

A Clear and Compelling Case for Action

Achievement gap. Drop-out rates. College and career readiness. STEM (Science, Technology, Engineering, Math). These are the priorities on many education agendas. Addressing these issues begins with children's earliest years and includes social-emotional and cognitive development. It includes an early benchmark that strongly predicts children's chances of success in school and in life: the ability to read proficiently by the end of third grade.

Reading is the basis of learning in all subjects. Yet 43% of Massachusetts third graders -- including 65% of children from low-income families -- do not read proficiently. The path to turning this around begins at birth and includes high-quality early education and care.

At Strategies for Children, Inc., research guides our work as we seek to ensure that children in Massachusetts have access to high-quality early education and become proficient readers by the end of third grade. Preventing problems now, rather than remediating them later, is a cost-effective investment that benefits children and taxpayers alike.

Early Indicators

- In the first few years of life, a young child's brain creates 700 neural connections a second.²
- Disparities in children's cognitive, social, behavioral and health outcomes are evident at 9 months and larger at 24 months.³
- By age 3, children from low-income families have vocabularies that, on average, are half the size of more affluent peers.⁴
- Children's vocabulary in kindergarten correlates strongly with their reading ability in high school.⁵
- Children who struggle with reading in third grade are four times less likely to finish high school by 19 than other children.⁶

Educational Benefits of High-Quality Early Education and Care

- Low-income children who attended high-quality preschool programs are 40% less likely to need special education services or be kept back a grade, 30% more likely to finish high school and twice as likely to attend college.^{7,8}
- Children who attended high-quality early education programs score higher on school readiness assessments, have stronger early literacy and numeracy skills, and exhibit fewer behavioral problems in school.⁹

Economic Benefits of High-Quality Early Education and Care

- Nobel laureate James Heckman and other leading economists estimate that investments in high-quality early education yield a 10-16% rate of return, outpacing the average return of the stock market since World War II.¹⁰
- Children who participated in high-quality early education programs become more employable workers, strengthening the state and federal tax bases.¹¹
- Low-income children who attended a high-quality early education program earn \$548 more a month at age 40 than non-participants.¹²
- Parents with reliable early education and care for their children have less turnover and lower absenteeism. Absenteeism due to discontinuity of child care costs U.S. businesses an estimated \$3 billion per year. 13

Health Benefits of High-Quality Early Education and Care

- Children who attended high-quality early education programs are more likely as adults to have health insurance and proactively seek medical treatment. They have been found less likely to experience signs and symptoms of cardiovascular and metabolic diseases in their mid-30s.¹⁴
- Children who attended high-quality early education programs are less likely to smoke, use drugs or abuse alcohol, and more
 likely to wear seat belts. Girls who attended a high-quality early education program are less likely to become teenage
 mothers.¹⁵

phone: 617.330.7380

fax: 617.330.7381

- 1 Massachusetts Department of Elementary and Secondary Education. (2013). Spring 2013 MCAS Tests: Summary of State Results.
- 2 Bourgeois, J.P. (1997). Synaptogenesis, heterochrony and epigenesis in the mammalian neocortex. Acta Pædiatr Suppl. 422, pp 27–33.; Huttenlocher, P. R., and Dabholkar, A. S. (1997). Regional Differences in Synaptogenesis in Human Cerebral Cortex. The Journal of Comparative Neurology, 387, pp. 167–178.
- 3 Halle, T., Forry, N., Hair, E., Perper, K., Wandner, L., Wessel, J., & Vick, J. (2009). Disparities in Early Learning and Development: Lessons from the Early Childhood Longitudinal Study Birth Cohort (ECLS-B). Washington, DC: Child Trends.
- 4 Hart, B. & Risley, T. R. (1995). Meaningful Difference in the Everyday Experiences of Young Children. Baltimore, MD: Paul H. Brookes Publishing Co.
- 5 Snow, C. E., Porche, M. V., Tabors, P. O., Harris, S. R. (2007). Is Literacy Enough? Pathways to Academic Success for Adolescents. xix, 153 pp. Baltimore, MD: Paul H Brookes Publishing.
- 6 Hernandez, D. J. (2012). Double Jeopardy: How third grade reading skills and poverty influence high school graduation. The Annie E. Casey Foundation.
- 7 Reynolds, A. J., et al. (2001). Long-term effects of an early childhood intervention on educational achievement and juvenile arrest. JAMA, 285(18), 2339-2346.
- 8 Barnett, W. S. and Masse, L. N. (2007). Comparative benefit-cost analysis of the Abecedarian program and its policy implications. Economics of Education Review, 26, 113-125.
- 9 Peisner-Fienberg, E., et al. (1999); Karoly, L., et al. (1998). Investing in Our Children: What We Know and Don't Know About the Costs and Benefits of Early Childhood Interventions. RAND Corporation.
- 10 Rolnick, A. and Grunewald, R. (2003). Early childhood development: Economic development with a high return. Retrieved from http://www.minneapolisfed.org/publications_papers/studies/earlychild/abc-part2.pdf; The Heckman Equation. Retrieved from: http://www.heckmanequation.org/.
- 11 Schweinhart, L., et al. (2004). Lifetime effects: The High/Scope Perry Preschool Study through age 40. Retrieved from http://www.highscope.org.
- 12 Ibic
- 13 Shellenback, K. (2004). Child Care and Parent Productivity: Making the Business Case. Ithaca, NY: Cornell Department of City and Regional Planning.
- 14 Campbell, F. A, et al. (2014). Early Childhood Investments Substantially Boost Adult Health. Science. 343(6178): 1478-1485.
- 15 Evidence on health outcomes resulting from high-quality early education: Barnett, W. S., and Masse, L. N. (2002). A Benefit Cost Analysis of the Abecedarian Early Childhood Intervention. Retrieved December 12, 2007, from the National Institute for Early Education Research: http://nieer.org/resources/research/AbecedarianStudy.pdf; Campbell, F. A., et al. (2002). Early childhood education: Young adult outcomes from the Abecedarian Project. Applied Developmental Science, 6(1): 41-57; Nores, M., et. al. (2005). Updating the economic impacts of the High/Scope Perry Preschool Program. Educational Evaluation and Policy Analysis, 27(3): 245-261; Reynolds, A.J., et al. (2007). Effects of a school-based, early childhood intervention on adult health and well-being: A 19-year follow-up of low-income families. Archives of Pediatric Adolescent Medicine, 161(8):730-739.

[Updated April 2014]

phone: 617.330.7380

fax: 617.330.7381