

The Research is Clear: High Quality Pre-K Pays Off

Research shows effective pre-k programs improve school readiness and academic achievement, reducing the need to provide special education services and helping more students advance to the next grade level on time. To harness the power of pre-k, Texas should build on the state's new High Quality Pre-k Grant Program to improve the quality of and access to pre-k.

All kids should have a strong start in life, including being safe, healthy, and on a path to succeed in school. A proven way to help children get this strong start in life and succeed in school is high quality pre-kindergarten. Research from across the country shows that quality pre-k is a highly effective public investment.

The Perry Preschool, Abecedarian Preschool Project, and Chicago Child Parent Center programs – considered the gold standard in pre-k quality – produced academic benefits, health improvements, reductions in crime, and improved economic outcomes such as higher earnings and reduced need for public benefits. For example, Perry Preschool students had an almost 20 percent higher high school graduation rate and children in the Abecedarian Preschool Program were four times more likely to graduate college than students in the control group. Children who attended the Chicago Child Parent Center pre-k program were 20 percent less likely to be arrested for a felony or incarcerated as young adults than similar children who did not attend the program. These returns¹ on investment have attracted support for high quality pre-k among Federal Reserve leaders, corporate CEOs, economists such as Nobel Prize winner James J. Heckman², law enforcement and military leaders, and bipartisan policymakers in Texas and across the country, among others.

Fortunately, as the number of children served through state pre-k programs has increased, so has the breadth of evidence of program effectiveness. There is now a growing collection of studies evaluating pre-k programs in several states. These studies support the overall conclusion that effective pre-k programs can improve academic and social-emotional outcomes for students in both the short and long term. As a result, they can also save taxpayer dollars through reduced spending on special education and grade retention.

Increased Kindergarten Readiness

Many evaluations have found state-funded pre-k programs to be effective in preparing students to be successful in kindergarten. Research shows that pre-k promotes the successful acquisition of pre-reading and pre-math skills.³

- Students who participated in in the **Arkansas Better Chance (ABC)** program scored higher on kindergarten measures of vocabulary, math skills, and understanding of print concepts than students who had non-ABC preschool experiences.⁴
- **Georgia's Pre-k Program** found a significant positive effect for participating children in measures of language and literacy, math, and general knowledge at kindergarten entry when compared to students of a similar age who had not yet participated.⁵
- The four-year-old children in **New Mexico Pre-K** had better outcomes on kindergarten measures of vocabulary, math, and early literacy when compared to students who had not yet attended pre-k.⁶
- An evaluation of **Oklahoma's Early Childhood Four-Year-Old Program** found large academic benefits for students of differing racial and ethnic groups across socioeconomic backgrounds. Participating students had significantly improved performance on cognitive tests of reading, writing, math reasoning, and problem solving abilities.⁷

Long-term Academic Outcomes

Students who participated in high-quality state-funded pre-k programs have been found to benefit from improved academic outcomes lasting into elementary, middle, and high school. Several longitudinal studies have examined well-established state pre-k programs, comparing participating students' outcomes on state assessments to those of similar control groups of students who did not participate in state-funded pre-k.

- A longitudinal study of **Louisiana's LA 4** public pre-kindergarten program compared the academic outcomes of participating students to non-participating students on the Louisiana Educational Assessment Program (LEAP) test in eighth grade. The study found that at-risk LA 4 students (as determined by family income) outperformed at-risk non-LA 4 students in all eighth grade measures.⁸
- **New Jersey's Abbott Preschool Program Longitudinal Study (APPLES)** has measured the academic outcomes of participating students in kindergarten, second, fourth, and fifth grades. At all levels of measurement, the Abbott preschool program has been shown to improve achievement in literacy, language arts, and math.⁹
- In a study of **Oklahoma's Universal Pre-k**, economically disadvantaged students showed gains in math achievement equivalent to a 20% reduction in the achievement gap.¹⁰
- More students in the **Michigan Great Start Readiness Program (GSRP)** graduated on time compared to students who had not attended GSRP pre-k (58% vs. 43%). Additionally, more GSRP students of color

graduated from high school on time compared to similar students of color who had not attended GSRP (60% vs. 37%).¹¹

The effects of high quality pre-k are long lasting, although academic experts and educators explain they become less stark over time as other children – requiring additional teacher attention and benefiting from learning alongside more school-ready peers – catch up in later grades. In addition, multiple studies show that the gains in social-emotional skills such as more attentive classroom behavior – a key factor in school success – persist even if test score advantages may diminish over time.¹²

Decreased Grade Retention and Special Education Referrals

The benefits associated with participating in quality pre-k have been found to not only impact cognitive performance measures like test scores, but also costly educational interventions like special education and grade retention.

- **New Jersey's Abbott Preschool Program** reduced grade repetition among first graders by 30% percent after one year of enrollment and 50% after two years.¹³ The program also reduced enrollment in special education from 17% to 12% through 5th grade.¹⁴
- Students who participated in the **Michigan Great Start Readiness Program (GSRP)** were less likely to be retained in-grade between 2nd and 12th grade. Additionally, GSRP participants were more likely to graduate from 12th grade on time compared to non-participants (58.3% compared to 43.0%). The positive association with on-time graduation and decreased grade retention were even higher for students of color who participated in GSRP.¹⁵
- Typically expected rates of special education placement were significantly reduced for students who participated in the **Pennsylvania's Pre-K Counts (PKC)** program as they transitioned into kindergarten.¹⁶

But Strong Results in Texas Require High Quality Standards

Texas pre-k is already a good investment. According to researchers at the University of Texas, for example, pre-k saved the state \$142 million during the 2013-2014 school year by reducing special education expenditures and preventing grade retentions.¹⁷

However, the state's pre-k program has been rated by the non-partisan National Institute for Early Education (NIEER) as one of the lowest quality programs in the nation, earning a mere two out of ten on their national-recognized quality rating scale.¹⁸ That means Texas students and taxpayers are not receiving the full potential benefit of pre-k. A study by Texas A&M researchers estimated that Texas would earn a return of \$3.50 for every \$1.00 invested in pre-k if the state were to implement a high-quality program with expanded access.¹⁹ Texas will miss out on the full potential of pre-k until state leaders take steps to improve quality.

Next Steps for Texas

What does all this mean for Texas? We are fortunate to have strong bipartisan policymaker support for pre-k and innovative community efforts focused on increasing access to quality pre-k. House Bill 4, passed in 2015, was an important step but we must map out the way forward to build on HB 4, ensure pre-k class sizes are manageable, help districts provide full-day programs to families who want them, and take the other steps necessary to make pre-k more effective. The road to ensuring increased access to high quality pre-k will take leadership, collaboration, and resources. High quality pre-k is one of the smartest investments we can make -- and our state's future depends on it.

¹ *Benefits and Outcomes of High-Quality Early Childhood Education* (2015). ReadyNation. Retrieved from <http://readynation.s3.amazonaws.com/wp-content/uploads/ReadyNation-Early-Learning-Overview-924151.pdf>

² Heckman, J. (2012). *Invest in early childhood development: Reduce deficits, strengthen the economy*. Retrieved from <http://heckmanequation.org/content/resource/invest-early-childhood-development-reduce-deficits-strengthen-economy>

³ Isaacs, J. (2008). *State Pre-Kindergarten: Impacts of Early Childhood Programs*. Brookings Institute. Retrieved from http://www.brookings.edu/~media/research/files/papers/2008/9/early%20programs%20isaacs/09_early_programs_brief1.pdf

⁴ Jung, K., Barnett, W. S., Hustedt, J. T., & Francis, J. (2013). *Longitudinal effects of the Arkansas Better Chance program: Findings from first grade through fourth grade*. Rutgers University & The University of Delaware. Retrieved from <http://nieer.org/sites/nieer/files/Arkansas%20Longitudinal%20Report%20May2013n.pdf>

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⁶ Hustedt, J. T., Barnett, W. S., Jung, K., & Friedman, A. H. (2010). *The New Mexico PreK evaluation: Impacts from the fourth year (2008-2009) of New Mexico's state-funded PreK program*. National Institute for Early Education Research. Retrieved from <http://nieer.org/pdf/NewMexicoRDD1110.pdf>

⁷ Gormley Jr., W. T., Gayer, T., Phillips, D., & Dawson, B. (2005). The effects of universal pre-k on cognitive development. *Journal of Developmental Psychology*, 41(6), 872-884. DOI: 10.1037/0012-1649.41.6.872 . Retrieved from <http://www.iapsych.com/wj3ewok/LinkedDocuments/Gormley2005.pdf>

⁸ Cecil J Picard Center for Child Development and Lifelong Learning. (2013). *Eighth-grade outcomes for LA4 cohort 1 students*. (Technical brief). Retrieved from <http://www.louisianaschools.net/lde/uploads/11515.pdf>

⁹ Barnett, W. S., Jung, K., Youn, M., & Frede, E. C. (2013). *Abbott Preschool program longitudinal effects study: Fifth grade follow-up*. National Institute for Early Education Research. Retrieved from: <http://nieer.org/sites/nieer/files/APPLES%205th%20Grade.pdf>

¹⁰ Hill, C. J., Gormley Jr., W. T., Adelstein, S., & Willemin, C. (2012). *The effects of Oklahoma's pre-kindergarten program on 3rd grade test scores*. Center for Research on Children in the United States, Georgetown University. Retrieved from [http://fcd-us.org/sites/default/files/Long-term%20Policy%20Brief_05-22-2012%20\(2\).pdf](http://fcd-us.org/sites/default/files/Long-term%20Policy%20Brief_05-22-2012%20(2).pdf)

¹¹ Schweinhart, L. J., Xiang, Z., Daniel-Echols, M., Browning, K., & Wakabayashi, T. (2012). *Michigan Great Start Readiness Program evaluation 2012: High school graduation and grade retention findings*. HighScope Educational Research Foundation. Retrieved from http://www.highscope.org/file/Research/state_preschool/MGSRP%20Report%202012.pdf

¹² Barnett, S., and Carolan, M. E. (2014). *Facts about fadeout: The research base on long-term impacts of high-quality pre-k*. Center on Enhancing Early Learning Outcomes. Retrieved from http://ceelo.org/wp-content/uploads/2014/08/ceelo_fast_fact_fadeout.pdf

¹³ Ellen Frede et al., "The Apples Blossom: Abbott Preschool Program Longitudinal Effects Study (APPLES) Preliminary Results through 2nd Grade Interim Report," (New Brunswick: National Institute for Early Education Research, 2009).

¹⁴ Barnett et al.,(2013), *Abbott*.

¹⁵ Schweinhart et al. (2012)., *Michigan*

¹⁶ Bagnato, S., Salaqay, J., & Suen, H. (2012). *Pre-k counts in Pennsylvania for youngsters' early school success*. Early Childhood Partnerships- Specs Research. Retrieved from <http://www.heinz.org/UserFiles/Library/SPECS%20for%20PKC%202009%20Final%20Research%20Report%20113009.pdf>

¹⁷ Pre-K is good for kids and for Texas: Short-term savings from pre-k estimated at nearly \$142 million annually (2015). Child & Family Research Partnership, University of Texas at Austin. Retrieved from

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<http://nieer.org/sites/nieer/files/2015%20Yearbook.pdf>

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