Investment in Early Childhood Development

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Investment in Early Childhood Development

• Cost-benefit studies demonstrate high public return

• Early investments impact economic growth

• Case study: Measuring impact of St. Paul Early Childhood Scholarship Program
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Barriers to Social Mobility Emerge at a Very Young Age

Cumulative Vocabulary (Words)

Child’s Age (Months)

College Educated Parents

Welfare Parents

Risk Factors for Adult Depression are Embedded in Adverse Childhood Experiences

Source: Chapman et al, 2004
Risk Factors for Adult Heart Disease are Embedded in Adverse Childhood Experiences

Source: Dong et al, 2004
High/Scope Study of Perry Preschool

- In early 1960s, 123 children from low-income families in Ypsilanti, Mich.

- Children randomly selected to attend Perry or control group.

- High-quality program with well trained teachers, daily classroom sessions and weekly home visits.

- Tracked participants and control group through age 40.
Perry: Educational Effects

- Age 14 achievement at 10th percentile+
- Graduated from high school on time
- Didn't require special education

Perry: Economic Effects at Age 40

- Own home
- Earn $25,000+
- Have a savings account

Perry: Arrested 5 or More Times Before Age 40

Perry: Average Number of Months Served in Prison by Age 40

Perry Preschool
Costs and Benefits Over 62 Years

Perry Preschool —
Estimated Return on Investment

- Benefit-Cost Ratio = $16 to $1
- Annual Rate of Return = 18%
- Public Rate of Return = 16%
- Heckman Reanalysis = 10%

Sources: Schweinhart, et al (2005); Author’s calculations; Heckman, Moon, Pinto, Savelyez, & Yavitz (2010)
Abecedarian, Educational Child Care

Full-day, year-round program near Chapel Hill, N.C. Children from low-income families were randomly selected to attend Abecedarian or control group.
Abecedarian: Educational and Health Effects

- Didn't repeat a grade
- Non-smoker, age 21
- Attended a four-year college

Chicago Child-Parent Centers

Half-day, large-scale program in Chicago public schools. Comparison group was a sample of eligible nonparticipants.
Chicago Child-Parent Centers

Didn't require special education

High school completion, age 25

Juvenile arrests

Source: Reynolds, Temple, White, Ou, & Robertson (2011)
Elmira Prenatal/Early Infancy Project
Higher-Risk Families

Home visiting program by registered nurses for at-risk mothers, prenatal through first two years of child’s life. Randomly selected participants were compared with a control group.
Elmira Prenatal/Early Infancy Project
High-Risk Families

-60% -50% -40% -30% -20% -10% 0%

Child emergency room visits, ages 25 to 50 months
Child arrests, through age 15
Months on welfare

Percent Change, Program Group Compared with No-Program Group

Benefit-Cost Ratios for Other Longitudinal Studies

- Abecedarian Educational Child Care
  - $4 to $1

- Chicago-Child Parent
  - $10 to $1

- Elmira Prenatal/Early Infancy Project
  - $5 to $1

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Investing in Human Capital Pays Off
Average Annual Wages of New Jobs by Primary Source of Education and Training, 2008 to 2018

- Bachelor's degree or higher
- Associate degree
- Postsecondary vocational award
- Work experience in related occupation
- Long-term OTJ training
- Moderate-term OTJ training
- Short-term OTJ training

Average annual wages of new jobs based on median 2008 wages

## Estimated Present Value of Adult Earnings

(Discount 3%)

<table>
<thead>
<tr>
<th>Preventing a low birth weight birth</th>
<th>$60,261</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 s.d. gain in early reading and math skills</td>
<td>$26,587</td>
</tr>
<tr>
<td>1 s.d. gain in attention skills at age 5</td>
<td>$3,323</td>
</tr>
<tr>
<td>1 s.d. gain in home environment</td>
<td>$7,976</td>
</tr>
</tbody>
</table>

Sources: Brooks-Gunn, Magnuson, & Waldfogel (2009)
Economic Development Benefits

• Businesses attract parent employees and keep absenteeism relatively low

• Increase local income and jobs
  – Bartik: Ratio of present value benefits to costs range from $1.85 to $5.66

• Indirect and induced output and employment effects
  – Warner: Child care has higher multipliers than many other industries

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Goals of St. Paul Early Childhood Scholarship Program

• School readiness

• Parent engagement

• More high-quality openings at ECE programs

Funded by Minnesota Early Learning Foundation
Evaluated by SRI International
Parents’ report of child’s care prior to Scholarship Program enrollment

SRI parent phone interviews (n=122)

- No care outside of the home: 23%
- Unlicensed family child care: 34%
- Licensed family child care: 12%
- Center-based child care: 10%
- Head Start: 6%
- Other: 15%

December 2010

Source: Gaylor, Spiker, Williamson, & Ferguson. (2011)
Children enrolled in a variety of ECE programs

- Head Start, part day: 9%
- Head Start, full day: 20%
- Family-based child care, full day: 7%
- St. Paul Public Schools, part day: 3%
- For-profit and non-profit center, full day: 51%
- For-profit and non-profit center, part day: 10%

Total enrollment: 232

February 2010

Source: Gaylor, Spiker, Williamson, & Ferguson. (2011)
Positive comments from parent interviews

- Program considered user friendly
- Involved with ECE program and child’s teacher
- Participation provided school and work opportunities
- Positive opinions about parent mentors

Source: Gaylor, Spiker, Williamson, & Ferguson. (2011)
Children made gains in test scores for language and early math skills

Source: Gaylor, Spiker, Williamson, & Ferguson. (2011)
Programs reported benefits of scholarship funds

- Payments are made reasonably on-time
- Able to support continuity of care
- Paper work/administrative processes are minimally disruptive to services

Source: Gaylor, Spiker, Williamson, & Ferguson. (2011)
Sources


Sources


