The Fiscal Effects of Investing in Early Childhood

kidoNomiCs
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*The views expressed here are those of the author and not necessarily those of the Federal Reserve Bank of Minneapolis or the Federal Reserve System.
Federal Reserve
Community Development

- Promote fair access to credit and economic growth in LMI communities.

FedCommunities.org
Federal Reserve community development resources promoting people, place, practice and small business
Calling all researchers, practitioners, and policymakers to join the discussion:

Kids with strong cognitive and social foundations are better-equipped to manage their financial circumstances, succeed in the labor market, and contribute to society at large. Recognizing that not all children have the same opportunities to grow and develop, how can we help set young people on a strong course?

Visit bit.ly/1VY7zpv to:

• Learn more about the conference’s focus and agenda.
• Register to attend.
Key concepts

- Conducting cost-benefit analysis requires rigorous research studies that include a non-treatment comparison group, ideally through a RCT.

- Research on early childhood programs is conducted in the context of developmental science, which shows the early years are a sensitive period for growth.

- Benefits to early childhood programs occur both near-term and long-term and are spread across various government jurisdictions and agencies.

- Investments achieve a high return when they are high-quality, engage parents, start early, effectively scaled, and match the risk profile of children served.
Early childhood development investments

- Home visiting \textit{HV}
- Health & nutrition \textit{HN}
- Early learning programs \textit{ELP}
- Quality Rating and Improvement System
- Parent education
- Child welfare system
Fiscal-related benefits prenatal to age 5

- Better maternal and child health \(HV,\ \text{HN}\)
- Fewer low-weight births \(HV,\ \text{HN}\)
- Fewer emergency room visits \(HV\)
- Reduced costs to Medicaid, TANF, and food stamps \(HV\)
- Reduced child abuse and neglect \(HV,\ \text{ELP}\)
- Higher maternal earnings and tax revenue \(HV,\ \text{ELP}\)
- Lower cash assistance \(HV\)
- Lower maternal crime \(HV\)

Sources: Bartick & Reinhold (2010); Devaney, Billheimer, & Schore (2008); Green, et al. (2014); Karoly, et al. (1998); Olds, et al. (1997); Miller (2015); Reynolds, Temple, White, Ou, & Robertson (2011)
Fiscal-related benefits ages 5 to 17

- Improved school readiness $HV, ELP$
- Reduced need for special education $ELP$
- Less grade repetition $ELP$
- Higher high school graduation rates $ELP$
- Reduced juvenile crime $HV, ELP$

Sources: Garcia, Heckman, Leaf, & Prados (2016); Heckman, Moon, Pinto, Savelyez, & Yavitz (2010); Muschkin, Ladd, & Dodge (2015); Olds, et al. (2004); Reynolds, Temple, White, Ou, & Robertson (2011); Schweinhart, et al. (2005)
Fiscal-related benefits ages 18+

- Higher educational attainment ELP
- Higher earnings and tax revenue ELP
- Lower cash assistance ELP
- Improved health ELP
- Lower crime ELP
- Higher homeownership rates ELP

Sources: Garcia, Heckman, Leaf, & Prados (2016); Heckman, Moon, Pinto, Savelyez, & Yavitz (2010); Reynolds, Temple, White, Ou, & Robertson (2011); Schweinhart, et al. (2005)
<table>
<thead>
<tr>
<th>Early childhood investments by government jurisdiction</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Federal</strong></td>
</tr>
<tr>
<td>Home visiting</td>
</tr>
<tr>
<td>Health &amp; nutrition</td>
</tr>
<tr>
<td>Early learning programs</td>
</tr>
<tr>
<td>Quality Rating and Improvement</td>
</tr>
<tr>
<td>Parent education (group)</td>
</tr>
<tr>
<td>Child welfare system</td>
</tr>
</tbody>
</table>
### Government cost savings or increased revenue associated with early childhood investments

<table>
<thead>
<tr>
<th>Medicaid and unpaid medical care</th>
<th>Federal</th>
<th>State</th>
<th>County</th>
<th>City</th>
<th>School District</th>
</tr>
</thead>
<tbody>
<tr>
<td>TANF</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child welfare system</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Criminal justice system</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increased tax revenue</td>
<td></td>
<td></td>
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</tbody>
</table>
Return on Investment
Evidence from longitudinal early childhood studies

- Perry Preschool
  - Schweinhart: $16 to $1
  - Heckman: $7–$12 to $1

- Abecedarian Educational Child Care
  - Barnett: $4 to $1
  - Heckman: $7 to $1

- Chicago Child-Parent Center
  - Reynolds: $10 to $1

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

Sources: Garcia, Heckman, Leaf, & Prados (2016); Heckman, Moon, Pinto, Savelyez, & Yavitz (2010); Karoly, et al. (1998); Masse & Barnett (2002); White, Ou, & Robertson (2011); Schweinhart, et al. (2005)
## Chicago Child-Parent Center
### Fiscal effects

<table>
<thead>
<tr>
<th>Government savings</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Less spending on the following items</td>
<td></td>
</tr>
<tr>
<td>Grade retention</td>
<td>$1,004</td>
</tr>
<tr>
<td>Special education</td>
<td>$6,063</td>
</tr>
<tr>
<td>Criminal justice system</td>
<td>$10,332</td>
</tr>
<tr>
<td>Child welfare services</td>
<td>$3,524</td>
</tr>
<tr>
<td>Increased tax revenue</td>
<td>$7,297</td>
</tr>
<tr>
<td>More college education spending</td>
<td>-$224</td>
</tr>
<tr>
<td>Total</td>
<td>$27,996</td>
</tr>
<tr>
<td>Program cost</td>
<td>$9,707</td>
</tr>
<tr>
<td>Benefit-cost ratio</td>
<td>$2.88</td>
</tr>
</tbody>
</table>

2016 Dollars

Source: Reynolds, Temple, White, Ou, & Robertson (2011)
Elmira Prenatal/Early Infancy Project
Fiscal effects

<table>
<thead>
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<th>Government savings</th>
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<tbody>
<tr>
<td>Less spending on the following items</td>
<td></td>
</tr>
<tr>
<td>Emergency room visits</td>
<td>$163</td>
</tr>
<tr>
<td>Cash assistance</td>
<td>$19,975</td>
</tr>
<tr>
<td>Criminal justice system</td>
<td>$6,857</td>
</tr>
<tr>
<td>Increased tax revenue</td>
<td>$8,070</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$35,065</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Program cost</th>
<th>$8,638</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benefit-cost ratio</td>
<td>$4.06</td>
</tr>
</tbody>
</table>

2016 Dollars

Source: Karoly, et al. (1998)
Pay for Success early childhood programs
Outcomes tied to success payments

- Salt Lake City – Preschool
  - Reductions in special education and remedial services

- Chicago – CPC Preschool
  - Kindergarten readiness
  - Reductions in special education services
  - Third grade literacy

- South Carolina – Nurse Family Partnership
  - Reductions in preterm births
  - Reduced hospitalizations and emergency room visits
  - Increase in healthy spacing between births
  - Increase in mothers served in high-poverty areas

Source: Pay for Success Learning Hub
High return principles

- Invest in quality
- Engage parents
- Start early
- Bring to scale

- Match services to risk profile
  - Intensive and free services that start early for high-risk children
  - Less-intensive services with partial subsidy for moderate-risk children
  - No subsidy for low-risk, higher-income children
Minnesota Early Learning Scholarships
Incorporate high-return principles

- $60 million annually

- Attend 3-star or 4-star rated providers (out of possible 4 stars)

- Eligibility
  - Children ages 3 and 4 below 185% poverty and younger siblings
  - Children ages 0 to 2 below 185% poverty who have a teen parent pursuing a high school diploma or GED

- A Minnesota county funds scholarships for children ages 0 to 4 in foster care

- Current state proposal – scholarships for high-risk children ages 0 to 2: Homeless, child welfare services, or foster care
Sources


Sources


