Comprehensive Guide

MSIP5

2018

Missouri
DEPARTMENT OF ELEMENTARY & SECONDARY
EDUCATION™

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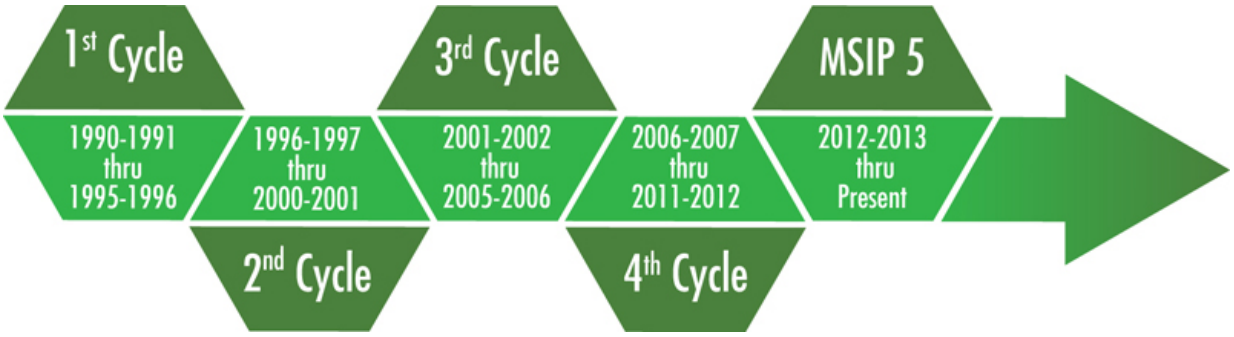
MSIP 5 Overview

The fifth version of the Missouri School Improvement Program (MSIP 5), the state's accountability system for reviewing and accrediting public school districts, outlines the expectations for student achievement with the ultimate goal of each student graduating ready for success in college, career, and life. The comprehensive MSIP accountability system was established in 1990 and has evolved with each version. MSIP 5 Resource and Process Standards are designed to promote continuous improvement and innovation within each district. The process standards are often qualitative in nature. The MSIP 5 Performance Standards are designed to recognize the achievement and continuous growth of ALL students as they prepare for a global economy.

MSIP 5 is also used to distinguish the performance of schools and districts in valid, accurate, and meaningful ways so that districts in need of improvement can receive appropriate support and interventions, and high-performing districts can be recognized as models of excellence. Annual Performance Reports (APRs) are based on the performance standards and are reviewed for accreditation purposes at the district level. The state also produces APRs for schools and charter LEAs to support its goal of empowering all stakeholders in manners appropriate to their roles through regular communication and transparent reporting of results.

The adopted MSIP 5 Standards represent the work of hundreds of educators. Numerous refinements and revisions were made before the State Board of Education approved the final changes. The standards will guide Missouri's continuing school-improvement efforts.



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Changes to the Annual Performance Report

Administrative Memo QS-18-002 contains updates for the 2018 and 2019 APR.

The Department of Elementary and Secondary Education (DESE), after consulting with the MSIP Advisory Committee in preparation for the 2018, 2019 and 2020 APRs, will implement the following changes in the calculation:

1. **New Assessment Transition**
   DESE will cease the use of "Hold Harmless" (HH) as a part of the APR calculation. To provide a smooth transition in light of the new assessments in English language arts (ELA) and mathematics (MA), the following approach has been selected:

   Standards Applicable – Standards 1 and 2; ELA and MA only

   2018 Updated Policy – In the fall of 2018, for the **2018 APR (2017-18 School Year)**

   a. If the 2018 points earned are the same or better than the 2017 Summary APR Points *(inclusive of HH if applicable*), the 2018 APR will use the 2018 points earned, and the district/charter school will exit HH status permanently. If the 2018 points earned are less than 2017 points earned, then the 2018 Adjusted APR becomes
      i. ((2017 pts earned) * (2/3)) + ((2018 pts earned) * (1/3)). If a district/charter school uses the adjusted APR method for 2018, the adjustment will be available for use for the 2019 APR.

   2019 Updated Policy – In the fall of 2019, for the **2019 APR (2018-19 School Year)** and only those districts/charter schools still using adjusted

   a. If the 2019 points earned are the same or better than the 2018 Adjusted APR, then the 2019 APR will use the 2019 points earned, and the district will exit HH.
   b. If the 2019 points earned are less than the 2018 Adjusted APR, then the 2019 Adjusted APR becomes ((2018 pts earned adjusted) * (1/3)) + ((2019 pts earned) * (2/3)).

   2020 Updated Policy – All districts have completed the transition for ELA and MA. No further transition adjustment will be necessary.

2. **Science Field Test**
   Standards Applicable – Standards 1 and 2; Science Only

   Updated Policy – There will be no data available from the grade level and EOC field tests. The denominator for the 2018 APR will drop to 120 points for K-12 districts/charters and 60 points for K-8 districts/charters.

3. **Social Studies Field Test (2019)**
   Standards Applicable – Standards 1 and 2; Social Studies Only

   Updated Policy – There will be no data available from the EOC field test. The denominator for the 2019 APR will drop to 130 points for K-12 districts/charter schools. There will be no impact on K-8 districts/charter schools.

4. Community Eligibility Provision (CEP), as it relates to the APR, has been retracted by Administrative Memo QS-18-003. DESE will continue to use FRL status as a measurement of poverty for the 2018 APR.

5. **College and Career Readiness**
   Standards Applicable – Standards 3*1-3 and Standard 3*4 College and Career Readiness

Updated Policy – The calculation of these standards will be modified to exclude students who are coded both G03 (typically students who graduate meeting IEP goals) **and** MAP-A. These students will continue to be counted in Standard 3*5-6 Placement.

Updated Policy – ACCUPLACER® scores will be accepted as an additional method to meet Standard 3*1-3. Appendix C in the Comprehensive Guide includes scores for ACCUPLACER®.

6. **Proportional Attendance Rate**
   Standard Applicable – Standard 4; Attendance

   Updated Policy – The proportional attendance rate calculation will be modified to mirror calculations used for Standard 3. DESE will recalculate the attendance data used for the 2018 APR to reflect consistent data over time. The table below provides assigned point values.

Attendance Rate	Weight Applied
90.0%	1.0
87.5%	.5
85.0%	.25

7. **Graduation Rate**
   Standard Applicable – Standard 5; Graduation Rate

   Updated Policy – In order to report a consistent graduation rate for both federal and state accountability purposes, DESE will exclude students who have been reported as G03 from the four-, five-, six- and seven-year graduation rate calculations.

Additionally, DESE will make several additions to the reporting structure for the 2018 APR. These additions will be reported behind the secure login screen only:

1. DESE will report the performance of individual subgroup achievement for any subgroup of 10 or more students. These subgroups will include the following: Black (not Hispanic), Asian/Pacific Islander, Hispanic, American Indian/Alaska Native, White (not Hispanic) and Multi-Racial.
2. DESE will report the sum of Standard 1 + Standard 2 separately from the sum of Standard 3 + Standard 4 + Standard 5, as high performance in Standards 3-5 has the effect of masking low performance in Standards 1-2.
3. DESE has begun the first stages of development of a Success Ready Graduate metric and report that may be used in MSIP 6. As with all other development drafts, this item will be reported in the secure environment only.
4. DESE will report the number of students who graduated and have been reported in MOSIS/Core Data as G03.
5. Students identified as direct certification (for inclusion in the school lunch program) will be treated as a new subgroup and their data will be reported securely as an additional subgroup.

There will be no building level APR. Only data will be provided for both Standard 1 and Standard 2 due to the exclusion of A1 and E2 in 2017, new assessments in 2018 for ELA and MA, and the administration of the 2018 science field test.

Overview

DESE's plan holds as a primary goal that all students will graduate high school college, career and life. To measure progress toward this goal and to distinguish among school and district performance, DESE computes an APR score for each district or charter school. This overall score is comprised of scores for each of the MSIP 5 Performance Standards **Academic Achievement** (2) **Subgroup Achievement** (3) **High School Readiness** (K-8 districts) or **College and Career Readiness** (K-12 districts), (4) **Attendance Rate** and (5) **Graduation Rate** (K-12 districts). Status, progress, and growth (where applicable) are used to calculate a comprehensive score used to determine the accreditation level of a school district.

Data for academic achievement in ELA and MA, subgroup achievement in ELA and MA (both include status and growth), English language attainment, attendance rate and graduation rate are also used for federal accountability determinations, including comprehensive and targeted school identification for districts and schools. Visit the ESSA-Federal Accountability page for information specific to federal school identification under ESSA.

The MSIP 5 Performance Standards were approved by the State Board of Education in December of 2011 and went into effect in 2013.

There is often confusion around the terms "school," "building," "district" or "LEA." For our purpose in this manual, the labels "school" and "building" are interchangeable, considered an attendance center, have a building code, and generate a building-level APR. Similarly, the words "district," "LEA" and "charter" are interchangeable, have a county-district code and generate a district level APR.

Performance Standards for K-12 Districts

1. Academic Achievement—The district administers assessments required by the MAP to measure academic achievement and demonstrates improvement in the performance of its students over time.

    a. Student performance on assessments required by the MAP meets or exceeds the state standard or demonstrates improvement in performance over time.

    b. The percent of students tested on each required MAP assessment meets or exceeds the state standard.

    c. Growth data indicate that students meet or exceed growth expectations.

2. Subgroup Achievement—The district demonstrates required improvement in student performance for its subgroups.

    a. The performance of students identified on each assessment in identified subgroups, including FRL, racial/ethnic background, English language learners, and students with disabilities, meets or exceeds the state standard or demonstrates required improvement.

3. College and Career Readiness—The district provides adequate post-secondary preparation for all students.

    a. The percent of graduates who scored at or above the state standard on any department-approved measure(s) of college and career readiness, for example, the ACT®, SAT®, COMPASS® or Armed Services Vocational Aptitude Battery (ASVAB), meets or exceeds the state standard or demonstrates required improvement.

    b. The district's average composite score(s) on any department-approved measure(s) of college and career readiness, for example, the ACT®, SAT®, COMPASS®, or ASVAB, meet(s) or exceed(s) the state standard or demonstrate(s) required improvement.

    c. The percent of graduates who participated in any department-approved measure(s) of college and career readiness, for example, the ACT®, SAT®, COMPASS®, or ASVAB, meets or exceeds the state standard or demonstrates required improvement.

    d. The percent of graduates who earned a qualifying score or grade on an Advanced Placement (AP), International Baccalaureate (IB), or Technical Skills Attainment (TSA) assessments and/or receive college credit or a qualifying grade through early college, dual enrollment, or approved dual credit courses meets or exceeds the state standard or demonstrates required improvement.

    e. The percent of graduates who attend post-secondary education/training or are in the military within six months of graduating meets the state standard or demonstrates required improvement.

    f. The percent of graduates who complete career education programs approved by DESE and are placed in occupations directly related to their training, continue their education, or are in the military within six months of graduating meets the state standard or demonstrates required improvement.

4. Attendance Rate—The district ensures all students regularly attend school.

    a. The percent of students who regularly attend school meets or exceeds the state standard or demonstrates required improvement.

5. Graduation Rate—The district ensures all students successfully complete high school.

a. The percent of students who complete an educational program that meets the graduation requirements as established by the board meets or exceeds the state standard or demonstrates required improvement.

Performance Standards for K-8 Districts

1. Academic Achievement—The district administers assessments required by the MAP to measure academic achievement and demonstrates improvement in the performance of its students over time.

    a. Student performance on assessments required by the MAP meets or exceeds the state standard or demonstrates improvement in performance over time.

    b. The percent of students tested on each required MAP assessment meets or exceeds the state standard.

    c. Growth data indicate that students meet or exceed growth expectations.

2. Subgroup Achievement—The district demonstrates required improvement in student performance for its subgroups.

    a. The performance of students identified on each assessment in identified subgroups, including FRL, racial/ethnic background, English language learners, and students with disabilities, meets or exceeds the state standard or demonstrates required improvement.

3. High School Readiness—The district provides adequate post-elementary preparation for all students.

    a. The percent of students who earn a proficient score on one or more of the high school EOC assessments while in elementary school meets or exceeds the state standard or demonstrates required improvement.

4. Attendance Rate—The district ensures all students regularly attend school.

    a. The percent of students who regularly attend school meets or exceeds the state standard or demonstrates required improvement.

MSIP 5 APR Scoring Guide

DESE's Strategic Plan holds as a primary goal that all students will be exposed to a broad range of high-quality educational opportunities from early learning into post-high school engagement. To measure progress toward this goal and to distinguish among school and district performance, DESE computes an APR score for each district. This overall score is comprised of scores for each of the MSIP 5 Performance Standards (1) **Academic Achievement,** (2) **Subgroup Achievement,** (3) **High School Readiness** (K-8 districts) or **College and Career Readiness** (K-12 districts), (4) **Attendance Rate** and (5) **Graduation Rate** (K-12 districts). Three distinct metrics focusing on status, progress, and growth (where applicable) are used to calculate a comprehensive score used to determine the accreditation level of a school district.

Performance Standard 1 Academic Achievement	**ELA**	**MA**	**Science***	**Social Studies**
Points Possible	**16**	**16**	**--**	**8**
Performance Standard 2 Subgroup Achievement	**ELA**	**MA**	**Science***	**Social Studies**
Points Possible	**4**	**4**	**--**	**2**
Performance Standard 3 (K-12 districts) College & Career Readiness	**Indicators*1-3**	**Indicator*4**	**Indicators*5-6**	
Points Possible	**10**	**10**	**10**	
Performance Standard 3 (K-8 districts) High School Readiness				
Points Possible	**10**			
Performance Standard 4 Attendance				
Points Possible	**10**			
Performance Standard 5 Graduation				
Points Possible	**30**			

The detailed scoring guides for each performance standard are outlined in this section. The academic and subgroup achievement measures are based on the MAP grade-level assessments (GLA), EOC, and Missouri Assessment Program-Alternate (MAP-A) assessments. The high school readiness measure is based on the EOC assessments. Performance and achievement targets will be reviewed and revised, if necessary, when new assessments are introduced and/or every three years.

*Due to administration of the science field test, there will not be any points calculated for science in 2018.

MSIP 5 Performance Standard 1: Academic Achievement

Academic Achievement — The district administers assessments required by the MAP to measure academic achievement and demonstrates improvement in the performance of its students over time.

1. Student performance on assessments required by the MAP meets or exceeds the state standard or demonstrates improvement in performance over time.
2. The percent of students tested on each required MAP assessment meets or exceeds the state standard.
3. Growth data indicate that students meet or exceed growth expectations.

Status	ELA/MA ~~/Science~~	Social Studies	Progress	ELA/MA ~~/Science~~	Social Studies	Growth (ELA & MA)	
Target	16	8	Exceeding	12	6	Exceeding	12
On Track	12	6	On Track	6	3	On Track	6
Approaching	9	5	Approaching	3	1.5	Floor	0
Floor	0	0	Floor	0	0		

Notes:

- Data are obtained from contracted testing publishers for the grade-level assessment, EOC assessments and MAP-A assessments.
- ELA/MA will be subject to the transition from HH described under "changes to the APR" at the beginning of this document.
- 2018 will not have any science data due to field test assessments. The total APR will be reduced by 20 points (Standard 1, if n-size is met, by 16 points). Those points will return in 2019. Social studies will be treated the same in 2019.
- All MAP performance data are reported to the nearest tenth.
- Appeal and data correction procedures are in the appendix.

Status Measures

Status is a measurement of the district's or school's level of achievement based upon a three-year average of the MAP Performance Index (MPI), unless three years of data are not available. When three years of data are not available for the district and/or school, (e.g., a new school is established) less than three years will be used for reporting purposes. When three consecutive years of data are not available for the district and/or school, (e.g. participation rate not met in prior year), the three most recent years of data - not to exceed a time span of five years - will be used for accountability purposes. A detailed description of how to calculate the MPI can be found later in this document. The MPI is used to determine whether the district, school, or subgroup is meeting the target, is on track, is approaching, or is substantially not meeting (floor) the academic achievement target for ELA, MA, science, and social studies MAP assessments. See the subsection on cell size for further considerations.

Status is divided into four levels as follows:

- **Target** — represents a level of performance approximately equivalent to the projected performance of the top 10 states on the corresponding National Assessment of Educational Progress (NAEP) exam OR, in subjects for which state-by-state NAEP data are unavailable, an equally rigorous target.
- **On Track** — represents levels of increasing performance expectations with a goal of 75 percent proficient by the year 2020 – if Basic achievement is worth 300 points and Proficient achievement is worth 400 points, an MPI of 375 would result from 75 percent of students scoring at Proficient and 25 percent scoring at Basic. Current performance is compared to this target, and then a linear trajectory is created that requires equal annual progress increments to reach the target.

- **Approaching** — represents a level of performance equal to 100 percent Basic if each score at the Basic level yields 300 points.
- **Floor** — represents a level of performance less than 100 percent Basic if each score at the Basic level yields 300 points.

Progress Measures
The MPI is also used to measure annual improvement on the MAP assessments. This indicator holds districts and schools accountable for continuous improvement year to year using a rolling average. Due to new assessments in ELA and MA, the method of calculating Progress varies by content area. In science and social studies, the Progress calculation measures improvement by comparing two-year averages of data and setting targets based on an MPI Gap. In ELA and MA, the Progress calculation measures improvement by comparing two-year averages of data and setting targets based on a Normal Curve Equivalent (NCE) Gap (NCE is used to normalize the data from old to new assessments). Year 1 and 2 are averaged, and years 2 and 3 are averaged; the averages are then compared to determine the amount of improvement achieved. When three years of data are not available in the district or school, (e.g., a new school is established) less than three years will be used for reporting purposes. When three consecutive years of data are not available, (e.g., assessment data are not available one year for a content area), the three most recent years of data - not to exceed a time span of five years - will be used for accountability purposes. Progress in the district or school's MPI or NCE recognizes movement of students throughout all MAP achievement levels, ensuring that the focus remains on all students and not just those closest to being proficient. Differentiated improvement targets are set for districts, schools, and subgroups based on the individual group's two prior years' achievement. A detailed description of how to calculate the MPI Gap and NCE Gap can be found later in this document.

Progress is divided into four levels as follows:

- **Exceeding** — represents equal to or greater than five percent improvement based on the MPI or NCE Gap.
- **On Track** — represents equal to or greater than three percent but less than five percent improvement based on the MPI or NCE Gap.
- **Approaching** — represents equal to or greater than 1 percent but less than three percent improvement based on the MPI or NCE Gap.
- **Floor** — represents less than one percent improvement based on the MPI or NCE Gap.

Growth Measures
Growth is the change in achievement scores for an individual student between two or more points in time. While Progress measures the change in the performance of a defined group over time, Growth measures the achievement gains of individual students over time.

Growth measures for MSIP 5 are determined by conducting a statistical analysis of all valid MAP score pairs from the prior three years. A valid MAP score pair is a score from grades 4 through 8 with a score from the prior year and grade level. For example, a 4th grade score with a valid 3rd grade score from the prior year, both for the same student, is a valid MAP score pair. In this case, the 4th grade score in the pair is the outcome score and the 3rd grade score from the prior year is the predictor score. A 5th grade MAP score with no 4th grade score from the prior year would NOT be included in the statistical analysis because there is no valid predictor score to go with the outcome score.

The statistical analyses determine the relationship between outcome scores and predictor scores across all districts and schools. This relationship is used to calculate a "predicted outcome score" for each score pair. The differences between the predicted outcome scores and the observed outcome scores (the "residuals") from all the analyzed score pairs are then analyzed to determine each district or school "effect" on student achievement growth.

A score pair is assigned to a district and school when the MAP test that generated the outcome score was taken in that district and school, regardless of the district and school where the exam that generated the valid predictor score was taken. A district or school growth measure (an "effect estimate") is the average of the differences between observed and predicted scores from all test pairs assigned to the district or school.

At this time, growth measures are only available for grades 4 through 8 in ELA and MA. District and school growth measures are reported in NCE units on the APR. The state mean is, by construction, a score of 50 NCEs. District and school growth measures are compared to the state mean and those that are statistically different from the state

mean will be noted. Statistical significance depends on three factors; the magnitude of the difference from the state mean, the number of score pairs analyzed for the district or school, and the overall variability in the individual student growth measures.

Growth is divided into three levels as follows:

- **Exceeding** — The district or school growth measure (effect) is greater than 50 AND the difference from 50 is statistically significant.
- **On Track** — The district or school growth measure (effect) is not statistically different from 50.
- **Floor** — The district or school growth measure (effect) is less than 50 AND the difference from 50 is statistically significant.

Test Participation and LND
All districts and schools are required to assess at least 95 percent of their students and subgroups on the assessments required by the MAP. Zero APR points will be awarded to a content area for the aggregate or subgroup(s) for which the rate falls below 95 percent.

District test coordinators are cautioned to pay careful attention to small sizes in certain tested populations. It is easier to exceed five percent LND in science (only tested in fifth, eighth, and high school EOC) than in ELA or MA. Social studies, with only the high school EOC, is also susceptible to LND issues. Standard 2 Subgroup Achievement is normally a smaller group as well and therefor also more susceptible to LND issues.

LND is applied at the school and district level where appropriate. It is possible to exceed LND in an individual school but not at the district level. In addition, for ESSA accountability, LND applies to each individual subgroup.

English Learners (EL) Exclusion
To meet the participation standard, ELs in their first year of U.S. schooling must participate in the state English Language Proficiency (ELP) assessment instead of ELA assessment (grade level, EOC, MAP-A). However, ELs in their first year do participate in appropriate math, science, and social studies assessments. ELs in their second year of U.S. schooling and beyond must participate in the appropriate MA, ELA, science, and social studies assessment and the state ELP assessment. Exceptions to the ELP assessment requirement will be made only where accommodations for ELs with disabilities are not available for a particular test.

MAP-A Exclusion
Some students with the most severe cognitive disabilities are not able to take the standard grade-level or EOC content area assessment. If the student's Individualized Education Plan (IEP) team determines the student meets the eligibility criteria for the MAP-A, the student takes a MAP-A assessment. Districts are required to assess all students who qualify for the MAP-A assessment on the corresponding MAP-A test. A student's scorable MAP-A assessment in grade 11 MA is used to meet the Algebra I EOC participation requirement, the ELA grade 11 is used to meet the English II EOC participation requirement, the grade 11 science is used to meet the biology participation requirement. The district must use the MAP-A Exception code for the American government EOC assessment. However, a student would need to have consistently participated in MAP-A assessments previously before the MAP-A Exception code may be used by the district for this assessment.

If the student's IEP team determines the student meets the eligibility criteria for the MAP-A, the district is required to assess the student using a MAP-A assessment when available. The Every Student Succeeds Act (ESSA) limits the number of students who are assessed using alternate assessments. For Missouri, this means that not more than one percent of students can be assessed using the MAP-A. This is a change for our state which affects the 2017-18 assessment cycle.

The one percent cap is calculated at the district level and uses the tested population per subject area. In districts which exceed the one percent cap in a content area, an LND will replace the score achieved on the MAP-A assessment for each student in excess of one percent. The highest MAP-A scores will be converted to LND until the district is down to one percent MAP-A.

Districts which exceed the one percent cap will be notified by DESE at the end of the assessment year and will be

required to submit a justification form (provided by DESE) documenting why the district exceeded the MAP-A participation limit.

Full Academic Year (FAY)
Districts are required to test all enrolled students, unless the above specified EL or MAP-A Exclusion applies. All scores will be reported (included in the participation rate), but only scores of those students who have been enrolled a "Full Academic Year" (FAY) in a district and/or school will be included in the calculation for the APR score. A FAY is defined as any student who is enrolled from the last Wednesday in September through the MAP administration, without transferring out of the district or school for a significant period of time and re-enrolling. A significant period of time is considered "one day more than half of the eligible days between the last Wednesday in September and the test administration". This information is obtained from the Missouri Student Information System (MOSIS) data reported by districts in the April submission. This applies to each summary level independently. For example, a student who is coded as "in building less than a year" but was in the district a full academic year is excluded from the school totals but is included in the district totals.

Participation Rate Calculation
The participation rate calculates the percent of students who receive a valid MAP score in a subject or content area. All enrolled students are considered "accountable" students (Exception: for ELA only, recently arrived or in U.S. less than a year are excluded from the ELA assessment). An accountable student who receives a valid MAP score in a subject or content area is defined as a "participant". The number of participants divided by the number of accountable students is the participation rate (used to determine percent LND). When an accountable student does not receive a valid test score, the student receives an LND in place of an achievement level score. The percent for LND may not exceed five percent, as all districts and schools are required to assess at least 95 percent of their students and subgroups on the assessments required by the MAP. If test data are not evaluated due to not meeting the minimum 95 percent participation rate, a symbol appears next to the subject area on the APR summary report (see the symbol legend at the end of the Summary APR Report).

Step 1 – The number of Accountable students is determined.

Participants		LND Students	Accountable Students
130	+	2	132

Step 2 – The Participation Rate is determined. Participants divided by accountable students = "Participation Rate" rounded to the tenth.

Participants		Accountable Students	*Participation Rate
130	/	132	98.5%

*No points are awarded for test data if the participation rate falls below 95 percent.

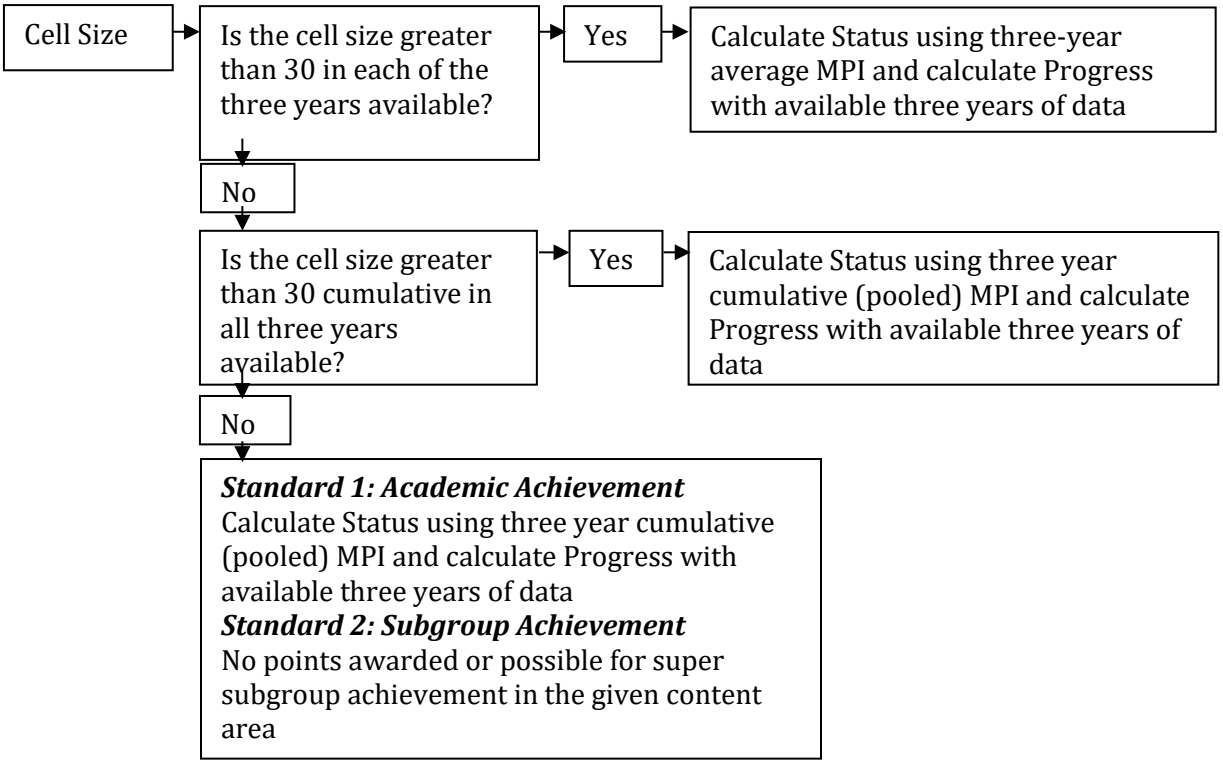
	Definitions
Accountable	All students enrolled during the testing window. Excludes in U.S. less than a year (recently arrived) students from ELA only. Note: MAP scores are comprised from grade-level, MAP-A*, and EOC assessments.
Participant	A student who receives a valid MAP score/achievement level.
Reportable	Participant students minus students in building (district) less than a full academic year (FAY) (participants – less than FAY). These student scores contribute to the calculation of the APR.
LND	Number of students without an achievement level or an attempt on any session on the test. Note: Graduating seniors that have not participated in all required EOC assessments or appropriate MAP-A* will receive the applicable LND.

*MAP-A students with a scorable MAP-A assessment in a tested grade level are assigned an Achievement Level.

Cell Size

Districts, schools, and the super subgroup (Standard 2: Subgroup Achievement) must have at least 30 Accountable students in the group being measured in a given content area each year over a three year period in order to generate scores for accountability based on the average of three annually-calculated MPIs. If this is not possible, the Status measure is calculated by "pooling" three years of data and summing the number of accountable students and the numbers of students in each achievement level across the three-year period; the "pooled" count is used in the calculation for determining Status and is referred to as the cumulative measure.

This flowchart explains the conditions triggering special cell size decisions for Standard 1: Academic Achievement and Standard 2: Subgroup Achievement.



Measuring MAP

The **MAP Performance Index (MPI)** is used to develop scores within the Status and Progress metrics and to set academic achievement targets for district, school, and subgroup achievement. Student performance on tests administered through the MAP is reported in terms of four achievement levels (Below Basic, Basic, Proficient and Advanced) that describe a pathway to proficiency. The MPI is a single composite number that represents the MAP assessment performance of every student by awarding points to each student based on the four achievement levels. The points for all students in the district, school, or subgroup in a subject area are summed together, divided by the number of students in the group being measured and then multiplied by 100 rounded to the tenth. The result is the MPI for that group and subject. All assessment results from a single accountability year and for a single subject/content area are combined when generating the district, school, or subgroup MPI.

MPI Point Values
Numeric values are assigned to each of the achievement level scores as follows:

Achievement Level	Index Point Value
Below Basic	1
Basic	3
Proficient	4
Advanced	5

Assigning one point to the Below Basic achievement level and three points for the Basic achievement level supports Missouri's expectation of placing each child on a path toward Proficiency. The additional point spread is designed to recognize, through year-to-year improvement in the MPI, the movement of students from this least desirable achievement level. The use of the index also allows for distinction between the Proficient and Advanced student, holding districts and schools accountable for continuous improvement beyond proficiency.

MPI Example Calculation
Achievement levels are provided by the testing companies for the total number of Reportable Students in each subject area. In the following example of a single content area for a grade 6 through 8 school, achievement levels generated through the grade-level MAP, the MAP-A, and the EOC assessments may be utilized. To generate the MPI, the number of Advanced scores are multiplied by five, Proficient scores by four, Basic scores by three, and Below Basic scores by one. These products are then summed, divided by the total number of reportable and multiplied by 100 then rounded to the tenth to produce the MPI that ranges from 100-500. The following example shows how the index is calculated in a single subject and school:

Step 1 – The number of students in each achievement level is determined for each year.

	Number Reportable						Total Reportable
	Grade 6	Grade 7	Grade 8	EOC	MAP-A		
Below Basic	10	5	5	0		=	20
Basic	10	10	15	0		=	35
Proficient	5	10	15	9	1	=	40
Advanced	15	8	5	2		=	30
Total Reportable						=	125

Step 2 – The index point value assigned to each achievement level is multiplied by the number of students in each achievement level.

Achievement Level	Index Point Value		# of Students		Index Points
Below Basic	1	*	20	=	20
Basic	3	*	35	=	105
Proficient	4	*	40	=	160
Advanced	5	*	30	=	150
Total			125		435

Step 3 – The total index points is divided by the total number of reportable students and multiplied by 100 rounded to the tenth.

Total Index Points		Reportable Students					MPI
435	/	125	=	3.48	*	100	**348**

The same method is used when calculating at the district level.

Step 1 – The number of students in each achievement level is determined for each year.

	Gr 3	Gr 4	Gr 5	Gr 6	Gr 7	Gr 8	EOC	MAP-A		Total Reportable
Below Basic	5	8	7	10	5	5	5		=	45
Basic	12	10	8	10	10	15	15		=	80
Proficient	17	20	14	5	10	25	25	2	=	118
Advanced	10	11	10	15	10	5	15	1	=	77
Total Reportable										320

Step 2 – The index point value assigned to each achievement level is multiplied by the number of students in each achievement level.

Achievement Level	Index Point Value		# of Students		Index Points
Below Basic	1	*	45	=	45
Basic	3	*	80	=	240
Proficient	4	*	118	=	472
Advanced	5	*	77	=	385
Total			320		1,142

Step 3 – The total index points is divided by the total number of Reportable Students and multiplied by 100 rounded to the tenth.

Total Index Points		Reportable Students					MPI
1,142	/	320	=	3.569	*	100	**356.9**

Status Measure Calculation
The MPI is used to determine whether the district, school, or subgroup is meeting the target, is on track to meeting the target, is approaching or is substantially not meeting (floor) the academic achievement targets set for the MAP content area. Using three years of data, this indicator holds districts and schools accountable for student performance in relation to statewide academic achievement targets.

Example: Using three years of data to calculate the three year MPI for "ABC" district population for MA.

Year 1 MPI		Year 2 MPI		Year 3 (most recent year) MPI				3-year MPI Status
354.2	+	356.9	+	360.1	=	1,071.2	/ 3	**357.1**

In this example, the MPI for MA from Year 1, Year 2, and Year 3 are averaged and the mean is used to determine whether the district, school or subgroup is meeting or exceeding the target, is on track to meeting the target, and is approaching or is substantially not meeting (floor) the academic achievement target. The three year MPI status and the corresponding designation of target/on track/approaching are then used to assign points (e.g., a "score") to each standard. For example, if a 357.1 three year MPI = is "On Track" in MA, the district, school, or subgroup would receive 12 Status Points for MA.

Table 1. Standard 1: Academic Achievement Status Scores

	ELA	MA	~~Science~~	Social Studies
Academic Achievement	Grades 3-8 MAP, MAP-A, Eng. II(2017 excluded)	Grades 3-8 MAP, MAP-A, Alg I (2017 excluded), Alg II[1], Geo[2]	~~Grades 5, 8 MAP, MAP-A, Biology~~	US Government
Status (Three year average)	Target = 16 On Track = 12 Approaching = 9 Floor = 0	Target = 16 On Track = 12 Approaching = 9 Floor = 0	~~Target = 16~~ ~~On Track = 12~~ ~~Approaching = 9~~ ~~Floor = 0~~	Target = 8 On Track = 6 Approaching = 5 Floor = 0

[1] Assessment used for accountability purposes when Algebra I EOC has been completed prior to 9th grade.
[2] Assessment used for accountability purposes when Algebra I and Algebra II EOCs have been completed prior to 9th grade.
[3] The 2017 APR calculated with A1 and E2 excluded from the 2017 MPI

Progress Measure Calculation
Beginning in 2016, the MPI and NCE will be used to measure annual improvement for ELA and MA assessments. This indicator holds districts and schools accountable for continuous improvement in the district, school, or super subgroup year to year using a rolling average. It recognizes movement of scores throughout all MAP achievement levels, ensuring that the focus remains on all students and not just those closest to being proficient. Differentiated improvement targets are set for districts, schools, and super subgroups based on the individual group's two prior years of achievement. In science and social studies contents, the average MPI for Years 1 and 2 is subtracted from a constant set at a 450 MPI to determine the MPI Gap. Due to new Missouri Learning Standards-aligned ELA and MA assessments, the MPI totals within these contents are converted to an NCE and subtracted from a constant set at a 130 NCE to determine the NCE Gap.

Example: Calculating the progress measure for "ABC" school district based on a rolling average of NCE and MPI, the following example shows how the progress measure is calculated across two subjects, one NCE-based and one MPI-based, at the district level:

ABC district: ELA	Year 1	Year 2	Year 3 (most recent year)
NCE	51.4	54.8	44.8

ABC district: Science	Year 1	Year 2	Year 3 (most recent year)
MPI	358.1	346.6	365.3

Step 1 – Add the scores for Years 1 and 2 and divide by two to determine the average rounded to the tenth.

ELA (NCE): (51.4 + 54.8) / 2 = 53.1

Science (MPI): (358.1 + 346.6) / 2 = 352.4

Step 2 - The average NCE/MPI for Years 1 and 2 is subtracted from the constant to determine the NCE/MPI Gap.

Constant		Years 1 and 2 Average		Gap
ELA (NCE): 130	-	53.1	=	76.9
Science (MPI): 450	-	352.4	=	97.6

Step 3 - The NCE/MPI Gap is used ***to establish Progress Targets*** as determined by multiplying the NCE/MPI Gap by the associated percentage, e.g. five percent for exceeding, three percent for on track, one percent for approaching.

Table 2. Generating Targets for Progress Measure

ELA (NCE)	**NCE Gap**				**NCE Increase Needed**	**Years 1 and 2 Average NCE**	**Years 2 and 3 Average Progress Target**
Exceeding	76.9	*	5%	=	3.8	53.1	56.9+
On Track	76.9	*	3%	=	2.3	53.1	55.4-56.8
Approaching	76.9	*	1%	=	0.8	53.1	53.9-55.3
Science (MPI)	**MPI Gap**				**MPI Increase Needed**	**Years 1 and 2 Average MPI**	**Years 2 and 3 Average Progress Target**
Exceeding	97.6	*	5%	=	4.9	352.4	357.3-500
On Track	97.6	*	3%	=	2.9	352.4	355.3-357.2
Approaching	97.6	*	1%	=	1.0	352.4	353.4-355.2

Step 4 – Add the scores for Years 2 and 3 and divide by two to determine the average rounded to the tenth.

ELA (NCE): (54.8 + 44.8) / 2 = 49.8

Science (MPI): (346.6 + 365.3) / 2 = 356.0

Step 5 – Subtract the Years 1 and 2 (prior two-year) average from the Years 2 and 3 (current two-year) average to determine the minimum increase needed to meet each target level.

ELA (NCE): 49.8 - 53.1 = -3.3

Science (MPI): 356.0 – 352.4 = 3.6

Step 6 – The district's Years 2 and 3 average is compared to the district's Years 1 and 2 average to determine if the district is exceeding, on track, or approaching the required increase. In the ELA (NCE) example, the ABC school district has a Year 2 and 3 average NCE of 49.8, a decrease of 3.3 NCE from the Year 1 and 2 average NCE, which means that it is designated as "Floor" with the improvement benchmark and subsequently receives zero (0) points as its Progress Score in ELA. In the Science (MPI) example, the ABC school district has a Year 2 and 3 average MPI of 356.0, an improvement of 3.6 MPI from the Year 1 and 2 average MPI, which means that it is designated as "On Track" with the improvement benchmark and subsequently receives six points as its Progress Score in science.

Table 3. Standard 1: Academic Achievement Progress Scores

	ELA	MA	Science	Social Studies
Academic Achievement	Grades 3-8 MAP, MAP-A, Eng II(2017 excluded)	Grades 3-8 MAP, MAP-A, Alg I(2017 excluded) Alg II[1], Geo[2]	Grades 5, 8 MAP, MAP-A, Biology	U.S. Government
Progress	Exceeding = 12 On Track = 6 Approaching = 3 Floor = 0	Exceeding = 12 On Track = 6 Approaching = 3 Floor = 0	Exceeding = 12 On Track = 6 Approaching = 3 Floor = 0	Exceeding = 6 On Track = 3 Approaching = 1.5 Floor = 0

[1] Assessment used for accountability purposes when Algebra I EOC has been completed prior to 9th grade.
[2] Assessment used for accountability purposes when Algebra I and Algebra II EOCs have been completed prior to 9th grade.
[3] The 2017 APR was calculated with A1 and E2 excluded from the 2017 MPI

Growth Measure Calculation
Growth measures in ELA and MA grades 4 through 8 are calculated using a Missouri Growth Model and included as a Growth Score that may be used in place of the district, school, or super subgroup Progress Score. Using statistical methods, the Missouri Growth Model estimates the systemic contributions of districts and schools on student growth. For a full description, see Missouri Growth Model in Appendix I.

Table 4. Growth Scores

	ELA	MA
Academic Achievement	Grades 4-8 MAP, MAP-A	Grades 4-8 MAP, MAP-A
Growth (Grades 4-8)	Exceeding = 12 On Track = 6 Floor = 0	Exceeding = 12 On Track = 6 Floor = 0

If the district (for the district report) or school (for the school report) Growth Score is positive and a statistically significant score in MA, that Growth Score would earn 12 Growth Points in MA. Progress ***or*** Growth points, whichever is higher, is applied to the Academic Achievement score.

The Status and Progress or Growth methods are applied to each subject (where applicable). The method awarding the maximum total points from Status + Progress or Growth is used for each subject area. The maximum amount of points that can be earned per subject area cannot surpass the points allocated for Status Points "Target," e.g. 16 for ELA or eight for social studies.

MSIP 5 Performance Standard 2: Subgroup Achievement

Subgroup Achievement — The district demonstrates required improvement in student performance for its subgroups.

1. The performance of students identified on each assessment in identified subgroups, including FRL, racial/ethnic background, English language learners, and students with disabilities, meets or exceeds the state standard or demonstrates required improvement.

Status	ELA/MA ~~/Science~~	Social Studies	Progress	ELA/MA ~~/Science~~	Social Studies	Growth (Only ELA & MA)	
Target	4	2	Exceeding	3	1.5	Exceeding	3
On Track	3	1.5	On Track	2	1	On Track	2
Approaching	2	1	Approaching	1	0.5	Floor	0
Floor	0	0	Floor	0	0		

Notes:

- Data are obtained from contracted testing publishers for the grade-level assessment, EOC assessments, and MAP-A assessments.
- HH policy applies to ELA and MA. For more information, see page 10.
- Individual subgroups with 10 or more will be displayed as a report only item.
- The n-size for accountability purposes remains at 30.
- 2018 will not have any science data due to field test assessments. The total APR will be reduced by 20 points (Standard 2, if n-size is met, by 4 points). Those points will return in 2019. Social studies will be treated the same in 2019.
- All MAP performance data are reported to the nearest tenth.
- Standard 2: Subgroup Achievement calculates the percent proficient or advanced and the MAP Performance Index (MPI) by subject area for students who are included in the super subgroup.
- Individual subgroup data are available in the Missouri Comprehensive Data System Portal (MCDS).

Super Subgroup

To better differentiate among needs of the districts or schools and to ensure broader inclusion of students whose subgroups have historically performed below the state total, Missouri will continue to issue and report academic achievement for students in the aggregate and for low income students, students with disabilities, English language learners, and the state's major racial and ethnic subgroups. A review of Missouri data identifies five significant gaps in subgroup performance (Black, Hispanic, low income students, students with disabilities and English learners). For state accountability determinations (e.g. district accreditation), a super subgroup comprised of these five subgroups is used. A student who is included in one or more of the five identified subgroups is included as a single count in the super subgroup calculation.

In the example below, all ten students' scores are included in Standard 1: Academic Achievement in the group of total for accountability and reporting purposes when the cell size requirement is met (see cell size description for actual cell size requirements of 30).

For Standard 2: Subgroup Achievement, a student who is included in one or more of the five identified subgroups, such as students B, C, D, E and G, are only included once (unduplicated count) in the super subgroup calculation when the cell size requirement is met.

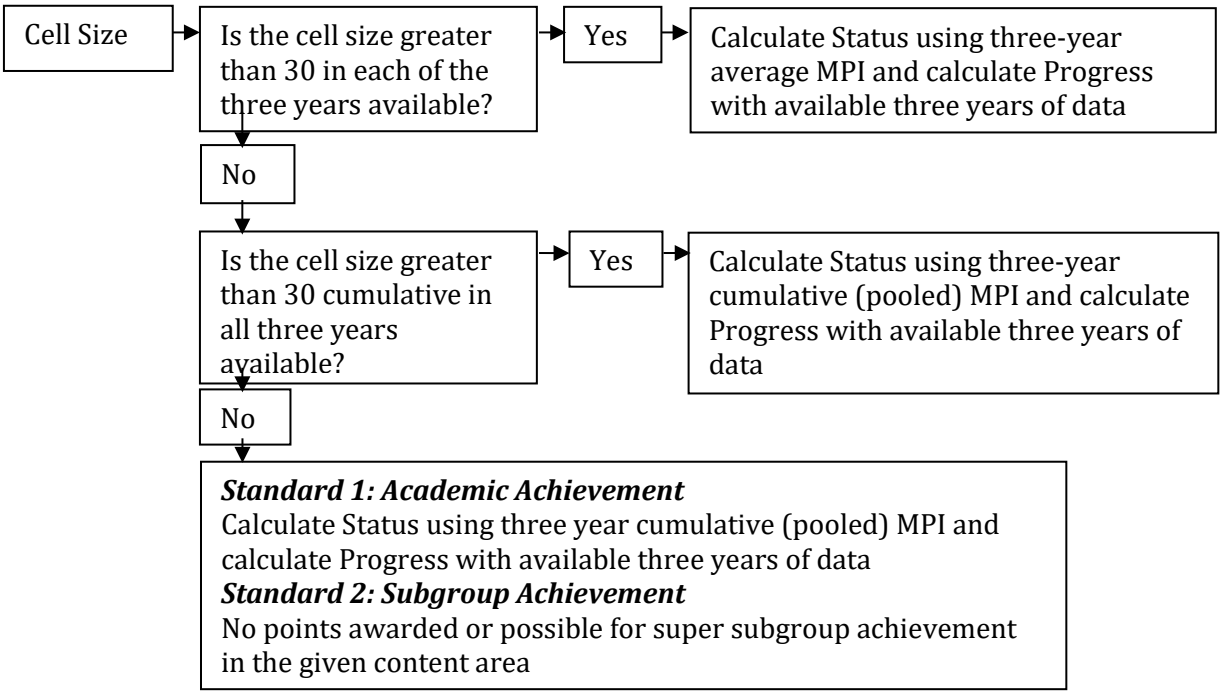
Student	Total	Asian/ Pac Is	Black	Hispanic	Am Indian	White	Multi - Racial	FRL	IEP	EL
A	X					X				
B	X					X		X	X	
C	X		X							
D	X		X					X	X	
E	X			X				X	X	X
F	X	X								
G	X					X		X		
H	X					X				
I	X					X				
J	X						X			

Performance of individual subgroups is reported for planning purposes. For example, Student B's score would be reported in the group of Total, White, FRL, and IEP.

Cell Size

Districts, schools, and the super subgroup (Standard 2: Subgroup Achievement) must have at least 30 Accountable students in the group being measured in a given content area each year over a three year period in order to generate scores for accountability based on the average of three annually-calculated MPIs. If this is not possible, the Status measure is calculated by "pooling" three years of data and summing the number of Accountable students and the numbers of students in each achievement level across the three-year period; the "pooled" count is used in the calculation for determining Status and is referred to as the cumulative measure.

This flowchart explains the conditions triggering special cell size decisions for Standard 1 and 2:



Status, Progress and Growth Measures
The super subgroup measures for Status, Progress, and Growth are calculated through the same methodology used to compute the district or school-level Standard 1: Academic Achievement scores. This includes measures of MPI calculations for science and social studies, NCE calculations for ELA and MA, test participation, MAP-A exclusions, EL exclusions, and full academic year.

The Status targets for Standard 2: Subgroup Achievement are established based on cutting the achievement gap in half. The amount of points granted for target, on track, approaching, or falling significantly below the target (floor), is displayed in Tables 5 and 6.

The same conceptual and statistical framework used to generate growth measures for Academic Achievement applies to the growth estimates generated for Subgroup Achievement. However, since the Growth Measure for Subgroup Achievement compares the average Growth of students in a district or school's super subgroup to that of the state non-super subgroup, Growth Measures for Subgroup Achievement must be interpreted in a different manner.

Subgroup growth measures are reported in NCE units on the APR. Growth measures that are statistically different from the state average growth of the non-super subgroup will be noted. Super subgroup growth will earn APR growth points as described below.

Growth is divided into three levels as follows:

- **Exceeding —** The district or school growth measure (effect) is greater than 50 AND the difference from 50 is statistically significant.
- **On Track —** The district or school growth measure (effect) is not statistically different from 50.
- **Floor —** The district or school growth measure (effect) is less than 50 AND the difference from 50 is statistically significant.

Table 5. Standard 2: Subgroup Achievement Status and Progress Scores

	ELA	MA	~~Science~~	Social Studies
Subgroup Achievement	Grades 3-8 MAP, MAP-A, Eng II(2017 excluded)	Grades 3-8 MAP, MAP-A, Alg I(2017 excluded), Alg II[1], Geo[2]	~~Grades 5, 8 MAP, MAP-A, Biology~~	US Government
Status (3 year average)	Target = 4 On Track = 3 Approaching = 2 Floor = 0	Target = 4 On Track = 3 Approaching = 2 Floor = 0	~~Target = 4~~ ~~On Track = 3~~ ~~Approaching = 2~~ ~~Floor = 0~~	Target = 2 On Track = 1.5 Approaching = 1 Floor = 0
Progress	Exceeding = 3 On Track = 2 Approaching = 1 Floor = 0	Exceeding = 3 On Track = 2 Approaching = 1 Floor = 0	~~Exceeding = 3~~ ~~On Track = 2~~ ~~Approaching = 1~~ ~~Floor = 0~~	Exceeding = 1.5 On Track = 1 Approaching = 0.5 Floor = 0

[1] Assessment used for accountability purposes when Algebra I EOC has been completed prior to 9th grade.
[2] Assessment used for accountability purposes when Algebra I and Algebra II EOCs have been completed prior to 9th grade.
[3] The 2017 APR was calculated with A1 and E2 excluded from the 2017 MPI

Table 6. Standard 2: Subgroup Achievement Growth Scores

	ELA	MA
Subgroup Achievement	Grades 4-8 MAP, MAP-A,	Grades 4-8 MAP, MAP-A
Growth (Grades 4-8)	Exceeding = 3 On Track = 2 Floor = 0	Exceeding = 3 On Track = 2 Floor = 0

The Status and Progress or Growth methods are applied to each subject (where applicable). The method awarding the maximum total points from Status + Progress ***or*** Growth is used for each subject area. The maximum amount of points that can be earned per subject area cannot surpass the points allocated for Status Points "Target," e.g. four for ELA or two for social studies.

MSIP 5 Performance Standard 3: Indicators 1-3

College and Career Readiness (CCR) (K-12 districts only)

College and Career Readiness (K-12 districts) — The district provides adequate post-secondary preparation for all students.

1. The percent of graduates who scored at or above the state standard on any department-approved measure(s) of college and career readiness, for example, the ACT®, SAT®, COMPASS®, or Armed Services Vocational Aptitude Battery (ASVAB), meets or exceeds the state standard or demonstrates required improvement.
2. The district's average composite score(s) on any department-approved measure(s) of college and career readiness, for example, the ACT®, SAT®, COMPASS®, or ASVAB, meet(s) or exceed(s) the state standard or demonstrate(s) required improvement.
3. The percent of graduates who participated in any department-approved measure(s) of college and career readiness, for example, the ACT®, SAT®, COMPASS®, or ASVAB, meets or exceeds the state standard or demonstrates required improvement.

Status		Progress	
Target	**10**	**Exceeding**	**7.5**
On Track	**7.5**	**On Track**	**4**
Approaching	**6**	**Approaching**	**2**
Floor	**0**	**Floor**	**0**

Notes:

- Data are obtained from the MOSIS June Enrollment and Attendance file and from official testing companies (ACT®, SAT®, COMPASS®, ACCUPLACER® and WorkKeys®) for scores on department-approved measures of college and career readiness.
- ASVAB data are reported by the district through MOSIS submission.
- When students take multiple types of tests and/or a single test multiple times, the highest score is used for the APR calculation.
- ACT®, SAT®, COMPASS®, ACCUPLACER®, WorkKeys®, and ASVAB weighted scores are available in Appendix C – "CCR*1-3 Assessment Scores Matrix".
- COMPASS was last available in December 2016. COMPASS scores will be used for as long as graduating seniors have a COMPASS score on record.
- Students coded both GO3 & MAP-A will be excluded from 3*1-3. <u>Districts must identify MAP-A EOC assessment students by using the EOCEX3 exemption code.</u>

Example of supporting data format for APR

		Year 1	Year 2	Year 3 (most recent)	Status
From MOSIS	Number of graduates	148	153	155	
From MOSIS and testing company	Number of graduates Scoring at or Above the State Standard	87	98.5	110.25	
	percent of graduates Scoring at or Above the State Standard	58.8	64.4	71.1	64.8

Method for calculating number of students at or above the state standard

Explanations of Calculations	Examples of Data	Examples of Calculations
Approximate equivalent scores are used to establish comparability of scores on different assessments. A matrix of approximately equivalent CCR*1-3 assessment scores (Appendix C) displays SAT®, COMPASS®, WorkKeys®, ACCUPLACER® and ASVAB exams and their approximately equivalent ACT® scores. Scores on the ACT® are used as reported. **ACT® scores and approximately equivalent scores derived from other assessments must be equal to or greater than the ACT® anchor score in order to be included in the number of students scoring at or above the state standard.** The exam contributing the highest approximate equivalent score is used for each student.	**Unduplicated Count** a) number of graduates who score at or above a 26 on the ACT® or who demonstrate comparable performance on a department-approved measure multiplied by 1.25 b) number of graduates who score at or above a 22 on the ACT® but below a 26 or who demonstrate comparable performance on a department-approved measure multiplied by 1 c) number of graduates who score at or above an 18 on the ACT® but below 22 or who demonstrate comparable performance on a department-approved measure multiplied by 0.75 d) number of graduates who participate in a department approved measure of college and career readiness but score below comparable performance of an 18 on the ACT® multiplied by 0.25 e) number of graduates without a score multiplied by zero	a) 18 * 1.25 = 22.5 b) 43 * 1 = 43 c) 52 * 0.75 = 39 d) 23 * 0.25 = 5.75 e) 19 * 0 = 0
	Number of graduates scoring at or above the state standard	22.5 + 43 + 39 + 5.75+ 0 = 110.25

-Refer to Appendix C for the CCR*1-3 Assessment Scores Matrix

Method for calculating status
The percent of graduates scoring at or above state standard is determined by dividing the number of graduates scoring at or above the state standard by the number of graduates, then multiplying by 100 rounded to the tenth.

Explanations of Data	Examples of Data	Examples of Calculations
1) The **number of graduates** is based on June Enrollment and Attendance Records with an Exit Code indicating the student graduated.	number of graduates	155
2) The **number of graduates scoring at or above the state standard** is provided by the testing companies supplying approved assessment data; ASVAB data are provided by districts through MOSIS.	number of graduates scoring at or above the state standard	110.25
3) The percent **of graduates scoring at or above the state standard** is determined by dividing the **number of graduates scoring at or above the state standard** by the **number of graduates**, then multiplying by 100 rounded to the tenth.	a) number of graduates scoring at or above the state standard = 110.25 b) number of graduates = 155	a) 110.25 / 155 = 0.711 b) 0.711 * 100 = 71.1%
4) **Status** is determined by adding Year 1, Year 2, and Year 3 of the percent **of graduates scoring at or above the state standard,** dividing by three (unless three years of data are not available) and rounding to the tenth.	(Year 1 + Year 2 + Year 3) / 3	58.8 + 64.4 + 71.1 = 194.3 194.3 / 3 = 64.8%

Method for Calculating Progress
Differentiated improvement targets are set for a given district or school based on the two prior years' performance of that district or school.

Example: Calculating the Progress measure for "ABC" school district, the following example shows how the Progress measure is calculated at the district level using a rolling average:

ABC district	Year 1	Year 2	Year 3 (most recent year)
percent of students scoring at or above state standard	58.8	64.4	71.1

Step 1 - Add the scores for Years 1 and 2 and divide by two to determine the average rounded to the tenth.

(58.8 + 64.4) / 2 = 61.6

Step 2 - The average percentage for Years 1 and 2 is subtracted from 100 to determine the CCR*1-3 Gap.

Constant		Years 1 and 2 Average %		CCR*1-3 Gap
100	-	61.6	=	38.4

Step 3 - The CCR*1-3 Gap is used to establish Progress Targets as determined by multiplying the CCR*1-3 Gap by the associated percentage, e.g. 25 percent for exceeding, 15 percent for on track, five percent for approaching.

Table 7. Generating Targets for Progress Measure

	CCR*1-3 Gap				% Increase Needed	Years 1 and 2 Average %	Years 2 and 3 Average Progress Target
Exceeding	38.4	*	25%	=	9.6	61.6	71.2-100
On Track	38.4	*	15%	=	5.8	61.6	67.4-71.0
Approaching	38.4	*	5%	=	1.9	61.6	63.5-67.2

Step 4 – Add the scores for Years 2 and 3 and divide by two to determine the average rounded to the tenth.

(64.4 + 71.1) / 2 = 67.8

Step 5 - The district's Years 2 and 3 average percentage is used to determine if the district is exceeding, on track, or approaching the required percent increase. In the example above, the ABC school district has a Year 2 and 3 average percentage of 67.8, which means that it is designated as "On Track" (67.4-71.0 range) with the Progress Target and subsequently receives four points as its Progress Score in CCR*1-3.

Table 8. Computing the College and Career Readiness*1-3 Score

	Status	Progress
Points Possible	Target = 10 On Track = 7.5 Approaching = 6 Floor = 0	Exceeding = 7.5 On Track = 4 Approaching = 2 Floor = 0
College and Career Readiness Total	Maximum of ten points per indicator area for Status + Progress	

MSIP 5 Performance Standard 3: Indicator 4

College and Career Readiness (CCR) (K-12 districts only)

College and Career Readiness (K-12 districts) — The district provides adequate post-secondary preparation for all students.

4. The percent of graduates who earned a qualifying score on an AP, IB, or TSA assessments and/or receive college credit through early college, dual enrollment, or approved dual credit courses meets or exceeds the state standard or demonstrates required improvement.

Status		Progress	
Target	**10**	**Exceeding**	**7.5**
On Track	**7.5**	**On Track**	**4**
Approaching	**6**	**Approaching**	**2**
Floor	**0**	**Floor**	**0**

Notes

- Data are obtained from the MOSIS June Enrollment and Attendance file, MOSIS June Student Core, October Student Assignment, Courses Completed, and Grades Earned, and from official testing companies (AP and IB).
- Only dual credit courses from a Missouri institution that is complying with the Coordinating Board for Higher Education's Dual Credit Policy and Principles of Good Practice for Dual Credit Courses will be recognized. See Appendix E.
- Test Scores for high school level Project Lead The Way (PLTW) courses are included in the APR. For additional information, please see a list of approved PLTW courses**.** PLTW assessment scale scores of six or higher are included in Standard CCR 3*4. Data are obtained from the official testing company**.**
- When students take multiple types of tests and/or a single test multiple times or earn multiple credits, one metric (the highest) is used for the APR calculation.
- Districts whose career and technical education expansion satisfied all established criteria and whose application gained departmental approval are eligible for two additional points toward Standard 3*4. These points apply only toward this specific indicator and may not be awarded in excess of the ten maximum points available.
- Dual credit and dual enrollment courses offered within the summer school term are utilized in this calculation. The summer school term is considered part of the following academic year.
- Students coded as both GO3 & MAP-A will be excluded from Standard 3*4.
- Complete listing of approved IRC's

Method for calculating number of students at or above the state standard

Step 1 - Determine the number of students with a qualifying score on any of the approved options and multiply by associated point value.

Explanations of Calculations	Examples of Data	Examples of Calculations
Scores on the AP, IB, or PLTW exams are used as reported by the testing company. Scores on a department-approved IRC are used as reported in MOSIS. Grades earned in department-approved dual credit courses, dual enrollment, early college, AP courses and IB courses are used as reported in MOSIS. The metric contributing the highest score is used for each student.	**Unduplicated Count** a) number of graduates who score at or above a three on an AP exam or who score at or above a four on an IB exam multiplied by 1.25 b) number of graduates who score proficient on a department-approved IRC assessment or a scale score of six or higher on a PLTW assessment multiplied by one c) number of graduates who earn a "B" or greater in a department-approved dual credit course, dual enrollment course, early college course, AP course, or IB course multiplied by one d) number of graduates without a qualifying score or grade on an approved measure multiplied by zero	a) 16 * 1.25 = 20 b) 12 * 1 = 12 c) 41 * 1 = 41 d) 81 * 0 = 0
	Number of graduates scoring at or above the state standard	20 + 12 + 41 + 0 = 73

Step 2 - Divide the number of Points Earned by the number of graduates and multiply by 100 rounded to the tenth.

Total Points Earned		Number of Graduates					MPI
73	/	150	=	0.487	*	100	**48.7%**

Example of supporting data format for APR

		Year 1	Year 2	Year 3 (most recent)	Status
From MOSIS →	Number of graduates	148	153	150	
From MOSIS and testing company →	Number of graduates scoring at or above the state standard	87	97.5	73	
	% of graduates scoring at or above the state standard	58.8	63.7	48.7	57.1

Method for Calculating Status

Explanations of Data	Examples of Data (using Year 1-Year 3)	Examples of Calculations
1) The **number of graduates** is based on June Enrollment and Attendance Records with an Exit Code indicating the student graduated.	number of graduates	148 (Year 1)
2) The **number of graduates** who earned a qualifying score on the AP, IB, IRC, PLTW, or early college assessment, or a qualifying grade in dual enrollment or approved dual credit course provided by the testing companies and/or by the Courses Completed and Grades Earned as reported in June Enrollment and Attendance.	number of graduates who earned a qualifying score on the AP, IB, IRC, or early college assessments and/or received college credit through dual enrollment or approved dual credit courses	87 (Year 1)
3) The percent **of graduates who earned a qualifying score** is determined by dividing the **number of graduates who earned a qualifying score on the AP, IB, IRC, PLTW, or early college, or earned a qualifying grade for dual enrollment or approved dual credit courses** or by the **number of graduates**, then multiplying by 100 rounded to the tenth.	a) number of graduates = 148 b) number of graduates scoring at or above the state standard = 87	% of graduates scoring at or above the state standard = 87 / 148 = 0.588 0.588 * 100 = 58.8%

4) **Status** is determined by adding Year 1, Year 2, and Year 3 of the percent **of graduates who earned a qualifying score on the AP, IB, IRC, PLTW, or early college assessments, or earned a qualifying grade in dual enrollment or approved dual credit courses,** dividing by three (unless three years of data are not available), and rounding to the tenth.	(Year 1 + Year 2 + Year 3) / 3	58.8 + 63.7 + 48.7 = 171.2 171.2 / 3 = 57.1%

Method for Calculating Progress
Differentiated improvement targets are set for a given district or school based on the two prior years' performance of that district or school.

Example: Calculating the Progress measure for "ABC" school district, the following example shows how the CCR*4 Progress measure is calculated at the district level using a rolling average:

ABC district	Year 1	Year 2	Year 3 (most recent year)
% of students who earn a qualifying score	58.8	63.7	48.7

Step 1 - Add the scores for Years 1 and 2 and divide by two to determine the average rounded to the tenth.

(58.8 + 63.7) / 2 = 61.3

Step 2 - The average percentage for Years 1 and 2 is subtracted from 100 to determine the CCR*4 Gap.

Constant		Years 1 and 2 Average %		CCR*4 Gap
100	-	61.3	=	38.7

Step 3 - The CCR*4 Gap is used ***to establish Progress Targets*** as determined by multiplying the CCR*4 Gap by the associated percentage, e.g. 25 percent for exceeding, 15 percent for on track, five percent for approaching.

Table 9. Generating Targets for Progress Measure

	CCR*4 Gap				% Increase Needed	Years 1 and 2 Average %	Years 2 and 3 Average Progress Target
Exceeding	38.7	*	25%	=	9.7	61.3	71.0-100
On Track	38.7	*	15%	=	5.8	61.3	67.1-70.9
Approaching	38.7	*	5%	=	1.9	61.3	63.2-67.0

Step 4 – Add the scores for Years 2 and 3 and divide by two to determine the average rounded to the tenth.

(63.7 + 48.7) / 2 = 56.2

Step 5 - The district's Years 2 and 3 average percentage is used to determine if the district is exceeding, on track, or approaching the required percent increase. In this example, the ABC school district has a Year 2 and 3 average percentage of 56.2, which means that it is designated as "Floor" not meeting the Progress Targets and subsequently receives zero (0) as its Progress Score in CCR*4.

Table 10. Computing the College and Career Readiness*4 Score

	Status	Progress
Points Possible	Target = 10 On Track = 7.5 Approaching = 6 Floor = 0	Exceeding = 7.5 On Track = 4 Approaching = 2 Floor = 0
College and Career Readiness Total	Maximum of ten points per indicator area for Status + Progress	

MSIP 5 Performance Standard 3: Indicators 5–6

College and Career Readiness (CCR) (K-12 districts only)

College and Career Readiness (K-12 districts) — The district provides adequate post-secondary preparation for all students.

5. The percent of graduates who attend post-secondary education/training or are in the military within six (6) months of graduating meets the state standard or demonstrates required improvement.
6. The percent of graduates who complete career education programs approved by the department and are placed in occupations directly related to their training, continue their education, or are in the military with six (6) months of graduating meets the state standard or demonstrates required improvement.

Status		Progress	
Target	**10**	**Exceeding**	**7.5**
On Track	**7.5**	**On Track**	**4**
Approaching	**6**	**Approaching**	**2**
Floor	**0**	**Floor**	**0**

Notes

- In accordance with legislation, the definition of placement for graduates who complete approved career education programs has been expanded for MSIP purposes. Districts will continue to report "Related" and "Not Related" placement for Perkins purposes and DESE will capture both populations for credit. Prior year data have been collected by DESE and factor into current year calculations.
- Students coded as both GO3 & MAP-A will be INCLUDED in 3*5-6.
- Data are obtained from the MOSIS June Enrollment and Attendance file and February Student Graduate Follow-up.
- The total number of graduates in the denominator is the sum of students reported as GO1 and GO3.
- The MOSIS February Student Graduate Follow-up submission is compared to the National Student Clearinghouse (NSC), post-secondary enrollment records verified by participating institutions. NSC data is provided to LEAs in the secured report "Graduates Found in Higher Education (NSC)"on the MCDS Portal. A LEA with a 15 percent variance from NSC will receive a warning and a 25 percent variance from NSC will receive an error in the MOSIS Student Graduate Follow-Up submission. Adequate supporting documentation may be required to certify the file.
- Fax documentation to 573-526-3045 to request approval to bypass the error. An explanation must be given in the comments field. Two common reasons for bypassing the error include the post-secondary institution does not participate in NSC (district provide the name of institution in comments) or the student had a name change since graduation (NSC and MOSIS unable to match records).
- This is a lagged indicator representing graduates from the preceding year(s).
- For placement related questions see the Career Education Placement/Follow-Up Guidelines in the appendix.

Example of Supporting Data Format for APR

Status is determined by adding Year 1, Year 2, and Year 3 of the **percent of post-secondary placement** and dividing by three rounded to the tenth.

	Post-secondary education, training, military and CTE placement	Year 1	Year 2	Year 3	Status
From MOSIS June Student Core and Enrollment	Number of graduates	377	357	385	
From MOSIS February Follow-up	Number of graduates who attend post-secondary education or training, are in the military, or who complete a department-approved Career Education course and are employed within six months of graduating.	320	333	339	
	% of post-secondary placement	85.0	93.3	88.0	88.8

Method for Calculating Supporting Data

Explanations of Calculations	Examples of Data	Examples of Calculations
The percent of post-secondary placement is determined by dividing the number of graduates who attend post-secondary education or training, are in the military, or who complete a department-approved Career Education course (0604 does not count) and are employed by the number of graduates, and then multiplying by 100 rounded to the tenth.	**Unduplicated Count** a) number of graduates who attend post-secondary education = 147 b) number of graduates who attend post-secondary training = 118 c) number of graduates who are in the military = 17 d) number of graduates who complete a department-approved Career Education course and are employed = 57	147+ 118 + 17+ 57= 339
	Number of graduates = 385	385
		339 / 385 = 0.881
	% of post-secondary placement	0.881 * 100 = 88.1%

Method for Calculating Status
The percent of graduates who earned a qualifying score on post-secondary placement is determined by dividing the number of graduates who earned a qualifying score by the number of graduates, then multiplying by 100 and rounded to the tenth.

Explanations of Data	Examples of Data	Examples of Calculations
1) The **number of graduates** is based on June Enrollment and Attendance Records with an Exit Code indicating the student graduated.	number of graduates	385
2) **Number of graduates** who attend post-secondary education or training, or are in the military, or who complete a department-approved Career Education course and are employed within six months of graduating.	number of graduates who earned a qualifying score	339

3) The percent **of graduates who earned a qualifying score** is determined by dividing the **number of graduates who earned a qualifying score in post-secondary placement** by the **number of graduates**, then multiplying by 100 rounded to the tenth.	a) number of graduates = 385 b) number of graduates who earn a qualifying score = 339	339 / 385 = 0.881 0.881 * 100 = 88.1%
4) **Status** is determined by adding Year 1, Year 2, and Year 3 of the percent **of graduates who earned a qualifying score in post-secondary placement,** dividing by three (unless three years of data are not available), and rounding to the tenth.	(Year 1 + Year 2 + Year 3) / 3	85.0 + 93.3 + 88.1 = 266.4 266.4 / 3 = 88.8%

Method for Calculating Progress
Differentiated improvement targets are set for a given district or school based on the two prior years' performance of that district or school.

Example: Calculating the Progress Measure for "ABC" school district, the following example shows how the CCR*5-6 Progress Measure is calculated at the district level using a rolling average:

ABC district	Year 1	Year 2	Year 3 (most recent year)
percent of students who earn a qualifying score	85.0	93.3	88.1

Step 1 - Add the scores for Years 1 and 2 and divide by two to determine the average rounded to the tenth.

(85.0 + 93.3) / 2 = 89.2

Step 2 - The average percentage for Years 1 and 2 is subtracted from 100 to determine the CCR*5-6 Gap.

Constant		Years 1 and 2 Average %		CCR*5-6 Gap
100	-	89.2	=	10.8

Step 3 - The CCR*5-6 Gap is used ***to establish Progress Targets*** as determined by multiplying the CCR*5-6 Gap by the associated percentage, e.g. 25 percent for exceeding, 15 percent for on track, 5 percent for approaching.

Table 11. Generating Targets for Progress Measure

	CCR*5-6 Gap				% Increase Needed	Years 1 and 2 Average percent	Years 2 and 3 Average Progress Target
Exceeding	10.8	*	25%	=	2.7	89.2	91.9-100
On Track	10.8	*	15%	=	1.6	89.2	90.8-91.8
Approaching	10.8	*	5%	=	0.5	89.2	89.7-90.7

Step 4 – Add the scores for Years 2 and 3 and divide by two to determine the average rounded to the tenth.

(93.3 + 88.1) / 2 = 90.7

Step 5 - The district's Years 2 and 3 average percentage is used to determine if the district is exceeding, on track, or approaching the required percent increase. In this example, the ABC school district has a Year 2 and 3 average percentage of 90.7, which means that it is designated as "Approaching" the Progress Target and subsequently receives two points as its Progress Score in CCR*5-6.

Table12. Computing the College and Career Readiness*5-6 Score

	Status	**Progress**
Points Possible	Target = 10 On Track = 7.5 Approaching = 6 Floor = 0	Exceeding = 7.5 On Track = 4 Approaching = 2 Floor = 0
College and Career Readiness Total:	Maximum of ten points per indicator area for Status + Progress	

MSIP 5 Performance Standard 3: High School Readiness (HSR)

(K-8 Districts only)

High School Readiness (K-8 Districts) — The district provides adequate post-elementary preparation for all students.

1. The percent of students who earn a proficient score on one (1) or more of the high school EOC assessments while in elementary school meets or exceeds the state standard or demonstrates required improvement.

Status		Progress	
Target	**10**	**Exceeding**	**7.5**
On Track	**7.5**	**On Track**	**4**
Approaching	**6**	**Approaching**	**2**
Floor	**0**	**Floor**	**0**

Notes

- All available EOC assessments may be used toward Standard 3: High School Readiness.
- Data are obtained from the MOSIS June Enrollment and Attendance file and from official testing companies.
- Eighth grade students are defined as exiting in MOSIS data with a code of R001 Remained Advanced.
- FAY does not apply to the HSR Standard.
- K-8 and charter schools who add grade levels to become a high school will continue to have the ability to earn HSR points until they graduate their first class of seniors. At that point, HSR will be replaced by CCR and also graduation rate. In the first year, the district can earn status, in year two status plus progress. This is for the duration of MSIP 5 only.

Example of supporting data format for APR

		Year 1	Year 2	Year 3	Status
From MOSIS	Number of Grade 8 students	63	48	56	
From MOSIS and testing company	Number of Grade 8 students who earned a qualifying score on a MAP EOC assessment	12	8	15	
	% of Grade 8 students earning a qualifying score	19.0	16.6	26.8	20.8

Method for Calculating Status
The percent of Grade 8 students who earned a qualifying score on the MAP EOC assessments is determined by dividing the number of Grade 8 students who earned a qualifying score on the MAP EOC assessments by the total number of Grade 8 students, then multiplying by 100, and rounding to the tenth.

Explanations of Data	Examples of Data (using Year 1-Year 3)	Examples of Calculations
The number of Grade 8 students is based **on June Enrollment and Attendance Records with an Exit Code indicating the student has advanced to Grade 9.**	number of Grade 8 students	63 (Year 1)
The number of Grade 8 students who earned a qualifying score on a MAP EOC assessment is determined by the number of Grade 8 students who earned a proficient or advanced score on a MAP EOC assessment prior to advancing to Grade 9.	number of Grade 8 students who earned a proficient or advanced score on a MAP EOC assessment prior to Grade 9	12 (Year 1)
The percent of Grade 8 students who earned a qualifying score on the MAP EOC assessments is determined by dividing the number of Grade 8 students who earned a qualifying score on a MAP EOC assessment by the total number of Grade 8 students, multiplying by 100 and then rounding to the tenth.	a) number of Grade 8 students = 63 b) number of Grade 8 students who earned a qualifying score = 12	% of "exiting" Grade 8 students who earned a qualifying score = 12 / 63 = 0.190 0.190 * 100 = 19.0%
Status is determined by adding Year 1, Year 2, and Year 3 of the percent **of** Grade 8 students **who earned a qualifying score on a MAP EOC assessment,** dividing by three (unless three years of data are not available), and rounding to the tenth.	(Year 1 + Year 2 + Year 3) / 3	19.0 + 16.6 + 26.8 = 62.4 62.4 / 3 = 20.8%

Method for Calculating Progress
Differentiated improvement targets are set for a given district or school based on the two prior years' performance of that district.

Example: Calculating the progress measure for "ABC" school district, the following example shows how the progress measure is calculated at the district level:

Step 1 - Add the scores for Years 1 and 2 and divide by two to determine the average rounded to the tenth.

(19.0 + 16.6) / 2 = 17.8

Step 2 - The average percentage for Years 1 and 2 is subtracted from 50 to determine the HSR*1 Gap.

Baseline		Years 1 and 2 Average percent		HSR*1 Gap
50	-	17.8	=	32.2

Step 3 - The high school readiness Gap is used ***to establish progress targets*** as determined by multiplying the high school readiness Gap by the associated percentage, e.g., 25 percent for exceeding, 15 percent for on track, 5 percent for approaching.

Table 13. Generating Targets for Progress Measure

	Prior Year HSR Gap				HSR Increase Needed	Prior Year percent	Progress AMO
Exceeding	32.2	*	25%	=	8.1	17.8	25.9-100
On Track	32.2	*	15%	=	4.8	17.8	22.6-25.8
Approaching	32.2	*	5%	=	1.6	17.8	19.4-22.5

Step 4 – Add the scores for Years 2 and 3 and divide by two to determine the average rounded to the tenth.

(16.6 + 26.8) / 2 = 21.7

Step 5 - The district's Years 2 and 3 average percentage is used to determine if the district is exceeding, on track, or approaching the required percent increase. In this example, the ABC school district has a Year 2 and 3 average percentage of 21.7, which means that it is designated as "Approaching" the Progress Target and subsequently receives two points as its Progress Score in HSR.

Table 14. Computing the High School Readiness Score

	Status	Progress
Points Possible	Target = 10 On Track = 7.5 Approaching = 6 Floor = 0	Exceeding = 7.5 On Track = 4 Approaching = 2 Floor = 0
High School Readiness Total	Maximum of ten points per indicator area for Status + Progress	

MSIP 5 Performance Standard 4: Attendance Rate

Attendance Rate — The district ensures all students regularly attend school.

- The percent of students who regularly attend school meets or exceeds the state standard or demonstrates required improvement.

Attendance targets use the individual student's attendance rate and set the expectation that 90 percent of the students are in attendance 90 percent of the time.

Status		Percent of Students Attending 90 percent of Time	Progress		Progress Measure Description
Target	**10**	**90.0-100**	**Exceeding**	**7.5**	**3% increase**
On Track	**7.5**	**85.0-89.9**	**On Track**	**4**	**2% increase**
Approaching	**6**	**80.0-84.9**	**Approaching**	**2**	**1% increase**
Floor	**0**	**0-79.9**	**Floor**	**0**	**<1% increase**

Notes

- Data are obtained from the MOSIS June Cycle Enrollment and Attendance file and from Core Data Screen 10 – School Calendar Information.
- Using the end of the year MOSIS June Student Enrollment Attendance, attendance rate is determined for every student grades K-12 who is reported *any* time in the district, school, or grade throughout the year.
- Students reported as Resident I, Non-Resident, DESEG-IN, Federal Lands, and Parent Tuition are included.
- Students with zero (0) hours of attendance are excluded.
- Any time a student transfers, changes grades, or changes residency status a new attendance "segment" is created for the student. For the purposes of this calculation, all segments in the same district, school, and grade are summed into a set of hours of attendance and absence for that entity. If however, the district, grade, or calendar hour total changes (buildings within the same district with differing calendar hours), then each segment is considered individually.
- Starting in 2018, students with 85 percent attendance or greater will be proportionally weighted 0.25, and 87.5 percent attendance or greater will be proportionally weighted 0.5. Students with 90 percent attendance or greater continue to count proportionally as 1.0. An individual attendance rate is calculated for each student for the amount of time (segment) the student is enrolled in the district, school, and grade. Each individual rate is weighted in accordance with the proportion of the school year the student is enrolled in the district, school and/or grade. For example, a student who is in attendance over 90 percent of the time and is enrolled in the school for a full year would be proportionally weighted as a 1.0, whereas a student who is in attendance over 90 percent of the time and is enrolled for 522 hours in a school with a 1044 hour calendar would be proportionally weighted as a 0.5.
- Total hours enrolled is the total hours of attendance plus the total hours of absence.
- Total calendar hours are the actual total calendar hours recorded in Core Data Screen 10. Districts should confirm that a fully enrolled student's hours of attendance + hours of absence is equal to the calendar hour total reported on screen 10 for the student's attendance center.
- Student's proportional enrollment is determined by taking the total hours enrolled in the district or school and dividing by the total calendar hours rounded to the thousandth.
- Students proportional weight or contribution is determined by taking the students proportional enrollment and multiplying by their proportional weight earned for reaching 85 percent (0.25), 87.5 percent (0.5) and 90 percent (1.0) attendance.
- If a student drops out and returns at a later date, the Stop Out Code may be used for reporting purposes. A student's absence must exceed 20 consecutive calendar days in order to use the Stop Out code.
- Seniors who graduate early should be exited on their last day of attendance. This includes the end of the year when the entire senior class is finished before the rest of the district (before the end of the official school calendar).

Method for Calculating Supporting Data
The student's attendance rate is determined by using the **"hours of absence"** method. This method is calculated by dividing the **hours of attendance** by the **total hours enrolled**, then multiplying by 100 rounded to the tenth.

When calculating the district or school attendance rate the proportional weight of each student is used. The proportional enrollment is determined by taking the total hours enrolled in the district or school and dividing by the total calendar hours rounded to the thousandth.

Example: The following example shows how the attendance measure is calculated at the district level for a school district:

Refer to the table below for examples of ten different students, labeled A – H.

Step 1 - Determine the student's hours of enrollment:
Regular hours of attendance + regular hours of absence = hours of enrollment
Student A) 277.4 + 29.5 = 306.9
Student B) 973.0167 + 105.75 = 1078.8
Etc. students C - H

Step 2 - Determine the student's proportional enrollment:
Regular hours of enrollment/total calendar hours = proportional weight
Student A) 306.9 / 1078.8= .28449
Student B) 1078.7667 / 1078.8 = 1
Etc. students C - H

Step 3 - Determine the student's attendance rate:
Regular hours of attendance/hours of enrollment = attendance rate
Student A) 277.4 / 306.9= 90.4
Student B) 973.0167 / 1078.8 = 90.2
Etc. students C - H

Step 4 - Determine the points applied to each student based on their attendance rate:
Student A & B are both above 90 percent = 1.0
Students C & D are both between 87.5 percent & 90 percent = .5
Students E & F are both between 85 percent & 87.49 percent = .25
Students G & H are both below 85 percent = 0

Step 5 - Determine the total proportional weight for the district or building (the denominator):
Sum of the total proportional weight column, all students enrolled = 5.80994

Step 6 - Determine the adjusted proportional weight each student contributes to the total:
Multiply the proportional weight x attendance points
Student A) 0.28449 x 1 = 0.284
Student B) 1 x 1 = 1.000
Etc. students C - H

Step 7 - Sum the adjusted proportional weights to determine the numerator.
Note students A-F contribute to the total, while students G & H do not as they are less than 85 percent attendance.
= 2.331

Step 8 - Divide the total adjusted proportional weight of each student 85 percent or greater by the total proportional weight possible to determine the district attendance rate for APR purposes.
2.331 / 5.80944 = .4012 (40.1 percent)

This is an extreme example with only ten students in the sample chart below. A typical small district might have an adjusted proportional weight of 290.000 and a total proportional weight of 308.0000 for an attendance rate of 290.000/308.0000 = .9415 (94.2 percent).

	Regular Hours Attendance	Regular Hours Absence	Hours of Enrollment	Proportional Weight	Attendance Rate	Calendar Total Hours	Attendance Points	Adjusted Proportional Weight
A	277.4	29.5	306.9	0.28449	90.4	1078.8	1	0.284
B	973.0167	105.75	1078.7667	1	90.2	1078.8	1	1.000
C	457.2666	55.9667	513.2333	0.47576	89.1	1078.8	0.5	0.238
D	962.3834	116.3833	1078.7667	1	89.2	1078.8	0.5	0.500
E	929.8334	148.9333	1078.7667	1	86.2	1078.8	0.25	0.250
F	219.0833	35.5167	254.6	0.23601	86.1	1078.8	0.25	0.059
G	914.1667	164.6	1078.7667	1	84.7	1078.8	0	0.000
H	737.9334	139.8333	877.7667	0.81368	84.1	1078.8	0	0.000
				5.80994				2.331

Method for Calculating Progress
Improvement targets are set for district or schools based on the individual group's prior two years of status. A three percent increase = "Exceeding", a two percent increase = "On Track", and a one percent increase = "Approaching".

Example: The following example shows how the Progress measure is calculated at the district level for a school district:

Step 1 - Add the scores for Years 1 and 2 and divide by two to determine the average rounded to the tenth.

(78.4 + 87.3) / 2 = 82.9

Step 2 - Add the scores for Years 2 and 3 and divide by two to determine the average rounded to the tenth.

(87.3 + 88.9) / 2 = 88.1

Step 3 – Subtract the average of Year 1 and Year 2 from the average of Year 2 and Year 3. The result is the amount of Progress.

88.1 – 82.9 = 5.2

In the example below the school district has a Progress score of 4.8 percent, which places that district above three percent which results in a score of "Exceeding".

Table 15. Generating Standard 4: Attendance Progress

3 Years of Attendance at or above the state standard		
Year 1	**Year 2**	**Year 3**
78.4	**87.3**	**88.9**
(78.4 + 87.3) / 2 **82.9**	(87.3 + 88.9) / 2 **88.1**	
88.1 – 82.9 = 5.2		

Table 16. Computing the Attendance Score

	Status	**Progress**
Points Possible	Target = 10 On Track = 7.5 Approaching = 6 Floor = 0	Exceeding = 7.5 On Track = 4 Approaching = 2 Floor = 0
Attendance Total	Maximum of ten points per indicator area for Status + Progress	

MSIP 5 Performance Standard 5: Graduation Rate

Graduation Rate (K-12 districts) — The district ensures all students successfully complete high school.

1. The percent of students who complete an educational program that meets the graduation requirements as established by the board meets or exceeds the state standard or demonstrates required improvement.

Status		4, 5, 6 or 7 Year Rate	Progress		Progress Measure Description
Target	**30**	**92.0-100**	**Exceeding**	**22.5**	If Status = Floor, 9% increase needed
					If Status = Approaching, 6% increase needed
					If Status = On Track or Target, 3% increase needed
On Track	**22.5**	**82.0-91.9**	**On Track**	**12**	If Status = Floor, 6% increase needed
					If Status = Approaching, 4% increase needed
					If Status = On Track or Target, 2% increase needed
Approaching	**18**	**72.0-81.9**	**Approaching**	**6**	If Status = Floor, 3% increase needed
					If Status = Approaching, 2% increase needed
					If Status = On Track or Target, 1% increase needed
Floor	**0**	**0-71.9**	**Floor**	**0**	< Stated increase

High schools and districts with high schools are required to meet a four-, five-, six- or seven-year Status Target or a combination of Status and Progress Targets for the four-, five–, six- or seven-year rate to receive full credit for graduation rate on the APR. The five-, six- and seven-year rates track students for up to seven years, but are otherwise calculated in the same manner as the four-year graduation rate. For example, the fifth-year students remain in their original cohort and that cohort is recalculated based on the aggregate number of students graduating with a regular diploma within a five-year timeframe. The four-, five-, six- and seven-year graduation rates are calculated, and the better of the four is used to determine if districts and schools have met the graduation rate target or have shown sufficient improvement.

Notes

- Graduation targets will be reviewed and revised, if necessary, every three years.
- Data are obtained from the MOSIS June Enrollment and Attendance file.
- Starting in 2013, LEAs reported the First Freshman School Year for all students transferring into the LEA from outside the Missouri public education system in MOSIS. It is crucial that the First Freshman School Year is identified accurately for proper cohort year identification. Cohort year is calculated by adding four school years to the school year a student is first identified as a freshman in the MOSIS June Student Core, Enrollment and Attendance submission to determine when graduation should typically occur. For example, a freshman who enters school in August of 2018 has a first freshman school

year of 2018-2019 and should be reported in MOSIS (FirstFreshmanYear = 2019). This student would be expected to graduate in the school year 2021-2022 (Cohort Year = 2022).

- **Four-Year Adjusted Cohort Graduation Rate Definition -** The four-year adjusted cohort graduation rate is the number of students who graduate in four years with a regular high school diploma divided by the number of students who form the adjusted cohort for the graduating class rounded to the tenth. From the beginning of 9th grade, students who are entering that grade for the first time form a cohort that is subsequently "adjusted" by adding any students who transfer into the cohort later during the 9th grade and the next three years and subtracting any students who transfer out, immigrate to another country, or die during that same period.
- **Five-Year Adjusted Cohort Graduation Rate Definition -** The five-year adjusted cohort graduation rate is calculated the same as the four-year with the exception that it includes both four- and five-year graduates in the fifth-year cohort.
- **Six-Year Adjusted Cohort Graduation Rate Definition -** The six-year adjusted cohort graduation rate is calculated the same as the four– and five-year rate with the exception that it includes four-, five-, and six-year graduates from the original 9th grade cohort.
- **Seven-Year Adjusted Cohort Graduation Rate Definition -** The seven-year adjusted cohort graduation rate is calculated the same as the four–, five-, and six-year rate with the exception that it includes four-, five-, six- and seven-year graduates from the original 9th grade cohort.
- **Graduating Attendance Centers with grades 10, 11, 12 or 11, 12 -** Attendance centers that do not include the 9th grade will use the same calculation as those attendance centers that include the 9th grade with the exception of substituting the next lowest grade level taught in the attendance center beyond the 9th grade for the beginning of the adjusted cohort.
- The total number of graduates in the denominator is the sum of students reported as GO1 and GO3. Only students coded GO1 are in the numerator.
- The definition of G03 is: Graduated by earning some or all required credits through modified classes aligned with alternate state standards or by meeting IEP goals. This would generally be limited to those students with the most significant cognitive disabilities whose IEP teams have determined that this method of graduation provides FAPE to the individual student.

- **Cohort Inclusion** – Students are included in the district's adjusted cohort when they become a first time 9th grader and enter the district with the following entry codes.

S100	Stop Out: Entry
T101	Transfer from a public school outside district but within state
T102	Transfer from public school within district
T103	Transfer from home school in state
T104	Transfer from private school in state
T105	Transfer from public school out of state
T106	Transfer from private school out of state
T107	Transfer from home school out of state
T108	Transfer from drop-out
T109	Transfer from another country
T100	Transfer from Unknown
R101	Remained: Advanced
R102	Remained: Retained
R103	Remained: Other
R104	Remained: Changed Grade
E100	Initial Entry

Note: If the student is reported for the first time as a 9th grader and has an entry code of R102 – Remained Retained or R103 – Remained Other that student is placed in the prior year cohort based on the assumption that student had been retained one (1) year.

- **Cohort Exclusion** – Students are removed from the district's cohort if they exit the school district with the following exit status.

T001	Transfer to a public school outside district but within state
T003	Transfer to home school in state
T004	Transfer to private school in state
T005	Transfer to public school out of state
T006	Transfer to private school out of state
T007	Transfer to home school out of state
T008	Transfer to another country
T009	Deceased

Example of the four-year cohort graduation rate calculation:

Explanations of Calculations	Examples of Data	Examples of Calculations
1) The **number of cohort members who earned a regular high school diploma by the end of the starting cohort's fourth high school year = number of cohort graduates** reported in the MOSIS June Student Enrollment and Attendance.	graduates = 900	
2) The **four-year "adjustments"** are reported in the MOSIS June Student Enrollment and Attendance File.	2016: First Time 9th Graders (Starting Cohort 2016 members)+ Transfers in – Transfers out *(2016 Starting Cohort were freshman in the 2015-2016 academic year)*	1,000 + 0 – 50 = 950
	2017: Cohort 2016 + Transfers in – Transfers out	950 + 25 - 50 = 925
	2018: Cohort 2016 + Transfers in – Transfers out	925 + 75 - 25 = 975
	Class of 2019: Cohort 2016 + Transfers in – Transfers out	975 + 50 - 25 = 1,000
3) The **four-year adjusted cohort** is calculated based on reported adjustments.	(1,000 - 50) + (25 - 50) + (75 - 25) + (50 - 25)	950 – 25 + 50 + 25 = 1,000
4) The **four-year adjusted cohort graduation rate** is determined by dividing the number of cohort graduates by the number of first-time 9th graders in the starting cohort plus students who transfer in, minus students who transfer out, emigrate, or become deceased during the cohort's four high school years, then multiplying by 100 rounded to the tenth.	a) number of four-year cohort graduates or less = 900 b) number of adjusted cohort members = 1000	900 / 1,000 = 0.900 0.900 * 100 = 90.0%
5) **The district or school's Status** is determined by adding Year 1, Year 2, and Year 3 of the **adjusted cohort graduation rate** and dividing by three rounded to the tenth.	(Year 1 + Year 2 + Year 3) / 3	87.3 + 88.8 + 90.0 = 266.1 266.1 / 3 = 88.7%

Example of the five-year cohort graduation rate calculation

Explanations of Calculations	Examples of Data	Examples of Calculations
1) The **number of cohort members who earned a regular high school diploma by the end of the cohort's fifth high school year is** reported in the MOSIS June Student Enrollment and Attendance.	graduates = 920	
2) The **five-year "adjustments"** are reported in the MOSIS June Student Enrollment and Attendance File.	2015: First Time 9th Graders (Starting Cohort 2015 members) + Transfers in – Transfers out	1,000 + 0 – 50 = 950
	2016: Cohort 2015 + Transfers in – Transfers out	950 + 25 - 50 = 925
	2017: Cohort 2015 + Transfers in – Transfers out	925 + 75 - 25 = 975
	2018: Cohort 2015 + Transfers in – Transfers out	975 + 50 - 25 = 1,000
	2019: Cohort 2015 Transfers in – Cohort 2015 Transfers out	1,000 + 10 – 5 = 1,005
3) The **five-year adjusted cohort** is calculated based on reported adjustments.	(1,000 - 50) + (25 - 50) + (75 - 25) + (50 - 25)+(10 - 5)	950 – 25 + 50 + 25 + 5 = 1,005
4) The **five-year adjusted cohort graduation rate** is determined by dividing the number of cohort members who earned a regular high school diploma by the end of the cohort's fifth high school year by the number of first-time 9th graders in the starting cohort plus students who transfer in, minus students who transfer out, emigrate, or become deceased during the cohort's five high school years, then multiplying by 100 rounded to the tenth.	a) number of five-year cohort graduates = 920 b) number of adjusted cohort members = 1,005	920 / 1005 = 0.915 0.915 * 100 = 91.5%
5) **The district or school's Status** is determined by adding Year 1, Year 2, and Year 3 of the **five-year adjusted cohort graduation rate** and dividing by three rounded to the tenth.	(Year 1 + Year 2 + Year 3) / 3	88.3 + 89.8 + 91.5 = 269.6 269.6 / 3 = 89.9%

Method for Calculating Progress
Improvement targets are set for districts and schools based on the individual group's three-year average for Status.

If Status = Floor		If Status = Approaching		If Status = On Track or Target	
Target =	9%	**Target =**	6%	**Target =**	3%
On Track =	6%	**On Track =**	4%	**On Track =**	2%
Approaching Target =	3%	**Approaching Target =**	2%	**Approaching Target =**	1%

Example: The following example shows how the Progress Measure is calculated at the district level for a school district:

Step 1 – Determine the Status of the district. In this example, the district's three-year average = 89.9 percent, which means it is "On Track" with the Status Measure; as a result, the district's rolling average targets are three percent target, two percent on track, and one percent approaching.

Step 2 - Add the scores for Years 1 and 2 and divide by two to determine the average rounded to the tenth.

(88.3 + 89.8) / 2 = 89.1

Step 3 - Add the scores for Years 2 and 3 and divide by two to determine the average rounded to the tenth.

(89.8 + 91.5) / 2 = 90.7

Step 4 – Subtract the average of Year 1 and Year 2 from the average of Year 2 and Year 3. The result is the amount of Progress. In the example below the school district has a Progress Score of 1.6 percent, which places that district between one percent and two percent, which results in a score of "Approaching".

Table 17. Generating Graduation Progress

3 Years of Graduation Rate		
Year 1	**Year 2**	**Year 3**
88.3	**89.8**	**91.6**
	(88.3 + 89.2) / 2	(89.8 + 91.5) / 2
	89.1	**90.7**
	90.7 – 89.1 = **1.6**	

Table 18. Computing Graduation Rate Score

	Status	**Progress**
Points Possible	Target = 30 On Track = 22.5 Approaching = 18 Floor = 0	Exceeding = 22.5 On Track = 12 Approaching = 6 Floor = 0
Graduation Rate Total	Maximum of 30 points per indicator area for Status + Progress	

MSIP 5 Generating the Annual Performance Report Score

Generating the APR Score

Once the scores for Academic Achievement, Subgroup Achievement, College and Career or High School Readiness, Attendance Rate and Graduation Rate have been generated, they are combined into a single score. The APR score is used to differentiate among district performance, and to make classification determinations of accreditation; Accredited, Provisional and Unaccredited designations.

Table 19. Computational Table for Generating a Final Score

	Standard 1: Academic Achievement					
	ELA	**MA**	**@Science**	**@Social Studies**	**K-12**	**K-8**
Status Score	0 – 9 – 12 – 16	0 – 9 – 12 – 16	~~0 – 9 – 12 – 16~~	0 – 5 – 6 – 8		
Progress Score	0 – 3 – 6 – 12	0 – 3 – 6 – 12	~~0 – 3 – 6 – 12~~	0 – 1.5 – 3 – 6		
Growth Score	0 – 6 – 12	0 – 6 – 12				
Possible Points	Max Score: 16	Max Score: 16	~~Max Score: 16~~	Max Score: 8	Max: 40	Max: 32
Points Earned						
	Standard 2: Subgroup Achievement					
	ELA	**MA**	**@Science**	**@Social Studies**	**K-12**	**K-8**
Status Score	0 – 2 – 3 – 4	0 – 2 – 3 – 4	~~0 – 2 – 3 – 4~~	0 – 1 – 1.5 – 2		
Progress Score	0 – 1 – 2 – 3	0 – 1 – 2 – 3	~~0 – 1 – 2 – 3~~	0 – .5 – 1 – 1.5		
Growth Score	0 – 2 – 3	0 – 2 – 3				
Possible Points	Max Score: 4	Max Score: 4	~~Max Score: 4~~	Max Score: 2	Max: 10	Max: 8
Points Earned						
	Standard 3: College and Career Readiness (K-12) and Standard 3: High School Readiness (K-8)					
	CCR*1-3	**CCR*4**	**CCR*5-6**	**HSR**	**K-12**	**K-8**
Status Score	0 – 6 – 7.5 – 10	0 – 6 – 7.5 – 10	0 – 6 – 7.5 – 10	0 – 6 – 7.5 – 10		
Progress Score	0 – 2 – 4 – 7.5	0 – 2 – 4 – 7.5	0 – 2 – 4 – 7.5	0 – 2 – 4 – 7.5		
Possible Points	Max Score: 10	Max Score: 10	Max Score: 10	Max Score: 10	Max: 30	Max: 10
Points Earned						

	Standard 4: Attendance Rate Standard 5: Graduation Rate (Districts and Schools with Grade 12)			
	Attendance	**Graduation**	**K-12**	**K-8**
Status Score	0 – 6 – 7.5 – 10	0 – 18 – 22.5 – 30		
Progress Score	0 – 2 – 4 – 7.5	0 – 6 – 12 – 22.5		
Possible Points	Max Score: 10	Max Score: 30	Max: 40	Max: 10
Points Earned				
Total			**Total Points Possible 120**	**Total Points Possible 60**

@There will be no science assessment data and therefor no points awarded in the 2018 APR. The APR denominator will be reduced by 20 points. The APR in 2019 will be treated the same for social studies.

Total Points Earned is divided by the total points possible for the district or school then multiplied by 100 to determine the percent of Points Earned rounded to the tenth. The total percent of points possible earned is then used at the district level to determine a district's accreditation *status*. The accreditation *status* of three consecutive APRs is then used to inform *district classification* recommendations to the State Board of Education.

Notes

- Three APRs, each reflecting three years of performance data, will be used for classification recommendations.
- ELA or MA may not be used to lower a district's classification as long as 2018 data is included. Science may not be used to lower a district's classification as long as 2019 data is included. Social studies may not be used to lower a district's classification as long as 2020 data is included.
- The percent of overall points may be earned through Status, Progress, or Growth (where applicable).
- APR Reports and supporting reports are located in Missouri Comprehensive Data System Portal.

Classification / Accreditation Process

Step 1 - DESE produces the district's APR, which provides an objective analysis of each district's attainment of the MSIP 5 Performance Standards and Indicators. A district's *Accreditation Classification* remains intact until the State Board of Education rules otherwise. However, the percent of overall Points Earned on the APR defines each district's *APR Accreditation Status* that year, using one of the following accreditation categories:

Accreditation Levels	% of Points Earned
Accredited	The district earned 70% or more of the APR points possible;
Provisionally Accredited	The district earned 50% or more of the APR points possible;
Unaccredited	The district earned less than 50% of the APR points possible.

Step 2 - DESE reviews each district's accreditation status and the APR supporting data for the three most recent APRs to identify trends and status in performance outcomes. If data trends indicate that the district's full accreditation is or may be in jeopardy, the district may be asked to submit its Comprehensive School Improvement Plan (CSIP) to DESE and assistance through the Regional School Improvement Team (RSIT) may be activated.

Step 3 - DESE shall use the data review process described in "Step 2" to make accreditation classification recommendations to the State Board of Education. **Recommendations are made based on APR status and APR trends and include other factors including the district's CSIP, previous department MSIP findings, financial status, statutory and regulatory compliance, and the employment of an appropriately certificated superintendent of schools**. Recommendations regarding accreditation classification are presented to the State Board of Education for its approval. Districts are notified by DESE of the accreditation classification assigned by the board.

Note*:* At any time the state implements a new statewide assessment system, develops new academic performance standards, or makes changes to the Missouri School Improvement Program, the first year of such statewide assessment system and performance indicators shall be utilized as a pilot year for the purposes of calculating a district's APR under the Missouri School Improvement Program. The results of a statewide pilot shall not be used to lower a public school district's accreditation (161.855.4, RSMo).

MSIP 5 Generating Performance Indicator Flags

Generating Performance Indicator Flags
Performance indicator flags identified through the accountability system are utilized to further distinguish among those districts and schools most in need of support, to identify areas in need of improvement, and to guide the school improvement planning. For example, one school may have an overall high score but may also rank in the lowest 10th percentile for a given subgroup on a given indicator. This low proficiency rank would be addressed in the CSIP. Similarly, schools ranking at the 90th percentile and above for a given subgroup or grade span area for a specific indicator are spotlighted for high achievement. Reports are calculated annually based on the current academic year for each subgroup (district and school-level reports), grade level (school reports), and grade span (district reports).

Beginning with the 2018 APR, proficiency flags will be generated for any student group with at least 10 students for reporting purposes. Accountability decisions remain at 30 students or more.

Rules for School-Level Proficiency Rate Assignment
The percent proficient (e.g., percent with Proficient or Advanced-level achievement) is calculated for each subgroup - e.g., White, Black, Hispanic, Multiracial, Asian, American Indian, EL, FRL, and students with disabilities and grade level for each subject area, annually for the academic achievement indicators. School-level percent proficient values within each combination are ranked, and the 10th and 90th percentiles are determined. Performance at or below the 10th percentile, or at or above the 90th percentile, is flagged for reporting.

- *For example*, in schools with a grade 3 population for which at least 10 reportable ELA scores are available, grade 3 ELA proficiency rates are calculated, then schools are ranked according to this measure. Those schools with a grade 3 ELA proficiency rate in the bottom 10th percentile are assigned one flag.
- Identical reporting processes are used if they meet or exceed the 90th percentile.
- Similar reporting processes are used for school-level assignments for the college and career readiness, high school readiness, attendance and graduation rate indicators, except the metric used for the indicator (e.g., percent of students scoring at or above the state standard, attendance rate, graduation rate) is used in place of percent proficient.

Rules for District-Level Proficiency Rate Assignment
While the above rules specifically refer flag assignment for schools, districts are also reviewed for potential flags. For subgroup determinations, the same rules provided would be applied to districts in an effort to identify systemic issues affecting multiple schools and highlight district-wide policies contributing to poor or exemplary student performance.

Additionally, flags are assigned based on grade span performance at the district level, rather than grade level, by subject area. This is accomplished by pooling district-wide assessment scores into three groupings based on student grade level - grades 3-5 (elementary), 6-8 (middle), and 9-12 (high school) - and calculating proficiency rates for each grade span/subject area combination.

MSIP 5 2018 Annual Performance Report Notes

Standard 1: Academic Achievement

- See Appendix A for projected status targets through the year 2020. The accountability year begins with the summer administration of any EOC assessments or MAP-A, however, there was not a summer administration in 2018 due to score setting activities related to the new ELA and MA assessments.
  The State Board of Education adopted the current assessment plan in January 2014. Major points in the revised plan include:
    - Maintain EOCs in Algebra I, Algebra II, English II, Biology, Physical Science, and American Government;
    - Maintain ELA and MA testing requirements for grades 3 through 8;
    - Maintain Missouri developed science assessments for grades 5 and 8.
- Algebra I, English II, Biology, and American Government contribute to the calculation of the APR in Standards 1 and 2. In addition to Algebra I, other MA EOC's may contribute to the APR, based on the students MA courses taken.
    - See Appendix H for MA Accountability Guidance
    - Both required and optional EOCs may be used toward Standard 3: High School Readiness.
- Once a student has scored proficient or advanced on an EOC (EOC) assessment, DESE will remove duplicate proficient/advanced scores. Refer to MAP Data Download file student test to identify those students with duplicate scores.
- The district will determine which MA assessment, the GLA or EOC, is the most appropriate measure for each individual student.

Standard 2: Subgroup Achievement

- The super subgroup is used for accountability determinations in the APR. When the minimum "n" size of 30 is not reached using a three-year cumulative "pooling" of the data, no points are awarded and the denominator is reduced accordingly.
- For LEAs and schools participating in the CEP, the super subgroup will be the same as the "all students" group in Status Measures and Progress Measures. However, Growth Measures may vary between standard 1 and standard 2 due to the comparison of the performance in total group versus super subgroup.

Standard 3: College and Career Readiness (K-12)

- Approved IRC's are included in the APR. Complete listing of approved IRC's
- Test Scores for high school level PLTW are included in the APR. For additional information, please see http://dese.mo.gov/college-career-readiness/career-education/project-lead-way.
- Students coded as both GO3 & MAP-A will be excluded from 3*1-4, but will be included in 3*5-6.

Standard 3: High School Readiness (K-8)

- Calculation for the APR is based on three consecutive years of data. EOC tests taken in MA, science, and/or ELA will be included in the academic achievement indicator, the subgroup indicator and the high school readiness indicator. If one student takes multiple EOC tests, the single highest score would be included in the high school readiness indicator. An EOC taken in social studies would only be included in the high school readiness indicator, as there is not a social studies indicator in the K-8 district APR.
- K-8 districts and charters may continue to earn HSR if they are growing a high school until they have their first senior class graduates.

Standard 4: Attendance

- The Stop Out Code was added by DESE to provide districts an appropriate way to report students who dropped out and then returned at a later date having been out of school for unknown reasons an extended period of time. Data-reporting parameters have been implemented to fulfill requests from districts that DESE establish clear guidance for ***self-reported*** APR supporting data to ensure a more standardized approach across the state. ***The Stop Out Code may not be used unless the absence exceeds 20 consecutive calendar days.*** Districts will receive an error message for the use of a Stop Out Code for fewer than 20 consecutive calendar days and will not be able to certify their data.

- For the calculation of the APR, students with 85 percent attendance will now count proportionally as 0.25 and 87.5 percent will count proportionally as 0.5. Students with 90 percent or greater attendance will count 1.0.

Standard 5: Graduation Rate

- The four-, five-, six- and seven-year graduation rates are calculated, and the better of the four is used for APR determinations. The four-year rate could first be calculated with 2011 graduates. The five-year rate could first be calculated with the 2012 graduates. The six-year rate could first be calculated with the 2013 graduates. The seven-year rate could first be calculated with the 2014 graduates. The 2018 APR includes three years of data for the four-, five-, six- and seven-year rates.
- The seven-year adjusted cohort graduation rate is calculated the same as the four–, five-, and six-year rate but will include four-, five-, six- and seven-year graduates from the original 9th grade cohort.
- The total number of graduates in the denominator is the sum of students reported as GO1 and GO3.
- Graduates coded as GO3 are not included in the numerator (regardless of MAP-A status).

Performance Rubrics

STANDARD 1*1 MAP ACADEMIC ACHIEVEMENT *ELA*								
STATUS			**PROGRESS**			**GROWTH**		
Status Measures	**Status Points Earned**	**MPI Score (3-Year Average)**	**Progress Measures**	**Progress Points Earned**	**Progress Measure Description**	**Growth Measures**	**Growth Points Earned**	**Growth Measure Description**
Target	16	Appendix A	**Exceeding**	12	5% of NCE Gap increase	**Exceeding**	12	a statistically significant score>50
On Track	12	Appendix A	**On Track**	6	3% of NCE Gap increase	**On Track**	6	not statistically significant growth estimates
Approaching	9	Appendix A	**Approaching**	3	1% of NCE Gap increase			
Floor	0	Appendix A	**Floor**	0	<1% of NCE Gap increase	**Floor**	0	a statistically significant score <50

LND: Zero (0) points will be awarded for data when the LND is exceeded.
Academic Achievement Total: Status + Progress OR Growth (whichever is higher).
A maximum of 16 points may be applied to the district or school level score.
Status targets change annually. See the Projected Status Targets in the Appendix.

STANDARD 1*2 MAP ACADEMIC ACHIEVEMENT *MA*								
STATUS			**PROGRESS**			**GROWTH**		
Status Measures	**Status Points Earned**	**MPI Score (3-Year Average)**	**Progress Measures**	**Progress Points Earned**	**Progress Measure Description**	**Growth Measures**	**Growth Points Earned**	**Growth Measure Description**
Target	16	Appendix A	**Exceeding**	12	5% of NCE Gap increase	**Exceeding**	12	a statistically significant score>50
On Track	12	Appendix A	**On Track**	6	3% of NCE Gap increase	**On Track**	6	not statistically significant growth estimates
Approaching	9	Appendix A	**Approaching**	3	1% of NCE Gap increase			
Floor	0	Appendix A	**Floor**	0	<1% of NCE Gap increase	**Floor**	0	a statistically significant score <50

LND: Zero (0) points will be awarded for data when the LND is exceeded.
Academic Achievement Total: Status + Progress OR Growth (whichever is higher).
A maximum of 16 points may be applied to the district or school level score.
Status targets change annually. See the Projected Status Targets in the Appendix.

~~**STANDARD 1*3 MAP ACADEMIC ACHIEVEMENT** ***Science*** ~~****2018 Science Field Test – No Data***~~					
~~**STATUS**~~			~~**PROGRESS**~~		
~~**Status Measures**~~	~~**Status Points Earned**~~	~~**MPI Score (3-Year Average)**~~	~~**Progress Measures**~~	~~**Progress Points Earned**~~	~~**Progress Measure Description**~~
~~**Target**~~	~~16~~	Appendix A	~~**Exceeding**~~	~~12~~	~~5% of MPI Gap increase~~
~~**On Track**~~	~~12~~	Appendix A	~~**On Track**~~	~~6~~	~~3% of MPI Gap increase~~
~~**Approaching**~~	~~9~~	Appendix A	~~**Approaching**~~	~~3~~	~~1% of MPI Gap increase~~
~~**Floor**~~	~~0~~	Appendix A	~~**Floor**~~	~~0~~	~~<1% of MPI Gap increase~~
~~**LND:** Zero (0) points will be awarded for data when the LND is exceeded.~~ ~~**Academic Achievement Total:** Status + Progress.~~ ~~A maximum of 16 points may be applied to the district or school level score.~~ ~~**Status targets change annually. See the Projected Status Targets in the Appendix.**~~					

STANDARD 1*4 MAP ACADEMIC ACHIEVEMENT ***Social Studies***					
STATUS			**PROGRESS**		
Status Measures	**Status Points Earned**	**MPI Score (3-Year Average)**	**Progress Measures**	**Progress Points Earned**	**Progress Measure Description**
Target	8	Appendix A	**Exceeding**	6	5% of MPI Gap increase
On Track	6	Appendix A	**On Track**	3	3% of MPI Gap increase
Approaching	5	Appendix A	**Approaching**	1.5	1% of MPI Gap increase
Floor	0	Appendix A	**Floor**	0	<1% of MPI Gap increase
LND: Zero (0) points will be awarded for data when the LND is exceeded. **Academic Achievement Total:** Status + Progress. A maximum of eight points may be applied to the district or school level score. **Status targets change annually. See the Projected Status Targets in the Appendix.**					

STANDARD 2*1 MAP SUBGROUP ACHIEVEMENT *ELA*								
STATUS			**PROGRESS**			**GROWTH**		
Status Measures	**Status Points Earned**	**MPI Score (3-Year Average)**	**Progress Measures**	**Progres s Points Earned**	**Progress Measure Description**	**Growth Measures**	**Growth Points Earned**	**Growth Measure Description**
Target	4	Appendix A	**Exceeding**	3	5% of NCE Gap increase	**Exceeding**	3	a statistically significant score>50
On Track	3	Appendix A	**On Track**	2	3% of NCE Gap increase	**On Track**	2	not statistically significant growth estimates
Approaching	2	Appendix A	**Approaching**	1	1% of NCE Gap increase			
Floor	0	Appendix A	**Floor**	0	<1% of NCE Gap increase	**Floor**	0	a statistically significant score <50

LND: Zero (0) points will be awarded for data when the LND is exceeded.
Academic Achievement Total: Status + Progress OR Growth (whichever is higher).
A maximum of four points may be applied to the district or school level score.
Status targets change annually. See the Projected Status Targets in the Appendix.

STANDARD 2*2 MAP SUBGROUP ACHIEVEMENT *(MA)*								
STATUS			**PROGRESS**			**GROWTH**		
Status Measures	**Status Points Earned**	**MPI Score (3-Year Average)**	**Progress Measures**	**Progress Points Earned**	**Progress Measure Description**	**Growth Measures**	**Growth Points Earned**	**Growth Measure Description**
Target	4	Appendix A	**Exceeding**	3	5% of NCE Gap increase	**Exceeding**	3	a statistically significant score>50
On Track	3	Appendix A	**On Track**	2	3% of NCE Gap increase	**On Track**	2	not statistically significant growth estimates
Approaching	2	Appendix A	**Approaching**	1	1% of NCE Gap increase			
Floor	0	Appendix A	**Floor**	0	<1% of NCE Gap increase	**Floor**	0	a statistically significant score <50

LND: Zero points will be awarded for data when the LND is exceeded.
Academic Achievement Total: Status + Progress OR Growth (whichever is higher).
A maximum of four points may be applied to the district or school level score.
Status targets change annually. See the Projected Status Targets in the Appendix.

~~STANDARD 2*3 SUBGROUP ACHIEVEMENT *Science*~~ **2018 Science Field Test – No Data*					
~~STATUS~~			~~PROGRESS~~		
~~Status Measures~~	~~Status Points Earned~~	~~MPI Score (3-Year Average)~~	~~Progress Measures~~	~~Progress Points Earned~~	~~Progress Measure Description~~
~~Target~~	~~4~~	Appendix A	~~Exceeding~~	~~3~~	~~5% of MPI Gap increase~~
~~On Track~~	~~3~~	Appendix A	~~On Track~~	~~2~~	~~3% of MPI Gap increase~~
~~Approaching~~	~~2~~	Appendix A	~~Approaching~~	~~1~~	~~1% of MPI Gap increase~~
~~Floor~~	~~0~~	Appendix A	~~Floor~~	~~0~~	~~<1% of MPI Gap increase~~
~~**LND:** Zero (0) points will be awarded for data when the LND is exceeded.~~ ~~**Subgroup Achievement Total:** Status + Progress.~~ ~~A maximum of four points may be applied to the district or school level score.~~ ~~**Status targets change annually. See the Projected Status Targets in the Appendix.**~~					

STANDARD 2*4 SUBGROUP ACHIEVEMENT *Social Studies*					
STATUS			**PROGRESS**		
Status Measures	**Status Points Earned**	**MPI Score (3-Year Average)**	**Progress Measures**	**Progress Points Earned**	**Progress Measure Description**
Target	2	Appendix A	**Exceeding**	1.5	5% of MPI Gap increase
On Track	1.5	Appendix A	**On Track**	1	3% of MPI Gap increase
Approaching	1	Appendix A	**Approaching**	0.5	1% of MPI Gap increase
Floor	0	Appendix A	**Floor**	0	<1% of MPI Gap increase
LND: Zero (0) points will be awarded for data when the LND is exceeded. **Subgroup Achievement Total:** Status + Progress. A maximum of two points may be applied to the district or school level score. **Status targets change annually. See the Projected Status Targets in the Appendix.**					

STANDARD 3*1-3 COLLEGE AND CAREER READINESS					
STATUS			PROGRESS		
Status Measures	**Status Points Earned**	**% of Graduates Scoring At or Above the State Standard**	**Progress Measures**	**Progress Points Earned**	**Progress Measure Description**
Target	10	71.5 – 100%	**Exceeding**	7.5	25% of CCR*1-3 Gap increase
On Track	7.5	68.6 - 71.4%	**On Track**	4	15% of CCR*1-3 Gap increase
Approaching	6	40.0 – 68.5%	**Approaching**	2	5% of CCR*1-3 Gap increase
Floor	0	0.0 - 39.9%	**Floor**	0	<5% of CCR*1-3 Gap increase
CCR*1-3 Total: Status + Progress A maximum of ten points may be applied to the district or school level score. **Status targets change annually. See the Projected Status Targets in the Appendix.**					

STANDARD 3*4 COLLEGE AND CAREER READINESS					
STATUS			PROGRESS		
Status Measures	**Status Points Earned**	**% of Graduates Earning a Qualifying Score**	**Progress Measures**	**Progress Points Earned**	**Progress Measure Description**
Target	10	47.8 – 100%	**Exceeding**	7.5	25% of CCR*4 Gap increase
On Track	7.5	45.2 - 47.7%	**On Track**	4	15% of CCR*4 Gap increase
Approaching	6	5.0 – 45.1%	**Approaching**	2	5% of CCR*4 Gap increase
Floor	0	0.0 - 4.9%	**Floor**	0	<5% of CCR*4 Gap increase
CCR*4 Total: Status + Progress A maximum of ten points may be applied to the district or school level score. **Status targets change annually. See the Projected Status Targets in the Appendix.**					

STANDARD 3*5-6 COLLEGE AND CAREER READINESS					
STATUS			PROGRESS		
Status Measures	**Status Points Earned**	**% of Post-secondary Placement**	**Progress Measures**	**Progress Points Earned**	**Progress Measure Description**
Target	10	90.0 – 100%	**Exceeding**	7.5	25% of CCR*5-6 Gap increase
On Track	7.5	80.0 - 89.9%	**On Track**	4	15% of CCR*5-6 Gap increase
Approaching	6	70.0 - 79.9%	**Approaching**	2	5% of CCR*5-6 Gap increase
Floor	0	0.0 - 69.9%	**Floor**	0	<5% of CCR*5-6 Gap increase

CCR*5-6 Total: Status + Progress
A maximum of ten points may be applied to the district or school level score.
*This is a lagged indicator representing graduates from the preceding year(s).
Status targets change annually. See the Projected Status Targets in the Appendix.

STANDARD 3 HIGH SCHOOL READINESS (HSR)					
STATUS			PROGRESS		
Status Measures	**Status Points Earned**	**% of High School Readiness**	**Progress Measures**	**Progress Points Earned**	**Progress Measure Description**
Target	10	25.0 – 100%	**Exceeding**	7.5	25% of HSR Gap increase
On Track	7.5	19.0 - 24.9%	**On Track**	4	15% of HSR Gap increase
Approaching	6	12.0 - 18.9%	**Approaching**	2	5% of HSR Gap increase
Floor	0	0.0 - 11.9%	**Floor**	0	<5% of HSR Gap increase

HSR Total: Status + Progress
A maximum of ten points may be applied to the district or school level score.
Status targets change annually. See the Projected Status Targets in the Appendix.

STANDARD 4 ATTENDANCE					
STATUS			PROGRESS		
Status Measures	**Status Points Earned**	**% of Students Attending less than 85 percent the of Time**	**Progress Measures**	**Progress Points Earned**	**Progress Measure Description**
Target	10	90.0 – 100%	**Exceeding**	7.5	3% increase
On Track	7.5	85.0 - 89.9%	**On Track**	4	2% increase
Approaching	6	80.0 - 84.9%	**Approaching**	2	1% increase
Floor	0	0.0 - 79.9%	**Floor**	0	<1% increase

Attendance Total: Status + Progress
A maximum of ten points may be applied to the district or school level score.
Status targets change annually. See the Projected Status Targets in the Appendix.

STANDARD 5 GRADUATION RATE					
STATUS			PROGRESS		
Status Measures	**Status Points Earned**	**Four-, Five-, Six- or Seven-Year Rate**	**Progress Measures**	**Progress Points Earned**	**Progress Measure Description**
Target	30	92.0 - 100	**Exceeding**	22.5	If Status = Floor, 9% increase needed
					If Status = Approaching, 6% increase needed
					If Status = On Track or Target, 3% increase needed
On Track	22.5	82.0 - 91.9	**On Track**	12	If Status = Floor, 6% increase needed
					If Status = Approaching, 4% increase needed
					If Status = On Track or Target, 2% increase needed
Approaching	18	72.0 - 81.9	**Approaching**	6	If Status = Floor, 3% increase needed
					If Status = Approaching, 2% increase needed
					If Status = On Track or Target, 1% increase needed
Floor	0	0.0 - 71.9	**Floor**	0	< stated increase

Graduation Rate*1 Total: Status + Progress
A maximum of 30 points may be applied to the district or school level score.
Four-year, five-year, six-year, and seven-year rates are calculated and the better of the four is applied to the APR.
Status targets change annually. See the Projected Status Targets in the Appendix.

Appendices

Appendix A - Status Targets

Standards 1-5

DESE has moved away from Top 10 by 20 Targets for ELA, MA, SC and SS. After review of the 2018 assessment results in both ELA and MA, the status targets have been adjusted as shown in the following charts.

Standard 1: Academic Achievement Status Targets

Status Targets in ELA

Floor	Approaching	On Track	Target
100.0 – 251.4	251.5 – 348.8	348.9 – 382.0	382.1 - 500

Status Targets in MA

Floor	Approaching	On Track	Target
100.0 – 235.8	235.9 – 320.9	321.0 – 377.9	378.0 - 500

Status Targets in Science *2018 Science Field Test – No Data

Floor	Approaching	On Track	Target
~~100.0 - 299.9~~	~~300.0 - 347.6~~	~~347.7 - 352.7~~	~~352.8 - 500~~

Status Targets in Social Studies

Floor	Approaching	On Track	Target
100.0 - 299.9	300.0 - 348.5	348.6 - 374.9	375.0 - 500

Standard 2: Subgroup Achievement Status Targets

Status Targets in ELA

Floor	Approaching	On Track	Target
100.0 – 251.4	251.5 – 315.9	316.0 – 382.0	382.1 - 500

Status Targets in MA

Floor	Approaching	On Track	Target
100.0 – 235.8	235.9 – 282.4	282.5 – 377.9	378.0 - 500

Status Targets Science *2018 Science Field Test – No Data

Floor	Approaching	On Track	Target
~~100.0 - 299.9~~	~~300.0 - 322.6~~	~~322.7 - 352.7~~	~~352.8 - 500~~

Status Targets for Social Studies

Floor	Approaching	On Track	Target
100.0 - 299.9	300.0 - 321.8	321.9 - 374.9	375.0 - 500

Standard 3: College and Career Readiness Status Targets

Status Targets for College and Career Readiness*1-3

Floor	Approaching	On Track	Target
0.0 - 39.9%	40.0 - 67.1%	67.2 - 71.4%	71.5 - 100%

Status Targets for College and Career Readiness*4

Floor	Approaching	On Track	Target
0.0 - 4.9%	5.0 - 43.8%	43.9 - 47.7%	47.8 - 100%

Status Targets for College and Career Readiness*5-6

Floor	Approaching	On Track	Target
0.0 – 69.9%	70. 0 - 79.9%	80.0 - 89.9%	90.0 – 100%

Status Targets for High School Readiness

Floor	Approaching	On Track	Target
0.0 - 11.9%	12.0 - 18.9%	19.0 - 24.9%	25.0 - 100%

Standard 4: Attendance Status Targets

Floor	Approaching	On Track	Target
0 – 79.9%	80.0 – 84.9%	85.0 – 89.9%	90.0 – 100%

Standard 5: Graduation Status Targets

Floor	Approaching	On Track	Target
0 – 71.9%	72.0 – 81.9%	82.0 – 91.9%	92.0 – 100%

Appendix B - Assessment Schedule

Standard 1 and 2: Academic and Subgroup Achievement

All students in grades 3 through 8 in Missouri will take the grade level assessment. ELA and MA are administered in all grades. Science is administered in fifth and eighth grade. A few groups of students may be exempt from certain portions or all of the assessment.

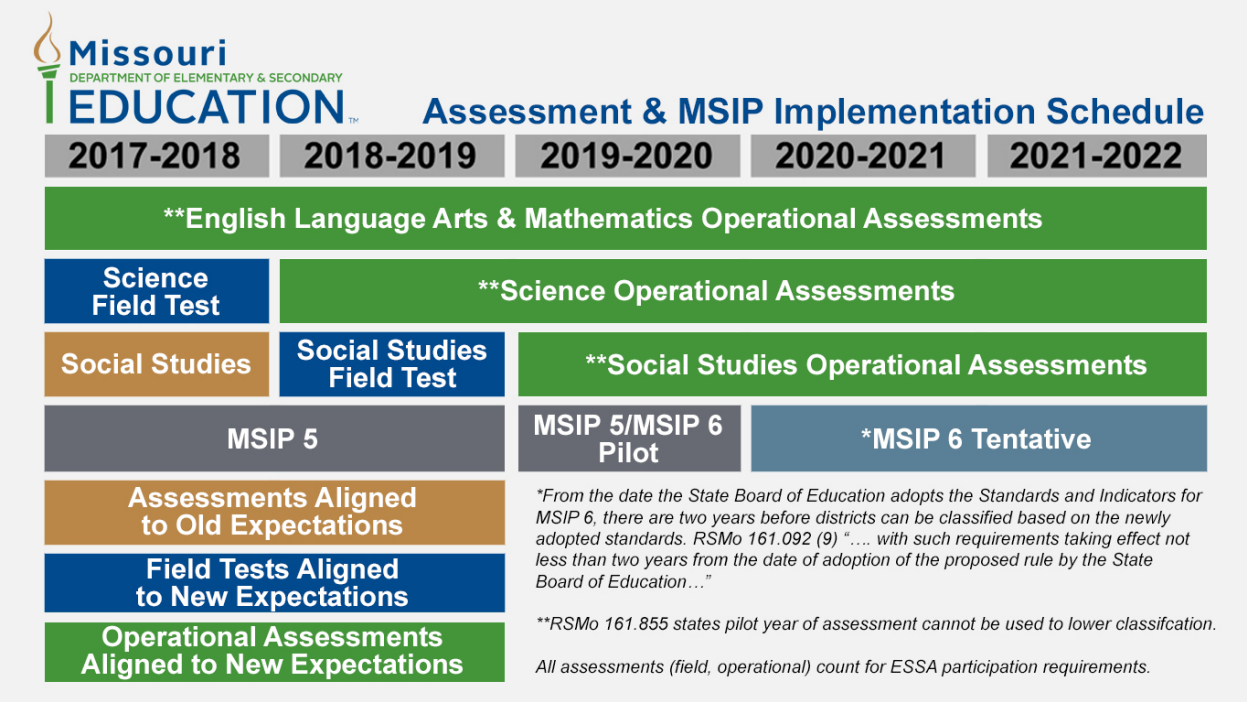
Note: Both required and optional assessments may be used to earn points toward K-8 Standard 3: High School Readiness.

Grade-Level Assessments	ELA
	MA
	Science (Grades 5 and 8)
Required End of Course (EOC) Assessments (4)	English II
	Algebra I*
	Biology
	American Government
Optional End of Course (EOC) Assessments (5)	English I
	Algebra II[1]
	Geometry[2]
	Physical Science
	American History

* Refer to the MA Accountability Guidance on the Accountability Data webpage

In 2016, the Missouri State Board of Education approved a schedule for implementing the MAP aligned to the Missouri Learning Standards (MLS) Grade-Level Expectations adopted in April 2016.

Assessment and MSIP (tentative) Implementation Timeline



Appendix C - Assessment Scores Matrix

Standard 3: College and Career Readiness*1-3

Assessment	Student Weight-->	0	0.25	0.75	1	1.25
ACT®	Composite Score	No record of participation	≤ 17	18 - 21	22 - 25	26 - 36
***SAT®**	**New SAT® scores as of March 2016** *(prior SAT scores)*	No record of participation	**≤ 939** *(≤ 869)*	**940-1090** *(870 - 980)*	**1100-1230** *(990 - 1180)*	**1240-1600** *(1190 - 1600)*
COMPASS®	Algebra + Reading	No record of participation	Algebra < 66 and Reading < 81	Algebra OR Reading ≥ than cut scores	Algebra AND Reading ≥ than cut scores	N/A
ASVAB	Armed Forces Qualification Test Score	No record of participation	≤ 29	30 – 62	63 – 87	88 – 99
ACCUPLACER®	**Next Generation scores** & *(Classic scores)* Reading and Math (QAS, AAF)	No record of participation	**<250 Reading <230 Math** (QAS, AAF) **Next Generation** OR *(<85 Reading <116 Algebra Classic)*	Reading OR MA ≥ than cut scores	Reading AND MA ≥ than cut scores	N/A
****ACT WorkKeys®**	Versions 2.0 and (1.0) Workplace Documents (Reading for Information), Applied Math, and Graphic Literacy (Locating Information)	No record of participation	3 or below	4	5	6 or 7

*Based on College Board Concordance Tables.
**The lowest subtest score of the three WorkKeys tests determines the level/points, not an average or combined score. Score is based on level obtained and not scale score. Districts may reassess students in a single area to try and raise the lowest subtest.
In 2018, WorkKeys is transitioning to a new version. Students must take all three tests of the new version if attempting to raise their score (if they are trying to raise an old version score as old versions are no longer available).
Note: Refer to the APR Supporting Detail Reports to verify student data (found on the MCDS portal)

Appendix D - Advanced Courses Matrix

Standard 3: College and Career Readiness*4

Student Weight	AP	IB	PLTW	IRC	Dual Credit or Dual Enrollment
0	No record of participation or earn <B	No record of participation or earn <B	No record of participation or score<6	No record of participation or Score < proficient	No record of participation or earn <B
1	Earn "B" or greater in department approved AP Course	Earn "B" or greater in department approved IB Course	Exam score of ≥ 6 on approved PLTW	Earn an IRC	Earn "B" or greater in department approved dual credit course or dual enrollment course
1.25	Exam score of ≥ 3	Exam score of ≥ 4	N/A	N/A	N/A

Note: Calculation of earning a "B", remove any '+' or '-' associated with the grade, and use the scale below. The divisor is contingent on the course time units (i.e. semester use a divisor of two, quarters use a divisor of four, etc.)

Student Name	MOSIS ID	Course No.	Course Name	Course Time Unit	Grade Earned
Smith, John	1111111111	115795	AP Statistics	Semester 1	C+
Smith, John	1111111111	115795	AP Statistics	Semester 2	A-
Avg. grade:		2 + 4 = 6 6 ÷ 2 = 3 which equals a 'B'			

Student Name	MOSIS ID	Course No.	Course Name	Course Time Unit	Grade Earned
Smith, John	1111111111	134221	Physiology	Semester 1	C-
Smith, John	1111111111	134221	Physiology	Semester 2	B+
Avg. grade		2 + 3 = 5 5 ÷ 2 = 2.5 which equals a 'C'			

Scale:

A	=	4.0
B	=	3.0
C	=	2.0
D	=	1.0
F	=	0.0

Appendix E - Dual Credit Institutions

Standard 3: College and Career Readiness*4

Missouri institutions complying with the Coordinating Board for Higher Education's Dual Credit Policy and Principles of Good Practice for Dual Credit Courses. Link here to current Dual Credit list.

Public Institutions Reporting Dual Credit Programs and Considered in Compliance	2015	2016	2017	2018	Independent Institutions Reporting Dual Credit Programs and Considered in Compliance	2015	2016	2017	2018
Columbia College (515712)			√	√	University of Missouri - St. Louis (116118)	√	√	√	√
Cleveland University – KC (703617)				√	Central Methodist University (630984)	√	√	√	√
Crowder College (166166)	√	√	√	√	Culver Stockton College (018750)				√
East Central College (130130)	√	√	√	√	Drury University (603541)	√	√	√	√
Jefferson College (145145)	√	√	√	√	Fontbonne University (038603)	√			
Lincoln University (117117)	√	√	√	√	Hannibal-LaGrange University (041544)	√	√	√	√
State Technical College (formally Linn) (508313)	√	√	√	√	Lindenwood University (018759)	√	√	√	√
Metropolitan Community Colleges (161161)	√	√	√	√	Maryville University of St. Louis (041639)	√	√	√	√
Mineral Area College (163163)	√	√	√	√	Missouri Baptist University (041538)	√	√	√	√
MO Southern State University (143143)	√	√	√	√	Missouri Valley College (514772)	√	√	√	√
MO State University – Springfield (119119)	√	√	√	√	Park University (511931)		√	√	√
MO State University – West Plains (119120)	√	√	√	√	Rockhurst University (501839)	√	√	√	√
MO Western State University (160160)	√	√	√	√	St. Louis University (300310)	√	√	√	√
Moberly Area Community College (162162)	√	√	√	√	Southwest Baptist University (635440)	√	√	√	√
North Central Missouri College (198198)	√	√	√	√	Stephens College (005177)	√	√	√	√
Northwest Missouri State University (118118)	√	√	√	√	Webster University (300335)	√		√	√
Ozarks Technical Community College (640121)	√	√	√	√	Wentworth Military Academy & Jr. College (054407)	√	√	√	
St. Charles Community College (146146)				√					
St. Louis Community Colleges (149149)	√	√	√	√					
Southeast Missouri State University (120120)	√	√	√	√					
State Fair Community College (126126)	√	√	√	√					
Three Rivers Community College (200200)	√	√	√	√					
Truman State University (122122)	√	√	√	√					
University of Central Missouri (121121)	√	√	√	√					
University of Missouri - Kansas City (116117)	√	√	√	√					

√= Indicates year the Missouri institutions were used for MSIP 5 accountability

*Williams Woods University – Offers Dual Enrollment and not Dual Credit

Higher Education updates this list in October and March. Institutions must be included on the March update to be included in the APR.

Appendix F - Career Education Placement/Follow-Up Guidelines

Standard 3: College and Career Readiness*5-6

Follow-up data is reported on the previous year's graduates, based on the status of the graduates 180 days following their exit from career education training. **Each graduate should be reported in only one career education program area.** Districts should collect follow-up information on any student who graduated high school and received credit in at least one state-approved career education course (excluding Exploring Agriculture, Industrial Technology, and Exploratory Family and Consumer Sciences (FCS) and the Family Focused courses from program code 06-04) during grades 9-12. Districts should collect follow-up data on any student taking a credit in a state approved career education Family and Consumer Sciences program (program code 0704). If students completed state-approved career courses at the comprehensive high school and the area career center, their follow-up data should **not** be reported for both locations. The area career center is responsible for providing each sending school with the appropriate follow-up data for students that attend the area career center. The sending school will be responsible for entering that information into MOSIS.

If the graduate is employed and continuing their education, use the following guidelines:

Employed Related	A graduate attending school (full- or part-time) **and** employed (full- or part-time) in a field for which they were trained, should be reported as "employed related" (Emp Rel).
Employed Related	A graduate attending school (full- or part-time) in a field for which they were **not** trained, but employed (full or part-time) in a field for which they were trained should be reported as "employed related" (Emp Rel).
Continuing Education Related	A graduate attending school (full- or part-time) in a field for which they were trained, but not employed in a field for which they were trained should be reported as "continuing education related" (Ced Rel).

For additional guidance on employed related, please see http://www.missouriconnections.org.

Note: In accordance with legislation, the definition of placement for graduates who complete approved career education programs will be expanded within MSIP. Districts will continue to report "Related" and "Not Related" placement for Perkins purposes, and DESE will capture both populations for credit within Standard 3*5-6.

Appendix G - Data Corrections and Appeals

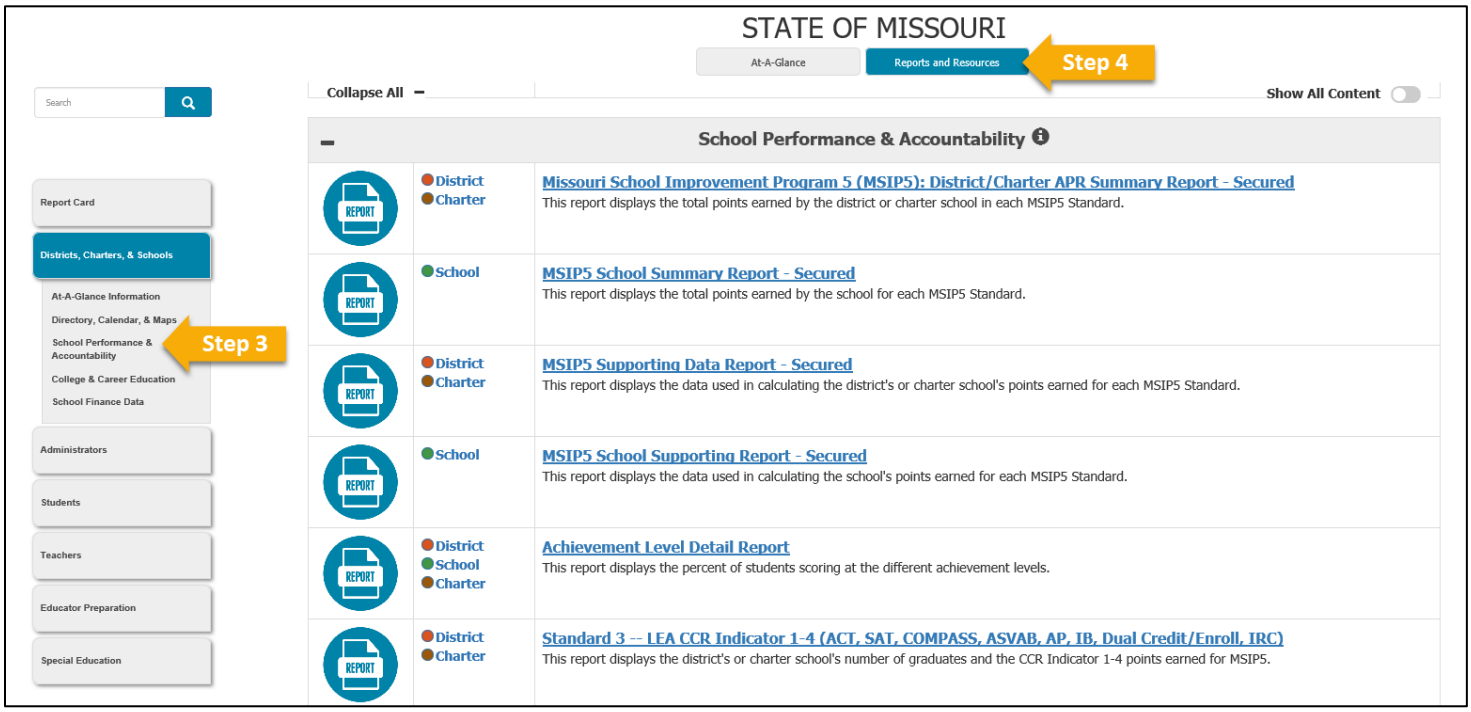
Districts and buildings should regularly check their data for accuracy. Staff will require student level access to see all the available data that impacts the APR.

During the 2018-19 school year DESE will be moving to a new accountability website portal. For purposes of this manual, directions include information to access both the new and the existing portals.

New Portal

Navigating to the School Performance & Accountability Reports

1. Log in to DESE Web Applications
2. Select DESE MCDS Rewrite from the list of DESE Web Applications
3. In the left navigation under Districts, Charters, & Schools, select School Performance & Accountability
4. At the top of the screen, select Reports and Resources



Existing Portal: Staff can find the summary and supporting detail reports on the APR jump off page in the MCDS Portal under Guided Inquiry> Accountability. Staff who have student level access may click the links below to review reports containing links to individual student scores and data.

MSIP5 Reports	MSIP5 Additional Resources
Summary Reports	
MSIP5 Summary Report (LEA - Public | School - Public) (LEA - Secured | School - Secured) *These reports display the total points earned by the district or school in each MSIP5 Standard.*	**Missouri School Improvement Program - News and Updates** • Appeals Process **MSIP 5 Comprehensive Guide to Missouri School Improvement Program** • 2014 • 2015 • 2016 • 2017
MSIP5 Supporting Data Report (LEA - Public | School - Public) (LEA - Secured | School - Secured *These reports display the data used in calculating the points earned for each MSIP5 Standard.*	
MSIP5 School Breakout by Standard - Public MSIP5 School Breakout by Standard - Secured *This report displays the points earned by each school in a school district for each MSIP5 Standard.*	**MSIP 5 Performance Workbook** • K-12 (2016 | 2017) • K-8 (2016) | 2017)
MSIP5 Annual Performance Indicator Report LEA | School) *These reports display indicators for subgroup performance at or above the 90th percentile or at or below the 10th percentile for each MSIP5 Standard.*	**Final 2017 APR Data Files** • Missouri 2017 APR Summary By Buildings • Missouri 2017 APR Summary By Districts
Supporting Detail Reports **Student Data Access Requires APR Student Level Permissions**	
Achievement Level Report *This report displays the percent of students scoring at the different achievement levels.*	
Standard 3 -- CCR Indicator 1-4 (ACT, SAT, COMPASS, ASVAB, AP, IB, Dual Credit/Enroll, IRC) (LEA | School) *These reports display the number of graduates and the CCR Indicator 1-4 points earned for MSIP5.*	
Standard 3 -- CCR Indicator 5-6 - Postsecondary Follow-Up (LEA | School) *These reports display the number of graduates and the CCR Indicator 5-6 points earned for MSIP5.*	
Standard 3 (K-8) -- High School Readiness *This report displays the number of 8th grade students moving into High School and the percent that scored proficient or advanced on an EOC assessment.*	
Standard 4 -- Proportional Attendance Rate (LEA | School) *These reports display the proportional attendance rates used by MSIP5 and the student level data which the rates are based on.*	
Standard 5 -- Graduation Rate (4, 5, 6, & 7 year) (LEA | School) *These reports display the 4, 5, 6, and 7 year graduation rates used by MSIP5 and the student level data which the rates are based on.*	

quiry/MSIP%205%20%20State%20Accountability/School%20Supporting%20Data%20for%20Annual%20Performance%20Rep

Data Corrections and Appeal Procedures
There are serval types of data corrections and appeals. For any situation that does not fit one of the specific situations described below, refer to the last item on this page, **Miscellaneous Data, Administration or Assessment Anomalies.**

Types of Appeals

• Score/LND (Assessment Appeal Form and cost)
• CCR data (CCR Appeal Form)
• A+ retesting (district letterhead)
• MAP-A transfers (district letterhead)
• Medical Waiver (district letterhead)
• Miscellaneous Data, Administration or Assessment Anomalies (district letterhead)

Score/LND Appeals
There is an appeal window during which districts may submit appeal requests. There is a cost for appeals that are submitted to the testing companies for rescoring/LND. For additional information, or to obtain the form, go to
http://www.dese.mo.gov/quality-schools/accountability-data/appeals-procedure
GLA/EOC appeals detailed procedure

CCR Data Appeals
Once the APR is released, districts have approximately one month to correct and/or appeal the data received by the various testing companies (ACT®, SAT®, ASVAB, ACCUPLACER®, ACT WorkKeys®, AP ®, IB®, etc.). For additional information, or to obtain the form, go to
http://dese.mo.gov/quality-schools/accountability-data/appeals-procedure

A+ Retesting
Students retesting to achieve proficiency on the Algebra I assessment for A+ purposes, may be removed from accountability by submitting an appeal on district letterhead. Letters must contain the information included below in the section titled district Letterhead Requirements.

- Guidance: An assessment year begins with the summer administration and ends with the subsequent spring – Summer/Fall/Spring.
- If a student takes the same EOC more than once in the same assessment year, the **last** score is kept for accountability purposes.
- If a student takes the same EOC in a different assessment year (Summer/Fall/Spring) , accountability does not allow multiple Proficient or Advanced scores. The second proficient or advanced score will be removed.
- If the first score is Below Basic or Basic, and the next years score is Proficient or Advanced, the proficient or advanced score is kept.
- If the student scores Below Basic or Basic both times, the district must notify accountability to remove the second score.

MAP-A Transfer Appeals
Students that transfer out of a district during the portfolio collection must submit a letter, on district letterhead, with the date the student transferred. These instructions are also included in the MAP-A Administration Manual. Letters must contain the information included below in the section titled district Letterhead Requirements.

Medical Waiver Appeals
An appeal may be submitted on district letterhead for students experiencing an acute (short-term) illness that prevents the student from receiving instructional services. In addition to the information below under district Letter Head Requirements, the committee requires student attendance records and homebound status.

Miscellaneous Data, Administration or Assessment Anomalies
For any situation not outlined above, provide the information below under district letterhead requirements, including an explanation of the situation and send to accountability at the fax number provided.

District Letterhead Requirements
The following information must be included in your written request on district letterhead:

- Student Name
- MOSIS ID
- Date of birth
- Grade
- County District Code
- School Code
- Content Area
- Brief explanation of reason for appeal
- Signed by Superintendent/Head of School
- Fax to: 573-526-3045

Appendix H - MA Accountability Guidance

	Gr	Student A	Student B	Student C	Student D	Student E
Middle School	6th	MAP	MAP	MAP	MAP	A1
	7th	MAP	MAP	A1	A1	GE
	8th	MAP	A1	GE	A2	A2
High School	9th	**^Algebra I (A1)**	GE-optional	**^A2**	**^GE**	***Submit Plan**
	10th	Geometry (GE) – optional	**^A2**			
	11th	Algebra II (A2) – optional				
Notes:		**Student A:** • MAP counts for MS APR • **^A1 is the required EOC** • A1 counts for HS APR	**Student B:** • A1 counts for MS APR • **^A2 is the required EOC** • A2 counts for HS APR	**Student C:** • A1, GE count for MS APR • **^A2 is the required EOC** • A2 counts for HS APR	**Student D:** • A1, A2 count for MS APR • **^GE is the required EOC** • GE counts for HS APR	**Student E:** • A1, GE, A2 count for MS APR • **^Submit plan** for required HS assessment

Notes:

1. *When the content of A1, GE, and A2 are all taught and assessed prior to HS, the district or charter must submit the Personalized Accelerated Math Plan for HS MA accountability for the student.
2. Within the same district or charter, if the A1 content is taught prior to grade 9, but the A1 EOC not given, the district or charter must give the A1 EOC in HS (grade 9-12).
3. For any student above, the Achievement Level 4 report/chart ONLY pulls MAP data for 3-8 grades. EOC data is pulled by EOC Assessment, regardless of the student's grade when taken.
4. When an EOC is given prior to grade 9, the EOC score replaces the grade level MAP assessment. If the student scores below basic/basic, A1 may be retaken in HS for accountability purposes. For A+ purposes, see #5 below.
5. A+ Scholarship eligibility: Students are required to earn a score of proficient or advanced on the A1 EOC. When a student scores below basic or basic they may retake the A1 to gain A+ eligibility (or a higher level DESE approved EOC in MA. See the Higher Ed website for other options for A1 proficiency). The subsequent score will count for accountability (even if below basic or basic) unless the district or charter requests the score be removed through the appeal process.
6. Courses do NOT have to be taught in the grade or sequence shown above, those are for illustrative purposes only.
7. Grades 9-12 are considered "High School" for EOC accountability, even in buildings with different grade span configurations.

^ required EOC for student to avoid a graduate LND

EOC Exception Codes

- EOCEX2: Student received content out-of-state; in a private, parochial or home school.
- EOCEX3: MAP-A– Students identified by the IEP team received content without an alternate assessment available. Currently this is only applicable to Social Studies.
- EOCEX4: Student took content in another public Missouri district, but was not assessed.

Appendix I - Description of the Missouri Growth Model

Standard 1 & 2: Academic and Subgroup Achievement

Conceptual Overview

The Missouri Growth Model used in the state's district and school accountability framework is a regression-based statistical analysis of the observed relationships between prior and current year scores on the MAP exam. The statistical analysis is conducted in two steps.

The first step predicts MAP scores for individual students tested in the current year based on their prior year scores and the average prior year scores for all students tested in their school and district, along with a few other variables described in more detail below.[1] The difference between the observed score and predicted score for each student (the student's residual) is the key value derived from the first-stage regression. Positive residuals indicate the student did better than predicted and negative residuals indicate the student's score was lower than predicted.

The second-stage regression then groups students' residuals by district or school and provides an average growth measure for each district or school, with a standard error that is used to evaluate the statistical significance of the resulting measures.

Procedural Overview for Calculating MSIP Standard 1 Growth Measures

The following steps are conducted each year to estimate the Missouri Growth Model.

1. Standardize current year MAP scores
2. Construct score pairs for each student from current year and prior year MAP scores
3. Add data for other regression variables to the score pairs
4. Run stage 1 regressions and retrieve student residuals
5. Combine current year residuals with residuals from prior 2 years and run stage 2 regressions
6. Test average growth measures for statistical significance and convert them to Normal Curve Equivalent units, district- or school-level standard deviation units, and percentiles for presentational purposes

Each step in this procedure is described in more detail below.

1. Standardize current year MAP scores

All MAP score records with a scale score from the most recent testing year are retrieved and sorted by grade and subject. The mean and standard deviation for each subject and grade combination are calculated and used to convert the observed scale score values to z-scores. The z-score for a scale score in subject_s and grade_g is calculated using the following formula:

$$z_{sg} = \frac{(\text{Observed Score} - \text{Mean Score}_{sg})}{\text{Standard Deviation}_{sg}}$$

Conceptually, the z-score is a measure of how much a score differs from its sample mean and is measured in standard deviation units. For example, a z-score of 1 indicates a scale score one standard deviation

[1] The inclusion of both school and district-level average prior year scores is a model refinement implemented in 2018. In previous years, district-level averages were included in the first-stage model when estimating district growth and school-level averages were included when estimating school growth.

above the mean (roughly the 84th percentile) for the grade and subject, while a z-score of -1 indicates a scale score one standard deviation below the mean (roughly the 16th percentile) for the grade and subject. Using standardized scores allows combining scores with different scales in statistical analyses. Scale scores are standardized each year for the subject and grade level combinations shown below in Table 1.

Table 1: Subjects and grade levels where z-scores are calculated from MAP scale scores

Communication Arts	MA	Algebra I[2]
3	3	
4	4	
5	5	
6	6	
7	7	7
8	8	8

2. Construct score pairs for current year MAP scores

A valid score pair for a student is a MAP score from the current year linked with a MAP score from the prior year in the same subject and prior grade level. The first score pairs available are constructed by matching grade 4 scores from the current year with grade 3 scores for the same student and subject from the prior year. The last score pairs available have grade 8 scores matched to prior year grade 7 scores for the same student and subject.[3]

All matches are evaluated to make sure the grade from the prior year is one grade less than the grade for the current year. Cases where grade-level progression is not as expected are dropped (e.g., when a student is tested in the same grade 2 years in a row or appears to have skipped a grade between years).

3. Add data for other regression variables to score pairs

The following variables are added to the records to be analyzed in the stage 1 regression.

- Student's prior year MAP score from the "other" subject. For example, if MA is the subject being analyzed, then the prior year score from communication arts is added to the variables used to predict the current year MA score; conversely, when growth is being estimated for communication arts, the prior year MA score is the "other subject."[4] The other subject information is included as it improves the model's predictive ability. For example, if two students have the same prior year score in MA, the model can leverage differences in prior year performance in communication arts to determine which student is predicted to score higher on the current year MA exam.
- An indicator variable changed from 0 to 1 when the student was in the building where tested less than a full academic year.

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[2] Separate regressions are run for students in grade 7 or 8 who have an Algebra I End of Course exam score, so the mean and standard deviation for grade 7 Algebra I test takers are used to standardize the 7th graders' Algebra I scores and the mean and standard deviation for grade 8 Algebra I test takers are used to standardize the 8th graders' Algebra I scores. Note that students with Algebra I EOC scores are NOT included in the regressions for the grade 7 and grade 8 MA scores.

[3] Students with Algebra I EOC scores in grade 7 or 8 are matched to prior year MA scores from the prior grade. This means grade 7 Algebra I EOC scores are predicted by prior year grade 6 MA scores and grade 8 Algebra I EOC scores are predicted by prior year grade 7 MA scores.

[4] Students MUST have a prior year score from the same subject to be included in the growth model. However, those with a missing prior year "other" subject score are kept. The other subject score is set to the state mean z-score of zero, and a variable indicating that the other subject score is missing is set to 1. We also include an interaction term to allow the same-subject prior-year score to have more predictive weight in the case of missing other subject data. This method allows students with missing other subject scores to be kept in the stage 1 regression, while leveraging the available information to produce the best prediction possible.

- The prior year average score in the same subject and the "other" subject for the school and district where the student was tested, calculated for all students who were tested in the school and district in the current year.
- The percent of students in the school and district who are flagged as in the building where they took their MAP test less than a full academic year.
- The percent of students in the school and district with missing off-subject scores.

4. **Run stage 1 regressions and retrieve residuals**
   A separate regression model is fit for each subject and grade combination with the student's current year score as the outcome variable and the student's prior year scores and the variables listed under item 3 above as predictor variables. There are 5 regressions run in communication arts and 7 regressions run in MA every year. Residuals from these regression are calculated and saved with the district and school identifiers indicating where the student was tested in the current year.

5. **Combine current year residuals with residuals from prior 2 years and run stage 2 regressions**
   All residuals for a subject from the current and prior 2 years are combined into a single data set and analyzed using a regression model that includes only school or district IDs as the predictor variables. When the predictor variable is district ID, then the stage 2 regression produces the average residual in a subject for each district based on all students tested in the districts over three years. When the predictor variable is school ID, then the stage 2 regression produces the average residual in a subject for each school based on all students tested in the schools over three years.[5]

6. **Test average growth measures for statistical significance and convert them to Normal Curve Equivalent units, district- or school-level standard deviation units, and percentiles for presentational purposes**
   The student level residuals and the average residuals for districts and schools are initially reported in student-level exam score units. For example, a district-level communication arts measure of 0.07 means that, on average, students in the district scored 0.07 standard deviations higher than predicted on the MAP communication arts exam. The stage 2 regression results also include a t-statistic for each unit analyzed (district or school) that allows for determining if the average of student residuals in the unit is reliably distinguishable from zero. Average residuals greater than zero and statistically significant indicate that, on average, MAP performance of students in the unit exceeded predicted performance in a statistically meaningful way. Average residuals less than zero and statistically significant indicate that, on average, MAP performance of students in the unit was below predicted performance in a statistically meaningful way. Average residuals that are not statistically significant cannot be reliably distinguished from zero, indicating that, on average, students' MAP performance in the unit was not reliably different from predictions.

   Individual student residuals and average residuals for districts and schools expressed in z-score units are also converted to Normal Curve Equivalent units (NCEs) using the formula shown below.

   NCE = 50 + (21.063 * z-score)

   Student residuals and unit average growth estimates that are positive generate NCE values greater than 50; residuals and averages less than zero generate NCE values less than 50.[6] As an example, a district-

[5] The standard errors of the stage 2 model are clustered at the student-level to account for repeated student observations over time. In addition, post-estimation Bayesian shrinkage methods are applied to the school and district estimates to account for varying degrees of noise across districts and schools.
[6] NCEs are designed so that the NCE and percentile measures are aligned at the 1st, 50th, and 99th percentiles. For example, a student at the 1st percentile of a normal distribution will also have an NCE measure of 1, while a student at the 99th percentile will have an NCE of 99, and a student at the 50th percentile will have an NCE measure of 50. However, NCEs and percentiles are not aligned at any other point in the distribution. One

level communication arts NCE measure of 51.5 means that students in the district scored, on average, 1.5 NCE units higher than predicted on the MAP communication arts exam.

Two additional conversions are also applied to the district- and school-level estimates. The first conversion takes the initial estimates measured in student exam score units and converts them to district (or school) level standard deviation units. For these measures, a value of 0.86 indicates that the district performed 0.86 standard deviations higher than the average district in the state in terms of student exam score growth in the relevant subject, while a measure of -0.52 indicates that the district performed -0.52 standard deviations lower than the average district in the state. The second conversion presents the same information in district (or school) level percentile measures. Here, a value of 65 indicates that the district is in the 65th percentile of districts in the state with respect to student exam score growth.

As a final note, it is important to realize that the various conversions described above are purely presentational in nature and have no impact on the estimation of the district (or school) effects, nor on their statistical significance.

Super-subgroup Growth Measure Calculation

To produce the super-subgroup growth measures, steps 5 and 6 from the above process are repeated using only student residuals from students identified as belonging to the super-subgroup. A student is identified as a member of the super-subgroup if their MAP exam score record indicates that they are black or Hispanic or FRL eligible or receiving English as a second language or special education services.[7] In addition, prior to step 6, the super-subgroup growth measures at each level (district or school) are re-centered to have an overall mean of 0. The re-centering modifies the interpretation of the average residual so that a positive and statistically significant estimate indicates that, relative to model predictions, the super-subgroup students in the district or school are, on average, out-performing the super-subgroup students in other similar districts or schools across the state.[8] Similarly, a negative and statistically significant estimate indicates that, relative to model predictions, the super-subgroup students in the district or school are, on average, under-performing the super-subgroup students in other similar districts or schools.

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implication of this is that outlying students below the 1st percentile may have negative NCE values, while students above the 99th percentile may have NCE values greater than 100.

[7] With the implementation of MSIP6, FRL eligibility will be replaced with direct certification (from Social Services) of free lunch eligibility as a super-subgroup criterion.

[8] This is an additional model refinement introduced in 2018. In prior years, the super-subgroup measures were re-centered in such a way that the unit's super-subgroup students were compared to the average *non*-super-subgroup students in the state and provided a measure of achievement gap closing across student subgroups.

Glossary

Academic Achievement Targets
Academic achievement targets are based on the goal of improving total student proficiency levels on state assessments by 25 percent by 2020. Student Gap Group targets are based on the goal of cutting the achievement gap in half for students in historically under-performing subgroups (students with disabilities, English language learners, low-income students, black students, and/or Hispanic students).

Accountability Information
Beginning with the 2012-13 school year, accountability reports changed significantly as a result of Missouri's approval of the fifth version of the Missouri School Improvement Program (MSIP 5). The MSIP 5 APRs include a "high needs" subgroup that represents an unduplicated count of all students in a school or district belonging to at least one of the following individual subgroups: students with disabilities, English language learners, low-income students, black students, and/or Hispanic students.

Accountable Student
All students enrolled during the testing window. Excludes in U.S. less than a year (recently arrived) students from ELA only.

Adjusted Cohort Graduation Rates
All groups (districts, schools, and subgroups) are expected to make steady progress toward a goal of 92 percent for the five-year cohort graduation rate by 2020.

Annual Benchmark Target (On Track)
The target for the group in the current year needed for the group to remain on track toward reaching the 2020 goal.

Direct Certification
Students eligible for free lunch without having to fill out free and reduced lunch forms. Based on lists obtained from social services, including SNAP and TANF.

Local Education Agency (LEA)
LEA is the federal term which refers to "District" or "Charter," used interchangeably and have a county-district code to generate a district level APR.

Exception Codes
EOCEX2 may only be used for students who received content out-of-state; in a private, parochial or home school.
EOCEX3 can only be used to exempt the government EOC. Reserved for students who take the MAP-A assessment the government EOC. May not be used with any other EOC assessment.
EOCEX4 may only be used for a student who took the content in another Missouri district, but was not assessed.

FAPE
Free and appropriate public education as required under Section 504 of the Rehabilitation Act of 1973.

Full Academic Year
Districts are required to test all enrolled students. All scores are reported but only scores of those students who have been enrolled a "Full Academic Year" in a district and/or building will be included in the calculation for the APR score. A full academic year is defined as any student who is enrolled from the last Wednesday in September through the MAP administration, without transferring out of the district or building for a significant period of time and re-enrolling. A significant period is considered "one day more than half of the

eligible days between the last Wednesday in September and the test administration". This applies to each level independently. For example, a student who is coded as "In building less than a year" but was in the district a full academic year is excluded from the building totals but is included in the district totals.

Graduate Exit codes
GO1 - Exit code used for students who graduate meeting regular diploma guidelines.
GO3 - Exit code used for students who graduate without meeting the requirements of a regular diploma.

LND
When an Accountable student does not receive a valid test score, the student receives an LND in place of an achievement level score. The percent for LND may not exceed five percent, as all districts and schools are required to assess at least 95 percent of their students on the assessments required by the MAP.

MAP Achievement Levels and MPI Point Values
Student performance on tests administered through the MAP is reported in terms of four achievement levels; below basic, basic, proficient and advance. The levels of achievement describe a pathway to proficiency. Numeric values are assigned to each of the achievement level scores as follows when calculating the MPI:

Below Basic	1
Basic	3
Proficient	4
Advanced	5

MAP Performance Index (MPI)
MAP Performance Index (MPI) is used to develop scores within the Status and Progress metrics and to set academic achievement targets for district, school and student group achievement. Student performance on tests administered through the MAP is reported in terms of four achievement levels (Below Basic, Basic, Proficient and Advanced) that describe a pathway to proficiency. The MPI is a single composite number that represents the MAP assessment performance of every student by awarding points to each student based on the four achievement levels. The points for all students in the district, school or student group in a subject area are summed together, divided by the number of students in the group being measured and then multiplied by 100 rounded to the tenth. The result is the MPI for that group and subject. All assessment results from a single accountability year and for a single subject/content area are combined when generating the district, school or student group MPI.

MPI (Three-year)
The annual MPIs from the three most recent years are averaged and the mean, the three-year MPI, is used to determine whether the district, school, or subgroup has reached the target, is on track to reaching the target, is approaching the annual benchmark or is substantially not meeting the achievement targets set for the MAP content area.

MPI (Cumulative)
Districts, schools, and subgroups must have an average of at least 30 Accountable students in the group being measured in a given content area over a three-year period in order to generate scores for accountability. If this is not possible, the status measure is calculated by "pooling" three years of data and summing the number of Accountable students and the numbers of students in each achievement level across the three year period; the "pooled" count is used in the calculation used for determining Status and is referred to as the Cumulative MPI.

N
N is the number of students whose results are included in the calculation for a given student group.

Normal Curve Equivalent (NCE)
Normal Curve Equivalents are used in the calculation of Progress for ELA and MA contents. For more information, see Appendix I.

Participant Student
A student who receives a valid MAP score/achievement level, regardless of full academic year (FAY) status.

Participation Rate
All districts and schools are required to assess at least 95 percent of their students and subgroups on the assessments required by the MAP. Regardless of performance, zero (0) APR points are awarded to a content area when the rate falls below 95 percent.

Pooling
Sum the total of Below Basic x 1, Basic x 3, Proficient x 4 and Advanced x 5 to calculate a new MPI instead of averaging MPI's across years. Used when there are fewer than 30 reportable students in a given year. Pooling looks back across the prior three years.

Progress
Differentiated improvement targets are set for districts, schools, and subgroups based on the individual group's two prior years of data. This method measures improvement by comparing two-year averages of data and setting targets through an MPI Gap or percent of required improvement. Year 1 and 2 are averaged, and years 2 and 3 are averaged; the averages are then compared to determine the amount of improvement. When three years of data are not available, (e.g., a new school is established) the available years will be used for reporting purposes. Differentiated improvement targets are set for districts, schools, and subgroups based on the individual group's two prior years achievement.

Reportable Student
Participant students minus students in building (district) less than a full academic year (FAY) (participants – less than FAY). This group is the denominator that contributes to the calculation of the MPI.

School
"School" and "building" are interchangeable with attendance center, have a building code, and generate a building level APR.

Status
Status is a measurement of the districts or school's level of achievement based upon the specific calculation of a standard. Status is divided into four levels; the target, on track, approaching, and floor.

Student subgroups
School and district accountability *determinations* are made for the "all students" group and for the "super subgroup." Determinations are made for districts and schools that serve 30 or more students and for super subgroups of 30 or more students in a single accountability year. Multiple years of data are used for districts or buildings with fewer than 30 students. District and school *reports* are produced for the "all students" group and for up to nine additional subgroups: Asian/Pacific Islander, black, Hispanic, American Indian, white, multi-racial, students with disabilities, English language learners, and low-income students.

Super subgroup
The new high needs group is an unduplicated count of all students in an district or school belonging to at least one of the following individual subgroups: black, Hispanic, students with disabilities, English language learners, or low-income students (eligible for FRL). The subgroups were selected based upon a review of the state's student achievement data.

Acronyms

ACCUPLACER®	ACCUPLACER®	A test used by many college and tech schools to asses an incoming student's proficiency in reading, writing, English and MA.
ACT®	ACT®	A test used for college admissions, indicating a student's mastery of the core academic subjects. Scores range from 1 to 36.
ACT WorkKeys®	ACT WorkKeys®	A job skills assessment that helps employers select, hire, train, develop, and retain a high-performance workforce.
AMOs	Annual Measurable Objectives	Meaningful goals that are used to guide and support improvement efforts of districts and schools.
AP	Advanced Placement	Classes available for which students may receive college credit upon passing the advanced placement exam.
APR	Annual Performance Report	A report that reflects MSIP 5 Performance Standards results for districts and buildings used for planning and state accountability determinations.
ASVAB	Armed Services Vocational Aptitude Battery	The ASVAB is a multiple-aptitude battery test that measures developed abilities and helps predict future academic and occupational success in the military.
CCR	College and Career Readiness	A high school graduate with the necessary English and MA knowledge and skills—including, but not limited to, reading, writing, communications, teamwork, critical thinking, and problem solving—either to qualify for and succeed in entry-level, credit-bearing college courses without the need for remedial coursework, or in postsecondary job training for their chosen career (i.e. technical/vocational program, community college, apprenticeship, or significant on-the-job training).
COMPASS®	COMPASS®	A computer-adaptive college placement test that evaluates students' skill levels in reading writing skills, writing essay, MA, and English as a second language.
CSIP	Comprehensive School Improvement Plan	A local board-approved plan that focuses on the improvement of the district's student achievement levels, programs, and services.
CTE	Career and Technical Education	Appropriate courses of career and technical programs of study designed to improve the academic and technical skills of students participating in CTE programs through integration and provide students with strong experience in, and understanding of, all aspects of an industry.

EL	English learners	The term English language learners refers to students who were not born in the U.S. or whose native language is a language other than English.
ELP	English language proficiency	Annual assessment of English proficiency of all students with limited English proficiency.
EOC	EOC assessments	EOC assessments are criterion-referenced tests that are delivered to typically middle and high school students when the Course-Level Expectations for a particular course have been covered.
FAY	Full Academic Year	Applied to Standards 1 and 2- (From Understanding your AYP 11-12) Student who is enrolled from the last Wednesday in September through the MAP administration, without transferring out of the building or district/LEA for a significant period of time (one day more than half of the eligible days between the last Wednesday in September and the test administration) and re-enrolling.
FRL	Free/Reduced priced lunch	Students may qualify for a free or reduced priced lunch if their household falls within the limits of the federal income chart.
GLA	Grade-Level Assessments	Grade-Level Assessments are augmented norm-referenced tests that are delivered annually each spring in communication arts and MA for grades 3-8, and science for grades 5 and 8.
IB	International Baccalaureate	International Baccalaureate is a rigorous academic program of studies designed to offer students a curriculum that will prepare them for universities around the world and is sponsored by the International Baccalaureate Organization (IBO) based in Geneva, Switzerland.
IEP	Individualized Education Program	A written statement that is developed, reviewed, and revised in accordance with IDEA for a particular child with a disability as defined by IDEA and addresses the child's unique needs as related to education.
IRC	Industry Recognized Credential	A portable, recognized credential (tangible evidence) that validates an individual has successfully demonstrated skill competencies in a core set of content and performance standards in a specific set of work-related tasks, single occupational area, or a cluster of related occupational areas.
LEA	Local Education Agency	The term for public elementary and secondary school districts and other elementary and secondary schools operated at public expense and under a publicly appointed or elected board.

LND	Level Not Determined	The percent of students for whom the district is accountable but do not receive a valid MAP score in a subject or content area.
MAP	Missouri Assessment Program	The statewide student assessment program developed in response to adoption of the Outstanding Schools Act in 1993 (Section 160.518, RSMo). (grade-level, EOC, and MAP-A)
MAP - A	Map-Alternate	Missouri's Alternate Assessments for students with the most severe cognitive disabilities.
MLS	Missouri Learning Standards	The Missouri Learning Standards define the knowledge and skills students need in each grade level and course for success in college, other post-secondary training and careers. These expectations are aligned to the Show-Me Standards, which define what all Missouri high school graduates should know and be able to do.
MPI	MAP Performance Index	The MPI is a single composite number that represents the MAP assessment performance of every student by awarding points to each student based on the four achievement levels. The MPI is a calculation used to determine whether the district, school, or subgroup is meeting the target, is on track to meeting the target, is approaching the annual benchmark, or is substantially not meeting the state performance targets.
MSIP 5	The fifth version of the Missouri School Improvement Program	A system of accountability used by the State of Missouri that holds districts accountable for student achievement.
NAEP	National Assessment of Educational Progress	A nationally representative and continuous assessment of what America's students know and can do in various subject areas. It is commonly known as the nation's report card.
PLTW	Project Lead the Way	A high school program that provides students with real-world learning and hands-on experience. The program is for students interested in engineering, biomechanics, aeronautics, biomedical sciences and other applied MA and science arenas.
PPOS/ICAP	Personal Plan of Study (Now known as ICAP – Individualized Career Academic Plan)	A student's scope and sequence of coursework and co-curricular experiences based on chosen educational and career goals; relies on the school's implementation of a Program of Study.
SAT®	SAT®	A standardized test designed to assess academic readiness for college, measuring the skills required for success in the 21st century.

SEA	State Education Agency	The term for the state agency with primary responsibility for elementary and secondary education in a state (in Missouri, this is DESE).

It is the policy of the Missouri Department of Elementary and Secondary Education not to discriminate on the basis of race, color, religion, gender, national origin, age, or disability in its programs or employment practices as required by Title VI and VII of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Age Discrimination Act of 1975 and Title II of the Americans with Disabilities Act of 1990. Inquiries related to Department employment practices may be directed to the Jefferson State Office Building, Human Resources Director, 8th floor, 205 Jefferson Street, P.O. Box 480, Jefferson City, Missouri 65102-0480; telephone number 573-751-9619 or TYY 800-735-2966. Inquiries related to Department programs and to the location of services, activities, and facilities that are accessible by persons with disabilities may be directed to the Jefferson State Office Building, Office of the General Counsel, Coordinator–Civil Rights Compliance (Title VI/Title IX/504/ADA/Age Act), 6th Floor, 205 Jefferson Street, P.O. Box 480, Jefferson City, MO 65102-0480; telephone number 573-526-4757 or TTY 800-735-2966, civilrights@dese.mo.gov.