



Early Childhood Development: A Proven Strategy to Boost State Economic Growth

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WEST VIRGINIA
**Early Childhood
Planning** TASK FORCE

SUMMARY

Studies conducted by respected researchers and leading economists have documented the substantial return on investment (ROI) to society and to state governments resulting from early childhood development programs. The highest rates of return are secured from those programs that target “at risk” children during the first three years of life. However, significant returns are also achieved from investments in Pre-K programs for three and four-year-olds. Investment in high-quality early childhood programs is a sound strategy to promote long-term economic development and increase per capita wages, with benefits comparable to other well-designed business incentives.

ROI RESEARCH METHODOLOGY

Estimates of ROI cited in this brief are calculated by comparing the cost of providing early childhood services with the subsequent benefits over the productive lifetime of those children who receive such services (generally considered to be up to the age of 65 years). The cited cost-benefit analyses convert all costs and benefits to a common value of currency (corrected for inflation) and then apply a “social discount rate”. The annual discount rate used in most of the cited studies is 3%. The discount rate represents the “opportunity cost” of what else might be accomplished with the same funds. It recognizes that the value of a dollar today is less than the value of the same dollar in future because the funds could be invested and accumulate interest.¹

The calculated return on investment from early childhood programs varies considerably from one study to another due to a number of factors, including:

- The specific methodology used to determine program costs and benefits (including the discount rate used).
- The different social impacts examined. Some studies consider reduced crime rates, future earnings and taxes paid, reduced costs for education and social welfare programs, and other variables, while other studies may consider only the economic benefits of higher graduation rates and additional years of education over what would be otherwise expected.
- The particular assumptions each study makes about the factors that may influence the future value of derived benefits.

What is important is that regardless of the specific methodology used, all of the research studies and economic analyses document significant benefits to both individuals and society attributable to investment in quality early childhood programs. The highest rates of return are secured from those programs that target “at risk” children and their families during the first three years of life; however, significant ROI is also achieved from investments in Pre-K programs for three- and four-year-olds.

Prepared by Collective Impact, LLC



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RESEARCH FINDINGS

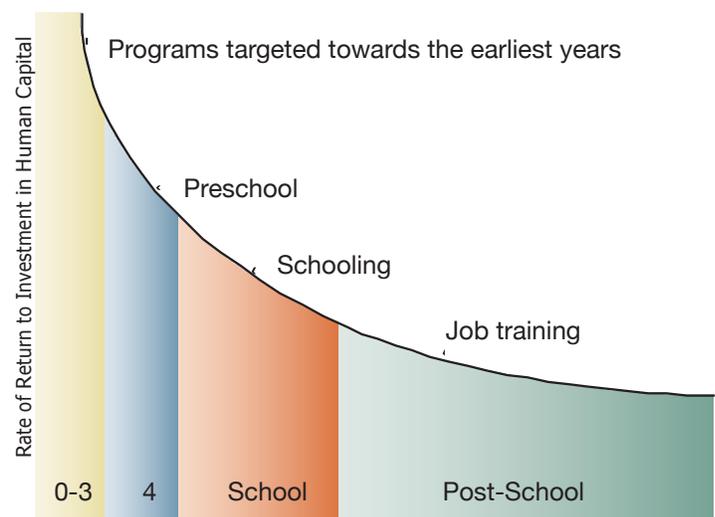
- Four long-term studies have been done that document substantial returns on investment in programs for at-risk children birth to age four years.
 - Chicago Child-Parent Centers (preschool program) - \$7.10 return for each \$1 invested.
 - High/Scope Perry Preschool, Ypsilanti Mich. (preschool plus home visits) - \$8.74 return for every \$1 invested.
 - Elmira, NY Prenatal/Early Infancy Project (home visiting) - \$6.92 return for every \$1 invested.
 - Abecedarian Early Childhood Intervention (preschool from infancy to age 5) - \$4.01 return for every \$1 invested.
- Dr. Tim Bartick, Senior Economist at the UpJohn Institute, has documented that investment in high-quality early childhood programs provides sizeable local economic development benefits. Based on rigorous research, Dr. Bartick concludes that for each \$1 invested in high-quality early childhood programs, a state or local economy will get a \$2 to \$3 real increase in local per capita earnings. Such benefits are similar in magnitude to what local areas get from investing in well-designed business incentives.²
- Dr. James Heckman, a Nobel Prize winning economist, estimates the return on investment in early childhood programs at 7 to 10 percent per annum over the lifespan of each child with the greatest returns from investments made in the earliest years.³

“If we care about local economic development, investing in early childhood programs is one of the ways of achieving economic development goals that has the highest bang for the buck.”

-Timothy Bartick,
UpJohn Institute

“The logic is quite clear from an economic standpoint. We can invest early to close disparities and prevent achievement gaps or we can pay to remediate disparities when they are harder and more expensive to close. Either way we are going to pay. Investing early allows us to change the future. Investing late chains us to fixing the missed opportunities of the past.”

- James J. Heckman,
University of Chicago



Source: Heckman (2008)



- A Rand Corporation research team reviewed the data from the Perry Preschool research study and the research on the higher-risk families of the Elmira PEIP and estimated the savings to government are much higher than the costs (about \$25,000 in savings versus \$12,000 in cost for each participating Perry child; \$24,000 in savings versus \$6,000 in costs for Elmira). The Rand researchers conclude: “From a statistical point of view one can be quite confident that the benefits exceed the costs”.⁴
- Economists with the Federal Reserve Bank of Minneapolis examined the research data and concluded: “The future of any proposed economic development list should have early childhood development at the top. The return on investment from early childhood development is extraordinary, resulting in better working public schools, more educated workers and less crime”.⁵
- Wilder Research, the research arm of the Amherst H. Wilder Foundation, conducted an extensive analysis in 2012 of the potential savings resulting from a Minnesota Pre-K program and concluded the savings to taxpayers (direct savings in otherwise incurred costs to state government) is \$4.60 for each \$1.00 invested.⁶
- The Center for Business and Economic Research at Marshall University did an analysis of the potential Return on Investment for a hypothetical high quality early childhood program in 2005. Based on direct economic benefits of increased high school graduation rates, the analysis estimates a \$5.20 return for each \$1.00 invested in early childhood development.⁷
- A 2009 study by researchers at the University of Kentucky concludes: “When we consider the combined public and private benefits (of the proposed preschool expansion), the total estimated benefit is more than \$5 for every \$1 invested”.⁸
- A 2007 analysis estimated the public expenditures associated with preventable cost factors related to child protective services, low birth weight babies, and failure to immunize children at \$250 million dollars per year within West Virginia. Future trends were projected and a cost of failure analysis demonstrated how investments in early childhood programs can potentially save significant amounts of public dollars that would otherwise be expended.⁹

End Notes

¹ Guber, Jonathan, *Public Finance and Public Policy* 3rd Edition, 2011.

² Bartick, Timothy J., *Investing in Kids: Early Childhood Programs and Local Economic Development*, 2011.

³ Heckman, James, *The Economics of Inequality – The Value of Early Childhood Education*, *American Educator*, Spring, 2011.

⁴ *Investing in Our Children: What We Know and Don't Know About the Costs and Benefits of Early Childhood Interventions*, by Lynn A. Karoly, Peter W. Greenwood, Susan S. Everingham, Jill Houbé, M. Rebecca Kilburn, C. Peter Rydell, Matthew Sanders, James Chiesa, 1998.

⁵ Rolnick, Arthur & Grunewald, Robert; *Early Childhood Development: Economic Development with a High Public Return*, 2003.

⁶ Diaz, J. *Potential Return on Investment of Project Early Kindergarten*, Wilder Research, 2012.

⁷ *The Economic Impact of Early Child Development Programs in West Virginia*, Center for Business and Economic Research, Marshall University, 2005.

⁸ Jepsen, Christopher, Troske, Kenneth and Brasher, Casey; *Estimates of the Costs and Benefits of Expanding the Early Childhood Education Program in Kentucky*, Center for Business and Economic Research, University of Kentucky, 2009.

⁹ Heasley, Steven, *An Examination of Preventable Cost Factors in West Virginia's High Risk Families with Young Children*, 2007.