

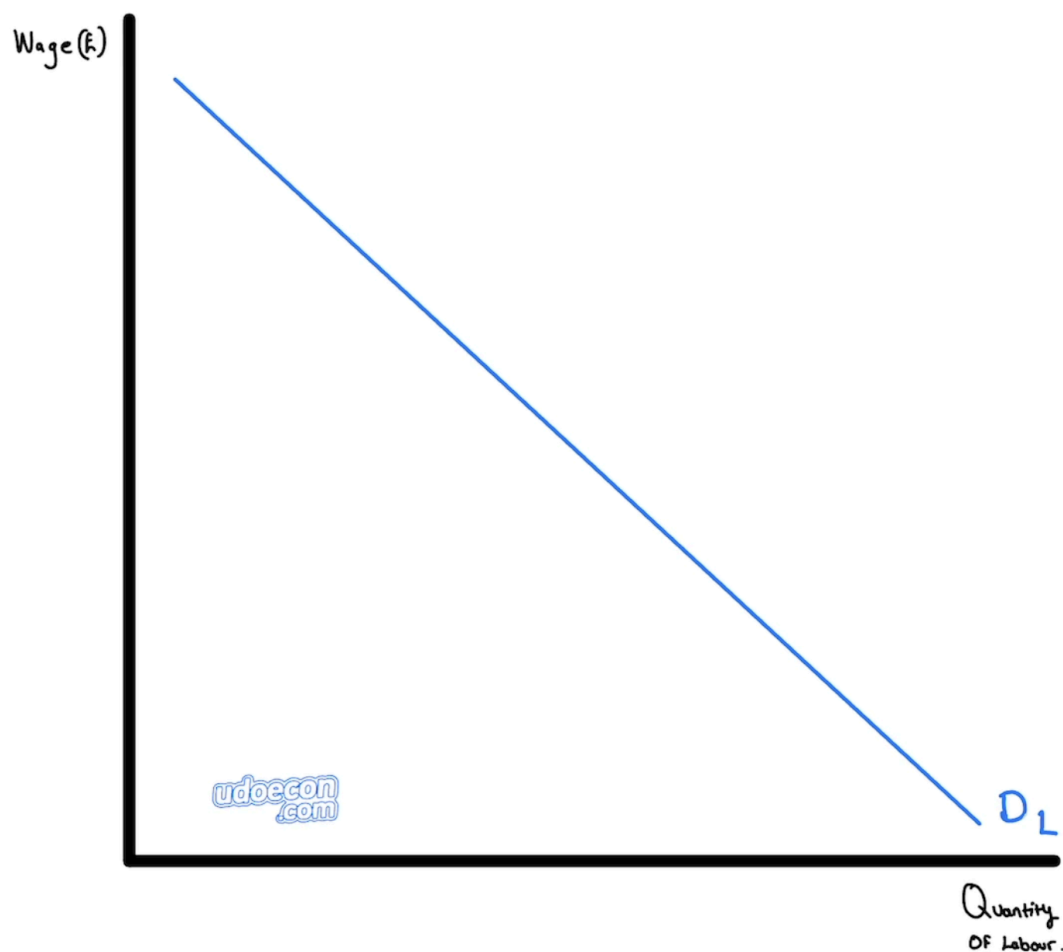
3.5.1 Demand for labour

What is the demand for labour?

Labour demand is the amount of labour that firms are willing and able to employ at a given wage rate during a given period. Workers supply labour, while firms demand it.

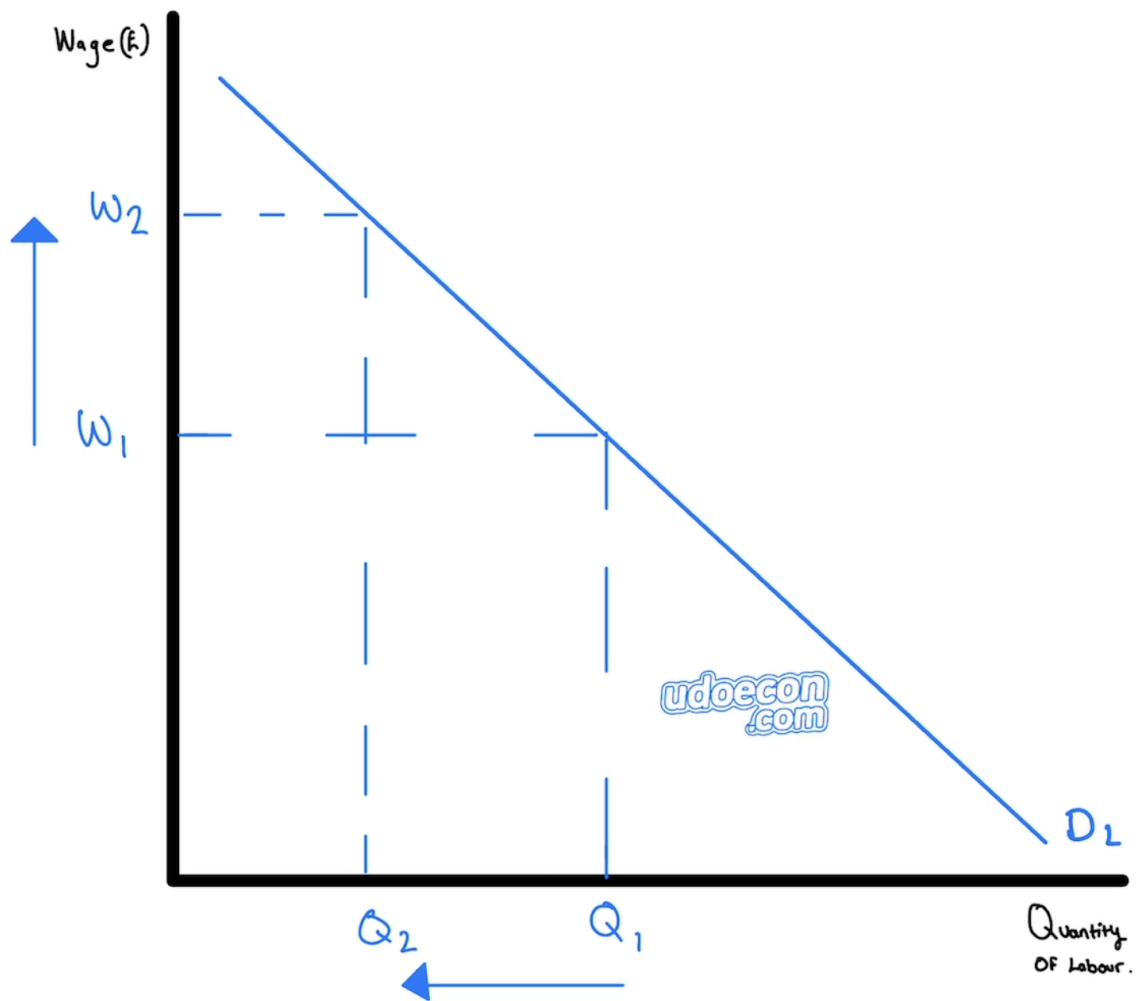
The demand for labour is a derived demand. Firms demand workers because they help produce the goods and services that consumers want to buy.

Which factors influence labour demand?

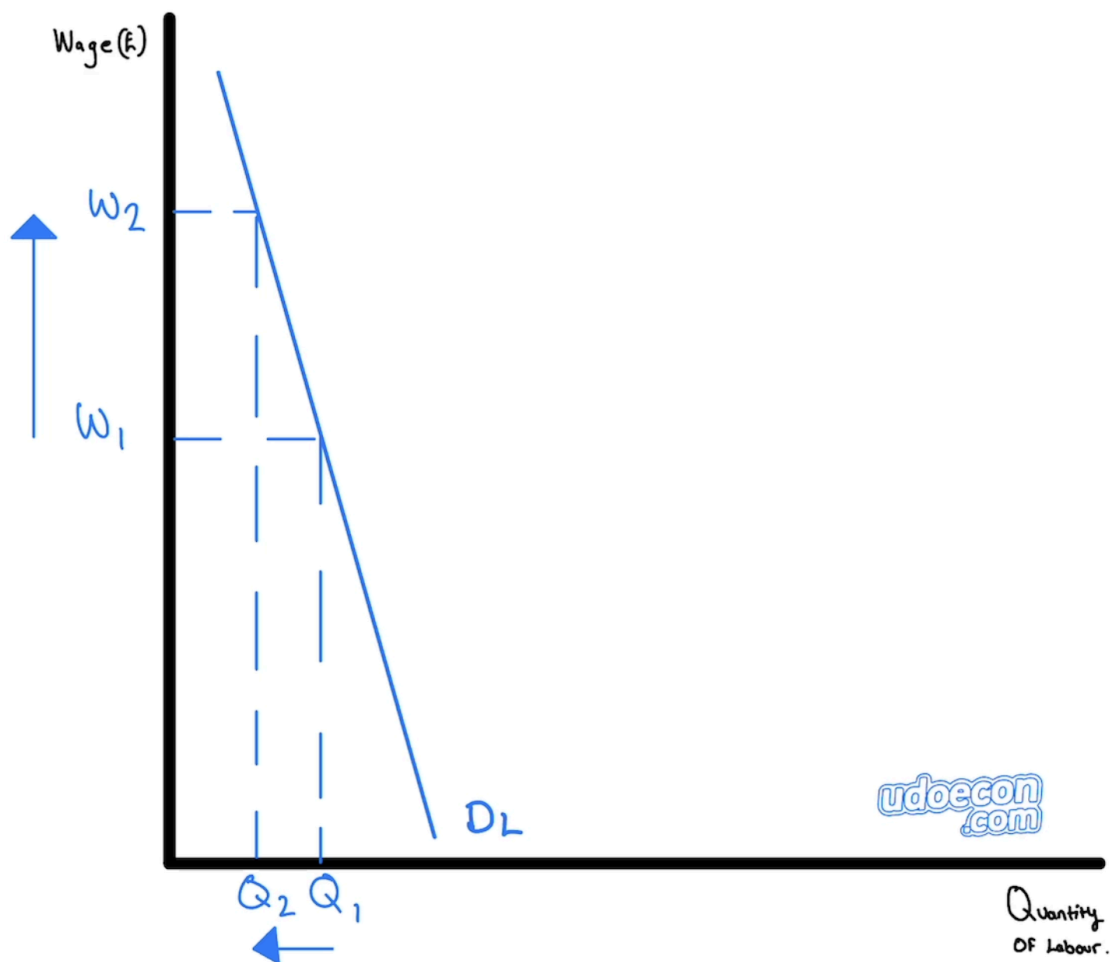


Wage rates

A higher wage increases the cost of employing workers, so firms are likely to demand less labour. This causes a movement along the labour demand curve rather than a shift. For example UK firms cut overall staff hours following the 2024 National Living Wage increase to £11.44/hr to control wage bills.



The size of the fall depends on the wage elasticity of labour demand. If workers are essential and difficult to replace, a wage increase may cause only a small fall in employment.



Demand for and price of the final product

When demand for a product rises, derived demand for labour rises. A higher selling price may also make extra production more profitable and increase labour demand. For example, Surging global demand for AI models increased Nvidia's demand for specialized semiconductor engineers.

Labour productivity

Labour productivity measures the amount of output produced by each worker during a given period.

More productive workers create more output for the firm. This can lower average costs and increase the value of employing labour.

The price and productivity of capital

If capital becomes cheaper or more productive, firms may replace workers with machinery. Labour demand will fall when labour and capital are substitutes.

Capital and labour can also be complements. New technology may increase workers' productivity or create demand for different skills, causing labour demand to rise.

The number of firms

An increase in the number of firms in a market will usually raise the total demand for labour.

The labour demand diagram

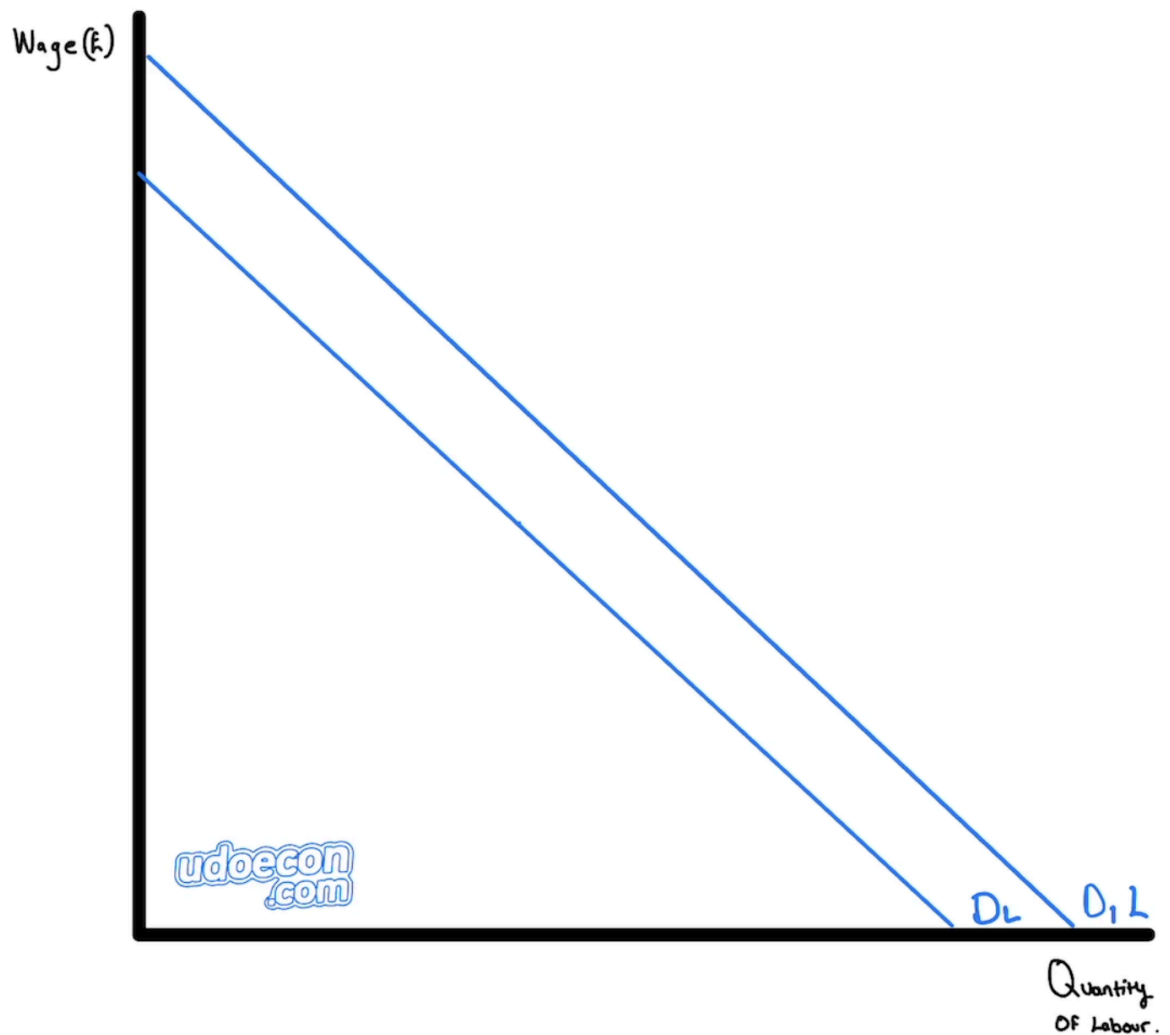
The Y axis shows the wage, while the X axis shows the quantity of labour. The labour demand curve slopes downwards.

As wages rise, workers become more expensive to employ. Firms therefore demand less labour, causing a movement upwards along the labour demand curve.

A change in a non-wage factor shifts the entire curve:

- Higher labour productivity shifts labour demand to the right.

- Technology that complements workers shift labour demand to the right.



What determines the wage elasticity of labour demand?

The wage elasticity of labour demand measures how responsive the quantity of labour demanded is to a change in the wage rate.

Availability of substitutes

Demand for highly skilled workers, such as surgeons, is usually wage inelastic because their specialist qualifications make them difficult to replace.

Demand for lower-skilled workers, such as McDonald's employees, is usually more wage-elastic because firms can replace them more easily with other workers or technology such as self-service machines.

Labour costs as a proportion of total costs

If wages make up a large proportion of a firm's total costs, a wage increase will have a significant effect on profitability.

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Firms are then more likely to reduce employment, making labour demand more wage elastic.

For example in social care wages make up on average over 70% of costs , thus meaning an increase in wages triggers cuts to staff hours .

In contrast firms in the oil industry where wages account for under 5% of costs, wage increases cause almost no reduction in employment .

The period of time

Labour demand is more inelastic in the short run. Workers may have contracts, while firms may need time to reorganise production or invest in machinery.

In the long run, firms have more time to automate, change production methods or avoid replacing workers who leave. Labour demand is therefore likely to become more elastic.

Marginal revenue product of labour

The marginal revenue product of labour (MRP) is the additional revenue earned by employing one more worker.

$MRPL = \text{marginal revenue (MR)} \times \text{marginal physical product of labour (MPP)}$

We assume firms are profit maximisers . Thus the underlying theory behind labour markets is that a firm will employ workers as they add to a firm's revenue more than they add to a firm's cost .

If MRP is greater than the wage, another worker adds more to revenue than to costs. Employing that worker will increase profit.

If MRPL is lower than the wage, the additional worker costs more than the revenue they generate.

For example Erling Haaland earns around **£550k per week**, compared to the average Premier League striker on roughly **£80k per week**.