



### Early Childhood Education

October 2009

*“Life cycle skill formation is dynamic in nature. Skill begets skill; motivation begets motivation. If a child is not motivated and stimulated to learn and engage early on in life, the more likely it is that when the child becomes an adult, it will fail in social and economic life.”*

—Nobel Laureate in Economics, James Heckman, to the [Joint Economic Committee](#)

Many education specialists and economists agree that the years before kindergarten are critical for laying a solid foundation for learning and development. Although much individual early learning is nurtured in the home, enrollment in classroom-based education can help young learners develop the cognitive, social, and language skills needed for enhanced learning later in life.

Education has obvious practical benefits—namely, increasing individual economic success. An early start in school contributes to that success. The [chart](#) (prepared by James Heckman) shows the benefits derived from a similar investment in education at various ages; the returns from *early* childhood education are greater than the returns from education later in life. The returns are higher at a younger age because learning is cumulative and compounding. The skills attained early in life not only persist into later life, but also complement new skill formation by raising the productivity of future schooling and job training.

Children from low-income or otherwise disadvantaged families stand to benefit the most from early childhood education. Differences between family resources and household environments tend to allow children with socioeconomic advantages to enter primary school better prepared for the demands of formal education than their peers without these advantages. Early childhood education can, in effect, provide similar advantages before the start of kindergarten. As [Heckman and Masterov \(2007\)](#) argue, early interventions through schooling to remediate gaps in ability are much more effective and less costly than later interventions. [Studies](#) have found that society at large also stands to gain from these early interventions because they create a better-educated workforce and reduce crime and welfare use.

The potential societal benefits from early childhood education have motivated public investment in early childhood education. The [American Recovery and Reinvestment Act of 2009](#) includes \$5 billion of direct funding for early childhood education programs. Meanwhile, recent [figures](#) on state spending show that 38 states combined to provide close to \$4.6 billion in public funding for preschool education. Research by [Rolnick and Grunewald](#) argues public investment in early education offers a greater economic return than most publicly funded economic development projects, such as subsidies for sports stadiums or tax abatements for specific businesses. To support their case, the authors examine the benefits and costs documented in the long-term study of the High/Scope Perry Preschool Program and find a 16 percent return on investment, with 80 percent of the return going to the general public.

Currently, most early education funding goes toward programs for low-income families (e.g., Head Start). The results of several [studies](#) collectively suggest that policy that focuses on providing preschool access to children from disadvantaged families, who have the most to gain and otherwise would not participate in preschool, will create the greatest economic returns.

—By Christopher J. Martinek, Senior Research Associate, Federal Reserve Bank of St. Louis

## Recent Articles and Further Reading on Early Childhood Education

[“Policy Studies—Early Child Development,”](#) prepared by the Federal Reserve Bank of Minneapolis.

The online collection of resources highlights research on early childhood education.

[“Focus Issue: Youth and Education,”](#) Federal Reserve Bank of San Francisco *Community Investments*, Fall 2007, Volume 19, Number 2.

This issue brings together a series of articles on how the community development field can help improve access to high-quality early childhood education for low-income children.

[“The Economic Development Effects of Early Childhood Programs,”](#) by Timothy J. Bartik, senior economist, W.E. Upjohn Institute for Employment Research, January 2008.

This report examines the potential economic development effects of early childhood programs on both state and national economies. Bartik focuses on the effects that he considers are the most important for policymakers—jobs and earnings creation.

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## Free Data Sources and Reports

**Report:** The State of Preschool 2008

**Description:** This report profiles state-funded preschool programs, including spending and enrollment statistics.

**Published by:** National Institute for Early Childhood Education

**Location:** <http://nieer.org/yearbook>

**Data:** Digest of Education Statistics

**Description:** This resource provides a collection of American education statistics, including enrollment statistics of 3-, 4-, and 5-year-old children in preprimary programs.

**Published by:** United States Department of Education: National Center for Education Statistics

**Location:** <http://nces.ed.gov/programs/digest>

**Report:** Education at a Glance 2009: OECD Indicators

**Description:** This report provides comparisons on the performance of education systems worldwide, including funding and participation statistics for early childhood education programs.

**Published by:** Organisation for Economic Co-operation and Development

**Location:** <http://www.oecd.org/dataoecd/41/25/43636332.pdf>

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