![Dallas Independent School District logo]

2012-13 School Effectiveness Index Manual

The main purpose of the Dallas ISD is to improve student academic achievement. One way the district measures schools' ability to improve achievement is with its School Effectiveness Index, or SEI. The SEI is a value-added measure of students' performance on state- and district-mandated tests and the schools' improvement on other variables affecting student achievement, such as graduation rate and enrollment in *Advanced Placement* courses.

This manual outlines the method used to compute SEIs by describing the following: (1) selected outcome variables, (2) procedures for establishing appropriate comparisons, (3) procedures for establishing school cohorts, and (4) the equations that make up the SEI model.

1. Outcome Variables

Outcome variables, or the "dependent" variables, used in the Indices model equations are of two types: student-level and school-level. Student-level variables have values for each student and are modeled as dependent on a number of "predictor" or "independent" variables, which are described in the *Equations* section of this manual. School-level variables are computed across all students in the school, and are generally represented by percentages. The current-year variable is modeled as dependent on the prior two years' statistics, so that emphasis is on continuous improvement (an "upward trend") relative to other district schools. In the lists below, school-level variables are marked with an asterisk (*). All others are student-level variables.

For 2012-13, the following are outcome variables used in the computation of SEIs:

Elementary Schools

- Grades 1-2 English-dominant students: Scores from the Reading Comprehension subtest of the *ITBS* norm-referenced test.

- Grades 1-2 Spanish-dominant students: Scores from the Reading Comprehension subtest of the *Logramos* norm-referenced test. The campus Language Proficiency Assessment Committee determines for students with limited English proficiency if the *Logramos* is a more suitable test, based on district testing guidelines and students' *Woodcock-Munoz* results. Outcomes based on *Logramos* results are standardized and combined with those based on the *ITBS*.

- Grades 1-2: Mathematics Total scores from the *ITBS* norm-referenced test.

- Grades 3-6: Reading, writing, mathematics, and science scores from the *State of Texas Assessment of Academic Readiness 3-8,* or *STAAR 3-8,* as available for each grade. English and Spanish scores are used. Schools must follow district and state testing policies for LEP and Special Education students. (*STAAR* components include *STAAR*, *STAAR Modified,* and *STAAR L* results where available; *TAKS* components include both *TAKS* and *TAKS Accommodated* results where available.)

- Grades 3-6: First and second semester *Assessment of Course Performance (ACP)* scores in reading, mathematics, science, and social studies. Schools must follow district testing policy for LEP and Special Education students.

Middle Schools

- Grades 6-8: Reading, writing, mathematics, science, and social studies scores from the *STAAR 3-8,* as available for each grade.

- Grade 8: Algebra I scores from the *STAAR End-of-Course,* or *STAAR EOC.*

- Grades 6-8: First and second semester *ACP* scores in language arts, reading, mathematics, science, social studies, foreign languages, and computer science. Schools must follow district testing policy for LEP and Special Education students.

- Grade 7-8[*]: Percentage of students enrolled in pre-*AP* courses.

High Schools

- Grades 9-11: English I Reading, English I Writing, English II Reading, English II Writing, Algebra I, Algebra II, Biology, Chemistry, Geometry, Physics, World Geography, World History, and U.S. History scores from the *STAAR EOC.*

- Grade 11: Reading/English language arts, mathematics, science, and social studies scores from the *Texas Assessment of Knowledge and Skills,* or *TAKS.* (*TAKS* components include both *TAKS* and *TAKS Accommodated* results.)

- Grades 9-12: First and second semester *ACP* scores in language arts (including ESL), reading, mathematics, social studies, science, foreign languages, and computer science. Schools must follow district testing policy for LEP and Special Education students.

- Grade 12: Critical reading, mathematics, and writing scores from the *SAT* and English, reading, mathematics, and science scores from the *ACT*. The latest available scores, from any high school year, are used. (This outcome is included only if current-year data are available when SEIs are computed.)

- Grades 9-11: Critical reading, mathematics, and writing scores on the current-year *PSAT*.

- Grade 12[*]: Percentage of seniors who have ever taken the *SAT* or the *ACT*. (This outcome is included only if current-year data are available when SEIs are computed.)

- Grades 9-12[*]: Percentage of students enrolled in pre-*AP* or pre-*IB* courses.

- Grades 9-12[*]: Percentage of students enrolled in *AP* or *IB* courses.

- Grades 9-12[*]: Average score on *AP* tests. (This outcome is only included if current-year data are available when SEIs are computed.)

2. Establishing School Cohorts

Since comparable improvement is based on student outcomes (once a school has qualified), it is important to specify which students will be included in the cohorts. Students included in the school cohort are those who:

1) Have fewer than a pre-determined number of absences in a course
2) Are eligible to be tested in accordance with the Dallas ISD System-wide Testing Policy (on the testing variables)
3) Have the necessary prior-year and current-year test results for the 2012-13 school year

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[*] School-level variable

4) Are continuously enrolled during the term of interest
5) Were not retained in either of the two previous years (for *ITBS/Logramos*, *STAAR 3-8*, *TAKS*, and middle school *ACP* outcome variables only)

Continuous enrollment eligibility requirements vary per assessment. For semester 1 *ACPs*, a student who misses more than 10 days of a course prior to the last instructional day of the semester will not be eligible for inclusion in the calculation of a semester 1 *ACP* SEI. For semester 2 *ACPs*, a student who misses more than 9 days of a course prior to the last instructional day of the semester will not be eligible for inclusion in the calculation of a semester 2 *ACP* SEI. For year-long courses, a student who misses more than a pre-determined number of days in a course prior to the course-relevant assessment will not be eligible for inclusion in the calculation of a norm-referenced, *STAAR,* or *TAKS* SEI. The maximum number of absences allowed for the *full school year* is 20; the number of absences applicable to a specific course is pro-rated from the first instructional day of the term to the last instructional day before the first day of the course-relevant testing period. (See Appendix A for test-specific attendance requirements.)

Thus, in order to be included as a member of a given school's cohort, a student must adhere to the district's attendance and continuous enrollment parameters, have sufficient pre-observation data, and be tested in that school in accordance with Dallas ISD testing policy.

3. Establishing Appropriate Comparisons

Comparisons are characterized within elementary, middle school, and high school grade configurations. Middle schools will have results from all their students, including grade 6 students, incorporated in their Effectiveness Indices.

Magnet programs, academies, and vanguards have some special considerations that have been pre-determined by the district. Some of these schools are treated as "magnet programs" for the computation of SEIs, while others are grouped with their home school.

- Schools in Yvonne Ewell Townview Center and the academies and vanguards at George Bannerman Dealey, Harry Stone, and William Travis are considered individual magnet programs.
- Students enrolled at Lincoln Magnet; Skyline CDC; the academies at William Atwell, W.E. Greiner, Oliver Wendell Holmes, and Alex Spence; and the vanguards at Mark Twain, K.B. Polk, Sidney Lanier, and J.P. Starks are considered part of the home school. These programs are not considered "magnet" programs for the computation of SEIs.
- Irma Rangel Young Women's Leadership Academy and Barack Obama Men's Leadership Academy are separated into middle (6-8) and high (9-12) schools.
- A. Maceo Smith New Tech, Booker T. Washington High School for the Performing and Visual Arts, Dallas Environmental Science Academy, and H.W. Longfellow Academy are considered magnet programs in the computation of SEIs.

Campuses not specifically listed here are *not* treated as magnet programs during the computation of SEIs. Magnet schools, academies, and vanguards are included in the districtwide analysis at the appropriate grade configurations.

4. Equations

The district's school effectiveness methodology quantifies a school's effectiveness on a continuum. At the high end are schools whose students demonstrate performance that is exceptionally above the performance of similar district students and whose schoolwide trends (such as in graduation rates) are more positive than other schools. When a school's population departs markedly from its recent trend or

from the more general trend of similar students throughout the district, this departure is attributed to school effect. The measurement of a school's effect in this system involves the examination of *districtwide* student performance on each outcome variable, calculation of statistical predictions for *individual* student performance (or schools for some outcome variables), and determination of the extent to which the school's students exceed or fall short of their predictions.

SEI procedures involve a multi-stage, multi-level regression analysis to compute prediction equations by grade-level or by school for each outcome variable independently of school identification. The equations are then used to obtain mean gains over (or losses under) predictions. A major feature of the SEI procedure is the assignment of weights to each of the outcomes, with weights determined by the Superintendent of Schools (Appendix B). Once weighted levels of performance have been determined, the final computation results in an indicator of the degree of a school's improvement that is relative to other district schools.

Important characteristics of the methodology include:

- Schools are only held accountable for the performance of students who have been exposed to that school's instructional program. That is, schools are only held accountable for their continuously-enrolled students.

- Potential effects of "background" variables over which schools have no control are eliminated through use of established statistical procedures. The inclusion of background variables in the SEI models "levels the playing field" for schools and addresses practitioners' concerns about their impact on student outcomes. Student-level background variables that are controlled for in the SEI process include gender, LEP status, Gifted and Talented (GT) status, Special Education (SPED) status, socioeconomic status as indicated by participation in federal free/reduced-price lunch programs, and several of the interactions among these student-level variables. Also included are student-level U.S. Census variables that include average family income in the student's Census tract, percentage of college-degreed adults in the student's Census tract, and average family poverty level in the student's Census tract.

- Schools derive no advantage by starting with high-scoring or low-scoring students. The equations result in individualized predictions for a student based on that student's scores on the prior-year test of interest. Lower-scoring students have lower predicted scores in the following year. Higher-scoring students have higher predicted scores in the following year.

- Only one year's worth of historical data are used for the equations. A hierarchical linear modeling approach is used so that in most cases, satisfactory prediction is achieved with data from only the prior year. This practice maintains the "degrees of freedom" for the model, an important statistical consideration for the adequacy of the model. In an urban district with high student mobility (both in and out of the district), the inclusion of additional years of data significantly reduces the degrees of freedom associated with the equations. (Equations involving only school-level data are based on two years of historical data.)

Appendix A: Test-specific Attendance Requirements

2012-13 Test (Grades)	Course Enrollment Requirement	Maximum Days Missed
Semester 1 *ACPs* (3-12)	August 27 - January 14	10
TAKS ELA (11)	August 27 - March 1	14
STAAR 3-8 Mathematics (5,8) *STAAR 3-8* Reading (5,8) *STAAR 3-8* Writing (4,7) *STAAR EOC* English I-III (9-11)	August 27 - March 27	15
STAAR 3-8 Mathematics (3,4,6,7) *STAAR 3-8* Reading (3,4,6,7) *STAAR 3-8* Science (5,8) *STAAR 3-8* Social Studies (8) *TAKS* Mathematics (10,11) *TAKS* Science (10,11) *TAKS* Social Studies (10,11)	August 27 - April 22	17
STAAR EOC Algebra I (8,9) *STAAR EOC* Algebra II (10,11) *STAAR EOC* Biology (9) *STAAR EOC* Chemistry (10) *STAAR EOC* Geometry (9,10) *STAAR EOC* Physics (11) *STAAR EOC* World Geography (9) *STAAR EOC* World History (10) *STAAR EOC* U.S. History (11)	August 27 - May 3	18
ITBS/LOG Mathematics Total (1,2) *ITBS/LOG* Reading Comprehension (1,2)	August 27 - May 10	19
Semester 2 *ACPs* (9-12)	January 23 - May 23	9
Semester 2 *ACPs* (3-8)	January 23 - May 30	9

Appendix B: 2012-13 Weights of Outcome Variables

Grade:	1	2	3	4	5	6	7	8	9	10	11	12
ITBS/Logramos												
Reading Comprehension	8	8										
Mathematics Total	8	8										
STAAR 3-8 (English or Spanish)												
Reading			8	8	8	8	8	8				
Writing				8			8					
Mathematics			8	8	8	8	8	8				
Science					8			8				
Social Studies								8				
STAAR EOC | **TAKS**												
English I/II Reading | ELA									8/test	8		
English I/II Writing									8/test			
Algebra I/II/Geometry | Math								8	8/test	8		
Biology/Chemistry | Sci									8/test	8		
World Geo./World History | SS									8/test	8		
ACP												
Language Arts (incl. ESL)							2	8	8	8		
Reading			2	2	2	2	8	8	8			
Mathematics			2	2	2	2	8	8	8			
Science			2	2	2	2	8	8	8			
Social Studies			2	2	2	2	8	8	8			
World Languages							2	2	2			
Computer Science							2	2	2			
AP (and Pre-AP)												
Pre-*AP* Enrollment								2	4			
*AP/IB/*DC Enrollment									5			
AP Exams (Average Score)									3			
College Readiness Exams												
PSAT Reading Scores										1		
PSAT Mathematics Scores										1		
PSAT Writing Scores										1		
SAT Reading Scores												1
SAT Mathematics Scores												1
SAT Writing Scores												1
ACT Reading Scores												1
ACT English Scores												1
ACT Mathematics Scores												1
ACT Science Scores												1
SAT/ACT Percentage Tested												3