Early Childhood Poverty and Later Attainment

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Third Annual Bronfenbrenner Lecture
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Contextual levels in which development takes place

My own work:

- Policy
- Peer (x genes)
- Neighborhood
- Family
My talk:

Does family poverty early in childhood compromise a child’s eventual life chances?
What is poverty?

Insufficient income vs.

Low income
Lone parent
Social isolation
Poor genetic endowments
etc.
My talk:

Does poverty early in childhood compromise a child’s eventual life chances?

How would adult outcomes change if policy boosted poor young children’s family incomes, but did not directly change any other characteristic of their parents or family environments?
A Process Model

Early childhood poverty

Early brain development

Purchased inputs
- Cognitive stimulation in the home
- Type and quality of child care
- Quality of schools and neighborhood

Family processes
- Maternal mental health
- Parenting

Child Achievement, Behavior and Health

Adult Achievement, Behavior and Health

Controls
I first review recent empirical research

Early childhood poverty

Child Achievement, Behavior and Health
But spend most of my time on new evidence

Early childhood poverty

Adult Achievement, Behavior and Health
How to estimate the effects of poverty?

- Need to be confident that income variations are largely beyond the control of the family

- e.g.,
  Policy changes such as child allowances
  Social policy experiments
How to estimate the effects of poverty?

- Dahl and Lochner (2008) examine impacts of the U.S. Earned Income Tax Credit

- Milligan and Stabile (2008) examine impacts of Canadian Child Tax Benefit

- Both studies suggest:
  A $3,000 increase in early family income boosts test scores by ~.20 sd
Many welfare-to-work experiments in the 1990s in the U.S.

Many incorporated random assignment to “treatment” and “control” groups

Treatments:
- Earnings supplements that boosted work and family income
- Work requirements that boosted work but NOT family income
Random-assignment policy experiments (with Pamela Morris)

Our strategy:

- Pool data from 11 random assignment experiments
- Examine impacts of earnings supplement vs. other programs on:
  - Earnings
  - Family income
  - Child achievement
All programs boosted earnings

- Earnings supplement programs
- Other programs

Morris et al., 2005, *Developmental Psychology*
Only ES programs boosted family income

- Earnings supplement programs
- Other programs

Age 0-2
- $2,500
- $1,500
- $1,000
- $500
- $0

Age 3-5
- $2,000
- $1,500
- $1,000
- $500
- $0

Age 6-8
- $1,500
- $1,000
- $500
- $0

Age 9-11
- $1,000
- $500
- $0
Achievement impacts

- Earnings supplement programs
- Other programs

Age 0-2: ns
Age 3-5: .08* (ns)
Age 6-8: ns
Age 9-11: ns
Hence, recent studies suggest:

Early childhood poverty → Child Achievement
On to PSID evidence:

Early childhood poverty → Adult Achievement, Behavior and Health
New Evidence

- Panel Study of Income Dynamics (PSID), 1968-2006
- Children born between 1968 and 1975
- Adult outcomes measured between ages 25 and as late as age 37 for the earliest cohort
- Income measured prenatal to age 15; controls measured around or before birth

Duncan, Ziol-Guest and Kalil, forthcoming, *Child Development*
Control Variables

- Measured around or before birth:
  - Number of siblings; child was first born
  - Lone-parent status at birth
  - Parent schooling and test score
  - Dwelling cleanliness
  - Parent expectations and motivation
## Standardized regression coefficients

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<thead>
<tr>
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<td>.15*</td>
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* p<.05
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<td>In 11-15 income</td>
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Work Hours by Early Income

Average Annual Adult Work Hours vs. Average Prenatal to Age 5 Annual Income
Poverty matters, but selectively:

- Early poverty matters more than poverty later in childhood

- Early poverty appears to matter most for achievement-related outcomes (earnings, labor supply)
Early poverty: Policy considerations

- Non-PSID work suggests that $3,000 per year translates into ~.20 sd higher achievement

- This PSID work:
  - $3,000 increase in early income is associated with: 19% higher adult earnings and 135 more work hours per year
Should we concentrate income transfers on the prenatal to age-5 period?

- Add benefits to families with young children?
- Redirect existing benefits to such families?

E.g., French have a generous program for low-income single mothers that ends at age 3.
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