Poverty Research with the National Children’s Study

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The Michael Feldman Question: What do I know?

- Member of NRC panel that reviewed the NCS study design
- Member (until spring) of the study’s Independent Study Monitoring and Oversight Committee
- NOT involved with any of the data collection sites
Why should poverty researchers care about a health study of children?
Ill Health and Family Income, by Age of Child

Source: Case, Lubotsky and Paxson (2003)

~ ½ point on an excellent/poor health scale
Ill Health and Family Income, by Age of Child

Source: Case, Lubotsky and Paxson (2003)
Poverty early in life and adult productivity and health
Data

- Panel Study of Income Dynamics (PSID)
- Subjects were born into study families between 1968 and 1975 (n = 885)
  - Adult health measured in 2005 when respondents 30-37 years of age
- Income measured each year between prenatal year and age 15
Associations Between ~age 35 Outcomes and Prenatal to Age 5 Income

Earnings ($1,000) Obese Hypertension Arthritis Diabetes

- Poor
- Near poor
- Not close
Possible Mechanisms

• **Child health pathway:** low income may lead health events to translate into poorer child health, less exercise, etc.

• **Barker hypothesis:** Prenatal poverty may lead to fetal undernutrition and misaligned “fetal programming”

• **Stress/inflammation hypothesis:** Prenatal and early childhood stress -> poorer immune function, HPA and autonomic systems -> cardiovascular and immune function conditions
Regression model

Adult Outcome =

$\beta_1$ Prenatal to age 5 income +
$\beta_2$ Age 6-10 income +
$\beta_3$ Age 11-15 income +
$\beta_4$ Prenatal demographic controls +
$\beta_5$ Parent health
Hypothesized relationship between early-childhood income and adult outcomes

Earnings

- Poor
- Near poor
- Middle class
- Affluent

Health problems

Adult Outcome

Childhood income
Percentage increase in adult earnings associated with a $3,000 annual increase in childhood income

- **Prenatal to age 5**: 17%
- **Age 6-10**: 2%
- **Age 11-15**: ns

Income brackets:
- < $25,000
- $25,000 +
Percentage reductions in odds of various health conditions in 2006 associated with a $3,000 annual increase in prenatal to age 5 income, for family income <$25,000

- Poor health: ns
- Obesity: -20%
- Hypertension: -32%
- Arthritis: -45%
- Diabetes: ns
- Work limiting health conditions: -33%
How to think about the NCS?
• It may not provide adequate income data
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<th>6 mos</th>
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• It may not provide adequate income data
• It was not conceived to be a normative study of child health and development
• It may not provide a nationally representative sample of 100K babies
• It likely won’t have a decent response rate
• It may not provide geographic identifiers to researchers
• It may release its birth outcome data before I retire