Explaining Unemployment

- Job Rationing

- An efficiency wage is the wage rate that maximizes profit.

- the employer is a wage setter

not a wage taker

- the employer is a wage taker

- even if
What wage would employers pay to employees? That wage which maximizes the employer's profit. The employer is not interested in paying low wages, or high wages, but the wage which maximizes profits, i.e. the efficiency wage.
Economics

How do markets work?

Assume that employers offer a real wage OA.

- Quantity demanded OD
- Quantity supplied OC
- Unemployment BC

Why don't employers lower the real wage OA? Because at OA profits are maximized.
If you wish, you can change the options for this chart

This series starts in 1964 and ends in 2000

Starting year 1990

 qualité ≠ "time"

intensity ≠ "time"

do hours measure effort?

↑

time
The Demand for labor

\[ N = n \times h \]

- \( N = \) quantity of work
- \( n = \) number of workers
- \( h = \) effort per worker

* Standard assumption

\[ h = h \]

* Efficiency assumption

\[ h = h(w) \]

- \( W = \) wage rate

\[ N = n \times h(w) \]

Decision variables:

- Number of workers:
  - Last lecture:
  - This lecture:
Even 101 again!

- Lecture 2
  - The production function
    \[ Y = f(K, N) \]

  \( N \): quantity of work
  \( n \): number of workers
  \( h \): effort per worker

  \[ h(w) = \text{effort per worker} \]

  In wage related

  \[ N = g(n, h) \]

  Therefore

  \[ Y = f[K, g(n, h(w))] \]

  Profit

  \[ \overline{\pi} = \frac{f[K, g(n, h(w))] - n \times w}{n} \]
\[ \max \pi = \bar{\rho} \cdot f \left[ k, g(n, h(w)) \right] - n \cdot w \]

- 2 decision variables
  - \( n \)
  - \( w \)

\[ \frac{\partial \pi}{\partial n} = 0 \]

\[ \frac{\partial \pi}{\partial w} = 0 \]

2 equations, 2 unknowns

Solve for \( n_{\text{opt}} \) and \( w_{\text{opt}} \)
In order to maximize profits, the employer chooses

- \( n \): the number of workers
- \( w \): the efficiency wage

\[
\begin{align*}
&\text{2 decisions} \\
&w \uparrow \\
&n \downarrow \\
&w \text{ opt} \\
&\text{mp (w opt)}
\end{align*}
\]
workers have different skills and performance levels. Employers will be selective. Unemployment is virtually unavoidable.

nevertheless by shifting \( N^D \) to the right we could obtain full employment (current situation)