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

Research from Texas and across the U.S. shows that effective pre-k programs help students start kindergarten with the skills they need to succeed, boost early literacy and academic achievement, and reduce both grade retention and provision of special education services. This brief outlines examples of these research findings from throughout the country and here in Texas. It then concludes with a closer look at ways that Texas legislators should harness the power of early childhood education by funding full-day pre-k and taking other steps as they address school finance during the 2019 legislative session.

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Background on Texas Pre-k

Currently, Texas funds half-day pre-k for a limited population of primarily low-income students and English language learners. Some Texas school districts rely on local district dollars to offer full-day pre-k options. The majority of students enrolled in pre-k are four-year-olds, although some Texas districts enroll three-year-olds as well. There are no state limits on class sizes or student-teacher ratios.

In 2015, the Legislature passed HB 4, creating the High-Quality Pre-K Grant Program. Districts that received the funds educated nearly 190,000 pre-k students, representing 86 percent of the state's pre-k enrollment at the time.[1] The high number of Texas districts that applied for the grant funding demonstrated the high demand across the state for additional pre-k funding to improve early education. Although the Legislature eliminated funding for the program in 2017, momentum has been building again for increased investment in full-day, high-quality pre-k during the 2019 state legislative session. The State Board of Education recently called on lawmakers to fully fund and support full-day prekindergarten programs, adding that programs should be recognized as "the building blocks to future academic and social success, including the goal of reading and math on grade-level by third grade."[2] The Texas Commission on Public School Finance also recently recommended a substantial increase in funding for full-day pre-k programs with the explicit goal of improving third-grade reading ability.[3]

Decades of Research Provide a Solid Case for Investing in High-Quality Pre-k

Across the country, bipartisan support for greater investment in high-quality pre-k[4] has grown in recent decades as research demonstrated that the investment pays off for children and communities. Research has shown that the key elements to quality pre-k include engaging learning environments, well-trained teachers, low student-teacher ratios, a curriculum that effectively prepares children for kindergarten, full-day programs, and meaningful engagement of families in their child's education.[5] 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 returns[6] on investment have attracted support for high-quality pre-k among Federal Reserve leaders, corporate CEOs, economists such as Nobel Prize winner James J. Heckman[7], law enforcement and military leaders, and bipartisan policymakers in Texas and across the country, among others.

Fortunately, as the number of children served through states' 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 numerous states. These studies support the overall conclusion that effective pre-k programs can have a lasting, positive impact on academic and social-emotional outcomes for students, including improved kindergarten readiness, third grade reading and math scores, graduation rates and higher educational attainment. 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, including helping young learners develop strong pre-reading and pre-math skills.[8]

- Students who participated 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.[9]
- **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 participated.[10]
- 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 attended pre-k.[11]
- An evaluation of **Oklahoma's Early Childhood Four-Year-Old Program** found tremendous 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.[12]

In Texas:

- According to the Texas Education Agency (TEA), Texas pre-k programs meaningfully increase kindergarten readiness among students. Among eligible children who attend public pre-k programs, 58 percent are kindergarten ready, while only 42 percent of eligible children who do not attend pre-k are considered kindergarten ready.[13]

Longer-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 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.[14]
- **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.[15]
- **A new Duke University evaluation of North Carolina's NC Pre-k program** found the academic benefits of pre-k persisting well into middle school.[16]
- In a study of **Oklahoma's Universal Pre-k**, economically disadvantaged students showed gains in math achievement equivalent to a 20 percent reduction in the achievement gap.[17]
- More students in the **Michigan Great Start Readiness Program (GSRP)** graduated on time compared to students who had not attended GSRP pre-k (58 percent vs. 43 percent). Additionally, more GSRP students of color graduated from high school on time compared to similar students of color who had not attended GSRP (60 percent vs. 37 percent).[18]
- An analysis of the **Perry Preschool Program** showed a 7 percent to 10 percent per year return on investment in early childhood education based on increased school and career achievement as well as reduced costs in remedial education, health and criminal justice expenditures.[19]

In Texas:

- A 2018 analysis from **Dallas ISD** demonstrated that Dallas ISD pre-k students performed 25 percentage points higher on kindergarten readiness assessments compared to students who did not attend pre-k. Dallas ISD pre-k students were also less likely to be chronically absent and be held back a grade.[20]
- According to testimony[21] from the Texas Education Agency to the **2018 Texas School Finance Commission**,"the effects of high-quality pre-k programs continue to benefit [Texas] students as they get older, reducing their likelihood of dropping out of school by two percent, and increasing their likelihood of graduating from high school on time (by six percent), enrolling in college (by seven percent), and attending a second year of college (by six percent)."
- A 2016 report by **the Meadows Foundation and Children at Risk**, *Pre-K in Texas: A Critical Component for Academic Success*, showed that economically disadvantaged third graders who attended full-day pre-k had 40 percent higher odds of reading at a college-ready pace in third grade compared to those students who did not attend Texas pre-k.[22]
- A study by **Texas A&M researchers** at the Bush School of Government and Public Service estimated that Texas would earn a return of $3.50 for every $1.00 invested in pre-k through the reduced need for remedial or special education, lower crime rates, and decreases in participation in public programs if the state were to implement a high-quality program with expanded access.[23]

The effects of high-quality pre-k are long lasting, although academic experts and educators explain that they may become less stark over time as other children without access to pre-k receive additional teacher attention, benefit from learning alongside more school-ready peers, and may eventually 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.[24]

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 percent after two years.[25] The program also reduced enrollment in special education from 17 percent to 12 percent through 5th grade.[26]
- 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 percent compared to 43.0 percent). The positive association with on-time graduation and decreased grade retention were even higher for students of color who participated in GSRP.[27]
- 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.[28]
- A study by Duke University found the **North Carolina "NC Pre-K" program** reduced the likelihood of placement into special education by over one-third.[29]

In Texas:

- A **University of Texas study** in 2015 estimated that pre-k saves the state $142 million annually by reducing special education expenditures and preventing grade retentions alone.[30]
- A 2012 study conducted by **the Ray Marshall Center** at the University of Texas at Austin found that, among children eligible for Texas pre-k, children who attended were 23 percent less likely to be retained by the third grade.[31]
- Research for Dallas ISD found that pre-k students were less likely to be chronically absent and be held back a grade.[32]

But Stronger Results in Texas Require Reliable Full-Day Funding and Better State Standards

Texas pre-k is already a good investment, but to accrue even stronger outcomes and cost-savings, the Texas Legislature will need to improve the state's pre-k policies. Only providing state funding for half-day pre-k limits the effectiveness of pre-k programs and forces many eligible families to miss out on pre-k because parents' work schedules cannot accommodate a half-day program. The Legislature's inconsistent approach to pre-k funding – offering and then cutting grant programs – has stifled districts' ability to improve access to quality pre-k programs. According to the National Institute for Early Education Research (NIEER), Texas ranks 28th in state pre-k spending per child and 37th in total state spending on pre-k.[33] NIEER also found that Texas meets only four of ten benchmarks for high-quality pre-k[34] because of the lack of state investment in full-day pre-k, the lack of statewide standards ensuring pre-k class sizes and student-teacher ratios are manageable, and other shortcomings. A study commissioned by TEA in 2016 recommended class size limits of 22 students and a student-teacher ratio of 11:1.[35]

Texas is fortunate to have strong bipartisan support for pre-k, innovative community efforts focused on increasing access to high-quality pre-k, and a Legislature committed to improving school finance, including pre-k, during the 2019 session. To ensure all

Texas children start kindergarten with the skills they need and have the opportunity to succeed in later grades, the Legislature should invest in formula-funded, full-day pre-k. Along with providing more resources, the Legislature should establish strong pre-k standards, including limits on student-to-teacher ratios and class sizes.

The road to ensuring increased access to high-quality pre-k will take leadership, collaboration, and resources. As the research shows, high-quality full-day pre-k is one of the smartest investments we can make in our students and the future of our state.

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