

Solving for X in Texas

Math Trends, Challenges, and Opportunities for the Lone Star State

TEXAS 2036

Texas has a math problem

Texas students are not demonstrating the level of math achievement needed to be successful in today's – or tomorrow's – economy.

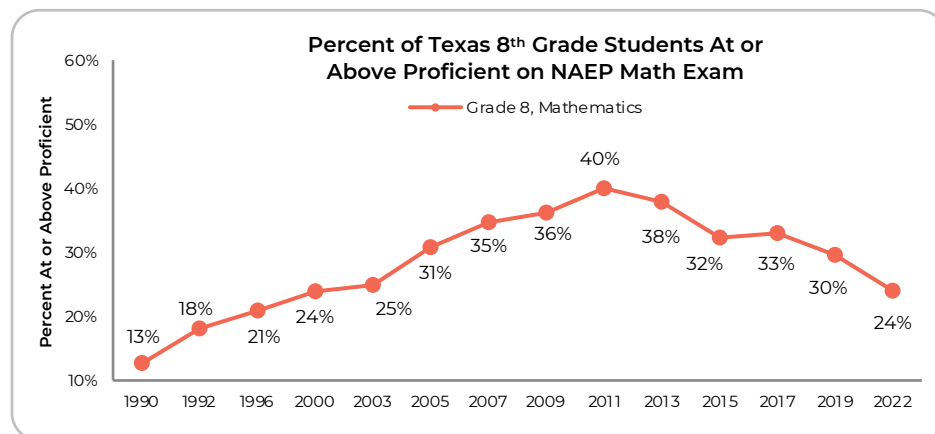


55%

of Texas students are below grade level in math.

Texas' math problem is not new

Texas' problem with math started long before the COVID-19 pandemic caused unprecedented disruptions to learning.

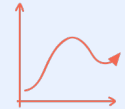


This is a problem Texas can – and must – solve

Texas educates over 5.5 million public school students in over 1,200 school systems. Preparing students with math knowledge and skills sets them up for long-term economic success. This competency in mathematics is key to a workforce that can produce innovation and GDP growth in the 21st century economy.

Recent labor market analysis from the Federal Reserve Bank of New York shows that college majors with mid-career median wages of \$100,000 and above all rely on a strong understanding of mathematics.⁸ STEM jobs are expected to grow by 8% by 2029, outpacing total job growth. This highly educated labor force holds degrees at a much higher rate than the total workforce.

Key Facts



1 in 10

parents believe their child is performing below grade level in math despite 55% of Texas students being below grade level in math.^{1,2}

21-point decline

in the percent of Texas 8th graders scoring at or above "Basic" on the National Assessment of Educational Progress since 2011.³



Texas 8th graders dropped roughly two grade levels in data analysis, statistics, and probability skills since 2011.⁴

Only 11%

of Black 8th graders are considered proficient, while Texas is ranked No. 1 for Black achievement on both 4th- and 8th-grade math.⁵



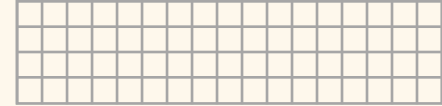
In nearly every grade, Texas students remain below pre-pandemic math achievement.⁶

Less than half

of Texas high school graduates meet college readiness benchmarks in math.⁷

¹ Learning Heroes and Gallup – B-Flation (2023). ² 2023 STAAR Results accessed via [TAPR Statewide Report](#). ³ NAEP Texas State Profile. ⁴ NAEP Data Pull. ⁵ 2022 TEA Annual Report & NAEP Texas State Profile. ⁶ 2023 STAAR Results accessed via [TAPR Statewide Report](#). The percentage of students performing at or above grade level in 4th grade in 2023 is the same as 2019. ⁷ Texas Education Agency, [A-F System Refresh Update Call Dec 1, 2022 Presentation](#) (Slide 21), 2022. ⁸ Source: U.S. Census Bureau, American Community Survey (IPUMS). <https://www.newyorkfed.org/research/college-labor-market#--explore-outcomes-by-major>

+ Answer Key



Solutions for the state to improve math outcomes in Texas schools

While policymakers contemplate ways to improve math education in Texas, it is worth considering options that take a comprehensive approach incorporating students, teachers, and parents to help students succeed, such as:

- + Supporting high-quality math instruction.
- + Producing high-quality professional development and coaching to ensure teachers are equipped with tools to help struggling students.
- + Increasing the emphasis placed on math content and pedagogy in Educator Preparation Programs.
- + Measuring math achievement in high school grades to increase transparency.
- + Utilizing math “screeners” — short diagnostics that identify who is struggling and what types of support they need to progress toward grade-level goals — in early grades and promptly notifying parents of identified difficulties.
- + Providing parents with resources to support tailored “math-at-home” instruction.
- + Developing targeted plans for children in need of math intervention, including activities during the summer.

Texas has adopted promising reforms in recent years, and state leaders can learn from efforts undertaken in other states as they continue to take bold steps to ensure Texas students can succeed in the modern economy.



Alabama

Passed the 2022 Numeracy Act, which invested heavily in math coaching in elementary school with the goal of having a math coach in every K-5 campus by school year '27-'28.



Arkansas

Requires that each parent receive notice when their child is enrolled in a math improvement plan and be updated on their child's progress.



West Virginia

Requires the state board to develop an “appropriate list of literacy and numeracy screening tools,” that are required to be administered to K-3 students which must be given in the first 30 days of the school year and repeated at mid-year and end-of-year.

If Texas does not address the systemic issues it has with mathematics education and achievement, it will be relegating its students to the sidelines of the future workforce without the skills and knowledge to take full advantage of the promise of the Texas miracle.

For more details, visit
www.texas2036.org/math

