"The rich get richer and the poor have children."
Rosenzweig-Wolpin

$$\max \; U(N,Q,S)$$
$$\text{s.t.} \quad F = p_N N + p_Q Q + p_S S + NQ\pi$$

FOCs:

$$(N): U_N = \lambda[\pi Q + p_N] = \lambda \pi_N$$
$$(Q): U_Q = \lambda[\pi N + p_Q] = \lambda \pi_Q$$
$$(S): U_S = \lambda p_S$$

$$\left.\frac{\partial Q}{\partial p_N}\right|_u = \frac{\lambda \varphi_{12}}{\Delta} - \frac{\lambda^2 \pi p_S^2}{\Delta} = \left.\frac{\partial N}{\partial p_Q}\right|_u \equiv \alpha_{NQ} \gtreqless 0$$

Need to impose restrictions on φ to sign this. Can test these restrictions.

$$\frac{\partial Q}{\partial \bar{N}} = \frac{\varphi_{12} - \lambda \pi p_S^2}{\varphi_{11}} = \frac{(\partial Q/\partial p_N|_u)}{(\partial N/\partial p_N|_u)}$$

$$Q^\alpha N^{1-\alpha}$$

$$y \geq p_N N + p_Q Q + \pi Q N$$

$$\max_Q \; \alpha \ln Q + (1-\alpha) \ln\left(\frac{y - p_Q Q}{p_N + \pi Q}\right)$$

FOC:

$$(Q): \{-\pi p_Q \alpha\} Q^2 + \{2\alpha y \pi - p_Q p_N - \pi y\} Q + \alpha p_N y = 0$$

$$\pi = 0 \Rightarrow Q^* = \frac{\alpha y}{P\alpha}$$

$$\pi \neq 0 \Rightarrow Q^* = \frac{\pi y + P\alpha P_N - 2\alpha y \pi \pm \sqrt{(2\alpha y \pi - P\alpha P_N - \pi y)^2 - 4(-\pi P_q \alpha)\alpha y P_N}}{-2 P\alpha \pi \alpha}$$

The Minimum Wage

$L^* = \arg\max \{pf(L) - wL\}$ competitive

Monopsonist

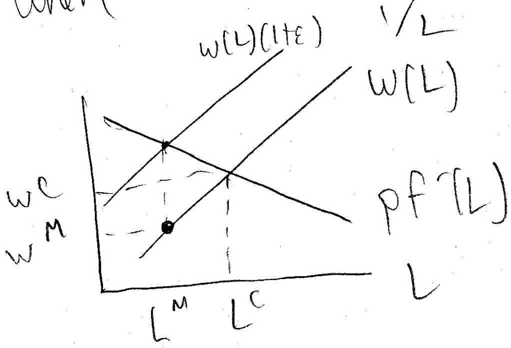
$L^* = \arg\max \{pf(L) - w(L)L\}$

FOC:

(L): $pf'(L) - w'(L)\cdot L - w(L) = 0$

$$\Rightarrow pf'(L) = \underbrace{w(L)}_{\text{Inverse labor supply curve}} \left(1 + L\frac{w'(L)}{w(L)}\right) = w(L)(1+\varepsilon)$$

where $\varepsilon = \dfrac{w'(L)/w(L)}{1/L}$



	NJ	PA
	\$4.25	\$4.25
min wage ↓	\$5.01	\$4.25
	350 restaurants	100 restaurants

$$\Delta \underbrace{E_i}_{\text{employment}} = \alpha_0 + \beta X_i + \gamma NJ_i + \varepsilon_i$$

Under competition: $H_0: \gamma < 0$

They find that $\hat{\gamma} = 2.3$

1. General equilibrium
2. Clustered standard errors.
3. 400 restaurants
4. $t = \{0,1\}$. Want pre-trends.