

Children and Labor Supply

Quantity-Quality (QQ) trade-off
 * kids parental investment

Welfare reform might provide a different balance of QQ.
Is there really a trade-off?

Becker and Lewis (1973)

$$\max u(n, q, y)$$

* children quality composite commodity
 per child

$$s.t. \quad wT + I_0 \geq \pi q n + \pi y y$$

price of quality per child * kids quality

(no labor supply in this problem)

prices are proportional to other choices.

FOCs: $u_n = \lambda \pi q = \lambda p_n$ where $\tilde{p}_n = \pi q$
 $u_q = \lambda \pi n = \lambda p_q$ $\tilde{p}_q = \pi n$
 $u_y = \lambda \pi y$

The comparative statics are not very interesting (RW-80)
 Engel curve for quantity and quality. How does QQ change as income rises? Becker assumes $\frac{\partial q}{\partial I} > \frac{\partial n}{\partial I}$

Changes in $\frac{p_n}{p_q}$?
 • birth control increases p_n
 • better public education decreases p_q

Suppose $I = n \tilde{\pi}_n + q \tilde{\pi}_q + \pi n q + p_y y$

fixed cost of numbers fixed cost of quality (ie heat the house) price of per child quality in aggregate

$$P_n = \pi_n n + \pi \cdot q$$

$$P_q = \pi_q + \pi \cdot n$$

Claim: $\pi_n \uparrow$ or $\pi_q \downarrow$ will do good things
 want to promote smaller families.

$$\pi_n \uparrow \Rightarrow \frac{P_n}{P_q} \uparrow \Rightarrow n \downarrow \Rightarrow P_q \downarrow \Rightarrow q \uparrow$$

This is not a theorem: $\pi_n \uparrow$ could just lead to $q \downarrow$.
 (ie reducing quantity might not necessarily increase quality)

could have that (n, q) are complementary.

Fertility treatments mess up the twins instrument.

Possible experiments for n or P_n

◦ Twins

◦ Sex composition

◦ miscarriages - no good

◦ age at menarche - has environmental/racial components