



# High-Quality Early Education Works: Cuts Crime, Reduces Problem Behaviors, and Can Save Pennsylvania up to \$600 Million a Year in Education Costs

The law enforcement leaders of FIGHT CRIME: INVEST IN KIDS PENNSYLVANIA are determined to see that dangerous criminals are put behind bars. But those on the front lines in the fight against crime know that America's anti-crime arsenal contains no weapons more powerful than proven programs that keep kids from committing crimes in the first place. High-quality early education, including pre-kindergarten programs, helps kids get the right start in life.

## Summary

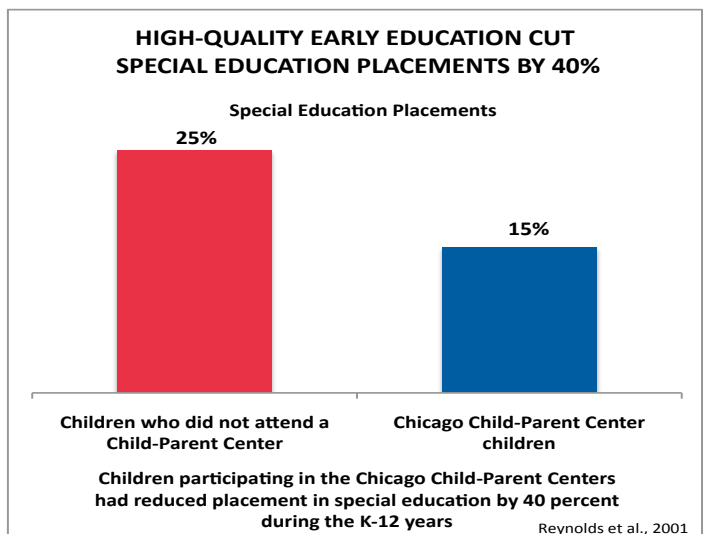
Law enforcement leaders have supported high-quality early education as one of the most cost-effective ways to cut crime and reduce state costs for correctional and other social services over the long term. The research is clear that at-risk children who attend high-quality early education are less likely to commit crimes as adults and more likely to complete high school and become competent adults who can support themselves and their families. Researchers have found that, in the long run, quality early education saves as much as \$16 for every dollar invested.<sup>1</sup>

A new analysis by FIGHT CRIME: INVEST IN KIDS shows that quality early education investments, including pre-k, can lessen children's need for special education services when they arrive at school. By reducing developmental delays and by helping children learn social skills and self-control to prevent disruptive problem behaviors, significant short-term savings can be produced for Pennsylvania's education budget.

Pennsylvania spends nearly \$3 billion a year on special education services, but invested only about \$136 million in state-funded pre-k programs in Fiscal Year 2010. The new analysis shows that if and when a combination of funding from the federal government, the state and individual families can make high-quality pre-k available for all Pennsylvania families that would want it at a projected total cost of \$1.3 billion, Pennsylvania could realize a \$300 million reduction in special education costs alone. Factor in reduced grade repetition and

an improved learning environment for all students, and the state's K-12 education system could save up to \$600 million a year.

Backed by these outcomes and numbers, law enforcement leaders are urging state and federal policymakers to support investments that would give more children access to high-quality early education, especially more at-risk children. Not only can early education reduce early disruptive problem behaviors in school that can lead to delinquent and criminal behavior later in life, but it also can help reduce the costs of K-12 education.

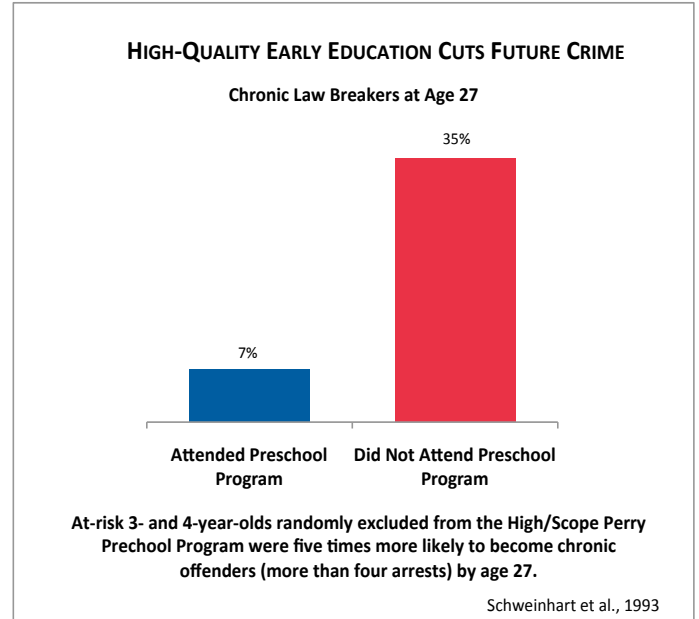


## High-quality Early Education Cuts Crime and Reduces the Need for Special Education

Research shows that at-risk kids who attended high-quality early education programs were less likely to commit crimes as adults than similar children who did not. Further, these rigorous studies showed that participating in these programs also produced significant reductions in special education placements during the kindergarten through 12<sup>th</sup> grade (K-12) years, a significant cost-driver in local, state and federal education costs.

Law enforcement wholeheartedly supports providing children with appropriate special educational services that will help them learn and realize their full potential.

Many children have special educational needs such as a hearing impairment or a learning disability that would not be expected to change as a result of high-quality early education. However, for children with developmental delays or behavior problems, high-quality early education can make a meaningful difference in reducing future needs for special education during the K-12 years. Research shows that many children will not need special educational services if effective interventions are available to them early in life.



did attend.<sup>3</sup> By age 40, those who did not attend the program were more than twice as likely to become career offenders with more than 10 arrests and twice as likely to be arrested for violent crimes.<sup>4</sup>

High-Quality Early Education Programs Reduce the Need for Special Education	
High/Scope Perry Preschool Program	43 percent reduction in special education placements.
The Chicago Child-Parent Centers	40 percent reduction in special education placements.
The Abecedarian Project	48 percent reduction in special education placements.
Schweinhart et al., 2005, Reynolds et al., 2001, Campbell & Ramey, 1995.	

*Reduced Special Education Placements:* The study also found significant reductions in children’s placement in special education for children participating in the Perry Preschool Program compared to children who were left out of the program. The Perry study found that participating in early education reduced children’s placement in

special education during the K-12 years by 43 percent.<sup>5</sup>

### High/Scope Perry Preschool Program

The Perry Preschool Program in Ypsilanti, Michigan is a high-quality, one- to two-year-long educational program that is considered a model of early childhood education programs. The High/Scope Educational Research Foundation initiated a study of the program in 1962. Researchers randomly assigned one half of a population of at-risk, low-income 3- and 4-year-olds to attend the program and assigned the other half to a control group not receiving preschool, and then followed these children over time, to age 40.<sup>2</sup>

*Reduced Crime:* In 2005, the Foundation released the most recent findings of lifetime effects of the Perry Preschool Program. By age 27, those who did not attend the program as children were five times more likely to become chronic offenders with five or more arrests compared to those who

### Child-Parent Centers

Chicago’s federally funded Child-Parent Centers (CPC) have served over 100,000 3- and 4-year-olds since 1967. The program is a center-based early intervention program that provides educational services to economically disadvantaged children along with parent coaching.

*Reduced Crime:* A study comparing 989 children in CPC to 550 similar children who were not in the program showed that children who did not participate were 70 percent more likely to be arrested for a violent crime by age 18.<sup>6</sup> Children not receiving CPC were also 24 percent more likely to have been incarcerated as young adults.<sup>7</sup>

*Reduced Special Education Placements:* CPC also dramatically cut special education placements for children who participated in the program compared to those not in the program. Children participating in the program were 40 percent less likely to be placed in special education during the K-12 years.<sup>8</sup>

### Early Education Cuts Special Education Placements

Other evaluations add to the evidence that early education can help reduce the need for special education and related services.

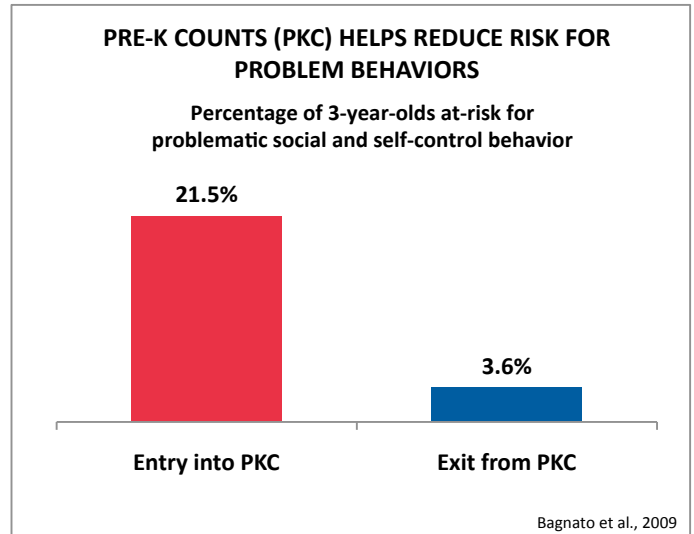
The Abecedarian Project, a long-term study of poor rural children in North Carolina who participated in the program from infancy through age five, supports these results. Participating in this early care and education program reduced children’s placement in special education by 48 percent compared to children left out of the program.<sup>9</sup>

*“At the beginning of Pre-K Counts, 21 percent of children ... were classified as developmentally delayed and qualifying for early intervention services from the county. At the end of PKC, only 8 percent of children were still delayed.”*

### Pennsylvania’s Pre-k Counts Program Cuts Special Education Placements and Reduces Problem Behaviors

A recent evaluation of Pennsylvania’s Pre-K Counts (PKC) program showed especially strong positive results for children who might otherwise be in special education during their K-12 years. Among the major findings:

- “At the beginning of Pre-K Counts, 21 percent of children ... were classified as developmentally delayed and qualifying for early intervention services from the county. At the end of PKC, only 8 percent of children were still delayed.”
- “At the start of Pre-K Counts, 21.5 percent of 3-year-old children were at-risk for problematic social and



self-control behavior [meaning they scored low on those measures]; at the end of PKC, only 3.6 percent of 3-year-old children were still at-risk.”<sup>10</sup>

This is important because research shows that 60 percent of children with high levels of disruptive, aggressive behaviors in early childhood will manifest high levels of antisocial and delinquent behavior later in life.<sup>11</sup>

### How High-quality Early Education Reduces Problem Behaviors In The Classroom and Special Education Placements While Helping All Kids

Early education can reduce children’s need for special education services when they arrive at school by reducing developmental delays, and by helping children learn social skills and self-control that reduce behavior problems.

Reducing behavior problems is important for improving the classroom environment so all children can learn. Most children receiving special education services do not grow up to become involved in serious crime, just as with children who are not in special education. But whether children have special educational needs or not, learning positive social skills and becoming more capable students can help all kids do better in school and avoid involvement in future crime.

### Reducing Special Education Costs Yields Substantial Savings For Pennsylvania

Reducing the need for special education services not only helps children reach their potential as students, it also produces significant cost savings. National estimates indicate that the average per-student cost of special education is nearly twice (1.9 times) the cost for general education students.<sup>12</sup>

### Pennsylvania K-12 education facts

- There are approximately 265,000 special education students enrolled in Pennsylvania's public schools, comprising 15 percent of the total student enrollment.<sup>19</sup>
- Pennsylvania spends over \$3 billion on special education annually.<sup>20</sup>
- Pennsylvania's elementary and secondary education budget was more than \$21.2 billion for the 2007-2008 school year.<sup>21</sup>

### Pennsylvania early education facts

- Pennsylvania served 23 percent of its 3- and 4-year-olds with publicly funded pre-k or Head Start services during the 2007-2008 school year.<sup>22</sup>
- Pennsylvania invested approximately \$136 million in state funded pre-kindergarten programs for the 2010 fiscal year.<sup>23</sup>

Children who have special needs should have, and schools are legally required to provide, appropriate special educational services to meet their needs. However, providing high-quality early education, including pre-k, can reduce the need for special education later, leading to significant cost savings to Pennsylvania's Department of Education budget.

These cost savings from early education begin to be realized within a child's first year in the primary school system. These savings accrue as fewer young children enter kindergarten in need of special education services, young children with developmental delays catch up to their peers, and children with behavior problems learn to behave more appropriately with their teachers and peers.

Further, the special education cost savings gained from reducing the number of children needing special education placements could be used by Pennsylvania to more effectively serve other children with special needs.

In these tough budget times, the short-term benefits of early education are important for their cost savings, in addition to their ability to help more children be prepared to succeed in school and reduce the need for special education services and placements.

### **Saving \$600 Million a Year in Pennsylvania's Education Budget**

Based on economist Clive Belfield's analysis of early education's cost savings to school systems, and based on the evidence from rigorous studies of high-quality early education that followed children into adulthood, FIGHT CRIME: INVEST IN

KIDS projects that high-quality early education will cut ten percent off the costs of special education in Pennsylvania. Cutting ten percent of the nearly \$3 billion dollars spent by the Pennsylvania Department of Education could eventually save up to \$300 million a year.<sup>13</sup>

This projected annual savings is based on \$300 million in special education savings alone. If we also include the reductions in grade repetition and the improved learning environment that Belfield also identified as school system savings, those additional savings would roughly double the savings from special education, to total approximately \$600 million.<sup>14</sup>

For Pennsylvania to achieve these savings from reduced school system costs, the combination of pre-k funding from the federal government, the state, individual families and other funding partners would eventually need to increase substantially. If Pennsylvania were to dedicate state and federal funding to provide pre-k to serve all Pennsylvania families who would want it for their 4-year-olds, FIGHT CRIME: INVEST IN KIDS projects that a total investment of \$1.3 billion in pre-k funding would be needed.<sup>15</sup> For Fiscal Year 2010, Pennsylvania has invested about \$136 million in its state-funded pre-k programs, so additional investments would be needed if the state were to pursue the goal of providing pre-k to serve all interested families.<sup>16</sup>

Pennsylvania is likely already realizing part of these special education and other school system savings, since the state provided public pre-k to 16 percent of its 4-year-olds during the 2008 – 2009 school year, and thousands of additional 4-year-olds attended private preschool programs.<sup>17</sup> While full

### ***High-quality Early Education is Essential***

Early education programs can provide young children essential academic and social skills that are critical for later success. At-risk children who attend high-quality early education programs are less likely to be held back a grade, less likely to need special education, less likely to commit crimes, and more likely to graduate high school and go on to college.<sup>26</sup> The research shows that early education programs must be of high quality to have a real impact on children, especially high-risk children.<sup>27</sup>

Researchers agree that high-quality early education programs share several common characteristics, including:

- Highly qualified teachers with appropriate compensation;<sup>28</sup>
- Comprehensive and age-appropriate curricula;<sup>29</sup>
- Strong family involvement;<sup>30</sup>
- Small staff-to-child ratios to ensure each child gets sufficient attention;<sup>31</sup>
- Small, age-appropriate class sizes;<sup>32</sup> and
- Screening and referral services for developmental, health or behavior problems.<sup>33</sup>

Programs that incorporate these elements are more likely to have positive effects on children that increase school success, cut crime and save money.

investment in pre-k for all Pennsylvania's 4-year-olds is not expected to be achieved in the near future, such investments would yield meaningful benefits for Pennsylvania's citizens. If Pennsylvania, individual families and the federal government were to make high-quality pre-k available to all families who would want it, Pennsylvania's school systems could capture the full cost savings of \$600 million a year from reduced special education costs, reduced grade repetition, and an improved learning environment.

Unfortunately, the opposite is also true: If pre-k funding is cut, Pennsylvania will soon have to spend more on special education services and other K-12 costs. The basic point is that investing early in young children yields important short-term school system savings, in addition to longer-term cost savings from reduced crime and other benefits.

### **School System Savings Contribute To Long-term Savings**

The Perry Preschool Program cut crime as well as reduced costs for special education so much that it saved more than \$16 for every \$1 invested. The vast majority of the cost savings from the Perry Preschool Program come from reductions in crime, with smaller portions of this long-term savings generated by reduced education and welfare costs.<sup>18</sup>

### **Early Education Denied to Pennsylvania's Kids**

Despite the evidence on the benefits of high-quality early education, inadequate funding denies thousands of Pennsylvania children access to quality early care and education programs. Forty states, including Pennsylvania,

provide some publicly funded voluntary pre-k. The federally funded Head Start program for children in poverty serves only half of the eligible children nationwide due to inadequate funding. And the youngest children, from birth to age 3, are even more dramatically underserved. For example, Early Head Start serves about three percent of eligible infants and toddlers nationally.<sup>24</sup>

In Pennsylvania, Head Start, the state-funded pre-k program, and a program for young children with special needs together served approximately 83,100 children during the 2008-2009 school year. However, the data also demonstrate that in Pennsylvania, only 17 percent of all 3-year olds and 31 percent of all 4-year-olds were served by these publicly funded programs.<sup>25</sup>

Since most states now provide publicly funded pre-k, more states, are reshaping their "K through 12" public education systems, broadening the frame for state and local education systems to include pre-k. In this way, states are creating "pre-k through 12" education systems.

State early education investments must be continued, and federal education funding through the Elementary and Secondary Education Act (ESEA) now needs to be brought up to date to reflect this new reality. That is why law enforcement leaders are calling on Pennsylvania's federal policymakers to support provisions in ESEA reauthorization that provide incentives to states and local school systems to complete the transition from "K through 12" to "pre-k through 12." These provisions would authorize dedicated pre-k funding and integrate pre-k into every aspect of federal education funding and policy under ESEA (such as including 3- and 4-year-olds



in federal funding formulas, and including pre-k teachers in professional development provisions). Federal policymakers should also encourage this expanded framework of pre-k through 12 in other new ESEA programs such as “Race to the Top” and “Investing in Innovation.”

## Conclusion

Pennsylvania’s law enforcement leaders have been voicing their support for high-quality early education for years because of its proven impact on reducing later crime. In today’s lean budget times, lawmakers now face tough decisions about which programs should receive public funding. Research has demonstrated long-term cost savings from early education, saving as much as \$16 for every \$1 invested. The research also shows that, even before those long-term cost savings occur, high-quality early childhood programs can produce significant cost savings for Pennsylvania’s education budget, by reducing special education costs by ten percent. Cutting disruptive problem behaviors in students that can lead to later crime and

reducing the need for special education services makes high-quality pre-k a wise investment for Pennsylvania.

The law enforcement leaders of FIGHT CRIME: INVEST IN KIDS PENNSYLVANIA call on state policymakers and Pennsylvania’s gubernatorial candidates to continue their expansion of investments in early education, and call on Pennsylvania’s Congressional delegation to support increased investments in high-quality pre-k by supporting provisions in federal Elementary and Secondary Education Act (ESEA) reauthorization that provide incentives to states and local school systems to complete the transition from “K through 12” to “pre-k through 12.” These provisions would authorize dedicated pre-k funding and integrate pre-k into every aspect of federal education funding and policy under ESEA.

Law enforcement leaders are convinced that high-quality early education is a wise investment for Pennsylvania that will save money and make our communities safer.

## Endnotes

- 1 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.
  - 2 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.
  - 3 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.
  - 4 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.
  - 5 Barnett, W.S. (1985). Benefit-cost analysis of the Perry Preschool Program and its policy implications. *Educational Evaluation and Policy Analysis*, 7(4), 333-342.
  - 6 Reynolds, A. J., Temple, J. A., 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(12), 2339-2380.
  - 7 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), pp. 730-739.
  - 8 Reynolds A.J., Temple, J.A., Robertson, D.L., & Mann, E.A. (2001). Long-term effects of an early childhood intervention on educational achievement and juvenile arrests. *Journal of the American Medical Association*, 285(18), 2339-2346.
  - 9 Campbell, F.A., & Ramey, C.T. (1995). Cognitive and school outcomes for high-risk African-American students at middle adolescence: Positive effects of early intervention. *American Educational Research Journal*, 32(4), 743-772.
  - 10 Bagnato, S.J., Salaway, J., & Suen, H. (2009). *Pre-K counts in Pennsylvania for youngsters’ early school success: Authentic outcomes for an innovative prevention and promotion initiative*. Pittsburgh, PA: University of Pittsburgh, Early Childhood Partnerships.
  - 11 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
  - 12 Chambers, J.G., Shkolnik, J., & Perez, M. (2003). *Total expenditures for students with disabilities, 1999-2000: Spending variation by disability*. Washington, DC: American Institute for Research. Retrieved on May 10, 2010 from [http://csef.air.org/publications/seep/national/final\\_seep\\_report\\_5.pdf](http://csef.air.org/publications/seep/national/final_seep_report_5.pdf)
  - 13 Pennsylvania’s Department of Education spent \$2,977,699,689 on special education in 2008-2009 (not including federal IDEA ARRA funds). Annual Financial Report Expenditure Data by LEA, PA Dept of Ed. Confirmed via personal communication with Benjamin Hanft. Division of Subsidy Data and Administration, Pennsylvania Department of Education - Bureau of Budget and Fiscal Management. Retrieved July 26, 2010 from [http://www.portal.state.pa.us/portal/server.pt/community/summaries\\_of\\_annual\\_financial\\_report\\_data/7673/afri\\_excel\\_data\\_files/509047](http://www.portal.state.pa.us/portal/server.pt/community/summaries_of_annual_financial_report_data/7673/afri_excel_data_files/509047)
- If Pennsylvania provided high-quality pre-kindergarten to serve 80% of the state’s young children, FIGHT CRIME: INVEST IN KIDS projects that Pennsylvania would see a \$300 million reduction in spending on special education during the K-12 years. Based on the research evidence on early education cost savings, and on economist Clive Belfield’s analysis of these savings for school systems, it is reasonable to expect that providing high-quality pre-kindergarten will yield a 10 percent reduction in special education spending. This figure is a conservative estimate, based on the far higher figures from rigorous studies, and moderating

- the size of these effects based on serving nearly all children, rather than serving at-risk children. Belfield reviewed 19 published studies of early care and education programs, and the reductions in special education placements found in those studies ranged from 6 percent to 48 percent, with the most rigorous longitudinal studies finding reductions in special education placements in the 40 percent to 48 percent range. Belfield then identified a more representative estimate of the likely impact of early education, at 8.5 percent to 12 percent, based on moderating the impact to adjust for providing universal access to pre-kindergarten (expected to serve 80% of all children) rather than only the most at-risk kids. FIGHT CRIME: INVEST IN KIDS averaged and rounded this 8.5 to 12 percent range of likely effects to arrive at 10 percent, a conservative estimate of the reductions in special education spending produced by universal pre-kindergarten programs. Belfield, C.R. (2004). *Early childhood education: How important are the cost savings to the school system?* New York: Columbia University, Teachers College. Retrieved on May 17, 2010 from <http://www.plan4preschool.org/documents/ny-cost-saving.pdf>
- 14 Belfield’s analysis of the K-12 school system savings identified three major areas of cost savings: reductions in special education placement, reductions in grade repetition (also referred to as grade retention, or being held back a grade in school), and learning productivity savings (in which students perform more capably, leading to less class disruptions and vandalism, and more efficient teaching, thus producing an improved learning environment and cost savings from the education efficiencies it yields). Belfield estimated the impact of reductions in grade repetition to be 9.25 – 21 percent (that is, grade repetition rates in the state will be reduced between 9.25 and 21 percent). Belfield estimated the impact of improvements in learning productivity to be a 1 – 1.5 percent cost savings of the total state educational budget (see Belfield’s analysis, cited below for a full explanation of these calculations). In applying these estimates of reductions in grade repetition and an improved learning environment for New York, Belfield calculated the cost savings of these two areas combined to range between 56 and 59 percent of the total school system savings projected for the state. Extrapolating from Belfield’s estimates for New York, and rounding downward to use a more conservative estimate of their impacts, FIGHT CRIME: INVEST IN KIDS estimates that the impact of grade repetition and an improved learning environment together yielded another 50 percent of the total K-12 system cost savings projected, roughly doubling the cost savings accrued from special education reductions alone. Using this more conservative estimate of these savings is appropriate since the relative ratio of these three areas of school system savings may vary more broadly from state to state, since they are each based on different components of K-12 budgets and outcomes. Belfield, C.R. (2004). *Early childhood education: How important are the cost savings to the school system?* New York: Columbia University, Teachers College. Retrieved on May 17, 2010 from <http://www.plan4preschool.org/documents/ny-cost-saving.pdf>; Belfield, C.R. (2004). *Research briefing: The pre-K payback*. New York: Columbia University, Teachers College. Retrieved on May 17, 2010 from [http://www.winningbeginningny.org/publications/documents/belfield\\_execsummary.pdf](http://www.winningbeginningny.org/publications/documents/belfield_execsummary.pdf)
- 15 Providing pre-k to serve all families with 4-year-olds who would want it is estimated to be equivalent to serving 80 percent of all 4-year-olds, a standard approximation of universal voluntary pre-k, recognizing that some families will not participate. FIGHT CRIME: INVEST IN KIDS estimated the cost of providing high-quality, full-day pre-kindergarten for 80 percent of Pennsylvania’s 4-year-olds at \$1.3 billion annually. This figure was calculated by taking 80 percent of Pennsylvania’s 147,248 4-year-olds, yielding 117,798 children, and multiplying that by \$11,300 per year estimated cost of providing high-quality, full-day pre-kindergarten, which yields \$1.33 billion, rounded to \$1.3 billion. This cost figure is based on Pennsylvania’s average general fund per pupil expenditures for K-12 education, \$11,309 per pupil, rounded to \$11,300, provided by National Center for Education Statistics. The number of 4-year-olds in Pennsylvania is provided by National Institute for Early Education Research.

National Center for Education Statistics. (2009). *Digest of education statistics – Table 185: Current expenditures per pupil in full enrollment in public elementary and secondary schools, by state or jurisdiction: Selected years, 1969-70 through 2006-07*. Washington, DC: U.S. Department of Education. Retrieved on August 4, 2010 from [http://nces.ed.gov/programs/digest/d09/tables/dt09\\_185.asp](http://nces.ed.gov/programs/digest/d09/tables/dt09_185.asp); Barnett, W.S., Epstein, D.J., Friedman, A.H., Sansanelli, R., & Hustedt, J.T. (2009). *The state of preschool 2009 – State preschool yearbook*. New Brunswick, NJ: Rutgers University, National Institute for Early Education Research.

16 This figure is the total of Pre-K Counts, Head Start Supplemental Assistance and an estimate from the Pennsylvania Office of Child Development and Early Learning of \$14.3 million from Pennsylvania Accountability Grants that will be used by school districts for pre-kindergarten programs. Pennsylvania Office of the Budget. (2010). *2010-11 spending reductions, August 2010, general fund - state funds*. Harrisburg, PA: Author. Retrieved on September 9, 2010 from [http://www.portal.state.pa.us/portal/server.pt/document/911370/10-08-31\\_2010-11\\_enacted\\_tr\\_wtih\\_10-11\\_freeze\\_web\\_version\\_pdf](http://www.portal.state.pa.us/portal/server.pt/document/911370/10-08-31_2010-11_enacted_tr_wtih_10-11_freeze_web_version_pdf)

17 Barnett, W.S., Epstein, D.J., Friedman, A.H., Sansanelli, R., & Hustedt, J.T. (2009). *The state of preschool 2009 – State preschool yearbook*. New Brunswick, NJ: Rutgers University, National Institute for Early Education Research.

18 Schweinhart, L.J., Montie, J., Xiang, Z., Barnett, W.S., Bellfield, C.R., & Nores, M. (2005). *Lifetime effects: The High/Scope Perry Preschool study through Age 40*. Ypsilanti, MI: High/Scope Press.

19 National Center for Education Statistics. (2009). *Digest of education statistics – Table 52: Number and percentage of children served under Individuals with Disabilities Education Act, Part B, by age group and state or jurisdiction: Selected years, 1990-91 through 2007-08*. Washington, DC: U.S. Department of Education. Retrieved on August 4, 2010 from [http://nces.ed.gov/programs/digest/d09/tables/dt09\\_052.asp](http://nces.ed.gov/programs/digest/d09/tables/dt09_052.asp); National Center for Education Statistics. (2009). *Digest of education statistics – Table 35: Enrollment in public elementary and secondary schools, by level, grade, and state or jurisdiction: Fall 2007*. Washington, DC: U.S. Department of Education. Retrieved on August 4, 2010 from [http://nces.ed.gov/programs/digest/d09/tables/dt09\\_035.asp](http://nces.ed.gov/programs/digest/d09/tables/dt09_035.asp)

20 Pennsylvania's Department of Education spent \$2,977,699,689 on special education in 2008-2009 (not including federal IDEA ARRA funds). Annual Financial Report Expenditure Data by LEA, PA Dept of Ed. Confirmed via personal communication with Benjamin Hanft. Division of Subsidy Data and Administration, Pennsylvania Department of Education - Bureau of Budget and Fiscal Management. Retrieved July 26, 2010 from [http://www.portal.state.pa.us/portal/server.pt/community/summaries\\_of\\_annual\\_financial\\_report\\_data/7673/afr\\_excel\\_data\\_files/509047](http://www.portal.state.pa.us/portal/server.pt/community/summaries_of_annual_financial_report_data/7673/afr_excel_data_files/509047)

21 This figure includes only current expenditures on elementary/secondary education. Zhou, L., & Johnson, F. (2010). *Revenues and expenditures for public elementary and secondary education: School year 2007-08 (Fiscal Year 2008)*. Washington, DC: U.S. Department of Education. Retrieved on August 18, 2010 from <http://nces.ed.gov/pubs2010/2010326.pdf>

22 *ECE Programs – Children ages 3 and 4 served, 2008 – 2009 PA County Reach and Risk Assessment (June 2009)*. [Data spreadsheet] Harrisburg, PA: Pennsylvania Office of Child Development and Early Learning.

23 This figure is the total of Pre-K Counts, Head Start Supplemental Assistance and an estimate from the Pennsylvania Office of Child Development and Early Learning of \$14.3 million from Pennsylvania Accountability Grants that will be used by school districts for pre-kindergarten programs. Pennsylvania Office of the Budget. (2010). *2010-11 spending reductions, August 2010, general fund - state funds*. Harrisburg, PA: Author. Retrieved on September 9, 2010 from [http://www.portal.state.pa.us/portal/server.pt/document/911370/10-08-31\\_2010-11\\_enacted\\_tr\\_wtih\\_10-11\\_freeze\\_web\\_version\\_pdf](http://www.portal.state.pa.us/portal/server.pt/document/911370/10-08-31_2010-11_enacted_tr_wtih_10-11_freeze_web_version_pdf)

24 Head Start serves less than half (43%) of those eligible. The percentage of income-eligible children who are enrolled in Head Start was computed by dividing the number of 3- and 4-year-old children served in FY2008 (n=789,084) by the number of 3- and 4-year-old children in poverty 2008 (n=1,825,000). The number of 3- and 4-year-old children served was calculated by multiplying the total number of children enrolled in Head Start and Early Head Start (n=906,992) in 2008 by the percentage of children aged 3 and 4 enrolled in Head Start (87%). For the number 3- and 4-year-old children served by Head Start, see Head Start Bureau. (2009). *Head Start program fact sheet – Fiscal year 2009*. Washington, D.C.: U.S. Department of Health and Human Services. Retrieved on May 24, 2010 from <http://www.acf.hhs.gov/programs/ohs/about/fy2009.html>; For the number of 3- and 4-year-old children in poverty, see: U.S. Census Bureau. (2009). *POV 34: Single year of age – poverty status: 2008. Current Population Survey – Annual social and Economic (ASEC) Supplement*. Washington, D.C.: Author. Retrieved on May 24, 2010 from <http://www.census.gov/hhes/www/poverty/detailedpovtabs.html> Early Head Start serves less than 4 (3.45) percent of those eligible. The percentage of income-eligible children who are enrolled in Early Head Start was computed by dividing the number of 0, 1 and 2-year-old children served in FY2008 (n=99,770) by the number of 0-, 1-, and 2-year-

old children in poverty in 2008 (n=2,854,000). The number of children in Early Head Start was calculated by multiplying the total number of children enrolled in Head Start and Early Head Start (n=906,992) in 2008 by the percentage of children under 3 enrolled in Early Head Start (11%). For the number of children enrolled in Early Head Start, see Head Start Bureau. (2009). *Head Start program fact sheet – Fiscal year 2009*. Washington, D.C.: U.S. Department of Health and Human Services. Retrieved on May 24, 2010 from <http://www.acf.hhs.gov/programs/ohs/about/fy2009.html>; For the number of 0, 1 and 2-year-old children in poverty, see: U.S. Census Bureau. (2009). *POV 34: Single year of age – poverty status: 2008. Current Population Survey – Annual social and Economic (ASEC) Supplement*. Washington, D.C.: Author. Retrieved on May 24, 2010 from <http://www.census.gov/hhes/www/poverty/detailedpovtabs.html>

25 Barnett, W.S., Epstein, D.J., Friedman, A.H., Sansanelli, R., & Hustedt, J.T. (2009). *The state of preschool 2009 – State preschool yearbook*. New Brunswick, NJ: Rutgers University, National Institute for Early Education Research.

26 National Institute for Early Education Research. (n.d.) *Frequently asked questions: Quality and curriculum*. Retrieved on May 17, 2010 from <http://nieer.org/faq/index.php?TAid=131>; 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), pp. 730-739.

27 Peisner-Feinberg, E. et al. (1999). *The children of the Cost, Quality, and Outcome study go to school*. Chapel Hill, NC: University of North Carolina at Chapel Hill, Frank Porter Graham Child Development Center. Retrieved on May 17, 2010 from <http://www.fpg.unc.edu/nced/PDFs/CQO-es.pdf>; See also Denton, D. (2001). *Improving children's readiness for school: Pre-kindergarten programs make a difference, but quality counts!* Atlanta, GA: Southern Regional Education Board. Retrieved on July 27, 2009 from [http://www.eric.ed.gov:80/ERICDocs/data/ericdocs2sql/content\\_storage\\_01/0000019b/80/19/75/r2.pdf](http://www.eric.ed.gov:80/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/19/75/r2.pdf); See also Barnett, W.S., Epstein, D.J., Friedman, A.H., Sansanelli, R., & Hustedt, J.T. (2009). *The state of preschool 2009 – State preschool yearbook*. New Brunswick, NJ: Rutgers University, National Institute for Early Education Research.

28 Several studies show that high quality pre-k teachers have at least a four-year degree, partake in on-going training, and are paid well. Whitebook, M. (2003). *Early education quality: Higher teacher qualifications for better learning environments—A review of the literature*. Retrieved on May 17, 2010 from <http://iir.berkeley.edu/csccce/pdf/teacher.pdf>

29 Katz, L. (1999). *Curriculum disputes in early childhood education*. Champaign, IL: Clearinghouse on Early Education and Parenting. Retrieved on May 17, 2010 from <http://ceep.crc.uiuc.edu/eecearchive/digests/1999/katz99b.html>; Goffin, S. G., & Wilson, C. (2001). *Curriculum models and early childhood education: Appraising the relationship* (2nd ed.). Upper Saddle River, NJ: Merrill/Prentice Hall.

30 Some examples of a strong parent-involvement component include the home visits in the High/Scope Perry Pre-kindergarten and Syracuse University Family Development programs, the intensive parent coaching in Chicago Child-Parent Centers, and the parent volunteers in Head Start. For Perry Pre-kindergarten see: Schweinhart, L. J., Barnes, H. V., & Weikart, D. P. (1993). *Significant benefits: The High/Scope Perry Pre-kindergarten 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.

31 For preschool classrooms, the staff-to-child ratio should be not more than 10 children per teacher. In early learning settings for infants, the child-staff ratio should be not more than three children per teacher, and for toddlers, not more than four children per teacher. American Academy Of Pediatrics, American Public Health Association, and National Resource Center for Health and Safety in Child Care and Early Education. (2002). *Caring for Our Children: National Health and Safety Performance Standards: Guidelines for Out-of-Home Child Care Programs, 2nd edition*. Elk Grove Village, IL: American Academy of Pediatrics and Washington, DC: American Public Health Association. Barnett, W.S., Epstein, D.J., Friedman, A.H., Sansanelli, R., & Hustedt, J.T. (2009). *The state of preschool 2009 – State preschool yearbook*. New Brunswick, NJ: Rutgers University, National Institute for Early Education Research.

32 Barnett, W.S., Epstein, D.J., Friedman, A.H., Sansanelli, R., & Hustedt, J.T. (2009). *The state of preschool 2009 – State preschool yearbook*. New Brunswick, NJ: Rutgers University, National Institute for Early Education Research.

33 Dunkle, M., & Vismara, L. (2004). *Developmental checkups: They're good, they're cheap and they're almost never done. What's wrong with this picture?* Retrieved on May 17, 2010 from <http://www.child-autism-parent-cafe.com/child-development.html>

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

Major funding for FIGHT CRIME: INVEST IN KIDS is provided by: The Atlantic Philanthropies · The Birth to Five Policy Alliance · The California Endowment · The California Wellness Foundation · The Annie E. Casey Foundation · The Robert Sterling Clark Foundation · Dr. Scholl Foundation · Early Childhood Investment Corporation · The Frey Foundation · Bill & Melinda Gates Foundation · The Grable Foundation · Grand Victoria Foundation · William Casper Graustein Foundation · The George Gund Foundation · Hagedorn Foundation · The Irving Harris Foundation · The Heinz Endowments · The William and Flora Hewlett Foundation · W.K. Kellogg Foundation · The Marks Family Foundation · The Oscar G. & Elsa S. Mayer Family Foundation · McCormick Foundation · The Morris Family Foundation · The New York Community Trust · New Tudor Foundation · Ohio Children's Foundation · The David and Lucile Packard Foundation · William Penn Foundation · Rauch Foundation · W. Clement and Jessie V. Stone Foundation.

300 North Second Street  
Suite 1101  
Harrisburg, PA 17101  
Tel 717.233.1520  
Fax 717.233.1976

[www.fightcrime.org/pa](http://www.fightcrime.org/pa)





[www.fightcrime.org/pa](http://www.fightcrime.org/pa)

300 North Second Street  
Suite 1101  
Harrisburg, PA 17101  
Tel 717.233.1520  
Fax 717.233.1976