

I. Some Basic concepts

For survey purposes, the U.S. labor force is divided into three (employment status) groups:

1. **the employed**: those, who during the week of the survey, were either “at work” or were “with a job but not at work” because of vacation, illness, industrial dispute or other type of job leave (paid time off, FMLA, etc.). In July 2004, were 139.7 million employed civilians in the United States.

2. **the unemployed**: those who during the survey week a) did not work at all but had looked for work during the past two weeks, or b) who did not work and have not recently looked for work but either i) would have looked for work but were ill, ii) were waiting to report to a new job within the next 30 days, or iii) were waiting for recall from a layoff. There were 8.2 million civilians who satisfied one of these conditions in July 2004.

3. **the not in the labor force**: those who are not working or “looking” for work. Everyone who is not either employed or unemployed, is considered out of the labor force.

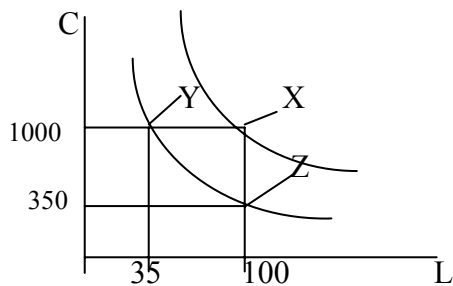
Those in **labor force** are those who are either employed or unemployed. Basically, the labor force consist of those individuals who have a job or who--if circumstances permit--would be actively looking for one. Hence, there were 147.9 million individuals in the civilian labor force in July 2004. The civilian **unemployment rate** is the ratio of unemployed civilians to the total number in the labor force. The unemployment rate in July 2004, was 5.5 percent (8.2 million/147.9 million).

For the most recent updates on these numbers (and lots of other fun data on prices and living conditions), go to

<http://www.bls.gov/>

go to MOST REQUESTED SERIES, then to EMPLOYMENT AND UNEMPLOYMENT. (incidentally, for additional data on commerce—state output, industry output, etc. go to <http://www.bea.doc.gov>)

II. Worker’s Preferences



An Example: $U=C L$ [[[work out the utils at each point, Y indiff to Z but $<<X$]]]]

Goods are goods assumption:

downward sloping indifference curves
 leaving Provo is not the only time its good to go northeast
 Convexity: moderation preferred over extremes

III. Time and Budget Constraints

Time: $T = L + H$

Goods: $PC = WH + V$

Together: $PC = W(T-L) + V$, or

$PC + WL = WT + V$, or in slope intercept form:

$$C = \left\{ \frac{W}{P}T + V \right\} - \frac{W}{P}L$$

C= goods consumed

P= price of goods

M=money income = P C

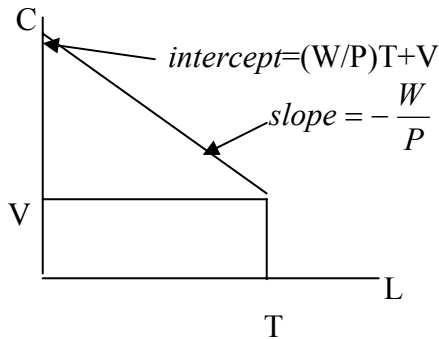
W= wage rate

V= nonlabor income (Mom's check or your stock dividends)

T= total amount of time available (set=1 in Killingsworth)

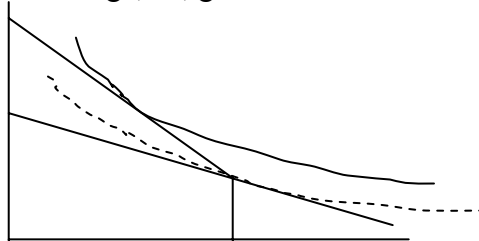
L= amount of leisure time

H= amount of work ($T=H+L$, or $H=T-L$)

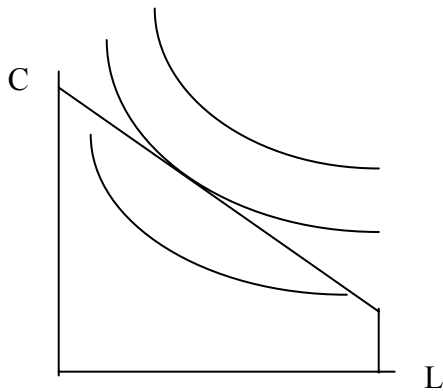


IV. The Decision to Work

Is the market wage, W , greater than the reservation wage, W_R ?



V. The Hours Decision



income and substitution effects

VI. Fixed Time and Money Costs of Working

Summary: Fixed time and money costs both imply a sort of discontinuity in work schedules in that no one will want to work for just a couple of hours per work since to overcome their initial outlay (either in time or money costs), they have to work more. Another thing that the models have in common is that as the fixed costs increase, then the reservation wage will also increase. What differs is the effect of fixity on labor supply:

	as the fixed costs increase,	
fixity in :	work hours:	leisure hours:
money costs	increase (but this is offset by labor force dropouts)	fall for those not dropping out
time costs	falls (if leisure and goods are normal)	falls (if leisure and goods are normal)

The only thing that may be a little subtle is the effect of increasing fixed time costs on leisure and work hours. Leisure is clear: it falls both because it is a normal good (and since real income fell, $W \cdot \Delta T < 0$, leisure falls) and because the total amount of time, T , available has also fallen. Work is a little trickier: total time is reduced so this tends to reduce work time, but since real income has fallen and leisure is a normal good then leisure falls and work time rises. Which will dominate? The answer is easy--since goods consumption falls (its also a normal good), then hours of work must have fallen since the wage was constant and expenditures on goods has fallen. So leisure falls, and so does the number of hours worked.

VII. A change in Social Security earnings test