Labour Markets

AQA A-Level Economics

Demand · Supply · Wage Differentials · Monopsony · Trade Unions · Minimum Wage · Discrimination

The Demand for Labour: MRP Theory

Derived demand:

Labour is demanded not for its own sake, but for the goods and services it produces. Demand for labour depends on demand for the final product.

MRP = MPP × MR

Marginal revenue product (MRP):

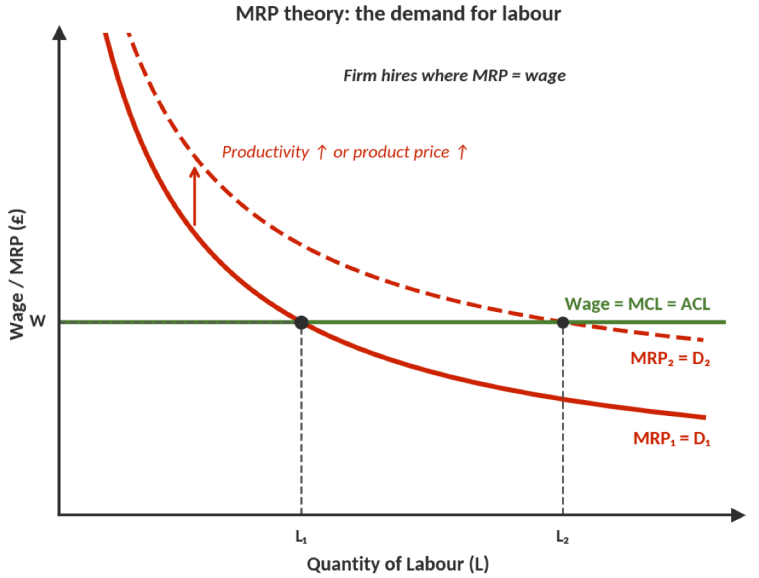
The extra revenue a firm gains from employing one more worker. MPP is the extra output that worker produces; MR is the revenue from selling each extra unit.

MRP theory:

A profit-maximising firm hires workers up to the point where MRP = the wage (MCL). MRP falls as more workers are hired due to diminishing returns — so the MRP curve is the firm's demand curve for labour.

What shifts the demand for labour?

Labour productivity; the price of the final product; demand for the product; the price and availability of capital (e.g. automation); employment taxes such as NICs.



Real-World Example

UK April 2025: employer NICs rose from 13.8% to 15% and the National Living Wage rose 6.7% to £12.21. Retail and hospitality firms responded by cutting jobs and hours.

The Supply of Labour

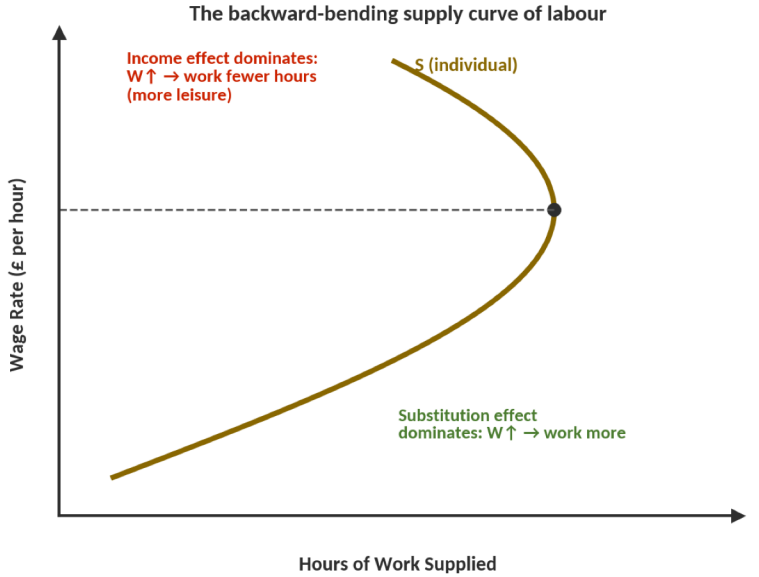
Definition:
The supply of labour is the number of workers (or hours) willing and able to work in a job or industry at each wage rate.

Wage and non-wage factors:
Higher wages attract more workers — a movement along the supply curve. Non-wage factors (job security, working conditions, holidays, status, training, pensions) shift the supply curve.

The individual's supply of labour:
A wage rise has two effects. Substitution effect: leisure becomes more expensive, so people work more. Income effect: people can reach their target income with fewer hours, so they may work less.

The backward-bending supply curve:
At high wages the income effect may dominate — a wage rise leads to fewer hours worked.

The market supply of labour usually still slopes upward, as higher wages attract new workers.



Real-World Example

UK 2024: around 2.8 million people were economically inactive due to long-term sickness — a record high that reduced labour supply.

What Shifts Labour Demand & Supply?

A change in the wage causes a movement along the curve — other factors shift the whole curve:

Shifts in Labour Demand

Demand for the final product: higher demand for a good raises demand for the workers who make it (derived demand).

Labour productivity: better training or technology raises MPP, and so MRP.

Price of the final product: a higher price raises MR, and so MRP.

Price of capital: cheaper machines or AI may replace workers — or complement them.

Non-wage costs: higher employer NICs or regulation make labour more expensive to employ.

e.g. The growth of online shopping raised demand for warehouse and delivery workers, while reducing demand for shop staff.

Shifts in Labour Supply

Size of the working population: births, the retirement age and net migration.

Wages in other jobs: higher wages elsewhere draw workers away.

Non-monetary benefits: job satisfaction, flexibility, holidays and status.

Qualifications and training: barriers such as long training periods limit supply.

Taxes and benefits: lower income tax and in-work benefits encourage people into work.

e.g. Changes to UK immigration rules after Brexit reduced the supply of EU workers in hospitality and agriculture.

Wage Determination in Competitive Markets

Equilibrium wage:

In a competitive labour market, the wage is set where the market demand for labour (MRP) equals the market supply of labour. Each firm is a wage taker.

Why are some jobs paid more than others?

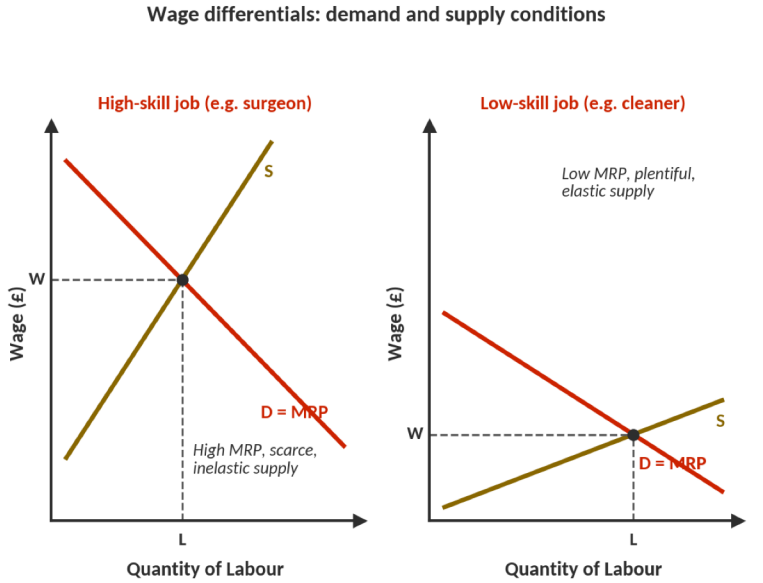
High wages occur where demand is high (high MRP) and supply is low and inelastic. Low wages occur where MRP is low and supply is plentiful and elastic.

Elasticity of labour supply:

Supply is inelastic where long training or rare skills are needed — so rising demand raises wages sharply. Supply is elastic where little training is needed.

Elasticity of labour demand:

Demand for labour is more elastic when labour costs are a large share of total costs, capital is easily substituted, and demand for the product is elastic.



Real-World Example

Premier League footballers: elite talent is scarce (inelastic supply) and star players' MRP is huge thanks to multi-billion-pound TV deals — so wages are enormous.

Wage Differentials

Wage differentials are differences in pay between workers, jobs, industries and regions. The main causes are:

Skills & Qualifications

Jobs requiring long training or rare skills have inelastic supply and high MRP, so wages are high.

e.g. Surgeons, barristers and software engineers earn far more than retail assistants.

Compensating Differentials

Higher pay is needed to attract workers into dangerous, dirty or unsociable jobs.

e.g. North Sea oil rig workers and night-shift workers earn premium rates.

Non-Monetary Benefits

Jobs with high job satisfaction, status or security may attract workers at lower wages.

e.g. Many charity workers and teachers accept lower pay than similar private-sector roles.

Regional Differences

Higher demand and living costs in some areas raise wages. Geographical immobility stops wages evening out.

e.g. London weighting: London wages are well above the UK average.

Market Power

Trade unions can raise wages above equilibrium; monopsony employers can push wages below it.

e.g. Train drivers' strong union has helped secure high average salaries.

Discrimination

Workers may be paid less because of gender, ethnicity, age or disability, rather than their productivity.

e.g. The UK gender pay gap — see the Bonus slide.

Monopsony in the Labour Market

Definition:

A monopsony is a single (or dominant) buyer in a market. In a labour market, it is a dominant employer with the power to set wages.

Why MCL is above ACL:

To hire one more worker, the monopsonist must raise the wage — and pay that higher wage to all existing workers too. So the marginal cost of labour (MCL) is above the average cost (ACL = supply).

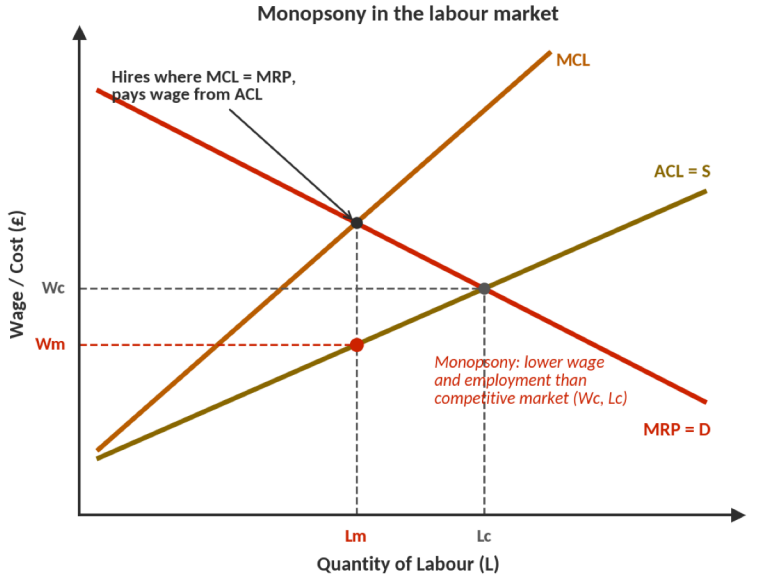
Equilibrium:

The firm hires where MCL = MRP (Lm), but pays only the wage needed to attract that many workers, read off the supply curve (Wm).

Outcome vs competitive market:

Both the wage and employment are lower than in a competitive market (Wc, Lc) — workers are exploited.

Key point: a minimum wage or trade union in a monopsony can raise both wages AND employment.



Real-World Example

The NHS employs the vast majority of UK nurses and doctors, giving it strong monopsony power over wages — one reason for frequent pay disputes.

Trade Unions

Definition:
A trade union is an organisation of workers that uses collective bargaining to negotiate pay, working conditions and job security with employers.

In a competitive labour market:
If a union pushes the wage above equilibrium (We → Wu), firms demand fewer workers (Ld) while more people want to work (Ls) — causing unemployment.

In a monopsony labour market:
A union can act as a counterweight to the employer's power, raising the wage towards the competitive level — increasing both wages and employment.

Evaluation:
Can improve conditions and safety, and raise productivity by improving morale. ✗ May reduce competitiveness, cause strikes and protect 'insiders' at the expense of the unemployed.

UK union membership has fallen from ~13m in 1979 to around 6m today.



Real-World Example

Resident doctors in England: the BMA led repeated strikes from 2023 over real pay erosion. In 2024 the government agreed a ~22% rise over two years.

The National Minimum Wage

The UK National Living Wage (21+) rose to £12.21 per hour in April 2025. Economists disagree about its effects:

Arguments For

Reduces poverty and inequality by raising the pay of the lowest-paid workers.

Can raise employment in monopsony labour markets, where wages were below the competitive level.

Improves motivation and productivity (efficiency wage theory) and reduces staff turnover.

Increases the incentive to work, reducing the unemployment trap and reliance on benefits.

Boosts consumer spending, as low earners have a high MPC.

e.g. The Low Pay Commission finds little evidence that the NMW has caused large job losses since 1999.

Arguments Against

In a competitive labour market, a wage above equilibrium causes unemployment — especially among the young and low-skilled.

Raises firms' costs, which may be passed on as higher prices (cost-push inflation).

May reduce international competitiveness in labour-intensive industries.

Firms may cut hours, training or non-wage benefits instead of jobs.

A single national rate ignores regional differences in living costs.

e.g. Firms may substitute capital for labour — e.g. self-service checkouts and touchscreen ordering.

★ Bonus: Discrimination & the Gender Pay Gap

Labour market discrimination:
Occurs when workers with the same productivity are treated differently — in pay, hiring or promotion — because of gender, ethnicity, age, disability or other characteristics.

Economic analysis:
Employers may wrongly perceive the MRP of some groups as lower, so they demand fewer of them and pay them less. This is inefficient — labour is misallocated and output is lost.

Causes of the gender pay gap:
Occupational segregation, women taking on more childcare (and part-time work), fewer women in senior roles, and direct discrimination.

Policies:
Equality Act 2010; compulsory pay gap reporting for firms with 250+ staff (since 2017); shared parental leave; affordable childcare.

Occupational Segregation

Women are over-represented in lower-paid sectors such as care, retail and admin, and under-represented in higher-paid ones.

The Motherhood Penalty

Earnings gaps widen sharply after women have children, as many move to part-time or more flexible, lower-paid work.

Real-World Example

UK gender pay gap: around 7% for full-time employees and around 13% across all employees (ONS, 2024) — falling slowly, but still significant.

Summary: Key Terms & Relationships

Key Term	Meaning
Derived demand	Labour is demanded for what it produces — depends on demand for the final product.
MRP	Marginal revenue product = MPP × MR. The extra revenue from employing one more worker.
MRP theory	Firms hire until MRP = wage. The MRP curve is the demand curve for labour.
Supply of labour	Workers willing and able to work at each wage. Shifted by non-wage factors.
Income / substitution effect	A wage rise can mean working more (substitution) or less (income effect).
Wage differentials	Differences in pay due to skills, conditions, region, market power and discrimination.
Compensating differential	Extra pay needed to attract workers to unpleasant or risky jobs.
Monopsony	A dominant buyer of labour. Pays lower wages and employs fewer workers than competition.
MCL	Marginal cost of labour — above the wage in a monopsony, as all workers get the higher wage.
Trade union	Workers' organisation using collective bargaining to raise pay and improve conditions.
National Living Wage	Legal minimum hourly pay for workers aged 21+ — £12.21 from April 2025.
Efficiency wage	Paying above equilibrium to raise motivation and productivity and cut staff turnover.
Discrimination	Unequal treatment of equally productive workers — causes inefficiency and inequality.