



2018 Texas Public School Rankings Methodology

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I. Introduction

ABOUT CHILDREN AT RISK

CHILDREN AT RISK is a 501(c)3 non-profit, non-partisan research and advocacy organization dedicated to addressing the root causes of social problems impacting Texas children through research, education, advocacy, and public policy. The organization began in the fall of 1989 when a group of child advocates met to discuss the lack of documentation on the status of children and the absence of strong public policy support for youth. Over the course of more than two decades, CHILDREN AT RISK has evolved from an organization researching the multitude of obstacles Texas children face to one that also drives macro-level change to improve the future of our state through community education, collaborative action, evidence-based public policy, and advocacy for our youth at the local and state level. Through its Public Policy and Law Center—established in 2006 as the only center of its kind in Texas—CHILDREN AT RISK uses policy and legal expertise as a powerful tool to drive change and create a better future for our children. In recent years, CHILDREN AT RISK has grown exponentially in its capacity to speak out and drive change for children and has become a premier resource for children’s issues among major media outlets, public officials, and the non-profit sector. Today, the mission of CHILDREN AT RISK is to improve the quality of life for children across Texas through strategic research, public policy analysis, education, collaboration, and advocacy.

The school ranking system, first developed by CHILDREN AT RISK in 2006, highlights the successes as well as need for improvement of public schools. As a research and advocacy organization, the purpose of the rankings is not only to provide a tool for parents and students, but also to provide information for campuses and districts on how they perform relative to their peers, comparing them against successful models of high-performing public schools. In 2009, CHILDREN AT RISK began to include all eligible high schools in the state of Texas and extended the ranking system to include eligible elementary and middle school campuses. Thus far, the CHILDREN AT RISK rankings have proven to be instrumental in generating conversations among educators and the public regarding methods for improving our public education system. In addition, the School Rankings aim to:

- Serve as an accessible guide for parents, educators, and community members on the performance of local schools.

- Generate conversations not just about the data used in the ranking, but around how schools and districts are performing overall in creating college-ready students.
- Be transparent. Research is strongest when it is made available to the public and open to scrutiny. Thus, discussion can be generated, the ranking methodology can be improved, and all districts can utilize this avenue of assessing campuses.
- Encourage the use of data in public school reform. The rankings have successfully promoted data analysis at the campus and district level, targeted school intervention, aided teacher and staff professional development, allocated funds to better serve children, and supported changes in strategic planning.

Each year, CHILDREN AT RISK reexamines its methodology of ranking schools to ensure that the rankings most accurately reflects school performance, utilizes the most appropriate data available, and incorporates feedback from educators, researchers, and service providers.

II. Methods

SCHOOL RANKINGS OVERVIEW

All elementary and middle school campuses in Texas are ranked across three indices: Student Achievement, Campus Performance, and Growth. High schools are ranked across four indices: Student Achievement, Campus Performance, Growth, and College Readiness. Within each index, a weighted index score is calculated for each campus. Using the three index scores, a weighted average is computed to create an overall composite index. A state rank is determined as the order in which campuses are listed when the weighted composite indices are sorted from highest to lowest, relative to other schools servicing the same grade levels (i.e., Elementary, Middle, High). A letter grade is then assigned based on the campus' ranked composite score.

INDICES

Student Achievement Index

The Student Achievement Index reflects raw performance in key academic areas. The Student Achievement Index accounts for one-third or 33% of elementary and middle school campuses' overall rank and 25% of high school campuses' overall rank. The percentage of students at an elementary or middle school campus who Meet Grade Level on the STAAR Reading Exam for their respective grade level

accounts for 50% of the Student Achievement Index. The percentage of students at an elementary or middle school campus who Meet Grade Level on the STAAR Math Exam for their respective grade level accounts for the other 50% of the Student Achievement Index. For high school campuses the percentage of students who Meet Grade Level on the English I or English II STAAR End of Course Exam for their respective grade level account for 50% of the Student Achievement Index. For high school campuses the percentage of students who Meet Grade Level on the Algebra I End of Course Exam for their respective grade level account for the other 50% of the Student Achievement Index.

Campuses are then assigned a grade for the Student Achievement Index based on their composite Student Achievement Score. To see the cutoffs for grades A-F for the Student Achievement Index, see Appendix A.

Campus Performance Index

The Campus Performance Index captures performance on the Student Achievement indicators using values adjusted for the percentage of economically disadvantaged students at each campus. Raw academic measurements, such as those in the Student Achievement Index, have a bias toward campuses with low percentages of economically disadvantaged students. The Campus Performance Index is created to measure the effectiveness of the educators and programs at a campus independent of the differences in the percentage of economically disadvantaged students at each campus. The Campus Performance Index accounts for one-third or 33% of elementary and middle school campuses' overall rank and 25% of high school campuses' overall rank.

The Campus Performance Index utilizes a linear regression analysis to demonstrate the relationship between the percentage of economically disadvantaged students and their performance on the indicators that compose the Student Achievement Index. Using the regression analysis, a campus' deviation from its expected score based on the proportion of its student body which is economically disadvantaged is calculated. Deviation from the expected value is defined as the difference between the actual pass rate of a campus and its forecasted pass rate as defined by the regression line in the analysis. Each campus receives a positive or negative deviation score. A positive deviation score indicates a campus performed better than anticipated, while a negative deviation score indicates a campus performed worse than anticipated given the percentage of economically disadvantaged students at their respective campus.

A campus' deviation score is then added to its Student Achievement Score calculated in Index I. See below example:

| Student Achievement Score (% of students that Meet Grade Level) | Campus Performance Deviation Score (difference between the actual pass rate of a campus and its forecasted pass rate) | Campus Performance Score (Student Achievement Score + Campus Performance Deviation Score) |
|---|---|---|
| 60 | 13 | = 73 |

The above example shows that a campus has a deviation score of 13, meaning that they performed 13 percentage points higher than expected or forecasted. Those 13 points are then added to the campus' raw Student Achievement Score. In contrast, if a school performed worse than expected its campus performance deviation score is negative and is subtracted from the Student Achievement Score. Campuses are then assigned a grade for the Campus Performance Index based on their Campus Performance Score. To see the cutoffs for grades A-F for the Campus Performance Index, see Appendix A.

Growth Index

The Growth Index captures improvement over time in standardized test scores. The Growth Index accounts for one-third or 33% of elementary and middle school campuses' overall rank and 25% of high school campuses' overall rank. The Growth Index is composed of gain scores in math and reading, which measure student-level performance relative to a student's test-score peers. A student's test-score peers are other students, statewide, who took the same grade and subject-matter test the previous year and received the same score. Thus, the peer group for a 6th grade math student who scored a 20 on the 5th grade STAAR English-language Math test is all students across the state that also scored a 20 on the 5th grade STAAR English-language Math test.

The year-to-year difference is standardized, and then transformed into a normal curve equivalent score for ease of interpretation. A normal curve equivalent score is a version of a standardized score that can be interpreted as percentile ranks in a normal distribution. A campus' math gain score is an average of the individual student math gain scores; a campus' reading gain score is an average of the individual students reading gain scores. In the rare instance that a campus' gain

score could not be calculated for one subject, the other subject gain score is used for both gain scores. In the rarer event that neither a math nor a reading gain score could be calculated for a campus, they were dropped from the rankings.

The exams utilized to calculate the gain scores are the same exams utilized to calculate the Student Achievement Index and the Campus Performance Index in the gain score calculations include: STAAR Reading, STAAR Math, English I EOC, English II EOC, and Algebra I EOC.

Campuses are then assigned a grade for the Growth Index based on their Average Growth Score (an average of the math gain score and reading gain score). To see the cutoffs for grades A-F for the Growth Index, see Appendix A.

College Readiness Index (High Schools Only)

The College Readiness Index measures college readiness of high school students at a given campus. The College Readiness Index accounts for 25% of high school campuses' overall rank. Included in College Readiness Index is the CHILDREN AT RISK graduation rate (see below), the participation rates for SAT/ACT and AP/IB exams, average SAT and ACT composite scores, and the percent of examinees above the AP/IB criterion score. The average ACT and SAT scores are converted into percentiles for campus to campus comparison. . Each indicator has a pre-determined weight, and the weighted average of these indicators becomes the College Readiness Index. The following table shows the weight of each indicator in the College Readiness Index:

| | |
|----------------------------------|-----|
| C@R Graduation Rate (see below) | 60% |
| SAT/ACT Participation Rate | 10% |
| AP/IB Participation Rate | 10% |
| AP/IB Passing Rate (3 or higher) | 10% |
| Average SAT Total Score | 5% |
| Average ACT Composite Score | 5% |

CHILDREN AT RISK Graduation Rate

CHILDREN AT RISK tracks first-time freshman who entered high school in the 2010-2011, 2011-2012, or 2012-2013 school year. The three cohorts are followed to determine the percentage of students that have graduated from a Texas public high school by May 2016. The cohorts of students tracked are the cohorts established by

TEA and must meet the TEA graduation, dropout, and completion rates for state and federal accountability standards. In the graduation rates calculated by TEA students who leave a Texas public high school due to death, homeschool, private school, or another school outside of Texas are dropped from the original freshman cohort under the assumption they are completing their education at another institution or are unable to due to death. CHILDREN AT RISK, however, only excludes students that leave a Texas public high school due to death. For each campus the highest of the four-, five-, or six-year graduation rate is assigned to a campus as their graduation rate for the school rankings analysis.

Due to TEA's legal requirement to protect student privacy, some student data is masked. For example if 5 or fewer students left a school due to death, a masked value is given. CHILDREN AT RISK substituted the masked value with 2.5, the statewide mean of the possible value. At times these substitutions resulted in a graduation rate greater than 100%. In these cases, a school's final graduation rate was rounded down; they were assigned a graduation rate of 100%.

Campuses are then assigned a grade for the College Readiness Index based on their College Readiness Score (an average of the math gain score and reading gain score). To see the cutoffs for grades A-F for the College Readiness Index, see Appendix A.

III. Letter Grades

All campuses receive letter grades for each of the above indices. Additionally, they receive overall grades based on their Overall Composite Scores calculated using the below formulas. To see the cutoffs for a campus' overall grade, see Appendix A.

Elementary + Middle Schools

$$(\text{Student Achievement Score} * 33\%) + (\text{Campus Performance Score} * 33\%) + (\text{Average Growth Score} * 33\%) = \text{Overall Composite Score}$$

High Schools

$$(\text{Student Achievement Score} * 25\%) + (\text{Campus Performance Score} * 25\%) + (\text{Average Growth Score} * 25\%) + (\text{College Readiness Score} * 25\%) = \text{Overall Composite Score}$$

Once campuses are assigned a general letter grade, "A," "B," and "C" grades were further differentiated into plus/minus grades (e.g., "A+"). The range of Composite Index scores for each letter grade was divided evenly into thirds. The top third of Composite Index

scores became “plus” grades and the bottom third of Composite Index scores became “minus” grades. The cut-points are different for elementary, middle, and high schools because they are based on the unique sample of scores for the year’s schools at each level.

IV. Data and Limitations

DATA COLLECTION OVERVIEW

The data utilized in the school rankings analysis is collected by the Texas Education Agency (TEA). CHILDREN AT RISK receives a portion of the data directly from TEA through a public information request to the TEA data department. The other portion of the data utilized is downloaded from TEA’s publically available database, *STAAR Aggregate Data*, available [here](#). CHILDREN AT RISK merges all of the data by campus ID number to create a comprehensive school profile in order to conduct the analysis.

The STAAR exam data utilized in the 2018 School Rankings analysis is from the 2016-17 school year. A small portion of students across Texas take modified versions of the STAAR exam. CHILDREN AT RISK does not include data on any of the modified STAAR exams in the school rankings analysis. The analysis does include students who take the STAAR exam more than once, not only those that pass at first attempt. Additionally, the data includes any student who takes the STAAR exam at a given campus, not only those included in the October enrollment Public Education Information Management System (PEIMS) snapshot.

CHILDREN AT RISK seeks to hold schools accountable for student performance on a variety of indicators including standardized tests, graduation rates, college readiness, and improvement over time, utilizing a holistic approach to our annual examination of school quality. The indicators included, weights applied to each indicator, and the weights applied to each of the indices in the ranking analysis were determined by staff members in conjunction with influential members of the education community across Texas.

CAMPUS CLASSIFICATION

CHILDREN AT RISK used traditional grade ranges (elementary school EE-5, middle school 6-8, and high school 9-12) to determine each schools’ classification. However, there are many possible grade ranges and many schools fall outside of traditional grade ranges. In response, CHILDREN AT RISK employed a systematic approach to ensure the

most comprehensive and accurate picture of school performance relative to school peers is provided by including as many schools as possible.

Schools are ranked in each category in which their data is complete for that particular range. For example, an EE-8th grade school is ranked as both an elementary and middle school, but a 4th-8th grade school would only be ranked as a middle school as their data for elementary would not be complete. This leads to some discrepancies due to the fact that schools will have a different rank in each of the classifications for which they are analyzed and assigned a rank and grade. While we recognize this as a limitation, CHILDREN AT RISK's goal is to provide parents and stakeholders with the most complete picture of school performance possible.

EXCLUDED SCHOOLS

For a school to be included in the school rankings, a campus must have complete data profile from the Texas Education Agency (TEA) for each of the indicators included in the analysis. Any campus missing data for one or more indicators is excluded from the analysis. Campuses with fewer than 90 students enrolled are excluded from the rankings as there is not sufficient data to analyze the performance of their campus. Additionally, campuses under an alternative accountability system from TEA (i.e., disciplinary sites) and campuses confirmed to be undergoing a state or district investigation are also excluded from the annual analysis. Also, some schools are missing growth scores or STAAR aggregate data for a multitude of reasons. We are also unable to rank these schools.

HIGH SCHOOL FEEDER CAMPUSES

Recently, there has been an increase in campuses that serve a combination of 7th, 8th, 9th, and 10th graders together who then transition into a senior high school upon completion of 9th or 10th grade.

In an effort to provide the most complete picture possible, CHILDREN AT RISK merges these feeder campuses with their respective receiving senior high schools. This is done to prevent dropping these campuses and senior high school campuses due to missing data necessary to calculate the graduation rate. This is only done for campuses where there is a direct feeder pattern from the 9th grade serving campus to the receiving senior high school campus.

SUBLISTS

After the school rankings analysis is completed at the state level, sub-lists are extracted to compare school performance of like campuses based on pre-determined inclusion criteria. Sub-lists include geographic sub-lists for the major metro-areas as well as peer sub-lists comparing schools based social and economic characteristics.

Geographic Sublists

The geographic sub-lists facilitate the comparison of individual campuses in the same major metro areas across Texas. The geographic areas are defined as follows:

- Greater Austin Area – Bastrop, Blanco, Burnet, Caldwell, Hays, Travis, and Williamson
- Greater Houston Area – Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller
- Greater North Texas Area – Collin, Dallas, Denton, Ellis, Hunt, Johnson, Kaufman, Rockwall, and Tarrant
- Greater San Antonio Area – Atascosa, Bandera, Bexar, Comal, Guadalupe, and Medina
- Rio Grande Valley – Cameron, Hidalgo, Starr, and Willacy

Gold Ribbon Sublists

The Gold Ribbon sub-lists highlight high-performing, high poverty schools that are traditional neighborhood campuses; magnet schools and charter schools are not included in the Gold Ribbon sub-lists. High poverty schools are identified as campuses that are more than 75% economically disadvantaged. Those campuses that receive an A or a B in the CHILDREN AT RISK rankings are considered high performing, high poverty.

E. Study Limitations

There are numerous factors that affect the success of children and schools. Research shows some of the biggest factors for student success are parental involvement, social and emotional development, teacher quality and delivery of classroom instruction, participation in extracurricular activities, teacher and parent expectations of students, and engaging class work that stimulates critical thinking. However, there is no standard measure for any of these constructs, and it would be particularly difficult to collect these data efficiently and consistently for ranking nearly 8,000 schools.

Another constraint is CHILDREN AT RISK's dependence on data collected by the TEA. Thus, the limitations posed by TEA data are valid criticisms for the school rankings analysis. Any erroneous data reported to or by TEA may have an impact on the rankings analysis and final results. Additionally, the CHILDREN AT RISK rankings are limited to campuses that have complete data available through TEA for all measures included in the ranking. Campuses without comprehensive data profiles or those with fewer than 90 students are excluded from the rankings despite the quality of their performance.

CHILDREN AT RISK's reliance on STAAR exam data is a limitation in that only non-modified versions of the exam are utilized. Additionally, the performance of high schools on STAAR exams is a limitation, as there are only three required End of Course STAAR exams (Algebra I, English I, and English II). A portion of students take Algebra I in eighth grade; their data is not captured at the high school level due to an inability to tie the individual level data to their high school and the students do not retest in high school.

F. Appendix A

| | Grade | Student Achievement | Campus Performance | Growth | College Readiness | Overall Grade |
|-------------------|-------|---------------------|--------------------|--------|-------------------|---------------|
| Elementary School | A | ≥ 65 | ≥ 65 | ≥ 55 | | ≥ 65 |
| | B | 50 | 50 | 52 | | 50 |
| | C | 40 | 40 | 50 | | 40 |
| | D | 30 | 30 | 48 | | 30 |
| | F | < 30 | < 30 | < 48 | | < 30 |
| Middle Schools | A | ≥ 60 | ≥ 60 | ≥ 55 | | ≥ 60 |
| | B | 45 | 45 | 52 | | 45 |
| | C | 35 | 35 | 50 | | 35 |
| | D | 25 | 25 | 48 | | 25 |
| | F | < 25 | < 25 | < 48 | | < 25 |
| High Schools | A | ≥ 60 | ≥ 60 | ≥ 55 | ≥ 79 | ≥ 70 |
| | B | 45 | 45 | 52 | 72 | 55 |
| | C | 35 | 35 | 50 | 68 | 45 |
| | D | 25 | 25 | 48 | 65 | 35 |
| | F | < 25 | < 25 | < 48 | < 65 | < 35 |