

SOCIAL ISSUE REPORT

Massachusetts | Education

SCHOOL READINESS

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DEFINITION: SCHOOL READINESS

School Readiness refers to the field within Early Childhood Education that prepares children, aged 2½ to 6, to participate in and derive maximum benefit from kindergarten, laying the foundation for continuous success in school. School Readiness programs address language development, cognitive skills, general knowledge, approaches to learning, and social and emotional skills.

SOCIAL ISSUE SNAPSHOT

Social Impact Research (SIR) believes high-quality school readiness programs that serve at-risk children, including those from low-income families, present a significant opportunity for impact:

- Quality center-based school readiness programs can mitigate the effects of certain risk factors and help prevent negative life outcomes for at-risk children
- Working with children in their earliest years yields a higher return on investment than correcting behaviors later in life
- Currently, school readiness programs are not universally accessible; only 50% of low-income preschool-aged children in MA receive public subsidies through the Department of Early Education and Care (EEC)

FACTS: SCHOOL READINESS IN MASSACHUSETTS

68,400

As of September 2009

Children under six years that are low income^{1,2}



50%

As of October 2009

% of low-income children who receive income-eligible designated public funds³

22%

As of September 2009

Capacity of MA's accredited preschools (as % of all preschool-aged children)^{4,5}

Achievement Gap for Low-Income Children

22% lower in each category than the average for all students⁶

	Low-Income	Average
English	35%	57%
Math	38%	60%



SOCIAL ISSUE INDICATORS

SIR regards program access, quality, and impact as the most important indicators in measuring the school readiness gap for at-risk children. Data for these indicators are not currently available.

ACCESS

- All low-income children are able to attend a school readiness program

QUALITY

- All school readiness programs serving low-income children meet statewide quality standards

IMPACT

- All low-income children score at grade level or above in third grade

Note: Low income is used as a proxy for high risk level.

HIGH PERFORMING ORGANIZATIONS IN MA

TOP 10

Action for Boston Community Development, Inc.

Associated Early Care and Education

College Bound Dorchester

Community Teamwork, Inc.

Holyoke•Chicopee•Springfield Head Start, Inc.

Horizons for Homeless Children

Martha's Vineyard Community Services

Montachusett Opportunity Council, Inc.

Quincy Community Action Programs, Inc.

YWCA of Greater Lawrence

RECOMMENDED

Berkshire Children and Families

Children's Services of Roxbury

Community Action Programs, Inter-City, Inc.

East Boston Social Centers

Enable, Inc.

Inquilinos Boricuas en Acción

Lynn Economic Opportunity, Inc.

North Star Learning Centers

Rainbow Child Development Center

Self Help, Inc.

YWCA of Central Massachusetts, Inc.

INVESTMENT RECOMMENDATION SNAPSHOT

For social impact investors interested in school readiness, SIR recommends focusing on the center-based model. The most effective center-based programs are defined by the following characteristics:

- Serve an at-risk population to close the achievement gap
- Provide a high-quality program with a strong focus on education and socio-emotional skills, support parents as educators of the child, and provide complementary services either in-house or through partnerships to meet holistic family and child needs (e.g., preventative and mental health care, income stability, food security)
- Use validated curricula (e.g., High Scope COR, Creative Curriculum, Work Sampling) to assess children's progress in five categories that indicate school readiness: socio-emotional abilities, literacy, numeracy, cognitive abilities, and physical health

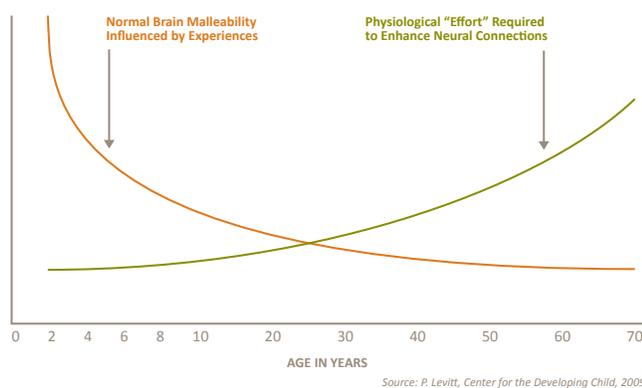
SOCIAL ISSUE OVERVIEW: WHY SCHOOL READINESS MATTERS

Rapid brain development during children’s first few years of life lays the foundation for later growth and learning capacity. Children who thrive in their early years are positioned to become strong learners, leaders, and productive citizens. School readiness programs are critical to ensuring that children, particularly those at risk for negative life outcomes, reach kindergarten ready to learn.

NEUROLOGICALLY, A CRITICALLY IMPORTANT AGE⁷

The brain’s most critical stage of development is in early childhood. In fact, the three- to six-year age range represents the tail end of a small window of opportunity to affect the brain’s development most efficiently.⁸

FIGURE 1: ADAPTABILITY OF NEURAL CIRCUITS OVER TIME



Early childhood is also the most critical period for the development of the brain’s stress management system. Exposure to unmanageable, or “toxic,” levels of stress before the brain is fully developed can cause children to

become overly sensitive to stressors that they will naturally come across in life. This oversensitivity reduces the ability of both children and adults to engage in the world without experiencing excessive levels of stress and fear. Some of the most common risk factors for toxic stress – including economic hardship, domestic abuse or neglect, and insecure relationships with the primary caregiver – disproportionately affect low-income children.

Because many factors that lead to toxic stress are present even before a child enters kindergarten, school readiness initiatives have the potential to play an important role in promoting healthy child development. By creating safe and nurturing environments and fostering strong caretaker relationships with children, high-quality school readiness programs can help those children who regularly encounter toxic stress at home to develop healthy stress management capabilities. Conversely, low-quality school readiness programs have been found to exacerbate unhealthy stress, severely damaging a child’s future ability to cope with everyday challenges.

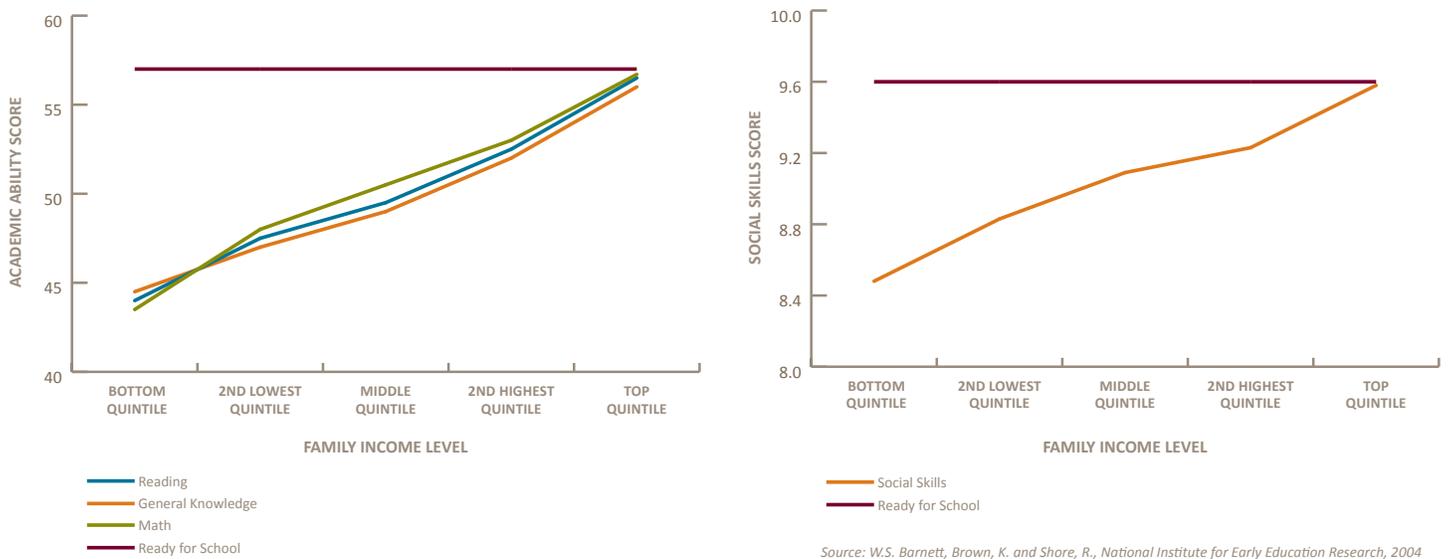
THE ACHIEVEMENT GAP FOR AT-RISK CHILDREN

Research from multiple fields including education, economics, and neuroscience reveals that many children begin their lives at risk for negative life outcomes, typically due to overwhelming disadvantages that are tied to their socio-economic situation. Children who face two or more risk factors* often begin kindergarten far behind their peers in terms of social, emotional, physical, and cognitive development. For example, by age three, a low-income child has typically heard 30 million fewer words than his or her higher-income peers.¹⁰ The further behind a child is upon entering school, the more likely it is that he or she will not be able to compensate for that gap and will experience negative life outcomes.¹¹ Figure 2 highlights this achievement gap, based on income level.

*RISK FACTORS⁹

- Poverty
- Poor health and nutrition
- Domestic abuse
- Neglect
- Parent/guardian with physical/mental disability
- Un-/underemployed parent
- Mother without high school degree or with low IQ
- No parent fluent in English
- Neighborhood violence and stressful living conditions
- Low-quality schools
- Low attachment to primary caregiver
- Socially isolated parents
- Single/no parent

FIGURE 2: ACADEMIC ABILITIES AND SOCIAL SKILLS OF ENTERING KINDERGARTENERS BY FAMILY INCOME



APPROACHES TO SCHOOL READINESS

Ensuring that a child entering kindergarten is “school ready” is a multi-faceted endeavor that requires support from a variety of stakeholders, from the child’s parents to out-of-home caretakers, policymakers, and society as a whole. No single approach, on its own, offers the turnkey solution to ensure that at-risk children become successful adults. In fact, in addition to in-school education, supplementary services that address other family needs such as nutrition, mental health, and parenting support also play a critical role in ensuring healthy child development.

APPROACHES

Forty-five years of research have begun to clarify some of the best practices and challenges of school readiness. The research focuses primarily on three common approaches:

- **Single Focus Programs** specialize in one core area of development, rather than across multiple areas, related to school readiness. Specialties may include literacy, numeracy, or socio-emotional development; for example, Jumpstart and Raising a Reader are two well-known literacy-focused programs. Single focus programs may partner with other early education and care programs to supplement the broader curriculum taught by the partner.
- **Family Child Care** is a type of early education and child care program that is delivered in a provider’s home. Children in a family child care home may range in age from infancy to school-age, and programs may serve up to 10 children. Some family child care programs are part of a family child care system, which may provide additional supports to providers and families, but generally they are independent; consequently, the quality varies greatly among homes and is difficult to monitor.
- **Center-Based Programs** are out-of-home programs, delivered at a designated center. They serve children in groups on a full- or part-time basis. Children are usually assigned to a classroom based on their age, which may range from infancy to school-age. Center-based programs sometimes increase the number of children they reach by partnering with family child care providers and, though the level of oversight for these arrangements varies, some centers work closely with partners in their network to ensure a consistent pedagogy. As with family child care, the quality of service provided at different centers can vary widely.

CHARACTERISTICS OF A SUCCESSFUL CENTER-BASED PROGRAM

SIR's research determined that, of all approaches, center-based programs offer the greatest opportunity for impact in promoting school readiness for at-risk children. Center-based programs employ a holistic approach to school readiness that includes not only academic components, but also fine and gross motor skills, physical health, and socio-emotional development, which children have the opportunity to practice in a structured classroom environment. Additionally, center-based programs more frequently have the resources and infrastructure to support families with needs that extend beyond a child's readiness for school, and they enable parents to remain employed by providing full-day, out-of-home care. Quality center-based programs have three main components:

- **A comprehensive, education-focused curriculum** that emphasizes language development, mathematical reasoning, and socio-emotional competency. To date, 29 state governments have begun assessment of children to measure statewide progress on school readiness indicators such as literacy, math, and socio-emotional competency. As of August 2009, Massachusetts was in the early stages of developing a statewide system that would rate the quality of school readiness programs and make this information available to the public.¹²
- **Services to support parents** to play an active role in the academic success and socio-emotional wellbeing of their children, by promoting both communication and engagement with the center and at-home reinforcement of lessons learned.
- **A solid community presence and local network** that enable organizations to offer critical complementary services for at-risk children. While some preschools are housed within multi-service agencies that provide a variety of services (e.g., health and nutrition, housing, employment, mental health services, parenting, and fuel assistance) through their own internal network, others collaborate with community organizations that address different needs of the same population.

In addition to exhibiting these core components, research on quality school readiness programs has shown that high teacher qualifications and education levels, low turnover rates, and a strong professional development system for teachers increase classroom quality. Additional activities to ease transitions to kindergarten, improve assessment quality, and maintain and report data are strongly associated with program quality.

THE MASSACHUSETTS LANDSCAPE



In Massachusetts, there are more than 1,500 licensed nonprofit and for-profit organizations that provide center-based childcare for preschool-aged children; only 920 of these are licensed to serve more than 30 children.¹³ SIR focused on approximately 140 that are nonprofit and specifically address the needs of at-risk children as part of their mission. Of these programs, fewer than half were found to provide core educational services with parenting and complementary service components.

Statewide, about 28% of all children between the ages of zero and six are considered low-income and 17% live below the Federal Poverty Level (FPL), defined in 2009 as an income of \$22,050 for a family of four.¹⁴ Low-income status is defined as up to twice the FPL (\$44,100). While these rates in Massachusetts are lower than the national averages of 44% and 22%, respectively,¹⁵ a recent study identified Massachusetts as the fourth least affordable state for preschool education;¹⁶ therefore, although the poverty levels are lower, higher costs continue to limit access. With 28% of children falling into the low-income range, more than 68,400 preschool-aged children in Massachusetts face multiple risk factors tied to their socio-economic situation even before they start school.

The average cost per child to attend a full-day, full-year school readiness program in Massachusetts is \$11,678, which is higher than in any other state in the country.¹⁷ While the current EEC waitlist includes just 8.2% (5,597)¹⁸ of all low-income children, only 50.2% of low-income children are being supported by EEC or Head Start funds.

In reality, it is likely that many income-eligible children who do not currently receive public support are not accounted for on the waitlist for various reasons, ranging from discouragement by the extremely long waitlist to a lack of information about the resources available to income-eligible families or lack of understanding of the potential lifelong benefits provided by high-quality school readiness programs.

Based solely on the current waitlist, there is a funding gap of at least \$65M to provide some form of school readiness support to low-income children; furthermore, this gap does not account for the cost of providing access to high-quality programs, which would require a significantly higher investment than the current reimbursement rates provided by the government. In fact, a 2006 study conducted by Strategies for Children's Early Education for All campaign found that an investment of \$600M would be necessary to achieve universal access to quality school readiness programs for all children in Massachusetts. The study, which aimed to inform planning around the state's universal pre-

kindergarten (UPK) initiative, estimated the cost of providing high-quality and affordable early education to all children in Massachusetts, not only those who are currently eligible under the state’s guidelines. It found that an additional investment of \$303M would be required to create enough high-quality programs to meet demand, and that \$300M more would be necessary to make these programs affordable to all families.¹⁹ To date, the state has only allocated \$30.7M to UPK.²⁰

Over the past several years, however, Massachusetts has taken significant steps to streamline and improve upon the state’s school readiness initiatives. Perhaps most notably, in 2005 Massachusetts became the first state to create a single agency to oversee early education and care and after-school programs: the Department of Early Education and Care (EEC). Most recently, Massachusetts has begun a deliberate push to ensure the quality of and promote access to early education and care programs. Specifically, the state has set aside annual funding to achieve universal access to pre-kindergarten programs as well as grant funding to improve quality and promote broader use of assessment tools in selected UPK classrooms. Additionally, in the spring of 2010 Massachusetts will pilot a new Quality Rating and Improvement System (QRIS), a voluntary system designed to guarantee a higher level of quality in pre-kindergarten programs.

Though measurement and quality assurance have taken a more central role in the state’s early education policies, financial constraints will continue to be a barrier for access to quality programs for low-income children for the foreseeable future.

\$11,678
Average Cost per Child

X

5,597
2 ½-6 Year Olds on Waitlist

=

\$65.4M
Gap in Funding for Waitlisted

Note: Reflects funding gap to provide access to any EEC-licensed school readiness program; does not guarantee access to high-quality programs.

CAPITAL ALLOCATION

The state budget for school readiness accounts for approximately 2% (\$537.3M) of its public investments for fiscal year 2010,²¹ a 5.7% decrease in dollar value from fiscal year 2009 actual spending.²² In addition to the state’s allocation, the EEC will also receive \$20.9M in federal stimulus funds to be spent over the next two years to increase access to child care services for qualifying low-income families.²³

Even if 100% of the federal stimulus funds were used to increase enrollment of low-income children in preschool programs, there still would be approximately a \$45M gap in funding to meet the current demand, as represented by the EEC’s waitlist.

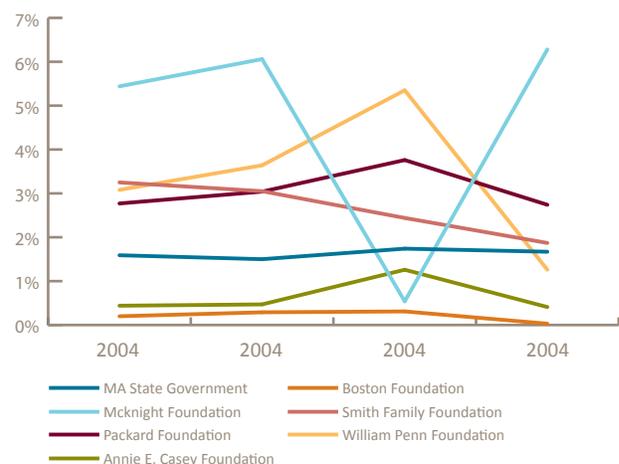
In addition to government funding, charitable contributions represent an important second source of funding for low-income children. However, unlike government budgets, which remain fairly consistent from year to year, charitable contributions can be very unpredictable. Figure 3 illustrates this variability for some of the largest funders of school readiness in Massachusetts.

According to the Foundation Center’s online directory, 43 foundations provided grants to Massachusetts-based nonprofits working in early childhood education in 2007, with total funding per foundation ranging from \$1,000 to \$1,280,000 for the year. Despite the large number of funders, the sum of all grants paid out by foundations in any given year would still only represent a small percentage of the state’s own allocation to school readiness programs; for example, in 2007, total foundation funding (\$5.8M)²⁴ equaled less than 1% of state funding for school readiness programs, which was \$510M in that year.²⁵

While we know that charitable contributions made by individuals nationwide amounted to \$229.3B in 2008,²⁶ a detailed breakdown of contributions within each sector is not tracked. Therefore, the individual donor’s impact on school readiness has been difficult to assess with any level of accuracy to date.

Ultimately, it is unlikely that the current capital allocation will fully close the gap in access to school readiness programs for low-income children who are on the waitlist. More important, however, is the fact that, while the current funding model has allowed the state to provide many low-income children with access to some type of school readiness program, there is a pressing need for new funding to help bridge the enormous gap – estimated to be closer to \$600M – that exists to provide all children with access to high-quality programs.

FIGURE 3: SCHOOL READINESS AS % OF TOTAL FUNDING



Sources: Foundation Directory Online; Massachusetts Budget and Policy Center, Budget Monitor

RETURN ON INVESTMENT

School readiness is one of the highest-impact areas for investment to achieve positive outcomes for low-income children. The costs of neglecting quality school readiness initiatives for at-risk children can be measured in both loss of human potential and taxpayer dollars. Over the past three decades, studies from diverse academic disciplines indicate that quality school readiness programs can effectively mitigate negative life outcomes, including:³⁷

- Poverty
- Teen pregnancy
- Depression
- Incarceration
- School dropout
- Drug /alcohol abuse

Conversely, the advantages of ensuring that all children, particularly those at risk, enter school ready to learn accrue to individuals and society over time. While no one study has attempted to quantify the outcomes of school readiness programs at all levels of society, longitudinal studies indicate a significant return on investment: the returns from quality programs have been shown to start at \$3 for every dollar invested, and the strongest programs have returned up to \$17 for every initial dollar.²⁸ These returns can be measured in benefits to society as a whole, government, and individuals:

SOCIETY:

- Lower crime and related costs
- Increased employment and productivity
- Prevent 63,000-65,000 lives lost yearly as a result of multi-problem behaviors (e.g., alcoholism, violent crime)²⁹

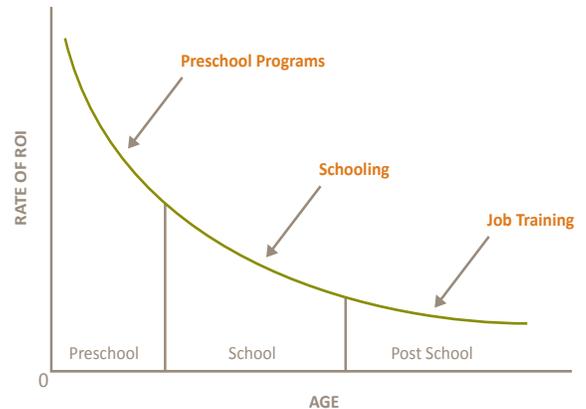
GOVERNMENT:

- Decreased tax spending on remedial/special education, youth delinquency, and social welfare
- Savings could amount to \$335-\$350B each year³⁰

INDIVIDUAL:

- 20% more likely to complete high school,³¹ increasing lifetime earnings potential by \$456,000³²
- 21% more likely to attend college and 20% more likely to gain skilled employment³³

FIGURE 4: RETURN ON INVESTMENT IN HUMAN CAPITAL AT DIFFERENT LIFE STAGES



Source: J. Heckman and Masterov, D. *The Productivity Argument*, 2007

INVESTMENT RECOMMENDATION REVIEW

Investment in school readiness presents a unique opportunity for social impact investors with multiple social issue interests, including educational inequality, child development, and improved opportunities for at-risk children.

The social and economic impact of academic unpreparedness is clear, and while many at-risk children receive government funding for early learning, only a small number benefit from quality programs. Because of this, SIR believes that high-quality center-based programs that serve the most vulnerable children can provide the greatest return to social impact investors.

In summary, SIR recommends that social impact investors select organizations that:

- Serve at-risk children to close the achievement gap
- Focus on education in their core curriculum, support parents as educators of their children, and are able to refer families to community partners that can address other needs (e.g., health, employment)
- Use a validated curriculum to assess children's progress regularly in literacy, numeracy, socio-emotional development, physical health, and cognitive abilities

BASELINE CRITERIA

- Serves at-risk population
- Provides core educational curriculum with parent involvement and complementary service components
- Assesses child progress toward school readiness

Once an organization has met the baseline criteria outlined above, social impact investors should assess the organization's strengths and challenges to determine whether the program is or has the potential to be a high performer. More information on how to evaluate the core areas of Organizational Health, Program Performance, and Social and Economic Impact can be found in the SIR methodology guide. Please see SIR's School Readiness Organization Reports for a detailed analysis of several high-performing, high-quality organizations in Massachusetts.

SOURCES AND ENDNOTES

1. National Center for Children in Poverty, Columbia University Mailman School of Public Health, *Massachusetts Early Childhood Profile*, (2009), retrieved September 29, 2009 from URL: http://www.nccp.org/profiles/early_childhood.html.
2. Strategies for Children, *Fast Facts: Children, Families and Early Education in Massachusetts*, (2009), retrieved October 2, 2009 from URL: <https://www.strategiesforchildren.org>.
3. Ibid.
4. While accreditation is not the only indicator of quality, it is currently the most widely used indicator and thus serves as a proxy.
5. Strategies for Children, *Early Education for All, A Report on the Cost of Universal, High-Quality Early Education in Massachusetts*, (2006): 11.
6. Massachusetts Department of Elementary and Secondary Education, *Spring 2009 MCAS Tests: Summary of State Results*, (2009): 20-21.
7. National Scientific Council on the Developing Child, *Excessive Stress Disrupts the Architecture of the Developing Brain*, (2005): 2-4.
8. Social Impact Research selects the issues we focus on based on a combination of criteria that include leverage, measurability and stakeholder (e.g., government, practitioner, donor) interest. While approaches that target children earlier in life, when the brain is even more malleable, may provide the highest leverage, we found that those that focus on the three- to six-year age range showed significantly greater agreement on approaches and indicators. We chose to focus on school readiness for children in the three- to six-year age range because of the much higher measurability combined with a strong potential for leverage.
9. Biglan, A., P.A. Brennan, S.L. Foster and H.D. Holder, *Helping Adolescents at Risk: Prevention of Multiple Problem Behaviors*, (New York: The Guilford Press, 2004): 64-65.
10. Hart, B., and T.R. Risley, *The Early Catastrophe: The 30 Million Word Gap by Age 3*, (2003), retrieved February 22, 2010 from URL: http://archive.aft.org/pubs-reports/american_educator/spring2003/catastrophe.html.
11. Klein, L., and J. Knitzer, National Center for Children in Poverty, Columbia University Mailman School of Public Health, *Promoting Effective Early Learning: What Every Policymaker and Educator Should Know*, (2007): 6.
12. Massachusetts Department of Early Education and Care, *Community Input Discussions: Measuring the Progress of Young Children in Massachusetts*, (presentation, 2009).
13. This number reflects total unique organizations (licensees) listed in the Department of Early Education and Care regional lists, excluding multiple sites under the same licensee. The number is current as of February 25, 2010 and was retrieved on that date from URL: <http://www.eec.state.ma.us/ChildCareSearch/activeproviders.aspx>
14. National Center for Children in Poverty, Columbia University Mailman School of Public Health, *Massachusetts Early Childhood Profile*, (2009), retrieved September 29, 2009 from URL: http://www.nccp.org/profiles/early_childhood.html.
15. National Center for Children in Poverty, Columbia University Mailman School of Public Health, *Topics: Early Childhood*, (2009), retrieved September 29, 2009 from URL: <http://www.nccp.org/topics/childpoverty.html>.
16. National Association of Child Care Resource and Referral Agencies, *Breaking the Piggy Bank: Parents and the High Price of Child Care*, (2006): 5.
17. Strategies for Children, *Momentum Grows: High Quality Early Education in Massachusetts*, (2009), retrieved February 24, 2010 from URL: <https://www.strategiesforchildren.org>.
18. Massachusetts Department of Early Education and Care, *The Capacity of the Early Education System*, (2009): 18.
19. Strategies for Children, *Early Education for All, A Report On The Cost Of Universal, High-Quality Early Education In Massachusetts*, (2006).
20. Strategies for Children, *Momentum Grows: High Quality Early Education in Massachusetts*, (2009), retrieved October 2, 2009 from URL: <https://www.strategiesforchildren.org>.
21. Massachusetts Executive Office for Administration and Finance, (2009), retrieved July 28, 2009 from URL: <http://www.mass.gov/?pageID=afsubtopic&L=4&L0=Home&L1=Budget%2c+Taxes+%26+Procurement&L2=State+Budget&L3=FY2010+Budget+Information&sid=Eoaf>
22. Massachusetts Budget and Policy Center, *Budget Monitor: The Legislature's Fiscal Year 2010 Budget with Governor's Vetoes and Amendments*, (2009), retrieved September 29, 2009 from URL: http://www.massbudget.org/documentsearch/findDocument?doc_id=681&dse_id=920.
23. Massachusetts Department of Early Education and Care, *American Recovery and Reinvestment Act Stimulus Funding*, (2009), retrieved September 29, 2009 from URL: <http://www.eec.state.ma.us/ARRA.aspx>.
24. Foundation Center, *Foundation Directory Online*, retrieved September 23, 2009 from URL: <http://fconline.foundationcenter.org>.
25. Massachusetts Budget and Policy Center, *Budget Monitor: The Current FY 2007 Budget: A Review of the General Appropriation Act, Supplemental Appropriations, and the Governor's 9C Cuts*, (2006), retrieved September 23, 2009 from URL: <https://www.massbudget.org>.
26. Giving USA Foundation, "U.S. Charitable Giving Estimated to be \$307.65 Billion in 2007," (2009).
27. Bill and Melinda Gates Foundation, *Investing in Children: An Early Learning Strategy for Washington State*, (2005): 5.
28. Karoly L.A., M.R. Kilburn and J.S. Cannon, RAND Corporation, *Early Childhood Interventions: Proven Results, Future Promise*, (2005): xxv-xxvi.
29. Bill and Melinda Gates Foundation, *Investing in Children: An Early Learning Strategy for Washington State*, (2005): 5.
30. Bill and Melinda Gates Foundation, *Investing in Children: An Early Learning Strategy for Washington State*, (2005): 17.
31. Ibid.
32. Graduation and Dropout Prevention and Recovery Commission, *Making the Connection*, (2009): 8.
33. Bill and Melinda Gates Foundation, *Investing in Children: An Early Learning Strategy for Washington State*, (2005): 17.

Social Impact Research (SIR) is the independent research department of Root Cause, a research and consulting firm dedicated to mobilizing the nonprofit, public, and business sectors to work together in a new social impact market. SIR aggregates, analyzes, and disseminates information to help social impact investors identify and support the most effective, efficient, and sustainable organizations working to solve social problems. Modeled after private sector equity research firms, SIR produces research reports, analyzes philanthropic portfolios, and provides educational services for advisors to help their clients make effective and rigorous philanthropic decisions.

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