

Big Ideas about Factor (or Resource) Markets

1. The economic concepts are similar to those for product markets.
2. The demand for a factor of production is derived from the demand for the good or service produced from this resource.
3. A firm tries to hire additional units of a resource up to the point where the resource's marginal revenue product (MRP) is equal to its marginal resource cost (MRC).
4. In hiring labor, a perfectly competitive firm will do best if it hires up to the point where $MRP = \text{the wage rate}$. Wages are the marginal resource cost of labor if the labor market is perfectly competitive.
5. If you want a high wage:
 - (A) Make something people will pay a lot for.
 - (B) Work for a highly productive firm.
 - (C) Be in relatively short supply.
 - (D) Invest in your human capital.
6. Real wages depend on productivity.
7. Productivity depends on real or physical capital, human capital, labor quality, and technology.

The Demand for a Resource When the Product Market and Resource Market Are Perfectly Competitive

(1) Units of resource	(2) Total product (Q)	(3) Marginal physical product (MPP) = $\Delta(2)/\Delta(1)$	(4) Product price (P)	(5) Total revenue (TR) = (2)x(4)	(6) Marginal revenue product (MRP) = $\Delta(5)/\Delta(1)$
0	0	—	\$5.00	\$0.00	—
1	12	+12	\$5.00	\$60.00	+\$60.00
2	26	+14	\$5.00	\$130.00	+\$70.00
3	38	+12	\$5.00	\$190.00	+\$60.00
4	48	+10	\$5.00	\$240.00	+\$50.00
5	56	+8	\$5.00	\$280.00	+\$40.00
6	62	+6	\$5.00	\$310.00	+\$30.00
7	66	+4	\$5.00	\$330.00	+\$20.00
8	68	+2	\$5.00	\$340.00	+\$10.00

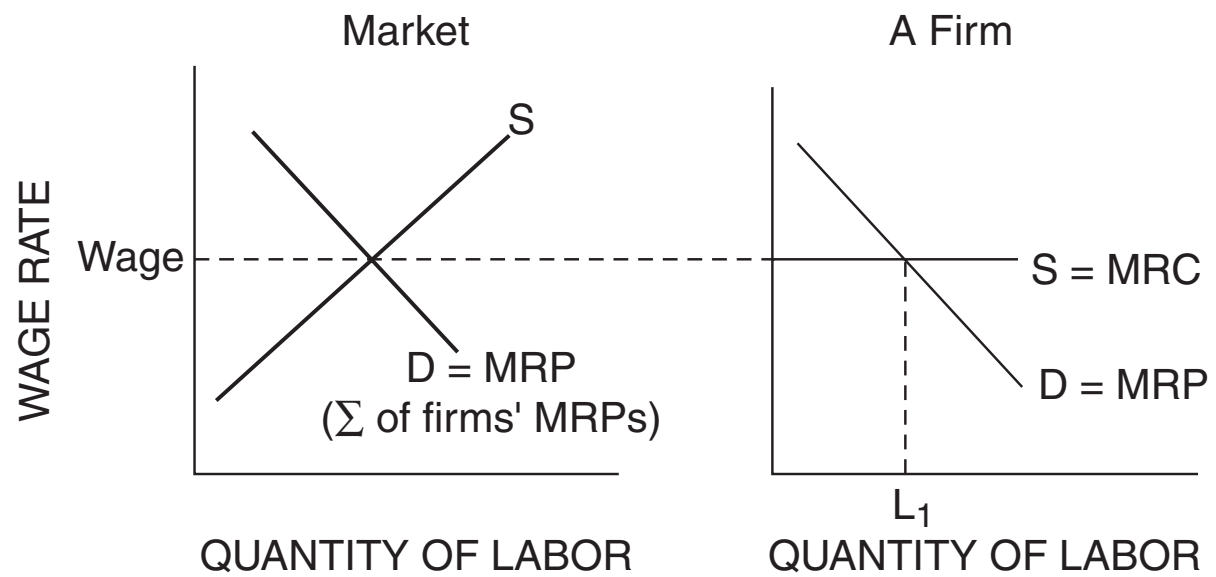
1. How many units of the resource would be hired at each of these perfectly competitive resource prices: \$45, \$35, and \$25?
2. Why does the value of MRP decrease as more units of the resource are added by the firm?
3. Is the MRP curve the firm's demand curve for the resource?

The Demand for a Resource When the Product Market Is Imperfectly Competitive and the Resource Market Is Perfectly Competitive

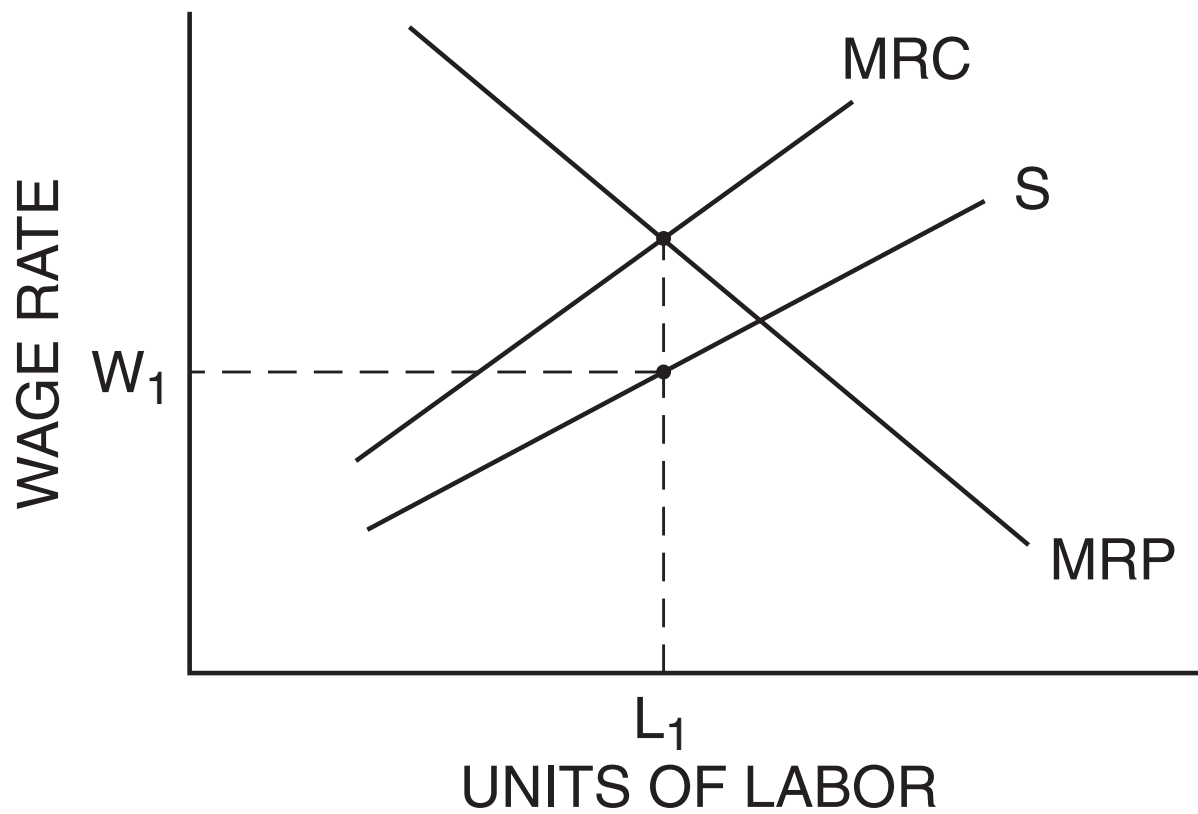
(1) Units of resource	(2) Total product (Q)	(3) Marginal physical product (MPP) = $\Delta(2)/\Delta(1)$	(4) Product price (P)	(5) Total revenue (TR) = (2)x(4)	(6) Marginal revenue product (MRP) = $\Delta(5)/\Delta(1)$
0	0	—	\$5.80	\$0.00	—
1	12	+12	\$5.60	\$67.20	+\$67.20
2	26	+14	\$5.40	\$140.40	+\$73.20
3	38	+12	\$5.20	\$197.60	+\$57.20
4	48	+10	\$5.00	\$240.00	+\$42.40
5	56	+8	\$4.80	\$268.80	+\$28.80
6	62	+6	\$4.60	\$285.20	+\$16.40
7	66	+4	\$4.40	\$290.40	+\$5.20
8	68	+2	\$4.20	\$285.60	-\$4.80

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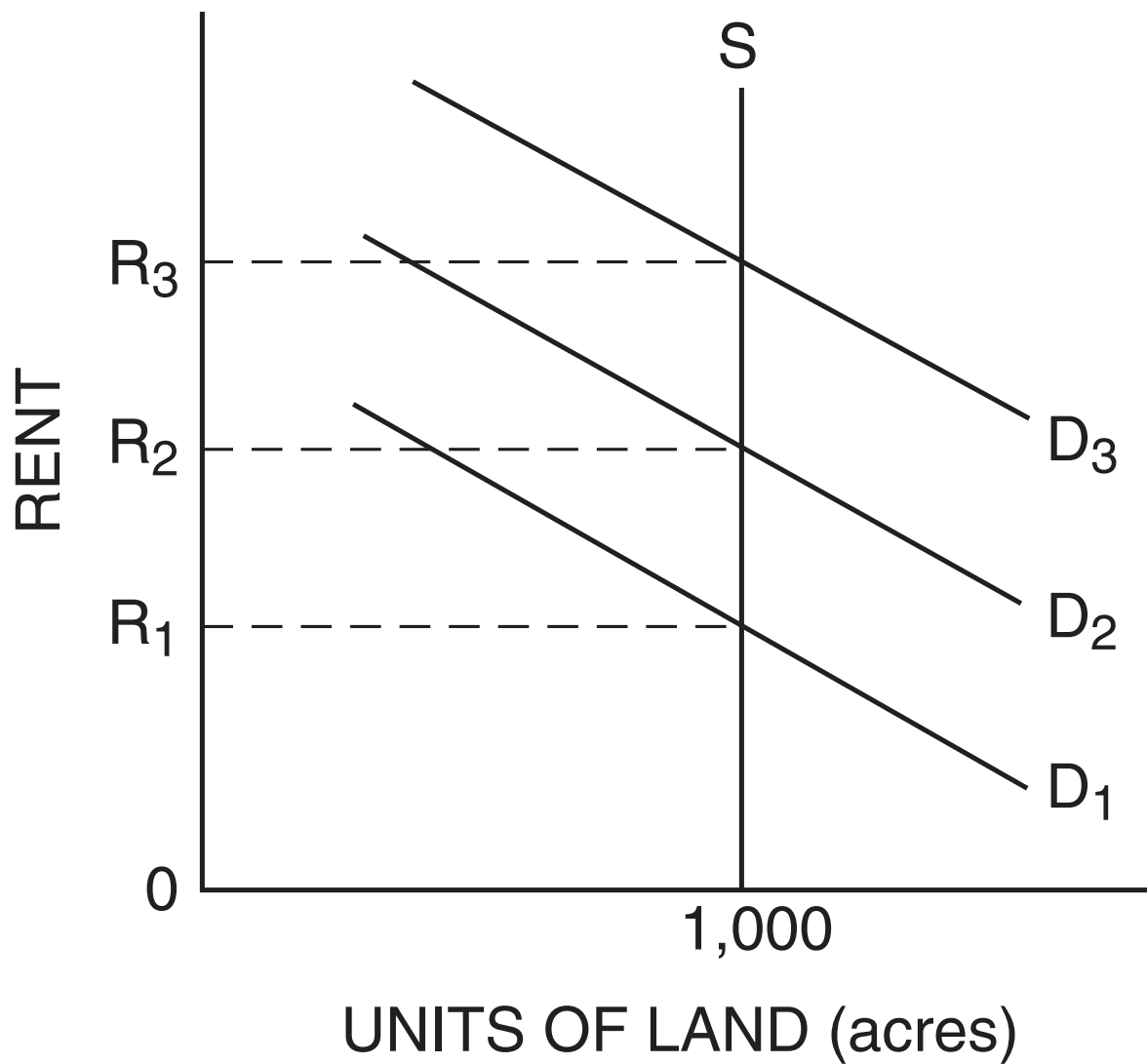
The Supply of and Demand for Labor in a Competitive Labor Market



A Monopsonistic Labor Market



Economic Rent



Economic rent is the amount by which the price of a resource exceeds the minimum level required to keep that resource in its current use. This graph assumes the quantity of land is fixed at 1,000 acres. The greater the demand for the land, the higher is the economic rent.