

*Prof. Heckman's newest paper:
"The Lifecycle Benefits of an
Influential Early Childhood
Program"*

Advocate Briefing

This new paper builds on previous research. Key new findings include:

- The added benefits of starting from birth.
- Quantified benefits of incorporating health.
- Impact of quality child care—for children and a mother's ability to work.

How does the data support advocate work:

- HEALTH: Justification for retaining and increasing child health and nutrition programs.
- EARLY LEARNING AND FAMILY SUPPORT: Economic argument for seeing child care as early childhood development and attaching quality early health and learning to child care benefits.
- FAMILY SUPPORT: A powerful way to reduce the effects of poverty on families and child development—boosting parental income and the child’s economic and social prospects.

In review: Abecedarian analysis

- Professor Heckman has previously analyzed the impact of the Abecedarian program in 2013.
- The 2013 study revealed that high-quality programs can reduce chronic disease and health care costs.
- Benefits include lower drug use and blood pressure, better education outcomes and higher incomes for treated children.
- A full toolkit detailing these health results can be downloaded at: <https://heckmanequation.org/resource/health-research-toolkit/>
- This report did NOT calculate the ROI of health outcomes, nor did it quantify income gains to mothers due to the availability of child care.

New findings in the CBA

- Starting **early with high-quality** pays off—cognitive fadeout often seen in preschool programs was not present here. Quality early learning produces permanent boosts in IQ and social-emotional skills.
- Providing early health and learning from birth produces a **13% return** on investment per child per annum, **significantly higher than just investing in preschool alone**.
- These returns are higher than the 7-10% annual ROI for preschool, because this program started earlier and the cost-benefit analysis includes a **first time ever** calculation of health benefits.
- Quality child care pays off by helping mothers establish careers and grow income—income gains over the first five years pay for the entire cost of comprehensive early childhood development.

Key findings: Confirmations

- A scaffolding of support for low-income children from birth-to-five produces better outcomes for children and greater economic benefits to society than investing in any one element.
- Early health care as an input is key to producing better health in adults—the savings from preventing expensive chronic diseases in adulthood more than justify the cost of investment. These have now been fully quantified in the new ROI.
- Child care has a two generation effect when combined with quality early learning: mothers grow their income while children gain the skills to succeed in school and life.

What it means

- Preschool is too little too late for low-income children—we gain the most benefits when we invest from birth to age five in comprehensive, quality services.
- Quality pays off for children and supports families: The cost of this comprehensive approach pays for itself within five years because families have high-quality child care and can confidently go back to work.
- Policymakers should recognize the returns in health, nutrition, child care and early learning programs for low income families—they should invest more and bring these resources into alignment from birth to age five. Doing so will increase achievement and upward mobility while reducing health care costs and social spending.

The study

Follows up on Heckman's analysis of the health benefits of the ABC/CARE programs at age 35, quantifying the economic gains of child care and adult health outcomes along with education, employment and sociability.

ABC/CARE was a center-based early childhood program that started at birth and operated in accordance to the developmental science of skill begetting skill.

Elements of the ABC/CARE program exist today through a number of often-disjointed home visiting, child well-being, nutrition, early learning, child care and preschool programs.

Early health makes a big difference

For the first time, health benefits were calculated to determine the economic value of better health outcomes driven by treatment.

This was made possible by this previous analysis of adult health outcomes at age 35, which were quantified and valuated by health economists at the USC Schaeffer Center in this new study.

Early health services

- Children had access to a doctor and nurse on staff at the center. Two nurses provided on site coverage, one doctor came in for screenings.
- Children were given periodic screenings for physical health and developmental milestones.
- Identified health and developmental problems were referred to outside medical care—most likely publicly-provided or supported health care.
- Staff doctor and nurses coordinated the continuity of care and worked with the children and parents to ensure compliance to doctor's orders.
- Nutrition was a key component to the health approach—children received healthy meals and snacks while in the center.

Health outcomes confirmed

- Better physical health from childhood through adulthood, particularly in fighting unhealthy behaviors and obesity.
- Females were less likely to start drinking at an early age; more likely to engage in physical activity and eating nutritious foods; and less likely to fall into pre-hypertension.
- Males had significantly higher levels of “good” HDL cholesterol and none of them had metabolic syndrome—hypertension, central obesity and dyslipidemia—while the prevalence in the control group was 25%.
- These outcomes are attributed to early health, nutrition and learning—they had a healthy foundation that advanced the building of cognitive and social-emotional skills that empowered them to build healthy lives as adolescents and adults.

Health effects of Abecedarian intervention at age 35

	Treatment Mean	Control Mean	Treatment p-value
Systolic Blood Pressure	125.79	143.33	0.018
Diastolic Blood Pressure	78.53	92.00	0.024
Pre-Hypertension	0.68	0.78	0.235
Hypertension	0.10	0.44	0.011
HDL Cholesterol	53.21	42.00	0.067
Cholesterol/HDL-C	3.89	4.69	0.057
Abdominal Obesity	0.65	0.87	0.136
Metabolic Syndrome	0.00	0.25	0.009

Source: Campbell, Conti, Heckman, Moon, Pinto and Pungello (2012)

What it means

- These long-term health benefits were first shared in the 2013 Abecedarian analysis. What's new about this paper is that they have now been quantified so that the 13% ROI figure includes the long-term cost benefits that come from a comprehensive, high-quality program.
- Early health services are essential for preventing later adult chronic disease and promoting better health and healthier lifestyles in childhood and throughout adulthood.
- Cutting early health services will likely lead to more costly health conditions later in life, beginning as early as age 35.

Discussion

Quality child care and early learning matters

Child care services

- The program provided child care for more than nine hours per day, five days a week, 50 weeks a year for five years.
- The quality, duration and reliability of care provided parents with the means and confidence to enter into the job market.

Child care outcomes

- Mothers entered the workforce, gained skills, and increased their earnings and financial independence.
- Children received foundational skills that made them more productive in the future workforce.
- Increases in parental income alone paid for the cost of the entire program after just five years.

What it means

- Policymakers should invest in high-quality child care for low-income families.
- Attaching quality to child care provides two generations of benefits—it helps parents grow their income and children grow smarter.
- Simply providing access to child care without early health and learning is a missed opportunity to promote upward mobility in two generations.
- Investing in high-quality child care quickly pays for itself in income gains among parents.

Early learning services

- Children received developmentally-appropriate learning from birth to age five.
- Curriculum focused on developing the whole child with a wide range of social-emotional and cognitive skills.
- Program was administered by professionals trained in early childhood development.
- Program helped children transition into formal schooling in grades K-3.

Early learning outcomes

- NO COGNITIVE FADE OUT: Starting at birth and continuing to age five produced permanent gains in IQ and social-emotional skills—unlike any preschool program.
- Children had significantly better life outcomes than those who didn't receive center-based care or those who received lower quality care.
- Females saw positive effects on years of education, high school graduation, adult employment and income, and parental income—results higher than the alternative of staying at home.
- Males had higher education, health, employment and income outcomes; lower adult hypertension, blood pressure and drug use—even when compared to alternative child care centers. Low-quality care has negative effects for males.

What it means

- Quality early learning is essential for building skills that enable greater achievement and health.
- Policymakers who invest in high-quality early learning programs from birth can permanently boost IQ and social-emotional skills that create productive, independent adults.
- Child care functions as early learning in the real world—child care without high-quality learning is a huge missed opportunity.
- Low-quality child care can be harmful to children, particularly males.

Higher returns with birth-to-five

A comprehensive, high-quality, birth-to-five approach delivers higher economic returns than a similar preschool program for three- and four-year-olds.

High-quality, birth-to-five programs for disadvantaged children deliver a **13% per year return on investment**—substantially higher than the 7-10% return previously established for preschool programs.

Thank you.



facebook.com/heckmanequation



[@heckmanequation](https://twitter.com/heckmanequation)



[Heckmanequation.org](https://heckmanequation.org)

Heckman



This research was funded by the Buffett Early Childhood Fund, Pritzker Children's Initiative and the Robert Wood Johnson Foundation's Policies for Action program.