

# Boosting Maine's Economy

Short- and Long-Term Economic Gains  
through Quality Early Learning

A report by:  **AMERICA'S EDGE**  
Strengthening Businesses Through Proven Investments in Kids



## Acknowledgements

This report was authored by Stephanie Schaefer, Susan Gates and Lindsay Warner.

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## Who We Are

The business leaders of AMERICA'S EDGE take a critical look at the knowledge, skills and abilities businesses need their employees to have in the 21<sup>st</sup> century, including the ability to be communicators, collaborators and critical thinkers. Using that analysis, we educate policymakers and the public about high-quality, proven investments that strengthen businesses, establish a foundation for sustained economic growth, and protect America's competitive edge in a global marketplace, while helping our nation's children get on the right track.

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## Boosting Maine's Economy

### Short- and Long-Term Economic Gains through Quality Early Learning

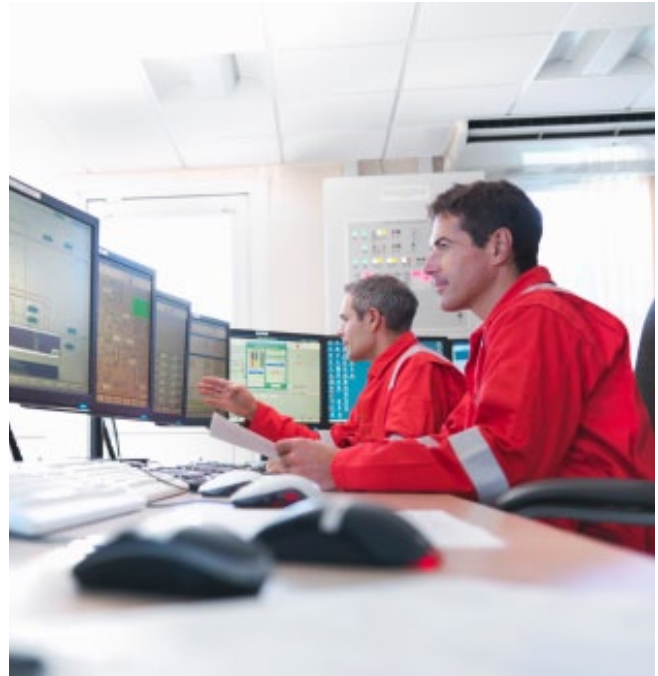
#### Executive Summary

While many economists agree on the long-term, positive economic impacts of high-quality early care and education programs, Maine businesses do not need to wait 18 years to experience gains from early learning investments. This report shows these investments also provide a surprisingly big boost to Maine's economy *today*. In fact, every dollar in Maine invested in high-quality early care and education generates a total of \$1.78 in sales of local goods and services throughout the state, generating as much or more activity than investments in other major economic sectors, including manufacturing, construction and transportation.

But what lies behind the impressive – and immediate – economic impact of these early learning programs? New research reveals that key “quality components” of such programs contribute to the increased economic activity generated by investments in early learning, while also creating a foundation on which we can ensure Maine's long-term economic stability.

Investing in quality early learning generates additional sales and services in two basic ways – when early learning centers purchase local goods and services to operate their programs, and when early learning teachers and staff spend their wages. This report shows that attracting the most qualified teachers to work in the classroom by appropriately compensating them for their early childhood development skills will also boost sales for Maine businesses. In addition, having small class sizes and small child-to-teacher ratios will further increase short-term economic activity because more teachers and more classrooms will be needed.

The quality components of early learning programs will, in turn, help drive the long-term benefits for Maine businesses, including reversing the “skills gap” that is contributing to the stagnation of Maine's economic recovery and generating long-term economic growth in the state. In addition to compensation, class size and child-to-teacher ratios, additional quality components include: comprehensive and age-appropriate curricula; strong family involvement; and screening and referral services for children and



Monty Rakusen - Getty Images

their families. Extensive research has shown that children who participate in early learning programs with these components are better prepared to succeed in school; have higher rates of graduation; and are more likely to hold a skilled job and earn more as adults.

But just as investments in early care and education can spur economic activity, funding cuts can be just as damaging. Every dollar defunded from early learning programs hurts Maine businesses by eliminating a total of \$1.78 in sales. Our economy and businesses cannot afford these cuts.

**The Bottom Line:** The fragile and halting nature of Maine's economic recovery requires that we make tough decisions and invest wisely in what will keep America competitive. High-quality early learning is such an investment.

# Boosting Maine's Economy

## Short- and Long-Term Economic Gains through Quality Early Learning

**Critical Issues for Maine Businesses:** Across the nation and in Maine, businesses face a lack of workers with the needed skills to fill and perform well in the jobs of today and those of the future.

Although businesses have always needed workers proficient in the “3 Rs” – reading, writing and arithmetic – today’s fast-paced, international and technology-driven marketplace requires even higher proficiency levels in these hard skills. But these skills are too often lacking, especially in young workers entering the U.S. workforce. According to the Nation’s Report Card, only 26 percent of 12<sup>TH</sup> grade students are proficient in math and 38 percent are proficient in reading.<sup>1</sup>

Just as important as the hard skills are the critical “soft skills” – communication, collaboration and critical thinking – which American businesses also often find lacking in the workforce. In a 2010 survey of 2,000 executives conducted by the American Management Association, nine in ten executives said these soft skills are important to support business expansion, but less than half of those executives rated their employees as above average in those skills.<sup>2</sup> Three out of four executives believe the soft skills will become even more important in the next three to five years because of global competition and the pace of change in the business environment.<sup>3</sup>

What is driving these dismal statistics? Consider these facts in Maine:

- 16 percent of high school students do not graduate on time;<sup>4</sup>
- 61 percent of eighth graders are below grade level in math;<sup>5</sup> and
- 68 percent of fourth graders read below grade level.<sup>6</sup>

Nationwide, 60 percent of 3- to 5-year-olds do not have the basic skills expected when they enter kindergarten, such as the ability to count to ten or recognize letters in the alphabet.<sup>7</sup>

A lack of workers with critical skills translates into American companies having difficulty filling existing job openings:

- In a 2011 survey of manufacturers nationwide, two in three companies reported moderate to serious shortages of available qualified workers and almost three quarters reported skilled production worker shortages (machinists, operators, craft workers, distributors and technicians).<sup>8</sup>
- In sectors like aerospace and defense and life sciences, six in ten companies nationwide report shortages of the skilled workers they need like scientists and engineers.<sup>9</sup>
- A recent skills gap analysis projects 26,000 new high-wage and growth Maine jobs over ten years. Significant skills gaps are forecast because of the state’s mismatch between worker skills and labor demand. The report predicts a shortage of over 1,500 associate’s degree workers in information and computer technology, over 1,000 unfilled machinist positions and 4,000 high-wage jobs going unfilled over the next decade.<sup>10</sup>

## Increased Education Requirements

Lower-skilled jobs requiring less education are being eliminated through automation and shipment of jobs overseas. For example, 637,000 jobs in the manufacturing and natural resources industries nationwide are expected to disappear by 2018 for those reasons.<sup>11</sup> And while employment projections for Maine’s manufacturing industries are more positive than the national outlook, Maine still faces the loss of thousands of manufacturing jobs by 2018. Among the manufacturing industries projected to lose hundreds or even thousands of jobs in Maine this decade are: paper manufacturing, wood product manufacturing, transportation equipment manufacturing, and textile mills.<sup>12</sup>

While low-skilled jobs are being eliminated, the jobs of the future will increasingly require more education beyond high school:

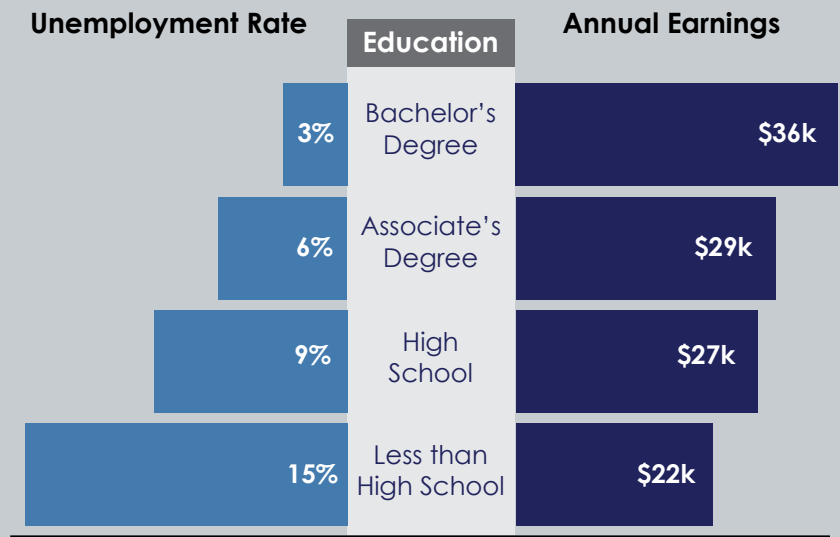
- Almost nine of every ten new jobs created in Maine between 2008 and 2018 will require some type of formal education beyond high school.<sup>13</sup>
- Currently, 79 percent of Maine jobs are middle- or high-skill, but only 39 percent of Maine adults have associate's degrees or higher.<sup>14</sup>
- There will be 196,000 job vacancies in Maine between 2008 and 2018, but only 6 percent of openings will be for high school dropouts and only 36 percent will be for those with only a high school degree.<sup>15</sup>
- As of 2009, middle-skill jobs – those that require more than a high school diploma but less than a four-year degree – made up 49 percent of Maine jobs, but only 44 percent of the state's workers had the education and training appropriate for the positions. Looking forward to 2018, middle-skill jobs will continue to make up the largest share of jobs in the Maine economy (48 percent).<sup>16</sup>
- Among the growth industries in Maine by 2018 will be hospital services; professional, scientific and technical services; and data processing and information services -- all of which have large proportions of middle-skill and high-skill jobs.<sup>17</sup>

## The High Cost of an Unprepared Workforce

The lack of a skilled workforce comes at a high cost for individuals, businesses and the economy. Higher levels of education help protect workers against unemployment – even in an economic downturn. In 2011, 14 percent of U.S. high school dropouts were jobless, while less than 5 percent of college graduates were unemployed.<sup>18</sup> Similarly, in Maine, 15 percent of high school dropouts were jobless, versus 3 percent of college graduates.<sup>19</sup>

Each new class of dropouts nationwide will earn \$154 billion less over their lifetimes than their high school graduate peers.<sup>20</sup> This translates to over \$500,000 less in lifetime earnings per dropout.<sup>21</sup>

## Unemployment and Earnings by Education Level in the State of Maine



Note: Unemployment rates are for adults age 25 and up. Median earnings are for ages 25 - 64. Source: Maine Department of Labor, 2012

These staggering earnings losses result in less spending power, fewer contributions to the tax base and lower productivity. These losses are even starker when compared with the average lifetime earnings of an individual college graduate – \$2.1 million dollars higher than those of a high school dropout.<sup>22</sup> From an employer's perspective, college graduates are usually more productive and worth the extra salary.

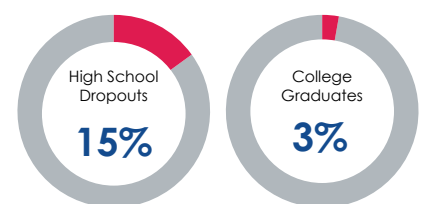
Remedial courses and training to help students catch up and get on track for postsecondary education and training are helpful, but they are expensive and inefficient. The U.S. Department of Education estimates that 36 percent of students entering higher education require at least one remedial education class.<sup>23</sup>

Less than half of the students who are referred to remedial education at community colleges

nationwide complete all the classes to which they are referred.<sup>24</sup> Further, students who require remediation at two-year or four-year colleges graduate at a much lower rate than those who do not need remediation.<sup>25</sup> In Maine, remedial education costs students and the state an estimated \$13 million annually, and up to \$18 million annually after factoring in the reduced lifetime wages of students taking remedial courses.<sup>26</sup>

In Maine, the growth of certain sectors, including information technology and precision production, is projected to lead to a shortage

## Unemployment in Maine



of thousands of skilled workers to fill these positions.<sup>27</sup> The inability to fill open jobs because of the skills gap will adversely impact the U.S. and the state's economic recovery and long-term growth. Unfilled jobs mean decreased productivity and less opportunity for businesses to expand. They also mean less contribution to the tax base, less consumer spending and less economic growth.

## Changing Course through High-Quality Early Learning

As the U.S. economy recovers and we strive for lasting economic security, we must create an infrastructure that will better ensure a more educated and higher-skilled future workforce. Training and re-training the current workforce must be implemented to begin to address the widening skills gap now. But a long-term problem also requires a long-term solution. High-quality early care and education is a proven approach that can help lay the foundation children need for success in school and to enter the workforce with the skills U.S. employers require to compete in a global marketplace. And there is an additional bonus: The "high quality" of early learning programs will provide a big boost to Maine's businesses and economy today.

## Short-Term Economic Gains

Maine businesses will not need to wait 18 years to experience economic gains from investments in early care and education.

For every \$1 invested in early care and education in Maine, an additional \$0.78 is generated for a total of \$1.78 in new spending in the state.<sup>28</sup> This strong economic boost for local businesses is as high or higher than investments in other major sectors such as construction, retail trade, manufacturing, transportation and utilities. Inversely, every dollar cut from early learning programs in Maine eliminates a total \$1.78 in local economic activity.<sup>29</sup>

Early learning investments generate this additional local economic activity in two ways: when early learning centers purchase local goods and services to operate their programs; and when early learning teachers and staff spend their wages on local goods and services. The early care and education sector has one of the highest economic output multipliers because such a high proportion of the spending by early learning programs and staff is spent locally. Much of the investment in early learning goes to teacher wages, and the person-to-person nature of this service means that it must be provided and delivered locally, since early learning teachers work directly with children in local programs.

Two key components that ensure the quality of an early learning program also impact the significant short-term economic activity of early learning investments:

- Increased teacher compensation appropriate to skills and experience; and

## Early Care and Education in Maine: A Snapshot

Early care and education programs serve young children from birth through age 5. They can take several forms -- from child care centers, family child care homes and private preschool programs, to publicly funded early education programs like pre-kindergarten, Head Start and early childhood special education provided by public schools. In Maine, approximately 35,000 young children under age 5 are not served by regulated early care and education settings.<sup>74</sup>

Early care and education programs represent a sizable small business sector in the state. The sector employs nearly 1,400 preschool teachers and the licensed child care sector employs more than 8,800 teaching and support staff.<sup>75</sup>

- There are an estimated 706 child care centers, 1,415 licensed family child

care homes and 111 nursery schools in Maine.<sup>76</sup>

- Although more current data are not available, a 2007 report noted that child care is the fourth largest industry in Maine, generating over \$180 million in annual gross receipts, including over \$9 million from federal funding.<sup>77</sup>
- In 2011, Maine invested \$28.2 million on state- and locally funded early learning programs, which in turn are generating an additional \$22 million in economic activity, for a total of \$50 million in economic activity for the state.<sup>78</sup>
- 70 percent of children under the age of 6 in Maine have both or their only parent in the work force.<sup>79</sup>



## The Early Learning sector in Maine generates more additional spending in the economy than other major economic sectors

### Economic Sectors

### Output Multipliers

#### Early Care and Education<sup>1</sup>

**\$1.78**

Farming, Logging, Fishing, Hunting

1.71

Transportation

1.68

Construction

1.67

Wholesale Trade

1.64

Mining, Oil, Gas

1.54

Manufacturing

1.52

Retail Trade

1.52

Utilities

1.34

Every \$1 invested in the early learning sector generates an additional 78 cents in the local economy.

1. The early care and education sector is part of the larger services sector, which on average generates a multiplier of \$1.70 for every \$1 invested.

Source: IMPLAN, 2009 analysis of Type SAM Output Multipliers for Maine

- Smaller class sizes and small child-to-teacher ratios.

Research confirms that better-skilled teachers produce better outcomes.<sup>30</sup> If we want outcomes such as increased graduation rates, higher levels of employment and increased skill sets in our workforce, we must be willing to pay for the teacher skills that are necessary to achieve those results. Too often, you get what you pay for. In Maine, child care workers have a very modest average annual wage of only \$21,920 and preschool teachers have an average annual wage of \$31,120.<sup>31</sup>

A reasonable goal to attract and retain more qualified early learning teachers is salary parity with elementary school teachers, who have an average annual wage of \$47,800 in Maine. Some state pre-K programs around the country have already moved in this direction, with 12 states requiring pre-K teacher pay parity with public school teachers.<sup>32</sup> Maine's public pre-K program does not yet require this.<sup>33</sup> When highly-qualified early learning teachers are paid compensation commensurate with their skills, they will in turn re-infuse that money back into the economy, spurring sales of local goods and services.

Similarly, smaller classroom sizes and small child-to-teacher ratios positively influence the local economy via the multiplier effect. Smaller classroom sizes mean additional classes as more stu-

dents gain access to early learning programs, and spurs providers to make purchases to run the programs. Small child-to-teacher ratios require more teachers, creating additional wages to be pumped back into the economy. A 50-state analysis of child care's economic impact found that states with strong quality features (lower child-to-staff ratios and higher wages for early learning

## Cuts to Early Learning Hurt Businesses

In the same way that investments in early learning generate additional spending in Maine due to the multiplier effect, the reverse is also true: funding cuts to early learning programs also reduce sales from Maine businesses.

Thus, for every \$1 cut from early learning programs, a total of \$1.78 will be lost in sales of local goods and services from Maine businesses.<sup>93</sup> Our state cannot afford cuts to early learning that will directly hurt the bottom lines of Maine businesses.

“Our state’s economy is going to recover. But if we want to build long-lasting economic security, we need to support our businesses today and ensure we have an infrastructure that will attract skilled workers and new businesses. One of the best ways to do that is to have quality early learning programs in place. Just as a quality K-12 system and great colleges and universities attract skilled workers and new businesses, so also does a quality early care and education system. It deserves an equal place at the education table in Maine.”

**Dana Connors,**  
President, Maine State  
Chamber of Commerce



workers) also had higher child care output multipliers than states that were weaker on these quality features.<sup>34</sup>

## Long-Term Economic Benefits

The “quality” aspects of early learning programs are also a key component for reversing the skills gap and building a foundation for long-term economic growth and security. A recent analysis of early education programs in 11 states confirms that programs must be higher in quality in order to produce positive effects on children’s school readiness skills.<sup>37</sup> These early academic, literacy and social skills can, in turn, lead to improved outcomes such as increased high school graduation rates, higher employment rates and better earnings as adults.<sup>38</sup>

## Earnings, Employment and Productivity

Higher academic skill levels and more developed soft skills mean more productive adults who can earn more throughout their lives. And enhanced skills and increased productivity can be tied directly to early learning:

- Children who participated in the Chicago Child-Parent Centers program were 31 percent more likely than their non-participating peers to hold a job considered semi-skilled or higher as adults,<sup>39</sup> and
- The children who attended the model Perry Preschool Program in Michigan were 22 percent more likely to be employed at age 40.<sup>40</sup>

High-quality early learning also had strong impacts on earnings. Children who participated in the Perry Preschool Program earned 36 percent more at age 40 than children left out. This produced a range of meaningful impacts on their lives. For example, 80 per-

cent of the males who attended Perry owned a car at age 40 compared to just 50 percent for the males left out of the program.<sup>41</sup>

As noted earlier, more education is associated with lower unemployment – something that became increasingly clear during the recent recession. Increasing the number of children who enroll in a four-year college or university may help lower unemployment rates. As the economy recovers and we work to ensure long-term economic security, increasing the education levels of our young people may better allow the U.S. to weather future downturns.

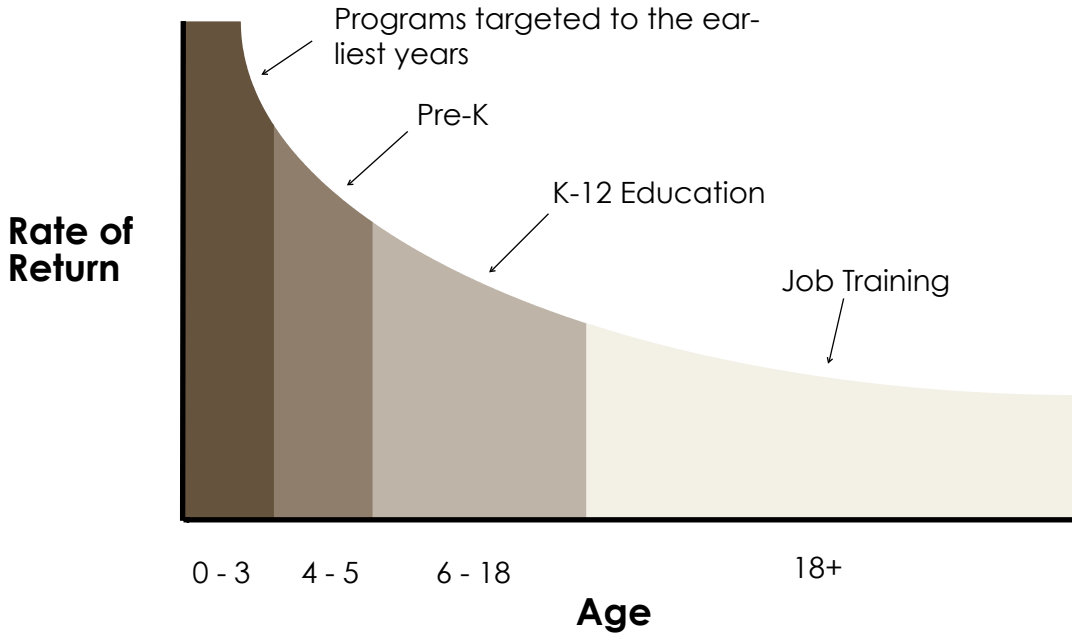
Similarly, increased education is also associated with increased productivity, which can strengthen our economy. According to research by the Organisation for Economic Co-operation and De-

## Education Levels of Early Care and Education Teachers Are Too Low

Effective teachers are essential to providing high-quality early care and education, yet a recent report shows that a majority of early childhood educators themselves have low levels of education and training, which makes it more difficult to provide quality early care and education. In general, teachers with more education and training in early childhood education are more effective than those with minimal education and training.<sup>35</sup> According to a recent Government Accountability Office report, 72 percent of early care and education staff nationally had achieved less than an associate’s degree.<sup>36</sup>



## Rate of Return to Investments in Human Capital



Adapted from The Heckman Equation, 2010

velopment (OECD), each year of additional education in OECD countries is associated with a 4 to 7 percent increase in per capita output.<sup>42</sup> One additional year of schooling also leads to an 8.5 percent increase in manufacturing productivity, and more than a 12 percent productivity increase in other industrial sectors.<sup>43</sup>

### Increased School Success

High-quality early learning also produced meaningful increases in school success in elementary school and high school. Results from longer-running programs are very strong and show that the benefits continue as students progress through school. Researchers found that children attending Child-Parent Centers were 40 percent less likely to need special education or be held back a grade than those children who did not attend. They were also 15 percent less likely to drop out.<sup>44</sup> Similarly, children who attended the Perry Preschool Program were 44 percent more likely to graduate from high school.<sup>45</sup> Participants in North Carolina's Abecedarian Project, a high-quality early learning program from infancy through age 5, were four times more likely to have earned a four-year college degree by age 30 than those left out of the program – which is good news for businesses and the economy.<sup>46</sup>

### Strong Foundations for Hard and Soft Skills

The skills children develop in high-quality early learning programs are important precursors to creating a workforce that can communicate, collaborate and critically think – tools necessary to compete in a global economy. High-quality early learning helps

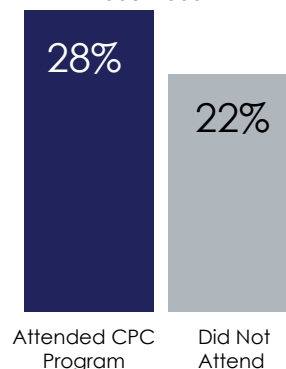
children develop these soft skills, as well as the hard skills, such as reading and math.

When pre-k teachers provided moderate- to high-quality instruction in their classrooms, students showed more advanced academic and language skills than those in low-quality classrooms.<sup>47</sup> Another rigorous study of state-funded pre-kindergarten, in Tennessee, found that overall gains in literacy for children who attended were 50 percent greater than for those who did not attend. In oral comprehension and picture vocabulary, participants made twice the gains of those students who were randomly assigned to a wait list.<sup>48</sup>

Analysis by the Nobel Prize-winning economist James Heckman of the University of Chicago shows that high-quality early learning not only helps children develop a foundation for reading and

### High Quality Early Education Improves Skills

Holding a semi-skilled job in early adulthood



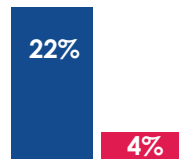
Source: Reynolds, 2010

**“From a long-term perspective, high-quality early learning programs can save as much as \$16 for every \$1 invested because children who participate in these programs grow up to become better-educated and more productive workers, with far less remedial education or criminal costs to society. That is a return on investment that cannot be matched by almost any other public investment.”**

**Eileen Skinner**  
CEO, Mercy Hospital



math, it also helps them develop the aforementioned soft skills needed throughout their careers. And in Pennsylvania's pre-k program, **the percentage of 3-year-old children with conduct or self-control problems dropped from 22 percent at the time of entry into the program to 4 percent by the time the children completed the program.**<sup>49</sup>



## Federal Early Learning Programs

There are several federal early learning initiatives that serve children in Maine. Federally funded Head Start, Early Head Start (EHS) and child care programs have an important role to play in helping to promote the quality of early learning in Maine.

### Head Start and Early Head Start

Head Start and EHS together provide comprehensive health, support and educational services for young children in low-income families. Children in Head Start programs, which serve children ages 3 to 5, receive comprehensive services, such as high-quality early education, health, nutrition and social and emotional development components. Head Start also stresses parent involvement. Head Start services help children enter kindergarten better prepared and help prevent them from falling behind other students, helping to close the achievement gap for at-risk students as they enter school. In Maine, 4,356 children under age 5 were enrolled in Head Start programs in 2010. The actions taken in the May 2012 supplemental budget eliminated Head Start services for 217 Maine children. Funding for Head Start is not sufficient to serve all eligible children.<sup>50</sup> The program in Maine currently serves less than 27 percent of income-eligible children.<sup>51</sup>

EHS was created in response to research suggesting the developmental importance of the first three years in a child's life. Established in 1994 as part of the federally funded Head Start program, EHS serves both pregnant women and children birth to

age 3, providing guidance, information, parenting support and direct services. EHS provides services through center-based, home-based and combination program options. Early Head Start had capacity to serve just 774 children and their families in Maine during 2011.<sup>52</sup>

A report released in 2010 raised some questions about the effectiveness of Head Start, finding that few benefits were sustained to the end of first grade.<sup>53</sup> However, that evaluation was conducted for children who attended Head Start in 2003, before several meaningful improvements in Head Start program quality were made.<sup>54</sup> The 2007 reauthorization of Head Start and EHS implemented important quality improvements, including requiring Associate's degrees for all teachers and Bachelor's degrees for 50 percent of all lead teachers in Head Start classrooms; setting aside 40 percent of new Head Start funds for quality enhancements such as scholarships and salary increases for teachers; and requiring at least 15 hours of annual in-service training for teachers.<sup>55</sup> In 2011, another key quality improvement from the 2007 reauthorization was implemented, requiring lower-performing Head Start local programs to re compete for their federal funding.

These important improvements to Head Start are likely to improve the quality of programs. Requiring lower-performing programs to compete with other potential program operators to receive Head Start funding is expected to remove ineffective programs and identify new local grantees. In Maine, none of the Head Start programs were designated as needing to re compete for funding, an indication that Maine's programs are being operated effectively. But future evaluations should study these programs' impact on children enrolled after these important reforms have been implemented. These ongoing efforts to improve the quality of Head Start programs will help it fully realize its promise of high-quality early learning for at-risk children.

### Child Care and Development Block Grant

The Child Care and Development Block Grant (CCDBG) is the principal source of federal funding for child care assistance. Though the

## What is QRIS?

Quality Rating and Improvement Systems (QRIS) provide a rating of the quality of an early care and education program and are characterized by five key features:

- Provides quality standards as a basis for rating and comparing early care and education programs;
- Provides a system for monitoring improvements in the quality of programs;
- Provides a way to disseminate information about the quality of programs to parents and the public;
- Offers a process to improve programs, including providing technical assistance and making training available to providers; and
- Offers financial incentives to providers to improve their program quality.

system was designed to help all eligible children by providing subsidies to pay for part or all of the cost of child care, inadequate funding allows only a small percent of eligible children to be served. Nationally, only one in six eligible children are receiving CCDBG subsidies.<sup>56</sup> In Maine, approximately 3,700 children from low-income families received child care assistance in 2011.<sup>57</sup> In May 2012, the supplemental budget passed, reducing child care subsidy funding by 17 percent.<sup>58</sup>

Since child care assistance is designed to help parents afford child care programs available in the local child care market, the quality of programs is determined by what is offered by local child care centers and family child care homes. Program quality is difficult to determine if local data are not available, and access to high quality programs can vary widely from community to community. While a majority of child care programs in Maine and nationwide are subject to state licensing and regulation, these licensing standards generally help ensure basic health and safety, but do not require that programs be high in quality.<sup>59</sup> National estimates of child care quality suggest that many programs nationwide are not high in quality.<sup>60</sup>

CCDBG funding includes only a small portion of funds to promote quality in local programs.<sup>61</sup> Maine, along with at least 25 other states, has developed a Quality Rating Improvement System (QRIS), which helps parents identify quality child care programs.

However, Maine's QRIS, called *Quality for ME*, is voluntary for programs to opt in to, and currently only half of the state's licensed programs are participating. Many child care programs not participating in *Quality for ME* are of unknown quality and remain unrated.<sup>62</sup>

Improvements must be made in many local programs nationwide and in Maine that are funded by CCDBG to better ensure positive outcomes for Maine's businesses and our state's economy. Increased program quality requirements are necessary to help ensure that young children are in high-quality programs.

## Quality Rating and Improvement Systems

At least 25 states, including Maine, have implemented a statewide QRIS and most others are developing or implementing their systems.<sup>64</sup> Most state QRIS are in the early stages of evaluation, so more evidence is expected in the coming years. The evaluation evidence on QRIS shows initial results in three areas:

1. **Different rating levels can measure meaningful differences in quality.** Studies in North Carolina, Oklahoma, Pennsylvania, Kentucky and Indiana have shown that the different rating levels do reflect real differences in the quality of early learning programs.<sup>65</sup>
2. **QRIS can help programs improve their quality over time.** A recent evaluation in Washington state, a randomized controlled trial, offers the strongest evidence that QRIS participation can help early learning programs to improve their quality.<sup>66</sup> Providers who received coaching and quality improvement funds had significantly higher levels of quality of the early learning and care they provided than those in the control group at a six-month follow-up.<sup>67</sup> Additional evaluation studies in five different states (Colorado, Oklahoma, Pennsylvania, Tennessee and Indiana) found



some evidence that programs participating in the QRIS improved their quality over time.<sup>68</sup>

3. **Higher QRIS-rated programs can produce better outcomes for children.** These studies examined whether children in programs with higher QRIS rating levels have better cognitive, social or behavioral outcomes than children in lower-rated programs.<sup>69</sup> An evaluation of Missouri's QRIS found significant gains in children's social and behavioral skills as a result of child care providers' participation in the rating system.<sup>70</sup> Indiana's QRIS evaluation found fewer anxiety and withdrawal behaviors for preschoolers in higher-rated programs, and a preliminary pilot study of Minnesota's QRIS found mixed results.<sup>71</sup>

Maine's QRIS, *Quality for ME*, has been implemented statewide, and 51 percent of licensed child care providers participate in the voluntary system. *Quality for ME* has four steps representing different levels of quality for programs. Maine's QRIS has an evaluation underway to monitor programs' enrollment in the system and to improve and better manage child care programs.<sup>72</sup>

Another innovative approach that has not yet been evaluated is worth special notice: North Carolina has tied receipt of child care subsidies to a program's star rating level, with only higher-rated programs receiving

these subsidies.<sup>73</sup> If this proves to be successful, this approach could be an especially effective way to use QRIS to improve program quality.

The evaluation findings offer good initial evidence on the potential of QRIS for improving the quality of programs and for having positive effects on children. QRIS is an important tool for states to assess the quality of early education programs and to improve the quality of programs over time.

## Support High-Quality Early Learning in Maine

Numerous research studies have documented the key characteristics of high-quality early learning programs, including:

- Highly skilled teachers with appropriate compensation;<sup>74</sup>
- Comprehensive and age-appropriate curricula;<sup>75</sup>
- Strong family involvement and effective parent coaching;<sup>76</sup>
- Small staff-to-child ratios to ensure each child gets sufficient attention;<sup>77</sup>
- Small, age-appropriate class sizes;<sup>78</sup> and

## Federal Initiatives to Enhance Early Learning Quality

Several new federal initiatives designed to enhance the quality of early learning have been developed in recent years.

**The Race to the Top—Early Learning Challenge** competition, developed in 2011, will help states significantly improve the quality of their early learning systems. In 2012, the Department of Education awarded competitive grants to nine states to increase the number of low-income and disadvantaged kids enrolled in high-quality early learning programs; design and implement a system of high-quality programs and services; and improve the use of assessments to conform with early childhood standards.<sup>85</sup> Thirty-seven states and territories submitted applications for the program. While Maine did not receive a grant in this initial round of awards, continued funding for this program may subsequently allow the state to

apply for and be awarded funding to help the state strengthen the quality of early learning and move toward a more comprehensive system of early learning for Maine's children.

**Pathways and Partnerships for Child Care Excellence** is an initiative developed by the Office of Child Care within the Department of Health and Human Services to help ensure access to high-quality child care for children in low-income families. Features of this initiative include redesigned technical assistance to states; improved data collection on child care quality activities and quality outcomes; support for professional development for child care professionals; strengthened accountability in the use of child care assistance funds; and working with the states to help strengthen state child care licensing systems.<sup>86</sup>

“How can we best invest in human capital development to increase workforce capabilities, raise productivity and social cohesion and assure America’s economic competitiveness in the global economy? ...The answer is to invest in comprehensive early childhood development – from birth to age five – particularly in disadvantaged children and their families... Ignoring this finding will put our country’s future in peril by producing a deficit of human capital that will take generations to correct.”



–James Heckman, Ph.D.  
Nobel Prize-winning economist

- Screening and referral services for developmental, health or behavior problems.<sup>79</sup>

These are the key features of early learning programs that research indicates are essential for delivering good early education and care.

Head Start, EHS and CCDBG-funded child care are important components of Maine’s early learning system, along with public pre-K and privately funded child care and preschool programs throughout the state. Business leaders are calling on federal and state policymakers to continue investing in high-quality early learning, to support and strengthen efforts to implement the evidence-based features of quality programs, and then to hold programs accountable for providing high-quality services.

## Conclusion

Research is clear that investments in high-quality early care and education will boost our economy through immediate and significant economic activity. At the same time, such investments build the skills of our future workforce. Policymakers must make difficult decisions about where to invest limited funds as revenues have decreased. Funding for quality early learning should be a priority since it is one of the best ways we can immediately strengthen our economy while creating lasting economic security.



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It is worth noting, however, that multiple longitudinal early learning studies have found some degree of diminished effects on academic skills during the early elementary years, followed by enduring long-term effects into adulthood. In studies of high-quality programs that follow children into adulthood, such as the Perry Preschool Project and the Chicago Child-Parent Centers, these diminished (but still statistically significant) academic effects during the elementary years were later followed by impressive increases in rates of high school graduation, in earnings and meaningful decreases in criminal behavior.

Head Start's trajectory of effects on children has been more modest than the effects found in model longitudinal studies such as Perry Preschool, the Chicago Child-Parent Centers, and the Abecedarian Project. Other nonexperimental long-term studies of the impacts of Head Start offer some confirmation of modest but mixed long-term results, with some showing modest positive effects on graduation and crime, and others finding no significant long-term effects. It may be that the children studied in the Head Start Impact Study, if followed into adulthood, would go on to demonstrate meaningful gains in graduation rates, increased earnings and reductions in crime. It is likely true, however that reforms underway since the children participated in this study, and even more reforms will be necessary to achieve the strong results shown to be possible in the long-term studies of Perry Preschool, Abecedarian and the Chicago Child-Parent Centers.

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