Maine Report:



More Than You Get What You Pay For





High-quality early childhood education is key to growing the Maine workforce

■ WHO WE ARE

READYNATION is the nation's preeminent business leader organization working to strengthen business through effective policies for children and youth. It operates under the umbrella of the non-profit Council For A Strong America. Our more than 1,100 members, including more than 120 in Maine, educate policymakers and the public about effective investments that will help businesses compete in today's global marketplace by helping children get on the right track to succeed in school and in life. Our members have contributed to victories for children at the federal level and in dozens of states.

Acknowledgements

This report was authored by Sandra Bishop-Josef, Ph.D., Kim Gore and Sara Watson, Ph.D.

The following individuals also contributed to this report: William Christeson, Tom Garrett, Stefanie Campolo, and Miriam Rollin.

READYNATION *MAINE* is supported by tax-deductible contributions from foundations, individuals, and corporations. READYNATION *MAINE* accepts no funds from federal, state, or local governments.

Major funding for ReadyNation is provided by: Alliance for Early Success • Betterment Fund • The Bingham Program • The Frances Hollis Brain Foundation • The California Education Policy Fund • The Annie E. Casey Foundation • Robert Sterling Clark Foundation • The Sam L. Cohen Foundation • Robert H. Dugger • Early Childhood Funders Collaborative • Max M. and Marjorie S. Fisher Foundation • The Ford Foundation • Bill & Melinda Gates Foundation • John T. Gorman Foundation • The George Gund Foundation • Hagedorn Foundation • Irving Harris Foundation • The Heising-Simons Foundation • The Leona M. and Harry B. Helmsley Charitable Trust • The William and Flora Hewlett Foundation • The James Irvine Foundation • Robert Wood Johnson Foundation • W.K. Kellogg Foundation • The Kresge Foundation • The Oscar G. and Elsa S. Mayer Foundation • McCormick Foundation • The Meadows Foundation • The David and Lucile Packard Foundation • The J.B. and M.K. Pritzker Family Foundation • Raise Your Hands Texas • Rauch Foundation • Texas Education Grantmakers Advocacy Consortium Fund • Bernard van Leer Foundation • Dennis and Phyllis Washington Foundation.

More Than You Get What You Pay For

EXECUTIVE SUMMARY

As business leaders who realize that more and more Maine jobs require advanced education, we know Maine's preschools are essential for workforce development, to avoid a serious skills gap. We are also excited to see that this report shows that extending access to PreK to one-third of children still not covered after current expansion plans would save society \$64 million.



Our own experience in business teaches us that we need a skilled workforce in order to prosper. We also must have a business plan that incorporates the latest research, industry standards and best practices. Another key factor in running a successful business is continuous quality improvement—ongoing, careful monitoring of how things are going and the wisdom and courage to make any needed adjustments. In short, investments in quality are essential for success in business.

So it is with early childhood education. We know high-quality pre-kindergarten can deliver very strong results. Compared to children who did not attend, at-risk Maine children who attended public PreK as four-year-olds scored four to seven percentage points higher on reading and math proficiency assessments by third and fourth grade. There are also strong results in other states. In New Jersey fourth- and fifth-graders who attended quality preschool at ages three and four were three-fourths of a year ahead of their peers who did not attend PreK in math and two-thirds of a year ahead in reading. They were also 31 percent less likely to need special education and 40 percent less likely to be held back. Michigan's Great Start Readiness preschool program reported a 35 percent increase in high school graduation among its participants. At-risk children randomly assigned to the Abecedarian early learning program in North Carolina were four times more likely to graduate from a four-year college and 42 percent more likely to be consistently employed as adults.

There are short-term economic gains as well: for every \$1 invested in early care and education in Maine, an additional \$0.78 is generated into the overall economy, for a total of \$1.78 in new spending in the state. There are also longer-term gains: a well-respected, independent cost-benefit analysis of more than 20 different studies of high-quality state and local preschool programs showed that they can have, on average, a net return of more than \$26,000 in current dollars for every child served.

To our credit, our Maine preschools will soon meet all 10 benchmarks for quality inputs spelled out by the National Institute for Early Education Research (NIEER). But more is needed to achieve even greater success:

- Our preschool teachers in Maine must be well-trained and adequately compensated.
- Even though preschool classrooms incorporate play, instruction must be purposeful, with developmentally appropriate standards and an evidence-based curriculum.
- Careful assessments of the classroom can determine which inputs are in place to produce high-quality experiences for all children. Further, programs must also evaluate outcomes and teachers and administrators must then act on that information and other knowledge from the field to continually improve the quality of their programs.

The bottom line: Maine must continue to improve PreK quality and expand access, given that current programs serve only 38 percent of four-year-olds in our state (and will still serve only 42 percent under a federal expansion grant in the 2015-2016 school year). Even if Maine serves just one-third of the 7,400 eligible 4- year-old children still not served after the expansion, the \$26,000 lifetime net savings per child comes out to over \$64 million saved. That is a solid investment in our state's future.

High-Quality Early Childhood Education Benefits Our Children and Our Economy

As 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 retraining the current workforce must be implemented to begin to address today's widening skills gap.

However, a long-term problem also requires a long-term solution. Highquality 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 employers require to compete in a global marketplace. And there is an additional short-term bonus: High-quality early learning programs will provide a big boost to Maine's businesses and economy today.

SHORT-TERM ECONOMIC **GAINS**

Maine businesses do 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. This strong economic boost for local businesses is as high as 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.

Early learning investments generate this additional local economic activity in two ways: Early learning centers purchasing local goods and services to operate their programs; and early learning teachers and staff spending 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.

"Early learning programs impact



productivity in our companies. About 69 percent of children under the age of six in Maine have both or their only parent in the workforce. Having access to early learning programs reduces absenteeism and turnover, while increasing productivity and retention. And that's good for our bottom lines."

> John Bragg, retired President, N.H. Bragg and Sons

Early Care and Education in Maine: A Neglected but Crucial Business Sector

Because 69 percent of children under the age of six in Maine have both parents or their only parent in the workforce, early education and care is the fourth-largest industry in Maine.² In Maine there are an estimated 745 child care centers, 1,176 licensed family child care homes and 67 nursery schools.3 There are more than 200 public preschool programs throughout the state.4 The sector employs over 4,200 teachers, staff and administrators.⁵



EARLY CHILDHOOD EDUCATION IS WORKFORCE **DEVELOPMENT**

Abundant research has shown that high-quality early childhood education generates benefits for young people and for our economy. For example:

- Compared to children who did not attend the high-quality program, by third and fourth grade, at-risk Maine children who attended public PreK as four-year-olds scored four to seven percentage points higher on reading and math assessments;6
- Boston's universal preschool program improved mathematics, literacy and language skills among participating children equivalent to seven months of additional learning, compared to children who did not participate;7
- By fourth and fifth grades, New Jersey children who attended highquality preschool at ages three and four were three-fourths of a year ahead in math and two-thirds of a year ahead in reading, compared to children who did not attend. They were also 31 percent less likely to need special education and 40 percent less likely to be held back;8



Robert Moore, Chairman and CEO, Dead River Company



- Michigan's Great Start Readiness preschool program reported a 35 percent increase in high school graduation among its participants;9 and
- At-risk children randomly assigned to the Abecedarian early learning program in North Carolina were four times more likely to graduate from a four-year college and 42 percent more likely to be consistently employed as adults.10

QUALITY IS KEY

To achieve lasting results that will impact workforce development, programs must be high-quality. The National Institute for Early Education Research

> (NIEER) lists 10 structural quality inputs, focusing on class size, teacher-child ratios, teacher credentials and training, learning standards, screening and other services, and program oversight.11 These are the crucial standards that Maine is about to achieve with the improved PreK rules adopted by the Maine Department of Education in December 2014.12

NIEER benchmarks for high quality

As of December 2014 the Maine Department of Education has implemented updated rules that require public PreK to meet all 10 of the NIEER benchmarks for high quality. Prior to these rule changes Maine met six of the benchmarks. These rules include:

- ✓ Comprehensive early learning standards
- ✓ Teachers with BA degrees
- ✓ Teachers with early childhood training
- ✓ Teacher in-service training
- ✓ Maximum class size of 16 students
- ✓ Staff: child ratio of one adult to eight children or better
- ✓ Screening/referrals and support services
- ✓ Meals: at least one per day
- ✓ Monitoring with site visits¹⁵

High-quality early childhood education can have, on average, a net return (after subtracting program costs) of over \$26,000 for every child served.

There are other efforts to hone in on what produces strong results in PreK. For example, recent studies focus on what actually happens in the classroom, particularly the quality of teacher-child interactions and teacher instruction.¹³ Maine is moving in this direction, conducting a pilot study using an evidence-based classroom observation instrument to measure classroom quality.14 These analyses also include a strong focus on data and accountability. High-quality early learning programs that are getting strong results collect data to see how they are performing, at every level: district, program, teacher and student. These data are then used to improve program performance and to ultimately improve child outcomes.

INVESTMENTS IN QUALITY PAY OFF

An independent cost-benefit analysis by the Washington State Institute for Public Policy shows the immense payoff Maine can expect from investing in high-quality early childhood education for its disadvantaged young children.16 Examining results from more than 20 different studies of state and local programs, investigators found that high-quality early childhood education can have, on average, a net return (after subtracting program costs) of over \$26,000 for every child served.

FURTHER EXPANSION OF PREK WOULD SAVE MAINE MORE THAN \$64 **MILLION**

In December 2014, Maine was one of 18 states awarded a new federal grant to expand access to preschool programs.¹⁷ Maine will receive \$14.8 million over the next four years to create 33 new PreK classrooms in 13 school districts with high percentages of low-income students. In addition, grant funds will be used to enhance program quality in 23 existing PreK classrooms. The Maine Department of Education estimates that this funding will expand access to an additional 500 students and enhance programming for an estimated 350 students in existing preschools.18 Maine business leaders applaud this effort and encourage more growtheven with the additional 500 PreK classroom seats, Maine will still only be serving approximately 42 percent of all eligible four-year-olds (a total of 5,382 students served, leaving 7,432 unserved). Even if Maine serves just one-third (2,477) of its eligible 4- year- old children not served after the expansion, the \$26,000 lifetime net savings to society comes out to over \$64 million saved. That is a solid investment in our state's future.

THE BOTTOM LINE

Maine has been a leader in providing high-quality early childhood education as an essential component of our state's workforce development strategy. With recent rule changes, our state PreK will meet all 10 of the NIEER quality benchmarks. Now we must increase our commitment to helping our state become more competitive by expanding access to high-quality early childhood education to more of our children and continuing to focus on improving quality. Only then will our state fully realize the benefits for our children and our economy.

How Bangor has built its PreK system¹⁹

Bangor public schools started public PreK in the 2004-2005 school year, with one pilot classroom at three elementary schools. Children were chosen by a lottery system. Given initial successes, voluntary public PreK grew, and by the 2009-2010 school year was universally available to all interested families at all five Bangor elementary schools. Family participation in voluntary public PreK in Bangor now ranges from 65-75 percent each year.

Results are impressive. By the end of kindergarten, disadvantaged children who had attended the Bangor preschool program outperformed disadvantaged children who did not attend, on assessments of both reading level and math.

Bangor PreK programming includes daily instruction in math, literacy and writing. Teachers read books to students every day and review the daily calendar and weather. Students also participate in weekly art, music and physical education classes. Programming includes either breakfast or lunch, and, of course, daily recess.

ENDNOTES

- 1 Schaefer, S., Gates, S. L., & Warner, L. (2012). Boosting Maine's economy Short- and long-term economic gains through quality early learning. Washington, DC: America's Edge /ReadyNation. Retrieved from: http://readynation.s3.amazonaws.com/wp-content/uploads/ME-AE-Early-Ed-Quality-Report.pdf 2 Children under age 6 with all available parents in the labor force. KIDSCOUNT. Retrieved from: http://datacenter.kidscount.org/data/tables/5057children-under-age-6-with-all-available-parentsin-the-labor-force?loc=1&loct=2#detailed/2/21/ false/36,868,867,133,38/any/11472,11473; Governor's Economic Summit on Early Childhood in Maine. (2007). The economics of early care and education in Maine. Rockport, ME: Author. Retrieved from http:// www.maine-eccs.org/ECE.pdf
- 3 Data as of March 2, 2015, provided by the Division of Licensing and Regulatory Services, Maine Department of Health and Human Services on March 9,
- 4 Maine Department of Education. (n. d.). Public preschool. http://www.maine.gov/doe/publicpreschool/ 5 U.S. Bureau of Labor Statistics (2013, May). May 2013 State occupational employment and wage estimates - Maine. Washington, DC: Author. Retrieved from: http://www.bls.gov/oes/current/oes_me.htm **6** Application for grants under the Preschool Development Grants-expansion. Maine. Retrieved from: http://www2.ed.gov/programs/preschooldevelopmentgrants/applications/meapplicationpdg2015.pdf 7 Weiland, C., & Yoshikawa, H. (2013). Impacts of a prekindergarten program on children's mathematics,

- language, literacy, executive function and emotional skills. Child Development. DOI: 10.1111/cdev.12099 8 Barnett, W. S., Jung, K., Youn, M., & Frede, E. C. (2013, March 20). Abbott Preschool Program longitudinal effects study: Fifth grade follow-up. New Brunswick, NJ: National Institute for Early Education Research, Rutgers-The State University of New Jersey. Retrieved from: http://nieer.org/sites/nieer/files/ APPLES%205th%20Grade.pdf
- 9 Michigan Great Start Readiness Program evaluation 2012: High school graduation and grade retention findings. Retrieved from http://bridgemi. com/wp-content/uploads/2012/06/GSRP-evaluationmay-21-12.pdf
- 10 Campbell, F.A., Pungello, E. P., Burchinal, M., Kainz, K., Pan, Y., Wasik, B., Barbarin, O. A., Sparling, J. J. & Ramey, C. T. (2012). Adult outcomes as a function of an early childhood educational program: An Abecedarian Project follow-up. Developmental Psychology, 48, 1033-1043.
- 11 Barnett, W. S., Carolan, M. E., Fitzgerald, J., & Squires, J. H. (2013). The state of preschool 2013 state preschool yearbook. New Brunswick, NJ: Rutgers Graduate School of Education, National Institute for Early Education Research
- 12 Maine Department of Education (2014). Proposed rules & rule changes. Chapter 124: Basic approval standards: Public preschool programs. Retrieved from: http://www.maine.gov/sos/cec/rules/05/ chaps05.htm
- 13 Minervino, J. (2014, September). Lessons from research and the classroom: Implementing high-quality pre-K that makes a difference for young children. Seattle, WA: Bill & Melinda Gates Foundation. Retrieved from: https://docs.gatesfoundation.org/docu-

- ments/Lessons%20from%20Research%20and%20 the%20Classroom_September%202014.pdf 14 Maine DOE Newsroom (2015, January 7). Department seeks public preschool classrooms for observation pilot. Retrieved from: http://mainedoenews. net/2015/01/07/department-seeks-public-preschoolclassrooms-for-observation-pilot/
- 15 Maine Department of Education (2014). Proposed rules & rule changes. Chapter 124: Basic approval standards: Public preschool programs. Retrieved from: http://www.maine.gov/sos/cec/rules/05/ chaps05.htm
- 16 Washington State Institute for Public Policy (2014, August). Benefit-cost summary State and district early education programs. Olympia, WA: Author. Retrieved from: http://www.wsipp.wa.gov/BenefitCost/ Program/270
- 17 18 states awarded new Preschool Development Grants to increase access to high-quality preschool programs. Retrieved from: http://www.ed.gov/news/ press-releases/18-states-awarded-new-preschooldevelopment-grants-increase-access-high-qualitypreschool-programs
- 18 Maine DOE Newsroom (2014, December 10). Maine DOE awarded \$14.8 million to expand public preschool access.Retrieved from: http:// mainedoenews.net/2014/12/10/maine-doe-awarded-14-8-million-to-expand-public-preschool-access/ 19 Data provided by Bangor School Department, March 26, 2015.

ReadyNation is a membership organization of business leaders that operates under the umbrella of the non-profit Council For A Strong America.

Add your voice.

Contact us at: ReadyNation
(202) 408-9282
info@readynation.org
twitter: @Ready_Nation
www.Facebook.com/ReadyNation



ReadyNation I www.ReadyNation.org

Maine Office: Kim Gore, Director • 4 Jersey Circle • Topsham, Maine 04086
National Office: 1212 New York Ave NW, Suite 300 • Washington, DC 20005