

LABOR SUPPLY

DEFINITIONS AND MEASUREMENT

Who: Bureau of Labor Statistics (BLS) reported in the Current Population Survey (CPS)

Population, P , # of potential workers (over 16)

Employed, E , # of people who work

Unemployed, U , # of people reporting that they are looking for work

Labor force, $LF = E + U$

Participation rate = LF/P

Employment-population ratio = E/P .

Unemployment Rate = U/LF

Non-employment rate = $(P - E)/P$

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- ▶ Discouraged workers (the hidden unemployed)

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- ▶ by education levels

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- ▶ U increases with both C and L
- ▶ a combination of C and L is preferred to C or L alone

Indifference Curve Representation of preferences

Definition: graphical representation of schedule of values of C and L which give the person the same level of utility

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2. Curves further from the origin represent higher levels of utility
3. Indifference curves do not cross
4. They are convex to the origin

What the slope of an indifference curve means:

How much consumption am I prepared to give up for another hour's leisure?

(*aka* marginal rate of substitution)

Representing differing tastes; different slopes

Upshot: It is not how much you like leisure or consumption *per se* that matters but how much more consumption you need to be offered in order to give up one hour of leisure

The budget constraint:

$$C = wh + V$$

h is hours spent working

w is the hourly wage

V is other income you get whether working or not.

(what about saving?)

To represent this equation on the same graph as preferences we need leisure, L .

$$L = T - h$$

T is the amount of non-sleeping time in a particular time-interval

So,

$$C = wT + V - wL$$

(opportunity set)

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- ▶ (Worked Example)

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- ▶ Change in nonlabor income: a pure income effect
- ▶ Change of wage rate: both income and sub. effects

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- ▶ To get Market labor supply curve add everyone's individual labour supply curves horizontally.

MEASURING THE RESPONSIVENESS OF LABOR SUPPLY TO CHANGES ON THE WAGE RATE

Labor supply elasticity, σ

Definition:

$$\sigma = \frac{\text{proportional change in hours worked}}{\text{proportional change in the wage rate}} = \frac{\Delta h/h}{\Delta w/w} = \frac{\Delta h}{\Delta w} \times \frac{w}{h}$$

Why not just use $\frac{\Delta h}{\Delta w}$?

Why does Borjas (among others) say *percentage* change?

Measured labor supply elasticities:

Measurement is hard to obtain in practice.

Consensus for prime age males σ is close to 0.