Dallas Independent School District

2013-14 SCHOOL EFFECTIVENESS INDEX MANUAL

Among the core beliefs of the Dallas ISD is that its main purpose 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: selected outcome variables, procedures for establishing school cohorts, procedures for establishing appropriate comparisons, and the equations that make up the SEI model.

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 schools in the Dallas ISD. In lists below, school-level variables are marked with an asterisk (*). All others are student-level variables.

For 2013-14, the following are outcome variables used in the computation of SEIs:

ELEMENTARY SCHOOLS

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

- Grades 1-2 Spanish-dominant students: Scores from the Reading Total subtest of the *Logramos* norm-referenced test. The campus Language Proficiency Assessment Committee determines if the *Logramos* is a more suitable test than the *ITBS* for English-language learners (ELL students), 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 policies for testing ELL and Special Education students. (*STAAR* components include *STAAR L* or *STAAR Modified* results when in sufficient quantity.)

- Grades 1-6: First and second semester *Assessment of Course Performance (ACP)* scores in reading, language arts, mathematics, science, and social studies (as available by grade). English and Spanish scores are used. Schools must follow district testing policy for testing ELL and Special Education students

MIDDLE SCHOOLS

- Grades 6-8: Reading, writing, mathematics, science, and social studies scores from the *STAAR 3-8,* as available by 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 reading, language arts, mathematics, science, social studies, foreign languages, and computer science. Schools must follow district policy for testing ELL and Special Education students

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

HIGH SCHOOLS

- Grades 9-11: English I, English II, Algebra I, Biology, and U.S. History scores from the *STAAR EOC*

- 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 policy for testing ELL 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 at the time 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 at the time 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 at the time SEIs are computed.)

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) Were enrolled and in attendance in an appropriate course (or at the school for school-level variables) for a minimum amount of time that is specific to the test in question
2) Were eligible to be tested in accordance with the Dallas ISD Systemwide Testing Policy
3) Have the necessary prior-year and current-year test results
4) Were not retained in either of the two previous years (for *ITBS/Logramos*, *STAAR 3-8*, and elementary and middle school *ACP* outcome variables only)

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[*] School-level variable

For test-level variables, such as Grade 1 *ITBS* reading or Grade 7 *STAAR* mathematics, a student's score is not incorporated into the SEI unless the student was enrolled and in attendance at the school *in an appropriate course*. An appropriate course is one in which the curriculum describes instruction (including remediation) of knowledge and skills that are assessed by the test in question. Any reading or language arts course is considered appropriate for use of "reading," "writing," or "language arts" scores.

Enrollment and attendance eligibility requirements vary per assessment. The maximum number of absences allowed for the full school year is 20; the number of absences applicable to a specific course scheduling group[†] is pro-rated from the first instructional day of the term to the last instructional day before the testing begins, a period of time called the "test term." For semester 1 *ACPs*, a student who misses more than 10 days in a course scheduling group during the semester 1 *ACP* test term 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 8 days in a course scheduling group during the test term will not be eligible for inclusion in the calculation of a semester 2 *ACP* SEI. For year-long courses, the number of absences that are allowed varies by test term; a student who misses more than the allowed number of days during the test term will not be eligible for inclusion in the calculation of a norm-referenced or *STAAR* SEI. (See Appendix A for test-specific attendance requirements.)

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

ESTABLISHING APPROPRIATE COMPARISONS

Comparisons are characterized within elementary, middle school, and high school grade configurations. Middle schools will have results from all students, including Grade 6 students, incorporated in their Effectiveness Indices. Magnet programs or schools, academies, and vanguards are given SEIs as follows:

- Schools in Yvonne Ewell Townview Center are given individual SEIs.
- 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 given separate SEIs.
- George B. Dealey Montessori, Harry Stone Montessori, and William Travis are separated into middle and elementary schools.
- Rosemont Primary School, Rosemont Elementary School, and Rosemont International Language Middle School are combined and given a single SEI
- Irma Rangel Young Women's Leadership Academy and Barack Obama Men's Leadership Academy are separated into middle and high schools.

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

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[†] Courses belong to the same scheduling group if they are evaluated with the same assessment(s) or if instruction received for a time in one course supports the instruction received in another course into which the student transfers or is concurrently enrolled.

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 multi-level regression analyses to compute prediction equations by grade level or by school type for each outcome variable independently of school identification. The equations are used to obtain mean gains over (or losses under) predictions. A feature of the SEI calculation process 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 students who were enrolled and in attendance for a minimum amount of instructional time.

- 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, ELL 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 are not advantaged 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 "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

2013-14 Test (Grade Levels)	Course Enrollment Requirement	MaximumDays Absent
Semester 1 *ACPs* (1-12)	August 26 – December 13	10
STAAR 3-8 Mathematics (5,8) *STAAR 3-8* Reading (5,8) *STAAR 3-8* Writing (4,7) *STAAR EOC* English I-II (9-10) *ITBS/Logramos* (1-2)	August 26 - March 28	16
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)	August 26 - April 21	18
STAAR EOC Algebra I (8,9) *STAAR EOC* Biology (9) *STAAR EOC* U.S. History (11)	August 26 - May 2	19
Semester 2 *ACPs* (1-12)	January 7 - May 2	8

Grade:	1	2	3	4	5	6	7	8	9	10	11	12
ITBS/Logramos												
Reading Total	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												
English I/II										8/test		
Algebra I								8		8		
Biology										8		
U.S. History										8		
ACP												
Reading/Language Arts (incl. ESL)	2	2	2	2	2	2	8	8		8		
Mathematics	2	2	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