APPENDIX P

SPRING 2021 ANALYSIS AND REPORTING BUSINESS REQUIREMENTS

Massachusetts Comprehensive Assessment System (MCAS) Reporting Business Requirements

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I. Overview

Due to the COVID-19 pandemic the 19-20 Spring administration of the MCAS NextGen and HS STE Legacy tests were cancelled. The pandemic has also caused several changes in administration to be necessary for Spring 2021. The following changes in test administration have been made:

1. Remote administration has been allowed for grades 3-8

2. New Tests in 3-8 for all subjects have been created by breaking the test forms up by sessions. Students are required to only take 1 session which comprises their test form in 2021. The online tests will expose the students to only 1 session. Session assignments are at the school level. Students testing on paper will have the full answer document available to them although they are to only take one session.

3. Test administration timelines were later in Spring 2021 and all administrations ended on 6/11/21.

4. The student report for NextGen was redesigned.

5. Additional fields added to the megafile to support the remote testing for NextGen.

6. Also in Spring 2021 is an online only administration of Grade 8 Civics Field Test. The field test is broken into the Performance Task test and the End of Course Test.

7. Grades 5 & 8 STE Short (mini) Form is being administered to students participating in the Innovative Science Pilot-both the short form and the pilot are being administered in Pearson TestNav. The mini form was created by using only a subset of the operational items in the grade/subject.

Operational Grades and subjects are:

NextGen			Legacy		
Grade	Subject	Mode of test	**Grade**	Subject	Mode of Test
3-8	ELA	Online Paper Remote	**9**	Legacy Introductory Physics Legacy Biology Legacy Technology/Engineering Legacy Chemistry	Paper
3-8	Math	Online Paper Remote			
5 and 8	Science and Technology/Engineering (STE)	Online Paper Remote	**10**	Legacy Introductory Physics Legacy Biology Legacy Technology/Engineering Legacy Chemistry	Paper
10	ELA	Online Paper			
10	Math	Online Paper			

A. Contract Code

163552

B. Reporting Deliverables

Preliminary Reporting		Final Reporting	
External	Internal	External	Internal
• Megafiles-All grades and subjects • Questionnaire Data files • Accommodations-by subject • Accommodations-by subject and item • Testing time files • Students with both Alt and General results • Missing Grade Span List	• Letter counts • Language counts • Discrepancy table	• Megafiles-All grades and subjects • 1 student report-print copy • Web student report • Student label-print copy • State File	• Printer data • iCore data

C. Delivery of Reports

- 1 copy of the Student Report is printed and shipped.

- 1 Student Results Labels is printed and shipped for each student.

- Online reports are available to the school and district where the student tested.

- Online reports are available in PAN.

- Students are reported to their tested school.

D. Test Design

Item Metadata data is stored in the ABBI item banking system. Pearson provides a test map which is an extract from ABBI that provides the item metadata for each operational and field test being administered.

Grade(s)	Subject(s)	Form(s)	Items included in Raw Score	Item Types
HS	Chemistry and Technology/Engineering	00 = common + Matrix forms	Common	MC, OR, SA
3-8	ELA	Online, Paper, Paper accommodated, online accommodated	Common (OP)	MC or SR1=Multiple Choice, SR2=TEI, TECR, 2pt. MC, EBSR, CR-3 pt. ES-7pt.
3-8	Math	Online, paper, online accommodated, Paper accommodated	Common (OP)	MS1=Multiple Choice, TEI, 1pt. MS2=Machine Scored 2 pt. CR=Hand scored 3 pt. or 4 pt.
5 and 8	Science	Online, Paper, online accommodated, Paper accommodated	Common (OP)	MS1=Machine Scored 1pt. MS2=Machine Scored 2 pt. HS2=Hand Scored 2pt. HS3=Hand Scored 3pt.

Grade(s)	Subject(s)	Form(s)	Items included in Raw Score	Item Types
HS	Biology and Introductory Physics	Online, Paper. Online accommodated, Paper accommodated	Common (OP)	MS1=Machine Scored 1pt. MS2=Machine Scored 2pt. HS3=Hand Scored 3pt. HS4=Hand Scored 4pt.
10	ELA	Online, Paper, online accommodated, Paper accommodated	Common (OP)	SR1=Multiple Choice SR2=TEI, TECR, 2pt. MC, EBSR, CR3=Hand Scored 3 pt. ES=Hand Scored 8 pt.
10	Math	Online, Paper, online accommodated, Paper accommodated, Online Spanish, Paper Spanish	Common (OP)	MS1=Machine Scored 1pt. MS2=Machine Scored 2pt. CR=Hand Scored 4pt.

E. Forms

Form 01 is used for the accommodated forms.

Form conventions:

Form_Code=Year||subject||grade||Admin||Accommodation/Mode||Language||Form Number||Unit Number||Special

Where year=20 or 21;

Subject=EL, MA, SC, SS;
Grade=03,04,05,06,07,08, 10, 11, BI, PH, CV

Remote Mini STE testers have admin=MR
Spring online remote testers have admin=SR
Spanish testers have Language=ES
Paper testers have accommodation/mode=PA

See MCAS Scoring Form ID Key.xlsx for more information

Mini STE:

1. We will receive a separate lookup table for these students.

2. The full scale should be used.

3. The short form consists of a subset of the OP items on the long form. It contains no FT, or matrix equating items.

4. There is 1 form per grade

F. Scoring

Machine scored items are scored according to the scoring rules and QTI in ABBI. The following table is applicable to hand scored items.

Raw Data Value	Reported Value	Description	Point Value	Response Attempted
0-max pts	Final score	Open Response / Short Answer	0-max	ü
N	0	Not Scorable	0	ü
B		Blank response	0	

G. Test Attemptedness

Grades 3-8: On the operational tests, a test meets attemptedness if there is at least one operational item that is attempted.

Grade 8 Civics: The test meets attemptedness if there is at least one item attempted per session.

Grade 10: The test meets attemptedness if there is at least one operational item that is attempted per session.

H. Not Tested Reasons

The following not tested reasons apply to the Spring tests:

1. Medically Documented Absence (MED)

2. Transfer

3. First-year EL (ELA only)

4. Void

5. Previously Passed (High School)

6. Previously Failed (High School)

7. Multiple Answer Booklet

8. Invalidated

9. Absent

10. ALT

The table below describes the calculation of the applicable participation statuses.

Summarize	Prior Results	Description	Part Status	Test Stat*	Discrepancy Site Code	Text
n/a	*n/a*	Breach	*Breach Instructions are applied at the student level regardless of participation status and are identified by Amend > '1'*			
		Void *(Preliminary Only)*	H	NTO	VAB	Void Answer Booklet
		Multiple Answer Documents *(Security Breach)*				
		Preliminary	I	NTO	DUP	Multiple Answer Booklets
		Final	N	NTO	*n/a*	*n/a*

Summarize	Prior Results	Description	Part Status	Test Stat*	Discrepancy Site Code	Text
		Invalidated *(Only assigned via Breach List)*	N	NTO	INV	Invalidated
1 (or Grade=09)	*n/a*	Tested Accountable Alternate Assessment	A	T	ALT	Tested Alternate Assessment
		Tested	Z	T	STD	Tested Standard
		Not Tested (/Partially Tested) – LEP *(ELA Only)*	F	NTL	LEP	Not Tested First Year EL
		Not Tested (/Partially Tested) - Transfer	D	NTO	TRN	Transferred
		Not Tested (/Partially Tested) – Medically Excused Absent	G	NTM	MED	Medically Excused
		Not Tested (/Partially Tested) - Absent	E	NTA	ABS	Absent
		Incomplete	S	NTO	INC	Incomplete
	Prev. Failed	Tested Alternate Assessment Accountable Retest	C	TR	ALR	Retested Alternate Assessment
	Prev. Failed	Tested Accountable Retest	Y	TR	RET	Retested
	Prev. Failed	Previously Failed (Not Tested /Partially Tested Accountable Retest)	L	NTO	PRF	Previously Failed
	Prev. Passed	Ineligible Accountable Retest – Previously Passed & Retested *(Preliminary Only- final see K)*	P	NTO	PPR	Previously Passed & Retested
	Prev. Passed	Previously Passed	K	NTO	PAS	Previously Passed

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Summarize	Prior Results	Description	Part Status	Test Stat*	Discrepancy Site Code	Text
0	*Any*	Tested Not Accountable Alternate Assessment (Retest)	W	TR	ALN	Retested Alternate Assessment Not Aggregated
		Tested Not Accountable (Retest)	R	TR	REN	Retested Not Aggregated
		Partially Tested Not Accountable (Retest)	B	NTO	INC	Incomplete
		Not Tested Not Accountable (Retest)	J	NTO	DNT	Did Not Test

* Student results achieved while First-year EL, or students currently First-year EL (see rptLEPFirst calculation) are reported with TestStat = "NTL" in place of listed TestStat (all subjects). See Calculations by Participation Status Summary Table for more details.

I. Calculations

1. Item Analysis Student Inclusion/Exclusion (Ex[sub]) & Matrix Files

2. Only first-time accountable test takers that are not first-year LEP (Partstatus = 'Z' and rptLEP[sub] are included for item analysis and psychometric equating files (Ex[sub] = '0').

3. Exclude students if stugrade='11' or '12'.

4. All other students are excluded (Ex[sub] = '1').

5. All analysis will be based off CBT tests for Next Gen

6. For Next Gen tests due to the way some accommodations cannot be spiraled. The accommodations listed below will have the following special handling

    a. Students with unique accommodations to be excluded include: paper-based testing, text-to-speech (TTS), Braille, Spanish, human reader, screen reader, ASL, and assistive technology);

    b. At DESE's discretion data will be provided to psychometrics to study mode effects. However, this data will not be expected to determine operational results in 2021.

    c. Students with these accommodations will be excluded from all matrix files

    d. Students with these accommodations will be excluded from CTT and dif calculations from for matrix items but will be included for scaling items.

7. For High School Science (STE's) if an included student does not attempt at least one of the first 10 items (common or matrix/field-test) they are excluded (Exsci = '1').

8. For High School STE in addition to the rules outlined above, students with stugrade in ('11','12') are excluded.

J. Files from DESE

1. Breach List

    a. Students who are considered a security breach are provided by DESE in the Breach List. Instructions for processing and reporting each security breach case are provided

    b. Data Analysis reviews the breach list and adds necessary Amend flag values (> '1') and instructions to the Amend Code Definition Lookup for each distinct scenario on the Breach List.

    c. Data Processing applies any necessary changes to the raw student record based on DESE instructions and applies the corresponding Amend Flag value from the lookup to the student for Data Analysis processing.

2. Technology Failure List

    a. DESE will provide a list of students who could not complete the assessment based on a persistent technology issue with the testing platform. This file will be provided at the same time as the Breach List.

    b. These students are processed with an Amend code (AmendCode=13).

        i. If a student has a PerfLevel = 2, 3, or 4, the following information is reported:
        ii. Student's earned raw score, earned item scores, and earned mfScaledScore. These students will be reported as NTO

    c. If a student does not have a PerfLevel equal to 2, 3, 4, then the student is reported as "INC" with their raw score and item scores reported. The student's perf2, numin, and assess values will all be blank

d. In 2021, there is a special case of Technology Failure students not reported by DESE. These students are identified as students who tested remotely in grade 8 STE. An amend code is being set for these students. They will be treated as follows:

    i. The student will not have any items reported (megafile and student report)

    ii. No rawscore, no scaled score (megafile, student report and student labels)

    iii. Performance level=blank/null in the megafile and 'Not Available' on the student report and student labels

    iv. These students will be flagged as remote testers in the megafile and for tblDiscrepancy.

    v. Their test status for science will be blank/null

    vi. Their perf2, numin, and assess values will all be blank

3. SIMS

a. Student data are provided by DESE for reporting use following the SIMS file layout (also provided by DESE.)

b. SIMS contains various demographic, historical scores, and accountability data field. The data populated depends on the time of year of the handoff

c. Multiple handoffs occur during the year

4. Current Year Student Growth Data

a. Current year student growth percentiles (and corresponding standard errors) are provided for ELA and Math at the student level from DESE based on preliminary results.

b. In 2021, if DESE uses the Baseline Growth method, the state mean may not be fixed at 50.

5. Grade Span Lookup

a. DESE provides a grade span lookup for all public official schools. It is used to assign "SchType" in the various megafile handoffs.

b. Cognia will provide DESE with a list of any public schools that have students assigned to them that are not included in the lookup, resulting in blank grade span data based on the Preliminary data release.

c. All public schools must have a grade span for final post-discrepancy reporting. For earlier releases grade spans may be blank for schools missing from the lookup.

6. Discrepancy Site

a. Data from preliminary reporting is posted to the discrepancy site for clean up by the field and the department.

b. See the Discrepancy Site Requirements for more details on which fields are available for editing at each user level.

c. Data Processing re-processes data post-discrepancy to incorporate the updated information and discrepancy resolutions from DESE for DA for final reporting.

d. During final processing all information from the discrepancy site is considered final and is maintained, however, changes to certain fields require additional data audits and/or

recalculation of student participation status to ensure consistency. See the Data Reconciliation section for these details.

    e. In 2021, the discrepancy site will not include scaled scores and performance levels for all grades ELA, Math, and grades 5 and 8 STE. The conversion tables were provided to DESE to apply and distribute scores to schools.

7. Sprp_sch and Sprp_dis: Exceptions List

    a. DESE will provide this list to Cognia

    b. The lookup is used in the assignment of official student school and district (See Data Reconciliation Audits for details)

8. One School District List (daSingleSchDisLookup)

    a. DESE will provide this list to Cognia

    b. The lookup is used in the aggregate calculations (see Aggregate Calculations for details)

9. Official School and Official District Code

    a. Official District (sprp_dis)

        i. If the student's testing discode+schcode is on the Exceptions List (System+School) then the official district is the sprp_dis from the Exceptions List.
        ii. If the student's testing orgtype is 6, 13 or 22 then the official district is set to the discode concatenated with four zeroes.
        iii. Otherwise, the official district is the sending district from SIMS (senddiscode) if it exists, concatenated with four zeroes at the end. If senddiscode is blank the official district is set to '99999999'.

    b. Official School (sprp_sch)

        1. If the student's testing school (discode+schcode) is on the Exceptions List (System+School) then the official school is the sprp_sch from the Exceptions List.
        2. If a student is from a collaborative school (testing OrgType = 3 or 4) then the official school is = 05XX0000 where XX is the 3rd and 4th digit of the testing district code.
        3. If the student's testing orgtype is 25,31, or 50 then the official school is the official school code from SIMS (simsDiscode + SimsSchcode). If the simsDiscode and simsSchcode are blank the official school is set to the testing school code (discode+schcode). If the official school from SIMS turns out to be orgtype 22, then use the Exceptions list for official school.
        4. Otherwise, the official school is the testing school (discode+schcode).

    c. Setting of Orgtype

        1. Orgtype is based on the official school code
        2. Using the official school code link to the MCAS org data file (DA use: icore) and pull the org type (DA use: Reportcode2).
        3. In the event that an orgtype is not assigned, default orgtype to 'X'. This is expected due to some SPRP schools not being in the Org data file

    d. The table below displays possible values for a school's Orgtype

Orgtype Code	Description
2	Special Education School
3	Collaborative
4	Collaborative
6	Public School
10	MA State Agency
11	Private School
13	Charter School
22	Charter School Program
25	ALT Ed Program
29	Out-of-State School
30	Adult Diploma Site
31	MCAS Test Site
34	SEIS Program
37	Adult Basic Education
50	School Program
95	Special Education Program

K. Rounding Rules

Calculation	Rounded (to the nearest)
Student Counts	Whole Number
Percentages	Whole Number
Mean Growth Percentile	Whole Number

II. Scaling, Equating and Item Statistics

1. Legacy Scaling

    a. Scaling is done using a lookup table provided by psychometrics and the student's overall raw score (by subject).

    b. The scaled score lookup achievable scaled scores are always even numbers and are between 200 and 280 every year.

    c. Psychometrics provides the High School Science lookup for Grade 09 and 10 in each subject. The grade 09 lookups are identical to the grade 10 lookups.

2. Next Gen Scaling

    a. Scaling is completed using a lookup table provided by Psychometrics. Scales are based on student's test mode, scaleform, and raw scores

3. Achievement Level Coding for G10 Legacy Tests (i.e., HS Science only this year)

a. The MCAS Standard Assessment has four possible achievement levels, assigned to students using the raw to scale score lookup provided by psychometrics.

b. Alternate Assessment achievement levels are translated to their corresponding standard assessment achievement level prior to computing any aggregate calculations that include alternate assessment achievement level results as shown below

Achievement Level Coding – NextGen and Legacy Tests

MCAS Achievement Level	MCAS Description	MCAS Alt Achievement Level	MCAS Alt Description
1		7	Incomplete Portfolio (INP)
		8	Awareness (AWR)
	HS STE: Failing (F)	9	Emerging (EMG)
	Not Meeting Expectations (NM)	10	Progressing (PRG)
2	*HS STE*: Needs Improvement (NI)	11	Needs Improvement (NIA)
	Partially Meeting Expectations (PM)	14	Partially Meeting Expectations-Alt (PM_A)
3	*HS STE*: Proficient (P)	12	Proficient (P_A)
	Meeting Expectations (M)	15	Meeting Expectations-Alt (M_A)
4	*HS STE*: Advanced (A)	13	Advanced (A_A)
	Exceeding Expectations (E)	16	Exceeding Expectations-Alt (E_A)

III. Student Level Calculations

A. Calculations by Participation Status Summary

Summarize	Prior Results	Description	Part Stat	rptLEP[sub]¹	Test Stat	Current Year Reporting Results ('---'indicates data are blank)					Aggregation and Accountability Results		
						Raw Scores	Item Scores	rScaled Score (*Cognia Reports*)	Achievement Level (*rPerfLevel, mfPerfLev*)	mfScaledScore	Achievement Level (*Perf2/mfPerf2*)	CPI / Numin	Assess ²
		Breach	Breach Instructions are applied at the student level regardless of participation status and are identified by Amend > '1'										
		Void *(Preliminary Only)*	H	*any*	NTO	earned	earned	---	VAB	---	---	---	0 ³
		Multiple Answer Documents (Security Breach):											
		Preliminary	I	*any*	NTO	earned	earned	---	DUP	---	---	---	---

Grade	Acct	Description	Code	Num	Status								
		Final	N	*any*	NTO	---	---	---	INV	---	---	---	---
1 (or Grade=09*)		Tested Alternate Assessment	A	0	T	---	---	---	earned (Alt)	---	earned (Alt)	ü	1
				1	NTL					---	---	---	1
		Tested	Z	0	T	earned	earned	earned	earned	earned	earned	ü	1
				1	NTL			*Pass:* earned *Else:* ---	*Pass:* earned *Else:* LEP	*Pass:* earned *Else:* --	---	---	1
		Not Tested /Partially Tested – LEP (ELA Only)	F	1	NTL	Earned		*HS Pass:* earned *Else:* ---	*HS Pass:* earned *Else:* LEP	*HS Pass:* earned *Else:* --	---	---	1
		Not Tested /Partially Tested - Transfer	D	0 (M/S 1)	NTO				*HS Pass:* earned *Else:* TRN		---	---	---
		Not Tested /Partially Tested – Medically Excused Absent	G	0 (M/S 1)	NTM				*HS Pass:* earned *Else:* MED		---	---	0
		Not Tested /Partially Tested - Absent	E	0 (M/S 1)	NTA				*HS Pass:* earned *Else:* ABS		---	---	0
	F	Tested Alternate Assessment Accountable Retest	C	0	TR	---	---	---	earned (Alt)	---	highest (Alt)	ü	1
				1	NTL					---	---	---	1
	F	Tested Accountable Retest	Y	0	TR	earned	earned	earned	earned	highest	highest	ü	1
				1	NTL			*Pass:* earned *Else:* ---	*Pass:* earned *Else:* LEP	*Pass:* highest *Else:* --	---	---	1
	F	Previously Failed (Not Tested /Partially Tested Accountable Retest)	L	0	NTO	*Pass:* earned *Else:* --	*Pass:* earned *Else:* --	*Pass:* earned *Else:* --	*Pass:* earned *Else:* PRF	highest	highest	ü	1
				1	NTL				*Pass:* earned *Else:* LEP	*Pass:* highest *Else:* --	---	---	1
	P	Ineligible Accountable Retest – Previously Passed & Retested (Preliminary Only)	P	0	NTO	earned	earned	---	INE	prior	prior	ü	1
				1	NTL					prior	---	---	1

P	Previously Passed	K	0	NTO	---	---	---	PAS	prior	prior	ü	1
			1	NTL					prior	---	---	1
0	Tested Not Accountable Alternate Assessment (Retest)	W	0	TR	---	---	---	earned (Alt)	---	---	---	---
			1	NTL								
	Tested Not Accountable (Retest)	R	0	TR	earned	earned	earned	earned	earned	---	---	---
			1	NTL			*Pass:* earned *Else:* --	*Pass:* earned *Else:* LEP	*Pass:* earned *Else:* --			
	Partially Tested Not Accountable (Retest)	B	*any*	NTO	earned	earned	*Pass:* earned *Else:* --	*Pass:* earned *Else:* INC	*Pass:* earned *Else:* --	---	---	---
	Not Tested Not Accountable (Retest)	J	*any*	NTO	---	---	---	DNT	---	---	---	---

[1] rptLEP is LEPFirst for all grades/subjects/participation statuses that do not have prior results. It is a calculated combination of LEPFirst and prior LEP First status for Accountable partstatuses with prior results. See calculations section for details.
[2] Assess exceptions for ELA: there is an additional condition of participation on the Access test. See calculation specifics for details.
[3] If Summarize = 1 then Assess = 0. If Summarize = 0 then Assess is blank.
*Grade = 09 students are assigned participation statuses as if Summarize = '1'. Perf2, CPI, Numin, and Assess are populated for calculations but set to blank in the Megafile deliverable.
Note: "(M/S 1)" indicates that rptLEP[sub] may also be '1' in Math and Science for the listed participation statuses.

B. Other Calculations

1. StudentID

    a. StudentID = rptStudentID from DPRaw (verified SASID)

    b. For non-demonstration students, if StudentID does not begin with '10' it was generated by DP for linking purposes, and will be set to blank for reporting

2. Accommodations and Accommodation Footnotes

    a. If a student did not attempt any items in a subject, the corresponding raw accommodation indicators (from DPRaw) are ignored during the determination of accommodations and footnotes for reporting. Otherwise, if a student attempts at least one item in a subject, the corresponding raw accommodation indicators are evaluated:

        i. For ELA and Math accommodation all items (common, matrix, and field-test) are considered.

        ii. All the underlying accommodation fields in DPRaw are maintained as provided, regardless of student attempt status.

    b. Standard Accommodations

<ol type="i" start="1">
Accom_e = '1' if the student received any accommodations (except color contrast answer masking and Alternative Mouse Cursor Pointer, non-IEP/non-504) in ELA, otherwise set it to blank.
Accom_m = '1' if the student received any accommodations in Math (except color contrast, answer masking and Alternative Mouse Cursor Pointer, non-IEP/non-504), otherwise set it to blank.
Accom_s = '1' if the student received any accommodations in science (except color contrast, answer masking and Alternative Mouse Cursor Pointer, non-IEP/non-504), otherwise set it to blank.

<ol type="a" start="3">
Special Access ELA Accommodations
<ol type="i">
Human Read-Aloud as a special access Accommodation is indicated then Accom_ReadAloud='H'
If Text to Speech accommodation is indicated, then Accom_ReadAloud='T'
If Kurzweii special access Accommodation is indicated, then set Accom_Readaloud='K'
If Human Scribe special access Accommodation is indicated, then Accom_Scribe='H'
If Speech to Text Non-Standard Accommodation is indicated, then Accom_Scribe='S'

Special Access Math Accommodation
<ol type="i">
If calculation Device Accommodation is indicated, then Accom_Calculator='1'

For special access Accommodation Student Report text based on elaNSAFootnote and matNSAFootnote see table Special Access Accommodation Footnote Text (Student Report)

<ol start="3">
Reporting First Year LEP Status
<ol type="a">
RptLEP is determined for each subject based on current year partstatus, test attemptedness, First Year LEP status, and Prior First Year LEP Status (where applicable) to determine if a student's results should be considered achieved while under First-Year LEP status or as currently First-year LEP. This takes into consideration the prior status of the student when prior results are eligible for accountability (currently only allowed in science)
For all participation statuses that are considered Not Accountable rptLEP[sub] = LEPFirst.
Otherwise, if the student is considered Accountable then:
<ol type="i">
If the student has prior results:

If the student meets attemptedness this year, then: rptLEP[sub] = LEPFirst.
If the student partially attempts or does not attempt this year, then:
<ol type="a">
rptLEP[sub] = '1' if either LEPFirst = '1' or [sub]NTL = '1
Otherwise rptLEP[sub] = '0

If the student does not have prior results, then rptLEP[sub] = LEPFirst

Alt

a. [e/m/s]Alt is set to '1' if a student is considered Tested or Retested Alternate Assessment (accountable or not accountable; PartStatus in 'A','C','W'). Otherwise, it is set to '0'.

5. SpecialEd

   a. If a student is considered Tested or Retested Alternate Assessment (accountable or not accountable) in any subject (eAlt, mAlt, or sAlt = '1') then SpecialEd = '1'. Otherwise, it is taken from IEP in SIMS. If it is blank it is defaulted to '0'.

6. Sims CD

   a. The latest CD value from SIMS for Math, ELA, and Science is stored for each student as-is, without any additional formatting as SIMS_[sub]CD

7. SSubject

   a. SSubject is set to the science subject that is used for reporting

   b. Data Processing will provide the science subject for the current test as well as science subject for prior results

   c. If a student took alt, then the alt science subject is reported

   d. If a student is reported using their prior results, then the prior science subject will be reported.

   e. Otherwise, the current science subject will be reported.

   f. Released = daIref.Released (where '1' = released item, '0' = unreleased item)

   g. RepCatCode is the 2-character reporting category code for each item:

      i. Assigned by Item Number for Math and ELA using daReportingCategoriesCrosswalk.
      ii. Assigned by daIref.Cat2 for Science using daSciRepCatCodes

8. Raw Scores

   a. Overall Raw Score

      i. The student's overall raw score is the sum of scores for all scaling items
      ii. If a student has a partstatus that does not receive reported raw scores or if the student did not attempt any items (Attempt[sub]='N') then the raw score is set to blank after all subsequent calculations are complete.

9. Points Earned

   a. MCpts are based on common, scaling multiple choice or selected response items with point values stored in item metadata tables.

   b. ORpts are based on non-MC or involving open-response and constructed response (including essay scores). Item point totals are calculated based on item metadata tables.

   c. If a student does not receive reported raw scores these calculations are set to blank.

10. Reporting Category Points Earned (In 2021, N/A for Grades 3-8)

    a. The total points earned, and the percent of possible points earned by the student are calculated by reporting category.

b. Calculations include all scaling items.

a. If a student does not receive reported raw scores the number of points earned, and the percent of possible points earned are set to blank

11. Legacy Item Responses

    a. If a student has a participation status that does not receive reported item scores, or does not receive item scores because of attempt status, pass requirements or rptLEP conditions, all item responses will be blanked out (NULL) after raw score calculations are complete.

    b. Otherwise, re-formatted and re-ordered (by released item order) responses to all common items are reported to support the student report and megafile deliverables (excluding the State File, which includes all items):

        i. Released and unreleased OR items: the item score or not scorable code is reported. Responses of 'B' (blank) are set to NULL.
        ii. Released MC items: the plus-data from daPlusData is stored, where a "+" indicates a correct response and an alpha character (A, B, C, D, *) indicates an incorrect response choice.
        iii. Unreleased MC items: the plus-data from daPlusData is stored after re-formatting such that a "+" indicates a correct response, and "- "indicates a masked incorrect response choice (multiple responses ("*") remain unmasked).
        iv. HS STE has no released items in 2021

12. Next Gen Item Responses

    a. In grades 3-8 students take only 1 session of the test. This applies to ELA, Math and Science and Technology/Engineering (STE)

    b. Students with a participation status that does not receive reported item scores and those who do not receive item scores due to test attempt status, passing status, or rptLEP conditions will have scores blanked out (NULL) after raw scores have been calculated, if applicable.

    c. Otherwise, re-formatted and re-ordered responses to all scaling items are reported and stored to support the student report and megafile deliverables (excluding the State File, which includes all items):

        i. Released Essays: see the Essay Total Score calculations.
        ii. OR and MC items: the item score or not scorable code is reported. Responses of 'B' (blank) are set to NULL.

    d. For Grades 3-8 operational items that students are not exposed to in the session they attempted put "\". This is reported in the megafile.

    e. Only operational items are reported. The order of the items is the reporting sequence in the test map.

13. Current-Year Reporting Results

    a. Information stored in ScaledScore, Perflevel, rScaledScore, and rPerflevel are based on current year test results only. See the Calculations by Participation Status Summary table for details.
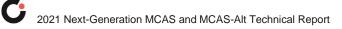
b. ScaledScore

    i. Current year scaled score results that are eligible to earn a current year scaled score. Conditions based on pass/fail, rptLEP or breach codes are not applied. This is an internal Cognia field that is not directly reported.

    ii. Blank for alternate assessment students and students not eligible to receive a scaled score based solely on participation status.

c. PerfLevel

    i. Earned current-year achievement level based on scaledscore (1-4). Conditions based on pass/fail, rptLEP, or breach codes are not applied.

    ii. For Alternate Assessment students the un-translated PerfLevel from the Alternate Assessment data table StuPL is stored (7-17).

    iii. If the student does not receive an achievement level based solely on partstatus PerfLevel is blank.

    iv. Valid Values: numeric achievement levels (1-4, 7-17) or blank. Internal Cognia field that is not directly reported.

d. rScaledScore

    i. rScaledScore is the current year earned scaled score for Cognia reporting purposes.

    ii. rScaledScore = ScaledScore, with suppression based on pass/fail status, rptLEP, or breach codes applied from the participation status summary table.

e. rPerfLevel

    i. rPerfLevel is the current year achievement level or partstatus.

    ii. rPerfLevel = Perflevel, modified based on pass/fail status, rptLEP, or breach codes for reporting as follows:

        1) If perflevel = '1' and rptLEP[sub] = '1' and the student has a partstatus that receives the text "LEP" in place of a non-passing achievement level, then rPerfLevel = 'F'. This is applied by subject for all subjects.

        2) Otherwise, if perflevel is blank then rPerflevel = partstatus.

        3) If a student has a breach code, then rPerfLevel is assigned per the breach instructions to override any other standard rules.

    i. Valid values: numeric achievement levels (1-4, 7-17) and partstatus codes.

f. mfPerfLev (megafile: [e/m/s]PerfLev)

    i. Formatted rPerfLevel (current year reporting results) to contain either the student's achievement level abbreviated text (Standard or Alt), or 3-character participation status code for all students (e.g., 'P' or 'P_A' or 'LEP' or 'TRN').

14. Aggregation/Accountability Results

a. Aggregation and Accountability Results combine prior and current results, where applicable. See the Calculations by Participation Status Summary table for details.

b. mfScaledScore (megafile: [e/m/s]scaleds)

    i. For Accountable or Grade 09 students mfScaledScore is populated with either the current year scaled score, or prior scaled score as applicable for

accountability. For Not-Accountable students mfScaledScore is populated with current year results as applicable.

    ii.   mfScaledScore is populated as follows for Accountable students (or Grade 09):

        4) mfScaledScore = rScaledScore for First Time Testers and First Time Testers that did not meet attemptedness (ABS, MED, TRN, LEP).

        5) mfScaledScore = Highest between rScaledScore and the prior highest ScaledScore ([sub]ScaledScore from DPRaw) for Accountable Retest Students.

        6) mfScaledScore = Prior highest scaled score for Previously Passed students ([sub]ScaledScore] from DPraw).

            a) Note: if [sub]ScaledScore is blank for the above scenario, the student passed via appeals and an accurate scaled score may not be available. mfScaledScore is left blank.

        7) Otherwise mfScaledScore is blank

    iii.   If rptLEP = '1' and the student's mfScaledScore (as determined above) is considered Failing, then mfScaledScore is set to blank.

    iv.   mfScaledScore = rScaledScore for Not-Accountable students.

  c. Perf2 (used in aggregate calculations)

    i.   Populated with the achievement level for aggregate calculations and to support the megafile Perf2 using current year and prior results as applicable.

    ii.   Perf2 is blank for all students with rptLep[sub] = '1'.

    iii.   Otherwise Perf2 is populated as follows for Accountable or Grade 09 students:

        1) Perf2 = rPerfLevel for First Time Testers (1-4, '6' is translated to '1').

        2) Perf2 is blank for First Time Testers that did not meet attemptedness (ABS, MED, TRN, LEP).

        3) Perf2 = Highest achievement level between rPerfLevel and High_xPerf for Accountable Retesters (science only).

        4) Perf2 = Highest prior achievement level (High_sPerf) for Previously Passed students.

        5) Perf2 = Translated Alternate Assessment Perf2 for students Tested Alternate Assessment or Accountable Retested Alternate Assessment. Translation is done from Alternate Assessment Achievement Levels of 7-16 to Standard Achievement Levels 1-4

    iv.   Otherwise perf2 is blank. Perf2 is blank for all Not-Accountable students except for grade 09 (available for grade 09 specific Cognia aggregations).

  d. mfPerf2 (megafile: [e/m/s]Perf2)

    i.   Perf2 formatted to contain the student's achievement level abbreviated text (using Standard Assessment text only, e.g., 'P' or 'A'). Blank if Perf2 is blank.

    ii.   mfPerf2 is set to blank for grade 09 students in the megafile export.

15. Competency: Updating ELA_CD, Mat_CD, and Sci_CD

  a. These variables represent whether a student has met the testing graduation requirement for the subject, combining prior CD information from SIMS with the current test results.

  b. The updated mfCD fields begin with the prior CD value from SIMS (studemo SIMS_[sub]CD) for all students, regardless of participation status on this year's test. The prior value may be blank for students that have not previously tested in a subject.

c. The mfCD fields are then updated using current year scaled score results (rscaledscore) if and only if the CD value increases, otherwise the prior value is retained:

d. For NextGen ELA:

    i. If scaled score is ≥ 455 and scaled score is <472 then CD = '1'.
    ii. Otherwise, if scaled score ≥ 472 then CD = '2'.
    iii. Otherwise, CD is '0'.

e. For NextGen Math:

    i. If scaled score is ≥ 469 and scaled score is <486 then CD = '1'.
    ii. Otherwise, if scaled score ≥ 486 then CD = '2'.
    iii. Otherwise, CD is '0'.

f. For Legacy HS Science:

    i. If scaled score ≥ 220 then CD = '1'.
    ii. Otherwise, CD is '0'.

g. For students tested via the Alternate Assessment (Partstatus in 'A', 'C', or 'W') the CD field is taken from the current-year updated CD field in the alternate assessment data (tblStuPL.mfCD) and is not re-calculated.

16. Graduation Requirement Footnote (CDFootnote) (tblScoredItem)

a. The graduation requirement footnote is for High School students and indicates if a student has met, previously met, or still needs to meet the testing requirements for graduation.

b. Using the previous CD value from SIMS (tblstudemo.SIMS_[sub]CD) and the updated CD value incorporating current test results (tblScoredItem.mfCD) for each subject:

    i. If SIMS_[sub]CD is '1' or '2' then CDFootnote = '4' (Already Met).
    ii. Otherwise:
        1) If mfCD = '0' then CDFootnote = '1' (Not Met).
        2) If subject is ELA or Math:
            a) and mfCD = '1' then CDFootnote = '2' (Met but requires proficiency plan).
            b) And mfCD = '2' then CDFootnote = '3' (Met.)
        3) If subject is Science and mfCD = '1' then CDFootnote = '3' (Met).

    iii. For Student Report text see Appendix F.

17. Legacy Composite Performance Index (CPI) Points (HS Science and Technology/Engineering only) This is not being calculated in 2021.

a. CPI Points are assigned based on results used for Aggregations and Accountability.

b. For students whose accountability results are from the Standard MCAS Assessment:

    i. CPI points are assigned based on their Accountability Scaled Score (mfScaledScore) per the following table:

Test	mfScaledScore Range	CPI Points
Legacy HS STE	240-280	100
	230-238	75
	220-228	50

	210-218	25
	200-208	0

ii. If Partstatus in ('K','P') and mfscaledscore is missing:

    1) If mfperf2 is "NI" (Standard Assessment) set CPI = 50 to indicate the student passed via appeals.

    2) Otherwise, mfPerf2 is from a prior year Alternate Assessment. CPI points are set per the following table in tblScoredItem:

Test	Alt Perf2:	CPI Points
Alternate Assessment (Only when re-assigning based on prior-year Alt Results for Accountability)	A_A P_A PRG	100
	EMG NIA	75
	AWR	50
	INP	25

c. For Accountable Alternate Assessment students (Tested Alt or Accountable Retested Alt) CPI points are taken from the Alternate Assessment data

18. Next Gen Composite Performance Index (CPI) Points

    a. Not Calculated

19. NumIn

    a. See the calculations by participation status summary for a list of statuses that receive CPI points and numin = '1'. Otherwise, it is '0'

20. Assess

    a. The subject specific Assess field is populated to indicate whether Accountable students have met the participation requirement this year based on the Calculations by Participation Status Summary table.

    b. Exception for ELA only, when Assess = '1': If LEP_off = '1' and ACCESS_Part = '0' then Assess = '0'.

    c. Fields are prefixed with e/m/s in the megafile.

    d. Student was assessed: 1=student tested on MCAS or student is first year EL, 0=ABS or MED or EL student who did not take ACCESS for ELLs test, blank=not included in participation reports. See the table on page 12 for more detailed information.

21. Student Growth Percentile (GP)

a. Student growth percentiles (and standard error range) are reported for accountable first-time test takers that are not considered First Year LEP (PartStatus = 'Z' and LEPFirst[sub] = '0') in year 2 (students must receive test scores in consecutive grades two years in a row or have test scores in grade 8 and grade 10 over three years).

b. For all other students, GP is blank.

c. Growth is provided by DESE for students in Math and ELA, in grades 4-8 & 10.

d. After the discrepancy period, any student with changes to their preliminary raw score, perf2, partstatus, or StudentID will have growth data suppressed.

22. Complexity is populated with the student's alternate assessment composite complexity score for all students Tested or Retested (accountable or not-accountable) Alternate Assessment.

IV. Aggregate Calculations

1. Aggregation Summary

    a. These rules are applied to all aggregate calculations. Any additional rules specific to a particular calculation will be listed under the rules for the calculation.

        i. All reporting levels (sch/dis/sta): Only students eligible for accountability (Summarize = '1') and test status ='T' are included in aggregate calculations, except for Grade 09 specific calculations.

        ii. For grade 9 HS STE: aggregations include students with Teststatussci='T'

        iii. Students are aggregated to their official school (sprp_sch) and official district (sprp_dis), unless their sprp_dis is in daSingleSchDisLookup , in which case they are aggregated to the school associated with their sprp_dis and inclusion rules are dictated by the district (school and district calculations must match).

        iv. Students with an SPRP Orgtype of 6 or 13 are used for school-level aggregations.

        v. For district aggregations, if sprp_dis = '99999999' then delete.

        vi. Exclusions based on OctEnrol are not applied to one-school district school or district level calculations.

    b. Number and Percent of Students by Achievement Level

        i. Calculated by grade and subject at the school, district, and state level.

        ii. All Legacy sciences are aggregated together as "Science and Technology/Engineering". Grades 09 and 10 will be aggregated together   Both grades 9 & 10 STE will show grade 10 students with perf2 populated.

        iii. Calculations are performed using Perf2. All students with a non-blank Perf2 are eligible to be included in the calculations, including Alternate Assessment students (Achievement Levels are already translated to Standard-Assessment Achievement Level codes in Perf2).

        iv. The following exclusions are applied to the pool of eligible students:

            1) Next Gen - Grade 05, 08 (SCI), 03-10 Math and ELA:

                a) Students with OctEnrol ≠'1' are excluded at the school level, unless they are in a one-school district

            2) Legacy - Grade 10 Science (HS STE's):

a) Students with ConEnr_Sch ≠ '1' are excluded at the school level, unless they are in a one-school district, in which case students with ConEnr_Dis ≠ '1' are excluded.

b) Students with ConEnr_Dis ≠ '1' are excluded at the district level (as well as at the school level for one-school districts).

c) Students with ConEnr_Sta ≠ '1' are excluded at the state level.

v. N = the total number of students included in the calculation of the number of students at each achievement level (n1-n4) and is the denominator for the calculation of the percent of students at each achievement level (p1-p4).

vi. Minimum N-Requirement: if N < 10 for a school or district results are calculated but suppressed from reports.

c. P34

i. This is the sum of the percent of students in the Proficient Achievement Level (p3) and the students in the Advanced Achievement Level (p4) in each school, district or state as calculated above in Number and Percent of Students by Achievement Level

d. Growth Aggregations

i. All students with tblScoredItem.GP populated are eligible to be included in the calculations.

ii. The following exclusions are applied to the pool of eligible students:

1) Students with OctEnrol ≠ '1' are excluded at the school and district level unless they are at a one-school district.

iii. State Mean growth is defaulted to 50 (after computing MeanIncluded at the state level) for Math and ELA, all grades.

iv. Minimum N-Requirement: if N < 20 for a school or district results are calculated but suppressed from reports.

e. Legacy State Reporting Category Performance Comparison

i. The average number of points earned (nPoints) and the percent of total possible points earned (pPoints) by students at the "low end of the Proficient level" is calculated for each reporting category at the state level, stacked by subject and reorder. The student group used must be greater or equal to 200.

ii. Standard assessment students with partstatus = 'Z' and a scaledscore = '240' are included.

iii. If there aren't enough students at the cut, then add students at the cut+1 scaled score and reevaluate. Repeat until there are at least 200 students included or we are at 5 scaled scores above the cut score.

iv. Includes both grade 9 and 10 first time test takers.

f. Next Gen Reporting Category Calculations

i. Paper and Online tests are aggregated together.

ii. Students near Meeting Expectations

1) The average number of points earned (nPoints) and the percent of total possible points earned (pPoints) by students at the "low end of the Meeting Expectations level" is calculated for each reporting category at the state level,

stacked by subject and reporder. The student group used must be greater or equal to 200; if not, students from the next (higher) scaled score will be included in the analysis,

2) If any test/mode at a grade/content level does not reach the 200-student threshold within the scaled score range of 500-505, the student's report will not include the percent possible points for students scoring near Meeting Expectations for the reporting categories.

   iii. Average Points Earned
        1) Calculate average points earned for School, District and State

V. Data Deliverables Specifications

A. MegaFile(s)

1. Generic Details

   a. Megafile deliverables are posted by grade to the FTP site for the state and contain data for all processed students.

   b. All MegaFile deliverables follow the most recent layout: MCAS 2020-21 File Layout_Cognia_new6-2-21.xlsx

   c. Test-result based fields that are not applicable to particular deliveries are left blank. SIMS based fields are populated for all releases, where available.

   d. Amend

      i. If a student receives an amend code for the General or Alternate Assessment, then the amend field will contain the first letter of that test (e.g., A value of "EM" indicates the student received an amend code in ELA and Math).

   e. DataChanged

      i. DataChanged indicates if a student's record has changed since a prior release of the file. It is defaulted to '0' for all students.
      ii. Students whose record changes during the discrepancy period are flagged as datachanged = '1' (first full revision) in the post-discrepancy reporting file (release 4).
      iii. Only use the following fields when calculating datachanged:
           1) sprp_dis
           2) sprp_sch
           3) e/m/steststat
           4) e/m/srawsc
           5) e/m/sscaleds
           6) e/m/sperflev
           7) e/m/sperf2
           8) e/m/scpi
           9) e/m/snumin
           10) e/m/sassess

   f. Commas are suppressed from school and district names, and student names.

---

g. If [e/m/s]Alt. = '0' then set to blank.

h. If LEPFirst = '0' then set to blank.

i. For the following Accommodation variables, if the accommodation equals '0', then set to blank: Accom_readaloud, accom_scribe, accom_calculator.

j. [e/m/s]ScaledS is the combined current year and prior year official scaled score results for students included in aggregations and accountability.

k. [e/m/s]Perflev is the formatted current year achievement level or code.

l. [e/m/s]Perf2 is the formatted combined current and prior year achievement level results for accountability and aggregations. Set to blank for Grade = '09'.

m. [e/m/s]_CD is updated with current-year results.

n. [e/m/s]SGP is the reported current-year student growth percentile.

o. If Grade = '09' then the following accountability fields are set to blank:

  i. sPerf2
  ii. sCPI
  iii. sNumin
  iv. sAssess
  v. (Grade 09 test results are not included in DESE aggregate calculations until their accountability year)

p. In 2021 Additional fields were added to indicate the session taken in grades 3-8 for each subject.

q. In 2021 Additional fields were added to indicate if a student tested remotely for each subject.

2. Preliminary Release Specifics

  a. File Name:MCASYYYY_XX.dat

  b. Where YYYY = 4-digit test year (e.g., 2021), XX = 2-digit test grade.

  c. Files are produced for grades 03-08 and HS (includes test grade 09 and 10 data).

  d. DataChanged is originally set to '0'. If a student record is new or was modified during the discrepancy period, datachanged is set to '1'. For any subsequent updates the datachanged flag will be maintained and incremented as necessary.

  e. MCASRowID
  The mcasrowid is a 15-digit alpha-numeric field created in the following manner:

    i. 2 digits = administration year (ie: 21 for the 2021 test)
    ii. 2 digits = file grade (03-08 or HS)
    iii. 1 digit = test (1 = Standard)
    iv. 10 digits = bookletnumber (derived by DP from the student's SASID or submitted answer document)

B. Assigned Accommodations Data File(s)

1. File Name: [sub]Accom.csv

2. One file is produced by subject including all students in all grades and posted to the FTP.

3. The fields are described in the Accommodation File layout.

C. Accessed Accommodations Data File(s)

1. File Name: [sub]AccomByItem.csv

2. One file is produced by subject including all students in all grades and posted to the FTP.

3. For each test the file is stacked by item UIN and indicates which accommodations were accessed for that item.

4. Items with no accommodations accessed are not included in the file. If a student has not accessed any accommodations on the test this will result in that student not being included in the file.

D. Questionnaire (VOCAL) Data File(s)

1. File Name: Questionnaire Data GrXX.csv where XX = 2-digit grade

2. Layout: MCAS[4-digit year]Questionnairelayout.xlsx

3. Files are produced for Grades 04, 05, 08, and 10 and posted via FTP.

4. All students are included regardless of responses to questionnaire items, listed by SASID (StudentID)

E. Alt & Standard Results Data Files

1. One file is produced including students in all grades that took both the Alternate Assessment and Standard Assessment in the same subject. This file provides score and achievement level information for DESE to determine if any students should have their Standard Assessment results override their Alternate Assessment results. This file is posted to the FTP.

VI. Report Deliverables Specifications

A. Definitions

1. The following terms will be used to describe certain formats/behavior:

   i.   Next Gen Online suppression rules
      1) If a student does not receive a student report, then no label is printed for the student
      2) If all tested subjects for the student are under the Alternate Assessment, then students will not receive a label or student report.

B. Student Labels

1. Templates

   a. There are three different label templates that differ depending on the number of subjects reported for the tested grade:

      i. One subject – grade 09, grade 10 where summarize='0' and both math and ela tests were not submitted.
      ii. Two subjects – grades 03, 04, 06, 07
      iii. Three subjects – grades 05, 08, 10

2. Label Displays

   a. Student Name

      i. Presented as: FName MI. LName (with a period after the middle initial when the middle initial is not blank). Examples: JOHN T. SMITH or JENNY JONES
      ii. This section requires special formatting when one or more of the names are missing:
         1) If Lname is blank and Fname is blank, then section = "BLANK NAME"
         2) If Lname is blank and Fname is not blank, then section = "Fname BLANK"
         3) If Lname is not blank and Fname is blank, then section = "BLANK Lname"

   b. Grade

      i. If grade='10' and summarize = 0 and StuGrade <> 'SP' then use StuGrade from SIMS.
      ii. Otherwise use the Test Grade and remove any leading zeroes.

   c. SASID – Student ID from SIMS, no special formatting applied.

   d. School Name, School Code, and District Name – School and District names and School Code from iCore based on testing school (discode,schcode). No special formatting applied.

   e. Birth Date – DOB from SIMS, no special formatting applied. Stored in tblStudemo.DOB. Must be equal to 10 characters in length (MM/DD/YYYY).

   f. Test Date: "Spring 20YY" where 20YY = test year, e.g., 2021.

   g. Subject Title (Section1i, Section1l, Section1o) – Formatted with the following values:

      i. If subject = 'ela' then 'English Language Arts'
      ii. If subject = 'mat' then 'Mathematics'
      iii. If subject = 'sci' then and grade is 05 or 08 then 'Science and Technology/Eng'
      iv. Otherwise, if subject = 'sci' and grade is 09 or 10 (HS STE's) then:
         1) If rptSciTry = '1' then 'Biology'
         2) If rptSciTry = '2' then 'Chemistry'
         3) If rptSciTry = '3' then 'Introductory Physics'
         4) If rptSciTry = '4' then 'Technology/Engineering'

   h. Scaled Score – student earned scaled score stored as rScaledScore. If a student did not earn a scaled score for a tested subject (rScaledScore is NULL) the display is formatted as "---".

i. Achievement level contains either the achievement level text or the not-tested statement stored in tblPerfLevelLookup (see Appendix A- Description). This is set using the student's rPerfLevel. This is always populated if the subject existed at the tested grade.

C. Legacy HS Student Report Template (Grade 9 Science)

1. The following sections discuss the formatting of the various displays presented on the legacy high school student report. All calculations and aggregation rules can be found in earlier sections of this document. Please note that all details mentioned below cover reporting of tested students as outlined in Test Administration Table.

2. Cover Page

    a. Title – "Spring 20YY MCAS Tests" where 20YY = test year, e.g., 2021.

    b. Student Name – Presented as: LName, FName MI. (with a period after the middle initial when the middle initial is not blank). Examples: SMITH, JOHN T. or JONES, JENNY

    c. This section requires special formatting when one or more of the names is missing:

        i. If Lname is blank and Fname is blank, then section = "BLANK NAME"
        ii. If Lname is blank and Fname is not blank, then section = "BLANK, Fname"
        iii. If Lname is not blank and Fname is blank then section = "Lname, BLANK"

    d. SASID – Student ID from SIMS, no special formatting applied.

    e. School Name and District Name – School and District names from iCore based on testing school. No special formatting applied.

    f. Grade

    g. Test Grade and remove any leading zeroes.

    h. DOB – DOB from SIMS, no special formatting. Must be equal to 10 characters in length (MM/DD/YYYY).

3. Reporting Category Display

    a. Subject (Section6a) – Formatted with the following values:

        i. If rptSci = '1' then 'Biology'
        ii. If rptSci = '2' then 'Chemistry'
        iii. If rptSci = '3' then 'Introductory Physics'
        iv. If rptSci = '4' then 'Technology/Engineering'

    b. Reporting category text and two-character codes for the approved text and codes see Appendix D.

    c. Reporting category results and state comparisons are displayed only for students who are Tested.

    d. Points earned by your child is the points earned by the student in that reporting category.

    e. Possible Points – points possible for that reporting category.

    f. Percent of points earned by your child is points earned by child/points possible times 100. Place % symbol immediately after the number. Example: 15%.

g. Percent of points earned by minimally proficient kids. Place % symbol immediately after the number. Example: 15%.

　　i. This data is always displayed when the grid is displayed, regardless of whether the individual student has earned reporting category points.

　　ii. For HS STE's join to tblRepCatSummary based on the subject associated with the student's rptSciTry (if a student's rptSciTry = '2' then pPoints summarizing minimally proficient students in Chemistry is displayed).

h. Students identified as Suppress do not have this display on the report (all subjects).

4. Released Item Display

a. Subject Title (Section7a) – Formatted with the following values:

　　i. Otherwise, if subject = 'sci' and grade is 09 or 10 (HS STE's) then:
　　　　1) If rptSci = '1' then 'Biology'
　　　　2) If rptSci = '2' then 'Chemistry'
　　　　3) If rptSci = '3' then 'Introductory Physics'
　　　　4) If rptSci = '4' then 'Technology/Engineering'

b. Order of rows within each grid

The following definitions are used to both describe what appears and what is printed in Section7b.

　　i. 1 = "Question Number" – this is the released item order number.
　　ii. 2 = "Reporting Category" – this is the two-character reporting category code.
　　iii. 3 = "Your Child's Score" - this is the response provided by the student.

c. Formatting of Student Responses

　　i. If the student correctly responded for all MC items, this is translated to a 'P' in the reporting data so that a check mark is displayed.

　　ii. Incorrect MC items are already formatted to display the student's incorrect response option.

　　iii. Otherwise for all other items the points earned by the student from tblStuScore is presented along with the possible points for the item separated by a "/". Examples: 2/4 or 7/12.

d. Students identified as NoScience do not have the science grid portion of the display.

e. Item responses are blanked out in tblstuitem for students that should not receive reported item responses in the display

5. Student Achievement Level and Scaled Score Statements (inside Section 2)

a. Achievement level – contains either the achievement level text or the not-tested statement stored in tblPerfLevelLookup (see Appendix A- Description). This is set using the rPerfLevel

b. Score is the earned scaled score

c. For HS students where Test status not equal to 'T', scaledscores are displayed if earning a passing raw score ("Needs Improvement" or higher)

d. State results will only include Test Status ='T'.

e. Graduation requirement notes:

SIMS grade	first-time g10	repeating g10, 11, 12, SP	blank (adults) or g9 STE
summarize	1	0/blank	0/blank
ELA/math: CD=2	PASSED and met the MCAS graduation requirement in this subject	PASSED and met the MCAS graduation requirement in this subject	PASSED and met the MCAS graduation requirement in this subject
ELA/math: CD=1	PASSED but an Educational Proficiency Plan may be required in this subject. See above for details about MCAS graduation requirements.	PASSED but an Educational Proficiency Plan may be required in this subject. See above for details about MCAS graduation requirements.	PASSED but an Educational Proficiency Plan may be required in this subject. See above for details about MCAS graduation requirements.
ELA/math: CD=0	HAS NOT MET the MCAS graduation requirement in this subject	Your child was not required to participate in this subject. See above for details about MCAS graduation requirements	HAS NOT MET the MCAS graduation requirement in this subject
STE: CD=1	PASSED and met the MCAS graduation requirement in this subject	PASSED and met the MCAS graduation requirement in this subject	'Your child has met the MCAS graduation requirement in this subject.'
STE: CD=0	Your child was not required to participate in this subject. See above for details about MCAS graduation requirements.	Your child was not required to participate in this subject. See above for details about MCAS graduation requirements	'Your child has not met the MCAS graduation requirement in this subject.'

6. Scaled Score / Achievement Level Bar Graph Display

   a. Current year scaled scores

      i. Use rScaledScore
      ii. Contains standard error bar (lowScaledScore and highScaledScore)

7. Achievement Level Comparison Table (In 2021 this is not being reported for HS STE)

   a. Your child column – a check mark is placed in the row associated with the earned achievement level based on the data stored in the rPerfLevel.

      i. Students who participated through the Alternate assessment are included in the row where they are counted for aggregations.
      ii. Students who did not earn an achievement level on this year's test do not receive a checkmark.

   b. School/District columns – the school and district achievement level percentages from tblSummary based on the student's official school and district (sprp_sch and sprp_dis respectively).

   c. State column – the state achievement level percentages from tblSummary.

   d. Percentages are formatted with a % directly after the number. Example: 15%

   e. Display is not shown on reports for students identified as Suppress = 1 or 2.

   f. If the display is shown, the school, district, and state data are displayed regardless of whether the student earned an achievement level.

8. Student Growth Percentile Display (In 2021 this is not reported on 4th grade reports)

   a. Your Child – presents the student's growth percentile

i. GP is used to mark the location of the circle with score.

ii. lowGP and highGP are used to draw a standard error bar behind the student score circle.

b. School/District – Mean value from tblSummary for school/district based on official school and district (sprp_sch and sprp_dis).

c. School/District Means are displayed regardless of whether the student has a growth percentile displayed

d. In 2021, State mean is not fixed at 50. The display will reflect the calculated value.

D. Next Gen Student Report Template

(NOTE THAT THIS ALSO INCLUDES LEGACY HS SCIENCE INFORMATION IN THE REPORT)

The following sections discuss the formatting and displays presented on the Next Gen P/G Student Report. All calculations and aggregation rules can be found in earlier sections of this document.

1. Definitions—The following terms will be used to describe certain formats/behavior:

    a. Tested v. Not tested – Students who fully attempt are considered tested. Otherwise, students who are partially or did not attempt the test are considered "Not Tested." These two distinctions have separate impacts on information displayed on the student's report as explained below.

    b. Suppression - If all tested subjects for the student are under the Alternate Assessment, then students will not receive a student report or label.

    c. Test mode – Displayed is which mode of test the student used

        i. "Paper-based test", "Computer-based test" or "Remote Test"

        ii. If a student is not-tested (Test Status not equal to 'T'), then test mode will be blank on the student's report.

2. Cover Page

    a. Test Grade reference – "Your Child's Overall Results in Grade [GG]" (where grade = student's tested grade)

    b. Title – "Spring 20YY MCAS Tests Parent Guardian Report" where 20YY = test year, e.g. 2021.

    c. Student Name – Presented as proper case based on LName, FName MI. (with a period after the middle initial when the middle initial is not blank). Examples: Smith, John T. or Jones, Jenny

        i. This section requires special formatting when one or more of the names is missing:
            1) If Lname is blank and Fname is blank, then section = "Blank Name"
            2) If Lname is blank and Fname is not blank, then section = "Blank, Fname"
            3) If Lname is not blank and Fname is blank then section = "Lname, Blank"

    d. SASID – Student ID from SIMS, no special formatting applied.

    e. School Name and District Name – School and District names are trunc names from iCore based on testing school. No special formatting applied.

f. Grade – Student's tested grade will be used for reports

g. DOB – DOB from SIMS, no special formatting. Must be equal to 10 characters in length (MM/DD/YYYY).

h. Achievement level– contains either the achievement level text or the not-tested statement stored in tblPerfLevelLookup (see Appendix A- Description). This is set using the rPerfLevel variable from tblStuTest

    i. High School: Use the following table and the earned CD to determine the appropriate note:

SIMS grade	first-time g10	repeating g10, 11, 12, SP	blank (adults) or g9 STE
summarize	1	0/blank	0/blank
ELA/math: CD=2	PASSED and met the MCAS graduation requirement in this subject	PASSED and met the MCAS graduation requirement in this subject	PASSED and met the MCAS graduation requirement in this subject
ELA/math: CD=1	PASSED but an Educational Proficiency Plan may be required in this subject. See above for details about MCAS graduation requirements.	PASSED but an Educational Proficiency Plan may be required in this subject. See above for details about MCAS graduation requirements.	PASSED but an Educational Proficiency Plan may be required in this subject. See above for details about MCAS graduation requirements.
ELA/math: CD=0	HAS NOT MET the MCAS graduation requirement in this subject	Your child was not required to participate in this subject. See above for details about MCAS graduation requirements	HAS NOT MET the MCAS graduation requirement in this subject
STE: CD=1	PASSED and met the MCAS graduation requirement in this subject	PASSED and met the MCAS graduation requirement in this subject	'Your child has met the MCAS graduation requirement in this subject.'
STE: CD=0	Your child was not required to participate in this subject. See above for details about MCAS graduation requirements.	Your child was not required to participate in this subject. See above for details about MCAS graduation requirements.	'Your child has not met the MCAS graduation requirement in this subject.'

i. i. Print Student Growth Percentile under scaled score information

j. Reporting Category Display (HS STE 2021 if the student tested, they would receive their scores. If the student is not tested this display is covered and does not appear on the report)

    i. Subject– Formatted with the following values:
        1) If subject = 'ela' then 'English Language Arts'
        2) If subject = 'mat' then 'Mathematics'
        3) If subject = 'sci' and grade is 05 or 08 then 'Science and Technology/Engineering'
        4) Otherwise, if subject = 'sci' and grade is 09 or 10 (HS STE's) then:
            a) If rptSciTry = '1' then 'Biology'
            b) If rptSciTry = '2' then 'Chemistry'
            c) If rptSciTry = '3' then 'Introductory Physics'
            d) If rptSciTry = '4' then 'Technology/Engineering'

    ii. Order of the Grids
        1) The inner pages of the report display ELA on the left side of the page and Math on the right side of the page.

        2) If grade is 05 or 08, then Science results are displayed on the back page

    iii.   Reporting category text, two-character codes, and report display ordering – refer to daRepCatTextLookup for the approved text and codes.

    iv.   Reporting categories are sorted in the order listed in the appendix.

    v.   Reporting category results and state comparisons are displayed only for students who are Tested. State results include only students who are Tested.

    vi.   Percent of points earned by your child– pRawScore variables from tblStuRepCatPoints, no special formatting with RepCatID indicating the Reporting category RepOrder in daPointsPossible. Values are then concatenated with the % symbol immediately after the number. Example: 15%.

    vii.   "Percent of points earned by" and "Average number of points earned by" comparisons

        1) For ELA,Math, 05 and 08 Science, the comparison is "Average number of points earned by Meeting Expectation students who scored close to 500"

            a) Prior to calculation, the pool of students used must be no less than 200. If there are less than 200 students at the 500 level, increment the scaled score by one point up to 505 until a minimum n of 200 students is reached, only considering students within the same test mode and scaleform.

            b) For any mode at a grade/content level that does not reach the 200-student threshold within the scaled score range of 500-505, the student's report will not include the average points for the reporting categories.

            c) Data displaying averages in the scaled score table should include data from the full population, and not separated out by test mode.

            d) For students who are scored using a non-standard scaleform, the reporting category for which the reduced number of points is associated, display "N/A".

    viii.   For High School Science, the text reads "Percent of Possible Points Earned by Students Who Performed At the Low End of the Proficient Level"

        1) Data pulled from tblrepcatsummary.points where replevel = 'sta' joined on subject and grade. Place % symbol immediately after the number. Example: 15%.

        2) The average number of points earned (nPoints) and the percent of total possible points earned (pPoints) by students at the "low end of the Proficient level" is calculated for each reporting category at the state level, stacked by subject and reporder.

        3) Standard assessment students with partstatus = 'Z' and a scaledscore = '240' are included.

3. Released Item Display (For HS STE 2021 this display does not appear if they student does not test)

    a. Subject Title and Subject Ordering follow the same rules as above.

    b. Order of rows within each grid

    c. The following definitions are used to both describe what appears and also what is printed in item tables.

        i.   1 = "Question Number" – this is the released item order number.

         ii.   2 = "Reporting Category" – this is the two-character reporting category code. This is displayed for HS Science students only

         iii.   3 = "Your Child's Score" - this is the response provided by the student.

  d. Order of items

         i.   Items are ordered from left to right in order specified in the test maps.

         ii.   Item responses in tblStuItem are already ordered by released item order

         iii.   For essays points for each trait will be printed separately on the report in released item and trait order.

  e. Formatting of Student Responses

         i.   Formatting of the items for the Student Report is completed in tblStuItem

         ii.   HS Science data will include the following

            1) Check marks for correct answers

            2) The letter answer displayed if a student answered incorrectly

            3) An asterisk for more than one answer provided

            4) A dash if a student incorrectly answered an unreleased item

            5) Open response items are displayed with the number of points earned out of the total possible points (Ex. 3/4 or 0/1).

                a) ELA and Math and 5&8 Science data are displayed as the number of points earned out the total points possible (Ex. 1/1 or 0/3).

                b) If a student did not answer an item, that cell will be blank.

4. Student Achievement Level and Scaled Score Statements

  a. Achievement level– contains either the achievement level text or the not-tested statement stored in tblPerfLevelLookup (see Appendix A- Description). This is set

  b. Score – contains the reported scaled score, the rScaledScore variable from tblStuTest.

  c. First-year EL students

         i.   Students who are not Tested do not receive scaled scores

         ii.   Otherwise, if TestStat = NTL:

            1) Scaled scores printed for ELA and Math and 05&8 Science if earned Achievement Level is PM or above.

            2) Scaled scores printed for HS Science students earning an achievement level of NI or above.

  d. State results will only include students who fully attempted.

  e. For Special Access Accommodation Student Report text based on table Non-Standard Accommodation Footnote Text (Student Report).

5. Average Scaled Scores and Prior Scaled Scores

  a. Display current year average scaled score based on sprp school and district

  b. Prior grades and scaled scores will be pulled from the SIMS data

  c. Prior scores to be reported are for years 2019 and 2018 (In 2021 Grades 5-8,10 ELA and Math)

6. Achievement Level Comparison Table (2021 HS STE N/A)

  a. This appears for the grade 10 STE section only for current reporting year.

  b. Your child column – a check mark is placed in the row associated with the earned achievement level based on the data stored in the Perf2 column in tblStuItem.

    i. Students who participated through the Alternate assessment are included in the row where they are counted for aggregations.

    ii. Students who did not earn an achievement level on this year's test do not receive a checkmark.

  c. School/District columns – the school and district achievement level percentages from tblSummary based on the student's official school and district (sprp_sch and sprp_dis respectively).

  d. State column – the state achievement level percentages from tblSummary.

  e. Percentages are formatted with a % directly after the number. Example: 15%

  f. If the display is shown, the school, district, and state data are displayed regardless of whether the student earned an achievement level.

7. Student Growth Percentile Display

  a. Growth is provided by DESE

  b. If a student's test status changes to Not Tested, then growth will be blanked out

  c. Median growth is based on sprp school and district

8. Special access accommodation footnote

Special Access Accommodation	Student Report Text
Read aloud	Information provided by the school indicates your child received a special access accommodation (the ELA test was read aloud to your child) as required by their IEP or 504 plan.
Scribe	Information provided by the school indicates your child received a special access accommodation (your child used a scribe for the ELA test) as required by their IEP or 504 plan.
Calculator	Information provided by the school indicates your child received a special access accommodation (your child used a calculator for the non-calculator session of the mathematics test) as required by their IEP or 504 plan.

Cognia Use Only:

a. Only tests with ex[sub]='0' will be loaded to ODS

b. Remote students (applicable to grades 3-8 only) are loaded to ODS if they meet requirement a.

c. Unique 4-character forms are created

d. Testmode is added to studenttest.demographic (values to indication: online, paper and remote)

e. Students in grades 11 and 12 are excluded from Psychometric analyses and FT stats.

f. Form definition for Psych Portal:

g. For Grade 10

Paper Spanish form = 'PS00'
Online Spanish without speical indicator = 'ES01'
Online Spanish with speical indicator = 'ES' + first two characters of the special code
Remote test without Accommodation indicatory = 'XX'+form#
Remote test with Accommodation indicator = 'XX'+ Accommodation/mode indicator
Online Form without special indicator = Accommodation/mode indicator + form #
Online Form with special indicator = special indicator + form #

h. For Grade 3-8

Remote test without Accommodation indicatory = 'X'+form# + unit#
Remote test with Accommodation indicator = 'X'+ Accommodation/mode indicator + unit#
Mini test without Accommodation indicatory = admin + form#
Mini test with Accommodation indicator = admin + Accommodation/mode indicator
Online Form without accommodation indicator = 'O' + form # + unit#
Online Form with accommodation indicator = accomodation/mode + unit#

Analysis and Reporting Requirements
Massachusetts Comprehensive Assessment System (MCAS)
Alternate Assessment
Spring 2021

This document details requirements for analysis and reporting. The final student level data used for analysis and reporting is described in the "Data Processing Specifications." This document is considered a draft until the Massachusetts Department of Elementary and Secondary Education (ESE) signs off. If there are rules that need to be added or modified after said sign-off, ESE sign-off will be obtained for each such rule.

Table of Contents:

I. Contract Overview

A. New for This Year
- CPI will only be calculated for legacy high school science and technology/engineering (STE). This calculation will not be done this year as STE was not required for HS Students in 2021.
- Grade 6 Mathematics: Statistics and Probability replaces Ratios and Proportional Relationships as a required strand in the portfolio.
- For Grade 10 STE, if a student does not have results instead of "Required, but not submitted" being printed on student report, the achievement level column on the report will be blank. These will be treated as students in grades 11,12, or 12+.
- Set Failing or Not Meeting Expectations for any student that is attempting competency/Grade Level (marked at or close to grade level) but does not meet the requirement for any reason

A. Test Administration(s) Adminid=5

Subject	Required Grades	Permissible Grades	Test Type
ELA	03-08, 10	03-08, 10+	Portfolio
Mathematics	03-08, 10	03-08, 10+	Portfolio
Science & Technology/Engineering	05, 08	05, 08	Portfolio
One of either High School Biology, Chemistry, Introductory Physics, or Technology/Engineering		09, 10+	Portfolio

B. General Information

- Client and internal deliverables for this contract are listed. Specifications for each deliverable are detailed in the Deliverable Specifications section provided.

Deliverable	Type	Delivery	Administration		
			June	Prelim	Post-Discrepancy
Student data Files	.xls	To PM	✓		✓
Alt Mega File	.dat	To PM	✓		
Comments Summary	.xls	To PM			✓
General Portfolio Comments Summary	.xls	To PM			✓
State Performance Level Summary	.xls	To PM		✓	✓
State Participation Summary	.xls	To PM			✓
Teacher Survey	.xls	To PM	✓		

Deliverable	Type	Delivery	Administration		
			June	Prelim	Post-Discrepancy
Participation by Disability	.xls	To PM			✓
Portfolio Feedback Form(school level pdf)	.pdf	FTP for State	✓		
Portfolio Feedback Form(by student pdf)	.pdf	Shipped with Portfolio	✓		
Parent/Guardian Report (school and district copy)	.pdf	Shipped to District			✓

II. Internal Data Sources

A. Scoring

- i. If score 1 does not match score 2 for any dimension, there must be a 3rd score for that dimension.

- ii. If there is a 3rd score for a dimension, that score is the score of record. Otherwise, the 1st score is the score of record.

- iii. If scorer 3 bubbles Strand not Submitted, the strand will be considered not submitted and no scores will be reported.

- iv. If Demonstration of Skills or Independence has a score of 'M' then both Demonstration of Skills and Independence must have a score of 'M'.

- v. A score of 'M' for scorer 1 and/or 2 will always have a 3rd score.

- vi. A score of '1' for Level of Complexity from scorer 1 and/or 2 will always have a 3rd score.

- vii. If Level of Complexity has a score of 1 then all other scores for that strand must be blank.

- viii. If 'At or Close to Grade Level Bubble' is 1 for a content area then at least one of the required strands for that content area must have a Complexity score of 3 or higher.

- ix. A score of 'M' for Demonstration of Skill and Independence counts as a 1 for analysis.

- x. The performance level for each strand is determined by a lookup table (see section VI.B) using scores from Complexity, Demonstration of Skills, and Independence.

- xi. Bubbled comments that do not have text associated with them will be suppressed.

- xii. Strands with a Level of Complexity score of 1 will be treated as not submitted for analysis. If a required strand has a Level of Complexity score of 1, then the resulting performance level will be incomplete.

- xiii. For High School sciences DP sets the SciTry variable to indicate which science test was submitted for the current year, SciTry is calculated by reconciling the subject indicated by scorer 1 with scorer 3.
  - '1' = Biology
  - '2' = Chemistry
  - '3' = Introductory Physics
  - '4' = Technology/Engineering
  - For grades 10+ where science was not submitted, default sciTry to 1.
  - SciTry is blank for grades 03-08.
  - DA calculates the final reporting SciTry value as rptScitry.

B. Data Processing (DP)

i. *Amend Flag*

- The Amend flag for each content area is set by DP based on test booklet reconciliation and the DESE Breach List on an individual student basis. The default Amend flag value for all students is '0'.
- See the Amend Flag Lookup (a Cognia internal Document) for valid Amend Flag values and their impact on reporting.

III. External Data Sources
A. Breach List

i. Students who are considered a security breach are provided by the DESE in the Breach List. These students are identified as Security Breach: Cheating and instructions for processing and reporting the tests on an individual case basis are provided.

ii. Data Analysis adds necessary Amend flag values (> '1') and instructions to the Amend Flag Lookup for each distinct scenario on the Breach List.

iii. Data Processing applies any necessary changes to the student record based on the ESE instructions, and applies the corresponding Amend Flag value from the lookup to the student for Data Analysis processing.

B. SIMS

i. Student demographic data is provided by the ESE for reporting use. Please see the Data Processing specifications for internal validations and requirements of the data.

ii. *Summarize*

- Summarize is populated in SIMS as either '1' or '0' or blank:
  - a) Summarize = '1' indicates that the student is expected to test in the subjects specified for their grade and should be included in aggregations (where applicable). Their results are included in accountability determinations.
- Students in Grades 03-08 are all expected to test.
- Students in Grade 10 (or students skipping grade 10 who have not yet been tested) are expected to test in Math and ELA and are expected to test or to have prior scores for Science. They will have Summarize = '1'.
  - a) Summarize = blank in SIMS is only applicable to students from the student directory that do not link to SIMS.
  - b) Summarize = '0' indicates that the student is not expected or required to test at this time for accountability. These students are excluded from aggregations (except for grade 09 specific aggregations). Their results are not counted towards accountability determinations. This includes but is not limited to: student grade 09 students, students that are retesting to meet graduation requirements in a subject they previously failed or missed, students that are retesting to increase their scores for scholarship purposes, or students that are new to Massachusetts.
- See the Data Reconciliation section IV.A for Data Processing rules for determining the final Summarize source or default value in the views for DA based on Test Grade and SIMS data.

iii. *Banked Prior Achievement Level*

- Only applicable for Science. All references are specific to science; in the event that these determinations are needed for Math or ELA, the corresponding Math and ELA specific fields would be used.
- High_sPerf in SIMS contains the prior high achievement level to be considered during participation status assignment. ELA and Math fields are High_ePerf and High_mPerf respectively and are expected to be blank for HS students with Summarize = '1'.
- All other fields with historical score or performance information, including the CD fields, are ignored during the participation status determination for students.
- Data are stored in DPRaw for DA in [sub]PerfLevelHigh (for all subjects) and [sub]NTL fields (for Science).

iv. SciNTL
- If SciNTL = '1' a student is considered to have previously tested in science as a first-year LEP student and was reported with a sTestStat = 'NTL'.

C. Grade Span Lookup

i.   The ESE provides a grade span lookup for all public official schools. These are joined to student data based on sprp_sch in tblStudemo.

ii.   Cognia will provide the ESE with a list of any public schools that have student's assigned to them that are not included in the lookup, resulting in blank grade span data based on the Preliminary data release.

iii.   All public schools must have a grade span for final post-discrepancy reporting. For earlier releases grade spans may be blank for schools missing from the lookup.

D. Discrepancy Site

i.   Data from preliminary reporting is posted to the discrepancy site for clean up by the field and the department.

ii.   See the Discrepancy Site Requirements for more details on which fields are available for editing at each user level.

iii.   Data Processing re-processes data post-discrepancy to incorporate the updated information and discrepancy resolutions from the ESE for DA for final reporting.

iv.   During final processing all information from the discrepancy site is considered final and is maintained, however, changes to certain fields require additional data audits and/or recalculation of student participation status to ensure consistency. See the Data Reconciliation section for these details.

E. Alternate Assessment Override

i.   Based on preliminary results from the Alt and Standard Results data file, the ESE may identify any students whose Standard Assessment results should be reported instead of their Alternate Assessment results during final reporting (subject specific).

ii.   The ESE will provide this list to Data Processing with the discrepancy resolutions.

iii.   DP will set the amend flag to appropriately identify these students for DA.

IV. Data Reconciliation

The following cleanup will be performed on student level data prior to analysis once demographic data and reconciled test information are compiled to ensure consistency. Calculations are performed in the order listed below, and audited values are used in each subsequent check and for all analysis and reporting, as applicable:

A. *Summarize* (performed by DP)

  i. If test grade is in 03-08, summarize is defaulted to '1' for all students, regardless of SIMS value.

  ii. If test grade is '09' summarize is defaulted to '0' for all students, regardless of SIMS value.

  iii. If test grade is '10':
  - If student grade is ≤ '09':
      a) If the student submitted both Math and ELA (Alt or Standard), then summarize = '1'.
      b) Otherwise, summarize = '0'.
  - If student grade = '10','11','12', or 'SP' then summarize is taken from SIMS. If summarize is missing, or if student grade is missing, it is defaulted to '0'.

  iv. The same rules are applied post-discrepancy, except summarize is taken from the updated Discrepancy data in place of SIMS. If summarize is updated during discrepancy reporting the participation status is set to blank to be reassigned.

B. LEPFirst/ YrsInmass/ YrsInmass_num

  i. Lepfirst is provided in SIMS and is not audited by Measured Progress

  ii. YrsInmass and YrsinMass_num are not audited by Measured Progress

C. LEP

  i. If LEPFirst = '1' then update existing LEP to '1'.

D. LEPFLEP

  i. If LEPFirst = '1' or LEP = '1' or LEPFormer (DA Use: "flep_off" in dpraw) = '1' then update existing LEPFLEP to '1'.

V. Official School and Official District Code
A. Terminology:

  i. Discode = Cognia Testing Discode from DPRaw (See DP Specifications)

  ii. SchCode = Cognia Testing SchCode from DPRaw (See DP Specifications)

  iii. SendDiscode = Sending District from SIMS

  iv. SimsDisCode = Official Discode from SIMS

  v. SimsSchCode = Official SchCode from SIMS

  vi. Testing Orgtype = Testing school (discode+schcode) Org type

  vii. OrgType = SPRP school org type

  viii. Exceptions List is provided to Cognia by the DESE.

        ix.   *(DA Use)*: The exceptions list is stored in daTestSitelookup

B. Official District (sprp_dis)

        i.   If the student's testing discode+schcode is on the *Exceptions List* (System+School) then the official district is the sprp_dis from the *Exceptions List.*

        ii.   If the student's testing orgtype is 6, 13 or 22 then the official district is set to the discode concatenated with four zeroes.

        iii.   Otherwise, the official district is the sending district from SIMS (senddiscode) if it exists, concatenated with four zeroes at the end. If senddiscode is blank the official district is set to '99999999'.

C. Official School (sprp_sch)

        i.   If the student's testing school (discode+schcode) is on the *Exceptions List* (System+School) then the official school is the sprp_sch from the *Exceptions List.*

        ii.   If a student is from a collaborative school (testing OrgType = 4) then the official school is = 05*XX*0000 where *XX* is the 3rd and 4th digit of the testing district code.

        iii.   If the student's testing orgtype is 25 or 31 then the official school is the official school code from SIMS (simsDiscode + SimsSchcode). If the simsDiscode and simsSchcode are blank the official school is set to the testing school code (discode+schcode). If the official school from SIMS turns out to be orgtype 22, then use the Exceptions list for official school.

        iv.   Otherwise, the official school is the testing school (discode+schcode).

D. Setting of Orgtype

        i.   Orgtype is based on the official school code

        ii.   Using the official school code link to the MCAS org data file (DA use: icore) and pull the org type (DA use: Reportcode2).

             ●   In the event that an orgtype is not assigned, default orgtype to 'X'. This is expected due to some SPRP schools not being in the Org data file.

E. YrsInSch and YrsInDis

        i.   If sprp_sch or testing school (discode+schcode) = the official SIMS school code from June SIMS (simsDiscode + simsSchcode) then use YrsInSch value from SIMS. Otherwise set YrsInSch = '1'.

        ii.   If sprp_dis = SendDiscode+0000 from June SIMS then use the YrsInDis value from SIMS. Otherwise set YrsInDis = '1'.

F. Oct_Enrol *(enrolled in same location since Oct)*

        i.   If sprp_sch or testing school (discode+schcode) = SIMS school code from June SIMS (simsDiscode+simsSchcode) then OctEnr = Oct_off from SIMS. Otherwise set Oct_Enr = '0'.

G. Con_Enrol *(continuously enrolled for 2 years)*

        i.   Only populated for students in the grade 10 view, otherwise blank.

ii. If sprp_sch or testing school (discode+schcode) = the official SIMS school code from June SIMS (simsDiscode + simsSchcode) then use con_enr_sch value from SIMS. Otherwise set con_enr_sch = blank.

iii. If sprp_dis = SendDiscode+0000 from June SIMS then use the con_enr_dis value from SIMS. Otherwise set con_enr_dis = blank.

iv. ConEnr_sta is taken from SIMS.

VI. Student Participation and Reporting Status
A. Basic Definitions

i. *Test Attemptedness* (by subject)
- A strand was submitted if there is at least one scoring dimension with a valid score
- Attempt: A student participated if at least one required strand was submitted
- Did not attempt: Students did not submit any required strands.

ii. *Not Tested Indicators* (by subject)

The following Not Tested reasons may be bubbled on the student's answer booklet.
- Tested Standard MCAS
- Absent-Medically Excused Documented (MED)

iii. *Transfer*
- If Active_Test ≠ '1' and at least one required strand is missing the student is considered a transfer student.

iv. *Void*
- Students whose only Student Information booklet (SIB) has been voided (Void = '1') are considered "Void".

v. *Prior Results* (by subject)

Prior results currently only apply to HS Science. All references to High_sPerf and SciNTL should be considered subject specific in the event that ELA and Math are updated to allow for prior result determinations.
- **No Prior Results**
  Students with a blank High_xPerf and sciNTL ≠ '1' from SIMS are considered to not have prior results.
- **Previously Passed**
  Students with a High_xPerf from SIMS in ('A', 'P', 'NI', 'A_A','P_A', 'NIA','M','E', or 'PM') are considered to have previously passed the subject.
- **Previously Failed**
  Students with a High_xPerf from SIMS in ('F', 'PRG', 'EMG', 'AWR', and 'INP','NM') are considered to have previously failed the subject.
- **Previously First Year LEP**
  a) Students with SciNTL = '1' from SIMS are considered to have previously tested in science as a First Year LEP student and were reported as TestStat = 'NTL'.

    o Applies to Science only, corresponding variables for ELA and Math do not currently exist in SIMS.
    o If High_sPerf is not a Previously Passed status and SciNTL = '1', the student is considered Previously Failed.

B. Participation Status Assignment Hierarchy (by subject):

i. Breach List (Amend Flag > '1:' continue through assignment, breach instructions will trump all reporting instructions)

ii. Summarize = '1' or Grade='09' without prior results:
- If the student **meets attemptedness** Tested *(PartStatus='A).*
- If the student did not attempt:
    - a) If subject = 'ELA' and First Year LEP then: **Not Tested, LEP** *(PartStatus='F')*
    - b) Otherwise if MED then: **Not Tested Medically Documented** *(PartStatus='G')*
    - c) Otherwise if Tested Standard MCAS is indicated then : **Tested MCAS Standard Assessment** (PartStatus='Z')
    - d) Otherwise: **Not Tested Absent** *(PartStatus='E')*

iii. If (Summarize='1' or Grade='09') and Previously Failed:
- If the student *meets attemptedness* then: **Tested Accountable Retest** (PartStatus='C').
- If the student *partially attempted* or *did not attempt* then: **Not Tested Accountable Retest** (PartStatus='L').

iv. If (Summarize='1' or Grade='09') and Previously Passed: **Previously Passed** (PartStatus='K')

v. Summarize = '0' and grade≠'09' (regardless of any prior test results):
- If the student meets attemptedness: **Not Accountable Retester** *(PartStatus='W').*
- If the student did not attempt: **Not Tested Not Accountable** (P*artStatus='J').*

C. Participation Status Summary

i. Note there are some participation statuses in the chart that are not in the hierarchy above. These are not achievable in the alt and will only come out of the discrepancy site.

Summarize	Prior Results	Description	Part Status	Test Stat*	Discrepancy Site Code	Discrepancy Site Text
n/a	*n/a*	Breach		*Breach Instructions are applied at the student level regardless of participation status and are identified by Amend > '1'*		
		Void *(Preliminary Only)*	H	NTO	VAB	Void Answer Booklet
		Multiple Answer Documents (Security Breach)				
		Preliminary	I	NTO	DUP	Multiple Answer Booklets
		Final	N	NTO	*n/a*	*n/a*
		Invalidated (Only assigned via Breach List)	N	NTO	INV	Invalidated
1 (or Grade=09)	*n/a*	Tested Accountable Alternate Assessment	A	T*	ALT	Tested Alternate Assessment
		Tested	Z	T*	STD	Tested Standard
		Not Tested (/Partially Tested) – LEP *(ELA Only)*	F	NTL	LEP	Not Tested First Year LEP
1 (or	*n/a*	Not Tested (/Partially Tested) - Transfer	D	NTO	TRN	Transferred

Summarize	Prior Results	Description	Part Status	Test Stat*	Discrepancy Site Code	Discrepancy Site Text
Grade=09)		Not Tested (/Partially Tested) – Medically Documented	G	NTM	MED	Absent-Medically Documented
		Not Tested (/Partially Tested) - Absent	E	NTA	ABS	Absent
	Prev. Failed	Tested Alternate Assessment Accountable Retest	C	TR*	ALR	Retested Alternate Assessment
	Prev. Failed	Tested Accountable Retest	Y	TR*	RET	Retested
	Prev. Failed	Previously Failed (Not Tested /Partially Tested Accountable Retest)	L	NTO*	PRF	Previously Failed
	Prev. Passed	Ineligible Accountable Retest – Previously Passed & Retested *(Preliminary Only- final see K)*	P	NTO*	PPR	Previously Passed & Retested
	Prev. Passed	Previously Passed	K	NTO*	PAS	Previously Passed
0	*Any*	Tested Not Accountable Alternate Assessment (Retest)	W	TR*	ALN	Retested Alternate Assessment Not Aggregated
		Tested Not Accountable (Retest)	R	TR*	REN	Retested Not Aggregated
		Partially Tested Not Accountable (Retest)	B	NTO*	INC	Incomplete
		Not Tested Not Accountable (Retest)	J	NTO*	DNT	Did Not Test

* Student results achieved while First-year LEP, or students currently First-year LEP (see rptLEPFirst calculation) are reported with TestStat = "NTL" in place of listed TestStat (all subjects). See Calculations by Participation Status Summary Table for more details.

D. Post-Discrepancy Assignment

i. DA only "recalculates" participation statuses for students with a blank participation status during post-discrepancy processing. All other participation statuses are <u>maintained</u> as they are provided from the discrepancy data.

ii. DP will reset participation statuses to blank prior to final processing for the following discrepancy events so DA will recalculate a new status:

- Student test grade is changed.
- Summarize is changed (not applicable in unchanged grades 03-08, 09).
- First year LEP status is changed.
- Answer document is still void (entire book is suppressed).
- Answer document(s) are added or removed for a student.
- Prior results (high_xPerf, sciNTL) are changed for a student.

VII. Calculations

i. Calculation Summary by Participation Status (by subject)

Summarize	Prior Results	Description	Part Stat	rptLEP[sub] [1]	Test Stat	Current Year Reporting Results ('---' indicates data are blank) Raw Scores (n/A for Alt)	Item Scores (N/A for Alt)	rScaled Score (N/A for Alt)	Achievement Level (rPerfLevel, mfPerfLev)	Aggregation/Accountability Results mfScaledScore (N/A for Alt)	Achievement Level (mfperf2)	CPI (applicable to Legacy HS Sci / Numin)	Assess [2]
		Breach				*Breach Instructions are applied at the student level regardless of participation status and are identified by Amend > '1'*							
		Void *(Preliminary Only)*	H	*any*	NTO	earned	earned	---	VAB	---	---	---	0 [3]
		Multiple Answer Documents (Security Breach) :											
		Preliminary	I	*any*	NTO	earned	earned	---	DUP	---	---	---	---
		Final	N	*any*	NTO	---	---	---	INV	---	---	---	---
1 (or Grade=09*)		Tested Alternate Assessment	A	0	T	---	---	---	earned (Alt)	---	earned (Alt)	✓	1
				1	NTL					---	---	---	1
		Tested	Z	0	T	earned	earned	earned	earned	earned	earned	✓	1
				1	NTL			*Pass:* earned *Else: -*--	*Pass:* earned *Else:* LEP	*Pass:* earned *Else: --*-	---	---	1
		Not Tested /Partially Tested – LEP (ELA Only)	F	1	NTL	earned		*HS Pass:* earned *Else: -*--	*HS Pass:* earned *Else:* LEP	*HS Pass:* earned *Else: --*-	---	---	1
		Not Tested /Partially Tested - Transfer	D	0 (M/S 1)	NTO				*HS Pass:* earned *Else:* TRN		---	---	---
		Not Tested /Partially Tested – Medically Documented Absent	G	0 (M/S 1)	NTM				*HS Pass:* earned *Else:* MED		---	---	0
		Not Tested /Partially Tested - Absent	E	0 (M/S 1)	NTA				*HS Pass:* earned *Else:* ABS		---	---	0
	F	Tested Alternate Assessment Accountable Retest	C	0	TR	---	---	---	earned (Alt)	---	highest (Alt)	✓	1
				1	NTL					---	---	---	1
	F	Tested Accountable Retest	Y	0	TR	earned	earned	earned	earned	highest	highest	✓	1
				1	NTL			*Pass:* earned *Else: -*--	*Pass:* earned *Else:* LEP	*Pass:* highest *Else: --*-	---	---	1
	F	Previously Failed (Not Tested /Partially Tested Accountable Retest)	L	0	NTO	*Pass:* earned *Else: -*--	*Pass:* earned *Else: -*--	*Pass:* earned *Else: -*--	*Pass:* earned *Else:* PRF	highest	highest	✓	1
				1	NTL			*Pass:* earned *Else: -*--	*Pass:* earned *Else:* LEP	*Pass:* highest *Else: --*-	---	---	1

Summarize	Prior Results	Description	Part Stat	rptLEP[sub] [1]	Test Stat	Raw Scores (n/A for Alt)	Item Scores (N/A for Alt)	rScaled Score (N/A for Alt)	Achievement Level (rPerfLevel, mfPerfLev)	mfScaledScore (N/A for Alt)	Achievement Level (mfperf2)	CPI (applicable to Legacy HS Sci / Numin)	Assess [2]
						Current Year Reporting Results				**Aggregation/Accountability Results**			
						('---' indicates data are blank)							
	P	Ineligible Accountable Retest – Previously Passed & Retested *(Preliminary Only)*	P	0	NTO	earned	earned	---	INE	prior	prior	✓	1
				1	NTL					prior	---	---	1
	P	Previously Passed	K	0	NTO	---	---	---	PAS	prior	prior	✓	1
				1	NTL					prior	---	---	1
0		Tested Not Accountable Alternate Assessment (Retest)	W	0	TR	---	---	---	earned (Alt)	---	---	---	---
				1	NTL								
		Tested Not Accountable (Retest)	R	0	TR	earned	earned	earned	earned	earned	---	---	---
				1	NTL			*Pass:* earned *Else:* ---	*Pass:* earned *Else:* LEP	*Pass:* earned *Else:* ---			
		Partially Tested Not Accountable (Retest)	B	*any*	NTO	earned	earned	*Pass:* earned *Else:* ---	*Pass:* earned *Else:* INC	*Pass:* earned *Else:* ---	---	---	---
		Not Tested Not Accountable (Retest)	J	*any*	NTO	---	---	---	DNT	---	---	---	---

[1] rptLEP is LEPFirst for all grades/subjects/participation statuses that do not have prior results. It is a calculated combination of LEPFirst and prior LEP First status for Accountable partstatuses with prior results. See calculations section for details.
[2] Assess exceptions for ELA: there is an additional condition of participation on the Access test. See calculation specifics for details.
[3] If Summarize = 1 then Assess = 0. If Summarize = 0 then Assess is blank.
*Grade = 09 students are assigned participation statuses as if Summarize = '1'. Perf2, CPI, Numin, and Assess are populated for calculations but set to blank in the Megafile deliverable.
Note: "(M/S 1)" indicates that rptLEP[sub] may also be '1' in Math and Science for the listed participation statuses.

A. Student Level Calculations

i. *StudentID (tblStudemo)*

- StudentID = rptStudentID from DPRaw.
- If StudentID begins with '8' it will be set to blank.

ii. *Grade Span (tblStudemo)*

- Calculated using a lookup file provided by the ESE.

iii. *Reporting First Year LEP Status (rptLEP[sub]) (tblStudemo)*

- RptLEP is determined for each subject based on current year partstatus, test attemptedness, First Year LEP status, and Prior First Year LEP Status (where applicable) in order to determine if a student's results should be considered achieved while under First-Year LEP status or as currently First-year LEP. This takes into consideration the prior status of the student when prior results are eligible for accountability.
- For all participation statuses that are considered Not Accountable rptLEP*[sub]* = LEPFirst.
- Otherwise, if the student is considered Accountable then:
  a) If the student has prior results:
    o If the student meets attemptedness this year then: rptLEP*[sub]* = LEPFirst.
    o If the student does not attempt this year then:
      1. rptLEP*[sub]* = '1' if either LEPFirst = '1' or SciNTL = '1'.
      2. Otherwise rptLEP*[sub]* = '0'.

  b) If the student does not have prior results then rptLEP*[sub]* = LEPFirst..

iv. **SpecialEd** (tblStudemo)
- If a student is considered Tested or Retested Alternate Assessment (accountable or not accountable) in any subject, then Sped_off = '1'. Otherwise, it is '0'.

v. ***ParentLetter (tblStudemo)***
- The Parent Letter flag is set to '0' to indicate that the student should not receive a Parent/Guardian Report or Student Results Label in the following cases:
  a) If a student is classified as not tested or breach in each required subject, then ParentLetter = '0'.
- Class Pack Identifiers (Cognia) for printing the Parent version of the Parent/Guardian Report are produced for all students with ParentLetter = '1'.

vi. ***General Portfolio Comments (tblStuDemo)***
- Scorers have the option of leaving comments for individual strands as well as for the portfolio as a whole.
- Comments will be sorted numerically (6-52) and then alphabetically (A-Z).
- Only the first 4 general portfolio comments will be kept and reported on the portfolio feedback form.
- If a student did not receive a performance level of incomplete and the student has less than 4 general portfolio comment codes, then
  a) Data Analysis will add comment code associated with Gen Comment 1 from the lookup provided by client services as a general portfolio comment. If the student still has less than 4 general portfolio comment codes, Data Analysis will add comment code associated with Gen Comment 2 from the lookup provided by client services as a general portfolio comment.

vii. ***Strand Specific Comments (tblStuScore)***
- Scorers have the option of leaving comments for individual strands as well as for the portfolio as a whole.
- Comments will be sorted numerically and then alphabetically
- Data Analysis will set comment code associated with LOC=1 from the lookup provided by client services automatically when the Level of Complexity score is '1'.
- Only first 2 strand specific comments will be kept and reported on the portfolio feedback form.

- For Strand Specific comments, if the student's final score for a particular strand does not have an 'M' for Independence and Demonstration of Skill, then comments that refer to an 'M' in either of these dimensions will be suppressed.
- For strand specific comments, if a student's final score for a particular strand has an 'M' for Independence or Demonstration of Skills then the student will receive at least one comment that refers to an 'M.' (This is handled at scoring not programmatically)
- If the performance level for a particular subject is Student took the Standard MCAS then suppress all strand specific comments for that subject.
- For grades 11, 12, and 12+ suppress the comment "Strand required but not submitted" for all strands.

viii. *Performance Level (tblStuPL)*

- A content area has a performance level of Incomplete when one of the following occurs:

    a) When not all of the required strands are submitted for a content area, the content performance level is Incomplete.

    b) If Demonstration of Skills and Independence = M:

    o For contents requiring 3 strands, if there are 2 strands or more M's in either Independence or Demonstration of Skills, the content performance level is Incomplete.

    o For contents requiring 2 strands, if there is 1 strand or more M's in either Independence or Demonstration of Skills, the content performance level is Incomplete.

- For content areas that are not incomplete, the performance level is found using the overall strand performance level and the lookup table.

    a) The overall strand performance level for a content requiring 3 strands is found by averaging the performance levels of the 3 final strands of record. If the average is between 3 and 3.9 round down, otherwise, round to the nearest whole number.

    b) When more than 3 strands are submitted for a content area that requires the choice of 3, use the 3 strands that yield the highest overall strand performance level. If more than 3 strands have the same performance level, sort the strands by self-evaluation, complexity, and generalized performance, and select the top 3 based on those criteria.

    c) The overall strand performance level for a content requiring 2 strands is determined by averaging the performance levels of the 2 strands and rounding down.

    d) If the calculations for strand score average yield a performance level of 11 (Needs Improvement) or 14 (Partially Meeting Expectations), then check that the student meets other requirements to earn Needs Improvement before assigning the final performance level.

- Needs Improvement (STE only) or Partially Meeting Expectations (ELA and Math only):

    a) Grades 03-08 only

    o For grades 03-08, a student must complete 3 strands (including those required) in a specific subject and earn a performance level of 4 for each of the strands in order to earn an overall performance level of *Partially Meeting Expectations*. If the student is marked "at or close to grade level" and submits fewer than 3 strands with a performance level of 4, the student will be reported as Not Meeting Expectations.

- o If a student submits 3 or more strands when 2 are required, the 2 required strands and the highest scoring additional strand will be used to determine Partially Meeting Expectations.
  - b) Competency: Grades 09-12+ only
  - o The Competency List is provided by DESE and lists students in grades 09-12+ who were judged by a panel of competency experts to be at a performance level of *Needs Improvement* or *Partially Meeting Expectations* or above. Only students on the Competency list are eligible for a performance level of *Needs Improvement*/*Partially Meeting Expectations* or above. The students must also meet the following criteria:
    1. For ELA, a student must complete the 3 required strands and earn a performance level of 4 for each of the strands.
    2. For Mathematics, complete all 5 strands and earn a performance level of 4 for each of the strands.
    3. For Science, a student must complete all 4 strands in one discipline and earn a performance level of 4 for each of the strands.
  - o If a student is on the Competency List and the requirements are met, the earned scores are reported but the performance level is taken from the list.
  - o If a student is on the Competency List and the requirements are not met a discrepancy list will be given to program management for resolution.
  - o If resubmitted appeal / competency determination portfolio, Math students will be tested against the 13-14 Math strands. Otherwise, students will be aligned with the 18-19 Math strands.

ix. **Aggregation/Accountability Results** *(tblStuPL)*

Aggregation and Accountability Results combine prior and current results, where applicable.
- **Perf2** (Cognia aggregate calculations)
  - a) Populated with the achievement level for aggregate calculations and the megafile.
  - b) Perf2 is blank for all students with rptLep[sub] = '1'.
  - *c)* Perf2 = rPerfLevel for Tested Alternate Assessment that are not first-year LEP (PartStatus = 'A' and rptLEP = '0'). It is translated to standard assessment achievement levels (1-4).
  - *d)* Perf2 = the highest achievement level between PerfLevel and [sub]PerfLevelHigh for Accountable Retest Alternate Assessment students that are not first-year LEP (PartStatus = 'C' and rptLEP = '0'). It is translated to standard assessment achievement levels (1-4).
  - e) Otherwise, Perf2 is calculated in general MCAS.

x. **NumIn** (**tblStuPL** for Megafile)
- For HS students and 5 and 8 Science, the subject specific numin field is set to '1' if the student is assigned CPI Points for the subject. Otherwise, it is '0'. Fields are prefixed with *e/m/s* in the megafile.
- For 03-08 ela and math, See the calculations by participation status summary for a list of statuses that result in numin = '1'. Because this calculation is only be done at grade 03-08, if Teststat is 'T' then numin='1'. Otherwise, it is '0'.

xi. **Assess** (**tblStuPL** for Megafile):

- Blank since alt mega file is only produced in June

xii.   *Composite Level of Complexity (tblStuPL)*

- All students who receive an alt performance level will have a Composite Level of Complexity (CLC) computed.
- Composite Level of Complexity is calculated using the Complexity scores from the final strands used to calculate the content performance level, the 'At or Close to Grade Level' bubble (if it exists), and a lookup table, which is based on the number of strands.
- Students attempting Partially Meeting Expectations Grade 03-08
    a) When a two-strand portfolio contains the required strands plus at least one additional strand apply the rules for a three strand portfolio.
    b) If there is more than one additional strand submitted use the strand with the higher complexity score to compute the CLC.
- Incomplete Portfolios
    a) For portfolios with not all required strands submitted, only the required strands that were submitted will be used to compute the CLC.
    b) When a three-strand portfolio has a strand missing, apply the rules for a two-strand portfolio.
    c) When a two or three strand portfolio has only one of the required strands, apply the rules for a one strand portfolio.

xiii.   *Competency: Updating ELA_CD, Mat_CD, and Sci_CD (tblStuPL)*

- These variables represent whether or not a student has met the testing graduation requirement for the subject, combining prior CD information from SIMS with the current test results.
- The updated CD fields begin with the prior CD value from SIMS (studemoSIMS_*[sub]*CD) for all students, regardless of participation status on this year's test.The prior value may be blank for students that have not previously tested in a subject.
- The CD Status from SIMS is then updated using the current test results if and only if it <u>increases</u>, otherwise the prior value is retained:
- For Math and ELA:
    a) If rPerflevel ='11' or '14' then CD = '1'.
    b) Otherwise, if rPerflevel in ('12','13','15','16') then CD = '2'.
    c) Otherwise, CD is '0'.
- For Science:
    a) If rPerflevel in ('11','12','13','14','15','16') then CD = '1'.
    b) Otherwise, CD is '0'.

xiv.   *Composite Performance Index Points (daStuCPI)*

For HS science, DESE provides Cognia with the number for students tested in MCAS and MCAS-Alt. These counts are provided at the subject level. DA use: These counts are stored in tblstuCPILookup.
- CPI will be calculated for only high school science and technology/engineering (STE)
- CPI Points are assigned based on results used for Aggregations and Accountability.
- Students with Test Status='T' or (PartStatus="C" and rptLEP=0) will receive CPI points.
- Otherwise, CPI points will not be assigned.
- Breach cases will not receive CPI points.

- Assign cpi points for students with Test Status="T" as follows
  a) Assign cpi points based on performance level as follows for performance levels other than PRG
    - CPI=100 for PerfLevel=A_A or P_A.
    - CPI=75 for PerfLevel=EMG or NIA.
    - CPI=50 for PerfLevel=AWR
    - CPI=25 for PerfLevel=INP.
  b) Assign cpi points based on performance level as follows for PRG
    - Step 1
      1. CPI=100 for PerfLevel=PRG and NatureofDis=01, 09, 10, 11, or 13 and LevelOfNeed=04.
      2. CPI=75 for PerfLevel= PRG and NatureofDis not equal to 01, 09, 10, 11, or 13 or LevelOfNeed not equal to 04
      3. If Step 1 results in the number of students with 100 CPI points being less than 1.0499 percent of the total tested students in both the alt and standard MCAS then proceed to Step 2:

    - Step 2
      1. CPI=100 for PerfLevel=PRG and NatureofDis=01, 09, 10, 11, or 13 and LevelOfNeed=03 or 04.
      2. CPI=75 for PerfLevel= PRG and NatureofDis not equal to 01, 09, 10, 11, or 13 or LevelOfNeed not equal to 03 or 04
      3. If Step 2 results in the number of students with 100 CPI points being less than 1.0499 percent of the total tested students in both the alt and standard MCAS then proceed to Step 3:

    - Step 3
      1. CPI=100 for PerfLevel=PRG and NatureofDis=01, 09, 10, 11, or 13 and LevelOfNeed=01, 02, 03, or 04.
      2. CPI=75 for PerfLevel= PRG and NatureofDis not equal to 01, 09, 10, 11, or 13 or LevelOfNeed not equal to 01, 02, 03, or 04.
      3. If Step 3 results in the number of students with 100 CPI points being greater than 1.0499 percent of the total tested students in both the alt and standard MCAS then proceed to Step 4:

    - Step 4
      1. CPI=100 for PerfLevel=PRG and NatureofDis=01, 09, 10, 11, or 13 and LevelOfNeed=03 or 04.
      2. Also CPI=100 for PerfLevel=PRG and NatureofDis=01 and LevelOfNeed=01 or 02.
      3. CPI=75 for PerfLevel= PRG and NatureOfDis and LevelOfNeed do not satisfy I or II.
      4. If Step 4 results in the number of students with 100 CPI points being greater than 1.0499 percent of the total tested students in both the alt and standard MCAS then proceed to Step 5:

    - Step 5
      1. CPI=100 for PerfLevel=PRG and NatureofDis=01, 09, 10, 11, or 13 and LevelOfNeed=04.
      2. Also CPI=100 for PerfLevel=PRG and NatureofDis=01 and LevelOfNeed=03.

3. CPI=75 for PerfLevel= PRG and NatureOfDis and LevelOfNeed do not satisfy I or II.

   c) If Step 4 or 5 results in the number of students with 100 CPI points being less than 1.0499 percent of the total tested students in both the alt and standard MCAS then stop.

   d) If Step 5 results in the number of students with 100 CPI points being greater than 1.0499 percent of the total tested students in both the alt and standard MCAS then proceed to Step 1 and then stop.

- Assign student's with (PartStatus="C" and rptLEP=0) CPI points as follows

   a) CPI points will be based on either current year Alternate assessment Achievement level or Prior year test results which may be from the Alternate Assessment or MCAS. The results from the assessment that produces the highest CPI points will be used.

     o Calculate the current year CPI points using the Alternate Assessment translation below on the tblstuPL.rPerfLevel
     o If ScaledScoreHigh is populated, calculate the prior year CPI points using the MCAS lookup table below. Otherwise, use the Alternate Assessment lookup table on PerfLevelHigh.

Composite Performance Index (CPI) – Legacy MCAS Tests *(High School Science and Technology/Engineering only)*		
Test	**ScaledScore Range**	**CPI Points**
Standard MCAS	240-280	100
	230-238	75
	220-228	50
	210-218	25
	200-208	0

CPI – MCAS-Alt *(High School Science and Technology/Engineering only)*		
Test	**Alt Performance Level:**	**CPI Points**
Alternate Assessment (Only when re-assigning based on prior-year Alt Results for Accountability)	A_A P_A PRG	100
	EMG NIA	75
	AWR	50
	INP	25

xv. Achievement Level Coding

- The MCAS Standard Assessment has four possible achievement levels, assigned to students using the raw to scale score lookup provided by psychometrics.
- Alternate Assessment achievement levels are translated to their corresponding standard assessment achievement level prior to computing any aggregate calculations that include alternate assessment achievement level results as shown below:

MCAS and MCAS-Alt Achievement Levels			
MCAS Achievement Level	**MCAS Description**	**MCAS Alt Achievement Level**	**MCAS Alt Description**
1	*03-08, 10 (Next Gen):* Not Meeting Expectations (NM) *Legacy HS Science:* Failing (F)	7	Incomplete (INC)
		8	Awareness (AWR)
		9	Emerging (EMG)
		10	Progressing (PRG)
		17	Not Meeting Expectations (NM)
2	Legacy HS Science: Needs Improvement (NI) NextGen: Partially Meeting Expectations (PM)	11	Needs Improvement (NIA)
		14*	Partially Meeting Expectations-Alt (PM_A)
3	Legacy HS Science: Proficient (P) NextGen: Meeting Expectations (M)	12	Proficient (P_A)
		15*	Meeting Expectations-Alt (M_A)
4	Legacy HS Science:Advanced (A) NextGen: Exceeding Expectations (E)	13	Advanced (A_A)
		16*	Exceeding Expectations-Alt (E_A)

*Used for grade 03-08, 10 ELA and math and 05 and 08 Science and NextGen HS Science.

B. Aggregate Level Calculations

i. *Aggregation Rules*

- These rules are applied to all aggregate calculations. Any additional rules specific to a particular calculation will be listed under the rules for the calculation.
- Tested Students (PartStatus = 'A) are included in aggregations.

C. Lookup Tables

i. *Required Strands by Content Area and Grade*

Grade	Content Area	Number of Strands Required	Strands Required
3	ELA	3	Language, Reading & Writing*
3	Math	2	Operations and Algebraic Thinking, Measurement and Data
4	ELA	3	Language, Reading & Writing*
4	Math	2	Operations and Algebraic Thinking, Numbers and Operations – Fractions
5	ELA	3	Language, Reading & Writing*
5	Math	2	Number and Operations in Base Ten, Numbers and Operations – Fractions
5	Sci	3	Choice of 3***
6	ELA	3	Language, Reading & Writing*
6	Math	2	Statistics and Probability, The Number System
7	ELA	3	Language, Reading & Writing*
7	Math	2	Ratios and Proportional Relationships, Geometry
8	ELA	3	Language, Reading & Writing*
8	Math	2	Expressions and Equations, Geometry
8	Sci	3	Choice of 3***
10+	ELA	3	Language, Reading, Writing
10+	Math	3	Choice of 3**
09, 10+	Sci	3	Any three learning standards from one discipline: Biology, Chemistry, Introductory Physics, or Technology/Engineering

*ELA 03-08: Students that test at or near grade level will take strands: Reading, Reading II & Writing.

** Math 10+: Non-competency students test using the Common Core Standards. The strands titles are: 'Functions', 'Geometry', 'Statistics and Probability', 'Number and Quantity', and 'Algebra'. Competency Students test using the 13-14 strands: 'Number Sense and Operations', 'Patterns, Relations, and Algebra', 'Geometry', 'Measurement' and 'Data Analysis, Statistics, and Probability'.

*** Science 05 and 08: Choice of 3 of the following: 'Earth and Space Science', 'Life Science', 'Physical Sciences', and 'Technology/Engineering'

ii. Strand Performance Level

Level of complexity	Demonstration of skills	Independence	Performance Level
2	1	1	1
2	1	2	1
2	1	3	1
2	1	4	1
2	2	1	1
2	2	2	1
2	2	3	1
2	2	4	1
2	3	1	1
2	3	2	1
2	3	3	2
2	3	4	2
2	4	1	1
2	4	2	1
2	4	3	2
2	4	4	2
3	1	1	1

Level of complexity	Demonstration of skills	Independence	Performance Level
3	1	2	1
3	1	3	1
3	1	4	1
3	2	1	1
3	2	2	1
3	2	3	2
3	2	4	2
3	3	1	1
3	3	2	2
3	3	3	3
3	3	4	3
3	4	1	1
3	4	2	2
3	4	3	3
3	4	4	3
4	1	1	1
4	1	2	1
4	1	3	1
4	1	4	1
4	2	1	1
4	2	2	1
4	2	3	2
4	2	4	2
4	3	1	1
4	3	2	2
4	3	3	3
4	3	4	3
4	4	1	1
4	4	2	2
4	4	3	3
4	4	4	3
5	1	1	1
5	1	2	1
5	1	3	2
5	1	4	2
5	2	1	1
5	2	2	2
5	2	3	3
5	2	4	3
5	3	1	1
5	3	2	2
5	3	3	3
5	3	4	4
5	4	1	1
5	4	2	2
5	4	3	3
5	4	4	4

iii. **Content Area Performance Lookup**

Strand Performance Levels	Content Achievement Level	Description
1	8	Awareness
2	9	Emerging
3	10	Progressing
4	11	Needs Improvement
	14	Partially Meeting Expectations
5	12	Proficient
	15	Meeting Expectations
6	13	Advanced
	16	Exceeding Expectations
NA	7	Incomplete
	17	Not Meeting Expectation

iv.   *Composite Level of Complexity*

Composite Level of Complexity Look up for a 3 strand Portfolio
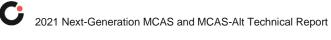
At or Near Grade Level Bubble	Strand 1: Level of Complexity Score	Strand 2: Level of Complexity Score	Strand 3: Level of Complexity Score	Composite Level of Complexity
0	2, or 1	2, or 1	2, or 1	ACC
0	3, 2, or 1	3, 2, or 1	3	EP
1	3, 2, or 1	3, 2, or 1	3, 2, or 1	GL
0,1	3, 2, or 1	3, 2, or 1	4, or 5	GL
0,1	3, 2, or 1	4	4	GL
0,1	3, 2, or 1	4	5	GL
0,1	3, 2, or 1	5	5	GL
0,1	4	4	4	GL
0,1	4	4	5	GL
0,1	4	5	5	GL
0,1	5	5	5	GL

Composite Level of Complexity Look up for a 2 strand Portfolio

At or Near Grade Level Bubble	Strand 1: Level of Complexity Score	Strand 2: Level of Complexity Score	Composite Level of Complexity
0	2, or 1	2, or 1	ACC
0	3, 2, or 1	3	EP
1	3, 2, or 1	3	GL
0,1	3, 2, or 1	4	GL
0,1	3, 2, or 1	5	GL
0,1	4	4	GL
0,1	4	5	GL
0,1	5	5	GL

Composite Level of Complexity Look up for a 1 strand Portfolio

At or Near Grade Level Bubble	Strand 1: Level of Complexity Score	Composite Level of Complexity
0	2, or 1	ACC
0	3	EP
1	3	GL
0,1	4, or 5	GL

Key:
ACC = Access Skill
EP=Entry Point
GL = Grade Level Achievement Standards

Data Deliverables Specifications

I. **Student Data Files**
   A. Student Demographics
   B. Student Scores
   C. Student Performance Levels

   i. Use Roster code for the Performance Levels

II. **MegaFile(s)**
   A. Generic Details

   i. Megafile deliverables are posted to the FTP site for the state and contain data for all processed students.

   ii. All MegaFile deliverables follow the layout: MCASAlt1920AllStudentFileLayout.xls.

   iii. Fields that are not applicable to particular deliveries are left blank.

   iv. Students with Amend > '1' are reported as Amend = '1'.

   v. Subject specific fields are prefixed by '*x*' such that: m=math, e=ela, s=science.

   vi. *x*Alt = '1' if the student Tested or Retested Alternate Assessment, otherwise blank.

   vii. Sped_Off = tblStudemo.SpecialEd.

   viii. *x*Perflev = tblStuPL.rPerfLevel reformatted to ESE code or achievement level code based on rPerfLevelLookup. ESE Code (See Appendix D).

   ix. *x*Perf2 = tblStuPL.Perf2.

   x. The mcasrowid is a 15 digit number created in the following manner
      - 2 digits=year(11)
      - 2 digits=grade
      - 1 digit=x
         a) x=1 if at least one strand was submitted for all required content area.

b) x=2 if at least one strand was submitted for ELA and no strands were submitted for other required content areas.

c) x=3 if at least one strand was submitted for Math and no strands were submitted for other required content areas.

d) x=4 if at least one strand was submitted for Science and no strands were submitted for other required content areas.

e) x=5 if at least one strand was submitted for any 2 required content areas, but nothing was submitted for the third required content area.

f) X=6 if a student did not submit any content areas.

- 10 digits=bookletnumber

III. Summary Files

A. Comments Summary

i. Contains Counts of each strand specific comment by grade, subject, and strand

ii. One tab includes all students

iii. One tab includes student with Performance Level Incomplete

B. General Portfolio Comments Summary

i. Contains counts of each General Portfolio Comment by grade

ii. Includes all students

C. State Performance Level Summary

i. Layout is MCASAlt2021PerfSummaryLayout.xls

ii. Include counts and percents

iii. Only include students who earned an achievement level

iv. One tab will contain achievement levels aggregated by grade and subject

v. One tab will contain achievement levels aggregated across grades and subjects

vi. One tab will contain achievement level aggregations for grades 09 and 10 by subject.

- Will include the alt students who earned a competency in either May or July Competency determination.

vii. One tab will contain achievement levels aggregations for grades 11, 12, and 12+ by subject.

- This data will include the alt students who earned competency in either the May or July Competency determination.

D. State Participation Summary Files

i. Layout is MCASAlt2021PartSummaryLayout.xls

ii. "Assessed Student" = partstatus in ('A','Z') and TestStatus = 'T' based on data in MCAS tblStudemo (therefore NTL or first-year lep students are excluded).

iii. Retest Students (TestStatust = 'TR' or Alt students in grades, 11, 12, or 13) were excluded from all counts.

iv. Sort first tab by subject, then grade and the PartByCLC tab by grade then subject.

v. One tab will contain counts and percents by grade and subject.

vi. Percent is based on number of students assessed in standard MCAS or MCAS-Alt

vii. One tab will contain count and percent of students taking alt across all grade and subjects.

viii. Percent is based on number of students assessed in standard MCAS or alt.

ix. One tab will contain counts and percents by grade and subject for the tested in Standard MCAS, Tested in MCAS Alt with a composite level of complexity of Grade Level, and Tested in MCAS Alt with a composite level of complexity of Access Skills or Entry Point.

E. Teacher Survey Summary

i. This file is created every other year and will be produced for the 1819 reporting year.

ii. Only include records with a first and last name and at least one response.

iii. Calculate total number of surveys.

iv. Compute counts and percentages of responses for each question. Also compute number of non-responses for each question.

F. Participation by Disability

i. Counts of tested students by disability type

Report Deliverables Specifications

I. Specifications

A. Portfolio Feedback Form

i. The files will be named PortfolioFeedbackForms2021_[DisCode][SchCode].pdf

ii. A grade 09 or higher report lists the science discipline strands instead of the science strands that appear for grades 03-08.

iii. For grades 03-08 math and ela the titles of the strands that were not submitted and not required will not print.
- Indicated in tblStuScore where RepAction='0'
- For these cases the strands below will move up to display with all blank rows at the bottom.
- In grade five where there are six possible strands, if a student turns in all six only the first five will print based on the strand sort order. The strand "Measurement and Data" will not print in this case.

iv. An asterisk (*) is displayed in place of missing strand scores for required strands that were not submitted

v. For grades 11, 12, and 12+ do not display asterisks in any strands.

vi. If the performance level for a particular subject is Student took the Standard MCAS then do not display asterisks in any strands.

vii. Missing scores are left blank for non-required strands.

viii. All strands submitted will be reported.

ix. At most 4 general portfolio comments (see section III for description of choosing general portfolio comments).

x. At most 2 strand specific comments (see section III for description of choosing strand specific comments).

B. Parent Report

i. Cover Page Header
- For student name print Last Name, First Name, MI. in all caps.
- Print the two-digit grade print for grades 03-12 and 12+ will print for grade 13.
- Print the school name associated with the student's testing school.
- Print the district name associated with the student's sending district if it exists. Otherwise print the district name associated with the student's testing district.

ii. Achievement Display
- For tested students, place a check and shade the achievement level box corresponding to the student's performance level.
- For not tested students, print the not tested reason in the achievement display for that content area. Based on tblPerfLevelLookup
- If a content area is not tested at a given grade, then do not shade or check any achievement level boxes or that content area. Print 'NOT ASSESSED FOR STUDENTS IN THIS GRADE'.

iii. Score Display
- If the student did not submit the required number of strands print an asterisk (*) after the subject text.
  a) Print 'REQUIRED BUT NOT SUBMITTED' in the grid for required strands that were not submitted.
  b) If the achievement level for a particular subject is Student took a Standard MCAS then do not display the asterisk or print 'REQUIRED BUT NOT SUBMITTED' in the grid for any strand.
iv. A grade 09 or higher report lists the High School STE discipline strands instead of the STE strands that appear for grades 03-08.
v. Score Grid

- All strands submitted will be reported.
- For strands that were submitted, gray shade the box associated with the dimension score for level of complexity, demonstration of skills, independence, self-evaluation, and generalized performance.

vi. Data Page Header
- For student name print Last Name, First Name, MI in proper case.
- Print SASID.

Appendix

I. Assigning Sprp_sch and Sprp_dis: Exceptions List (daTestSiteLookup)
This information is collected and stored with the Operational General Assessment program.
Please refer to the Operational General Assessment rules for the list of exceptions.

A. One-School District List
This information is collected and stored with the Operational General Assessment program.
Please refer to the Operational General Assessment rules for the list of one-school districts.

B. rPerfLevel Lookup for MegaFile Codes

Achievement Level or Part Flag	MegaFile Code	Description
1	F	Failing
2	NI	Needs Improvement
3	P	Proficient
4	A	Advanced
6	W	Warning
7	INP	Incomplete Portfolio
8	AWR	Awareness
9	EMG	Emerging
10	PRG	Progressing
11	NIA	Needs Improvement-Alt
12	P_A	Proficient-Alt
13	A_A	Advanced-Alt
14	PM_A	Partially Meeting Expectations-Alt
15	M_A	Meeting Expectations-Alt
16	E_A	Exceeding Expectations-Alt
17	NM	Not Meeting Expectation
B	INC	Incomplete
D	TRN	Transferred
E	ABS	Absent
F	LEP	First-year LEP
G	MED	Absent - Medically Documented
H	VAB	Void
I	DUP	Invalidated
J	DNT	Did Not Test
K	PAS	Previously Passed
P	PPR	Previously Passed & Retested
L	PRF	Previously Failed
N	INV	Invalidated

C. Historical PerfLevel Translations
If the following achievement levels are provided in SIMS for a student they are translated to currently-reported achievement levels.

SIMS PerfLevel	Description	Code	PerfLevel	PerfLevel Description
A_M	Advanced Mastery	A	4	Advanced
P_M	Proficient Mastery	P	3	Proficient
NIM	Needs Improvement Mastery	NI	2	Needs Improvement
F_M	Failing Mastery	F	1	Failing
P+	Above Proficient	A	4	Advanced