The Long Reach of Early Childhood Poverty

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The National Forum on Early Childhood Policy and Programs
Poverty rate for children < 6 years old

23.0%  
5.2 million

21.3%  
5.3 million
My talk:

Does poverty early in childhood compromise children’s life chances?

How would adult outcomes change in response to a policy that boosted poor children’s family income, but did not directly change any other characteristic of their parents or family environments?
A Process Model

- Early childhood poverty
- Family processes: Maternal mental health, Parenting
- Early brain development
- Purchased inputs: Cognitive stimulation in the home, Type and quality of child care, Quality of schools and neighborhood
- Child achievement, behavior, and health
- Adult attainment
Experience Shapes Brain Architecture by Over-Production Followed by Pruning
(700 synapses formed per second in the early years)

birth  6 years  14 years
Neural Circuits are Wired in a Bottom-Up Sequence

Language

Higher Cognitive Function

FIRST FIVE YEARS

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

Months

Years

Brains and Skills are Built in a Bottom-Up Sequence and Shaped by the “Serve and Return” Nature of Human Interaction
Significant Adversity Affects Brain Power

Positive Relationships

Extreme Neglect

My focus

Early childhood poverty

Adult Attainment
Adult Outcomes (up to age 37)

- Labor market earnings and hours
- Food stamp receipt
- Health
- Arrest and incarceration
- Out of wedlock child bearing
Data and Sample

- Panel Study of Income Dynamics (PSID), 1968-2006
  - NSF supported study following 5,000 families for 40+ years

- Children born between 1968 and 1975
- Adult outcomes measured after age 25
Simple correlations between childhood income and the child’s adult:

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<tbody>
<tr>
<td>Earnings</td>
<td>.31*</td>
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<tr>
<td>Work hours</td>
<td>.15*</td>
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<td>Poor Health</td>
<td>-.13*</td>
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<td>Arrests</td>
<td>-.17*</td>
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<tr>
<td>Out of Wedlock Births</td>
<td>-.38*</td>
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Hypothesized relationship between early-childhood income and adult attainment
Regression model

Adult outcome = 
  f ( Prenatal to age 5 income +
  Age 6-10 income +
  Age 11-15 income +
  Prenatal demographic controls )
### Statistically significant effects of low income on children’s outcomes

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<th>Childhood income:</th>
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<tr>
<td>Prenatal to age 5</td>
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Increase in adult earnings associated with a $3,000 annual increase in income
Norwegian replication: adult earnings

- Prenatal to age 5:
  - < $25,000: 7%
  - $25,000 +: 1%

- Age 6-10:
  - < $25,000: 2%
  - $25,000 +: 0%

- Age 11-15:
  - < $25,000: 5%
  - $25,000 +: 0%
Policy considerations

- Earnings coefficients imply:
  - $3,000 increase in income for 7 years between prenatal and 5th birthday year is associated with:
    - 17% higher adult earnings
    - 152 more work hours per year

- Concentrate income transfers (e.g., ETIC, child tax credit) on the p-5 periods?
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