# Demand for Labour

**Derived Demand:**

- The **demand for labour** (factor of production) **arises from the demand for the output** that it produces
- The number of workers that a firm employs depends mainly on the demand for the output produced
- A rise is demand = firm employing more people

**Aggregate Demand for Labour (Total demand in economy):**

- **Depends** principally on the **level of economic activity**
- Economy Growing & Firms confident of continued growth = Employment levels increase
- National output falls or grows slower, Firms will be less confident about levels of AD in the future = Employment levels fall

**Individual Firm's Demand for Labour:**

In addition to the demand for the output produced, the number of workers that firm seeks to employ is determined by a number of factors:

- **Price of Labour** – A rise in wage rates that exceeds any rise in labour productivity = Rise in unit labour costs = contraction of demand for labour
- **Productivity** – As output per worker, per hour increases = more attractive labour becomes
- **Price of other Factors of Production** – Capital becomes cheaper = firms substitute some of their workers with machines
- **Supplementary Labour Costs** – For example, increasing employers NI contributions = Fall in demand for labour (Makes it more expensive for employers)

# Marginal Productivity Theory

- Demand for workers depends on their Marginal Revenue Product (MRP)
- The **MC** of **taking on an additional unit of labour = MRP**
- MRP = **Change in total output arising from hiring one more worker**
- The equilibrium quantity of labour employed will be established

**Short Run:**

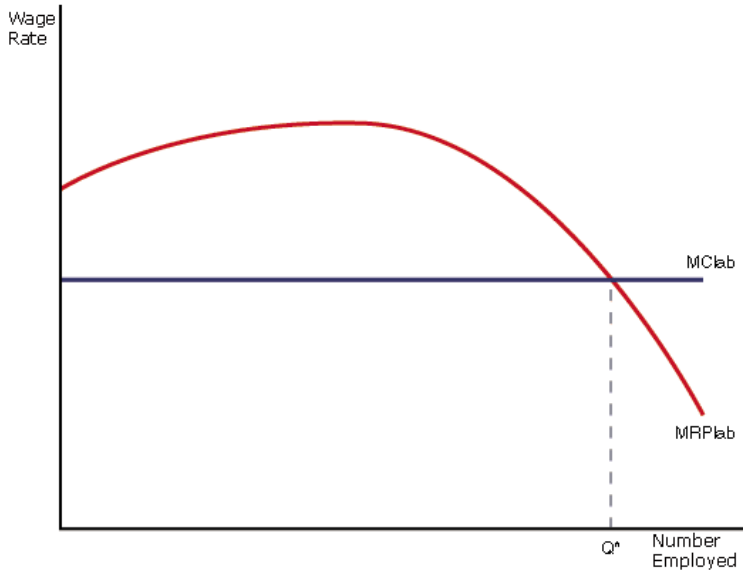
- Firm **takes on more workers = Output rises** (Because of **increasing returns**, due to benefits of **division of labour** = Increase in Marginal Product)
- The Marginal Product of Labour = Number of extra units of output a firm gains from employing an additional unit of labour

**Long-Run:**

- After a particular level of employment is reached = **Marginal product tends to fall** (**Diminishing Marginal Returns)**

**Worker's Marginal Revenue** X **Marginal Product** = **Marginal Revenue Product**

## Marginal Revenue Product of Labour:




This diagram is essentially the **demand for labour**

Firms will demand labour where the **MRP = MC of the Labour**

If the wage rate were to rise the firm would still produce where MRP = MC but based on this graph, the number employed would fall.

The MRP rises at first (increasing returns- increase in teamwork & motivation of workers) and then falls (diminishing returns) = fall in output

**Shifts in Demand Curve for Labour:**

**Shift to the right:**

- If **MRP of Labour Increases** (will come about if the MP of labour and/or the MR increases)
- The **demand for car assembly workers will increase** is the **productivity of car assembly workers rise** – could be as a result of increased training, if the price of their output rises due to an increase in demand for cars)

**The Elasticity of Demand for Labour:**

>A measure of the **responsiveness** of the **quantity demanded of labour** to **changes** in the **wage rate**<

$$\textbf{Elasticity of Demand for Labour} = \frac{\%\text{ Change in Quantity of Labour Demanded}}{\%\text{ Change in Wage Rate}}$$

Example 1:

- Elasticity of Demand for Labour = 5
- Wage Rates increased by 10%
- Demand for Labour would fall by 50%

Example 2:

- Demand for labour fell by 10%
- Wage Rates rose by 100%
- Elasticity of Demand = 0.1 (Inelastic)

**Elasticity of Demand for Labour:**

- Elastic = **Small change** in wage rate = **Big change** in Quantity of Labour
- Inelastic = **Small change** in wage rate = **Small change** in Quantity of Labour

**Factors that Determine Elasticity of Demand for Labour:**

## Time:

- In the long-run it is **easier to substitute labour** for other factors of production or vice versa
- In the short-run firms may not have **enough time to reorganise their operations** – will have the employ the same number of workers even if wage rates increase
- Workers have **contracts of employment** – firms will have to make **redundancy payments**
- Over time, firms could buy **labour-saving capital equipment** and reorganise their working methods = reduction is labour
- Elasticity of demand is higher in long-run

## Availability of Substitutes:

- The **Easier it is to substitutes** other **factors of production for labour** = the more the rise in real wage rates will lead to firms replacing labour with machines
- If there are plenty of good substitutes = Elasticity of Demand for labour is high

## Elasticity of Demand for the product:

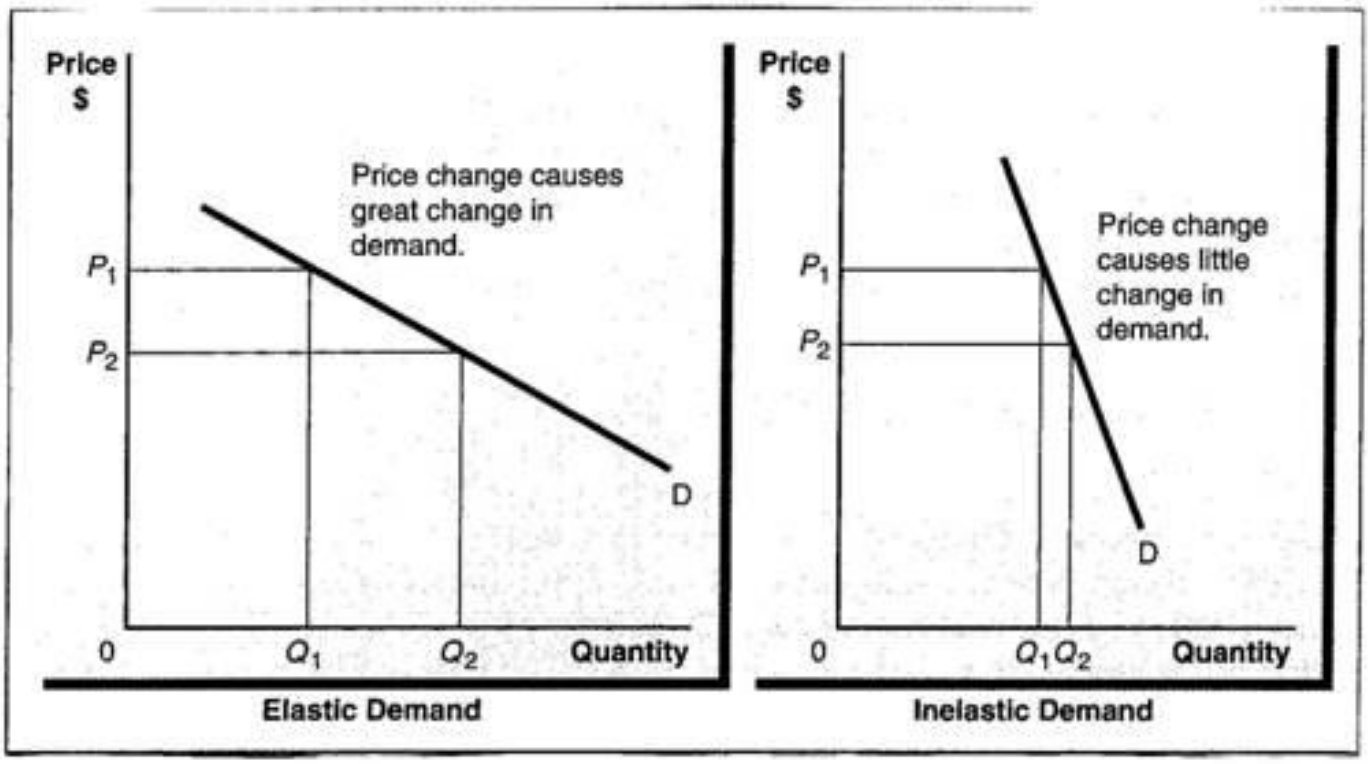
- If **demand changes** for the **product that the labour is producing** = **demand changes** for the **labour producing the product**
- The Elasticity of Demand for labour = Elasticity of Demand for product the labour produces
- If the Elasticity of Demand for the product is low – a reduction in demand for it will have little effect on labour in the industry

## The proportion of labour cost to total cost:

- The **larger the proportion of labour cost to total cost** = the **higher the elasticity of demand for labour**.
- (Explanation of Above) An **increase in the wage bill** will have a **significant impact** on **total costs.**
- If a group of workers gains a 20% pay rise but these workers accounted for 70% of the costs of the firm, this would have a dramatic effect on the supply curve and lead to a large decrease in quantity of the product demanded = large fall in employment

>**Diagram Below: Price = Wage Rate**<

## Elasticity of Demand – Labour:




### The Supply of Labour:

Consists of all of those that are economically active (In work or actively seeking work)

The **Participation Rate** or **Activity Rate** is the percentage of the population of working age that is economically active

### The Supply of Labour to a particular occupation:

The number of people willing to work in a particular occupation is influenced by monetary and non-monetary factors.

**Monetary Factors** = Wage, Bonus, Commission

**Non-Monetary Factors:**

- Convenience & Flexibility – working hours, chose where/when you work
- Status
- Promotion
- Job Security
- Working Conditions
- Holidays/Leisure Time
- Perks & Fringe Benefits – company cars, expenses, private health care, pensions
- Job Satisfaction

## Adam Smith – "Net Advantage"

**Overall reward**, taking into account monetary and non-monetary factors **should be equal across the various industries** in which a **particular occupation** could be **practiced**

- Occupations with satisfying non-monetary features may have a higher supply at a given wage – potential employees would be prepared to work for a relatively low wage
- Occupations with less satisfying non-monetary characteristics may have a lower supply at a given wage – the monetary rewards must therefore be higher to compensate for this

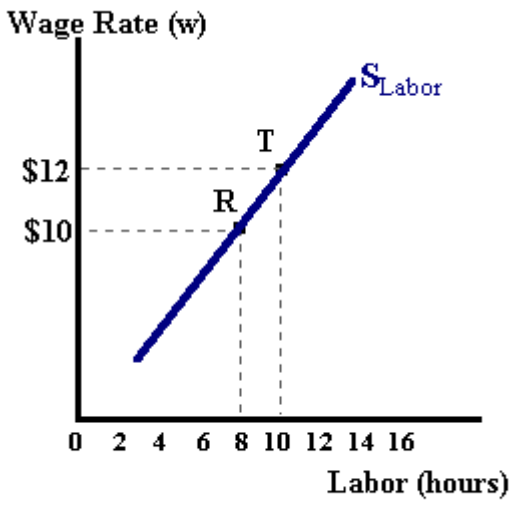
## The Supply of Labour to a Particular Firm:

**(Factors Affecting)**

- **Availability of Training** – Good training = attract more workers
- **Location** – Firms in cities and/or that have good commuter links to them = more labour to chose from
- **Level of Unemployment** – Low unemployment = Skill shortages (lower supply)
- **Opportunities for overtime work** – O/T hours paid at higher rates = attract people

**Understanding the Industry Labour Supply Curve**:

- A change in the wage level in an industry causes a movement along its labour supply curve




An increase in real wage from $10 to $12 causes an extension of demand from 8-10 hours

**The Elasticity of Supply of Labour:**

Measures the responsiveness of the quantity of labour supplied to a change in the real wage rate; it will vary from industry to industry

Elastic = **Small change** in wage rate = **Large change** in quantity of labour supplied

Inelastic = **Small change** in wage rate = **Small change** in quantity of labour supplied

**Elasticity of Supply of Labour** = $\frac{\%\text{ Change in Quantity of Labour Supplied}}{\%\text{ Change in Wage Rate}}$

## The Elasticity of Labour Supply depends upon

### Skills & Qualifications required in the job:

- Jobs that require **specific skills & high-level qualifications** = find it more **difficult to attract workers when real wage rises** (there will be few workers possessing the relevant skills)
- Elasticity of Labour supply = **Lower for skilled jobs** than for unskilled jobs

### The Length of the training period:

- Jobs with **long training periods = Low elasticises of labour supply** (workers may be put off by the long training periods)
- Even if some people are attracted into the lengthy training period's jobs by the higher wages, it may take time to train them.

### Sense of Vocation:

- For some jobs the **reward for work is not wholly financial** (teachers, nurses etc.)
- **Supply** may therefore **not change in response to a change in wage**
- Jobs that have a vocational element will tend to be **inelastic in terms of labour supply**

### Time Period:

- In the **long-run, supply of labour tends to be more elastic** – certain occupations require **notice periods** to be given before leaving one job for another as well as the **training period** required for some jobs.