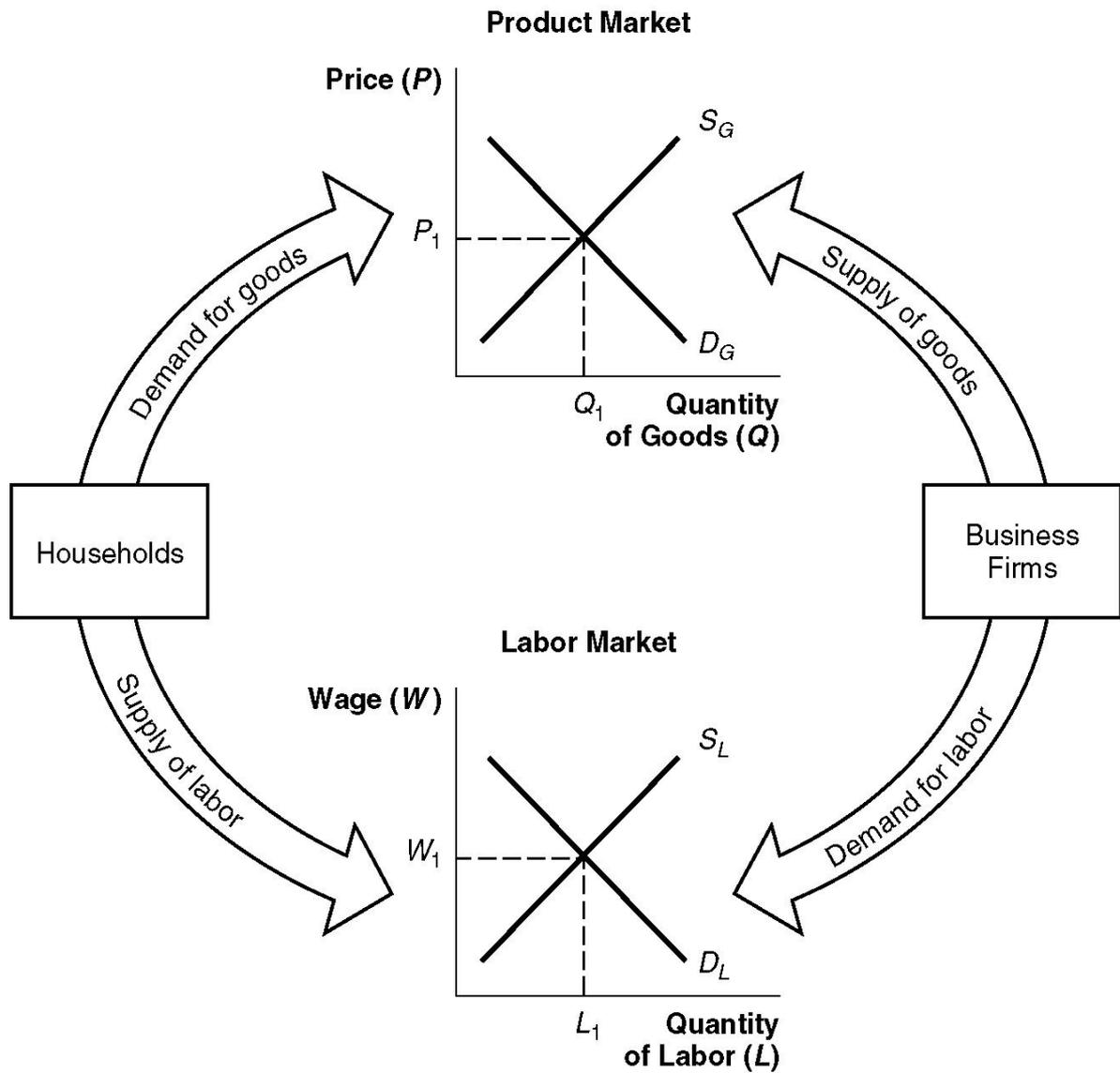


# Labor

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# Big Ideas

- The laws of supply and demand for employees with certain skills, education and training determine wage differences among jobs and professions.
- Unions arose late in the 19<sup>th</sup> century in response to conditions within the labor market and within specific industries have influenced employer-employee relations significantly through collective bargaining strategies and tactics.
- The nature of the economy and labor market have changed considerably, due in part to technological advances, increasing levels of employee skills, the growth of domestic and global competition and the international mobility of labor and capital.



# Supply of Labor

- Given the fixed amount of a time in a week, a person's decision to *supply labor* to firms is simultaneously a decision to *demand leisure* time for himself.
- If there are 24 hours a day, a decision to spend 8 hours working is also a decision to spend 16 hours doing other things



# Supply of Labor

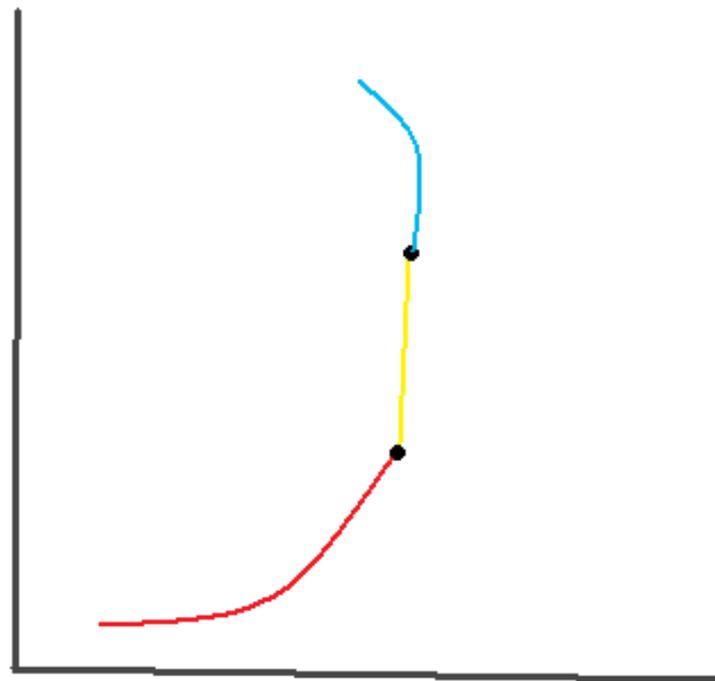
- **Substitution effect:** When wages increase, there is a resulting incentive to work more because of the higher relative reward to labor compared to leisure
- **Income effect:** The resulting rise of worker's purchasing power after a rise in wages that enables to afford more leisure
- **Therefore...** a wage increase will cause some people to work more and some people to work less. Still other people won't change their habits.
- **Let's look at a graph!**



# Supply of Labor

- For low-wage workers, the substitution effect is important. They will work more when wages rise.
- Most workers won't change their labor patterns following a rise in wages.
- For high wage workers, the income effect outweighs substitution effects. They tend to work less when wages rise

W  
A  
G  
E  
  
R  
A  
T  
E



Quantity of Labor  
Supplied

- The supply curve of labor is said to be **backward bending** when a small rise in wages leads to a rise in quantity of labor supplied but a large wage rise reduces the amount of labor supplied

# Demand For Labor

- In a competitive labor market, wages reflect a worker's labor productivity and businesses hire workers to help them produce goods. Because of this relationship, a producer's demand for labor is called derived demand.
- **Derived Demand**: demand for a good or service wanted not for its own sake but for the goods derived from it.
  - Example: some labor, textiles (demanded because they produce clothes)
  - If you hire workers to wash your windows, that is direct demand, you are not intending to resell
  - If you hire workers to chop wood that you will then sell, that is derived demand. The demand for the workers is derived from the demand for wood. If nobody wanted to buy wood, you wouldn't hire the labor.



# The Labor Force

- The labor force is defined as all nonmilitary workers over 16 who are employed or unemployed (but actively looking for work)
- Four Kinds of Workers
  - Unskilled workers possess no specialized skills or training. (waitress)
  - Semi-skilled workers have minimal skills. (lifeguard)
  - Skilled workers have specialized skills and training.(electrician)
  - Professional workers have advanced education.(doctor)



# Wage Rates

- The rate at which workers are compensated for a specific service.
- In the free market, economic wage rates are determined through supply and demand forces; however, political and social factors often influence their direction.



# Why do Wage Rates Differ?

- Demand can be different—each workers' marginal product depends on their abilities and degree of effort
- Supply—Size of available working populace. Immigration may depress wages, because working populace increases in size.
- Supply--Nonmonetary attractiveness of job influences supply (Working in Saratoga is alright, working in a slum is potentially more scary)
- Supply—Amount of training. (Lots of people can be janitors. Not many people can be heart surgeons).



# Why do Wage Rates Differ?

- Although supply and demand are extremely influential, there are other key factors that influence wages.
  - Human Capital
  - Nonmonetary Job Characteristics
  - Discrimination
  - Government Regulation

# Human Capital

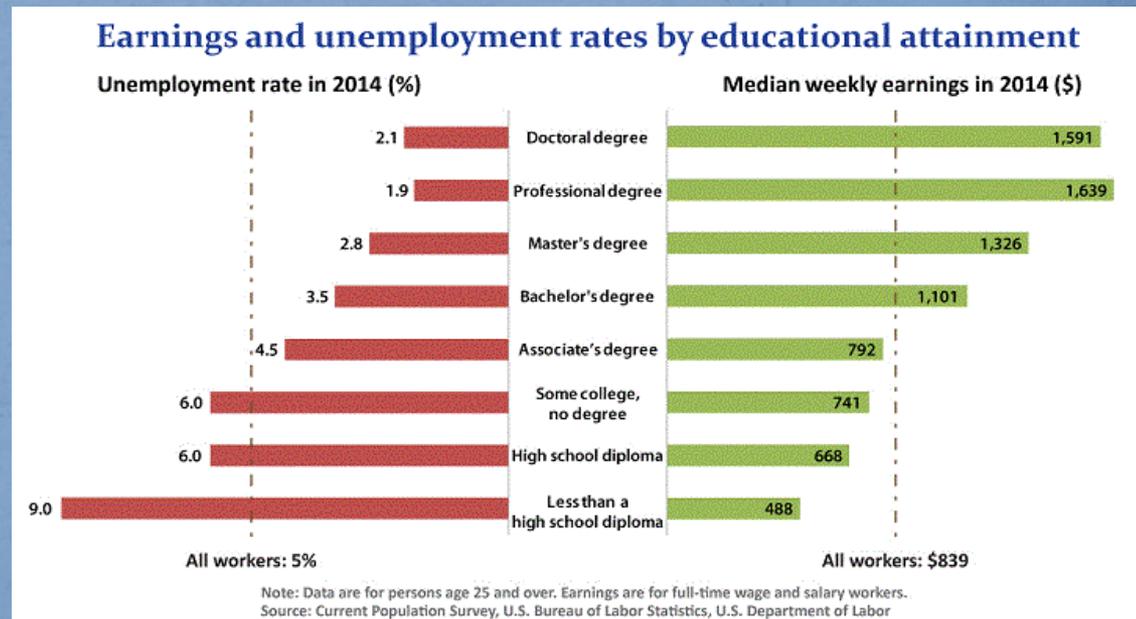
- **Human capital theory** focuses on the expenditures that have been made to increase the productive capacity of workers via education or other means → similar to investment in machines to increase productivity
- All else equal, jobs that require more education and training will be less attractive
  - In order to attract workers, these jobs must offer higher pay than other jobs that are similar in other ways, but require less training
- Differences in human capital requirements can give rise to compensating wage differentials
  - Jobs that require more costly training will tend to pay higher wages, other things equal



# Theories Concerning Education

- There are two theories as to why educated workers make more money.

1.) The Learning effect states that education increases productivity.



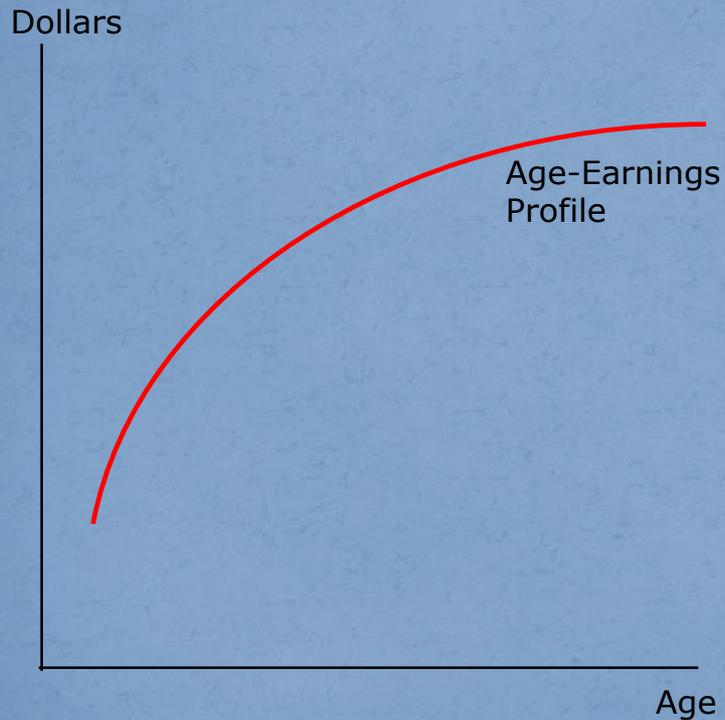


# On the Job Training

- Most workers augment their human capital stock through on-the-job training (OJT) after completing education investments
- Two types of OJT:
  - General: training that is useful at all firms once it is acquired
  - Specific: training that is useful only at the firm where it is acquired
- Firms only provide general training if they do not pay the costs
- If the firm and the worker share the returns to specific training the possibility of separation in the post-training period is eliminated

# Acquisition of Human Capital over the Life Cycle

Human capital investments are more profitable the earlier they are taken



- The age-earnings profile is upward-sloping and concave. Older workers earn more because they invest less in human capital and because they are collecting the returns from earlier investments. The rate of growth of earnings slows down over time because workers accumulate less human capital as they get older.

# Barriers to Entry



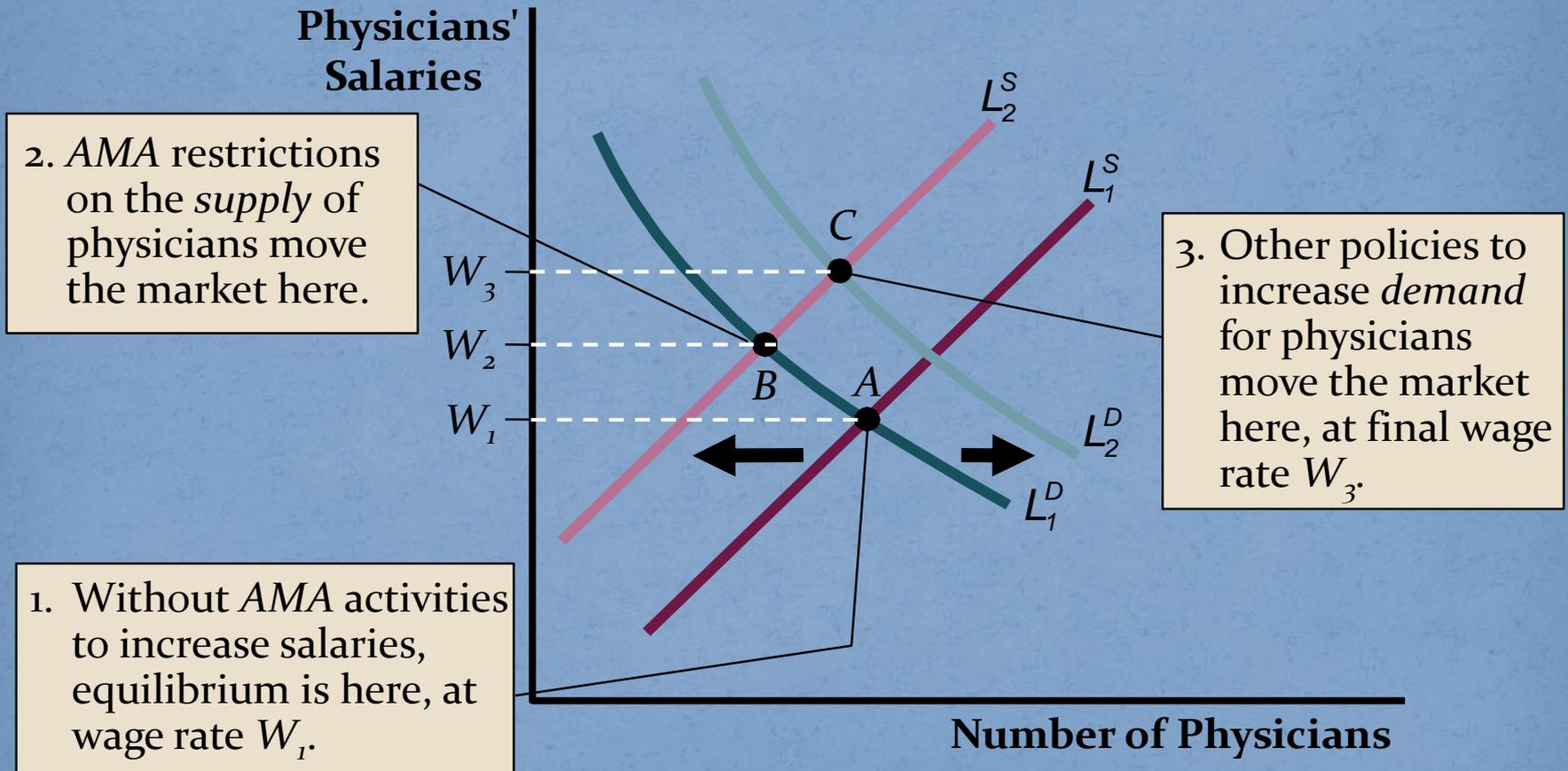
- In some labor markets, barriers keep out would-be entrants
  - Resulting in higher wages in those markets
- Since barriers to entry help maintain high wages for those protected by the barriers—those who already have jobs in the protected market
  - Should not be surprised to find that in almost all cases, it is those already employed who are responsible for erecting barriers

# Occupational Licensing



- In many labor markets, occupational licensing laws keep out potential entrants
- American Medical Association (AMA) is perhaps the strongest example of occupational licensing as a barrier to entry
  - Professional organization to which almost half of American physicians belong
  - Much of AMA's activity has been designed to decrease supply of doctors
  - AMA has also increased demand for physicians' services by preventing nonphysicians from competing
  - In late 1980's, rising health care costs led to increased public scrutiny of AMA, and its anticompetitive practices came under heavy attack
- Economists see AMA primarily as an instrument to maintain high incomes for doctors

# The Market for Physicians



# Nonmonetary Job Characteristics

- When evaluating a career, whether you are aware of it or not, you are evaluating hundreds of nonmonetary job characteristics, including
  - Risk of death or injury
  - Cleanliness of work environment
  - Prestige you can expect in your community
  - Amount of physical exertion required
  - Degree of intellectual stimulation
  - Potential of advancement



# Nonmonetary Job Characteristics

- You will also think about geographic location of job and characteristics of the community in which you would live and work
  - Weather
  - Crime rates
  - Pollution levels
  - Transportation system
  - Cultural amenities
- Nonmonetary characteristics of different jobs give rise to compensating wage differentials
  - Jobs considered intrinsically less attractive will tend to pay higher wages, other things being equal
- Cost of Living Compensations

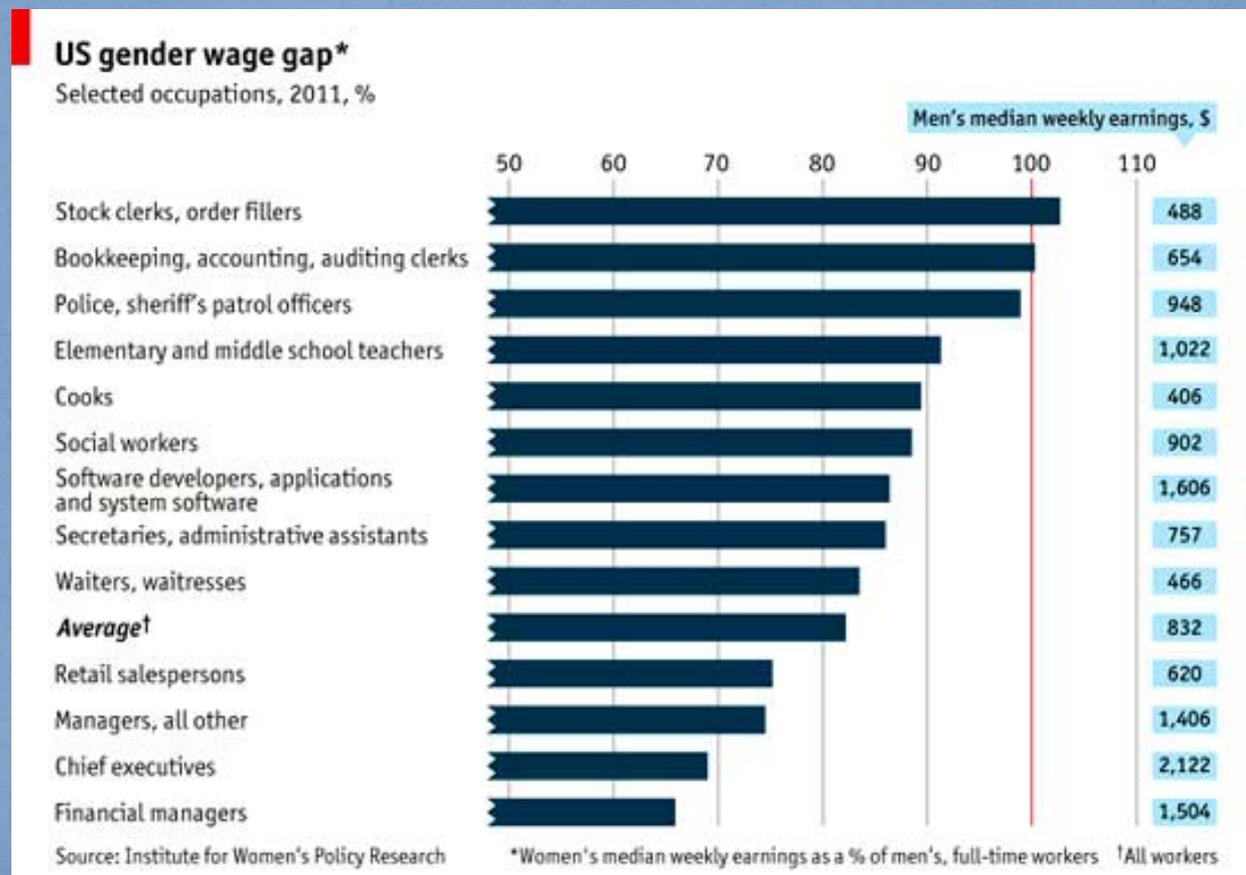


# Discrimination and Wages

- Discrimination occurs when members of a group of people have different opportunities because of characteristics that have nothing to do with their abilities
- First step in understanding economics of discrimination is to distinguish two words that are often confused
  - Prejudice
    - Emotional dislike for members of a certain group
  - Discrimination
    - Restricted opportunities offered to such a group

# Labor Market Discrimination

- Occurs when equivalent labor resources are paid or treated different even though their productive contributions are equal
- **Wage discrimination**—a group (frequently women or minorities) are paid less for the same type of work



- **Employment discrimination**—a group receives inferior treatment in hiring, promotions, etc.
- **Occupational discrimination**—a group is arbitrarily restricted from entering more desirable occupations → “glass ceiling”
- **Human Capital Discrimination**—a group doesn't have the same access to productivity enhancing investments

# Why should we care?

- Discrimination is inefficient and generally bad for the economy
- Employers who discriminate may lose productivity because when they hire based on traits irrelevant to labor productivity they will miss out on optimizing production

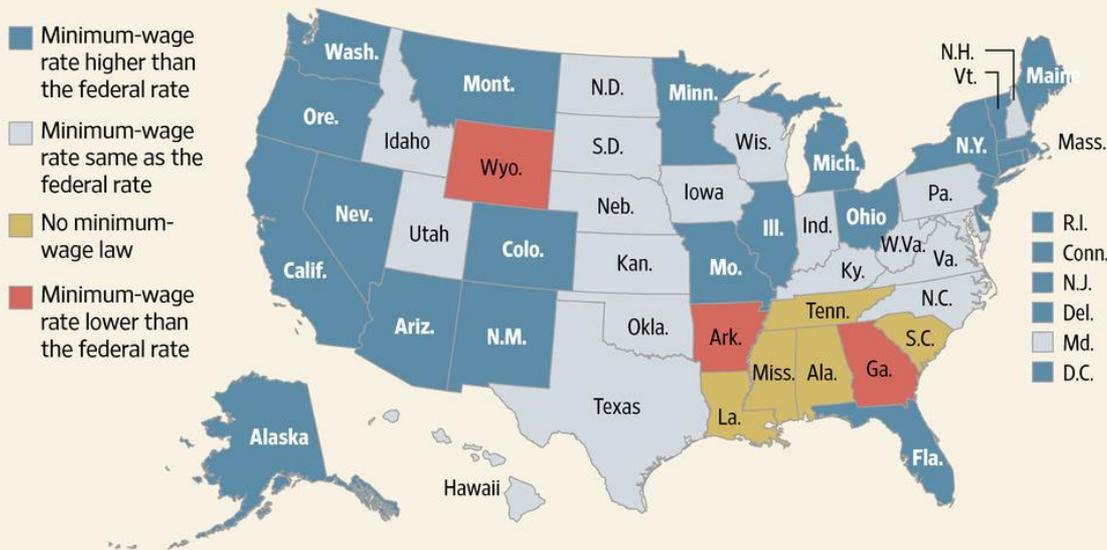
# Government Regulation

- Minimum wage law...makes it illegal to hire a worker for less than a specified wage
  - In any labor market covered by the law

## Hourly Pay

Many states continue to follow the federal minimum wage (\$7.25 an hour), though a growing number of states plan to increase their minimum wages in coming years.

Minimum-wage laws by state, 2014



On Tuesday, five states voted to increase their minimum wage within the next few years.

### HOURLY MINIMUM WAGE

	Current	Future
Alaska	<b>\$7.75</b>	<b>\$9.75</b> by 2016
Arkansas	<b>\$6.25</b>	<b>\$8.50</b> 2017
Illinois <sup>†</sup>	<b>\$8.25</b>	<b>\$10.00</b> 2015
Nebraska	<b>\$7.25</b>	<b>\$9.00</b> 2016
S. Dakota	<b>\$7.25</b>	<b>\$8.50</b> 2015

Note: Where states have no or lower minimum-wage rates than the federal rate, the federal rate applies. Minimum wage current as of Sept. 1; †Non-binding measure

Source: U.S. Labor Department (laws); state labor departments (wage figures)

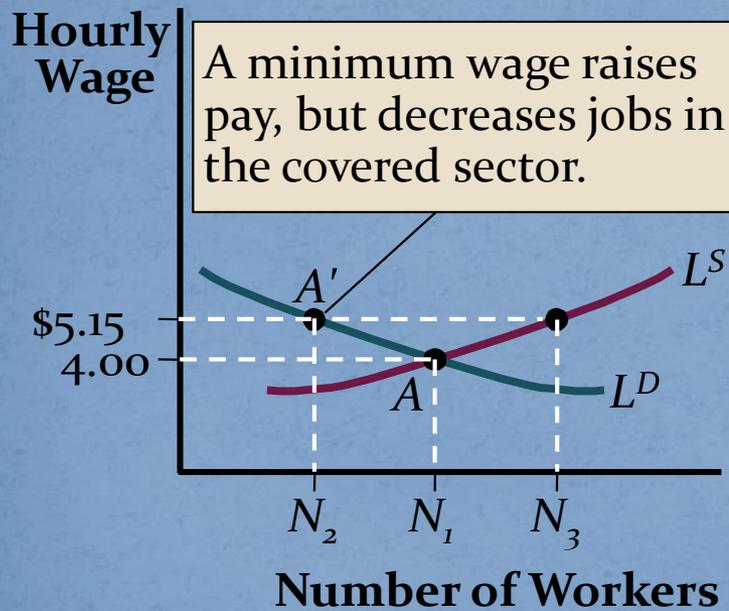
The Wall Street Journal

- Most people think about the minimum wage as a means to increase living standards for the lowest paid workers, and their analysis stops there
- But minimum wage creates a wage differential among the least-skilled workers, depending on the industry in which they work
  - By raising wages rates in covered industries, and lowering them in uncovered industries

# Figure 8(a/b): The Minimum Wage

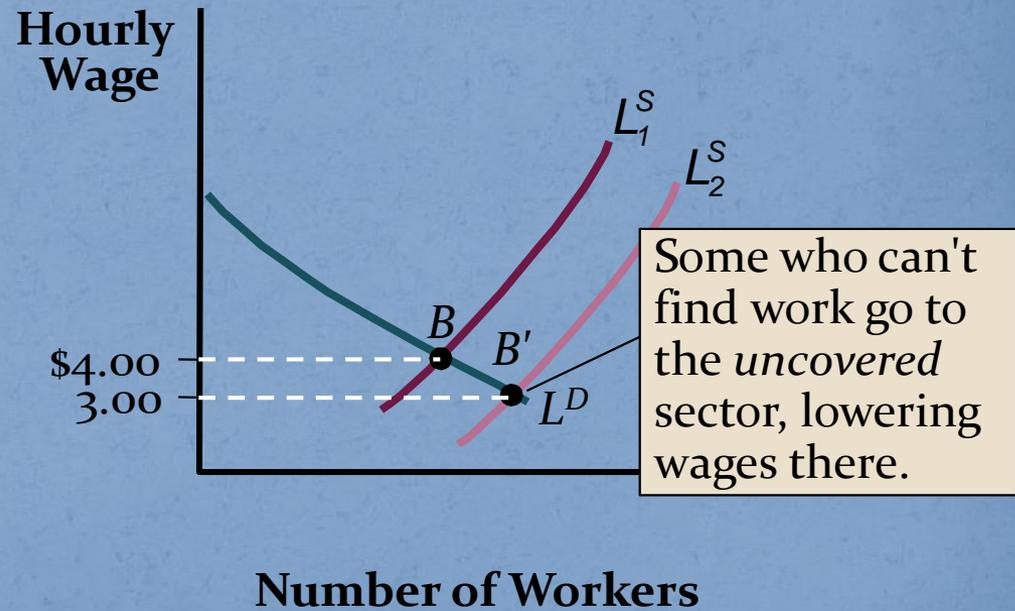
(a)

Unskilled Labor  
Covered by Law



(b)

Unskilled Labor *Not*  
Covered by Law

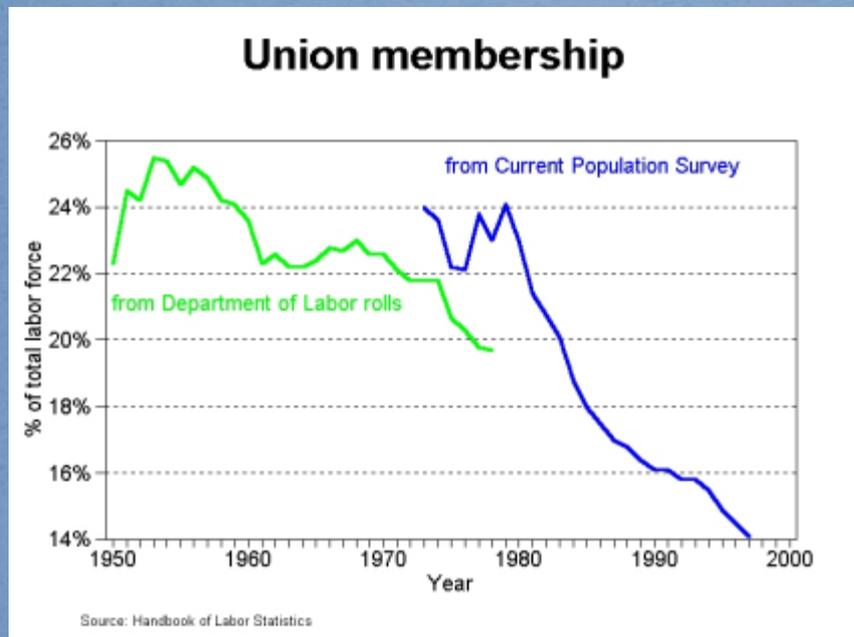


# Unions

- A **labor union** is an organization made up of a group of workers (usually with the same specialization or in the same industry)
- The union represents the workers in negotiations over issues such as wages, vacations, and sick leave



# Unionism in America

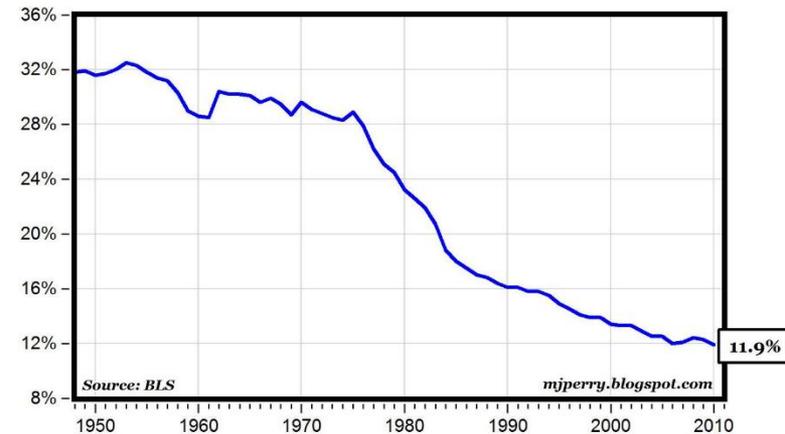


- 16 million U.S. workers—12.5% of wage and salary workers—belong to unions
- 9 million belong to the AFL-CIO or affiliated unions
- 7 million belong to independent unions
- Decline over time—but why?

# Decline in Unionism

- **Structural-change hypothesis:** theory that changes unfavorable to expansion of union membership have occurred in economy and labor force. People shifting away from unionized industries
- **Managerial-opposition hypothesis:** theory that decline has occurred because of intensified managerial opposition to union growth. The wage advantage of union workers causes union firms to be less profitable than nonunion firms. Therefore, management pursues policies to decrease unions

**Union Membership  
Percent of All U.S. Workers  
1948 to 2010**



# AFL-CIO



## Types of Unions

- Eventually, unions gained power. Though it is illegal today, unions forced employers to use closed shops.
- A closed shop is a business that only hires union members.
  - Today closed shops are illegal
- A union shop is a business that will hire nonunion members but requires them to join the union once they are hired.
- An agency shop is a business that does not require workers to join the union but does require all workers to pay union dues.
- Even nonunion members must pay union dues to prevent the problem of the free rider.
- A free rider is a person who would not pay for a particular service but would nonetheless benefit from the service.

# Collective Bargaining



- Best case scenario for a union—achieve wage gains without sacrificing employments
  - Potential Problem: Featherbedding—forcing management to employ more workers than it really needs
- **Collective Bargaining:** The process of negotiation of wages and working conditions between a union and the firms in an industry
  - **Mediation:** A neutral individual helps the parties reach an agreement
  - **Arbitration:** A neutral party helps the parties with the power to decide, both parties must accept his decision

*And if it doesn't work?*

# Strike!

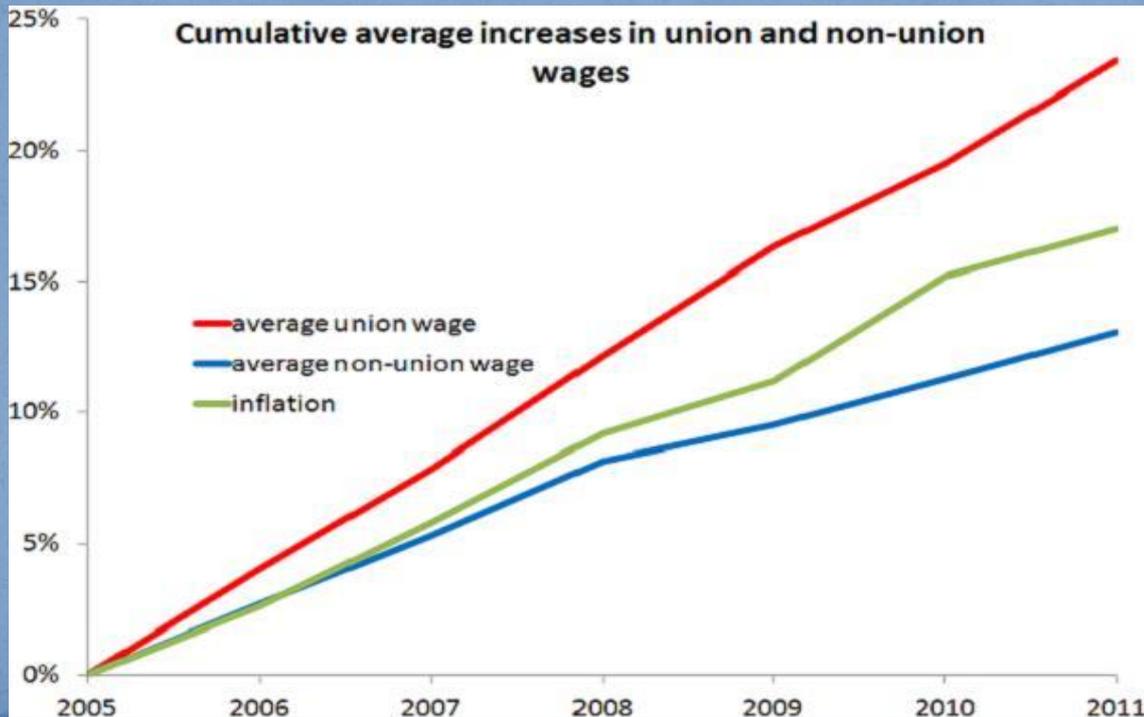
- Most collective bargaining doesn't lead to strikes
- “work stoppage” by union if it thinks its demands are not being met
- **Lockout**—forbids the workers to return to work until a new contract is signed
- In California, public employees have the legal right to strike, however if there is a countervailing public interest, it may outweigh that right in cases where the public welfare is at issue.
  - Does the strike create an imminent threat to the safety and health of the public?





# Economic Effect of Unions

- Empirical research suggests unions do raise the wages of their members relative to nonunion workers
- May also raise wages of nonunion workers by forcing nonunion employers to compete more fiercely for workers



# Economic Effects of Unions: good and bad

- The “shock effect” — higher wages cause them to implement productivity increasing technologies
- Reduced worker turnover
- Voice mechanism—gives workers the ability to communicate with employer, instead of just quitting
- Increase in formal training → union insistence on seniority
- Losses via featherbedding and work rules—engaging in “make-work” practices and resisting the introduction of output increasing machinery
- Losses via strikes—the firm forgoes sales and profit, firm’s production ceases for strikes duration
- Losses via labor misallocation