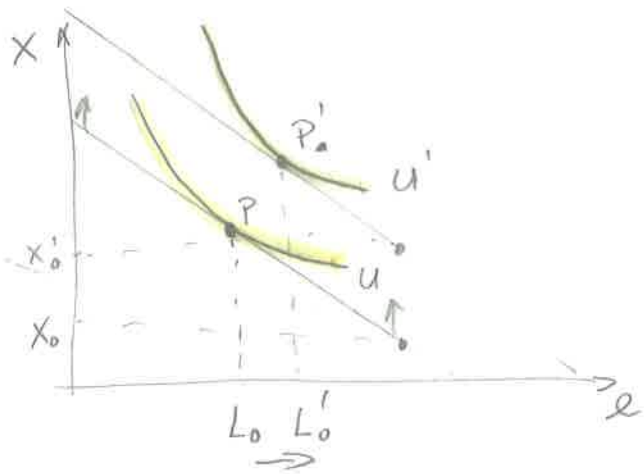
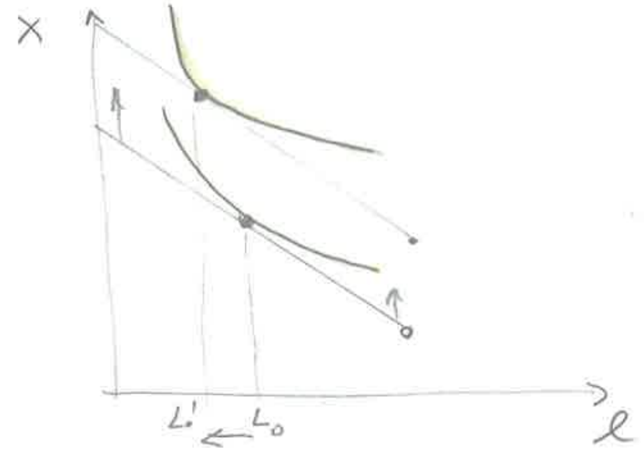
• IMPACT OF NON-LABOR INCOME X_0



leisure normal good

Audi

$$\frac{\partial L}{\partial X_0}\Big|_w < 0$$

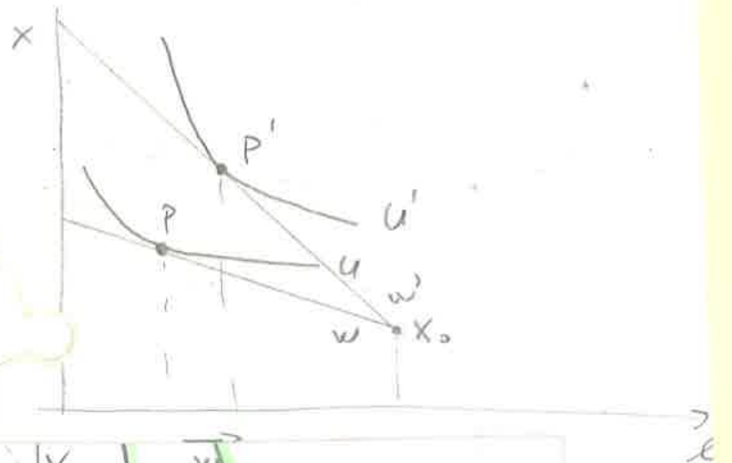


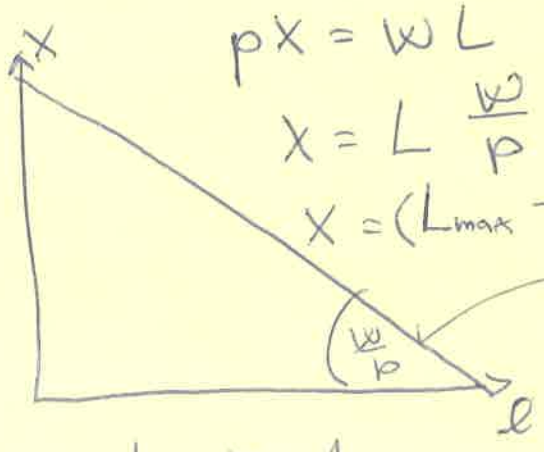
leisure inferior good

trabant

$$\frac{\partial L}{\partial X_0}\Big|_w > 0$$

• IMPACT OF WAGE (w



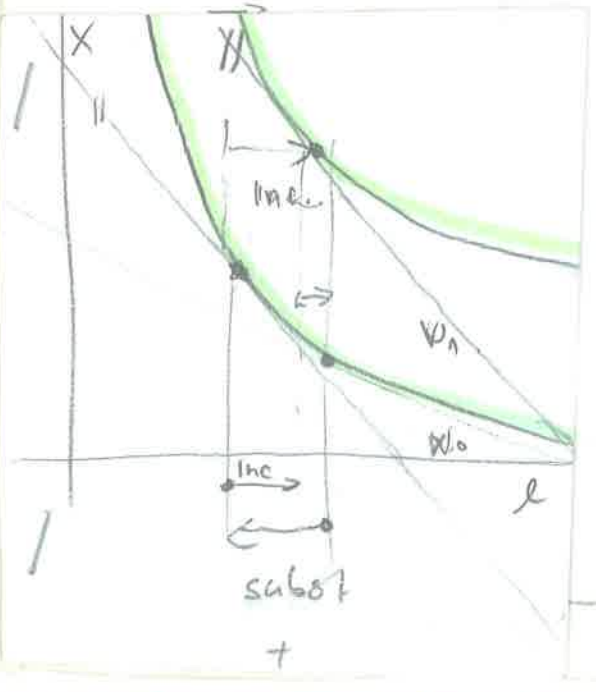


$$pX = wL$$

$$X = L\,\frac{w}{p}$$

$$X = (L_{max} - l)\,\frac{w}{p}$$

set $p = 1$

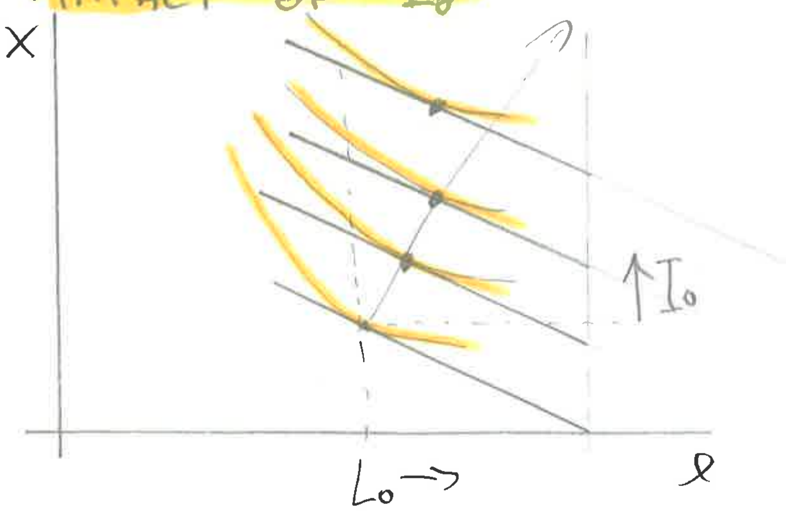


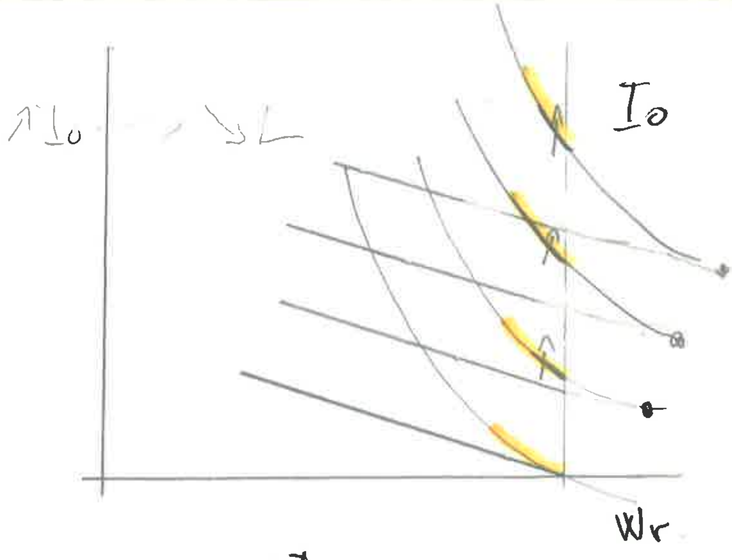
INCOME EFFECT $+\ \frac{\partial L}{\partial I}$ $-\ \frac{\partial l}{\partial I}$

SUBSTITUTION EF $+(L)\ \frac{dL}{dw}$

TOTAL EFFECT $\frac{\partial L}{\partial w}\Big|_{X_0} \gtrless 0$ subst. e domina income effect d

• IMPACT OF I_0

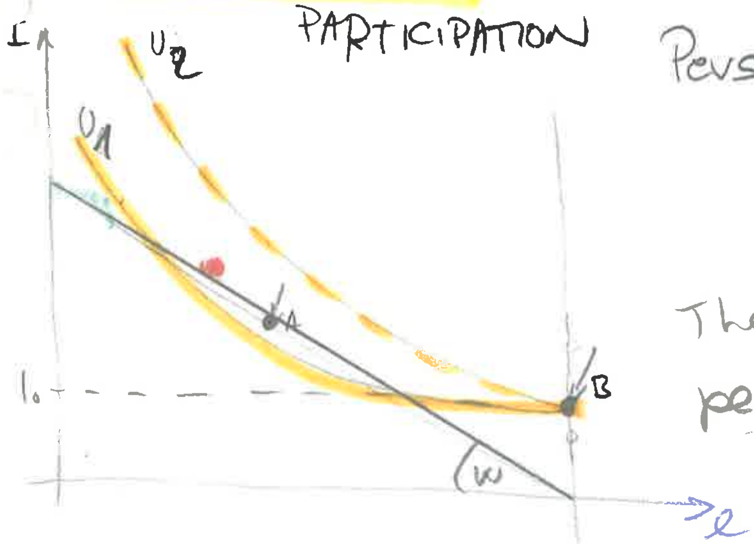




$\nearrow I_0 \rightarrow \nearrow \ell, \searrow L$

$\nearrow I_0 \rightarrow \nearrow w_r$

• CASE OF WELFARE PARTICIPATION – I_0 if $L=0$

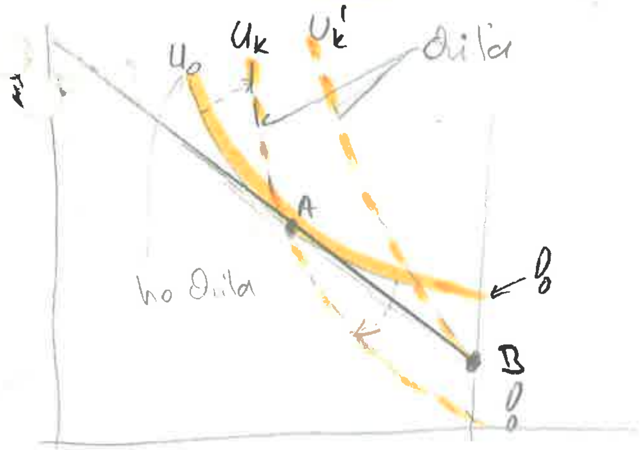


Person (1) will work in both cases

(2) will not work if $I_0 > 0$

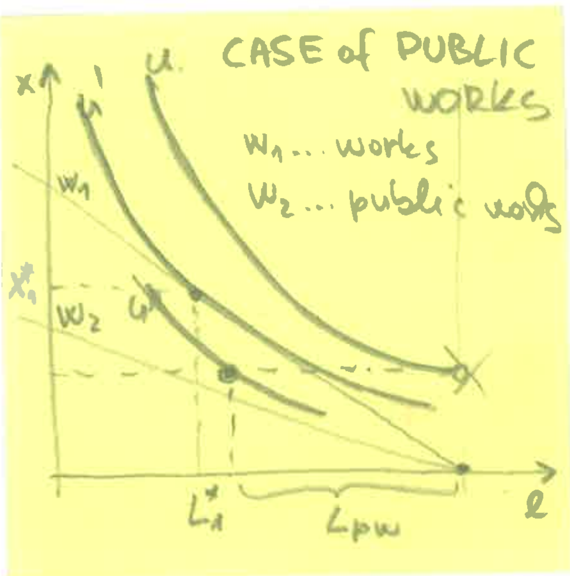
The higher w, the less likely people choose B

CASE OF CHILDREN – when child is born, utility changes (↑ value of leisure")

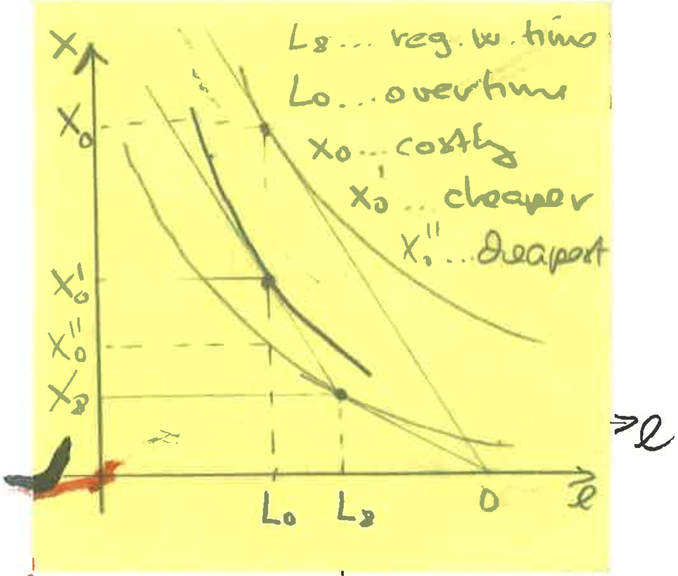


if no child ~ u_0 → A

if child born ~ u_k' → B - home care



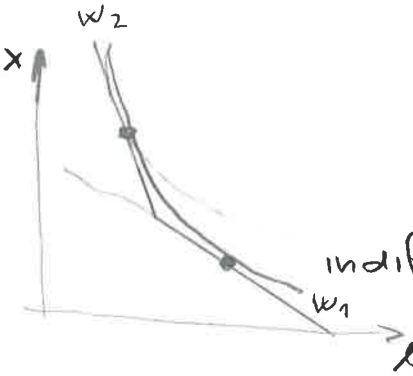
EX Overtime work



$X = X_0 + w_1 L \qquad L < L_1$

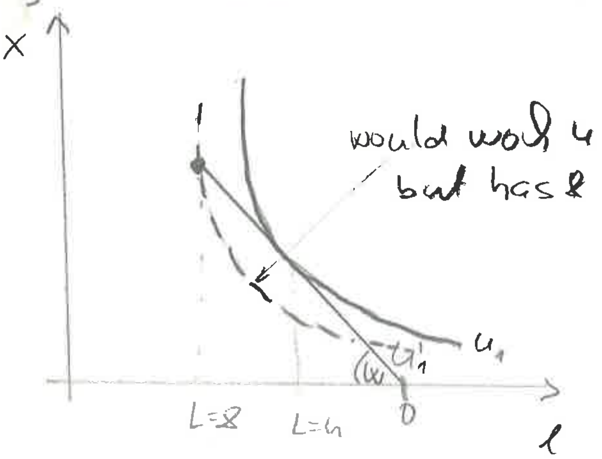
$= X_0 + w_1 L_1 + w_2 (L - L_1) \qquad L > L_1$

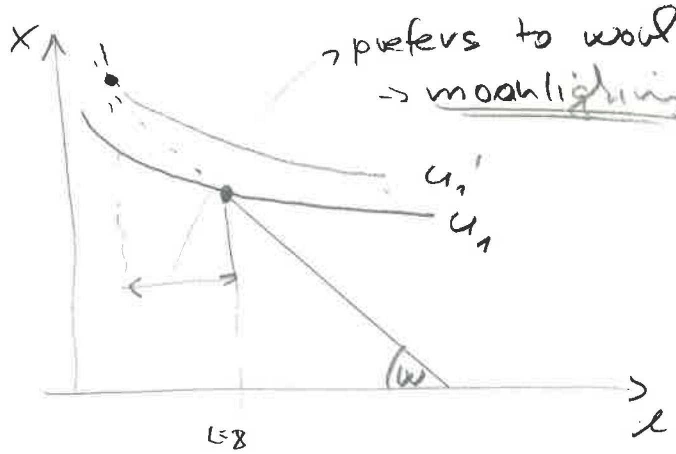
$w_2 > w_1$



indifferent worker

EX If 8 hours is the only choice!



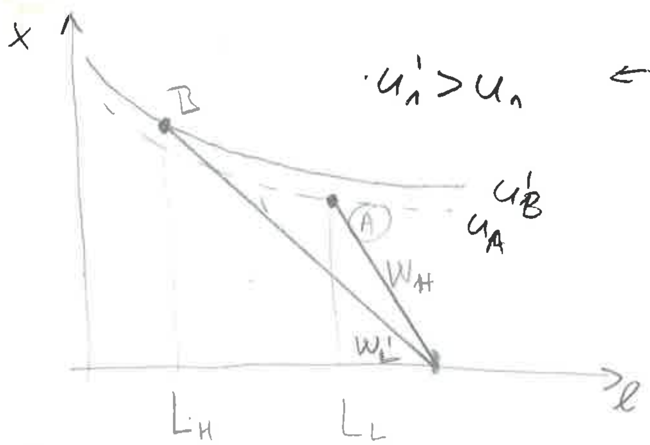


→ prefers to work L>8
→ moonlighting

EX 2 jobs

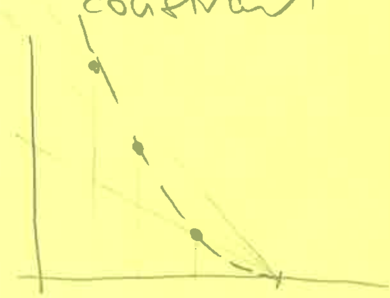
- high w low L_L (A)
- low w_L high L_H (B)

$u_1' > u_1$ ← worker pre



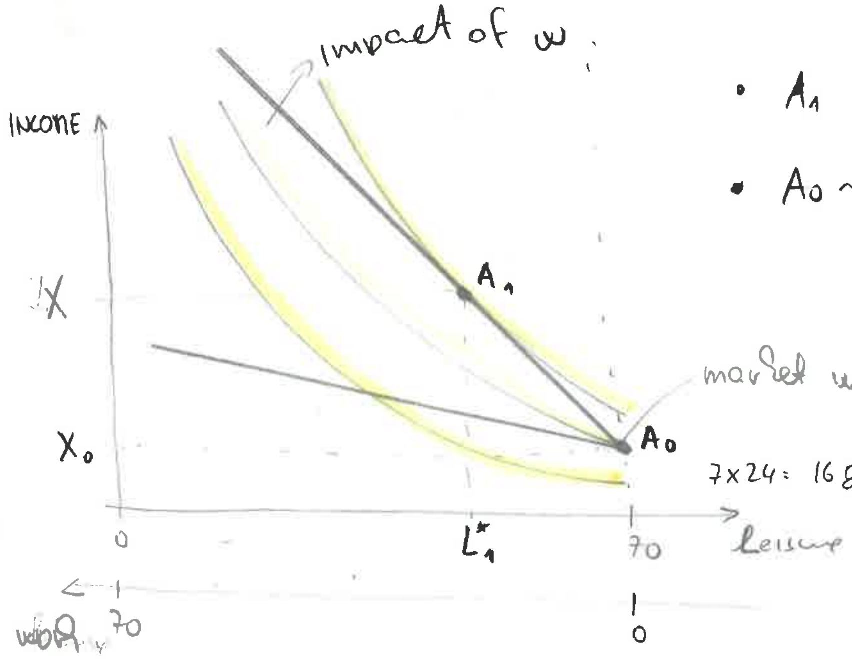
this

EX If part-time job pays lower wages
⇒ non-linear budget constraint



EX Sleeping Time - Borjas pp. 42

Fixed costs of work-[illegible]



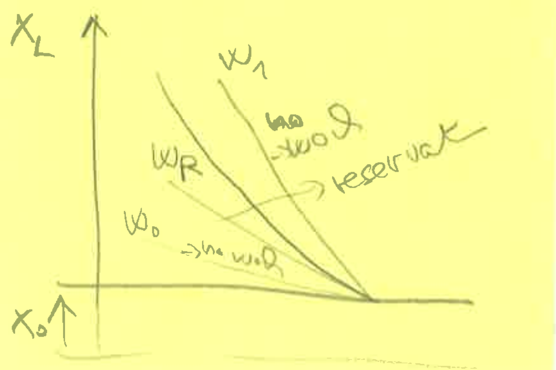
- A_1 $\quad MRS_{\ell x} = \frac{\Delta X}{\Delta L}\Big|_{U=const} = W$ ~ interior solution
- A_0 ~ corner solution

$$MRS_{LX} = \frac{\partial X}{\partial L}\Big|_{U=const} > W$$

market wage $\lessgtr$ vs reservation wage

7x24 = 168 hours

Note on Reserv. wage



- Max $U(\ell, X)$

s.t. $X = X_0 + wL = X_0 + w(T-\ell)$

$$\mathcal{L} = U(\ell, X) + \lambda[X - X_0 - w(T-\ell)]$$

$$\frac{\partial \mathcal{L}}{\partial \ell} = \frac{\partial U}{\partial \ell} + \lambda w = 0$$

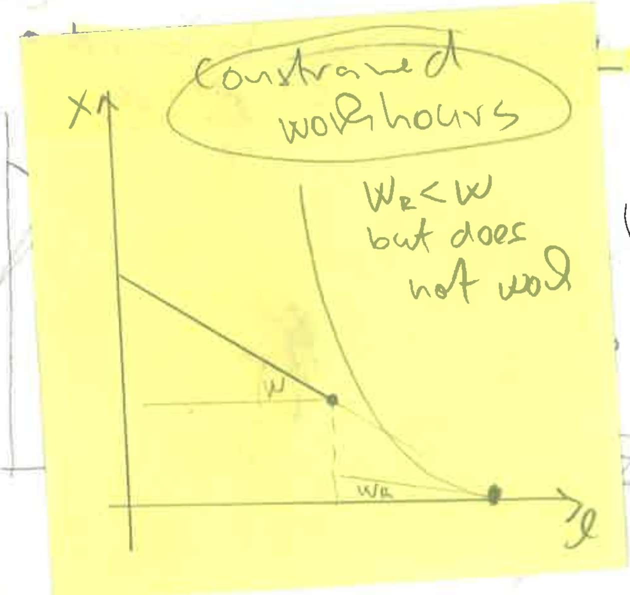
$$\frac{\partial \mathcal{L}}{\partial X} = \frac{\partial U}{\partial X} + \lambda = 0$$

$$\boxed{\frac{\partial U / \partial \ell}{\partial U / \partial X} = w = MRS} \quad (1)$$

(2) $X = X_0 + wL$

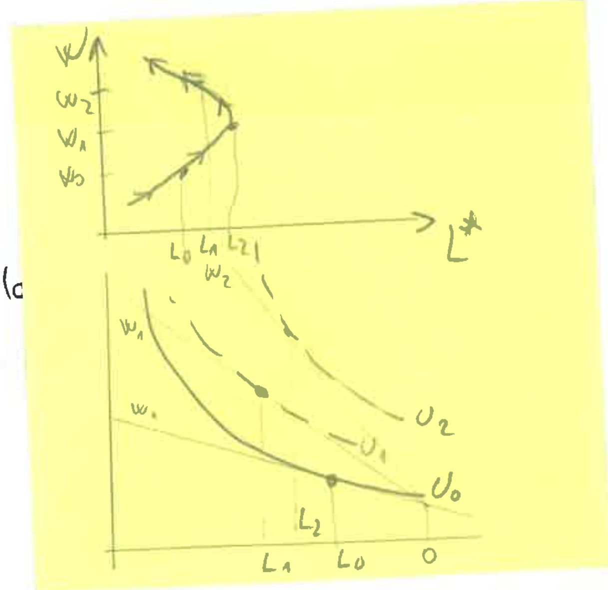
Using (1) & (2) -> $L^*(\bar{w}, X_0)$ -> impact of $w\uparrow$; -"- of $I_0 \uparrow$

LABOR SUPPLY FCE

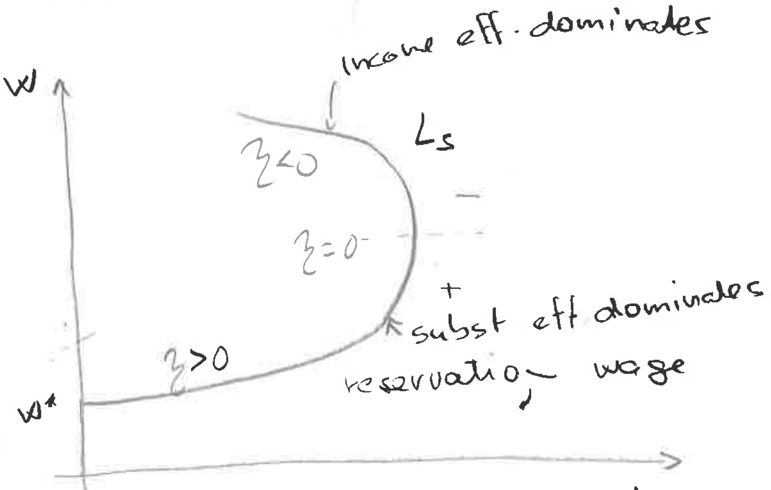


best

jobs by lo



- LABOR SUPPLY CURVE

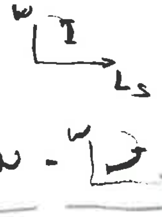


backward bending curve

$$\eta_{LW} = \frac{\%\Delta L}{\%\Delta w} = \frac{\frac{\Delta L}{L}}{\frac{\Delta w}{w}} \gtrless 0$$

Labor supply elasticity

[A] MEN -
[B] WOMEN -



share of labor income

uncompensated effect

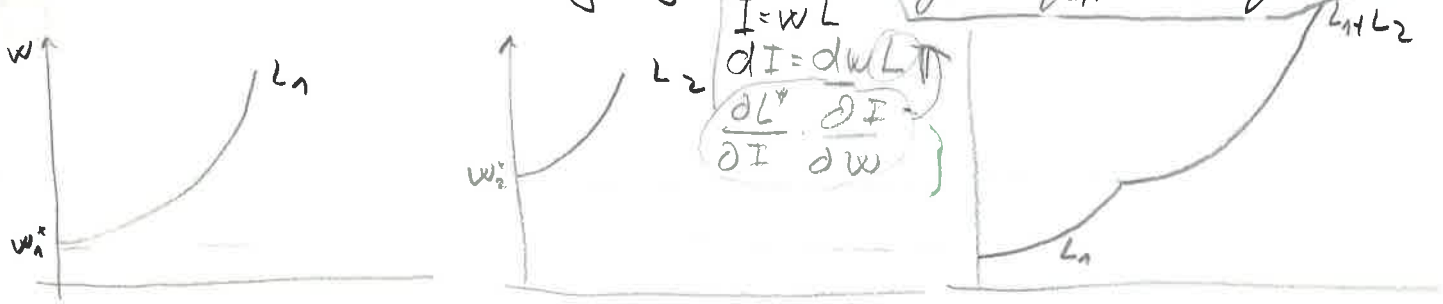
$$\frac{\partial L}{\partial w} = \underbrace{\frac{\partial L^*}{\partial w}\bigg|_{U=const}}_{comp} + L\frac{\partial L^*}{\partial I} \Rightarrow \underbrace{\frac{\partial L^*}{\partial w}\frac{w}{L^*}}_{} = \frac{\partial L^*}{\partial w}\frac{w}{L^*}\bigg|_{U=const} + \frac{wL^*}{I}\frac{\partial L^*}{\partial I}\cdot\frac{I}{L^*}$$

Slutsky eq.

$$\eta^{TOT}_{L,w} = \eta^{comp}_{L,w} + S_L * \eta_{L,I}$$

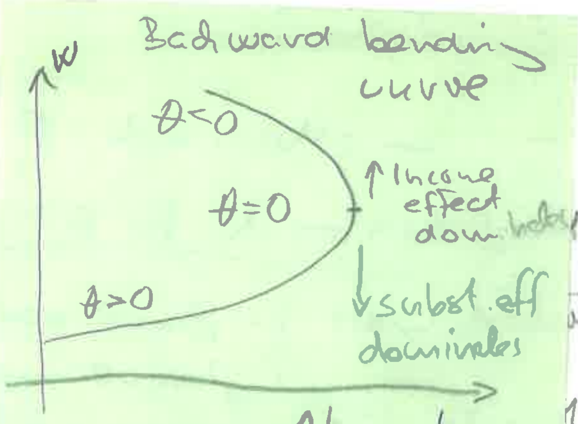
$I = wL$
$\partial I = \partial w L$
$\frac{\partial L^*}{\partial I}\cdot\frac{\partial I}{\partial w}$

- ADDING UP



- EMPIRICAL EVIDENCE

[redacted]$= \beta w_i + \gamma X_i + other$



$$\theta = \frac{\%\Delta L}{\%\Delta w} = \frac{\frac{\Delta L}{L}}{\frac{\Delta w}{w}}$$ labor supply elasticity

READINGS | (13) PENCAVEL TABLE I La...
(11) killing swartz - female la...
(10) — - simple sta...

$\hat\beta_{MEN} = -.1$ income effect $-.2$
substitution $+0.1$

income effect dominates → explains 1900 – 1950 period

inelastic

- EFFECTS - Empirical evidence

	TOT	SUBS	INC
Men	$0 \pm .1$	$.1\ (.5, -.05)$	$-.1$
Wom	$.8$	1.0	$-.2$
		β	γ

- Estimation

$$L_i = \beta w_i + \gamma X_0 + \text{other}$$

income eff: $\gamma < 0$ if normal good

subst. eff: $\beta \gtrless 0$: β dominates for women ($\beta \gg 0$)

and explains growth of L_s women

during 1900 – 1950 period