



PRE-K IN TEXAS: A CRITICAL COMPONENT FOR ACADEMIC SUCCESS

children
atRisk
Speaking Out + Driving Change for Children



The Meadows
Foundation

Serving the People of Texas



EXECUTIVE SUMMARY

With funding from the Meadows Foundation, researchers at CHILDREN AT RISK engaged in a study to examine how participation in Texas public Pre-K¹ is associated with performance on the 3rd Grade STAAR Reading assessment.

CHILDREN AT RISK tracked approximately 47,000 students from the 2010-2011 school year to the 2014-2015 school year.² These students began public Pre-K in 2010 and completed 3rd grade in 2015. The study focused on five major urban school districts in Texas (Austin, Dallas, Fort Worth, Houston, and

San Antonio) and 12 additional school districts³ surrounding these metropolitan areas. Variables included student enrollment, district Pre-K expenditures, demographic and socioeconomic characteristics.

Overall, this study finds that, on average, economically disadvantaged students who attended high-quality public Pre-K in 2010 scored higher on the 2015 3rd Grade STAAR Reading assessment than economically disadvantaged students who did not attend public Pre-K or who attended lower quality public Pre-K.⁴

Background and Purpose

This report is the most recent large-scale Texas Pre-K study since 2012. This work supports findings from two previous studies from the University of Texas at Dallas and the University of Texas at Austin LBJ School of Public Affairs. Both of these studies also suggest a positive relationship between public Pre-K attendance and standardized reading outcomes.

Also, this report builds off the most recent CHILDREN AT RISK 2014 Texas Pre-K study supported by the Meadows Foundation and the Texas Education Grantmakers Advocacy Consortium (TEGAC), which found a majority of districts indicating inadequate funding as a key barrier to expanding full-day public Pre-K.

This report is noteworthy given the Texas Legislature's recent focus on public Pre-K quality during the 84th Legislative Session as this study connects Pre-K quality indicators (e.g. class size, funding, and Pre-K program length) with 2010-2011 and 2014-2015 anonymized student level data from the Texas Education Agency (TEA).

Methodology

This Texas Pre-K study relies primarily on connecting data from four sources: anonymized student level data from the TEA, financial data from the Texas Public Education Information Resource, school rankings

data from CHILDREN AT RISK, and campus level data from TEA's Academic Excellence Indicator System. Across campuses and students, this analysis examines the relationship between varying levels of public Pre-K participation and STAAR Reading scores⁴ by comparing means among multiple sub-groups of economically disadvantaged students.

Finally, select principals at "Gold Ribbon Schools" (those that are high performing and have a high percentage of economically disadvantaged students) were interviewed to discuss their approach and opinions on public Pre-K and 3rd Grade STAAR Reading performance.⁵

See full report for a detailed description of the methodology used in this study.



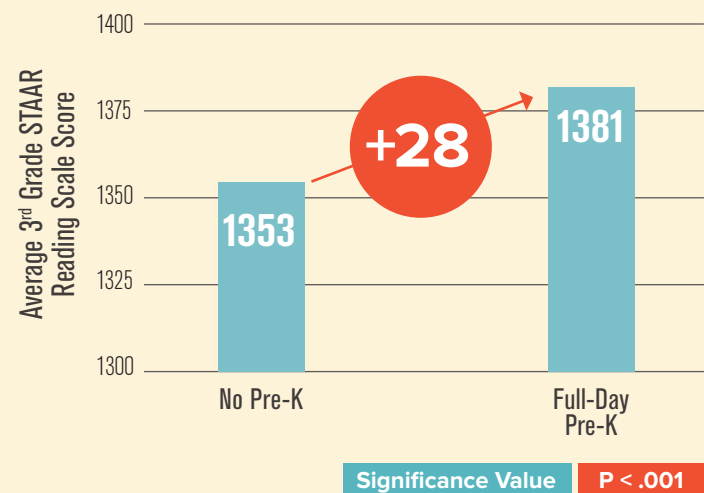
KEY FINDINGS

1. FINDING:

Full-Day Pre-K Works:

For the overwhelming majority of economically disadvantaged students, the data suggests that students who attend full-day Pre-K score higher on the 3rd grade STAAR Reading assessment than economically disadvantaged students who do not attend public Pre-K or who attend half-day Pre-K.⁴ For economically disadvantaged students, the odds of reading at a college-ready pace are 40% higher if they attend full-day public Pre-K.⁶

Average 2015 3rd Grade STAAR Reading Score⁷
(N=9,725)



For districts offering full-day Pre-K, economically disadvantaged children who enrolled in Pre-K had **40% higher odds⁶** of reading at a college-ready pace⁸ in 3rd grade than students who did not attend public Pre-K in those districts.



19,323
Economically
Disadvantaged
Students



509 Schools
Across Texas



+1,000
Classrooms



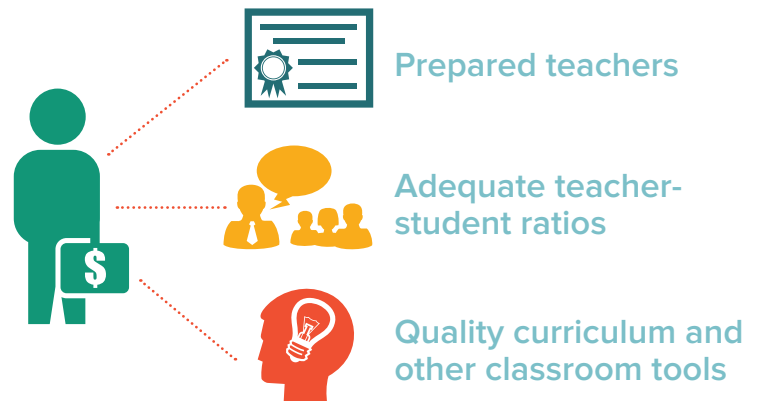
5 Major School
Districts in Texas

KEY FINDINGS

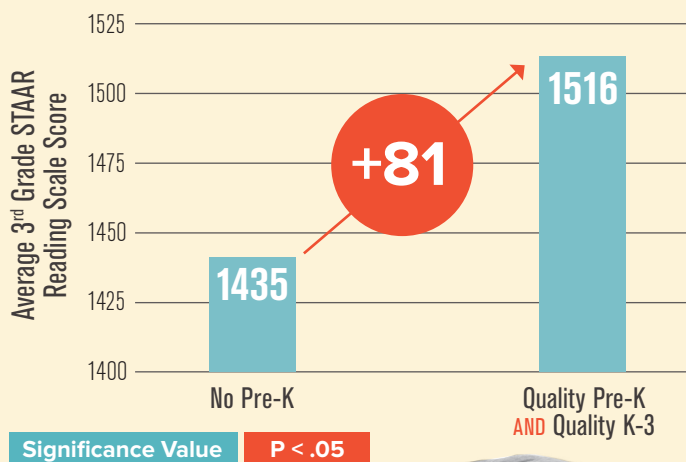
2. FINDING:

Investment in Higher Quality Pre-K Produces Results

For districts that spent more per student on Pre-K than the 2014-2015 state average, there was a stronger positive relationship between Pre-K enrollment and 3rd grade STAAR Reading scores. Schools need sustainable funding to create quality Pre-K – 3rd grade educational conditions.



Average 2015 3rd Grade STAAR Reading Scores at Graham Elementary (Gold Ribbon School):



All Gold Ribbon Schools

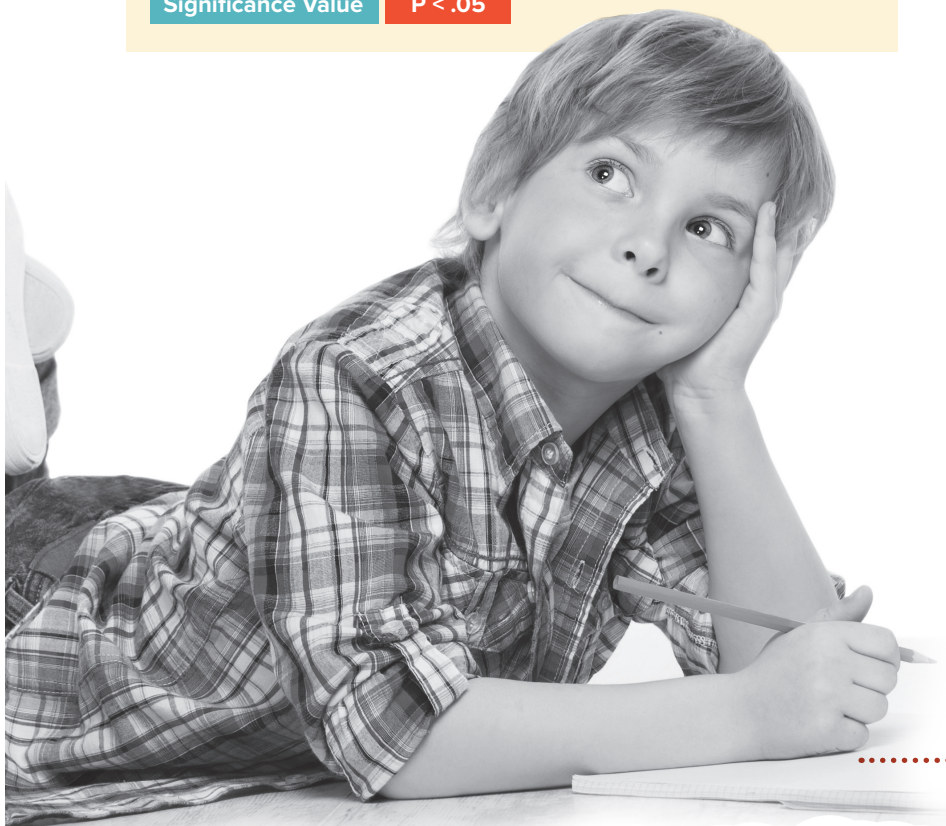
Above 75% Economically Disadvantaged

Children at Risk Ranking¹¹ A or B

Findings from qualitative interviews with gold ribbon schools (high poverty, high achievement):

1. Pre-K Children are Better Prepared for Kindergarten
2. Pre-K Children are More Advanced Across Multiple Reading Measures
3. Pre-K Children are Well-Adjusted to the Classroom Environment
4. Vertical Alignment of Curriculum Starting in Pre-K is Key
5. Collaboration Amongst Staff Leads to Overall Higher Educational Outcomes
6. Parent Engagement is a Critical Component of a Quality Pre-K Program

See full report for a detailed description of the spending analysis and additional information from the qualitative interviews with gold ribbon schools.

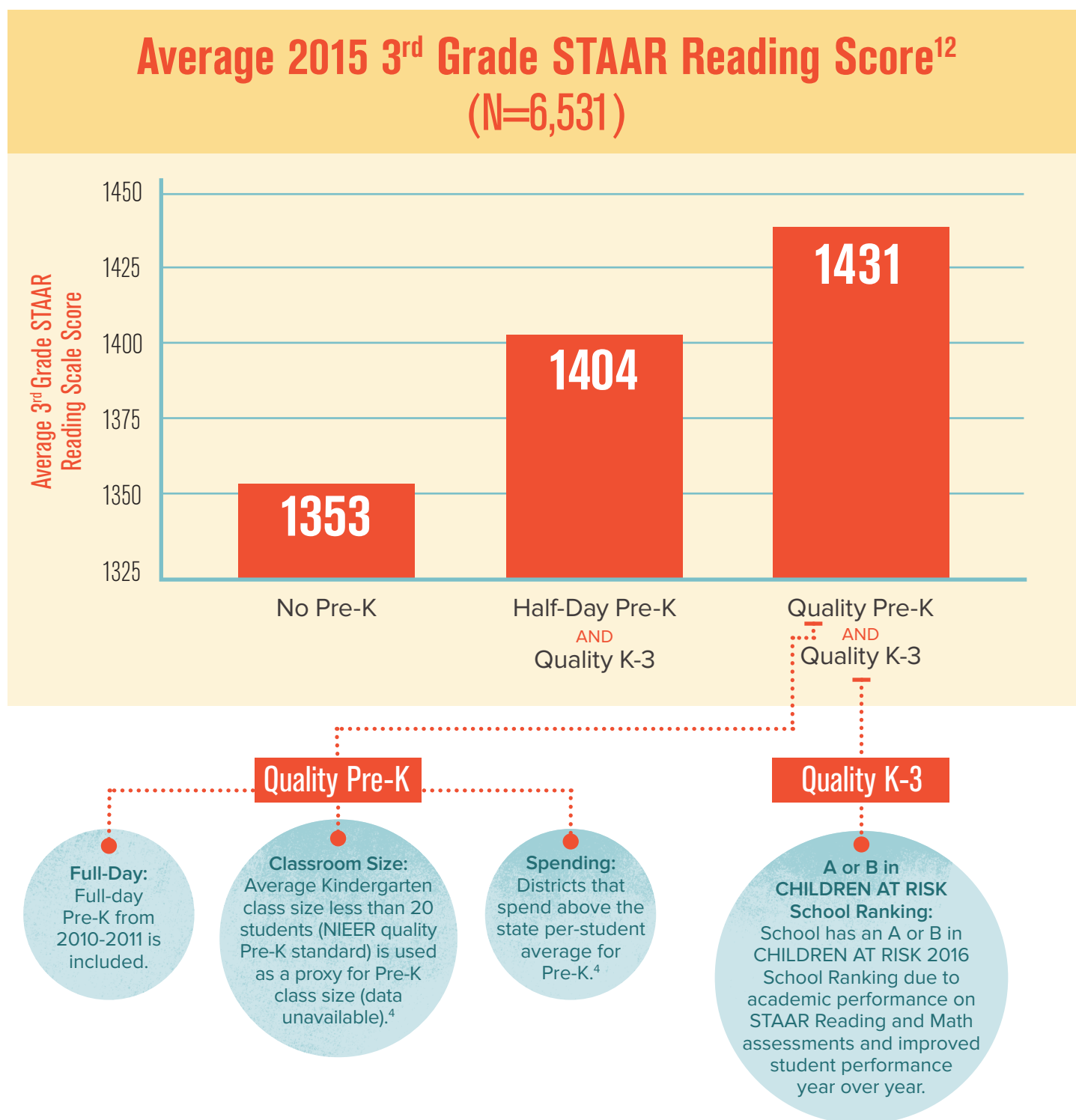


KEY FINDINGS

3. FINDING:

Quality K-3 Matters

For the overwhelming majority of economically disadvantaged students, the data suggests a quality Pre-K education⁴ and a quality Kindergarten – 3rd grade education¹¹ makes the biggest impact.



POLICY RECOMMENDATIONS

It's clear from the research that the State of Texas, to maintain a strong workforce, needs to move towards a public policy of ensuring that all low-income children have access to full-day quality Pre-K. The following policy recommendations would move Texas in that direction:

- 1 Sustain the High-Quality HB4 Pre-K funding at \$236 million for the biennium.
- 2 Create sustainable funding for quality Pre-K through formula funding.
- 3 Limit Pre-K classrooms to a maximum of 22 students, allowing no more than 11 students for each teacher or aide in Pre-K classes with more than 15 students.

Given the research showing a quality early childhood education is critical to long-term success, CHILDREN AT RISK also recommends the following policy changes that would strengthen the quality of educational services children under the age of five receive:

- 4 Create an Early Childhood through 3rd Grade teaching certificate to provide an option for teachers to gain deep expertise in early elementary grades.
- 5 Increase inter-agency coordination of child care and Pre-K data systems through the Early Childhood Database System to improve outcomes for children and maximize efficiency of taxpayer dollars.
- 6 Increase local coordination of early education programs by supporting public/private partnerships between school districts and high-quality child care centers.

Acknowledgement

Thank you to the foundations and funders that continue to support public education through their participation in the **Texas Education Grantmakers Advocacy Consortium** (TEGAC), a critical partner in advancing quality research and advocacy:

- Amarillo Area Foundation (Amarillo)
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- Cooper Foundation (Waco)
- The Dallas Foundation (Dallas)
- Educate Texas/Communities Foundation of Texas (Dallas)
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- The Simmons Foundation (Houston)
- Still Water Foundation (Austin)
- Tapestry Foundation (Austin)
- Texas Guaranteed Student Loan Corporation (Austin)
- Texas Pioneer Foundation (Texarkana)
- Trull Foundation (Palacios)
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- United Ways of Texas (Austin)
- Waco Foundation (Waco)
- Webber Family Foundation (Austin)
- Wright Family Foundation (Austin)
- George and Fay Young Foundation (Dallas)

ENDNOTES

1. Texas public Pre-K is defined as a half-day or full-day program offered by an independent school district in Texas. Students classified as “No Pre-K” were not found attending public Pre-K in Austin ISD, Dallas ISD, Fort Worth ISD, Houston ISD, or San Antonio ISD. These students could have been in informal child care, formal child care, Head Start, or another district Pre-K program outside the study group.
2. CHILDREN AT RISK analyzed 47,608 students across 17 school districts (see subsequent endnote for participating school districts). Across these 17 school districts, anonymized student level Pre-K enrollment data from the Texas Education Agency was used to estimate the average percentage of students enrolling in Pre-K at each campus and district. This information was used in conjunction with district financial reports from the Texas Public Education Information Resource (TPEIR) to observe the relationship between the average percentage of students attending Pre-K and average scale scores for districts spending above and below the state average in public Pre-K. Of the 47,608 students, we were able to match student-level anonymized Spring 2015 STAAR Reading scores with 2010-2011 public Pre-K enrollment data for approximately 20,000 students.
3. Twelve additional school districts included: Alief ISD, Arlington ISD, Brownsville ISD, Edinburg CISD, Grand Prairie ISD, Irving ISD, Manor ISD, Mesquite ISD, Pasadena ISD, Pflugerville ISD, Pharr-San Juan Alamo ISD, South San Antonio ISD. These districts were selected due to their proximity to the five major urban school districts the Texas Education Agency provided anonymized student level data for.
4. The following controls were used to define high-quality public Pre-K: 2010-2011 full-day ISD Pre-K program offered at the district level, an average Kindergarten class size of 20 at the campus level (cutoff based on the quality classroom size standard set by the National Institute for Early Education Research), and district spending at or above the 2011-2012 state average of \$2,469 per-student (2010-2011 spending data unavailable). Students classified as “No Pre-K” were not found attending Pre-K at Austin ISD, Dallas ISD, Fort Worth ISD, Houston ISD, or San Antonio ISD. These students could have been in informal child care, formal child care, Head Start, or another district Pre-K program outside the study group. “Lower quality Pre-K” is defined as half-day public Pre-K program offered district-wide.
5. Qualitative interviews conducted with principals from five schools in Texas where economically disadvantaged students who attended public Pre-K outperformed economically disadvantaged students who did not attend public Pre-K. For details, please reference the full report.
6. Methodology: There was a significant association between full-day Pre-k for economically disadvantaged students and whether or not low income students achieved the final recommended level for their 3rd grade STAAR Reading scores $\chi^2 (1) (60.54, p < .001)$. This seems to represent the fact that, based on the odds ratio, the odds for low income students achieving STAAR level II recommended were 1.38 (1.27, 1.49) times higher if they attended a full-day public Pre-K program than if they did not.
7. STAAR Reading English only. For STAAR Reading Spanish, average score for students attending full-day quality Pre-K was 1375 (N=2,924) and average scale score for students who did not attend Pre-K was 1353 (N=3,929).
8. “At a college-ready pace” defined as students meeting the 2015 STAAR Reading Level II Final recommended metric.
9. Only schools with greater than 75% economically disadvantaged students are included in this district analysis.
10. Two districts with missing or likely incorrect financial data excluded.
11. “Quality Kindergarten through 3rd Grade education” includes only schools with a CHILDREN AT RISK A or B school ranking. Schools with an A or B ranking are top performing schools in the state due to student growth and academic achievement in math and reading.
12. STAAR Reading English only. For STAAR Reading Spanish, average score for students not attending Pre-K was 1353 (N=3,929), 1412 (N=132) for students attending half-day Pre-K and quality Kindergarten-3rd Grade and 1373 (N=175) for students attending quality Pre-K and a quality K-3 school.



The Meadows
Foundation

The research included in this report was generously funded by the Meadows Foundation. The Meadows Foundation is a private philanthropic institution whose mission is to assist the people and institutions of Texas in improving the quality of life for themselves and future generations. The Foundation believes that excellence in public education is the gateway to improving virtually every aspect in the quality of life for the people of Texas. For more information on the Meadows Foundation, please visit www.mfi.org.



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The Miles Foundation endeavors to honor the legacy of its founder, Ellison Miles, through the support of institutions that offer innovative programs related to education, economic opportunity and leadership development. The Miles Foundation seeks to inspire individuals eager to learn, grow, and contribute to the betterment of their communities and country.

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