

Starting Gate: Investing in Early Childhood as a Policy Priority

THIRD FAMILY RESEARCH NETWORK FORUM

Research and Policies on Child Development and
Resilience

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Outline

- Significance of early childhood to child development & adult outcomes
- What have we learned from the literature?
- Policy implications

Significance of Early Childhood

- Growing recognition of the importance of development in early childhood
- A convergence of research in multiple disciplines – psychology, sociology, and economics
- Economic hardship during early childhood threatens the cognitive, social, emotional, and behavioral development
- Both short & long-term consequences

What Does Research say?

- Investing in early childhood more cost effective than investing in later years
- Most findings based on U.S. & UK data (Duncan, Yeung, Brooks-Gunn, Smith, 1988; Duncan et al., 2008; Karoly et al, 2005; Heckman, 2006)
- Rigorous studies – longitudinal studies, fixed effect models, address causality
- A few examples here

Duncan, Yeung, Brooks-Gunn, Smith, 1988; Duncan et al., 2008

- **Data-** Panel Study of Income Dynamics
- Up to 35 years of data, beginning in the prenatal year, on a representative sample of U. S. children
- Outcomes during childhood
- Most adult outcomes measured between ages 25 and 34

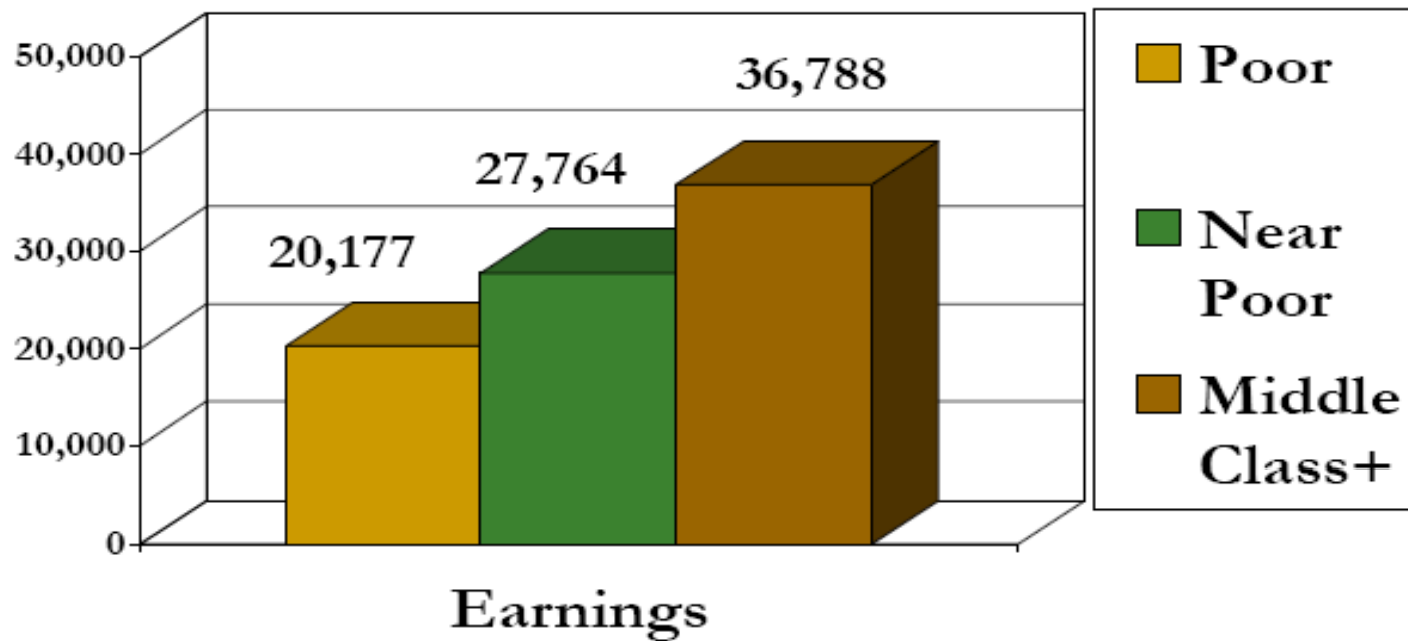
Long-run Economic Benefits of Eliminating Early Childhood Poverty

- In childhood-adolescence:
 - ◆ Preventing grade failure and special education
 - ◆ Better cognitive skills
 - ◆ Better health
 - ◆ Less crime
 - ◆ Fewer non-marital births

Long-run Economic Benefits of Eliminating Early Childhood Poverty

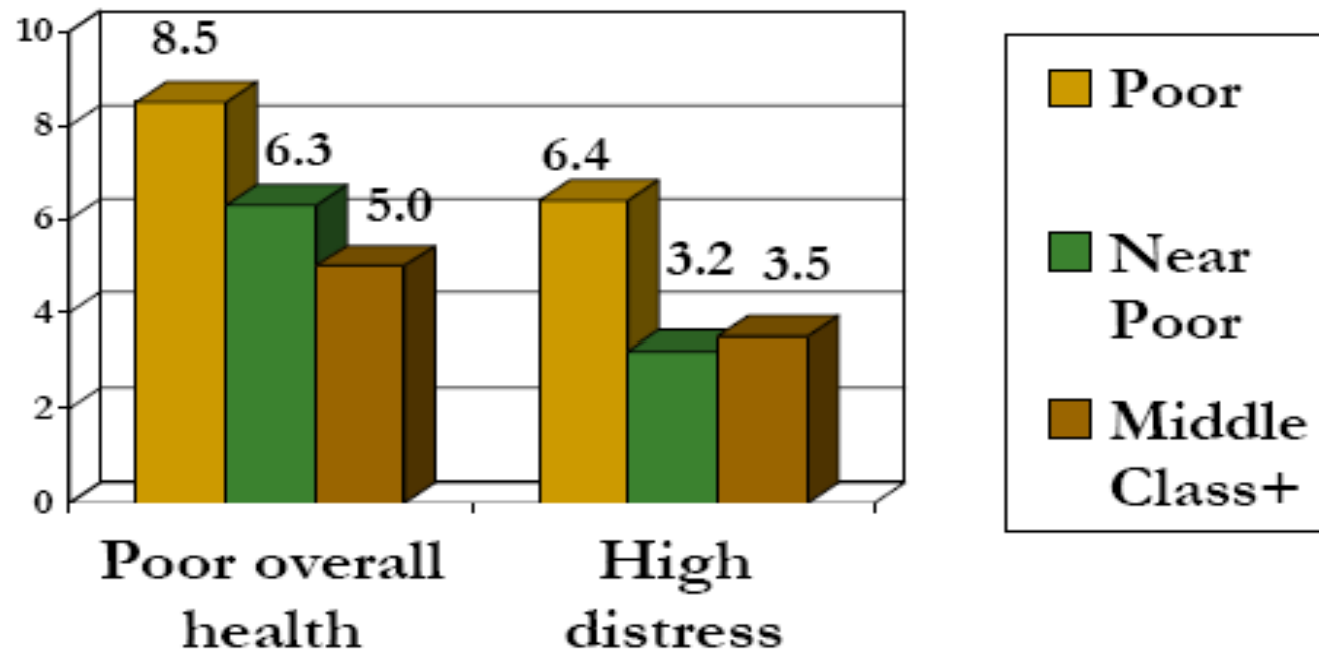
- In adulthood:
 - ◆ Higher education
 - ◆ Higher earnings (productivity)
 - ◆ Better mental and physical health

Adult Earnings by Early-Childhood Poverty Status



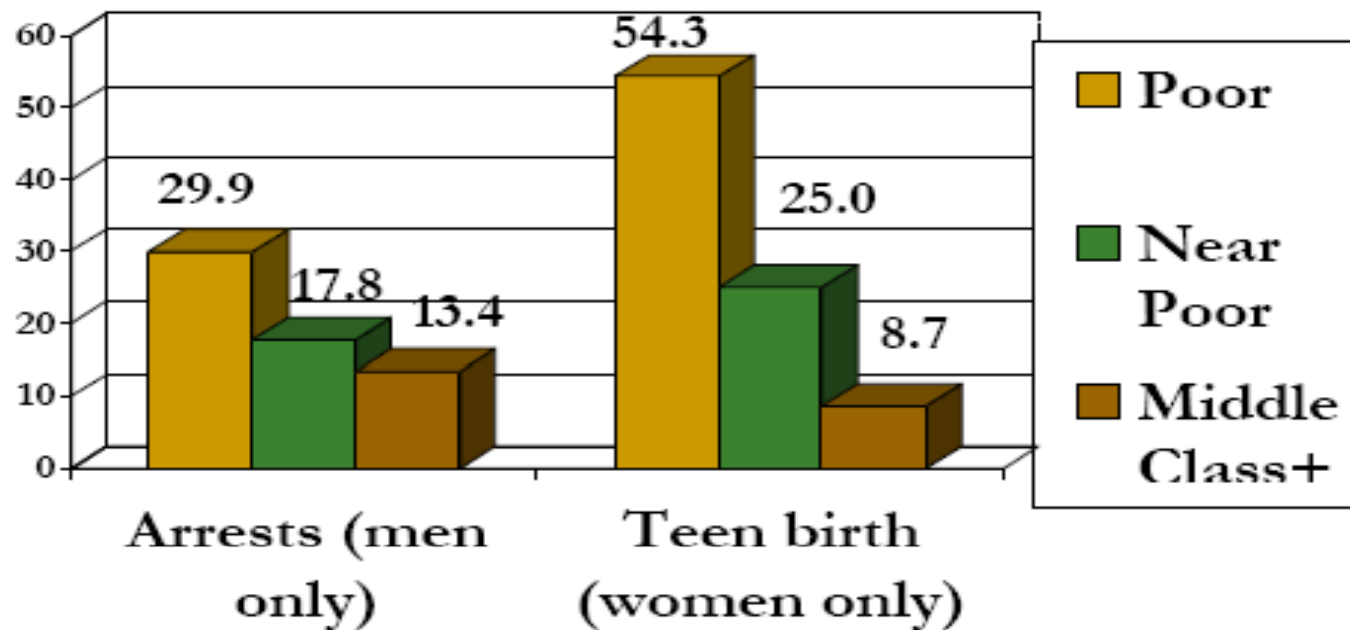
Source: Duncan et al, 2008

Adult Physical and Mental Health by Early Poverty Status



Source: Duncan et al, 2008

Crime and Nonmarital Childbearing by Early Poverty



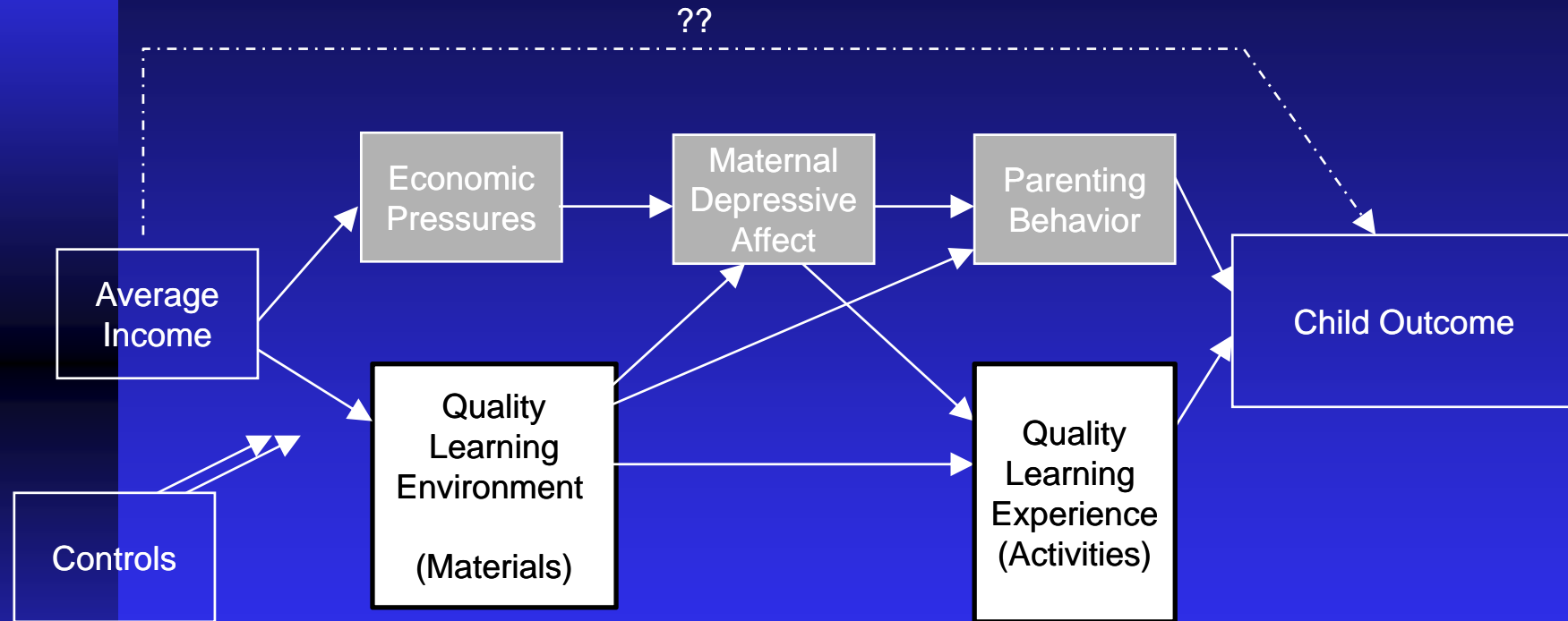
Source: Duncan et al, 2008

How Money Matters?

- Human Capital model - material investment
- Family Processes/stress model – via psychological resources

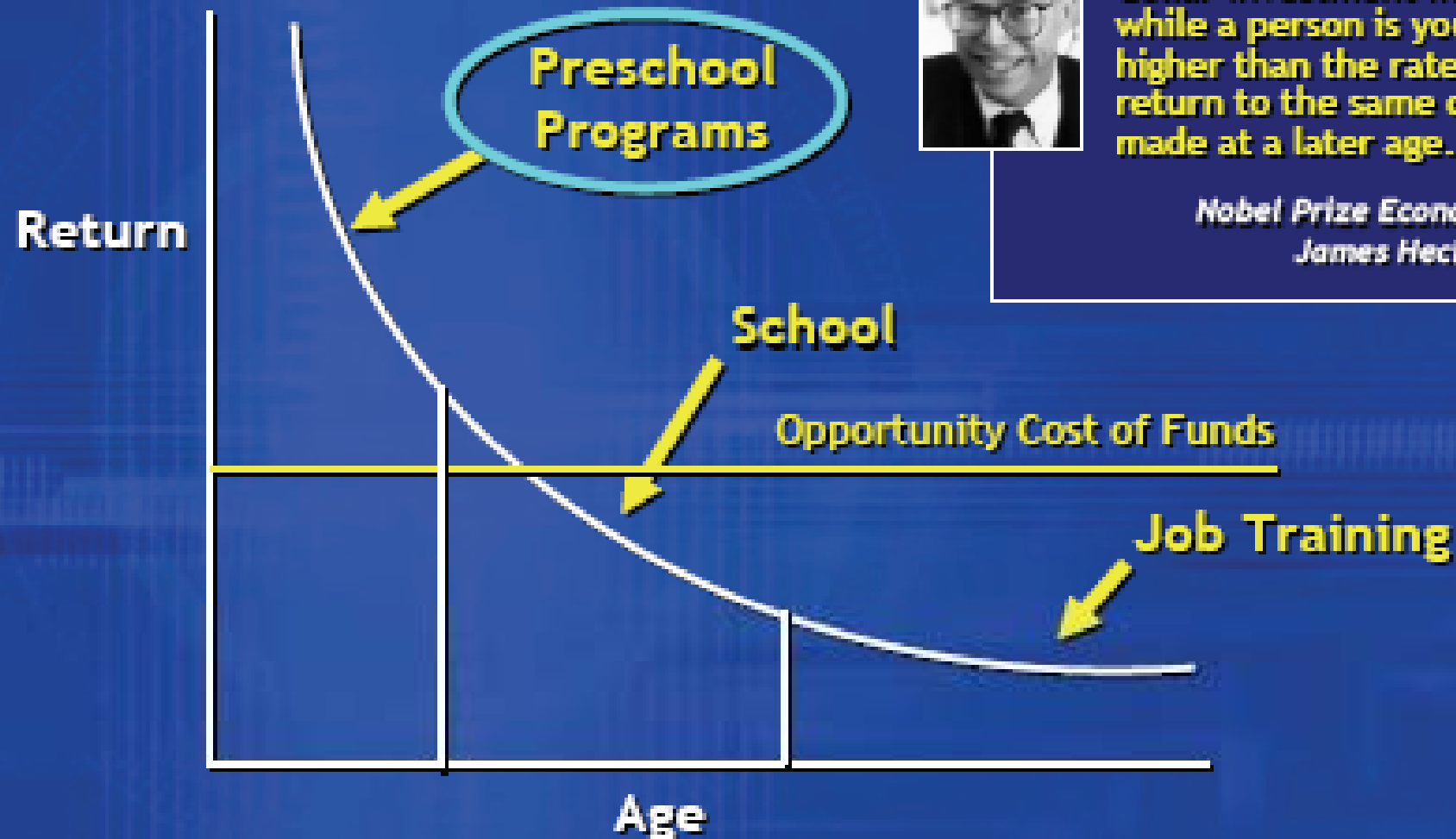
Yeung et al. (2001)

Figure 1: Combination of Investment Mediators and Family Stress Mediators (dark shading) Models



Source: Yeung et al., 2001

Return on Human Capital Investment



"The rate of return to a dollar investment made while a person is young is higher than the rate of return to the same dollar made at a later age."

*Nobel Prize Economist
James Heckman*

Early Childhood – J. Heckman

- “It is a smart investment. Data prove it. “
- “America's best economic stimulus package with lasting benefits long after the money is spent is **investing in the youngest among us** and producing significant economic and social benefits with rates of return that are comparable to the high return on stocks over the long run.”
- “Many of our social problems, such as crime, are traced to an absence of the **social and emotional skills**, such as perseverance and self-control, that can be fostered by **early learning**.”

Lessons from Research on Racial Achievement Gap in US

- persist in contemporary America (e.g. NECS reports)
- a substantial lag in the achievement of black students (NAEP reports from 1971 to 1996, Hedges and Nowell 1998)
- A 40% decline in B-W test score gap between 1970 to 1990s, but held steady since then
- 17-year-old blacks had an average reading proficiency equivalent to that of 13-year-old whites in 1996 (Hallinan, 2001)

Recent Studies

- Fryer and Levitt (2004, 2006), Yeung & Pfeiffer (2009), Yeung, Persell & Reilly (2009)
- national data of children in U.S., from preschooler to high school children

Data

- **Panel Study of Income Dynamics (PSID -Child Development Supplements)**
- **Early Childhood Longitudinal Study (ECLS)**
- **National Longitudinal Survey of Youth (NLSY)**

Three Cohorts based on grade in 1997: (Yeung & Pfeiffer, 2009)

- Youngest: before school through kindergarten
- Middle: grades 1-3
- Oldest: grades 4-7

Outcome Measures

Child's cognitive skills:

Woodcock-Johnson Achievement Tests
Revised (1989)

- Applied Problem score (math)
- Letter-Word score (verbal)

Results

- Large gaps before school, widens in elementary & middle school
- up to G3, & G6 L-W, gaps can be completely explained away with early family socioeconomic circumstances
- In middle and high schools, home environment accounts for a smaller proportion of the gaps
- Prior scores are strong predictors of later achievement; most of the gaps, even in high schools, can be explained away when prior achievement is taken into account

Findings Suggest

- Achievement gaps are not inevitable
- Vary by child's age & shaped by different sets of factors at varying developmental stages
- Early home environment is key
- Early achievement highly predictive (cumulative learning)
- Racial achievement gap has deep intergenerational roots – takes more than one generation

Key Factors

Early risks matter greatly

- ◆ Before/at birth condition (markers of early economic disadvantages)
 - ◆ Having a teen mother
 - ◆ Low birth weight
 - ◆ Mother's cognitive skills
- ◆ Childhood family SES (parents' occupation, education, income, wealth & grandparent SES)

A Few Lessons

- a developmental perspective to understand these differential patterns of black-white test score gaps over time.
- The key to closing the racial achievement gap is closing the school readiness gap.
- any serious attempt to reduce racial achievement gaps must address prenatal & early childhood disadvantages

Research on Childcare

- Meta-analysis
- Associations were stronger for 2- and 3-year-olds than for 4-year-olds
- Stronger for children's academic and language outcomes than for social outcomes
- Larger benefits when quality was in the good to high range

Policy Considerations

- Parent-based programs
 - ◆ Programs to encourage teens to stay in school- e.g. mentoring programs, after school programs, improve youth's cognitive skills - a positive impact on the next generation's cognitive development. Children's early literacy depends heavily on their parents' education and skills.
 - ◆ employment assistance
 - ◆ EITC – particularly for families with young children
 - ◆ Parental home & school involvement

Policy Considerations

- Intensive home visits or programs to teach parents how to help their children learn early language and math skills will be valuable.
- encourage verbal conversation, reading, and counting at home
- Pre-school programs that have a strong parental involvement component

Policy Considerations

- Child-based programs
 - ◆ Quality Childcare
 - ◆ Early childhood education, e.g. Early Head Start
 - ◆ Wealth accumulation-Child Development account

Make Investing in Early Childhood a Policy Priority

- Resources remain limited in many countries
- Health care, nutrition, universal education, poverty reduction in early childhood crucial
- Improvement in the status and role of women in both public and private spheres is a fundamental component of any effort toward enhancing the situation of children