



## Why Investing Early Matters

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High-quality early care and early education has a profound and lasting impact on a young child's ability to learn throughout his or her lifetime. In fact, children who enter school without the strong foundation begin behind and may never catch up with their peers.

Investing early can help narrow the achievement gap and prevent the cycle of poverty that too often keeps children from reaching their full potential. In the nation's capital, three in 10 children live in poverty. For black children living in the District of Columbia, the rate is a staggering 43 percent.<sup>1</sup>

### **1. The early years are the most crucial time for a brain's development. The brain undergoes more growth and development from birth to age three than during any other time in a person's life.**

- The developing brain triples in the first year alone<sup>2</sup>; by age three, the brain is 90 percent "wired" and has twice as many synapses, or connections, as an adult's<sup>3</sup>.
- From birth to age three, critical developments take place in a child's brain, including cognitive, linguistic, social and emotional skills.<sup>4</sup>
- The pace of brain development slows significantly over a person's lifetime. When it comes to the developing brain, you either "use it or lose it." If the connections are not stimulated regularly, they may expire.
- Early learning experiences shape and have a long-standing impact on the brain's architecture; a weak foundation of cognitive, social, and emotional skills makes it exponentially more difficult for an adult to think, learn, regulate emotions and function in society.<sup>5</sup>

### **2. Investing early saves public money in the long run and costs far less than intervening later. For every dollar invested the early care and early education of children, estimated returns range from 10–18 percent.**

- Children who receive quality early care and early education are more likely to stay in school, graduate, find employment and become self-sufficient adults.<sup>6</sup>
- Quality early care and early education is causally related to decreased special education placements<sup>7</sup>, criminal activity, teen pregnancy, gang-related violence, emergency services<sup>8</sup> and depression and heart disease<sup>9</sup> in adults—all of which cost the District's taxpayers millions of dollars per year.

- Investing early means spending fewer public dollars later on emergency services, incarceration, Medicaid and Medicare costs. According to one study, the District can save \$260,000<sup>10</sup> per child over the course of his or her lifetime by providing the child quality early care and early education.
- Quality early care and early education furthermore gives parents the ability to stay in the workforce, gain more training and provide for their families.

### 3. If you don't reach children before they start school, it may be too late.

- The achievement gap between low-income children and middle-income children is evident early in a child's development, and worsens with time.<sup>11</sup>
- Children are first tested in the third grade, or approximately age 8, and by that time it may already be too late to fully make up for deficits in reading and math. In fact, fourth grade achievement levels have been shown to be fairly accurate predictors of high school and college graduation rates as well as lifetime earnings.<sup>12</sup>
- Poverty is the single best predictor of a child's ability to achieve in school.<sup>13</sup> Upon entering kindergarten, children from low-income families who haven't received quality early childhood education are likely to average 60 percent lower in cognitive scores than their highest socioeconomic counterparts. That achievement gap either remains constant or gets larger as a child ages.<sup>14</sup>

<sup>1</sup> US Census Bureau, *Poverty: 2008 and 2008, American Community Surveys*. September 2010.

<sup>2</sup> Berk, L. E. (2009). *Child Development* (8th ed.). Pearson Education, Inc.

<sup>3</sup> *A Stitch in Time: Calculating the Cost of School Unreadiness*, Charles Bruner, The Finance Project, September 2002.

<sup>4</sup> Mary B. Larner, Richard E Berhman, Marie Young, and Kathleen Reich, "Caring for Infants and Toddlers: Analysis and Recommendations," *Caring for Infants and Toddlers*, Volume 11, Number 1, Spring/Summer 2001.

<sup>5</sup> *The Timing and Quality of Early Experiences Combine to Shape Brain Architecture*, Center on the Developing Child, Harvard University, February 2008.

<sup>6</sup> *The Timing and Quality of Early Experiences Combine to Shape Brain Architecture*, Center on the Developing Child, Harvard University, February 2008.

<sup>7</sup> State Board of Education, prepared by HyeSook Chung, *Birth to Three in the District of Columbia, A Needs Assessment*, October 2008.

<sup>8</sup> Campbell, F., Ramey, C. Sparling, J. Lewis, I/ Burchinal, M, Pungell, E. and Miller-Johnson, S. *Early Learning, Later Success: The Abecedarian Study*, Chapel Hill, NC: University of North Carolina, Frank Porter Graham Child Development Center, 1999.

<sup>9</sup> *The Timing and Quality of Early Experiences Combine to Shape Brain Architecture*, Center on the Developing Child, Harvard University, February 2008.

<sup>10</sup> Jumpstart, *America's Early Childhood Literacy Gap*, September 2009.

<sup>11</sup> Lee, V. E., & Burkham, D. T. (2002). *Inequality at the Starting Gate: Social Background Differences in Achievement as Children Begin School*. Washington, D.C.: Economic Policy Institute.

<sup>12</sup> McKinsey & Company (April 2009). *The Economic Impact of the Achievement Gap in America's schools*. Washington, D.C.

<sup>13</sup> Brizius, J. A., & Foster, S. A. (1993). *Generation to Generation: Realizing the Promise of Family Literacy*. High/Scope Press.

<sup>14</sup> Lee, V. E. & Burkham, D. T. (2002). *Inequality at the starting gate: Social background differences in achievement as children begin school*. Washington, D.C.: Economic Policy Institute.