Fertility Incentives

• Crump, Goda, and Mumford (2011)
  – Child tax benefits cause a short-run fertility response.

• Lovenheim and Mumford (2012)
  – Housing wealth increase causes short-run and long-run fertility response
2011 Federal Child Tax Benefits, Married Filing Jointly

Notes: NBER taxsim calculator, does not include head of household or childcare
National Longitudinal Survey of Youth 79

- Nationally representative sample of young men and women who were 14-22 years old when surveyed in 1979.
- Today, I’ll show you information about 4,520 women in the NLSY that have complete work and fertility histories from 1979 to 2008.
Notes: Average number of children ever had by age of woman
Completed Fertility

Notes: Total number of children born by age 47
Average Hours of Work by Age

Notes: Average annual hours of work divided by 50 for those women who are participating in the labor market
Notes: Labor Force Participation defined as working more than 250 hours per year for pay.
No Human Capital Depreciation

Opportunity Cost of Motherhood

Career Interruptions

Age
Human Capital Depreciation

- Wage vs. Age
- Career Interruptions
- Fixed Cost of Motherhood
Average Wage by Age

Notes: Average annual hours of work divided by 50 for those women who are participating in the labor market.
Identification Problem

- Are women that have no children different than women who have two children even before they have children?
  - Education
  - Occupation
  - Career Attachment
  - Dedication to Job
  - Ability
Alternative is Unobserved

- Denote the wage a woman earns at age $a$ by $W_a^0$.
- If she has a child then the wage would be $W_a^1$.
- The problem is that for the same woman we only observe one or the other, never both.
Average Wage by Age for Mothers

Notes: Average annual hours of work divided by 50 for those women who are participating in the labor market.
Identification Problem

- A woman who gives birth at 23 might be a different sort of person than a woman who gives birth at 24 and those differences might impact future earnings.
  - Maybe the 23 year-old is less ambitions.
  - Maybe the 23 year-old started her family sooner because she saw that her career was going badly.
• Instead of comparing random 23 year-old mothers with random 24 year-old mothers, Miller compared 23 year-old mothers with 24 year-old mothers who had miscarried at age 23.

• So, there are two groups of women that made the same choice to have their first child at age 23, but some had their first child delayed by an act of chance.
Two Additional “Experiments”

• Compare 24 year-old mothers with 23 year-old mothers who conceived while using birth control (neither wanted to give birth at age 23).
• Compare 24 year-old mothers with 23 year-old mothers who had both been trying to get pregnant starting at age 22.
• Repeat all three comparisons for every age group.
Reduced Return to Experience

Wage

Rate of Wage Growth Change: Mommy Track

Age

Career Interruptions

Higher wages from Delayed Childbirth
Results

• A woman with no children in her 20s will increase her lifetime earnings by 10 percent if she delays the birth of her first child by one year.
  – She will earn about 3 percent higher wages for the rest of her life.
  – She will also work more hours on average (wage effect).

• Larger effect for college educated women: 4.7 percent higher wages.
Fraction of College Degrees to Women

Year

(mean) femaleshare