AQuESTT Classification Rules – Version 2.0

12/20/2018

The following rules are used to calculate AQuESTT school/district classifications for accountability. The data used is collected from statewide assessment results and other data submitted to the Nebraska Department of Education by public school districts.

Participating Districts and Schools

1. Every eligible public school and district is included and held accountable. The same process is used to classify districts and schools into four rating levels: Excellent (4), Great (3), Good (2), or Needs Improvement (1).
    1.1. A school or district's overall classification rating is a combination of scores in the six tenet areas (Positive Partnerships, Relationships, and Student Success; Transitions; Educational Opportunities and Access; College and Career Readiness; Assessment; and Educator Effectiveness). The rules for combining these areas into the overall ratings are defined throughout this document.
    1.2. Starting with the list of all Nebraska school buildings for the current school year as collected in NDE's District and School Information collection system, these school buildings will be excluded from eligibility:
        1.2.1. Schools with a *District Type* other than Public; such as Interim, State Operated, ESU, Non-Public, etc.
        1.2.2. Schools that are wholly SPED or Prekindergarten programs (*Kind of School* codes 16 or 20, or *High Grade Level* code "PK")
        1.2.3. Schools that are wholly Alternative programs (*Type of School* code "NA")
        1.2.4. Note: any otherwise eligible school that contains any grade levels between Kindergarten and 3rd, and therefore may not have NSCAS assessments, is still included in the Classification process as an elementary school. The school's Status rating is copied from its district's Status rating as detailed later in this document.
    1.3. The list of eligible districts is defined by selecting all districts that contain at least one eligible school after taking into account the above rules.
    1.4. School ratings will be set per school building and school type (elementary, middle, high), so a single school building may have one or two "schools" due to how its grade levels are mapped as defined in this process.
        1.4.1. High school grade levels are generally defined as 9 through 12, secondary schools that have additional grade levels will be split into "Middle" and "High" schools at the 9th grade.
        1.4.2. Some school buildings may be split into "Elementary" and "Middle" schools according to particular grade level configuration and the elementary/middle

school grades cutoff that was used for this district in the previous AQuESTT model.

      1.4.2.1.   A district may request that NDE changes the elementary/middle grade splits on any of its schools. It is recommended that the school types and grade level splits align with the teaching methods used in those grade levels.

      1.4.2.2.   Starting with the 2019-2020 school year, NDE will confirm these grade level splits on all schools as part of the District and School Information collection.

   1.4.3.   Accordingly, the grade levels that constitute the elementary, middle, or high schools are customized for each school building and school year. The resulting elementary/middle/high school divisions have been prepared before the Classification process begins. These splits also determine the recipients of the Evidence-Based Analysis instruments.

   1.4.4.   Whenever the Classification process references previous school years' data, the E/M/H division logic for the corresponding years will be used rather than only using the current year's logic.

AQuESTT Indicators

The indicators described below are the individual data measurements that will be balanced and combined into a classification rating for AQuESTT state accountability. Please note that other data systems that use indicators by the same name, such as the ESSA Targeted School Improvement designation, may define indicators differently than AQuESTT.

Status

2.   The Status indicator score is based on the percentage of eligible students who scored on track or higher in the current year's statewide Math and English Language Arts assessments.

   2.1.   The statewide assessments used for status include the NSCAS, NSCAS-Alt, and NSCAS-ACT.

      2.1.1.   For reference, this chart shows which grade levels participate in NSCAS and NSCAS-Alt by subject, as well as in which school year each subject's assessments were first available for use in Classification:

	NSCAS/NSCAS-Alt Participating Grade Levels							First School Year Subject Available
Subject	3	4	5	6	7	8	11*	**Available**
ELA	x	x	x	x	x	x	x	2016-2017
Math	x	x	x	x	x	x	x	2017-2018
Science			x			x	x	2011-2012

* 11th Grade here refers to NSCAS-Alt only

2.1.2. Scores from the statewide NSCAS-ACT assessment for third-year cohort who are not taking an alternate assessment are available starting in the 2016-2017 school year. All subjects are included.

2.1.3. Due to federal requirements, statewide assessments for Science are separated into their own indicators, as defined below.

2.2. Assessment scores will be excluded from counting towards a school's Status for any student who has not been enrolled at the school for the full academic year. Full academic year is calculated based on two points in time: October snapshot and where a student has assessment scores. If these match, the students are considered full academic year.

2.2.1. Similarly, a score will be excluded from a district's Status if the student has not been enrolled within the district for the full academic year. However, assessment scores will count if the only movement a student exhibits during the academic year is limited to school buildings within the same district.

2.3. An assessment will also be excluded from counting toward Status if it is marked with a valid *Reason Not Tested* in regard to Performance calculations. Valid reasons for the exclusion of statewide assessment results include the following:

Code	Name
EMW	Emergency Medical Waiver
NLE	No Longer Enrolled
RAEL	Recently Arrived English Learner: Student takes all content assessments; Score does not count in Status or any Progress Measures (Growth, Improvement, Non-Proficiency)
RAEL (Yr 2)	2nd Year Recently Arrived English Learner: Student takes all content assessments; Score only counts in Progress Measures (Growth, Improvement, Non-Proficiency).
RAEL (Yr 3)	3rd Year Recently Arrived English Learner: Students are included in all accountability calculations.
RMV	Removed
OTH	Other

2.3.1. Note that the rules for valid *Reason Not Tested* codes vary depending on the subject area, and whether you are calculating Performance scores or Participation rates (as defined in the Participation indicator below).

2.3.2. If an assessment with the minimum scale score has a *Reason Not Tested* value other than those on the approved list above, it will count towards the school/district average.

2.3.3. A school must have a minimum of 10 students participating in an assessment eligible for Status to calculate a Status rating. If a school does not have 10 eligible

students, or does not contain any grade levels that participate in statewide assessments, its district's Status rating will be assigned as the school Status rating.

2.4. A school or district's Status indicator score is calculated by finding the count of eligible assessments (which includes both ELA and Math assessments for eligible students) that score at a proficient level or above, divided by the total number of eligible assessments in the current school year.

Participation

3. The Participation indicator score for each school/district is based on the percentage of eligible students that completed a statewide assessment.

3.1. For all subjects and grade levels, the participation rate is defined as the percentage of eligible assessments with scores (completed assessments) compared to the total number of eligible assessments.

3.1.1. A score will be excluded from the participation rate if it is marked with a valid *Reason Not Tested* for the current school year in regards to Participation calculations. Note that this is a different set of reasons than those used for the performance calculations. Valid reasons for the exclusion of statewide assessment results for NSCAS and NSCAS-ACT assessments include the following:

Code	Name
EMW	Emergency Medical Waiver
NLE	No Longer Enrolled
RMV	Removed
OTH	Other

3.1.2. A student does not have to be enrolled for a full academic year to be counted in the participation rate.

3.1.3. A school must have a minimum of 10 students eligible for the Participation indicator to calculate a rate. If a school does not have 10 eligible students, or does not contain any grade levels that participate in statewide assessments, its district's Participation rate will be assigned as the school's Participation rate.

Improvement

4. The Improvement indicator is based on the trend in ELA and Math statewide assessment scores in the school/district for the last three school years. This indicator is meant to acknowledges positive trends in statewide assessment scores across all students, regardless of proficiency level.

4.1. A school or district's Improvement indicator score is defined by using the regression formula to find a slope of a line that represents the trend in the statewide assessments scores over the last years. This value, which can be positive or negative, can generally be

thought of representing how many points per year the average assessment score has been improving or declining.

4.2. The trend for Improvement at a school/district is determined by calculating the linear regression for the available statewide assessment scores across three years using all available subjects and grade levels.

    4.2.1. The scale scores for each grade level and assessment type will be combined into a single standardized value for each school/district in the current year.

        4.2.1.1. This standardization method is based on standard deviations and the proficiency (on track) level cut scores. Details about this calculation can be found in Appendix C

        4.2.1.2. Each assessment has different ranges used for its scores:
-NSCAS: starting in 2017-2018, each grade level and subject area has a unique and vertical scale: ELA-2220 to 2890; Math-1000-1530.
-NSCAS-ACT: a score of 1-36, and each subject area has a different cut score/scale
-NSCAS-Alt: a scale of 100-300 for each subject area, only the cut scores vary by grade
-NeSA & NeSA-Alt: Only the ELA assessments from the 2016-2017 school year can be included in the Improvement indicator as its content has not changed significantly compared to the 2017-2018 NSCAS ELA assessments. NeSA assessments have the same scale as the NSCAS-Alt assessment mentioned above. NDE has an official conversion chart between 2016-2017 and 2017-2018 NSCAS ELA scores.

    4.2.2. Details about the linear regression formula used can be found in Appendix B.

    4.2.3. As in the Status indicator, for each school year used in the trend calculation: assessment scores from students that were not enrolled at the school/district for the full academic year in the corresponding school year(s) will be excluded from this calculation.

    4.2.4. Unlike Status, all assessments with the minimum scale score will be excluded from Improvement calculations, regardless of the *Reason Not Tested*.

4.3. A minimum of 10 students participating in an eligible assessment (20 total assessments) are required for any of the three school years included in the calculation. If a school does not have 10 eligible students for any of these school years, or does not contain any grade levels that participate in statewide assessments, its district's score will be assigned as the school's score for that school year in the Improvement calculation.

4.4. Any one school year may be available to be used in the trend line calculation independently of the other two school years.

    4.4.1. If a school/district has only two years of score data the equivalent of the linear regression slope calculation will still be performed.

    4.4.2. If a school/district has only a single year for score data, then the slope value for this indicator will be 0.

4.5. Due to the recent changes in the statewide assessments, Math NSCAS/NSCAS-Alt assessments will only be available for this indicator starting with the 2017-2018 school year. The NSCAS/NSCAS-Alt ELA assessment as well as the statewide NSCAS-ACT are available starting with the 2016-2017 school year.

Growth

5. The Growth indicator is defined as the percent of NSCAS/NSCAS-Alt assessment scores within a school or district that showed an increase compared to the same individual's score in the previous year.
    5.1. Only ELA and Math assessments will be used in Growth rate calculations, since Science assessments are not taken in consecutive grades.
        5.1.1. Each individual student may be counted up to two times in the Growth percentage, once for Math and once for ELA.
    5.2. Each district/school will calculate a Growth rate, which is the percentage of Growth-eligible assessment scores that showed an improvement (as defined in the table below) compared to the performance level/score in the previous year for that same student and subject area.
        5.2.1. Since the Growth calculation uses data from individual students across multiple years, it will attempt to match the current Student ID against any retired IDs for the same student.
        5.2.2. Any scores from students that were not enrolled for the full academic year in the current school year are excluded from the Growth rate calculation. However, students who attended a different school in the previous year will count in a school's calculation as long as they have a valid assessment score.
            5.2.2.1. School Growth scores require a full academic year at that particular school, while district Growth scores only require a full academic year in the district. Students that move between schools within the same district during the school year are still eligible for district Growth.
        5.2.3. An assessment will be excluded from the Growth rate if it has the minimum scale score in the current year, regardless of the *Reason Not Tested.*
        5.2.4. Any student that didn't have an assessment score in the previous year for the corresponding subject area, or that had the minimum scale score for any reason, is excluded from the Growth rate.
            5.2.4.1. Because of this rule and the grade levels that participate in statewide assessments, all 3rd and 11th graders are excluded.
        5.2.5. A school/district must have a minimum of 10 students participating in an eligible assessment (20 total assessments) to receive a Growth indicator score. If a school does not have 10 eligible students, or does not contain any consecutive grade levels that participate in statewide assessments, its district's Growth score will be assigned as the school's Growth score.
    5.3. For all Growth-eligible assessments, the following table is used to determine whether or not that assessment is assigned a Growth point by comparing the current year performance level and score against the previous year for the same subject area.

	Current Year

	Performance Level	Benchmark	On Track		Developing	
Previous Year	**Benchmark**	Yes	–		–	
	On Track	Yes	Score Gain < 0	Score Gain ≥ 0	–	
			–	Yes		
	Developing	Yes	Yes		Score Gain ≤ 0	Score Gain > 0
					–	Yes

5.4. Due to the recent changes in the statewide assessments, Math NSCAS/NSCAS-Alt assessments will only be available for this indicator starting with the 2018-2019 school year assessments. The NSCAS ELA assessment as well as the statewide NSCAS-ACT are available starting in the 2017-2018 school year.

5.5. The Growth indicator score is determined by finding the percentage of Growth-eligible assessments that qualify for a Growth point at each school/district.

Graduation (4 Year and Extended)

6. For each district/high school, the 4- and 7-year cohort graduation rates from the previous year are used to define two separate indicators.

6.1. The school year used for Graduation data lags one year behind other accountability data due to the timing of availability of the district-corrected data.

6.2. The cohort graduation rates are the percentage of members in a cohort who graduated with a diploma. The existing rules that NDE uses to define a cohort can be reviewed here: https://www.education.ne.gov/dataservices/nssrs-resources/

6.3. If a school/district has not existed for long enough to have the 7-year graduation cohort required for the Extended Graduation Rate indicator, the 6-year cohort will be substituted.

6.3.1. Similarly, if the 7- and 6-year cohorts are missing, then the 5-year cohort will be substituted for the Extended Graduation Rate indicator.

6.3.2. If there are no 5-, 6-, or 7-year cohorts, then the Extended Graduation Rate indicator will not receive a score

6.4. Only high schools and districts are eligible. Elementary and middle schools will not have a Graduation indicator.

6.5. A school or district cohort must have at least 10 members for it to be used in the Graduation rating.

6.5.1. If a cohort doesn't have 10 members, the previous year's counts for the matching cohort year (four or seven) can be added – e.g. for the 2017-2018 classification, if the 2016-2017 seven year cohort only has 18 members, the 2015-2016 seven year cohort can be added to it.

6.5.2. If both cohorts combined are still lacking enough members, the 2nd prior year can be added as well, but no more than that.

6.6. The 4-Year Graduation Rate and Extended (7-Year) Graduation Rate are considered to be two separate indicators for the purpose of AQuESTT tenet scoring.

Non-Proficiency

7. The Non-Proficiency indicator is defined as the trend in the percentage of ELA and Math statewide assessments scoring at a proficient level or above in the school/district for the last three school years.

7.1. As in the Status area, for each school year used in the trend calculation: assessment scores from students that weren't enrolled for the full academic year in the corresponding school year(s) will be excluded from this calculation.

7.2. The non-proficient rate is calculated by dividing the number of eligible ELA/Math assessments with scores in the lowest performance range by the total number of eligible ELA/Math assessments. This rate is calculated for the current year as well as the two previous years for each school/district, and this data will be combined into non-proficiency trend lines using linear regressions.

7.2.1. Details about the linear regression formula used can be found in [Appendix B](#).

7.2.2. A minimum of 10 students participating in an eligible assessment (20 total assessments) are required for any of the three school years included in the calculation. If a school doesn't have 10 eligible students for any of these school years, or does not contain any grade levels that participate in statewide assessments, its district's score will be assigned as the school's score for that school year in the Non-Proficiency calculation.

7.2.3. Any one school year may be available to be used in the trend line calculation independently of the other two school years.

7.2.4. If a school/district has only two years of score data the equivalent of the linear regression slope calculation will still be performed.

7.2.5. If a school/district has only a single year for score data, then the slope value for this indicator will be 0.

7.3. Due to the recent changes in the statewide assessments, Math NSCAS/NSCAS-Alt assessments will only be available for this indicator starting with the 2017-2018 school year. The NSCAS/NSCAS-Alt ELA assessment as well as the statewide NSCAS-ACT are available starting with the 2016-2017 school year.

7.4. A school or district's Non-Proficiency indicator score is defined by using the regression formula to find the slope of a line that represents the trend in the rate of non-proficient statewide assessments over recent years. This slope value can generally be thought of as representing the change in the percentage of non-proficient assessments at a school/district per year, with a negative slope value (fewer non-proficient tests) being the goal.

Progress Toward English Language Proficiency

8. The Progress toward English Language Proficiency indicator is meant to measure the percentage of English Learner students in a school/district who are on track in their progress towards English language proficiency as measured by the ELPA21 assessment.

8.1. A student will be eligible for this indicator if they have ever taken the ELPA21 assessment in Nebraska, and have not yet achieved a "Proficient" determination on that assessment or in any subsequent school years.

8.1.1. All K-12 students that are identified as English learners are required to take the ELPA21 during the testing window.

8.1.2. A student's ELPA21 assessment at a school/district will be eligible for this indicator if the student was enrolled at the district on the ELPA21 testing labels upload date.

8.1.3. A student's initial assessment on the ELPA21 determines the baseline (Year 1), therefore, students in their first year of taking the assessment are not eligible for this indicator.

8.1.4. The results from Nebraska's prior English language proficiency test (ELDA) are not applicable to this indicator. If a student has taken both the old and new assessments, their progress towards proficiency will be defined starting with their first ELPA21 assessment.

8.2. A student's overall result from each ELPA21 assessment is categorized as one of these six proficiency levels: Emerging Low, Emerging High, Progressing Low, Progressing Medium, Progressing High, and Proficient.

8.2.1. The categories of Emerging, Progressing, and Proficient are based on scores of the four domains of ELPA: Reading, Writing, Listening, and Speaking. See chart below:

Proficient	Students are Proficient when they attain a level of English language skill necessary to independently produce, interpret, collaborate on, and succeed in grade-level content-related academic tasks in English. This is indicated on ELPA21 by attaining a profile of Level 4 or higher in all domains. Once Proficient on ELPA21, students can be considered for reclassification.
Progressing	Students are Progressing when, with support, they approach a level of English language skill necessary to produce, interpret, and collaborate, on grade-level content-related academic tasks in English. This is indicated on ELPA21 by attaining a profile with one or more domain scores above Level 2 that does not meet the requirements to be Proficient. Students scoring Progressing on ELPA21 are eligible for ongoing program support.

Emerging		Students are Emerging when they have not yet attained a level of English language skill necessary to produce, interpret, and collaborate on grade-level content-related academic tasks in English. This is indicated on ELPA21 by attaining a profile of Levels 1 and 2 in all four domains. Students scoring Emerging on ELPA21 are eligible for ongoing program support.

8.2.2. Within the proficiency determinations of Emerging and Progressing, to further subdivide these proficiency levels, overall scale scores are used to determine Low-High and Low-Medium-High levels. Below are the cut points on the overall scale score for the Emerging Low, Emerging High, Progressing Low, Progressing Medium, and Progressing High. Proficient is defined as scoring 4s or 5s in all four domains of the ELPA21.

	Emerging		Progressing		
	Low	High	Low	Medium	High
Kindergarten	<4778	≥4778	<5441	≥5441 <5802	≥5802
1st Grade	<4577	≥4577	<5384	≥5384 <5708.03	≥5708.03
2nd Grade	<4304	≥4304	<5161	≥5161 <5439	≥5439
3rd Grade	<4378	≥4378	<5466	≥5466 <5768	≥5768
4th Grade	<4227	≥4227	<5192	≥5192 <5493	≥5493
5th Grade	<4310	≥4310	<5379.99	≥5379.99 <5664.01	≥5664.01
6th Grade	<4352	≥4352	<5190.66	≥5190.66 <5444	≥5444
7th Grade	<4469	≥4469	<5337.99	≥5337.99 <5623.01	≥5623.01
8th Grade	<4503	≥4503	<5384.99	≥5384.99 <5729	≥5729

9th Grade	<4525.5	≥4525.5	<5388	≥5388 <5625	≥5625
10th Grade	<4704	≥4704	<5331	≥5331 <5627.01	≥5627.01
11th Grade	<4800	≥4800	<5349.66	≥5349.66 <5640.34	≥5640.34
12th Grade	<4828	≥4828	<5340	≥5340 <5615.34	≥5615.34

8.3. A student's proficiency level on their first ELPA21 assessment sets their "baseline" level. This baseline level will be compared against the student's proficiency level on each subsequent year's ELPA21 assessment to determine whether or not they are on track to become proficient.

    8.3.1. Once the baseline has been set for a student, this baseline will continue to be used in all future years of AQuESTT, it will not be updated as long as they are considered EL eligible.

    8.3.2. A student who has taken their first ELPA21 assessment in the current school year is not eligible for this indicator, as there must be two years of results in order to define progress.

    8.3.3. The chart below describes the timeline for when a student is expected to score at each level on the assessment to be considered on track, as determined by their baseline level. Essentially, a student is expected to attain the next level each year as measured by the annual assessment.

Baseline Year	Year 2	Year 3	Year 4	Year 5	Year 6
Emerging Low	Emerging High	Progressing Low	Progressing Medium	Progressing High	Proficient
Emerging High	Progressing Low	Progressing Medium	Progressing High	Proficient	
Progressing Low	Progressing Medium	Progressing High	Proficient		
Progressing Medium	Progressing High	Proficient			
Progressing High	Proficient				

8.3.4. If a student has not achieved a Proficient level as determined by their individual timeline based on their initial ELPA21 score, they will continue to count as not being on track each year that they are enrolled at the school/district until that level is achieved.

8.3.5. Students who score Proficient on the ELPA21 are reclassified as English fluent and are no longer required to participate in ELPA21 testing.

8.3.5.1. Once a student has been assessed at a Proficient level, the student will not be eligible for this indicator in the following school year.

8.3.5.2. If a student achieves a Proficient level ahead of the specified timeline, they will also not be eligible for this indicator the following year.

8.3.6. A school who has a student who becomes "off-track," i.e. they do not make the requisite growth, can still receive credit for that student in future years. An off-track student will receive half credit if not on track but showing growth (changing level) compared to the previous year.

8.3.6.1. Growth is only applied when a student moves up a proficiency level.

8.3.7. If a student who has a baseline assessment and has not yet scored at a proficient level but does not complete an ELPA21 assessment in the current school year, they will be counted as not on track for the school/district the student's assessment label was assigned at.

8.3.8. Students are defined as proficient in this assessment when they attain a level of English language skill necessary to independently produce, interpret, collaborate on, and succeed in grade-level content-related academic tasks in English. This is indicated by attaining a profile of level 4 or higher on each of the domains of Listening, Speaking, Reading, and Writing. Once Proficient on ELPA21, students are reclassified as English fluent.

8.4. A school or district must have at least 10 eligible English learner students who have taken at least two years of ELPA21 assessments in order for this indicator to receive a score.

8.5. The Progress Toward English Language Proficiency indicator score is defined by the percentage of eligible students making adequate progress to proficiency based on their ELPA21 baseline level.

Chronic Absenteeism

9. The Chronic Absenteeism indicator is defined by the difference between the percentage of eligible students at a school/district that are categorized as chronically absent, relative to a target percentage. The target percentage is calculated based on the goal of reducing chronic absenteeism rates by half over 10 years.

9.1. Students are defined as chronically absent when they are absent for 10% or more of their days in membership at a school/district. The chronic absenteeism rate is defined by the number of these students, divided by the total number of eligible students at a school or district.

9.1.1. An absence for this purpose is defined the same way as for state accountability purposes. If a student is not receiving supervised instruction then they are considered absent, regardless of whether the absence is considered excused or unexcused by the district. If students are out of school for an educational purpose and are supervised by school staff, such as a field trip or extracurricular activity, then they are not absent.

9.1.2. Students shall be counted in attendance when they are present on days when school is in session. A student shall be counted present only when he or she is actually at the school or is present at a school sponsored activity which is supervised by a member or members of the school staff. This may include authorized independent study, work-study programs, field trips, athletic contests, music festivals, student conventions, instruction for homebound students, or similar activities when officially authorized under policies of the local school board. It does not include "making up" school-work at home or activities supervised or sponsored by private individuals or groups. (See Title 92, Chapter 2: Uniform System of Accounting)

9.1.3. The cutoff for a student being listed as chronically absent is calculated based on the total number of instructional days (in-session days) that fall between the student's enrollment entry and exit dates at the school/district. If the student's total days absent is greater than or equal to 10% of their total days in session, that student will be considered chronically absent.

9.1.3.1. The days absent and days in session values both support being reported using partial days, up to two decimal places.

9.1.4. Consistent with federal reporting guidelines, if a student is in membership for fewer than 10 days at a school/district, that student is not eligible for this indicator.

9.1.5. Students that do not require attendance for state accountability purposes are not eligible for this indicator. This includes students that receive only Special Education services or services coordination from a district (without receiving any instruction), home-based Special Education students, and students that only attend summer school within a district.

9.2. In order to define the target chronic absenteeism rate for a school/district in the current year, a baseline rate must be established. As the long term goal is to reduce chronic absenteeism 50% over 10 years, the target rate for the current year's rate will be a 5% improvement on the baseline rate.

9.2.1. The baseline rate is calculated by taking the number of chronically absent students in a school/district over the three previous school years, divided by the number of eligible students during those years.

9.2.1.1. If a school/district only has one or two prior years of attendance data to use, then that school/district is still eligible to produce a baseline rate.

9.2.1.2. If a school/district has no prior years of attendance data, then the school/district will not receive any score for this indicator.

9.2.2. The target rate for the current year is defined by reducing the baseline rate by 5%:

$$Target = Baseline - (Baseline \times 0.05)$$

9.2.3. The Chronic Absenteeism indicator score is defined by the difference between the current year chronic absenteeism rate and the target rate. This difference could be positive or negative, with a lower number being better.

9.3. The charts below show examples of a Chronic Absenteeism indicator score:

2014-15 Rate	2015-16 Rate	2016-17 Rate	Three Year Baseline	5% of Baseline Rate	2017-18 Target Rate (Baseline less 5%)	Actual 2017-18 Rate	Difference from Target (Score)
17.5%	18.2%	15.3%	17.1%	.855%	16.245%	19.2%	+2.955%

2014-15 Rate	2015-16 Rate	2016-17 Rate	Three Year Baseline	5% of Baseline Rate	2017-18 Target Rate (Baseline less 5%)	Actual 2017-18 Rate	Difference from Target (Score)
38.0%	40.5%	39.6%	39.3%	1.965%	37.335%	36.4%	-0.935%

Science Proficiency

10. The Science Proficiency indicator is defined by the percentage of eligible statewide assessments scored at a proficient level or above with a school/district in the NSCAS/NSCAS-Alt/NSCAS-ACT Science assessments.

    10.1. The rules for this indicator are the same as for the Status Indicator listed above, but applied solely to the Science content area. However, due to federal requirements it has been split into its own indicator.

Science Improvement

11. The Science Improvement indicator is defined by the trend in science statewide assessment scores in the school/district for the last three school years. This indicator is meant to reflect positively on schools that are improving statewide assessment scores across all students, regardless of proficiency level.

    11.1. The rules for this indicator are the same as for the Improvement Indicator listed above, but applied solely to the Science content area. However, due to federal requirements it has been split into its own indicator.

    11.2. The former NeSA/NeSA-Alt Science assessments are the same format used for the NSCAS/NSCAS-Alt Science assessments, and so are directly comparable. For the 11th grade Science assessment, the NSCAS-ACT assessments is available starting in the

2016-2017 school year. No 11th grade NeSA/NeSA-Alt Science assessments will be included from before the 2016-2017 school year..

AQuESTT Tenet Scoring

12.   The indicators listed above are each categorized into one of the six tenets of Nebraska's AQuESTT accountability system (See https://aquestt.com/tenets/ for more information). Each tenet will receive a single score based on the availability and weighting of the indicators available within it. The indicators within each tenet may change over time as the accountability rules are updated, but each new indicator should fit within one of these six categories.

Positive Partnerships, Relationships, and Student Success

13.   At this time there are no indicators representing this tenet and it is not included in classification. It is intended to be used in future years.

Transitions

14.

Indicator	Weight
4 Year Graduation	51%
Extended Graduation	49%

Educational Opportunities and Access

15.

Indicator	Weight
Chronic Absenteeism	50%
English Learner Progress	50%

College and Career Ready

16.   At this time there are no indicators representing this tenet and it is not included in classification. It is intended to be used in future years.

Assessment

17.

Indicator	Weight

Improvement	40%
Growth	30%
Non-Proficiency	15%
Science Proficiency	5%
Science Improvement	10%

Educator Effectiveness

18.   At this time there are no indicators representing this tenet and it is not included in classification. It is intended to be used in future years.

Tenet Scoring

19.   The indicator scores within a tenet will be combined into a single standardized tenet score value for each school/district.

   19.1.   This standardization method is based on standard deviations. Details about this calculation can be found in Appendix D

   19.2.   If an indicator score is missing from a tenet, the weights of the other indicators in that tenet will be increased to evenly distribute the missing indicator's weighting.

   19.3.   If there are no available indicators in a tenet, that tenet will not be included in a school/district's classification.

AQuESTT Classification

Status Level

20.   The first step in calculating the classification rating is to assign a level to the Status indicator score mentioned above. The Status indicator score for each school and district will be compared against these cut scores (according to its type) to place it into one of four levels:

Elementary
Level 4: Status indicator score > 77
Level 3: Status indicator score > 54 but $\leq$ 77
Level 2: Status indicator score > 34 but $\leq$ 54
Level 1: Status indicator score $\leq$ 34

Middle School
Level 4: Status indicator score > 71
Level 3: Status indicator score > 51 but $\leq$ 71
Level 2: Status indicator score > 32 but $\leq$ 51
Level 1: Status indicator score $\leq$ 32

High School
Level 4: Status indicator score > 78
Level 3: Status indicator score > 59 but ≤ 78
Level 2: Status indicator score > 34 but ≤ 59
Level 1: Status indicator score ≤ 34

District
Level 4: Status indicator score > 70
Level 3: Status indicator score > 54 but ≤ 70
Level 2: Status indicator score > 35 but ≤ 54
Level 1: Status indicator score ≤ 35

Participation Adjustment/Limitation

21. The participation rate of students in the statewide assessment has a special adjustment that is outside of any of the six tenets. Depending on how low a school or district's participation rate goes, the classification rating may be adjusted downward or a limitation may be placed on it. A limitation specifies the highest Raw Classification rating a school/district is allowed to receive, regardless of the Status level or any adjustments that would otherwise raise the classification level. These cut scores for the participation rate apply to all school types and districts:

Rating limited to 1: Participation rate < 85%
-2 rating adjustment: Participation rate < 90%
-1 rating adjustment: Participation rate < 95%

Tenet Rating Adjustments

22. Each tenet that has at least one eligible indicator has received a tenet score as described above. This tenet score is then used to determine what adjustment will be made to a school or district's classification, if any.

Positive Partnerships, Relationships, and Student Success Adjustment

23. At this time there are no indicators representing this tenet and it is not included in classification. It is intended to be used in future years.

Transitions Adjustment

24. The Transitions tenet may adjust the classification rating of a school/district if the following cut scores apply, otherwise the rating is unchanged:

Elementary
-1 rating adjustment: Tenet score < 80

Middle School
-1 rating adjustment: Tenet score < 80

High School
-1 rating adjustment: Tenet score < 80

District
-1 rating adjustment: Tenet score < 80

Educational Opportunities and Access Adjustment

25. The Educational Opportunities and Access tenet may adjust the classification rating of a school/district if the following cut scores apply, otherwise the rating is unchanged:
Elementary
+1 rating adjustment: Tenet score > 1.0

Middle School
+1 rating adjustment: Tenet score > 1.0

High School
+1 rating adjustment: Tenet score > 1.3

District
+1 rating adjustment: Tenet score > 0.8

College and Career Ready Adjustment

26. At this time there are no indicators representing this tenet and it is not included in classification. It is intended to be used in future years.

Assessment Adjustment

27. The Assessment tenet may adjust the classification rating of a school/district if the following cut scores apply, otherwise the rating is unchanged:
Elementary
-1 rating adjustment: Tenet score < -1.0
+1 rating adjustment: Tenet score > 1.0

Middle School
-1 rating adjustment: Tenet score < -1.0
+1 rating adjustment: Tenet score > 1.0

High School
-1 rating adjustment: Tenet score < -1.2
+1 rating adjustment: Tenet score > 1.2

District
-1 rating adjustment: Tenet score < -0.8
+1 rating adjustment: Tenet score > 0.8

Educator Effectiveness Adjustment

28. At this time there are no indicators representing this tenet and so does not have an adjustment that affects classification.

Raw Classification

29. Each district and school receives a raw classification that is based on the Status indicator as well as any adjustments or limitations. This classification is represented as a number: 1, 2, 3, or 4.
  29.1. The first step to determining the raw rating is to add or subtract any Participation or Tenet rating adjustments from the Status level.
    29.1.1. During the adjustment calculations the classification is temporarily allowed to go above the highest level of 4 or the lowest level of 1. For example: if a school has a Status rating of 4 and has an Assessment tenet adjustment of +1 and a Transitions tenet adjustment of -1, the Raw Classification will be set to 4.
    29.1.2. After the adjustment calculations, if the rating is higher than 4 or lower than 1, it will be reset to 4 or 1. For example: if a school has a Status rating of 4 and an Assessment tenet adjustment of +1, its Raw Classification will be set to 4.

Evidence-Based Analysis Rating Adjustment

30. The Evidence-Based Analysis is an input-oriented measure meant to provide information on the policies, procedures, and practices occurring within a school and district that impact student achievement and outcomes.
  30.1. The EBA adjustment cannot be applied to schools/districts that are already at the highest level of 4 in the raw classification.
  30.2. Each school/district is assigned a total EBA response score that combines the responses of the five "policies, practices, and procedures" questions in each of the 6 tenets. A response of "Level 0" is worth 0 points, "Level 1" is worth 1 point, "Level 2" is worth 2 points, "Level 3" is worth 3 points, and "Level 4" is worth 4 points. This results in a maximum score of 120 points for each school/district.
    30.2.1. If a school/district were to not submit an EBA, its score would be 0.
  30.3. For a school to receive an EBA adjustment, its total response score must be in the top percentiles amongst other schools that share its raw classification. The percentiles needed to make a school eligible for an EBA adjustment for each raw classification level are:

  Great (3): EBA score at the 95th percentile or higher amongst schools classified as Great
  Good (2): EBA score at the 90th percentile or higher amongst schools classified as Good
  Needs Improvement (1): EBA score at the 80th percentile or higher amongst schools classified as Needs Improvement

  30.4. Beginning with the 2018 classification, schools eligible for an EBA adjustment will go through an additional reliability review before receiving the adjustment.

30.4.1. Schools eligible for an EBA adjustment will be asked to submit documented evidence of its responses.

30.4.2. The evidence submitted will be reviewed by a team of independent expert reviewers to include staff from each of the following: Nebraska school districts, Educational Service Units, and the Department of Education.

30.4.3. Reviewers are, in effect, completing the EBA independently based on the documentation of responses provided by the school.

30.4.4. In order to receive an AQuESTT EBA adjustment, a sufficiently strong strength of agreement (inter-rater reliability) must be present between school provided EBA responses and those of the reviewers will be required.

30.4.5. Inter-rater reliability scores must meet a certain value to receive an EBA ratings adjustment, this value is still being determined as the reviews are currently in progress.

30.4.6. Schools eligible for an EBA adjustment may choose to not submit evidence for expert review. In this case, eligible schools will not receive an EBA adjustment. The EBA total score for such schools shall be reported as submitted, but noted as withdrawn from expert review.

Final Classification

31. The final classification is initially set equal to the school or district's raw classification. Then, the final classification can be raised by one level if the school or district successfully qualified for the EBA adjustment after the evidence review.

31.1. The numeric classification for schools/districts are labeled as:

4 = Excellent

3 = Great

2 = Good

1 = Needs Improvement

31.2. The Final Classification is the primary classification data element provided on public AQuESTT reports. This final classification will also be used in subsequent accountability processes, such as the selection of Priority Schools from the Needs Improvement group.

Appendix A – Revision Summary

0/0/0000
- 8.2.2: Corrected typos in list of ELPA cut scores for 1st and 4th graders

12/20/2018
- Removed Draft label
- 5.2.5: Clarified that district data can be used for high schools in growth
- 30.4.5: Noted that the score needed to receive an EBA adjustment is still to be determined
- Appendices C and D: Clarified language
- Appendix D: updated to reflect 2017-2018 final means and standard deviations
- Appendix D: added mean and standard deviation for School EBA scores

11/19/2018
- Initial draft version

Appendix B – Linear Regression Calculations

The Ordinary Least Squares (OLS) estimators $\hat{\beta}_0$ and $\hat{\beta}_1$ are those values that minimize the residual sum of squares. The intercept, $\hat{\beta}_0$, represents the value of Y when X equals 0, and the slope, $\hat{\beta}_1$, is the rate of change in Y for every one unit change in X.

In the AQuESTT classification process, y_i represents the average assessment score or assessment proficiency rate calculated per the procedures outlined in the indicator descriptions above, and x_i represents time (or school year) where 0 = the school year two years prior, 1 = the prior school year, and 2 = the current accountability school year.

For each school/District included in the AQuESTT accountability system, beta coefficients are calculated as follows:

$$\hat{\beta}_1 = \frac{\sum(x_i - \bar{x})(y_i - \bar{y})}{\sum(x_i - \bar{x})^2} = \frac{SXY}{SXX} = \frac{COR}{SXX}$$

And

$$\hat{\beta}_0 = \bar{y} - \hat{\beta}_1\bar{x} = ybar - \hat{\beta}_1(xbar)$$

Where:

$$\bar{x} = \sum \frac{x_i}{n}$$

And

$$\bar{y} = \sum \frac{y_i}{n}$$

Then, the regression equation takes the following form:

$$\hat{y} = \hat{\beta}_0 + \hat{\beta}_1 TIME$$

Appendix C – Improvement Score Standardization Method

Originally, two measures on different assessment scales are not constructed based on the same test purpose nor the same target populations. It is not reasonable to equate those scores from two different tests as they exist currently.

However, in order to get equivalent scores from different tests (e.g., the different grade level scales in NSCAS as well as NSCAS Alt and ACT scores), we can apply the procedure for standard scale scores. Mean values for each grade level can be obtained for two different test administrations over all the participated students. Standard score ($z_{x_{iA}}$) for subject x in test A and for school i and standard score ($z_{x_{iB}}$) for test B and for school i can be calculated using schools' mean values. The cut score and the standard deviation of the scale scores will be obtained from the standard setting information.

$$z_{x_{iA}} = \frac{x_{iA} - \overline{x_{0A}}}{sd_{x_{0A}}} , \quad 1)$$

$$z_{x_{iB}} = \frac{x_{iB} - \overline{x_{0B}}}{sd_{x_{0B}}} , \quad 2)$$

where, x_{iA} is the mean scale score of the school i for the test A (e.g., ACT), x_{iB} is the mean scale score of for the test B, $\overline{x_{0A}}$ is a mean or cuts for proficient scale scores (baseline), sd_{x_0A} is a standard deviation of the scale score for test A, and sd_{x_0B} is a standard deviation of the scale score for test B.

Table 1. Cut scores for proficient level and standard deviations

	NSCAS				NSCAS Alt			
	ELA		Math		ELA		Math	
Grade	Cut score	SD	Cut score	SD	Cut score	SD	Cut score	SD
3	2477	76.04	1190	71.05	200	47.22	200	49.63
4	2500	72.23	1222	67.34	200	40.61	200	46.76
5	2531	66.69	1236	66.76	200	44.21	200	47.05
6	2543	66.62	1244	73.07	200	44.89	200	45.72
7	2556	73.98	1247	68.64	200	47.48	200	43.46
8	2561	66.77	1264	72.50	200	39.58	200	40.82
11	-	-	-	-	200	43.75	200	42.49
ACT	19	5.58	19	5.00	-	-	-	-

	NSCAS/NeSA		NSCAS/NeSA Alt	
	Science		Science	
Grade	Cut score	SD	Cut score	SD
5	85	38.72	85	58.49
8	85	40.71	85	50.27
11	85*	33.77*	85	54.49
ACT	19	5.30	-	-

In 2015-2016 the 11th grade Science assessment had not yet been replaced by the ACT

A standard score for a subject in a school can be calculated by using proportional weight as follows:

$$w_{s_{t1}} * z_{s_{t1}} + w_{s_{t2}} * z_{s_{t2}} ,$$

where, $w_{s_{t1}}$ is a weight value from the number of students who took test 1, $w_{s_{t2}}$ is a weight value for test 2. Weight will be calculated based on the proportions of students between the tests (e.g., weight for NSCAS (N=320) is 0.89 and NSCALS-alt (N=40) is 0.11).

Table 2. Exemplary Descriptive statistics for sample schools

School	Grade	NSCAS				NSCAS-alt			
		ELA	N	Math	N	ELA	N	Math	N
A	3	2504.44	470	1205.21	450	290	36	276	42
	4	2531.18	509	1263.87	510	295	38	309	45
	5	2546.57	476	1243.17	480	320	46	355	55
B	3	2352.46	320	1086.98	321	379	40	409	41
	4	2408.00	315	1126.29	325	355	45	395	44
	5	2449.85	309	1142.26	311	461	30	421	31
C	11	17.5	680	19.8	678	300	75	300	75
D	11	17.5	680	19.8	678				
E	11	19.8	1200	21.5	1154	300	55	350	60
F	11	19.8	1200	21.5	1154				
G	11	19.8	1200	21.5	1154	300	1	350	1

For school A's standard scores for NSCAS and NSCAS-alt can be calculated as below (note - uses example standard deviations):

3rd Grade: 0.657 = 0.397 + 0.26

1) ELA

$$z_{ELA_{AN}} = \frac{ELA_{AN} - \overline{ELA_{0N}}}{sd_{ELA_{0N}}} = \frac{2504.44 - 2477}{76.52} = 0.359 ,$$

$$z_{ELA_{AAlt}} = \frac{ELA_{AAlt} - \overline{ELA_{0Alt}}}{sd_{ELA_{0Alt}}} = \frac{290 - 200}{100.36} = 0.897 .$$

$$w_{Ela_N} * z_{ELA_{AN}} + w_{Ela_{Alt}} * z_{ELA_{AAlt}} = 0.929 * 0.359 + 0.071 * 0.897 = 0.397$$

2) Math

$$z_{Math_{AN}} = \frac{Math_{AN} - \overline{Math_{0N}}}{sd_{Math_{0N}}} = \frac{1205.21 - 1190}{71.13} = 0.214,$$

$$z_{Math_{AAlt}} = \frac{Math_{AAlt} - \overline{Math_{0Alt}}}{sd_{Math_{0Alt}}} = \frac{276 - 200}{100.36} = 0.757.$$

$$w_{Math\_N} * z_{Math_{AN}} + w_{Math_{Alt}} * z_{Math_{AAlt}} = 0.915 * 0.214 + 0.085 * 0.757 = 0.26$$

4th Grade: 1.132 = 0.931*0.433 + 0.069*0.949 + 0.919*0.626 + 0.081*1.088,
5th Grade: 0.574 = 0.912*0.233 + 0.088*1.196 + 0.897*0.108 + 0.103*1.545,

Therefore, total standard score for School A is calculated as a mean value of those 3 grades total standard scores, 0.788. In the same way, School B's standard score is calculated as -2.071. Table 3 and 4 indicate numbers of students and weight information as well as standard scores for all the sample schools in Table 2.

Table 3. Student size and weight information for sample schools

School	Grade	Number of student				Weight			
		ELA	Alt. ELA	Math	Alt. Math	ELA	Alt. ELA	Math	Alt. Math
A	3	470	36	450	42	0.929	0.071	0.915	0.085
	4	509	38	510	45	0.931	0.069	0.919	0.081
	5	476	46	480	55	0.912	0.088	0.897	0.103
B	3	320	40	321	41	0.889	0.111	0.887	0.113
	4	315	45	325	44	0.875	0.125	0.881	0.119
	5	309	30	311	31	0.912	0.088	0.909	0.091
C	11	680	75	678	75	0.901	0.099	0.900	0.100
D	11	680		678		1.000	0.000	1.000	0.000
E	11	1200	55	1154	60	0.956	0.044	0.951	0.049
F	11	1200		1154		1.000	0.000	1.000	0.000
G	11	1200	1	1154	1	0.999	0.001	0.999	0.001

Table 4. Standard scores for sample schools

School	Grade	Std. Score				Wgt. Std. Score		Tot. Std. Score	
		ELA	Alt. ELA	Math	Alt. Math	ELA	Math	Std. Score	School Score
A	3	0.359	0.897	0.214	0.757	0.397	0.260	0.657	0.788
	4	0.433	0.949	0.626	1.088	0.469	0.663	1.132	
	5	0.233	1.196	0.108	1.545	0.318	0.256	0.574	
B	3	-1.628	1.784	-1.448	2.083	-1.249	-1.048	-2.297	-2.071
	4	-1.277	1.548	-1.430	1.947	-0.924	-1.028	-1.952	
	5	-1.213	2.601	-1.418	2.203	-0.876	-1.090	-1.965	
C	11	-0.092	0.998	0.366	0.998	0.016	0.429	0.445	
D	11	-0.092		0.366		-0.092	0.366	0.274	
E	11	0.331	0.998	0.711	1.497	0.360	0.750	1.110	
F	11	0.331		0.711		0.331	0.711	1.042	
G	11	0.331	0.998	0.711	1.497	0.331	0.712	1.043	

Appendix D – Tenet Scoring Standardization Method

In order to get equivalent scores from different tenet scores, we can apply a standardization procedure. Standard score ($z_{x_{iA}}$) for tenet x in tenet indicator A and for school i and standard score ($z_{x_{iB}}$) for tenet indicator B can be calculated using mean values for each tenet over all schools. The standard deviation of the tenet indicators will also be obtained from the population distribution for a given year.

$$z_{x_{iA}} = \frac{x_{iA} - \overline{x_{0A}}}{sd_{x_{0A}}} \text{ ,}$$

$$z_{x_{iB}} = \frac{x_{iB} - \overline{x_{0B}}}{sd_{x_{0B}}} \text{ ,}$$

where, x_{iA} is an tenet indicator A value for the school i (e.g., 4 year graduation rate), x_{iB} is an indicator B value, $\overline{x_{0A}}$ and $\overline{x_{0B}}$ are mean values for tenet indicators A, and B, respectively. $sd_{x_{0A}}$ is a standard deviation of the indicator A, and $sd_{x_{0B}}$ is a standard deviation of the indicator B.

Table 1. Exemplary indicator values for sample schools, with actual 2017-2018 statewide means and standard deviations

School	Ed. Opportunities & Access				School EBA (CSI designation process)	
	Chronic Absenteeism	State Mean (SD)	ELP	State Mean (SD)	EBA Total Score	State Mean (SD)
A	5.38	-2.15	1.15	51.11	118	99.86
B	3.1		0.65		57	
C	2.03		0.06		109	
D	6.3		3.64		101	
E	5.12	(4.86)	0.11	(13.81)	95	(14.23)
F	4.34		0.98		88	

School	Assessment									
	Improvement	State Mean (SD)	Growth	State Mean (SD)	Non-Proficiency	State Mean (SD)	Science Proficiency	State Mean (SD)	Science Improvement	State Mean (SD)
A	121.86	0.08	0.00	69.95	26.09	-0.79	73.91	67.75	134.27	-0.02
B	115.69		57.14		29.69		70.31		116.56	
C	103.12		38.54		25.33		74.67		108.11	
D	95.65		0.00		42.98		57.02		95.71	
E	114.28	(0.20)	66.62	(9.89)	21.98	(9.51)	78.02	(17.10)	114.50	(0.18)
F	111.28		71.33		13.95		86.05		110.23	

Standard scores for school A are calculated as below (note – uses example mean and standard deviation values):

1) Transition

$$z_{x_{A\_T_1}} = \frac{x_{A\_T_1} - \overline{x_{0T_1}}}{sd_{x_{0T_1}}} = \frac{97.56 - 92.72}{6.97} = 0.695 \,,$$

$$z_{x_{A\_T_2}} = \frac{x_{A\_T_2} - \overline{x_{0T_2}}}{sd_{x_{0T_2}}} = \frac{87.45 - 92.58}{6.57} = -0.781 \,,$$

$$z_{x_{A\_T}} = w_1 * z_{x_{A_{T_1}}} + w_2 * z_{x_{A_{T_2}}} = 0.51 * 0.695 + 0.49 * (-0.781) = -0.028$$

2) Educational Opportunities and Access

$$z_{x_{A\_EO_1}} = \frac{x_{A\_EO_1} - \overline{x_{0EO_1}}}{sd_{x_{0EO_1}}} = \frac{5.38 - 4.53}{2.06} = 0.413 \,,$$

$$z_{x_{A\_EO_2}} = \frac{x_{A\_EO_2} - \overline{x_{0EO_2}}}{sd_{x_{0EO_2}}} = \frac{1.15 - 0.47}{1.96} = 0.347 \,,$$

$$z_{x_{A\_EO}} = w_1 * z_{x_{A_{EO_1}}} + w_2 * z_{x_{A_{EO_2}}} = 0.5 * 0.413 + 0.5 * 0.347 = 0.38$$

3) Assessment

$$z_{x_{A\_A_1}} = \frac{x_{A\_A_1} - \overline{x_{0A_1}}}{sd_{x_{0A_1}}} = \frac{121.86 - 103.19}{31.65} = 0.59 \,,$$

$$z_{x_{A\_A_2}} = \frac{x_{A\_A_2} - \overline{x_{0A_2}}}{sd_{x_{0A_2}}} = \frac{0.0 - 44.46}{30.08} = -1.44 \,,$$

$$z_{x_{A\_A_3}} = \frac{x_{A\_A_3} - \overline{x_{0A_3}}}{sd_{x_{0A_3}}} = \frac{26.09 - 20.98}{14.45} = 0.353 \,,$$

$$z_{x_{A\_A_4}} = \frac{x_{A\_A_4} - \overline{x_{0A_4}}}{sd_{x_{0A_4}}} = \frac{73.91 - 79.02}{14.96} = -0.341 \,,$$

$$z_{x_{A\_A_5}} = \frac{x_{A\_A_5} - \overline{x_{0A_5}}}{sd_{x_{0A_5}}} = \frac{134.27 - 101.1}{34.2} = 0.97 \,,$$

$$z_{x_{A\_A}} = w_1 * z_{x_{A\_A_1}} + w_2 * z_{x_{A\_A_2}} + w_3 * z_{x_{A\_A_3}} + w_4 * z_{x_{A\_A_4}} + w_5 * z_{x_{A\_A_5}}$$
$$= 0.4 * 0.59 + 0.3 * (-1.44) + 0.15 * 0.353 + 0.05 * (-0.341) + 0.1 * 0.97$$
$$= -0.063$$

4) Total Standard Score

$$z_{x_A} = \left(z_{x_{A\_T}} + z_{x_{A\_EO}} + z_{x_{A\_A}} \right) \div 3 = (-0.028 + 0.38 + (-0.063)) \div 3 = 0.096$$

5) Put the scale on 100 point metric

After getting the Z-score:

If Z < -3, Z_100 = 0

else if Z > 3, Z_100 = 100

else Z_100 = (Z + 3) * (100/6)   [rounded to integer value]

(Z = computed z-score; Z_100 = converted to 100 point scale)

Table 2. Standard scores for sample schools

School	Transition	Ed. Opp. & Access	Assessment	Total Std. Score	100 Point Scale
A	-0.028	0.380	-0.063	0.096	51.602
B	0.581	-0.301	0.388	0.223	53.711
C	0.261	-0.711	-0.007	-0.153	47.456
D	0.376	1.238	-0.388	0.409	56.813
E	-0.291	0.051	0.402	0.054	50.900
F	-0.423	0.084	0.341	0.001	50.010

For those tenets with indicators employing different scales, each indicator is standardized, and a final score calculated from the weighted sum of the standardized scores. Standardized scores are calculated by first transforming values for each of the three indicators into z-scores as follows:

$$z = \frac{x - \mu}{\sigma}$$

Cut points are then set for the total score of each tenet.