



## **LECTURE NINE - PART FIVE**

## Wages Under Differing Market Structures

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- Let's start with imperfect competition in the product market.
- What do you think will be the big difference here?

## **Imperfect Competition**

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- The monopolist, the oligopolist, or the monopolistic competitor will face a demand curve for its product that is downward sloping.
- That, in turn, means that the firm must accept a lower price to increase its sales.

### Key Point

The lower price that accompanies every increase in output applies in each case not only to the marginal product of each successive worker but also to all prior units which otherwise would be sold at a higher price.

(1) Units of resource	(2) Total Product	(3) Marginal Product (MP), Or $\Delta(2)^*$	(4) Product Price	(5) Total Revenue, or (2)X(4)	(6) Marginal Revenue Product(MRP), Or $\Delta(5)^*$
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Pause presentation to fill in circles!

0	0		\$2.80	\$ 0	
1	7	7	2.60	18.20	
2	13	6	2.40		
3	18	5	2.20	39.60	
4	22	4	2.00		
5	25	3	1.87	46.25	
6	27	2	1.75	47.25	
7	28	1	1.65	46.20	

\* $\Delta$  indicates a "change in."

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1	7	7	2.60	18.20	
2	13	6	2.40	31.20	
3	18	5	2.20	39.60	
4	22	4	2.00	44.00	
5	25	3	1.87	46.25	
6	27	2	1.75	47.25	
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$$\text{MRP} = \$14.40 - (7 \times 0.20) = \$13.00$$

0	0	7	\$2.80	\$ 0	
1	7	6	2.60	18.20	
2	13	5	2.40	31.20	13.00
3	18	4	2.20	39.60	
4	22	3	2.00	44.00	
5	25	2	1.87	46.25	
6	27	1	1.75	47.25	
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Will the MRP curve be more or less elastic for the imperfectly competitive producer relative to the purely competitive producer?

0	0		\$2.80	\$ 0	
1	7	7	2.60	18.20	\$18.20
2	13	6	2.40	31.20	13.00
3	18	5	2.20	39.60	8.40
4	22	4	2.00	44.00	4.40
5	25	3	1.87	46.25	2.25
6	27	2	1.75	47.25	1.00
7	28	1	1.65	46.20	-1.05

\* $\Delta$  indicates a "change in."

## Perfect Competition

(1) Units of resource	(2) Total Product	(3) Marginal Product (MP), Or $\Delta(2)^*$	(4) Product Price	(5) Total Revenue, or (2)X(4)	(6) Marginal Revenue Product(MRP), Or $\Delta(5)^*$
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0	0		\$2	\$ 0	
1	7	7		14	\$14
2	13	6	2	26	12 >\$11.95
3	18	5	2	36	10 >\$ 9.95
4	22	4	2	44	8
5	25	3	2	50	6
6	27	2	2	54	4
7	28	1	2	56	2

\* $\Delta$  indicates a "change in."

## Imperfect Competition

(1) Units of resource	(2) Total Product	(3) Marginal Product (MP), Or $\Delta(2)^*$	(4) Product Price	(5) Total Revenue, or (2)X(4)	(6) Marginal Revenue Product(MRP), Or $\Delta(5)^*$
-----------------------------	-------------------------	---	-------------------------	--	---

0	0		\$2.80	\$ 0	
1	7	7		18.20	\$18.20
2	13	6	2.60	33.80	15.60 >\$11.95
3	18	5	2.40	43.20	9.60 <\$ 9.95
4	22	4	2.20	48.40	5.20
5	25	3	2.00	50.00	1.60
6	27	2	1.87	50.49	0.49
7	28	1	1.75	49.00	-1.00

\* $\Delta$  indicates a "change in."

## **An Important Implication**

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- Other things equal, the imperfectly competitive producer will produce less of the product than the perfect competitor.
- In doing so, the imperfectly competitive producer will also employ fewer workers, and more broadly, fewer factors of production.

# Imperfect Competition In The Labor Market

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- Let's go back to assuming perfect competition in the product market.
- What happens if there is imperfect competition in the labor market itself?
- In this case, there are two polar possibilities:
  1. Monopsony
  2. Monopoly

# Monopsony

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- The typical example of monopsony is the so-called "company town."
- Monopsony has the following characteristics:
- **First**, the firm's employment is a large portion of the total employment of a particular kind of labor such as coal mining or food processing.



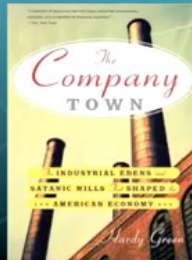
## Labor Immobility

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- **Second**, the workers are relatively immobile, meaning that workers don't or can't move easily from the area.
- This might happen if they have strong family ties to an area.
- It may also happen in the sense that, if workers sought alternative employment, they would have to acquire new skills.

## Monopsonies Are Not Uncommon

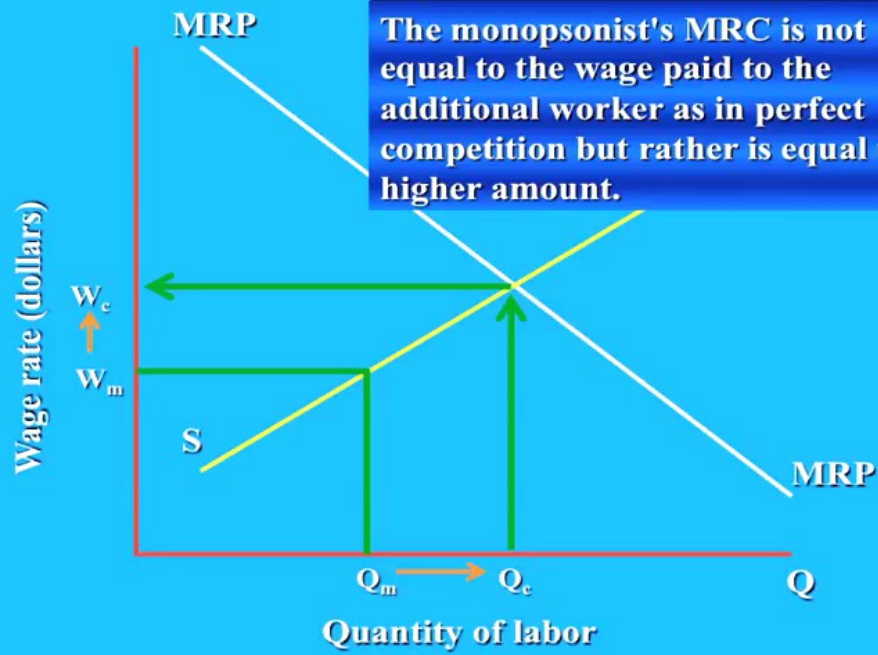
- From New England textile mill and Colorado silver-mining towns to farm-belt food-processing communities and remote Montana mining areas, the economies of many towns and cities in America depend almost entirely on one major firm.



## The Firm Is A Wage Maker

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- The wage rate the firm pays varies directly with the number of workers it employs.
- Unlike a firm hiring workers in a perfectly competitive labor market, the monopsonist does not simply hire all the labor it wants at the equilibrium market wage.



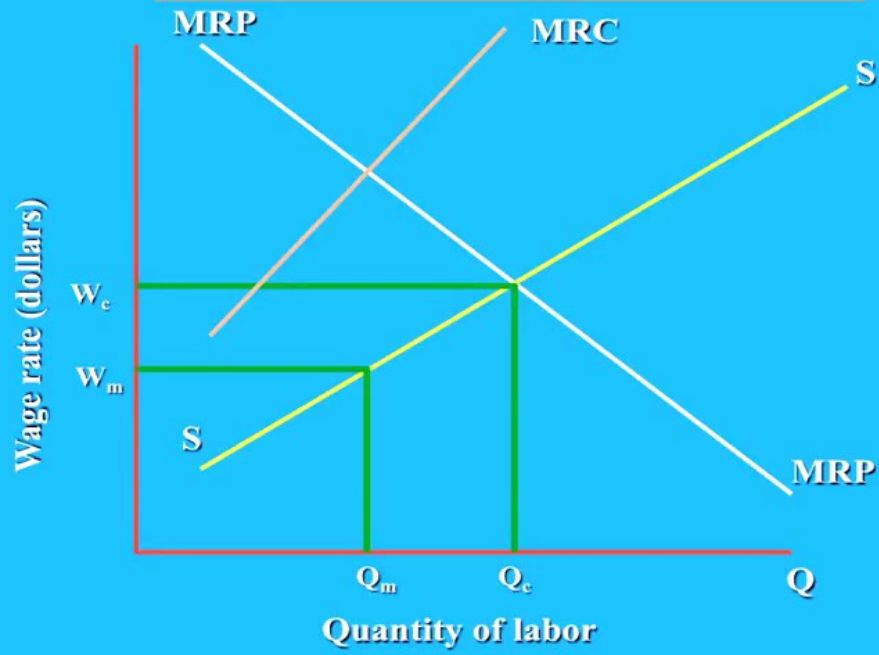
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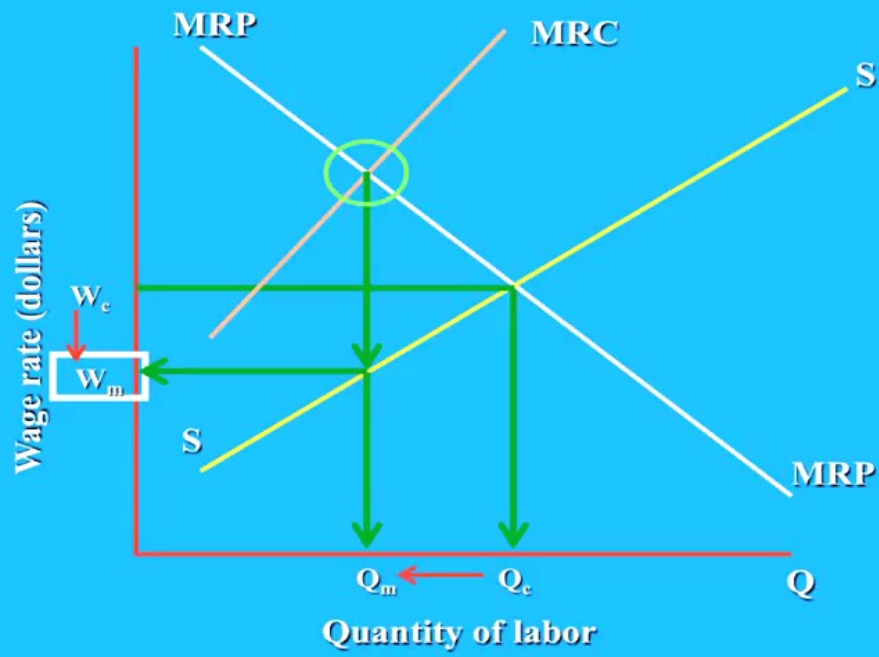
(1) Units of Labor	(2) Wage Rate	(3) Total labor Cost (wage bill)	(4) Marginal Resource (labor) cost
0	\$ 5	\$ 0	\$ 6
1	6	6	
2	7	14	
3	8	24	10
4	9	36	
5	10	50	
6	11	66	16



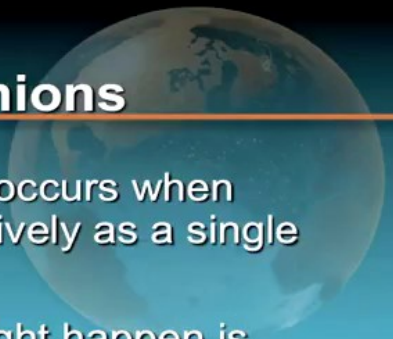
(1) Units of Labor	(2) Wage Rate	(3) Total labor Cost (wage bill)	(4) Marginal Resource (labor) cost
0	\$ 5	\$ 0	\$ 6
1	6	6	8
2	7	14	10
3	8	24	12
4	9	36	14
5	10	50	16
6	11	66	

Pause presentation to think about the answer!





## Monopoly And Labor Unions



- Monopoly in the labor market occurs when workers are able to act collectively as a single **bargaining unit**.
- The most obvious way this might happen is through the vehicle of a labor union.
- Using their monopoly power, unions can compel firms to provide wages, benefits, and working conditions that are above the competitive outcome.

## Example

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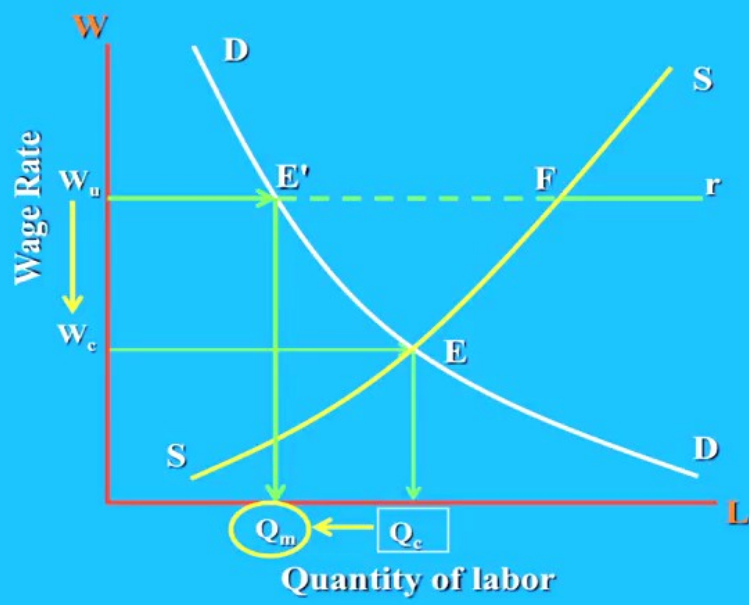
- If a non-union plumber earns \$15 per hour in Alabama, a union might bargain with a large construction firm to set the wage at \$25 per hour for that firm's plumbers.
- But such an agreement will only be valuable if the union can restrict the firm's access to alternative labor supplies.



## How It Works

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- Under a typical collective bargaining agreement, firms agree not to hire non-union plumbers, not to contract out plumbing services, and not to subcontract work to non-union firms.
- Each of these provisions help prevent erosion of the union's monopoly lock on the supply of plumbers to the firm.



## **Union Wages In Practice**

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- Do unions really raise wages in practice?
- According to a number of studies, the answer is yes.
- On the basis of these analyses, economists have concluded that union workers receive, on average, wages that are 10 to 15 percent higher than those of non-union workers.

## **This Difference Ranges From...**

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- A negligible amount for hotel workers and barbers.
- To 25 to 30 percent higher earnings for skilled construction workers or coal miners.

## Unions Are Important

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- The subject of unionism is controversial.
- The study of unions is an important part of understanding the dynamics of the U.S. labor market.
- About one-seventh of the workforce still belongs to a union.



## Furthermore

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- In negotiating collective bargaining contracts, unions raise issues that are important to all workers -- issues ranging from pensions, health care benefits, and working hours.