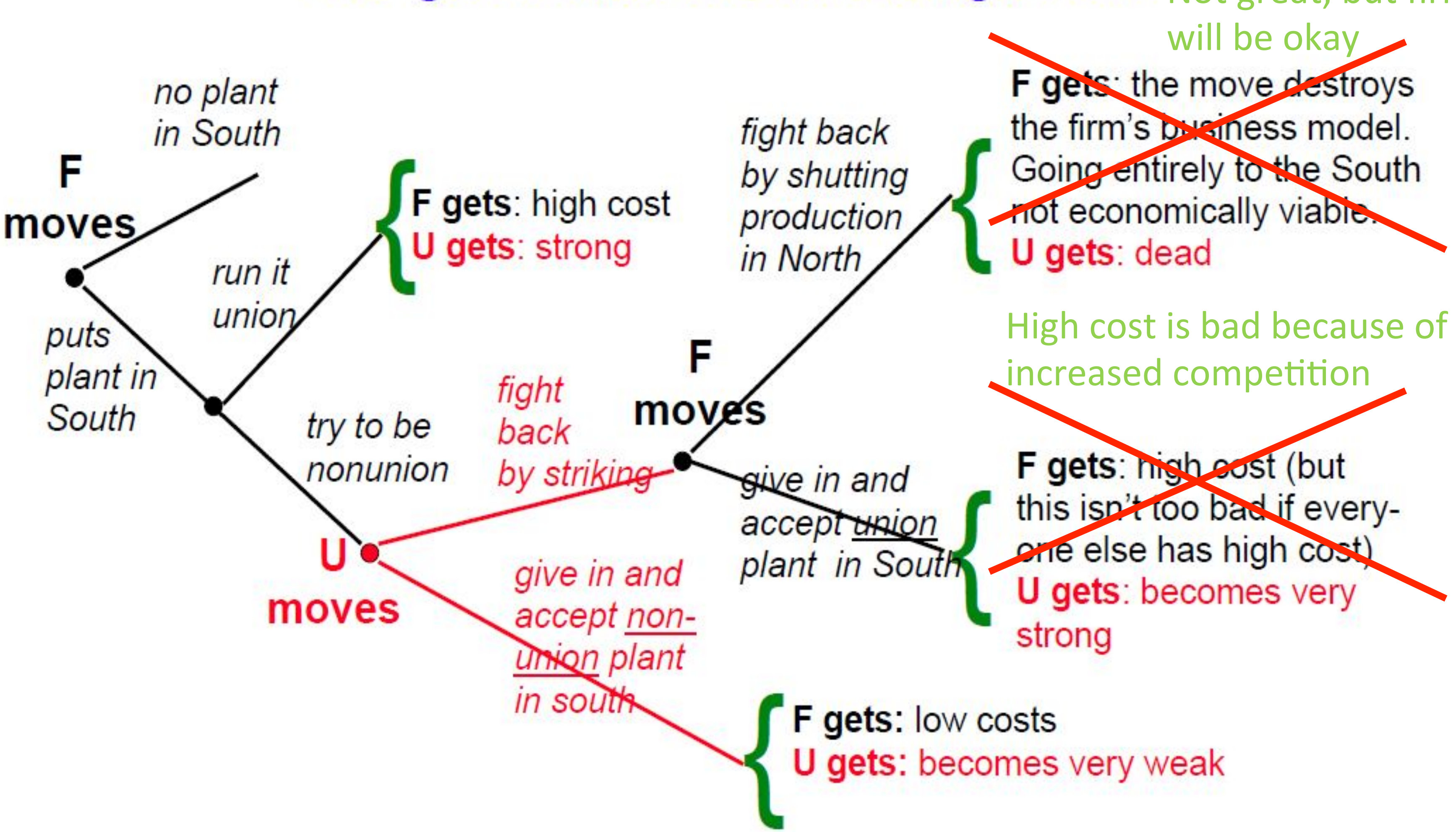
- We look at the game tree for GM in the 1960s and for Boeing in 2010. We assume each player is forward-looking and assume the other player will play rationally.

Game Tree for Auto Companies in 1960s



F is firm (initially with all production in North)
U is union (initially representing plants in North)

Changes in Game Tree for Boeing in 2010



F is firm
U is union

- What is the equilibrium sequence of outcomes for GM in the 1960s?
  - Last stage: GM chooses to give in and accept unions
  - Second to last: Union chooses to fight back by striking
  - Seeing that, GM will just pick to run the plant with an union in the second stage
  - In the first stage, let's assume that GM has an incentive to expand to the South
- What about for Boeing in 2010?
  - Last stage: Boeing picks to fight by shutting production in the North
  - Second to last: Union sees that if it fights, they will die. So they give in
  - Boeing, knowing this, will choose to run the new Southern plant without a union

Boeing Real Experience

- Boeing decided to open up the nonunion plant, but in April 2011, the union convinced the National Labor Relations Board that moving the plant to the South was “unfair labor practice”
- Case was based on evidence that Boeing executives were moving a plant to the South *in retaliation* to strikes
- The labor board actually prevented the plant from opening
- Boeing needed the extra production facility so it ended up settling with the union by adding more production in Washington as a consolation

Boeing made some blunders, so not that easy…

- In April 2011, the union successfully got government to come in on its side.
- National Labor Relations Board (NLRB) sided with the union that the way Boeing moves to the south was an "unfair labor practice." (Because executives said they were sick and tired of strikes and that's why they did it. If management had never said this stuff, the union wouldn't have had a case.)
- NLRB actually held up production starting at the South Carolina plant. All this was going to court but....
- Boeing has a lot of plane orders and doesn't want any more delays. Has settled with the union and will be adding more (union) production in Washington in return for the union dropping the charges regarding to the South Carolina plant.

Summary

So why do people receive different wages?

1. In competitive labor markets, people with the same skills will receive different wages if working conditions vary. (Compensating Differentials)

2. In competitive labor markets, people with different skills and ability will get different wages (as wage includes a return to human capital)

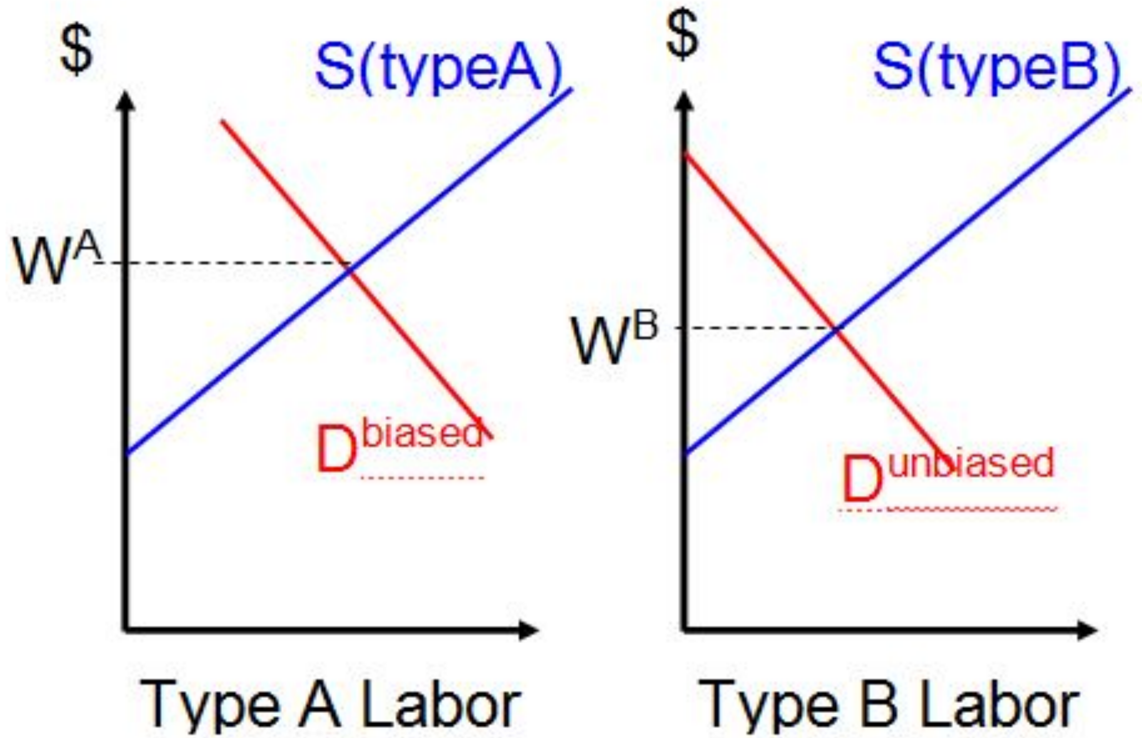
3. If labor markets are not competitive, workers of equal ability might receive different pay. For example, a union worker might receive 10-20% more than someone doing the same job with same skill.

4. Labor Market Discrimination

Labor Market Discrimination

- Suppose there are two kinds of workers, type A and type B, and they have equal ability.
- Suppose there are two kinds of firms, biased and unbiased.
  - Biased firms refuse to hire type B
  - Unbiased firms don’t care, will hire whichever type is cheapest.

So equilibrium in the labor market might look like this:



- We see that in equilibrium $W^B < W^A$.

- How can this be? Biased firms know they can pay less for type B workers, but they refuse to hire them. The wage W^A is where the demand for type A workers by biased firm equals all of the supply.

- Since $W^B < W^A$, unbiased firms won't hire any type A workers, since they are too expensive. (Or rather than say they won't hire type A workers, they will offer W^B to both kinds of workers. But only type B workers will accept these wages. So W^B is where the supply of type B workers equals the demand from unbiased firms.)

Could we draw things differently and have an equilibrium where $W^B > W^A$?

Because…….

- Bottom line: If some firms are biased, we can have an equilibrium where $W^B < W^A$.

- But now think about the long run. Since biased firms pay higher wages for the same quality labor, biased firms will have higher average cost than unbiased firms. In the long run, low cost firms will tend to drive high cost firms out of the market.

- We conclude: If discrimination is due to preferences by firms, we expect market forces to work towards driving the discrimination out of the market.

- But what if firms don't care about the type of workers, but the firms' customers do? Suppose customers are biased and they don't like buying from a firm that employs type B workers. Then these firms will be able to charge higher prices, and so they won't go out of business.

- We conclude: If discrimination is due to preferences by consumers about the kind of workers that get hired, we do not expect market forces to work towards driving the discrimination out of the market.

Recent Evidence on Labor Market Discrimination

- A recent survey methodology has become popular, we will discuss an application of the methodology to study Swedish labor markets.

- Magnus Carlsson and Dan-Olof Rooth, "Evidence of ethnic discrimination in the Swedish labor market using experimental data,"
- Labour Economics Volume 14, Issue 4, August 2007, Pages 716-729

- (Similar to study in the U.S. discussed in the text, "Is Emily More Employable than Lakisha?")

Study sent applications to 1,552 job advertisements in Sweden.

- One set of applications used Swedish sounding names.
- Another set used Middle Eastern names
- The rest of the resume was the same.

- The callback rate for the Swedish sounding names was 50% higher than for the Middle Eastern names.
- The effect was biggest for the lowest level occupations (that actually have the largest share of immigrant employees.)