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**Testimony
2015 Joint Legislative Hearing
Elementary and Secondary Education Committee**

**Steven Krokoff , Chief of Police, City of Albany
Debra Scullary, Brigadier General (ret.), Air Force
Mark Eagan, President, Albany-Colonie Regional Chamber
of Commerce**

February 3, 2015

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Good afternoon.

I am Steven Krokoff, Chief of Police for the City of Albany. Thank you, Members of the Committee for allowing us to testify today.

Law enforcement leaders across the State know that if we don't pay now, New Yorkers will pay law enforcement later. We would rather fill Pre-K classes—both in schools and in community-based organizations—than fill jails and prisons. That is why we are asking our State to Keep the Promise of Pre-K by making these investments.

I am here as a member of Fight Crime: Invest in Kids NY. Our membership of 248 sheriffs, police chiefs, district attorneys, and crime survivors represent constituencies across New York State. We urge you to remember that about one half of all Pre-K eligible 4 year olds live outside of New York City and currently receive less than 12 percent of the funding.

We do applaud the Governor for his continued commitment to universal, full-day, high-quality Pre-K, and acknowledge his proposed expansion of \$25 million for 3 year olds, but ask you to keep the promise for Universal Full-Day Prekindergarten for four-year-olds with an additional investment of at least \$150 million, and fully support New York City's plan to reach universal service in the 2015-16 school year.

We ask you to ensure all districts awarded full-day Pre-K grants receive the state funding on a predictable payment schedule, as is the case with Universal Prekindergarten and Priority Pre-K programs.

The Governor's Pre-K program for high-need three-year-olds should build on the expertise in community-based organizations already serving young children. The investment should support quality standards and practices appropriate for three-year-olds.

For the sake of our children, we cannot make an assumption of quality in our Pre-K programs. We need to ensure that this investment has the rate of return that we know is only possible if we measure program quality and provide opportunities to improve it. Therefore, we strongly support the Governor's proposal of \$3 million for QUALITYstarsNY.

As law enforcement leaders, it's our job to do everything possible to protect public safety. Incarcerating people who commit crimes is one way we do that. But we know from personal experience that we can't simply arrest, prosecute and incarcerate our way out of crime problems. We have to implement strategies that keep people from turning to crime in the first place.

Education needs to be the focal point of that strategy. In New York State, more than 40 percent of inmates in state prisons don't have high school diplomas. And the research shows that involvement in high-quality Pre-K increases high school graduation rates.

So there's a simple wisdom of investing in quality Pre-K now... as opposed to paying much more to lock people up in the years to come. But that investment must be statewide.

I am Brigadier General Debra Scullary, a member of Mission: Readiness, retired admirals and generals dedicated to ensuring the success of our young people.

You've heard from law enforcement who view high-quality Pre-K as a valuable crime prevention tool. I'm here to tell you why it's a matter of national security.

An estimated 75 percent of all young Americans are unable to join the military. There are three primary reasons: they are too poorly educated, they have serious criminal records, or they are too overweight. Twenty-two percent of young people in this country do not graduate on time from high school, and the military rarely takes anyone without a diploma anymore. Even among those who graduate from high school, in New York, 21 percent of those seeking to enlist in the Army cannot join because of low scores on the military's entrance exam.

One in 10 young adults cannot join because they have at least one prior conviction for a felony or serious misdemeanor. National surveys commissioned for the military show that approximately one in four young adults is unable to serve because of excess body fat.

Whether students choose to go into the military or not, they need to be prepared for whatever they do upon graduation. But not having enough young people educationally fit to serve—this is, in fact, a threat to national security.

While trends in education reform come and go, research shows that there is a solution that is consistently proven over time. It's high-quality Pre-K.

We know that many of you have great concern about the cost of the investment in high-quality Pre-K. But failing to make this investment means a higher cost to society in the future.

Good afternoon. I am Mark Eagan. I am the President and CEO of the Albany-Colonie Regional Chamber of Commerce.

You've heard from law enforcement and military leaders about why high quality Pre-K is important to them. I'm here to tell you why it's important to the business community.

I am a member of ReadyNationNY, an organization of more than 150 business owners and other key members of senior management around the State.

Investing in high-quality early learning programs will strengthen the economy in the short-term with each new \$1 invested generating roughly \$2 in sales of goods and services from local businesses, resulting in billions of dollars in new spending.

The immediate economic boost to local businesses from early learning investments is as high or higher than investments in other major sectors, including construction, retail trade, manufacturing, transportation and utilities.

Access to quality early learning also decreases absenteeism among parents - which costs U.S. businesses \$3 billion annually - because their children are in stable and reliable programs.

Communities with these programs attract and retain better and more qualified employees and are also more competitive in attracting new businesses.

We are also aware that if we want our children to be successful in life, we not only need to give children the right start in life, but also support their success throughout

the education continuum. That's why I'm going to say a few words about offering opportunities for older students.

We have been very supportive of multiple pathways to graduation. We believe that not all students will succeed by following the traditional pathway and should be given every opportunity to pursue other avenues to graduation. Not only will multiple pathways help improve New York State's graduation rate, but our graduates will be better prepared for college and/or careers.

We support the NYS Board of Regents proposal of the implementation of the 4 + 1 program, but urge that implementation take into account all issues pertaining to access for all students as well as how outcomes (and success) will be measured. We strongly believe that the pathway exams must be rigorous enough to reflect an adequate mastery of the studies. We hope that it is rolled out across the State in a thoughtful manner, with plenty of supports available to educators, administrators, parents, and students. Successful implementation will require adequate investment in these supports as outlined in the Regents proposal:

- \$66 million in increased Special Services Aid for 2015-16;
- Changes to the reimbursement rules for BOCES offering career and technical education programs in that school year; and
- \$50 million in capital funding for new, state-of-the-art career and technology education facilities.

As business leaders, we are concerned that two-thirds of students in our State are not proficient in core subjects on the Nation's Report Card. There are many reasons why we are falling behind, but use of learning time is one of them. New York State currently spends, on average, \$19,550 per public school student each year. Because of skills they lose over the summer, low-income students are effectively only getting eight out of the ten months of education that tax payers pay for, wasting \$3,910 per

child for the two months lost. That totals \$2.3 billion per year for all low-income children in New York. The wasted educational spending for higher-income children is not as large, but still substantial. We ask that you support the continued funding for extended learning time opportunities included in the Governor's proposal.

On behalf of Chief Krokoff, General Scullary and our collective member organizations, I thank you for the opportunity to testify today and look forward to New York State moving forward and providing high-quality educational programs to all children. Our organizations stand in support of Winning Beginning NY's budget request, which includes funding for childcare and is attached to our testimony. We have also attached copies of our organizations' reports, which cite all of the research we have referenced here today.



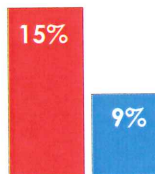
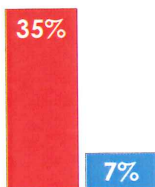
High Quality Early Learning: A Key to Reducing Future Crime in New York

FIGHT CRIME: INVEST IN KIDS is a nonpartisan anti-crime organization made up of more than 5,000 law enforcement leaders and crime survivors, including almost 300 in New York. Its sheriffs, police chiefs, prosecutors and crime victims promote greater public investments in programs proven to direct kids to a better path in life, leading them away from crime and towards success.

Early learning helps children get the right start in life, avoid future crime, and save taxpayers' money, but programs must be high quality to make a difference in kids' lives.

Early Learning Cuts Crime: In addition to tough policing, prosecution and corrections, New York State also needs to invest in programs that prevent kids from becoming criminals in the first place. As law enforcement leaders, we support effective investments that can make all New York communities safer places to live, work and raise a family. The research shows that early learning is such an investment. For example:

- A long-term study of Michigan's Perry Preschool found that at-risk children left out of the high-quality program were five times more likely to be chronic offenders by age 27 than children who did attend.¹
- At-risk kids who did not participate in Chicago's Child-Parent Centers were 70 percent more likely to be arrested for a violent crime by age 18, according to a study published in the *Journal of the American Medical Association*.²



High-Quality Early Learning Programs Save Money:

Research shows that high-quality early learning programs provide enormous societal benefits – nearly **\$11 in benefits for every \$1 dollar invested**, according to a long-term study of children who

participated in Chicago's Child-Parent Centers. Of the \$11 in benefits, \$5 result from lower costs for crime and corrections.³

These early learning programs delivered impressive results because they were high-quality. Unfortunately, too many early learning programs are not high-quality.

Corrections Spending Outpaces Early Learning Spending:

New York and the nation spend more on corrections than on early learning.

- Total state and federal corrections spending to house, feed and provide 24-hour supervision of criminals, at \$58 billion in 2011, is more than double the total 2010 state and federal early care and education spending, at \$26 billion.⁴
- New York State spends over \$3.1 billion per year to house, feed and provide 24-hour supervision for its state criminals.⁵ In contrast, New York spent only a fraction as much — **\$584 million** — on early childhood education.⁶ Federal investments in early learning in New York included \$473 million for Head Start and \$673 million for the Child Care and Development Block Grant.⁷

Quality Early Learning in New York: The quality of early learning programs for infants, toddlers, and preschoolers is critical to supporting young children's healthy development and future success.⁸



Only high-quality early learning programs have been shown to significantly reduce crime and enhance school success.

Researchers have found that high-quality early learning programs have several key components, including:

- Highly skilled teachers with appropriate compensation;⁹
- Comprehensive and age-appropriate curricula;¹⁰
- Strong family involvement and effective parent coaching;¹¹
- Low child-to-staff ratios to ensure each child gets sufficient attention;¹²
- Small, age-appropriate class sizes;¹³ and
- Screening and referral services for developmental, health or behavior problems.¹⁴

These components are included in New York State's quality rating and improvement system, **QUALITYstarsNY**, which has been piloted across the state.¹⁵

Conclusion: Law enforcement leaders across New York want to make sure more New York children receive high-quality care and education in their early years — the help they need to succeed in life and avoid later crime and violence. We call on policymakers to support investments in quality early learning for zero to age eight, including pre-k programs, to ensure all New York's young children get the right start in life.

Endnotes

- 1 Schweinhart, L. J., Barnes, H. V., & Weikart, D. P. (1993). *Significant benefits: The High/Scope Perry Preschool study through age 27*. Ypsilanti, MI: High/Scope Press.
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- 3 Reynolds, A. J., Temple, J. A., White, B. A., Ou, S. R., & Robertson, D. L. (2011). Age 26 cost-benefit analysis of the Child-Parent Center Early Education Program. *Child Development*, 82.1, pp. 379-404.
- 4 Federal early care and education investments, based on Fiscal Year 2010 funding levels, include: Head Start funding (\$7.234 billion), the federal portions of funding for the Child Care and Development Fund (\$7.189 billion), the federal portions of Temporary Assistance to Needy Families spent on child care (\$1.325 billion), and the portion of Title I funds of Elementary and Secondary Education Act allocated to early care and education teacher salaries (an estimated \$300 million, according to the Government Accountability Office). State early care and education funding for all 50 states includes state pre-k and state Head Start spending (\$5.637 billion, comprised predominantly of state pre-k spending, \$5.492 billion, plus \$145 million in state Head Start spending), CCDF state spending (via state match and maintenance of effort funds, \$2.283 billion), and TANF state child care spending (via maintenance of effort funds, \$1.750 billion). Federal and state corrections spending (\$6.185 billion) includes Fiscal Year 2010 Federal prison spending, and state corrections spending (\$51.053 billion) includes Fiscal Year 2010 state spending from general fund, federal funds, other state funds and bonds. Administration for Children and Families. (2011). *FY 2010 CCDF All Expenditures By State- Categorical Summary*. Retrieved on June 19, 2012 from http://www.acf.hhs.gov/programs/ccb/data/expenditures/10ac696/exp_categorical.htm; Administration for Children and Families. (2011). *FY 2010 Final CCDF Allocation (Including Reallocated Funds)*. Retrieved on June 19, 2012 from http://www.acf.hhs.gov/programs/ccb/aw/allocations/current/state2010/final_allocations_2010.htm; Administration for Children and Families. (2010). *Head Start Program Fact Sheet, Fiscal Year 2009 state data*. Retrieved on June 19, 2012 from <http://www.acf.hhs.gov/programs/ohs/about/fs/2010.html>. Does not include tribal or migrant Head Start programs; Barnett, W.S., Carolan, M. E., Fitzgerald, J., & Squires, J.H. (2011). *The state of preschool 2011 – State preschool yearbook*. New Brunswick, NJ: Rutgers University, National Institute for Early Education Research; U.S. Government Accountability Office. (2012, February). *Early Child Care and Education: IHHS and Education are taking steps to improve workforce data and enhance worker quality*. (GAO-12-248). Washington, DC: Author; U.S. Department of Justice. (2012). *Federal Prison Systems (BOP)*. Retrieved on January 23, 2013 from <http://www.justice.gov/jmd/2012summary/pdf/fy12-bop-bud-summary.pdf>; National Association of State Budget Officers (2012). *State Expenditure Report*. Retrieved January 23, 2013 from http://www.nasbo.org/sites/default/files/State%20Expenditure%20Report_1.pdf. Table 32. Capital Inclusive.
- 5 National Association of State Budget Officers (2012). *State Expenditure Report*. Retrieved January 23, 2013 from http://www.nasbo.org/sites/default/files/State%20Expenditure%20Report_1.pdf. Table 32. Capital Inclusive. Includes spending from general fund, federal funds, other state funds and bonds.
- 6 Barnett, W.S., Carolan, M. E., Fitzgerald, J., & Squires, J.H. (2011). *The state of preschool 2011 – State preschool yearbook*. New Brunswick, NJ: Rutgers University, National Institute for Early Education Research [state pre-k]; Administration for Children and Families. (2011). *FY 2010 CCDF State Expenditure Data*. Retrieved on February 19, 2013 from http://www.acf.hhs.gov/sites/default/files/oc/2010appropriations_1.pdf [includes state match and MOE expenditures];
- 7 Administration for Children and Families. (2011). *FY 2010 CCDF State Expenditure Data*. Retrieved on February 19, 2013 from http://www.acf.hhs.gov/sites/default/files/oc/2010appropriations_1.pdf [includes discretionary, mandatory and federal match expenditures]; Administration for Children and Families. (2013). *Head Start Program Facts, Fiscal Year 2011 state data*. Allocations. Retrieved on February 19, 2013 from <http://cclkc.ohs.acf.hhs.gov/hslc/mf/factsheets/docs/hs-program-fact-sheet-2011-final.pdf>. Does not include tribal or migrant Head Start programs.
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- 9 Shonkoff, J.P. & Phillips, D.A. (Eds.). (2000). *From neurons to neighborhoods: The science of early childhood development*. Washington, DC: National Academy Press.
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- 11 Schweinhart, L. J., Barnes, H. V., & Weikart, D. P. (1993). *Significant benefits: The High/Scope Perry Preschool study through age 27*. Ypsilanti, MI: High/Scope Press. See also D. R. Powell (Ed.) (1988). *Parent education as early childhood intervention: Emerging directions in theory, research, and practice* (pp. 79-104). Norwood, NJ: Ablex Publishing.
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- 13 Barnett, W.S., Carolan, M. E., Fitzgerald, J., & Squires, J.H. (2011). *The state of preschool 2011 – State preschool yearbook*. New Brunswick, NJ: Rutgers University, National Institute for Early Education Research.
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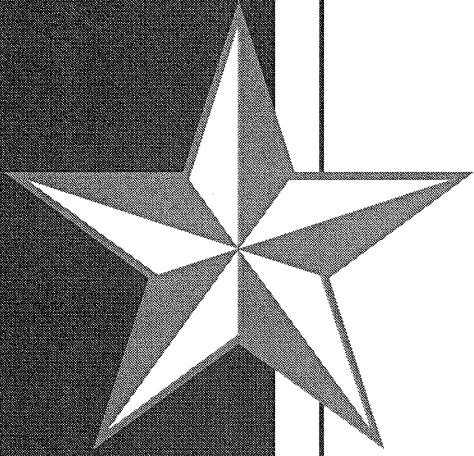
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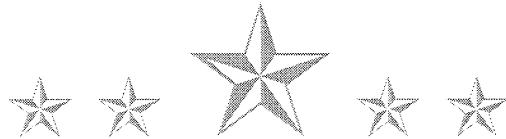
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A Commitment to
Pre-Kindergarten
IS A Commitment to
National Security

High-Quality Early Childhood Education
Saves Billions While Strengthening Our
Military and Our Nation



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Who We Are



Shown in the photo are (left to right): Major General David M. Edgington, US Air Force (Ret.), Admiral James M. Loy, US Coast Guard (Ret.) and General Richard E. Hawley, US Air Force (Ret.) on the deck of the *Battleship Wisconsin*, in Norfolk, VA, February 2012 at a news conference supporting high-quality early education.

MISSION: READINESS is the nonprofit, nonpartisan national security organization of more than 350 retired generals, admirals and other senior retired military leaders calling for smart investments in America's children. It operates under the umbrella of the nonprofit Council for a Strong America.

For a full listing of our membership, please see our website at www.missionreadiness.org.

Acknowledgments

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David Kass, Miriam Rollin, Nick Alexander and Soren Messner-Zidell also contributed to this report.

Photos on summary page courtesy of US Department of Defense.



Summary

Today's military is an exacting environment sustained by complex technology and systems unimagined in generations past. It demands the very best of its service members.

Alarming, the Department of Defense estimates that **75 percent of all young Americans are unable to join the military** primarily because they are too poorly educated, have a serious criminal record, or are too overweight. **More than 1 in 5 high school graduates who tried to join the Army could not score highly enough on the military's entrance exam to be allowed to serve.**

The retired admirals and generals of MISSION: READINESS recognize that there are many factors impacting educational achievement. But there is one factor that has been proven to have a crucial impact on children from all backgrounds, and that is high-quality early learning.

New data from across New Jersey confirm that pre-kindergarten can be brought to scale with strong and lasting results. By the time they were beyond third grade, children who participated in **New Jersey's** high-quality program for two years were three-quarters of an academic year ahead in math and two-thirds of an academic year ahead in literacy compared to those who did not. Numerous studies of voluntary high-quality programs in states such as **Tennessee, Michigan, Arkansas, West Virginia, New Mexico** and **Pennsylvania** have also shown impressive gains in literacy and reductions in the number of children needing special education services or being held back in school.

These new and emerging research results are bolstered by long-term studies of participants from high-quality programs in **Michigan** and **Illinois**, which found they were far more likely to graduate from high school and far less likely to be involved in criminal activity in later years.

While debate about education policy is often contentious, the value of high-quality early learning is recognized by policymakers across the political spectrum. Numerous states have invested in and benefited from high-quality pre-K and, in 2013, **Republican and Democratic governors in Colorado, Michigan, Mississippi, New Mexico, New York, North Dakota, Pennsylvania** and **Virginia** have made bold moves in support of new investments in quality pre-K.

This support coincides with an extremely challenging economic environment for states. States have tried to protect, and in some states even expand programs during

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MILITARY LEADERS FOR KIDS

"We spend over \$500 billion a year on integrated weapon systems and highly-trained personnel. We cannot afford to start turning our defense systems over to individuals who are poorly educated, have criminal records, or suffer from obesity."

Admiral Gregory G. "Grog" Johnson (Ret.)
US Navy

these difficult times. Overall, however, in 2011 and 2012 enrollment levels nationally stalled and the funding available to maintain quality in state programs decreased significantly.

The Administration recently proposed a state-federal partnership that offers states the resources to create, strengthen and expand quality early learning programs for children from low- and moderate-income families. The proposal puts states and local communities in the driver's seat when it comes to developing their programs. The partnership would enable states to offer children well-qualified teachers, small student-teacher ratios, and other elements that have a proven impact on learning. It could also lead to a **15 percent increase in graduation rates for low- and moderate-income children, which would amount to nearly two million more graduates nationwide from the 10-year investment.**

Based on an independent analysis, high-quality pre-kindergarten can **cut crime, welfare and other societal costs and produce average net benefits to society of \$15,000 for every child served. Nationwide, that could produce \$150 billion in net benefits from the \$75 billion proposed investment in the next 10 years.**

America has bipartisan support for our sophisticated 21st Century military systems. But without qualified personnel, those investments will be severely compromised and our national security will be put at risk. Support from both Republican and Democratic policymakers demonstrates a commitment to high-quality school readiness programs from both sides of the aisle. The more than 350 retired generals and admirals of MISSION: READINESS know that investing in high-quality early childhood education, from birth to kindergarten entry, is essential for the future strength of our military and our nation.



A Commitment to Pre-Kindergarten Is a Commitment to National Security

High-Quality Early Childhood Education Saves Billions While Strengthening Our Military and Our Nation

75 Percent of Young Americans Are Not Eligible to Serve in the Military

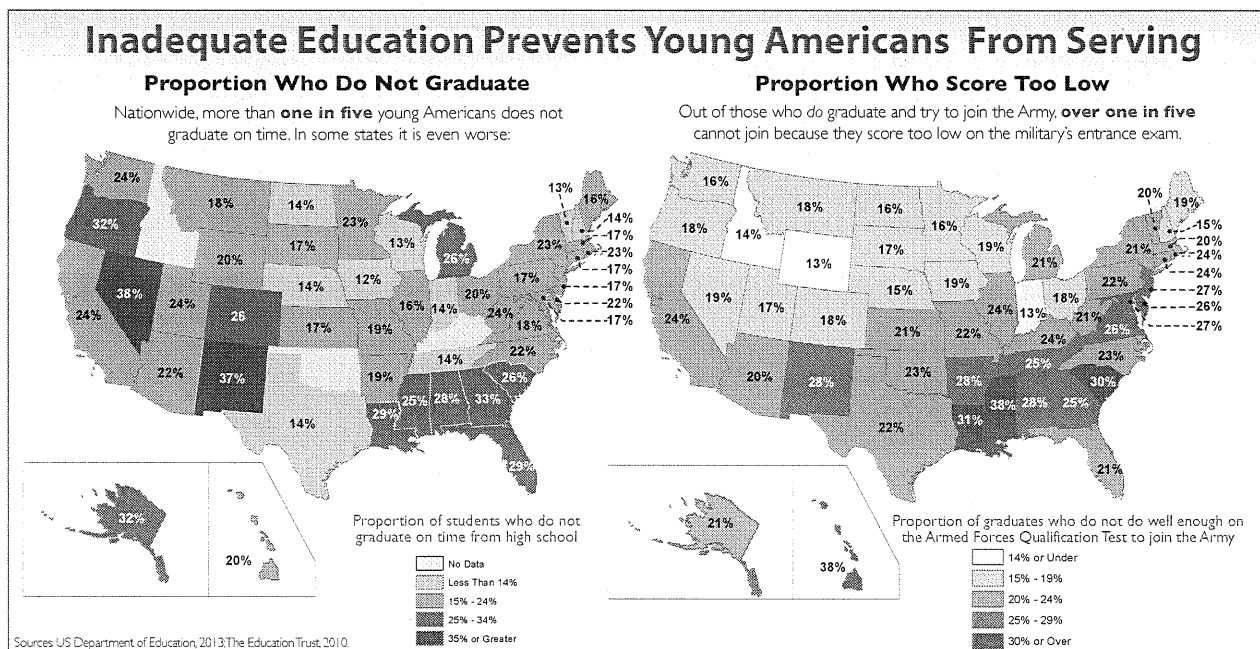
Military service is out of reach for an estimated 75 percent of all young Americans between the ages of 17 and 24. There are three primary reasons: they are too poorly educated, they have serious criminal records, or they are too overweight.¹ Twenty-two percent of young people do not graduate on time from high school, and the military rarely takes anyone without a diploma anymore.² Even among young adults who do finish high school, 23 percent who seek to enlist in the Army cannot score highly enough on the military's exam for math, literacy and problem-solving to be allowed to serve.³ One in 10 young adults cannot join because they have at least one prior conviction for a felony or serious misdemeanor.⁴ National surveys conducted for the military and by the Centers for Disease Control and Prevention (CDC) show that approximately one in four young adults is unable to serve because of excess body fat.⁵ The limited pool of young people qualified for military service jeopardizes our military readiness and threatens future national security.

High-Quality Early Childhood Education Programs Work: Better Outcomes for Children

While trends in education reform come and go, research shows that there is a solution that is consistently proven over time. High-quality early childhood education can prepare children to start school ready to learn. It can improve student performance, boost high school graduation rates, deter youth from crime, and, by helping children develop healthy early exercise and good nutrition habits, even help reduce childhood obesity rates.

New Findings from New Jersey Prove Early Childhood Education Can Be Brought to Scale with Strong Results

By 4th or 5th grade, children who attended New Jersey's preschool program for two years were three-quarters of an academic year ahead in math and two-thirds of an academic year ahead in literacy compared to their peers who did not attend. Children who attended the preschools were also 40

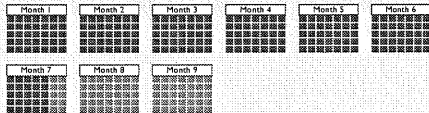




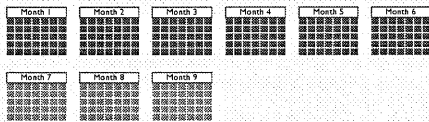
Strong New Results from New Jersey

By the time pre-K children in New Jersey were past third grade, they were:

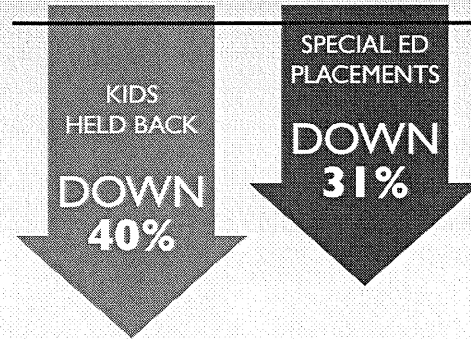
Three-fourths of a Year ahead in math.



Two-thirds of a Year ahead in literacy.



New Jersey pre-K reduces costly grade retention and special education.



Source: National Institute for Early Education Research, 2013

percent less likely to be held back in school and 31 percent less likely to need special education services. There was no “fade out” of program effects: children who attended the New Jersey program significantly outperformed similar children who did not attend in kindergarten, in second grade, and now in 4th and 5th grades. The study is ongoing, so future impacts will also be tracked.⁶

Long-term studies of model programs had already shown that high-quality early education can transform the lives of disadvantaged children. For example, studies of the Perry Preschool program that followed the participants over 40 years have found they were 44 percent more likely to graduate from high school, while those who did not attend were five times more likely to be chronic criminal offenders by age 27.⁷

The Chicago Child-Parent Centers took this approach to scale, having served over 100,000 children, with long-term results: children left out of the program were 70 percent more likely to be arrested for a violent crime by age 18 and 24 percent more likely to have been incarcerated as young adults than similar children not served. Participants, on the other hand, were 40 percent less likely to be placed in special education and, by age 20, were 29 percent more likely to have graduated from high school.⁸

The researchers studying the New Jersey preschool program state that their results are on par with initial results for the

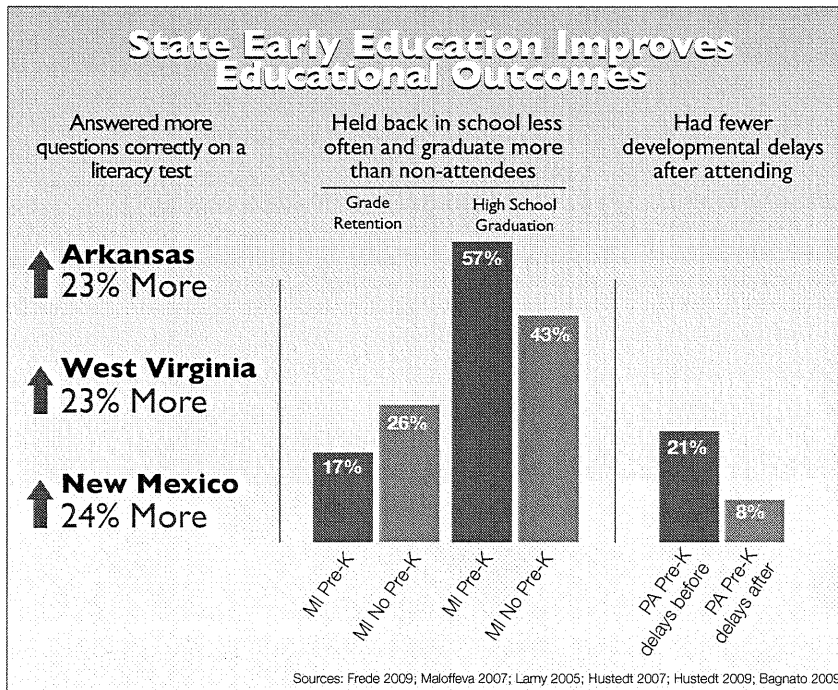
Chicago Child-Parent Centers, so they expect, as the New Jersey children mature, to see strong high school graduation and crime prevention results, as well as economic benefits exceeding program costs. Meanwhile, the New Jersey program is reducing the substantial costs associated with special education and children repeating a grade.⁹

Studies in Other States and Cities

Studies of high-quality early childhood education programs in other states and localities also report benefits such as impressive gains on literacy, and reductions in the numbers of children needing special education services or being held back in school.

Tennessee: A rigorous study of Tennessee’s pre-K program found that literacy results and overall academic improvements for children who attended were 50 percent greater than for those who did not attend.¹⁰

Michigan: While most state pre-K evaluations do not yet have results on children’s school performance beyond the early elementary school years, an evaluation of Michigan’s Great Start Readiness Program (GSRP) shows longer-term results. GSRP participation had a dramatic impact on reducing grade repetition: children who attended the program were 51 percent less likely to be held back a grade by 8th grade when compared to a similar group of children



who did not attend the program.¹¹ And children who attended the GSRP were 35 percent more likely to graduate from high school on time than a comparison group of children not in the program.¹²

Arkansas: An evaluation of the Arkansas Better Chance program found that children who attended pre-K developed an extra four months' worth of vocabulary knowledge, beyond the gains that would be expected as a child naturally ages. Pre-K attendance also resulted in 23 percent more correct answers on a literacy test and improved math scores. Researchers are following children for five years to evaluate the longer-term effects of the program.¹³

West Virginia: Over half of West Virginia's four-year-olds are enrolled in the voluntary West Virginia Universal Pre-K System. An evaluation of the program found that children made an extra three months of progress on their vocabulary development, answered 23 percent more items correctly on an early literacy test, and increased their average math scores, when compared to the progress that would normally be expected over the course of a year.¹⁴

New Mexico: New Mexico launched a pre-K program in 2005 that is already seeing strong results. Across the first three years of the initiative, participating children answered

an average of 24 percent more questions correctly on a literacy test. Significant impacts were found in math for all three years and in vocabulary for two of the three initial years.¹⁵

Pennsylvania: A recent evaluation of Pennsylvania's Pre-K Counts (PKC) program showed especially strong results for children who might otherwise be in special education during their K-12 years. For example, 21 percent of children were classified as developmentally delayed and qualified for early intervention services as they began PKC. By the end of PKC, only eight percent of children were classified as delayed. Similarly, the portion of three-year-old children at risk for problematic social and self-control behavior fell from 21.5 percent at the start of the program to 3.6 percent at the end of PKC.¹⁶

Promising local studies show that very high-quality programs produce even larger effects. A recent study of a very high-quality, universal pre-kindergarten program in the **Boston Public Schools** found that children who participated in the program had improvements in mathematics, literacy and language skills equivalent to seven months of additional learning by the end of the program, compared to children who did not attend. Both disadvantaged children and their more advantaged peers benefited from the program.¹⁷

A study of disadvantaged children in the **San Francisco Bay Area** who received high-quality pre-kindergarten for two years showed that the children actually outperformed more well-off children in reading by second grade: 61 percent of those attending the program for two years were proficient in reading, compared to 55 percent of students who did not attend the program (most of whom attended private preschool programs).¹⁸

Reducing Obesity

There is also emerging evidence that teaching young children healthier eating and exercise habits can contribute to reversing the epidemic of childhood obesity. A randomized controlled

To see individual state trends in spending and access for each state, see the National Institute for Early Education Research's *The State of Preschool 2012* at <http://nieer.org/publications/state-preschool-2012>

DECLINES IN CHILDHOOD OBESITY: Data in Philadelphia, Mississippi and New York City indicate that innovative preschool efforts to improve early childhood nutrition and physical activity and to educate parents in each locality may be part of the solution to childhood obesity.

LOCALITY	CHILDHOOD OBESITY MEASURED	DECLINE IN OBESITY
Philadelphia	Over a 4-year period, K-12 children, overall obesity measured	5% decline
Mississippi	Over a 6-year period, K-5 children, overweight & obesity measured	13% decline
New York City	Over a 4-year period, 5- to 6-year olds , obesity measured for all public-school children	
Black		7% decline
Hispanic		6% decline
White		24% decline

Source(s): Pennsylvania School District, 2012; Journal of the Mississippi State Medical Association, 2012; Centers for Disease Control and Prevention, 2012; New York City of Health and Mental Hygiene, 2012; Robert Wood Johnson Foundation, 2012.

study in **Chicago** demonstrated that working with preschool-aged children and their parents can reduce weight gain: children not in the program gained 16 percent more weight over the next two years than those receiving the program.¹⁹ In **New York City, Philadelphia** and **Mississippi**, schools improved the nutritional quality of the food served to children, increased their physical activity, and coached their parents on children's healthy nutrition and physical activity needs. As a result of these efforts, along with other broader reforms, rates of childhood obesity dropped 5 to 24 percent.²⁰

In sum, research demonstrates that high-quality early learning programs can help solve the serious problems—poor educational achievement, criminal behavior and obesity—that cause the majority of our young people to be ineligible for military service. Solving these problems will have additional positive social and economic consequences because succeeding in school and avoiding criminal involvement also opens the doors to success in college and careers, whether young people choose to serve in the military or not.

Moving America Forward: States Are Already Investing in High-Quality Early Education

States understand that quality early learning programs provide an extraordinary return on investment and 40 states and the District of Columbia have preschool programs.

Nationwide, the proportion of four-year-olds served in state preschool doubled over the past decade, growing from 14 percent in 2001-2002 to 28 percent in 2011-2012.²¹ Support

for quality programs from both Republican and Democratic policymakers demonstrates a commitment to high quality school readiness programs from both sides of the aisle. In 2013 alone, Republican and Democratic governors in **Colorado, Michigan, Mississippi, New Mexico, New York, North Dakota, Pennsylvania** and **Virginia** have proposed and/or signed into law expansions in quality early learning.²²

While significant progress has been made, access to preschool varies widely by state and most states fall well short of serving most of their preschool-aged children.²³ As of 2012:

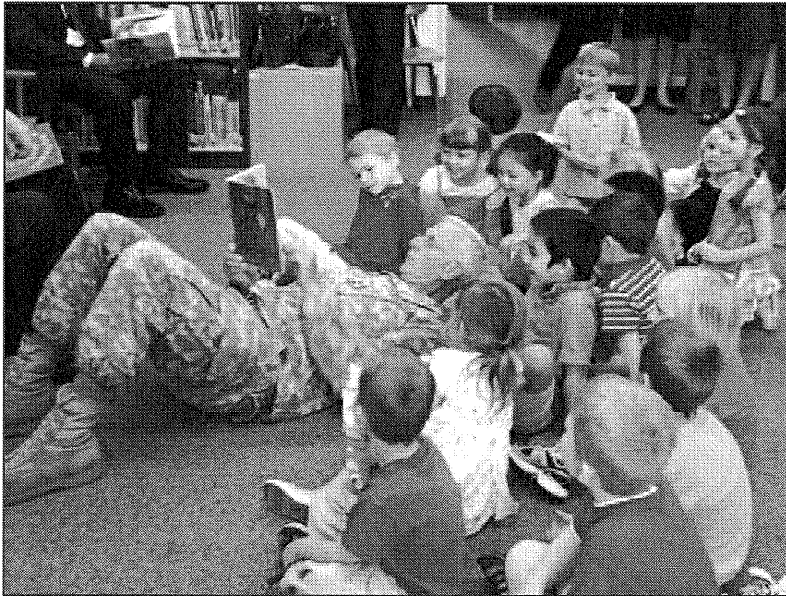
- more than half of the states serve 30 percent or fewer of their four-year-olds: and
- another 10 states still have no state preschool programs.²⁴

Further, in 2011-2012, preschool enrollment stalled and state funding decreased significantly, due to lingering effects of the recession and the end of the additional American Recovery and Reinvestment Act (ARRA) funding.

Clearly, a top national and state priority must be to increase the number of children served in early education programs. However, it is equally important to deliver high-quality programs. The research is clear that high-quality programs deliver stronger results.

High-Quality Early Childhood Education Benefits Society

In its 2014 budget proposal, the Administration has proposed \$75 billion over 10 years for a state-federal partnership to



John W. "Bill" Libby, former Maine Adjutant General, reads to children at a pre-kindergarten center in Bangor, Maine, June 2010.

provide high-quality preschool programs to every low- and moderate-income four-year-old in the nation.²⁵ The proposal also includes a \$750 million competitive grant program, to help states build their capacity for implementing high-quality preschool and an initiative to expand access to high-quality child care for children from birth through age three. The child care initiative proposes a new competitive grant program for child care partnerships with Early Head Start, as well as an increase in Child Care and Development Block Grant (CCDBG) funds. A comprehensive system of high-quality care and education, from child care through preschool, will result in more children entering school prepared to succeed.

The new preschool initiative will allow states without preschool to establish high-quality programs, as New Jersey and others have done. States with preschool could increase the number of slots or increase the quality of their existing programs, or do some combination of each. The research shows that investing in high-quality preschool can result in substantial increases in graduation rates for more disadvantaged students.

Our projections of additional graduates conservatively assume there could be a 15 percent increase in graduation rates for low- and moderate-income children under 200 percent of the federal poverty level, if the state-federal partnership is implemented nationwide. We could have used Chicago's high-quality pre-kindergarten program's increased graduation rate of 29 percent, Perry Preschool's 44 percent,

or Michigan's statewide Great Start program's 35 percent. But, to be conservative, we used the lower Chicago figure and then cut it roughly in half.

Even with such a modest estimate, the 15 percent increase in graduation rates for these children would raise their graduation rates from 70 percent nationally to 81 percent. That would total nearly two million more graduates nationwide from the proposed ten-year increase in pre-kindergarten funding. That is almost as many individuals as are currently serving in active duty, National Guard, and Reserves.²⁶ (See Appendix I for the number of additional graduates for each state.)

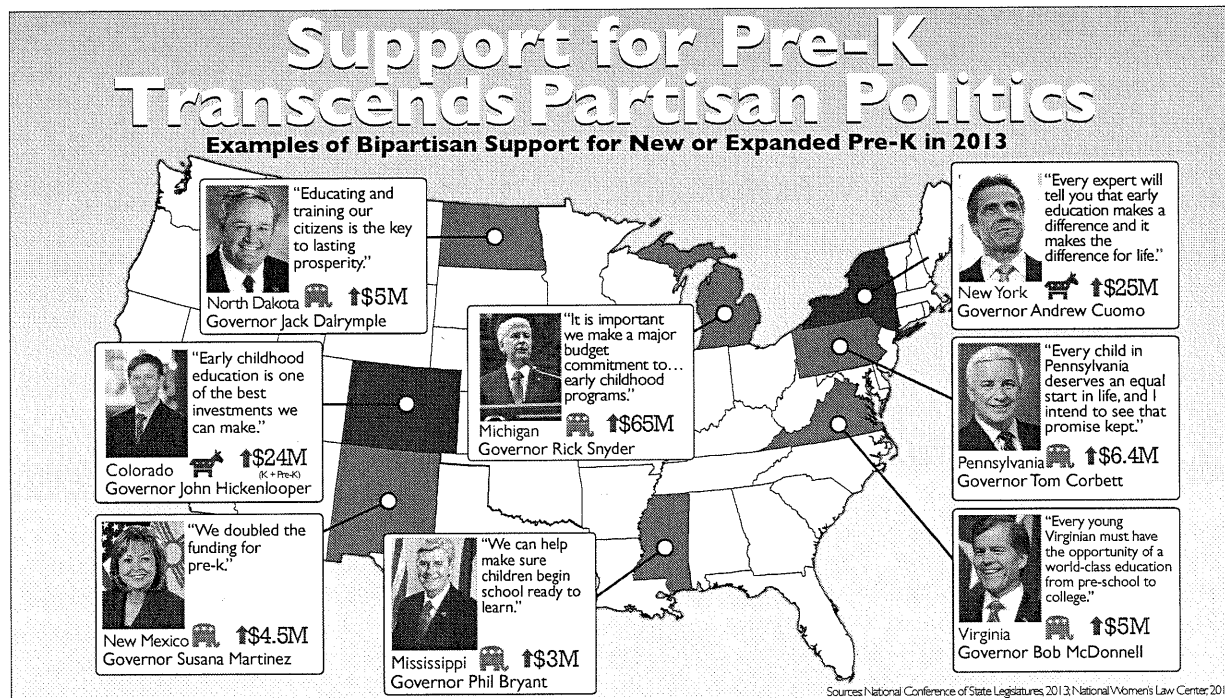
Many people are understandably concerned about the cost of early childhood education programs in a time when budget cuts are the norm. But failing to make effective investments in children when they are very young means a higher cost to society down the road. A child who drops out of school, uses drugs and becomes a career criminal costs society, on average, \$2.5 million.²⁷

Early Education Quality Matters

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

- Highly skilled teachers with appropriate compensation;³⁰
- Comprehensive and age-appropriate curricula;³¹
- Strong family involvement and effective parent coaching;³²
- Higher staff-to-child ratios to ensure each child gets sufficient attention;³³
- Small, age-appropriate class sizes;³⁴ and
- Screening and referral services for developmental, health or behavior problems.³⁵

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



An independent analysis of the research studies shows that **high-quality early learning programs cut crime, welfare and other societal costs so much that they produce average net benefits to society of \$15,000 for every child served.**²⁸ These benefits result from outcomes such as schools avoiding the cost of giving children an extra year of education when they are held back, lower special education costs, fewer children in detention facilities and fewer adults in prison, and fewer direct expenses for victims of crime, as well as savings from lower welfare costs.

Using the \$15,000 net benefit analysis **yields roughly \$150 billion in net benefits to society from the state-federal early education proposal, after subtracting costs.**²⁹ Other estimates, based on the higher-quality programs, produce even greater financial benefits. (See Appendix I for state-by-state benefits minus costs).

“ Even when you lowball the numbers on what this ten year investment in pre-kindergarten could produce, you get \$150 billion in net benefits and 2 million more young people graduating from high school. That will strengthen America. ”

Lieutenant General Norman R. Seip
US Air Force (Ret.)

Conclusion

Our nation has prioritized investments that keep America's military the most technologically advanced in the world. But we will need educated, fit and moral individuals who are ready to serve in tomorrow's modern battlefields – sophisticated weapon systems alone cannot protect us. Many states are making solid progress in early education, states with both Republican and Democratic governors and legislatures. As retired admirals and generals, we know that early education, from birth to kindergarten entry, is essential for a strong America. This is not just an essential investment in a 21st century education system. It is an essential investment in our national security.



Appendix I. Projections

Benefits Minus Costs: Based on studies of more than 20 programs around the nation, the independent Washington State Institute for Public Policy determined that pre-kindergarten averages \$15,000 in net benefits (average benefits minus average costs) per child served, or **two dollars in net benefits for every dollar invested**. This is a conservative estimate; other estimates are much higher. Applying that analysis to the proposed **\$75 billion to be spent over ten years** to bring pre-kindergarten to scale for low- and moderate-income children nationwide produces **\$150 billion in net benefits**.

Additional Graduates: Chicago's high-quality pre-kindergarten program produced 29 percent more high school graduates, the Perry Preschool produced 44 percent more graduates, and the state program in Michigan increased graduation rates by 35 percent. A reasonable assumption might be that high-quality prekindergarten for low-income children could produce a 29 percent increase in graduation rates. But since not all low- and moderate-income children will be served, even when pre-kindergarten is expanded, and many programs may take time to deliver strong results, we simply cut that figure in half – to a 15 percent increase in graduation rates – in order to be conservative. Even at that modest rate, bringing pre-kindergarten to scale for low-income children in America would produce **roughly 2 million new graduates from the proposed ten-year increase in pre-kindergarten funding**. For our full methodology, see missionreadiness.org.

ESTIMATES OF NET ECONOMIC BENEFITS AND ADDITIONAL GRADUATES	POSSIBLE FEDERAL FUNDING (Rounded) nationally and by state for Pre-K over 10 yrs based on the proposed \$75 billion over ten years. (a)	BENEFITS MINUS COSTS (Rounded) realized from 10 years of funding (based on \$15,000 average net benefits per child served or \$2 net benefits per \$1 spent). (b)	CURRENT HIGH SCHOOL GRADUATION RATE for low-income children in the state (c)	NEW HIGH SCHOOL GRADUATION RATE if it is 15% higher than before for low-income children	# OF ADDITIONAL GRADUATES OVER TEN YEARS (Rounded) among children < 200% of poverty (Nearly 2 million nationwide over 10 years)
UNITED STATES	\$75,000,000,000	\$150,000,000,000	70%	81%	1,947,860 / 10 years
Alabama	\$1,300,000,000	\$2,600,000,000	62%	71%	29,000
Alaska	\$170,000,000	\$340,000,000	56%	64%	3,500
Arizona	\$2,000,000,000	\$4,000,000,000	73%	84%	54,000
Arkansas	\$910,000,000	\$1,800,000,000	75%	86%	25,000
California	\$10,000,000,000	\$20,000,000,000	70%	81%	260,000
Colorado	\$1,100,000,000	\$2,300,000,000	62%	71%	26,000
Connecticut	\$510,000,000	\$1,000,000,000	62%	71%	12,000
Delaware	\$180,000,000	\$370,000,000	71%	82%	4,800
District of Columbia	\$190,000,000	\$380,000,000	58%	67%	4,100
Florida	\$4,500,000,000	\$8,900,000,000	60%	69%	99,000
Georgia	\$2,900,000,000	\$5,700,000,000	59%	68%	62,000
Hawaii	\$250,000,000	\$510,000,000	75%	86%	7,000
Idaho	\$480,000,000	\$960,000,000	NA	NA	NA
Illinois	\$2,900,000,000	\$5,900,000,000	75%	86%	82,000
Indiana	\$1,600,000,000	\$3,200,000,000	79%	90%*	44,000*
Iowa	\$670,000,000	\$1,300,000,000	78%	90%	19,000
Kansas	\$710,000,000	\$1,400,000,000	73%	84%	19,000
Kentucky	\$1,100,000,000	\$2,300,000,000	NA	NA	NA
Louisiana	\$1,300,000,000	\$2,600,000,000	64%	74%	31,000
Maine	\$250,000,000	\$500,000,000	73%	84%	6,700
Maryland	\$900,000,000	\$1,800,000,000	74%	85%	24,000
Massachusetts	\$910,000,000	\$1,800,000,000	70%	81%	23,000
Michigan	\$2,300,000,000	\$4,500,000,000	63%	72%	53,000

ESTIMATES OF NET ECONOMIC BENEFITS AND ADDITIONAL GRADUATES	POSSIBLE FEDERAL FUNDING	BENEFITS MINUS COSTS	CURRENT HIGH SCHOOL GRADUATION RATE	NEW HIGH SCHOOL GRADUATION RATE	# OF ADDITIONAL GRADUATES OVER TEN YEARS
	(Rounded) nationally and by state for Pre-K over 10 yrs based on the proposed \$75 billion over ten years. (a)	(Rounded) realized from 10 years of funding (based on \$15,000 average net benefits per child served or \$2 net benefits per \$1 spent). (b)	for low-income children in the state (c)	if it is 15% higher than before for low-income children	(Rounded) among children < 200% of poverty (Nearly 2 million nationwide over 10 years)
Minnesota	\$1,000,000,000	\$2,000,000,000	58%	67%	22,000
Mississippi	\$1,000,000,000	\$2,100,000,000	69%	79%	26,000
Missouri	\$1,400,000,000	\$2,900,000,000	74%	85%	39,000
Montana	\$240,000,000	\$480,000,000	71%	82%	6,300
Nebraska	\$440,000,000	\$880,000,000	78%	90%	13,000
Nevada	\$770,000,000	\$1,500,000,000	53%	61%	15,000
New Hampshire	\$170,000,000	\$340,000,000	72%	83%	4,500
New Jersey	\$1,400,000,000	\$2,800,000,000	71%	82%	37,000
New Mexico	\$680,000,000	\$1,400,000,000	56%	64%	14,000
New York	\$4,000,000,000	\$8,100,000,000	69%	79%	100,000
North Carolina	\$2,600,000,000	\$5,200,000,000	71%	82%	69,000
North Dakota	\$130,000,000	\$260,000,000	76%	87%	3,600
Ohio	\$2,700,000,000	\$5,300,000,000	65%	75%	64,000
Oklahoma	\$1,100,000,000	\$2,100,000,000	NA	NA	NA
Oregon	\$920,000,000	\$1,800,000,000	61%	70%	21,000
Pennsylvania	\$2,400,000,000	\$4,800,000,000	71%	82%	63,000
Rhode Island	\$190,000,000	\$380,000,000	66%	76%	4,700
South Carolina	\$1,300,000,000	\$2,600,000,000	67%	77%	33,000
South Dakota	\$200,000,000	\$400,000,000	86%	90%*	2,000*
Tennessee	\$1,700,000,000	\$3,400,000,000	80%	90%*	41,000*
Texas	\$8,100,000,000	\$16,000,000,000	84%	90%*	120,000*
Utah	\$850,000,000	\$1,700,000,000	65%	75%	21,000
Vermont	\$97,000,000	\$190,000,000	77%	89%	2,800
Virginia	\$1,400,000,000	\$2,900,000,000	70%	81%	37,000
Washington	\$1,400,000,000	\$2,900,000,000	66%	76%	35,000
West Virginia	\$420,000,000	\$830,000,000	68%	78%	11,000
Wisconsin	\$1,200,000,000	\$2,400,000,000	74%	85%	33,000
Wyoming	\$130,000,000	\$250,000,000	66%	76%	3,100

* The increase in graduation rates was capped at 90% to be conservative.

SEE MISSIONREADINESS.ORG FOR A DOCUMENT WITH THE FULL METHODOLOGY.

Sources:^a Kids Count Data Center for data to project the percentage of 4-year olds under 200% of poverty in each state b) Washington State Institute for Public Policy, data on average net benefits of pre-K, and c) U.S. Department of Education, Ed Data Express, for graduation rates by state for children eligible for free or reduced price meals. See endnote 36 for full citations and links.



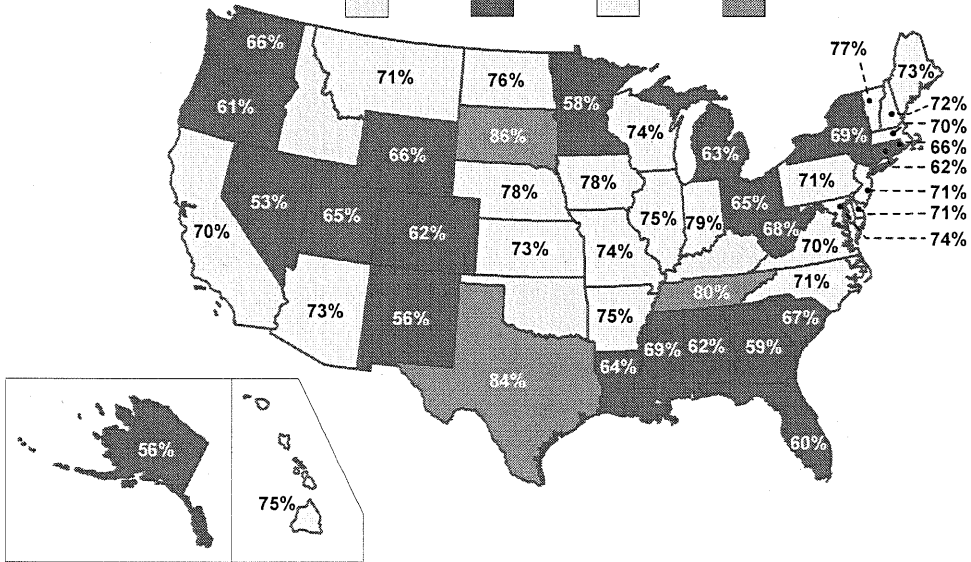
Changes in graduation rates if Pre-K is brought to scale for low-income children

(Assuming a 15 percent increase in graduation rates)

CURRENTLY

Graduation rates for low-income children

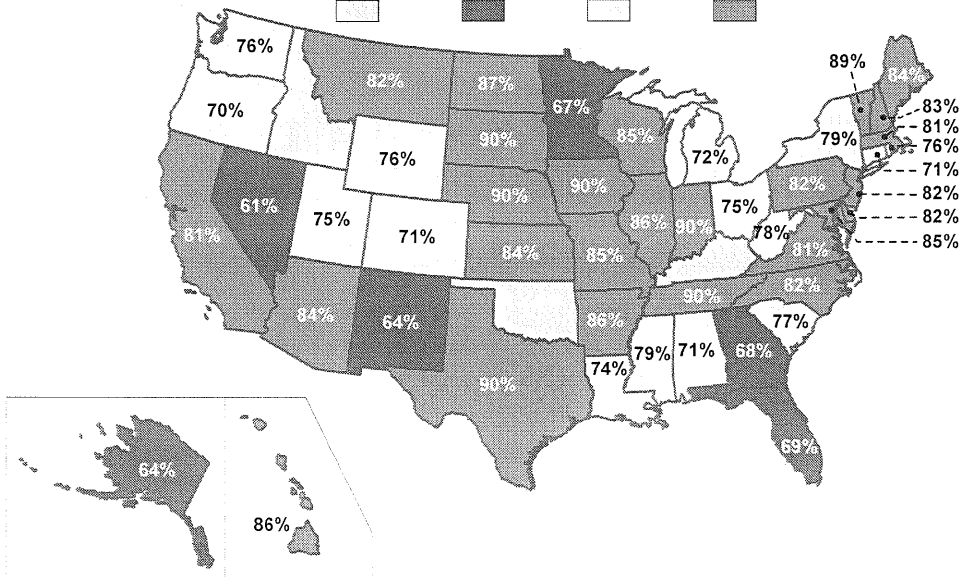
No Data Less than 70% 70 - 79% 80% or Greater



IF PRE-K IS FULLY IMPLEMENTED NATIONWIDE

Graduation rates for low-income children

No Data Less than 70% 70 - 79% 80% or Greater





Endnotes

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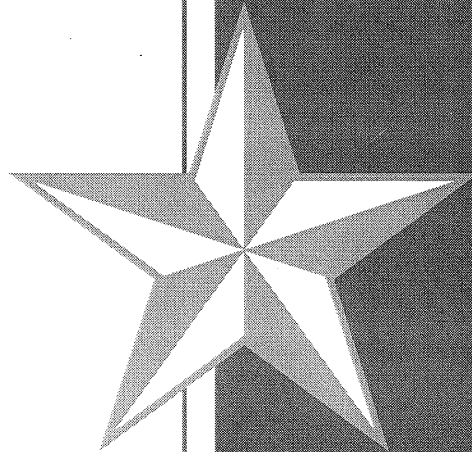
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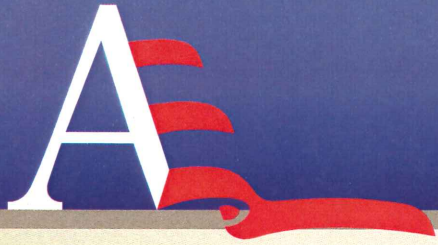
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Boosting New York's Economy

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

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



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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 21st century, including the ability to be communicators, collaborators and critical thinkers. Using that analysis, we educate policy-makers 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 market place, while helping our nation's children get on the right track.

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Boosting New York's Economy

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

While many economists agree on the long-term positive impacts of high-quality early care and education programs, New York businesses do not need to wait 18 years to experience economic gains from early learning investments. This report shows these investments also provide a surprisingly big boost to New York's economy *today*. In fact, every dollar in New York invested in early care and education generates a total of \$1.86 in sales of local goods and services throughout the state, generating as much or more activity than investments in all other economic sectors, including manufacturing, construction and transportation.

What lies behind the impressive - and immediate - economic impact of these early learning programs? New research reveals that two key "quality components" of early care and education programs contribute to the increased economic activity generated by investments in early learning, while also creating a foundation on which to help ensure New York'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 immediately boost sales from New York 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 New York businesses, including reversing the "skills gap" that is stagnating New York's

Research increasingly has shown the benefits of early childhood education and efforts to promote the life-long acquisition of skills for both individuals and the economy as a whole.

-Federal Reserve Chairman
Ben Bernanke, 2011

economic recovery and generating long-term economic growth. 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 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 New York businesses by eliminating a total of \$1.86 in sales for every dollar cut. These cuts are something our economy and businesses cannot afford.

The Bottom Line: The fragile and halting nature of our state's economic recovery requires that we make tough decisions and invest wisely in what will keep America competitive. High-quality early learning meets that test.

"We cannot rest on our laurels while our international competition continues to improve."

-David M. Buicko,
Chief Operation Officer,
Galesi Group,
Schenectady, NY

Boosting New York's Economy

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

Critical Issues for New York Businesses

Across the nation and in New York, 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 12th grade students are proficient in math and 38 percent are proficient in reading.¹ Only 37 percent of New York public school students graduate “college and career ready.”²

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.³ 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.⁴

“The jobs of the future call for a highly skilled, well-educated workforce. If we fail in preparing our students for that future, beginning with early childhood education and running right through college, we put America’s future and our economic security at great risk. That’s just too high a price to pay. We must take action now.”

–Sandy Parker,
President and CEO,
Rochester Business Alliance,
Rochester, NY

“It’s no secret that the nanotech companies coming into the Capital Region, including GlobalFoundries, will have trouble finding the highly skilled workers needed to fill their job openings.”

–John C. Cavalier,
Retired CEO,
MapInfo, Inc.,
Loudonville, NY

What is driving these dismal statistics? Consider these facts in New York:

- 23 percent of high school students do not graduate on time;⁵
- 70 percent of eighth graders are below grade level in math;⁶
- 65 percent of fourth graders read below grade level.⁷

Nationwide, 60 percent of 3- to 5-year-olds do not have the basic skills expected when they enter kindergarten, such as counting to ten and recognizing letters in the alphabet.⁸

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 two thirds reported skilled production worker shortages (machinists, operators, craft workers, distributors and technicians).⁹
- 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.¹⁰

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 rea-

sons. New York lost 40 percent of its manufacturing jobs between 2000 and 2010 – many of which are not expected to return, given long-term structural changes. In fact, the New York manufacturing industry is shedding jobs at a rate faster than the national average.¹¹

Fourteen of the 25 fastest growing occupations in New York require postsecondary education.

-New York State Department of Labor,
A Closer Look at Occupational Projections, 2010

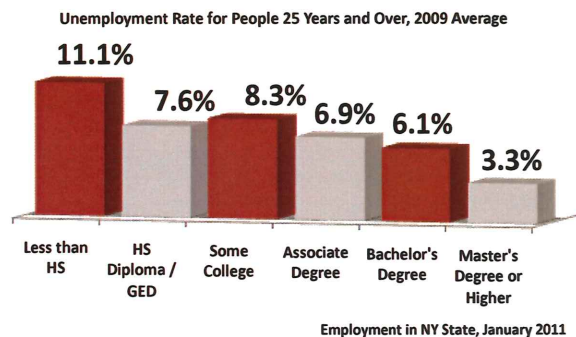
Each new class of dropouts nationwide will earn \$335 billion less over their lifetimes than their high school graduate peers.¹⁶ This translates to over \$500,000 less in lifetime earnings per dropout.¹⁷ These staggering earnings losses result in less spending power, fewer contributions to the tax base, and lower productivity.

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

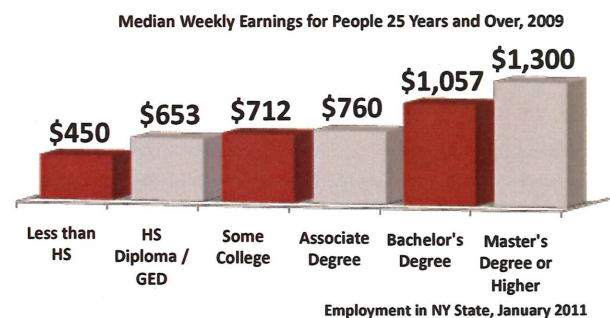
- By 2018, 63 percent of all jobs in New York will require postsecondary education.¹²
- There will be 2.8 million New York job vacancies between 2008 and 2018, but only 10 percent of openings will be for high school dropouts and only 27 percent will be for those with only a high school degree.¹³
- As of 2009, middle-skill jobs – those that require more than a high school diploma but less than a four-year degree – made up 46 percent of New York jobs, but only 39 percent of New York 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 New York economy (44 percent).¹⁴

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.¹⁸ From an employer’s perspective, college graduates are usually more productive and worth the extra salary.

Unemployment Rate in NY by Education Level



Earnings in NY by Education Level



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 2010, almost 15 percent of U.S. high school dropouts were jobless, while less than 5 percent of college graduates were unemployed.¹⁵ Similarly, in New York, 11 percent of high school dropouts were jobless, versus 6 percent of college graduates.

“Our economy is advancing along with technology. Our education system must keep pace.”

–Jim Brush,
President and CEO,
Sentry Group,
Rochester, NY

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.¹⁹ For example, three quarters of New York City public high school graduates enrolling for associate’s degrees at the City University of New York (CUNY) require remedial courses.²⁰ 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.²¹ 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.²²

The Early Learning sector generates as much or more additional spending in the economy as other major economic sectors

Economic Sectors	Output Multipliers
Early Learning ¹	\$1.86
Other Major Sectors	
Construction	\$1.86
Wholesale Trade	\$1.83
Retail Trade	\$1.83
Farming, Logging, Fishing, Hunting	\$1.75
Manufacturing	\$1.72
Transportation	\$1.72
Mining, Oil, Gas	\$1.67
Utilities	\$1.53

Every \$1 invested in the early learning sector generates an additional 86 cents in the local economy.

1. The early learning sector is part of the larger services sector, which on average generates a multiplier of \$1.98 for every \$1 invested.

Source: IMPLAN, 2008 analysis of Type SAM Output Multipliers for New York State

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 also be implemented to begin to address the widening skills gap now. But this 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 New York’s businesses and economy today.

Short-Term Economic Gains

New York 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 New York, an additional \$0.86 is generated for a total of \$1.86 in new spending in the state.**²³ 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, cuts to early learning programs in New York would hurt local businesses by eliminating \$0.86 in additional new spending for every \$1 cut.²⁴

Early learning investments generate this additional local economic activity in two ways: (1) when early learning centers purchase local goods and services to operate their programs; and (2) 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 lo-

“The inability to fill open jobs because of the skills gap will adversely impact the U.S. and New York’s economic recovery and long-term growth.”

–Ray Apy,
Chief Executive Officer,
Annese and Associates, Inc.,
Clifton Park, NY

cally. 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.

“We’ve got jobs out there that can’t be filled because we can’t find qualified workers to fill them.”

–Tush Nikollai,
President and CEO,
Logicalnet Corporation,
Albany, NY

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.

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

Research confirms that better skilled teachers produce better outcomes.³¹ 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 New York state, child care workers have a very modest average annual wage of only \$24,300 and preschool teachers have an average annual wage of \$38,200.³²

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 \$67,940 in New York. 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.³³ New York’s Universal Pre-Kindergarten program does not yet require this.³⁴ When highly-qualified early

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 students gain access to early learning programs and more centers are making purchases to run the programs. Small child-to-teacher ratios requires more teachers, again, 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 workers) also had higher child care output multipliers than states that were weaker on these quality features.³⁵

Long-Term Economic Benefits

The “quality” aspects of early learning programs are also a key component for (the outcomes that will help) 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.³⁶ 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.³⁷

Only High-Quality Programs Deliver Solid Results

Researchers have found that high-quality early care and education programs have several key characteristics, including:

- Highly skilled teachers with appropriate compensation;²⁵
- Comprehensive and age-appropriate curricula;²⁶
- Strong family involvement;²⁷
- Small child-to-staff ratios to ensure each child gets sufficient attention;²⁸
- Small, age-appropriate class sizes;²⁹ and
- Screening and referral services for developmental, health or behavior problems.³⁰

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

Early Care and Education in New York: An Economic Snapshot

Early care and education programs serve young children from birth through age 5. These programs take several forms, from child care centers, family child care homes and private preschool programs, to publicly funded early education programs including Universal Pre-Kindergarten, Head Start, and early childhood special education programs provided by the public schools. In New York, over 500,000 young children under age 6 are *not* served by regulated early care and education settings.⁶⁰

Early care and education is an important economic sector in New York, making significant contributions to the local economy:

- Early care and education programs represent a sizable small business sector in the state. The sector employs over 100,000 teachers, staff and administrators. Among these workers are approximately 70,000 child care workers, 30,000 preschool

teachers and 3,900 preschool and child care program administrators.⁶¹

- There are an estimated 4,130 child care centers and 14,625 family child care homes in New York State.⁶²
- Currently, New York invests \$528 million on state-funded early learning programs, which in turn are generating an additional \$454 million in economic activity, for a total of \$982 million in economic activity for the state.⁶³
- 62 percent of children under the age of 6 in New York have both or their only parent in the workforce.⁶⁴
- New York currently has no uniform standards across early learning program environments to ensure that all programs across the state are evaluated in the same way.⁶⁵

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 attended the intensive Abecedarian infant development and preschool program were 74 percent more likely to hold a skilled job by age 21 than children randomly assigned to a control group;³⁸
- Children who participated in the Child-Parent Center program were 31 percent more likely than their non-participating peers to hold a job considered semi-skilled or higher;³⁹ and
- The children who attended the Perry Preschool Program were 22 percent more likely to be employed at age 40.⁴⁰

High-quality early learning also produced meaningful increases in school success in elementary school and high school. Abecedarian participants had lifetime earnings beyond age 21 estimated to

be \$37,500 higher than if they had not had access to high-quality early learning.⁴¹ 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 percent 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.⁴²

As noted earlier, more education is associated with lower unemployment – something that became more clear during the reces-

Over time, high-quality early education programs for at-risk children can return as much as \$16 for every dollar invested. That is a return on investment that is unmatched by almost any other public investment.

—Schweinhart et al., 2005

sion. Increasing the number of children who enroll in a 4-year college or university will help lower unemployment rates. As the economy recovers and we strive to ensure long-term economic security, increasing the education levels of our young people may better allow the U.S. to weather future economic downturns.

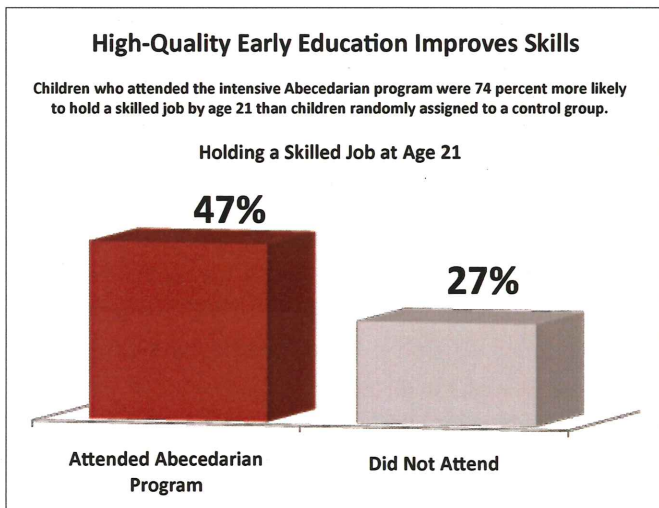
Similarly, increased education is also associated with increased productivity, which can strengthen our economy. According to research by the Organisation for Economic Co-operation and Development (OECD), each year of additional education in OECD countries is associated with a 4 to 7 percent increase in per capita output.⁴³ 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.⁴⁴

Increased School Success

High-quality early learning also produced meaningful increases in school success in elementary school and high 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.⁴⁵ Similarly, children who attended the model Perry Preschool Program were 44 percent more likely to graduate from high school.⁴⁶ Children in the Abecedarian program were 2.5 times more likely to be enrolled in a 4-year college or university at age 21 than children left out of the program.⁴⁷

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 their hard skills, such as reading and math, as well as these soft skills.



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



“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.” (2010)

When pre-k teachers provided moderate- to high-quality instruction in their classrooms, children showed more advanced academic and language skills than children in low-quality classrooms.⁴⁸ Test scores of children in Oklahoma’s pre-k program increased by 52 percent on letter and word identification, beyond the gains that would be expected as a child naturally ages, and their spelling scores increased by 27 percent.⁴⁹ Children from families of all income levels showed gains, with the largest gains among low-income students.⁵⁰

Analysis by James Heckman, the University of Chicago Nobel Prize-winning economist, shows that high-quality early learning not only helps children develop a foundation for reading and math, it also helps them develop the soft skills needed throughout their careers, like how to get along with others, to trust others, and to follow directions. Children participating in Oklahoma’s pre-k program were more able to pay attention and were less timid in kindergarten than comparable children not in the program.⁵¹

Improving Quality: New York’s State Initiative

To improve the quality of early learning programs in New York, the state is developing its own Quality Rating and Improvement System (QRIS), QUALITYstarsNY. Initial planning and exploration of a QRIS for New York began in 2005. In 2009, New York began pilot testing for QUALITYstarsNY. Since then, the program has conducted a field test in over 230 sites in 13 communities across the state.⁵⁷

All early care and education programs regulated by a public agency in New York are eligible to apply to obtain a rating, including

Many Child Care Options Are Not High-Quality

Low-quality care and education leads to increased risk of school failure and other negative outcomes. Unfortunately, much of the child care America's children are receiving is substandard. Though more current data are not available, estimates from the 1990s indicated that the proportion of child care settings providing good- to high-quality care was small, ranging from just 9 percent to 14 percent.⁵² A lack of comprehensive program quality standards and a lack of data on quality means that the current levels of quality are unknown, but are likely still low.

A study of pre-k programs in 11 states found that children in low-quality classrooms did not show any

gains in academic skills or reductions in behavior problems.⁵³ Other studies have found that children in lower-quality care were actually more likely to display behavior problems.⁵⁴ And even more troubling, recent research shows that young children can be harmed by low-quality care. For example, a study of children in home-based child care found that 40 percent of the children showed high stress levels while in lower-quality child care.⁵⁵ Six months later, these children showed more fear and anxiety in their child care setting, as well as signs of sadness, anxiety and withdrawal.⁵⁶

child care centers, family child care homes, school-age child care programs, Head Start and Universal Pre-k programs. The ratings programs can receive a range from one to five stars, and are based on a points system. For center-based programs (child care centers and preschools) and for family-based programs (family child care homes and family child care group homes), a maximum of 100 points can be earned across four areas:

- Learning environment (30 points);
- Family engagement (20 points);
- Qualifications and experience (25 points); and
- Leadership and management (25 points).⁵⁹

QUALITYstarsNY is designed to align with and complement existing quality assessment systems, including National Association for the Education of Young Children (NAEYC) accreditation.

By providing a system of accountability to measure quality and a system to provide incentives for achieving higher quality, this approach aims to enhance market incentives for early care and education programs to improve their quality, including seeking out or training their own higher-skilled teachers. The quality rating system also serves a consumer education function, helping parents make an informed choice about programs. In these cash-strapped times, QUALITYstarsNY is a promising tool available to help New York leverage improvement of early care and education programs across the state.

What is QRIS?

Quality Rating and Improvement Systems 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.⁵⁸

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, we will be building the skills of our future workforce. Policy-makers 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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care programs participating in the QRIS improved their quality over time.

Missouri has measured the effects of QRIS on children's outcomes and found significant impacts on children as a result of child care providers' participation in the rating system. Missouri's QRIS evaluation found that children in high-quality programs (rated as 4- or 5-star programs) showed significantly greater gains than children in low-quality programs (rated as 1- or 2-star programs). Children in high-quality programs showed significant increases in social and behavioral skills over one academic year, a six percent increase, while children in low-quality programs actually experienced decreases in their social and behavioral skills, a decline of four percent.

The children in poverty participating in Missouri's QRIS who were in higher-quality programs had significantly greater gains in social and behavioral skills, motivation and vocabulary than the poor children in lower-quality programs. With respect to vocabulary, poor children in high-quality programs had increased their vocabulary scores by six percent over the academic year, whereas poor children in low-quality programs experienced decreased vocabulary scores, by three percent, over the academic year.

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60 Although a precise estimate of the number of children under 6 in New York not participating in regulated early learning programs was not available, it is reasonable to conclude that more than 500,000 of New York State's 1.38 million children under age

6 are not participating in regulated early learning programs. This estimate is described in further detail in AMERICA'S EDGE's report, Schaefer, S., Gates, S., & Kiernan, M. (2010). *Strengthening New York businesses through investment in early care and education: How investments in early learning increase sales from local businesses, create jobs, and grow the economy*. Washington, DC: America's Edge. Retrieved on December 22, 2011 from <http://cdn.americasedge.org/clips/NY-earlylearning-report.pdf>

61 U.S. Census Bureau. (2010). *P14 Sex by age for the population under 20 years, New York, Summary File 1, 2010 Census*. Washington, DC: U.S. Census Bureau. Retrieved on January 9, 2012 from http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=DEC_10_SF1_P14&prodType=table

62 National Association of Child Care Resource and Referral Agencies. (2011). *2011 child care in the state of New York*. Washington, DC: Author. Retrieved on December 22, 2011 from <http://www.naccrra.org/publications/naccrra-publications/publications/New%20York%20-%20ChildCareInAmericaFacts.pdf>

63 The current state investment in early learning programs based on New York's Fiscal Year 2011-2012 budget, \$528 million, was applied to the Type SAM output multiplier for New York state of \$1.86, yielding \$454 million in additional economic activity, and \$982 million in total economic activity generated by these early learning investments. The current early learning investments, \$144 million in state child care funding (as part of the Child Care and Development Fund), and \$384.3 million in Universal Prek indergarten funds, were summed, yielding \$528 million in current state investments in these early learning programs. FY 2011-2012 budget figures obtained from Marsha Basloe, Executive Director, Early Care & Learning Council, personal communication on December 28, 2011.

64 U.S. Census Bureau. (2011). *American Community Survey 2010 1-Year Estimates*. Table B09001, Population Under 18 Years of Age. Washington, DC: Author. Retrieved on December 13, 2011 from <http://factfinder2.census.gov/>

65 Although several specific programs within the state, such as Universal Pre-K (UPK), have program standards for quality, these standards vary by program and environment and there is currently no expectation that they are the same. Child care programs are required to meet licensing standards, but these focus on health and safety issues (sanitation procedures, fire escape routes, etc.). While licensing standards are important for basic health and safety of children, they do not ensure high-quality early care and education for New York's children. New York State Office of Children and Family Services, Division of Child Care Services. (n.d.)

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