



I'M THE GUY YOU PAY LATER

Sheriffs, Chiefs and Prosecutors Urge America to Cut Crime by Investing Now in High-Quality Early Education and Care

A PENNSYLVANIA REPORT BY:



Acknowledgements

FIGHT CRIME: INVEST IN KIDS is a national, bipartisan, nonprofit, anti-crime organization. The organization has a membership of more than 5,000 police chiefs, sheriffs, district attorneys, other law enforcement leaders and violence survivors. The members take a hard-nosed look at what approaches work—and what don't—to prevent crime and violence. They then recommend effective strategies to state and national policymakers. It operates under the umbrella of the Council for a Strong America.

FIGHT CRIME: INVEST IN KIDS *PENNSYLVANIA* is supported by tax-deductible contributions from foundations, individuals, and corporations. FIGHT CRIME: INVEST IN KIDS *PENNSYLVANIA* accepts no funds from federal, state, or local governments.

Major funding for FIGHT CRIME: INVEST IN KIDS is provided by: Alliance for Early Success • The California Education Policy Fund • The California Endowment • The California Wellness Foundation • Annie E. Casey Foundation • Robert Sterling Clark Foundation • Early Childhood Investment Corporation • Bill & Melinda Gates Foundation • The Grable Foundation • Grand Victoria Foundation • The George Gund Foundation • Hagedorn Foundation • Irving Harris Foundation • Leona M. and Harry B. Helmsley Charitable Trust • Robert Wood Johnson Foundation • W.K. Kellogg Foundation • The Kresge Foundation • McCormick Foundation • Ohio Children's Foundation • The David and Lucile Packard Foundation • William Penn Foundation • The Pew Charitable Trusts • Pritzker Early Childhood Foundation • Rauch Foundation • Dr. Scholl Foundation • W. Clement and Jessie V. Stone Foundation.

The opinions expressed are those of the author(s) and do not necessarily reflect the views of The Pew Charitable Trusts.

Report authored by William Christeson, Sandra Bishop-Josef, Natasha O'Dell-Archer, Chris Beakey, Kara Clifford and Bruce Clash.

Publication layout and design by Soren Messner-Zidell and Sara Pruzin.

The following staff members of FIGHT CRIME: INVEST IN KIDS contributed to production of this report: David Kass, Miriam Rollin and Nick Alexander.

Executive Summary

I'M THE GUY YOU PAY LATER

National Early Childhood Campaign



Speaking for over 5,000 law enforcement leaders nationwide – and 210 in Pennsylvania – Chairman of the Board of Fight Crime: Invest in Kids, Sheriff Lee Baca of Los Angeles explains:

“My jail is filled with people who took the wrong path in life. It didn’t have to be that way. Law enforcement leaders nationwide know that one of the best ways to keep young people from dropping out of school and becoming criminals to make sure they have a foundation for success in their earlier years. We are coming out in force to support high quality early education and care for kids today so we can lower the devastating impact and cost of crime in the years to come.”

Law enforcement leaders around the nation know that one of the best ways to keep young people from dropping out of school and becoming criminals is to make sure they have a foundation for success in their earliest years. They are coming out in force to support high-quality early education and care for kids today so we will see less crime and incarceration in the years to come.

The law enforcement leaders of Fight Crime: Invest in Kids base their views on personal experiences and research. A study that followed children who participated in high-quality preschool and parent coaching programs through Chicago’s Child-Parent Centers found they were 20 percent less likely to be arrested for a felony or be incarcerated as young adults than those who did not attend. In recent years, studies of state preschool programs have found significant increases in academic performance, and also important decreases in the need for special education and in being held back in school. Studies of voluntary home visiting programs document reductions in child abuse and neglect, and later crime as well.

Reducing crime is one of the key reasons why Governors and state legislators across the political spectrum, including in Pennsylvania, are making bold commitments to high-quality early education and care. And now we are at a key fork in the road: policymakers nationwide have an outstanding opportunity to bring quality preschool to low- and moderate-income children in America.

The cost of the state-federal partnership that will make this possible is \$75 billion over 10 years – a smart move when you consider the fact that we currently spend \$75 billion every year on corrections nationwide, to incarcerate more than 2 million criminals. Pennsylvania spends more than \$1.9 billion per year on corrections.

By one estimate, this 10-year investment in preschool will produce over 2 million additional high school graduates nationwide, including 63,000 additional high school graduates in Pennsylvania. And if we can reduce the number of young people who commit felonies and the number who are incarcerated by 10 percent each – roughly half the reduction achieved by the Chicago Child-Parent Center program – we can reduce the number of individuals who are locked up by 200,000 each year. The resulting savings—\$75 billion over the 10-year investment—is equivalent to the federal costs of the preschool program. Pennsylvania could decrease its prisoners by over 5,000 each year and save \$195 million.

These benefits have a tremendous bottom-line economic impact. An independent analysis of over 20 preschool programs demonstrated that quality preschool returned an average “profit” (economic benefits minus costs) to society of \$15,000 for every child served by cutting crime and the cost of incarceration and reducing other costs such as special education and welfare.

The state-federal proposal also offers states and communities resources for voluntary home visiting programs to coach new parents and for improving the quality of child care. One home visiting program, the Nurse-Family Partnership, cut abuse and neglect in half and cut later criminal convictions of participating children by more than half.

As stated by Sheriff Baca, the choice is simple: “Pay for quality early education and care now, or pay far more for the costs of crime in the decades to come.”

I'M THE GUY YOU PAY LATER

Sheriffs, Chiefs and Prosecutors Urge America to Cut Crime by Investing Now in High-Quality Early Education and Care

A Fork in the Road

Our number one priority is protecting the safety of our communities in Pennsylvania. We do this by arresting, prosecuting and, when necessary, incarcerating people who commit crimes. But ultimately our best opportunity to improve public safety is to keep people from becoming involved in crime in the first place. To do so, we urge our elected leaders to invest in strategies and practices that have proven, positive and long-term impacts on crime reduction.

We already know where our current path is leading us:

- Although crime rates have fallen over the past 20 years, there are still 1.2 million violent crimes and 9 million property crimes committed against people in our communities across America every year.¹ In

Pennsylvania, there are 48,579 violent crimes annually, a rate of 386 per 100,000.² (See Appendix for data from Robert Wood Johnson County Health Rankings);

- There are more than 2 million American adults in local, state or federal jails or prisons.³ Pennsylvania has approximately 50,500 adults incarcerated;⁴
- Nationally, we spend nearly \$75 billion a year to incarcerate adults in federal and state prisons or local jails.⁵ Pennsylvania spends \$1.9 billion a year;⁶ and
- Seven out of ten state prisoners nationwide do not have a high school diploma, and finding stable employment once they leave prison is very challenging.⁷ Among Pennsylvania inmates, 50 percent do not have high school diplomas.⁸

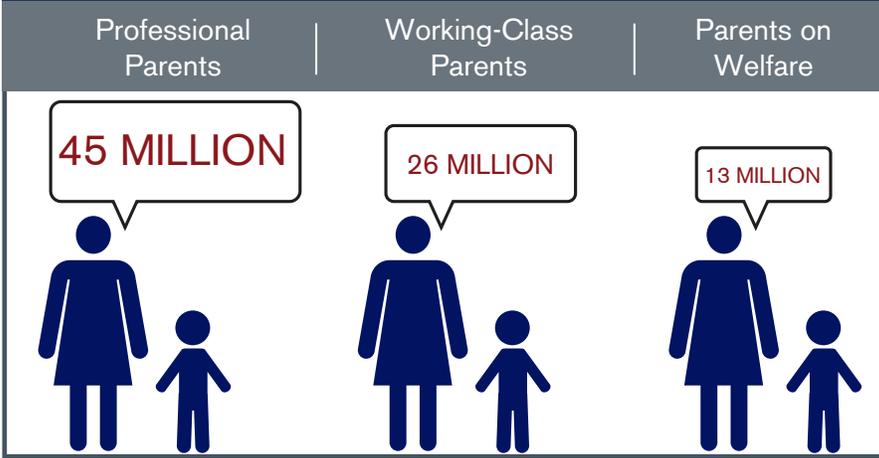
“Among Pennsylvania inmates, 50 percent do not have high school diplomas.”

FIGHT CRIME. Invest in Kids

 2 MILLION Adults in Prison	- OR -	 2 MILLION Additional High School Graduates
\$75 BILLION <u>EACH YEAR</u> for Corrections	- OR -	\$75 BILLION <u>OVER 10 YEARS</u> for Preschool

A FORK IN THE ROAD

Words Spoken By Parents to their Young Children



Source: Hart & Risley, 2004

While these facts are daunting, they do not even begin to reflect crime’s other economic costs, or the suffering of crime victims in Pennsylvania. The path we are on is both fiscally unsustainable and devastating in its impact on human lives.

Making a Smarter Choice, at a Pivotal Time

Fortunately, we can steer millions of children across America toward successful lives through high-quality early education and care, which has been proven to lead to less abuse and neglect, better performance in school, fewer high school drop-outs and, ultimately, fewer crimes committed and a reduction in the number of prisoners.

The research behind these outcomes shows that the early childhood period (birth to age 5) is a time of rapid brain development, and that hundreds of new connections in the brain form every second.⁹ Early experiences play a large role in determining how brain connections are formed and in the “wiring” that becomes the foundation on which all later learning is built.

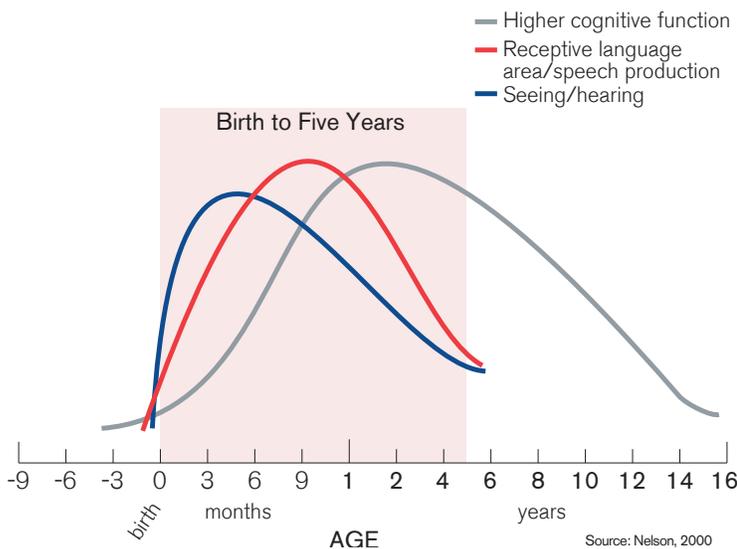
For example, by age 6 months, babies start to understand the link between words and their meanings. This sets the stage for language development and later reading. Yet children from different backgrounds have very different early experiences. Researchers observed children in their own homes monthly for over two years, until the age of three, and recorded how many words their

parents spoke to them. There were large differences in the average number of words spoken to the children by professional parents, working class parents, and parents receiving welfare:

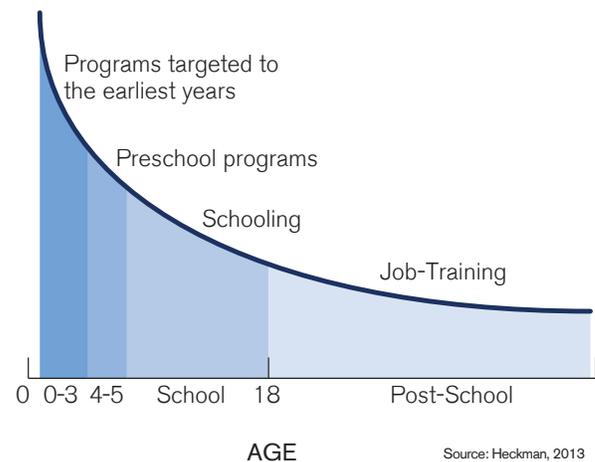
- professional parents 45 million words
- working-class parents 26 million
- parents receiving welfare 13 million.¹⁰

These differences affected the children’s vocabulary development: by age three, children with professional parents had average vocabularies of 1,116 words, compared to 749 words for working-class and 525 for children of parents receiving welfare. By the time children reach kindergarten, too many are not only far

Synapse Formation in the Developing Brain



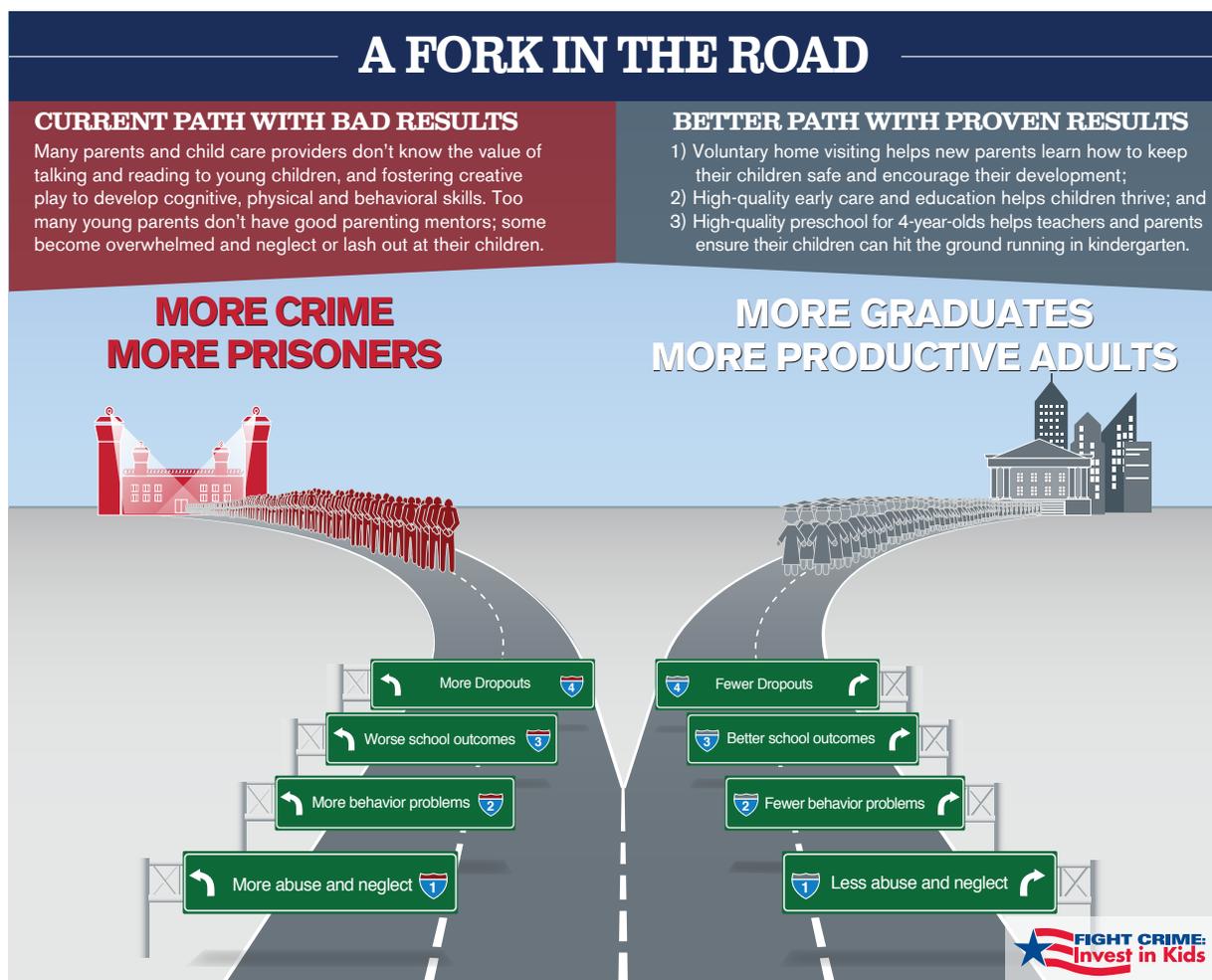
Rate of Return



behind in vocabulary development, but on pre-literacy and pre-math skills (such as knowing their alphabet or being able to count to ten), as well. Many also face challenges in learning to control impulses and behavior so they can get along with other students and teachers.

James Heckman, the Nobel-winning economist from the University of Chicago, has conducted groundbreaking work with

economists, statisticians and neuroscientists and has proven that the quality of early childhood development strongly influences health, social and economic outcomes. He argues that we should invest sufficiently in younger children and in coaching their parents because those early investments will generate the greatest return. But the opposite is happening: we actually spend far less on younger children than on older children and adults.¹¹



THE PATHWAY TO LESS CRIME

The path we set children upon, in their earliest years, can make a huge difference as they proceed through school and beyond. Research has shown that high-quality early education and care from birth through preschool will result in more successful outcomes:

1 Less abuse and neglect:

- The Nurse-Family Partnership is a nationwide voluntary home visiting program. The Chicago Child-Parent Center (CPC) is a preschool program that has served over 100,000 children and followed them up to age 28.

Both programs coach parents to help them understand their children's health needs, create safer home environments and develop parenting skills.

Both approaches cut child abuse and neglect in half for the children served, compared to similar children from families not being helped.¹²

2 Fewer behavior problems:

- **Pennsylvania's Pre-K Counts program** cut the portion of children at risk for problematic social and self-control behavior (such as taking things from others or not waiting your turn) from 22 percent to 4 percent.¹³

3 Better school outcomes:

- **Ready for school:** 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 attend.¹⁴ State preschool programs are also reporting important improvements.¹⁵
- **Less special education: Pennsylvania's pre-k program's success** in helping children learn self-control indicates fewer of those children will need special education. New Jersey, which has followed its children through the 4th and 5th grades, found that the children served were 31 percent less likely to be placed in special education than a control group.¹⁶
- **Not held back in school:** Participants in Michigan's state preschool, the Great Start Readiness Program, were held back in school 51 percent less often than non-participants.¹⁷ Children served in Tennessee's preschool program were half as likely to be held back in kindergarten.¹⁸ New Jersey's preschool program found its children were held back 40 percent less often.¹⁹ A home visiting program, Healthy Families New York, cut first grade retention rates by half.²⁰
- **Ahead in reading and math with no "fade-out":** North Carolina's Smart Start and More at Four initiatives to improve early education found that the children in counties that invested more in these efforts were five months ahead in reading at third grade and three to five months ahead in math by third grade when compared to children in counties that invested less.²¹

New Jersey's preschool program, which served disadvantaged school districts statewide, reported that participating children were three-fourths of a year ahead in math and two-thirds of a year ahead in literacy in 4th and 5th grades.²²

These findings show that academic benefits from high-quality preschool need not "fade out." The New Jersey researchers report that their findings are on par with the earlier results achieved by Chicago's CPC program, which later went on to achieve very strong graduation and crime reduction outcomes.

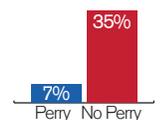
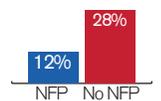
4 Fewer drop-outs:

- The Chicago CPC preschool program reported a 29 percent increase in high school graduation rates by age 20 among its participants.²³
- Michigan's Great Start Readiness program reported a 35 percent increase in graduates,²⁴ and
- The Perry Preschool Program saw a 44 percent increase in graduation rates by age 40.²⁵

In Pennsylvania, 17 percent of high school students still fail to graduate on time.²⁶

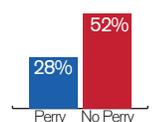
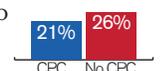
5 Less crime:

- The Nurse-Family Partnership children were **half as likely to be convicted of a crime by the time they reached age 19.**²⁷
- Children not served by the Chicago CPC program were **70 percent more likely to be arrested for a violent crime by age 18.**²⁸
- By age 27, children not served by the Perry Preschool Program were **five times more likely to be chronic offenders with five or more arrests.**²⁹



6 Fewer prisoners:

- By age 24, the people served by the Chicago CPC were **20 percent less likely to have served time in a jail or prison.**³⁰
- By age 40, the children served by the Perry Preschool program were **46 percent less likely to have been sentenced to prison or jail.**³¹



It All Adds Up

No baby is destined, at birth, to become a criminal. The road to criminal behavior is paved with childhood abuse and neglect, inadequate preparation for school, unaddressed behavior problems, poor academic performance and dropping out of high school. The path to success in life is driven by school readiness, the ability to get along with others, academic achievement and high school graduation. We need to take action, right now, to ensure children have the opportunity for quality early education and care so they are on the right path for life.

No Excuses

Results from New Jersey, North Carolina and Michigan should effectively end the debate on whether high-quality state preschool efforts can be brought to scale and deliver strong and lasting results. If a particular state preschool program isn't achieving meaningful and lasting results, such as reductions in children's behavior problems or improved math and literacy skills, the program administrators need to find out what the successful programs are doing differently. Steve Barnett, the Director of

“Pennsylvania has increased its commitment to early learning: in the 2013-14 budget, funding for preschool was increased by \$6.4 million.”

the National Institute for Early Education Research (NIEER), argues that “an accountability and continuous improvement system is a prerequisite for quality, as is adequate funding for those being held accountable.”³²

Administrators of our most successful state preschool programs take nothing for granted and are constantly working to learn from each other and make improvements.

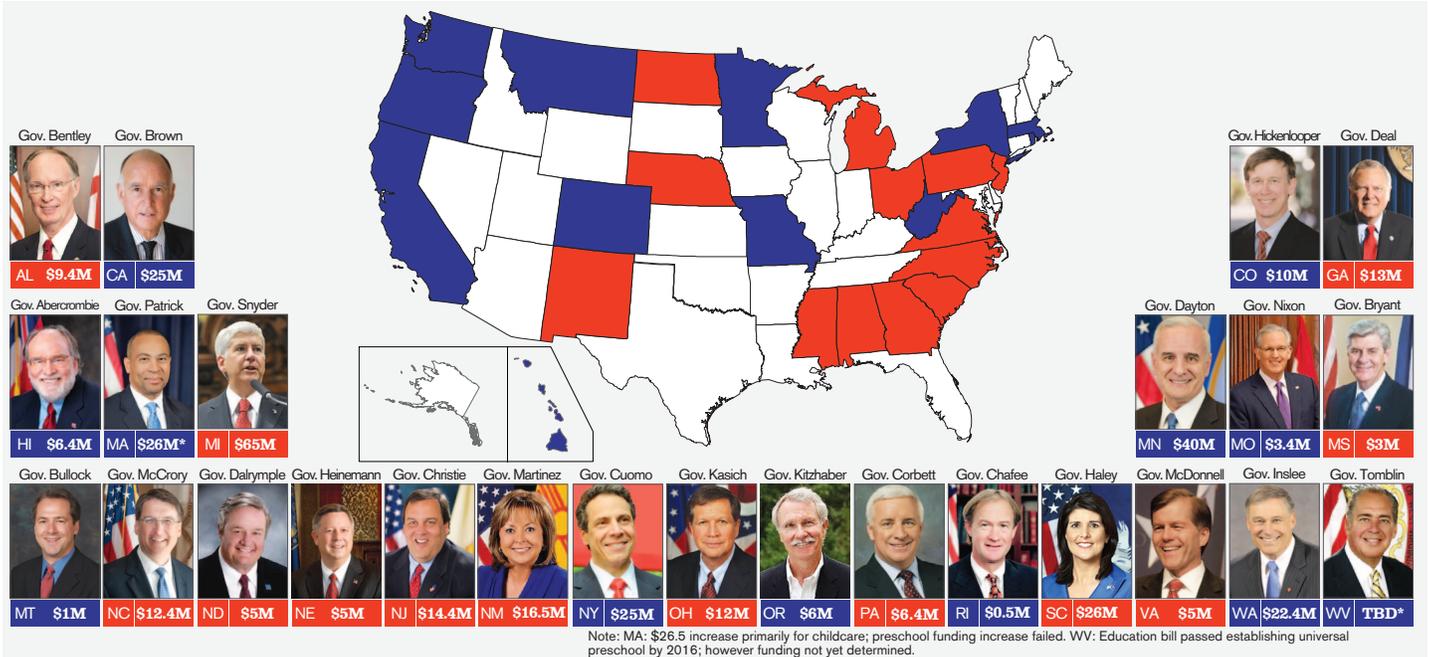
States Know Early Learning Works

States recognize the benefits of high-quality early learning programs. In the past decade, the percentage of four-year-olds served in state preschool doubled, from 14 to 28 percent. The percentage of four-year-olds served in Pennsylvania has also increased in the past decade, going from 2 percent in 2002 to 14 percent in 2012.³³

Preschool has received support from both sides of the aisle. In 2013, at least 25 states, more than half of them with Republican leadership, proposed and/or signed into law expansions of preschool.³⁴

Support for Preschool Across America and Across the Political Divide

Twenty-Five Examples of Bipartisan Support for New or Expanded Pre-K in 2013



Access to preschool, however, varies widely across the states, and most states do not serve the majority of their four-year-olds. In 2012, 10 states did not have any state preschool programs. More than half of the remaining states served 30 percent or fewer of their four-year-olds.³⁵ In a time of budget cuts, many states have struggled to pay for preschool, despite their commitments to early learning. And the cost of high-quality preschool—a national average of \$9,076 per year and \$7,467 per year in Pennsylvania—is higher than many families, particularly low- and moderate-income families, can afford.³⁶ In 2012, Pennsylvania served 14 percent of its four-year-olds and spent \$158 million (\$5,474 per child). [See *The State of Preschool in America, 2012*, by the National Institute for Early Education Research, for more state information.³⁷] Pennsylvania has increased its commitment to early learning: in the 2013–2014 budget, funding for preschool was increased by \$6.4 million (\$4.5 million for Pre-K Counts and \$1.9 million for Head Start State Supplemental Assistance.)

Voluntary home visiting programs have also received widespread, bipartisan support. In 2012, 47 of the 50 states applied for and received federal Maternal, Infant and Early Childhood Home Visiting (MIECHV) grants to deliver home visiting services to high-risk families.³⁸ Pennsylvania currently has \$11.9 million in MIECHV competitive and formula grants to deliver home visiting services. Although comprehensive information on the proportion of high-risk families served by home visiting programs is not available, relevant data indicate that the programs reach only a fraction of eligible families.³⁹ The current proposal represents a serious effort to address this unmet need.



Increasing graduation rates decreases serious crime

University of California at Berkeley economist Enrico Moretti and Canadian economist Lance Lochner studied the relationship over time between changes in graduation rates and crime. They concluded that a 10 percentage point increase in graduation rates – going from 50 percent to 60 percent, for example – reduces murder and assault rates by about 20 percent.

Source: Lochner & Moretti (2004) *The American Economic Review*

An Unprecedented Opportunity

We now have an opportunity to increase the number of children served in voluntary high-quality early education and care. In its 2014 budget proposal, the Administration has proposed \$75 billion over 10 years for a state-federal partnership to offer high-quality preschool programs to low- and moderate-income four-year-olds.⁴⁰ The proposal also includes \$15 billion over 10 years to increase access to voluntary home visiting programs, and additional funds for improving the quality of child care for children birth through age three through the Child Care and Development Block Grant (CCDBG) and child care partnerships with Early Head Start.

\$75 Billion Every Year to Lock Up Criminals vs. \$75 Billion Over 10 Years for Quality Early Education and Care

We know from projections made by the national security organization, Mission: Readiness, that investments that bring high-quality preschool to scale for low-income children could produce 2 million additional high school graduates nationwide over 10 years, once the programs are established.⁴¹ Pennsylvania could add 63,000 graduates.

We don't know exactly how much high-quality state preschool programs could cut the costs of corrections. But, as recently as 2008, America spent nearly \$75 billion a year to incarcerate more than 2 million adults in federal and state prisons or local jails.⁴² That contrasts with \$75 billion in federal funding over 10 years to bring preschool to scale for low- to moderate-income children nationwide. Pennsylvania spends \$1.9 billion a year on

incarceration. This does not include spending for local or county jails.⁴³

Obviously we cannot simply stop paying the cost of incarcerating criminals. However, given that the federal cost of the proposed state-federal preschool partnership is one-tenth the cost of corrections nationwide, cutting the number of people who commit felonies and become prisoners by just 10 percent, or 200,000 people nationwide – half the 20 percent reduction realized by Chicago’s CPC program – could begin to pay the equivalent of all of the federal costs of the preschool program (\$75 billion). Pennsylvania could decrease its prisoners by more than 5,000 each year and save \$195 million. This does not even take into account the many other benefits that accrue from high-quality preschool.

That 10 percent reduction figure is presented to illustrate the potential of preschool to pay for itself from reductions in crime alone, rather than as a hard and fast projection. But a well-respected, independent cost-benefit analysis of more than 20 different studies of preschool programs showed that preschool



Stronger parents

The most successful early care and education programs with long-term results—such as the Perry Preschool, CPC, New Jersey’s state preschool and the Nurse-Family Partnership—work with parents to teach them how to reinforce positive behaviors and encourage them to routinely read and speak to their children, so they are better prepared for success in the years to come.

can return, on average, a “profit” (economic benefits minus costs) to society of \$15,000 for every child served.⁴⁴ Other estimates are much higher. Clearly, preschool works and more than pays for itself.

The same cost-benefit analysis determined that the Nurse-Family Partnership voluntary home visiting program can return, on average, net benefits of \$13,000 per child served.⁴⁵

“Cutting the number of people who become prisoners by just 10 percent, half the 20 percent realized by Chicago’s program, could begin to pay the equivalent of all of the federal costs of the preschool proposal. Pennsylvania could decrease its prisoners by more than 5,000 and save \$195 million each year.”

A Different Path for Our Country

Our members make no apologies for putting criminals behind bars in Pennsylvania. But we all agree that a better and less expensive way going forward is to prevent as many young children as possible from growing up to become involved in crime.

If America invests wisely now in preschool and in services such as evidence-based home visiting and high-quality child care, millions of children can become successful, productive adults, instead of individuals who fail themselves and cost taxpayers dearly. Over time, this may help America reduce the number of prisoners well below 2 million a year, while cutting costs dramatically.

When we support what works for our disadvantaged children, we put them – and our country – on a different, safer path. It's time to do what works, America.



Robert Wood Johnson Foundation County Health Rankings & Roadmaps

Data by county: On-time high school graduation and adult violent crime

COUNTY	PROPORTION NOT GRADUATING HIGH SCHOOL ON TIME ¹	ANNUAL VIOLENT CRIMES ²	VIOLENT CRIME RATE ² (PER 100,000 POPULATION)
STATE	17	48,579	386
Adams	11	147	145
Allegheny	14	5,755	475
Armstrong	8	84	136
Beaver	21	518	307
Bedford	8	51	103
Berks	16	1,342	329
Blair	12	340	274
Bradford	14	96	158
Bucks	8	823	132
Butler	6	311	170
Cambria	8	281	200
Cameron	15	7	135
Carbon	12	193	305
Centre	7	156	106
Chester	14	844	172
Clarion	10	76	200
Clearfield	16	178	219
Clinton	6	81	219
Columbia	17	84	141
Crawford	14	74	85
Cumberland	11	263	114
Dauphin	18	1,347	520
Delaware	14	3,032	547
Elk	11	33	104
Erie	13	772	276
Fayette	28	328	238
Forest	4	25	344
Franklin	16	202	139
Fulton	11	27	185
Greene	16	59	151
Huntingdon	13	87	190
Indiana	7	226	262
Jefferson	11	97	229
Juniata	10	25	107
Lackawanna	10	489	232
Lancaster	12	908	180
Lawrence	9	352	403

COUNTY	PROPORTION NOT GRADUATING HIGH SCHOOL ON TIME ¹	ANNUAL VIOLENT CRIMES ²	VIOLENT CRIME RATE ² (PER 100,000 POPULATION)
Lebanon	13	256	197
Lehigh	16	1,036	301
Luzerne	12	878	283
Lycoming	14	196	169
McKean	7	86	200
Mercer	8	262	225
Mifflin	16	70	160
Monroe	14	509	302
Montgomery	7	1,576	200
Montour	11	60	337
Northampton	12	582	200
Northumberland	18	320	348
Perry	18	81	179
Philadelphia	41	19,501	1,296
Pike	8	89	150
Potter	10	31	185
Schuylkill	15	293	205
Snyder	11	147	380
Somerset	7	105	140
Sullivan	16	8	129
Susquehanna	14	56	134
Tioga	17	44	110
Union	9	42	95
Venango	9	77	142
Warren	12	164	400
Washington	11	500	246
Wayne	8	82	159
Westmoreland	8	585	161
Wyoming	15	27	100
York	12	1,004	233

1. Data from state department of education. 2. Data from FBI Uniform Crime Reporting Programing; <http://www.countyhealthrankings.org/>

Endnotes

- 1 Federal Bureau of Investigation. (2012). Crime in the United States 2011. Washington, DC: US Department of Justice. Retrieved from: <http://www.fbi.gov/about-us/cjis/ucr/crime-in-the-u.s/2011/crime-in-the-u.s.-2011>
- 2 Robert Wood Johnson Foundation (2013). County Health Rankings and Roadmaps. Retrieved from: <http://www.countyhealthrankings.org/app/pennsylvania/2013/downloads>
- 3 In 2012, there were 1,571,013 inmates in federal and state prisons, and 744,524 inmates in local jails, for a total of 2.3 million incarcerated. Carson, E. A., & Golinelli, D. (2013, July). *Prisoners in 2012—Advance Counts*. NCJ 242467. Washington, DC: U. S. Department of Justice, Bureau of Justice Statistics. Retrieved from: <http://www.bjs.gov/content/pub/pdf/p12ac.pdf>; Minton, T. D. (2013, May). Jail inmates at midyear 2012. 241264. Washington, DC: U. S. Department of Justice, Bureau of Justice Statistics. Retrieved from: <http://www.bjs.gov/content/pub/pdf/jim12st.pdf>
- 4 Pennsylvania Department of Corrections (2013, June 30). Retrieved from: http://www.cor.state.pa.us/portal/server.pt/community/departments_of_corrections/4604
- 5 Kyckelhahn, T. (2012, May 30). Justice expenditure and employment extracts, 2008—final. NCJ 237912. Table 4. U. S. Department of Justice, Bureau of Justice Statistics. Retrieved from: <http://www.bjs.gov/index.cfm?ty=pbdetail&id=4333>
- 6 Pennsylvania General Assembly (2013, July). Retrieved from: <http://www.legis.state.pa.us/cfdocs/legis/PN/Public/btCheck.cfm?txtType=PDF&sessYr=2013&sessInd=0&billBody=H&billType=B&billNbr=1437&pn=2198>
- 7 Harlow, C. W. (2003, January). Education and correctional populations. NCJ 195670. Washington, DC: U. S. Department of Justice, Bureau of Justice Statistics. Retrieved from: <http://www.bjs.gov/content/pub/pdf/ecp.pdf>. The figure, 68%, represents those without high school diplomas at time of incarceration. Some inmates participate in educational programs in prison and earn their diplomas.
- 8 Statistic cited by Kathy Gnall, director of planning, research, statistics and re-entry for Pennsylvania Department of Corrections, 2011. http://www.pennlive.com/specialprojects/index.ssf/2011/03/proven_ways_to_break_the_cycle.html
- 9 Center on the Developing Child, Harvard University (n. d.). *InBrief: The science of early childhood development*. Retrieved from: http://developingchild.harvard.edu/resources/briefs/inbrief_series/inbrief_the_science_of_ecd/
- 10 Hart, B., & Risley, T. R. (2004). The early catastrophe. *Education Review*, 17 (1), 110-118. Retrieved from: <http://www.aft.org/pdfs/americaneducator/spring2003/TheEarlyCatastrophe.pdf>
- 11 Heckman, J. (2013). *Heckman: The economics of human potential*. Retrieved from <http://www.heckmanequation.org/>
- 12 The original findings were presented in Olds, D. L., Eckenrode, J., Henderson, C. R., Kitzman, J. H., Powers, J., Cole, R., et al. (1997). Long-term effects of home visitation on maternal life course and child abuse and neglect: Fifteen-year follow-up of a randomized trial. *JAMA*, 278(8), 637-643; Revised results in: Luckey, D. W., Olds, D. L., Zhang, W., Henderson, C., Knudtson, M., Eckenrode, J., et al. *Revised analysis of 15-Year Outcomes in the Elmira Trial of the Nurse-Family Partnership*. Prevention Research Center for Family and Child Health, University of Colorado Department of Pediatrics, 2008; Reynolds, A. J., Temple, J. A., Ou, S., Robertson, D. L., Mersky, J. P., Topitzes, J. W. & Niles, M. D. (2007). Effects of a school-based, early childhood intervention on adult health and well-being: A 19-year follow-up of low-income families. *Archives of Pediatrics & Adolescent Medicine*, 161(8), 730-739.
- 13 Campbell, S.B., Shaw, D.S. & Gilliom, M. (2000). Early externalizing behavior problems: Toddlers and preschoolers at-risk for later maladjustment. *Development and Psychopathology*, 12, 467-488.
- 14 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
- 15 The results are 23% more questions answered correctly on a literacy test for Arkansas and West Virginia, and 24% more for New Mexico. Hustedt, J.T., Barnett, W.S., Jung, K., & Thomas, J. (January 2007). *The effects of the Arkansas Better Chance Program on young children's school readiness*. National Institute for Early Education Research; Lamy, C., Barnett, W.S., & Jung, K. (December 2005). *The effects of West Virginia's Early Education Program on young children's school readiness*. National Institute for Early Education Research; Hustedt, J.T., Barnett, W.S., Jung, K., & Goetze, L. (November 2009). *The New Mexico PreK Evaluation: Results from the initial four years of a new state preschool initiative*. National Institute for Early Education Research.
- 16 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>
- 17 *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-evaluation-may-21-12.pdf>
- 18 Lipsey, M. W., Hofer, K. G., Dong, N., Farran, D. C., & Bilbrey, C. (2013). *Evaluation of the Tennessee Voluntary Prekindergarten Program: Kindergarten and first grade follow-up results from the randomized control design (Research report)*. Nashville, TN: Vanderbilt University, Peabody Research Institute. Retrieved from: http://peabody.vanderbilt.edu/research/pri/projects/by_content_area/tennessee_state_pre-k_evaluation/TN_VPK_Evaluation_Research_Report2_Appendices_August_2013.pdf
- 19 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>
- 20 Kirkland, K., & Mitchell-Herzfeld, S. (2012, May 31). Evaluating the effectiveness of home visiting services in promoting children's adjustment to school. Retrieved from: http://www.pewstates.org/uploadedFiles/PCS_Assets/2013/School_Readiness_report.pdf
- 21 Ladd, H. F., Muschkin, C. G., & Dodge, K. (2012, February). From birth to school: Early childhood initiatives and third grade outcomes in North Carolina. Retrieved from: <http://research.sanford.duke.edu/papers/SAN12-01.pdf>
- 22 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>
- 23 Reynolds, A. J., Temple, J. A., Robertson, D. L., & Mann, E. A. (2001, May 9). Long-term effects of an early childhood intervention on educational achievement and juvenile arrest A 15-year follow-up of low-income children in public schools. *Journal of the American Medical Association*, 285, 2339-2346.
- 24 *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-evaluation-may-21-12.pdf>
- 25 Schweinhart, L.J., Montie, J., Xiang, Z., Barnett, W.S., Belfield, C.R., & Nores, M. (2005). *Lifetime effects: The High/Scope Perry Preschool study through age 40*. Ypsilanti, MI: High/Scope Press
- 26 Robert Wood Johnson Foundation (2013). County Health Rankings and Roadmaps. Retrieved from: <http://www.countyhealthrankings.org/app/pennsylvania/2013/downloads>
- 27 Eckenrode, J., Campa, M., Luckey, D. W., Henderson, C. R., Cole, R., et al. (2010). Long-term effects of prenatal and infancy nurse home visitation on the life course of youths: 19-year follow-up of a randomized trial. *Archives of Pediatrics and Adolescent Medicine*, 164 (1), 9-15.
- 28 Reynolds, A. J., Temple, J., Robertson, D. L., & Mann, E. A. (2001). Long-term effects of an early childhood intervention on educational achievement and juvenile arrest. *Journal of the American Medical Association*, 285, 2339-2380.
- 29 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.
- 30 Reynolds, A. (2007). Paths of influence from preschool intervention to adult well-being: Age 24 findings from the Chicago Longitudinal Study. Society for Research in Child Development, March 31, 2007, Boston, MA.
- 31 Schweinhart, L.J., Montie, J., Xiang, Z., Barnett, W.S., Belfield, C.R., & Nores, M. (2005). *Lifetime effects: The High/Scope Perry Preschool study through age 40*. Ypsilanti, MI: High/Scope Press.
- 32 Steve Barnett made this comment in response to a recent solid study that showed that the academic benefits seen at the end of the preschool year in Tennessee faded out by the end of kindergarten and first grade. However, children who participated in the preschool program were half as likely to be held back in school. Barnett, W. S. (2013, August 2). *An early look at early education in Tennessee*. Retrieved from: <http://preschoolmatters.org/2013/08/02/an-early-look-at-early-education-in-tennessee/>; Lipsey, M. W., Hofer, K. G., Dong, N., Farran, D. C., & Bilbrey, C. (2013). *Evaluation of the Tennessee Voluntary Prekindergarten Program: Kindergarten and first grade follow-up results from the randomized control design (Research report)*. Nashville, TN: Vanderbilt University, Peabody Research Institute. Retrieved from: http://peabody.vanderbilt.edu/research/pri/projects/by_content_area/tennessee_state_pre-k_evaluation/TN_VPK_Evaluation_Research_Report2_Appendices_August_2013.pdf

- 33 Barnett, W. S., Carolan, M. E., Fitzgerald, J., & Squires, J. H. (2013). *The state of preschool 2012 state preschool yearbook*. New Brunswick, NJ: Rutgers Graduate School of Education, National Institute for Early Education Research.
- 34 National Women's Law Center (2013, June). Child care fact sheet. State updates: Early care and education. Retrieved from: <http://www.nwlc.org/sites/default/files/pdfs/stateupdatesjune2013.pdf>
- 35 Barnett, W. S., Carolan, M. E., Fitzgerald, J., & Squires, J. H. (2013). *The state of preschool 2012 state preschool yearbook*. New Brunswick, NJ: Rutgers Graduate School of Education, National Institute for Early Education Research.
- 36 Gault, B., Mitchell, A., & Williams, E. (2008). Meaningful investments in pre-k: Estimating the per-child costs of quality programs. Institute for Women's Policy, Washington, D.C. This is a national estimate; actual costs vary greatly by state; Barnett, W. S., Carolan, M. E., Fitzgerald, J., & Squires, J. H. (2013). *The state of preschool 2012 state preschool yearbook*. New Brunswick, NJ: Rutgers Graduate School of Education, National Institute for Early Education Research.
- 37 Barnett, W. S., Carolan, M. E., Fitzgerald, J., & Squires, J. H. (2013). *The state of preschool 2012 state preschool yearbook*. New Brunswick, NJ: Rutgers Graduate School of Education, National Institute for Early Education Research.
- 38 Health Resources and Services Administration, U. S. Department of Health and Human Services. (2013, July 22). Active grants for HRSA programs: Affordable Care Act (ACA) Maternal, Infant and Early Childhood Home Visiting Program. Retrieved from: http://ersrs.hrsa.gov/ReportServer/Pages/ReportViewer.aspx?/HGDW_Reports/FindGrants/GRANT_FIND&ACTIVITY=X02&rs:Format=HTML4.0. Only the states of Florida, Wyoming and North Dakota do not participate. A non-profit organization from North Dakota has a MIECHV grant.
- 39 For example, the Nurse-Family Partnership, one of the 13 programs eligible for funding under MIECHV, estimates that 500,000 high-risk infants are born each year, yet it currently serves 26,000. In 2010 in New Mexico, 16 percent of all newborns and their mothers were served by home visiting programs, while the child poverty rate was 31 percent.
- 40 U. S. Department of Education (2013). Early learning. Retrieved from: <http://www.ed.gov/sites/default/files/early-learning-overview.pdf>
- 41 Mission: Readiness (2013). *A commitment to pre-kindergarten is a commitment to national security*. Washington, DC: Author. Retrieved from: <http://www.missionreadiness.org/2013/a-commitment-to-pre-k-is-a-commitment-to-national-security/>
- 42 Kyckelhahn, T. (2012, May 30). Justice expenditure and employment extracts, 2008- final. NCJ 237912. Table 4. U. S. Department of Justice, Bureau of Justice Statistics. Retrieved from: <http://www.bjs.gov/index.cfm?ty=pbdetail&iid=4333>
- 43 Pennsylvania General Assembly (2013, July). Retrieved from: <http://www.legis.state.pa.us/cfdocs/legis/PN/Public/btCheck.cfm?txtType=PDF&sessYr=2013&sessInd=0&billBody=H&billTyp=B&billNbr=1437&cpn=2198>
- 44 Lee, S., Aos, S., Drake, E., Pennucci, A., Miller, M., & Anderson, L. (2012). *Return on investment: Evidence to improve statewide outcomes*. Olympia, WA: Washington State Institute for Public Policy. Retrieved from <http://www.wsipp.wa.gov/rptfiles/12-04-1201.pdf>
- 45 Lee, S., Aos, S., Drake, E., Pennucci, A., Miller, M., & Anderson, L. (2012). *Return on investment: Evidence to improve statewide outcomes*. Olympia, WA: Washington State Institute for Public Policy. Retrieved from <http://www.wsipp.wa.gov/rptfiles/12-04-1201.pdf>



PENNSYLVANIA OFFICE

105 N. Front Street
Suite 305
Harrisburg, PA
Ph 717.233.1520
Fx 717.233.1976

