

ISSUE BRIEF

The Impact of High-Quality Pre-K on K-12 Education

An extensive and growing body of research provides strong evidence of the long-term impact of high-quality pre-kindergarten programs. These programs not only prepare children for academic success, but also reduce later-life costs to taxpayers and strengthen economies.

This brief focuses on the impact that high-quality pre-k has on K-12 education. Schools spend significant time and money helping children who arrive in kindergarten behind to catch up. By getting children ready for school, academically and socially, pre-k can reduce those costs and increase student success. This is a particularly important topic given Pennsylvania's current efforts to ensure adequate and equitable funding for public education. While there are no simple solutions to the challenges Pennsylvania faces, this brief explores how pre-k benefits K-12 systems and improves outcomes for children.

In looking at dozens of high-quality programs across the US, researchers have identified three primary benefits to K-12 systems based on children's participation in pre-k: reduced need for special education services, reduced grade repetition, and better performance and fewer behavioral problems in school. The direct relationship between quality pre-k and K-12 savings has even been recognized by the private sector. The impacts are so pronounced, in fact, that innovative financing models like Social Impact Bonds have been created to fund pre-k (see sidebar).

The following sections provide more detail about the impact of pre-k on K-12 as well as the potential benefits of expanding pre-k access in Pennsylvania.

Pre-K Reduces the Need for Special Education Services

High-quality pre-k programs significantly reduce the need for special education services in K-12 schools, especially for at-risk children, in several ways. First, these programs are able to identify and address mild disabilities, such as speech and language delays, mild hearing loss, social/emotional disturbances, and specific learning disabilities. Pre-k programs allow for early detection and the opportunity to ameliorate or prevent these disabilities before children enter kindergarten. In addition, good programs enhance children's cognitive abilities and foster the social skills they will need to thrive in kindergarten -- ultimately making them less likely to need special education.

Are these savings real? Private investors think so.

Because of the savings generated, early childhood education is one of the most promising areas targeted for investment through Social Impact Bonds and Pay for Success contracts. Such agreements attract private capital to provide a service and pay a modest return to investors based on the future savings that results from the program.

In Utah, Goldman Sachs, the J.B. Pritzker Family Foundation, and the United Way of Salk Lake have created a Pay for Success contract based on children avoiding special education and remedial services as a result of participating in high-quality pre-k. Private funds are used to pay for pre-k. Every year that a child who would likely have needed special education or remedial services does not need those services, the district saves \$2600. Pre-k investors get a portion of those savings.



Research on three seminal high-quality early education programs – the Perry Preschool Program, the Abecedarian Project, and Chicago Child-Parent Centers - found that these programs cut special education placements by 40 to 48 percent.¹ However, because these programs are considered “gold-standard” in early education, questions have been raised about whether large-scale public programs produce similar, significant effects. Research on a number of state programs indicates that the answer is yes:

- Children who participated in Louisiana's LA-4 pre-k program were as much as 49 percent less likely to be placed in special education through second grade compared with their peers who did not participate in the program.²
- New Jersey's public pre-k program decreased special education placements by 31 percent through fifth grade.³
- In Pennsylvania, analysis done by the Pittsburgh Public Schools found that the early intervention services provided in pre-k eliminated the need for special education services in kindergarten for 42 percent of children. The district estimated that this reduction saved the district \$570,000.⁴

Pre-K Reduces Grade Repetition

Children who attend high-quality pre-k programs develop the skills they need to be school-ready, which makes them less likely to repeat a grade during their K-12 careers. Analysis of state pre-k programs around the US showed that the likelihood that children who attended high-quality public programs would repeat a grade was reduced by as much as 33 percent through eighth grade.⁵ Specific examples include:



- Compared with children who did not participate, those who attended the Michigan School Readiness Program were 33 percent less likely to repeat a grade through eighth grade.⁶
- Participation in New Jersey's two-year pre-k program reduced the likelihood of grade repetition by 40 percent through fifth grade.⁷
- The Pittsburgh Public School district found that, between 2006-2011, only one percent of students who participated in their early childhood program were held back in kindergarten, compared with 3-7 percent district-wide.

Pre-K Improves School Climate and Student Outcomes

Research on pre-k programs across the US has also found that high-quality programs improve children's test scores in later grades as well as their behavior, creating a better school environment that benefits all children. As the share of children attending pre-k rises in a school, the school experiences lower levels of violence, higher levels of teacher satisfaction and reduced teacher

turnover and absenteeism.⁸ In addition to improving school climate and student learning, decreases in teacher turnover and absenteeism save districts money. Specific examples of improved performance and behavior include:

- In Michigan, children who went to pre-k performed better than their peers without pre-k on 4th grade math and literacy tests.
- In New Jersey, pre-k participation increased children's achievement in language arts and literacy, math, and science through 5th grade.⁹
- Children who attended the Tulsa Pre-K Program had lower levels of timidity and higher levels of attentiveness in the classroom compared to young children without pre-k.



The Potential for Savings in Pennsylvania

Pennsylvania is well positioned to reap additional benefits by expanding its existing high-quality public pre-k programs. Children are currently served through federal Head Start and other state programs -- including Pre-K Counts, which provides high-quality pre-k to at-risk 3- and 4-year-olds.¹⁰

We know these programs are effective. Independent, rigorous research has found that children who participate in Pre-K Counts are better prepared for school and less likely to need special education services. Annual evaluations consistently find that more than 90 percent of participants show age-appropriate or emerging age-appropriate proficiency in literacy, numeracy, and social skills after participating.¹¹ In addition, a 2009 study looked at more than 10,000 children who participated in Pre-K Counts and found the following:

- Upon entering the program, 21 percent of children were classified as developmentally delayed and qualified for early intervention services. After attending Pre-K Counts, just 8 percent were still classified as developmentally delayed.
- Children with serious problems in social and self-control behaviors upon entering Pre-K Counts had significant gains in age-appropriate skills and behaviors after participation.
- Children across all classifications – typical, at-risk, and delayed – showed actual development that exceeded standard expectations during participation in the program.¹²

In Pennsylvania, more than 260,000 (or 15 percent) of children in grades K-12 receive special education services,¹³ at a cost more than \$3 billion. The vast majority of these expenses are shouldered by the state (around 25 percent) and local school districts (around 65 percent), while the federal government covers less than 10 percent.¹⁴ Expanded pre-k access offers a proven way of reducing the number of children requiring these services, and therefore, the total cost to Pennsylvania and local school districts.

A study published by the Pennsylvania Department of Education in 2006 looked at the impact pre-k programs for 4-year-olds would have on special education services. It found that special education expenses would be cut by 8 to 12 percent. Based on the current special education

spending total of \$3.36 billion, this could mean savings of between \$268 and \$402 million. If the program were expanded to serve 3-year-olds, it would likely have an even larger impact on special education spending.

THE BOTTOM LINE

Pennsylvania has made great strides in offering high-quality pre-k to children in the Commonwealth; however, it could yield far greater benefits if more children had access. There are nearly 180,000 3- and 4-year-olds in low- to moderate-income families who struggle to afford high quality pre-k. Currently, only 53,000 of these children are served in public pre-k, leaving 125,000 unserved. And because of an overall shortage of high-quality programs, an additional 118,000 3- and 4-year-olds don't have access to high-quality pre-k regardless of income.

Providing more children with high-quality pre-k is an effective way to leverage the Commonwealth's education investments and improve outcomes for individual children. With this in mind, Pennsylvania's leaders should prioritize expanding access, so that all children – and the Commonwealth - can benefit from pre-k.

REFERENCES

- ¹ "High-Quality Early Education: Cutting Crime and Saving Minnesota Up to \$300 Million a Year in Education Costs," Fight Crime: Invest in Kids
- ² Center for Child Development. "LA 4 Longitudinal Report." Baton Rouge: Louisiana Department of Education. 2007.
- ³ Barnett, Steven, Jung, Kwanghee, Youn, Min-Jong, Frede, Ellen. "Abbott Preschool Program Longitudinal Effects Study: Fifth Grade Follow-Up." National Institute for Early Education Research Rutgers. 2013
- ⁴ Pew Center for the States, Investments in Pennsylvania's early childhood programs pay off now and later (2011)
- ⁵ Wat, Albert. "The Case for Pre-K in Education Reform: A Summary of Program Evaluation Finding." The Pew Center on the States. 2010.
- ⁶ Malofeeva, Elena, Marijata Daniel-Echols, and Zongping Xiang. "Findings from the Michigan School Readiness Program 6 to 8 Follow up Study." Ypsilanti: High/Scope Educational Research Foundation, 2007.
- ⁷ Ibid. 3
- ⁸ Belfield, Clive. "The Fiscal Impacts of Universal Pre-K: Case Study Analysis for Three States." Queens College. 2006.
- ⁹ Ibid 5
- ¹⁰ At-risk includes children in families earning less than 300% of the federal poverty level or with other risk factors such as language (other than English) or special needs/disabilities.
- ¹¹ Pew Center for the States, Investments in Pennsylvania's early childhood programs pay off now and later (2011)
- ¹² Bagnato, Stephen, Salawway, Jennifer, Suen, Hoi. "Pre-K Counts in Pennsylvania for Youngsters' Early School Success." Heinz Endowments to Children's Hospital Foundation. 2009
- ¹³ "Special Education Statistical Summary 2012-2013." Pennsylvania Department of Education Bureau of Special Education
- ¹⁴ Pennsylvania Department of Education, Special Education 2014-2015 Fiscal Year

About Pre-K for PA

Pre-K for PA is an issue campaign supported by individuals and organizations across Pennsylvania who believe that investing in our children is the right choice and an urgent necessity.

Our vision is that every 3- and 4-year-old in Pennsylvania will have access to high-quality pre-k. The campaign's founding statewide leadership includes:

