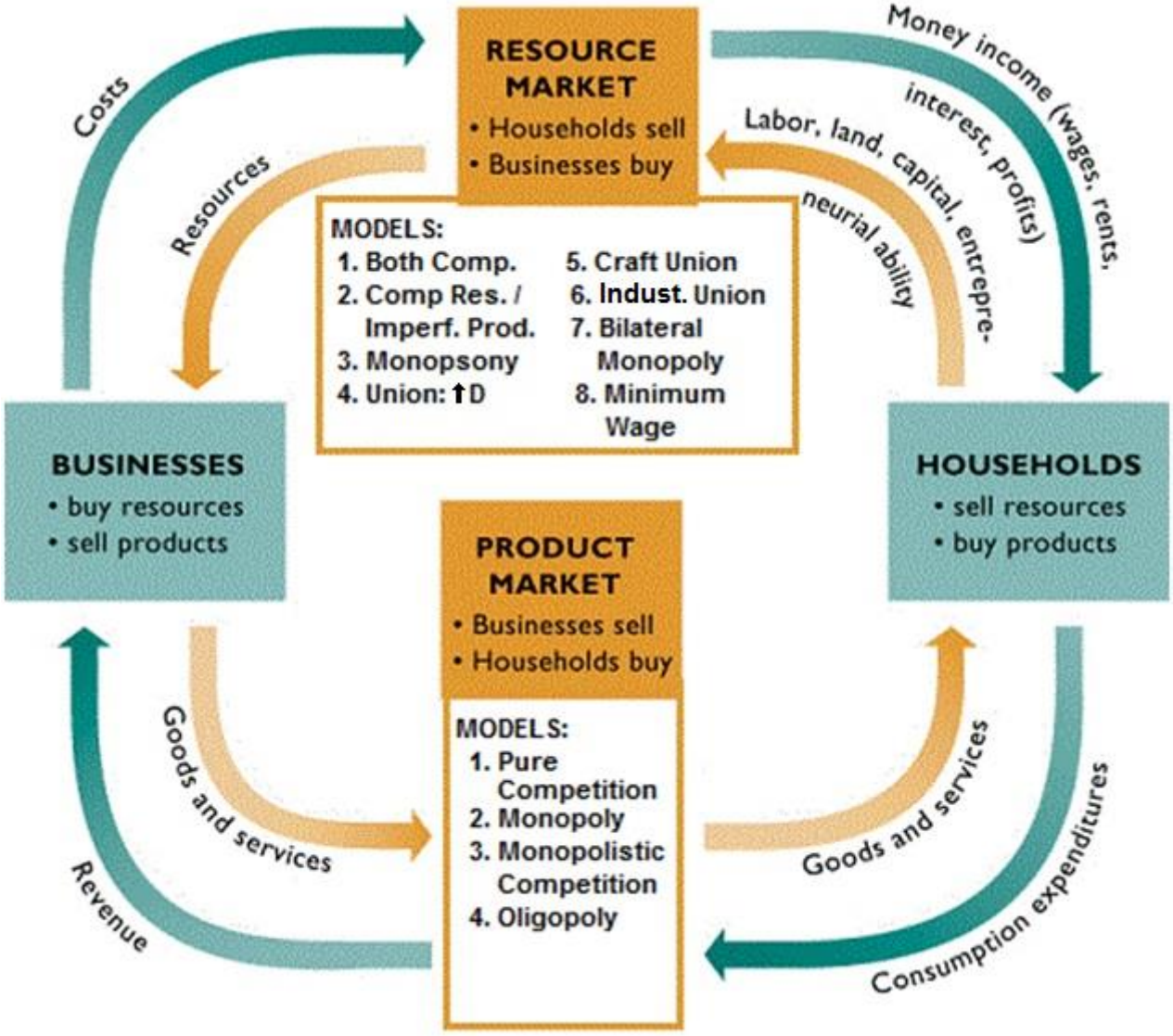
Eight Labor Market Models



Unit 4: Eight Resource Market Models

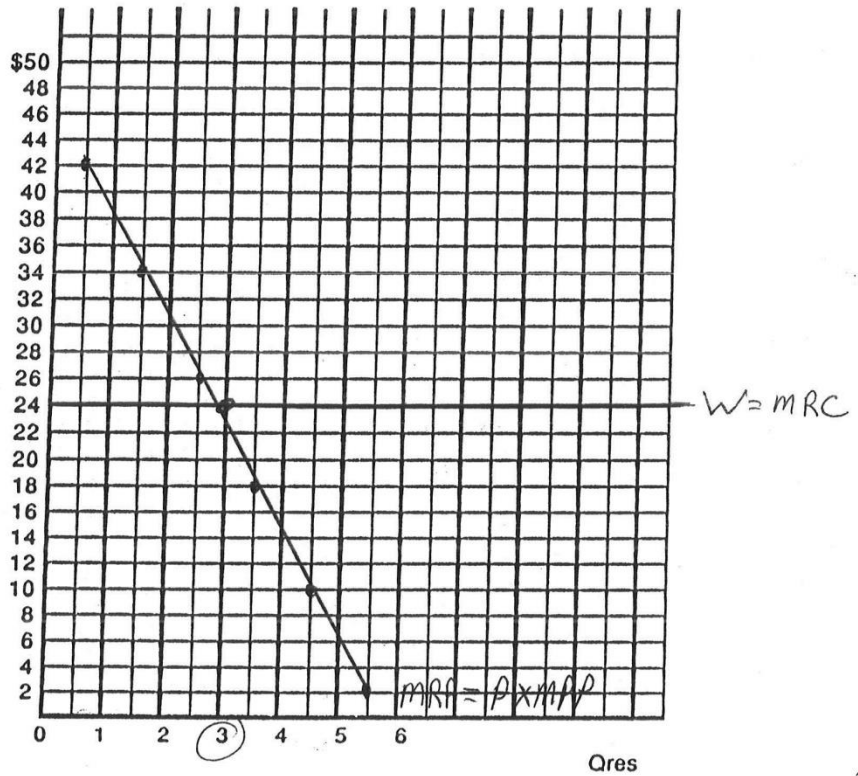
1. **Competitive Resource Market and Competitive Product Market**
2. **Competitive Resource Market and Imperfect Product Market**
3. **Monopsony**
4. **Union: Demand Enhancement**
5. **Unions: Exclusive or Craft union**
6. **Unions: Inclusive or Industrial Union**
7. **Unions: Bilateral Monopoly**
8. **Minimum Wage (3 models)**

OUTLINE - Chapter 12 – The Demand for Resources

Competitve Product Market and Competitive Resource Market **12a**

Q Resource	TP	MP	Product Price	TR	MRP	Wage	TC	MRC	VMP (PxMP)
0	0	--	$2.00	$0	--	$24	0	--	--
1	21	21	$2	$42	$42	24	$24	$24	$42
2	38	17	2	$76	$34	24	48	24	34
3	51	13	2	$102	$26	24	72	24	26
4	60	9	2	$120	$18	24	96	24	18
5	65	5	2	$130	$10	24	120	24	10
6	66	1	2	$132	$2	24	144	24	2

Plot: MRP = P x MP (Plot MRP at the midpoints), **W = MRC.**



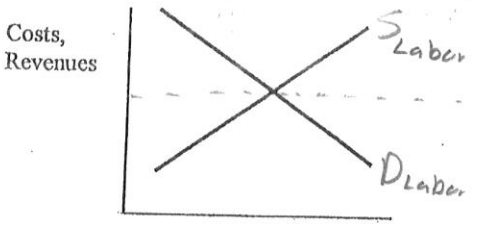
What quantity will be employed (the profit profit maximizing quantity to hire)? 3

What is the wage rate? $ 24

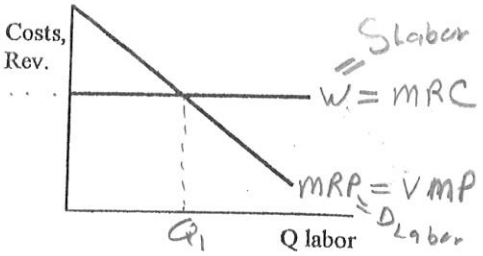
What is the allocatively efficient quantity to employ? 3

LABOR MARKETS

TYPE OF MARKET: Competitive Product AND Labor Market



Market



Individual Firm

Explanation / Characteristics / Examples

Competitive Product Market
Ch. 8 and 9
Many producers, standardized product
No market power = price taker
Example: Agriculture

Competitive Labor Market
- MRC = Wage rate because:
Many qualified workers with identical skills
Firms and workers are "wage takers"
- Example: market for unskilled labor
- Therefore the Supply of labor for the individual firm is perfectly elastic (horizontal)

Profit Maximizing Quantity: Q_1

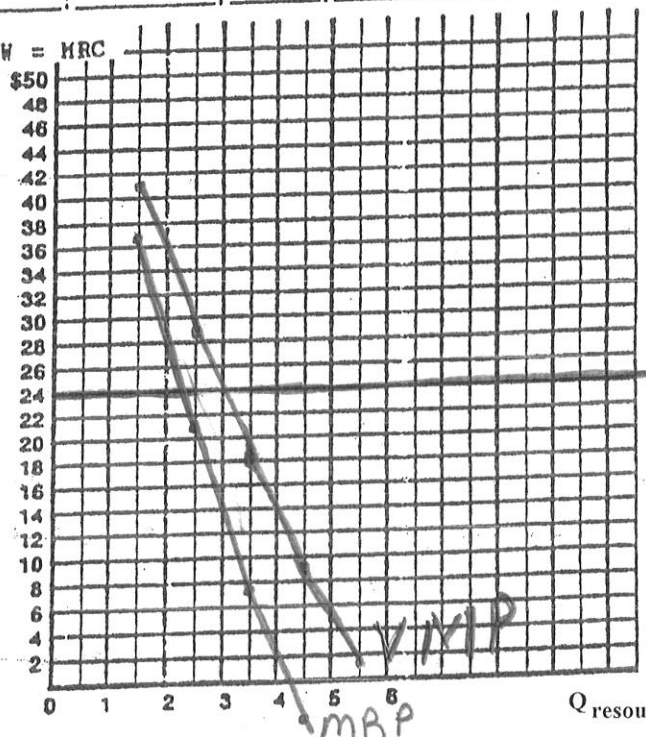
Allocative Efficient Quantity: Q_1

= TP x Prod Price

Q Resource	TP	MP	Product Price	TR	MRF	Wage	TC	MRC	VMP (P x MP)
0	0	--	$2.80	0	--	$24	0	—	
1	21	21	$2.60	54 60	54 60	24	24	24	54 60
2	38	17	$2.40	91 20	36 60	24	48	24	40 80
3	51	13	$2.20	112 20	21	24	72	24	28 60
4	60	9	$2.00	120	7 80	24	96	24	18 00
5	65	5	$1.80	117	-3	24	120	24	9 00
6	66	1	$1.60	105 60	-11 40	24	144	24	1 60

Plot: MRP, PxMP

(Plot MRP at the midpoints)



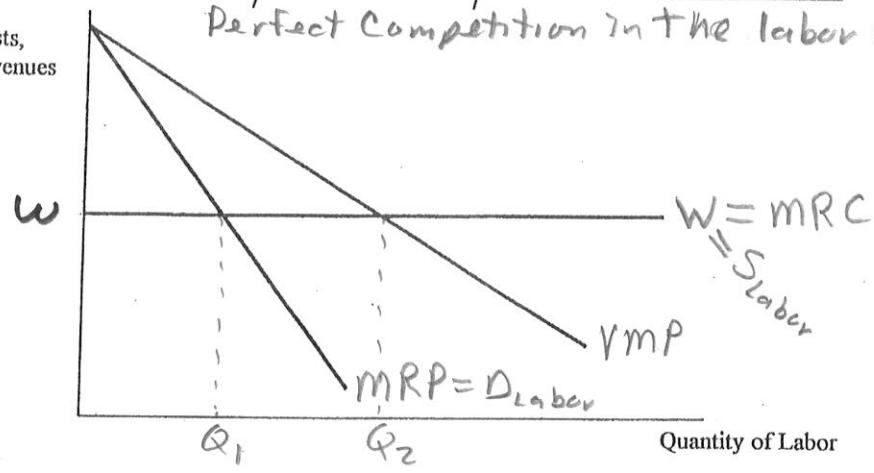
What quantity will be employed (the profit profit maximizing quantity to hire)? 2

What is the wage rate? $24

What is the allocatively efficient quantity to employ? 3

LABOR MARKETS

TYPE OF MARKET: Imperfect Competition in Product Market AND Perfect Competition in the labor market



Explanation / Characteristics / Examples

Textbook pp 251-252

Competitive Labor Market

Many qualified workers = wage takers

BUT they work for a Monopoly or Oligopoly or Monopolistic Competitor with some market power

Downward sloping Demand for product

We know monopolies will produce less and sell at a higher price. If they produce less they will hire less workers

Profit Maximizing Quantity: Q1

Allocative Efficient Quantity: Q2

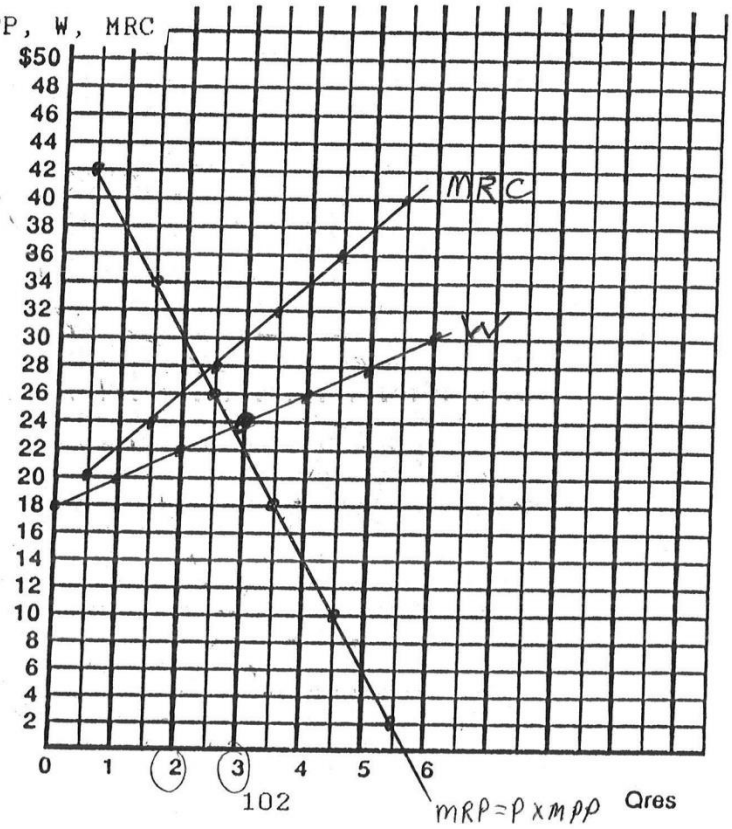
Resource Markets: Monopsony

Assumptions: imperfect competition in the resource market
perfect competition in the product market

Q Resource	TP	MPP	Product Price	TR	MRP	Wage	~~MRC~~ TVC	~~PxMPP~~ MRC	PxMPP
0	0	--	$2.00	0	--	$18	--	—	0
1	21	21	2	#42	#42	20	#20	20	#42
2	38	17	2	76	34	22	44	24	34
3	51	13	2	102	26	24	72	28	26
4	60	9	2	120	18	26	104	32	18
5	65	5	2	130	10	28	140	36	10
6	66	1	2	132	2	30	180	40	2

Plot: MRP = PxMPP, W, MRC

(Plot MRP and MRC at the midpoints.)



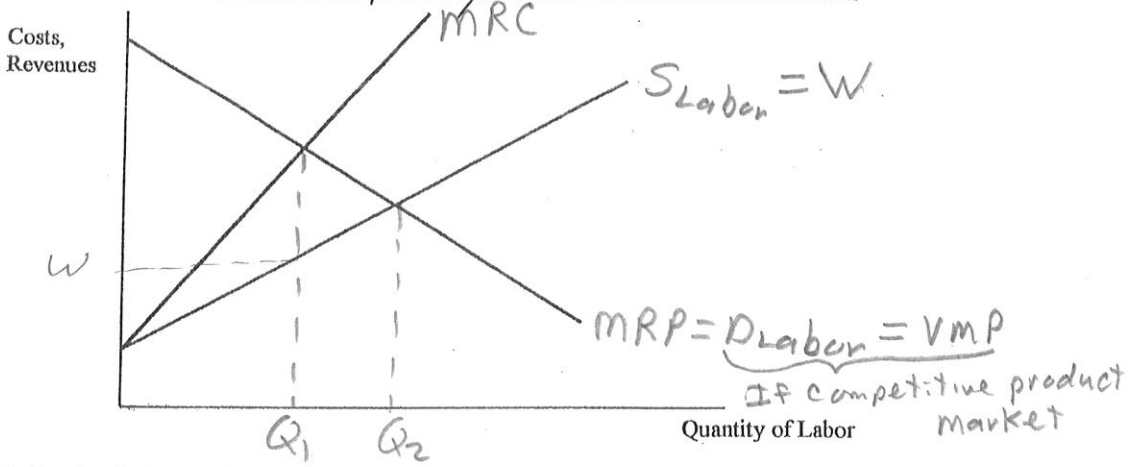
What quantity will be employed (the profit profit maximizing quantity to hire)? 2

What is the wage rate? $ 22

What is the allocatively efficient quantity to employ? 3

LABOR MARKETS

TYPE OF MARKET: Monopsony



Explanation / Characteristics / Examples

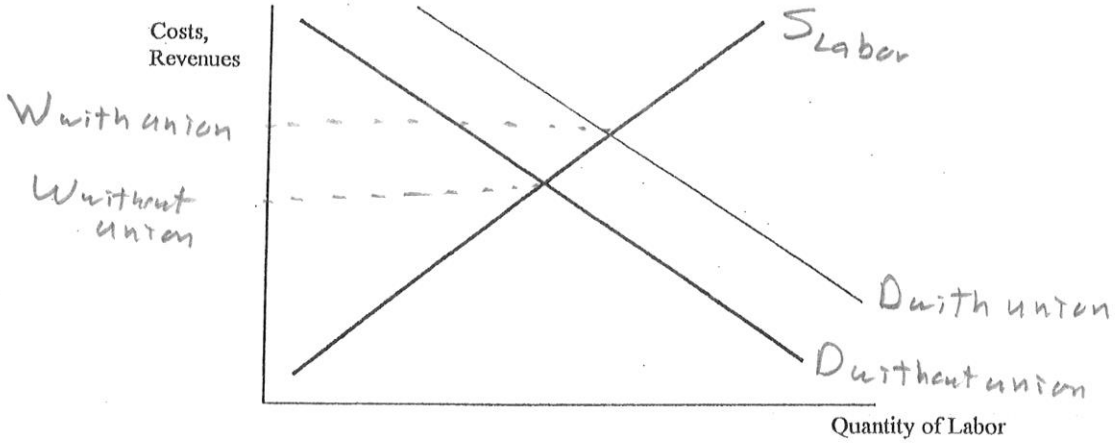
Monopsony
a single buyer of labor
Example: Major employer in a small town
A mining town in Appalacia, Colorado Ski Town
Firm is a "wage maker" - They will try to pay as low a wage as possible, therefore the supply of labor is upward sloping
MRC is higher than the wage rate

Profit Maximizing Quantity: Q_1

Allocative Efficient Quantity: Q_2

LABOR MARKETS

TYPE OF MARKET: Union Model – Increasing Demand



Explanation / Characteristics / Examples

To increase wages, some unions try to increase demand for union labor

How? (What are the determinants of labor demand?)

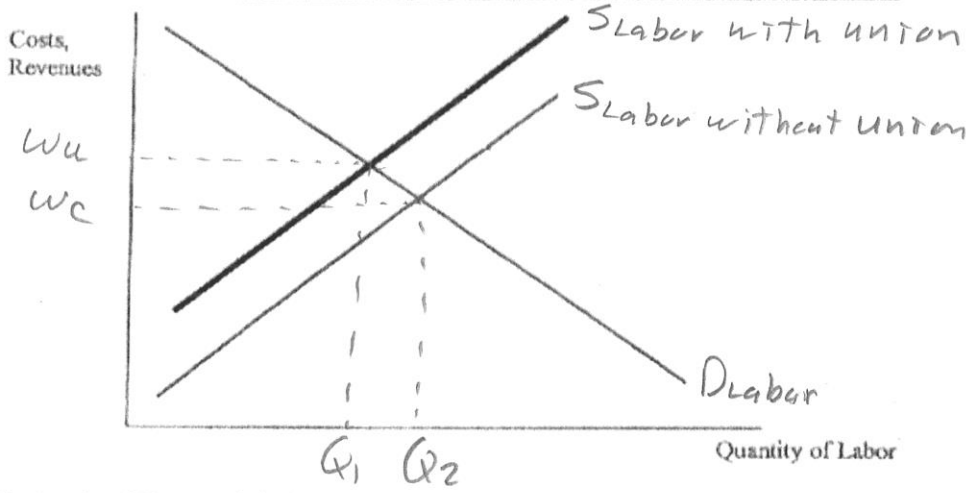
1. ↑ Demand for the products they produce
   eg. Unions lobby for more gov't construction projects
2. ↑ D for labor by ↑ Price of substitute resources
   eg. Unions support increases in the min. wage
3. ↑ D for labor by ↓ Price of complementary resources
   eg. trucking unions support more low-wage foreign agricultural workers

Profit Maximizing Quantity: _____

Allocative Efficient Quantity: _____

LABOR MARKETS

TYPE OF MARKET: **Exclusive or Craft Union**



Explanation / Characteristics / Examples

Some unions try to increase wages by reducing the supply of labor

Examples: restrict immigration, less child labor, compulsory retirement, shorter workweek

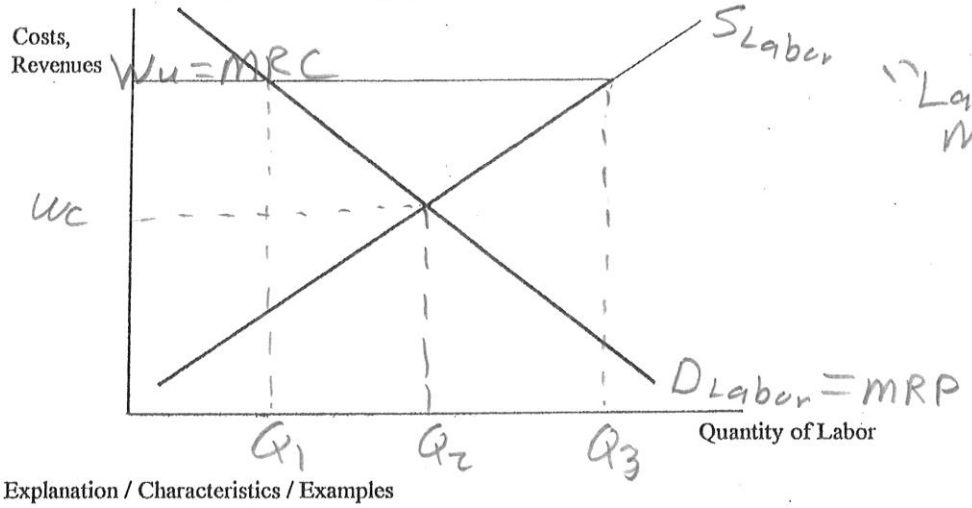
Craft unions: possess a certain skill (electricians, plumbers, carpenters)
try to force employers to only hire union
then they restrict union membership
high fees, long apprenticeships
Professional organizations: AMA, NEA, Lawyers
occupational licensing - barbers

Profit Maximizing Quantity: Q_1

Allocative Efficient Quantity: Q_2

LABOR MARKETS

TYPE OF MARKET: Union Model - Industrial Union (Inclusive Union)



"Labor Monopoly"

Explanation / Characteristics / Examples

W_u is the union negotiated wage rate
Since all workers must be paid W_u, it becomes the firm's MRC
Inclusive unions try to include everybody in the union - skilled, semi-skilled, unskilled

Examples!
- autoworkers
- steelworkers

Increase wages by threatening to strike

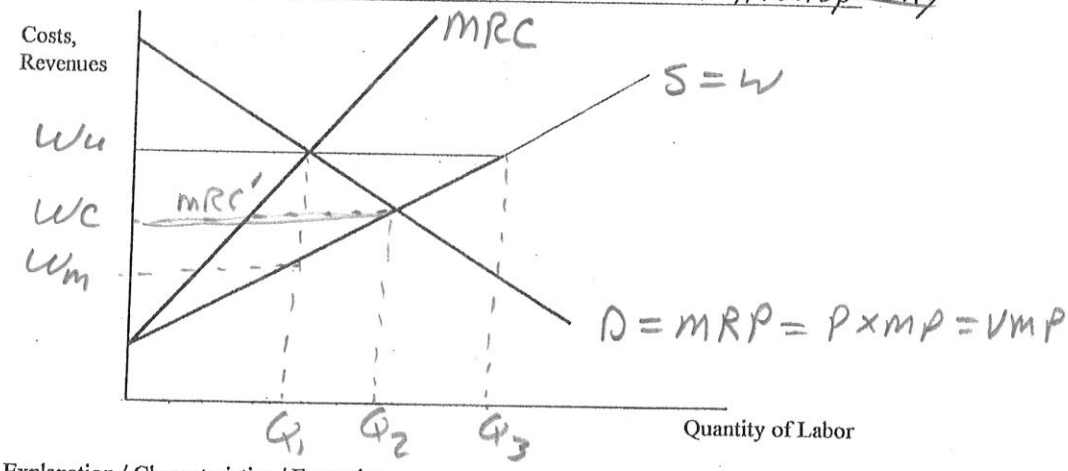
Result: surplus of labor = $Q_3 - Q_1$
Q_1 hired, Q_3 want to work at W_u

Profit Maximizing Quantity: Q_1

Allocative Efficient Quantity: Q_2 at W_c (competitive wage)

LABOR MARKETS

TYPE OF MARKET: Union Model - Bilateral ~~Monopsony~~ Monopoly



Explanation / Characteristics / Examples

An inclusive union at a Monopsony
Example: steel, cars, professional sports, aircraft
Monopoly seller of labor to a Monopsony buyer

Result: Indeterminate
Monopsony wants Wm and employ Q1
Union wants Wu and employ Q1

What if they bargain and agree on Wc?
What Q labor would be hired?
MRP = MRC with union at Q2 = Alloc Eff

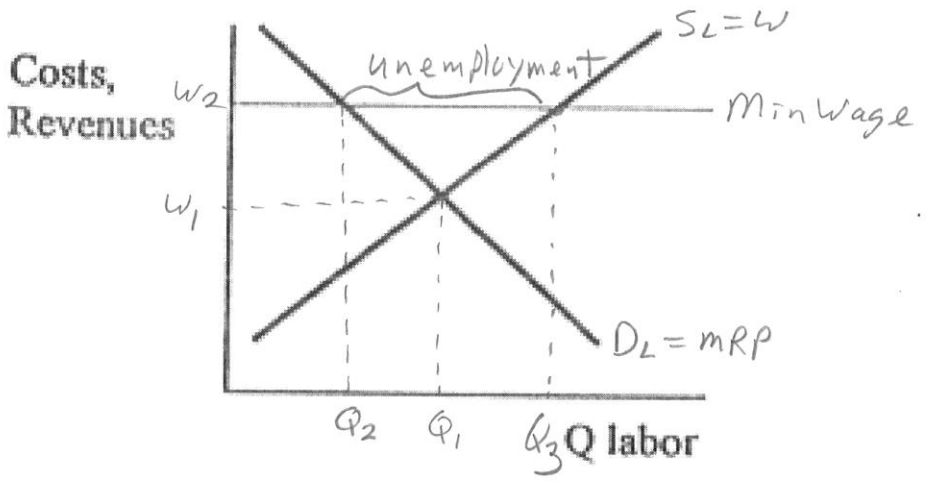
Profit Maximizing Quantity: Indeterminate

Allocative Efficient Quantity: Q2

If they agree to pay Wc, then
Wc becomes the company's MRC'

LABOR MARKETS – Minimum Wage 1

TYPE OF MARKET: Traditional (price floor) Model (jobs are lost)



Explanation / Characteristics:

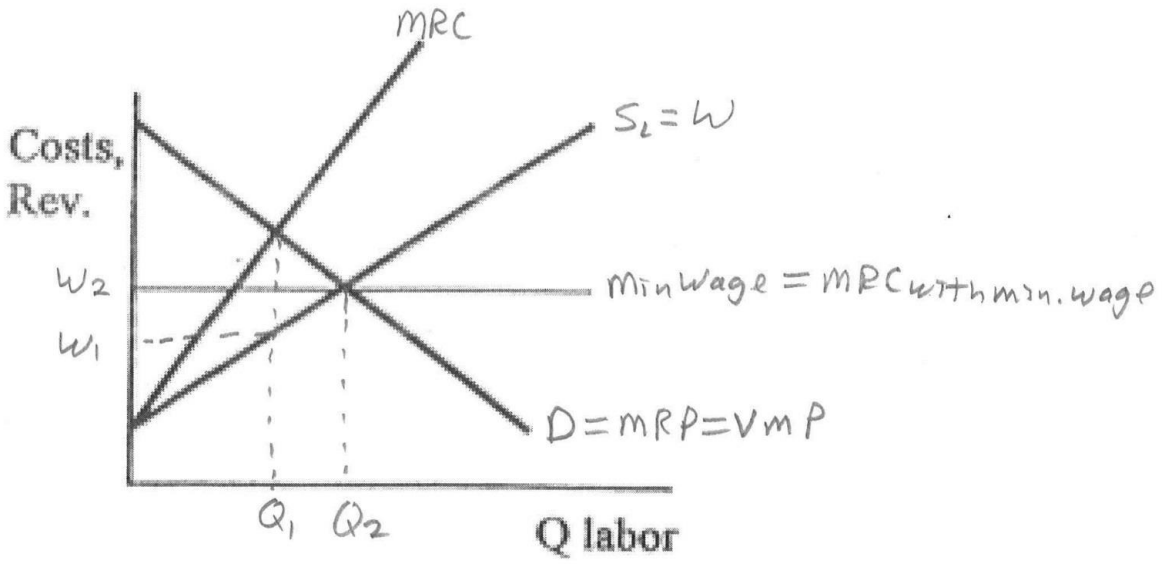
Without the min wage Q_1 would be employed; wages = W_1
With the min wage Q_2 would be employed; wages = W_2
Result: Minimum wages reduce the number employed
Those who oppose the minimum wage argue that it causes unemployment of Q_1 to Q_3

Profit Maximizing Quantity: Q_2 with min wage, Q_1 without min. wage

Allocative Efficient Quantity: Q_1

LABOR MARKETS – Minimum Wage 2

TYPE OF MARKET: Minimum wage with a Monopsony (jobs are gained)



Explanation / Characteristics:

Example: minimum wage in a Monopsonistic labor market
minimum wage for workers in a one industry town
Without minimum wage: Q_1 employed at a wage of W_1
With minimum wage: Q_2 employed at a wage of W_2
Result: the minimum wage increases the number employed from Q_1 to Q_2 and they are paid more

Profit Maximizing Quantity: Q_1 without min wage, Q_2 with min wage

Allocative Efficient Quantity: Q_2 where $W = VMP$

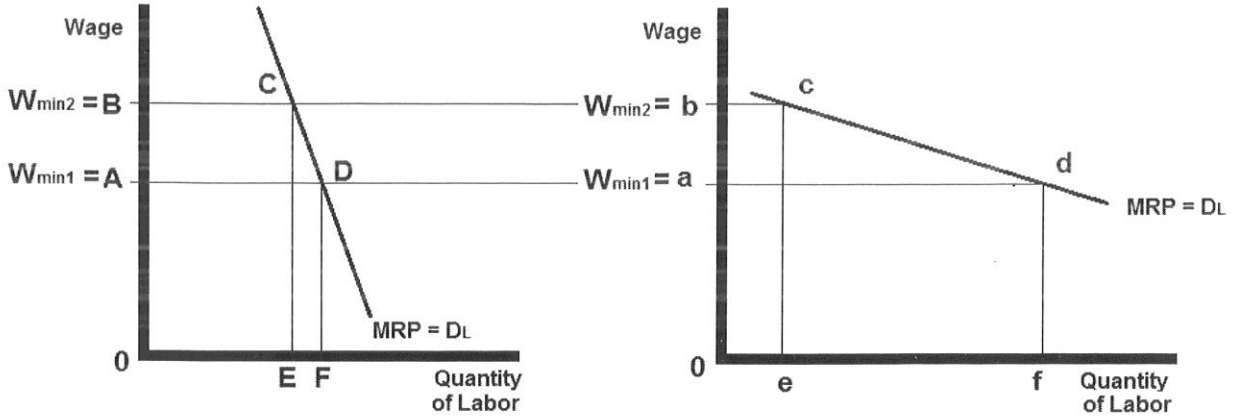
Notice that the labor market was inefficient without the min. wage. The min. wage helped it achieve allocative efficiency

Result: higher wages, more employed, more efficient

13a

LABOR MARKETS – Minimum Wage 3

TYPE OF MARKET: Minimum wage and the elasticity of demand for labor
(jobs lost BUT the poor gain income)



Explanation / Characteristics:

the traditional min. wage model predicts less employment BUT are the poor better off? Do the poor have higher or lower incomes? It depends on the price elasticity of demand for labor.

IF INELASTIC (Labor Markit 1 above):

- Raising the min wage from A to B will Increase incomes from OADF to ABCE

IF ELASTIC (Labor Markit 2) - Raising the min. wage from A to B will Decrease incomes from Oadf to Obce