

APPENDIX R

ANALYSIS AND REPORTING DECISION RULES – MCAS

Analysis and Reporting Decision Rules (2016)

Massachusetts Comprehensive Assessment System (MCAS)

This document details rules 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:

YEAR TO YEAR CHANGE HIGHLIGHTS:	III
DECISION RULES	1
I. CONTRACT OVERVIEW	1
A. Test Administration(s)	1
B. Deliverables List	1
C. Processing Dependency on Alternate Assessment Data	2
D. High School Sciences (STE)	2
II. INTERNAL DATA SOURCES	3
A. Test Information and Item Banking (iRef)	3
B. School Information (iCore)	4
C. Scoring	4
D. Data Processing (DP)	6
III. EXTERNAL DATA SOURCES	8
A. Breach List	8
B. SIMS	8
C. Student Growth Data	9
D. Grade Span Lookup	9
E. Discrepancy Site	10
F. Alternate Assessment Override	10
IV. DATA RECONCILIATION AUDITS	11
V. STUDENT PARTICIPATION AND REPORTING STATUS	13
A. Basic Definitions	13
B. Participation Status Assignment Hierarchy (by subject)	14
C. Participation Status Summary	17
D. Post-Discrepancy Participation Status Assignment	18
VI. CALCULATIONS	18
A. Rounding Rules	18
B. Psychometric Input	18
i. Item Analysis Interactions Specific for MCAS	18
ii. Item Analysis Student Inclusion/Exclusion (Ex[sub]) & Matrix Files	19
C. Scaling, Equating, and Item Statistics	19
i. Dif Stats Threshold	19
ii. Scaling	20
D. Student Level Calculations	21
i. Calculations by Participation Status Summary	21
ii. StudentID (tblStudemo)	23
iii. Accommodations and Accommodation Footnotes (tblStudemo)	23
iv. Attempt Status (Attempt[sub]) (tblStudemo)	24
v. ParentLetter (tblStudemo)	24
vi. Reporting First Year LEP Status (rptLEP[sub]) (tblStudemo)	24
vii. Alt (tblStudemo)	24
viii. TestStat (tblStudemo)	24
ix. SpecialEd (tblStudemo)	25

x.	<i>Sims CD (tblStudemo)</i>	25
xi.	<i>rptSciTry (tblStudemo,updated during tblScoredItem)</i>	25
xii.	<i>tblref (ItemOrder, RepCatCode, Released)</i>	25
xiii.	<i>tblPointsPossible (Reporting Category Points Possible, RepOrder)</i>	25
xiv.	<i>Raw Scores (tblScoredItem)</i>	26
xv.	<i>Points Earned (tblScoredItem)</i>	27
xvi.	<i>Reporting Category Points Earned (tblScoredItem)</i>	27
xvii.	<i>Item Responses (tblScoredItem)</i>	27
xviii.	<i>Current-Year Reporting Results (tblScoredItem)</i>	28
xix.	<i>Aggregation/Accountability Results (tblScoredItem)</i>	29
xx.	<i>Competency: Updating ELA_CD, Mat_CD, and Sci_CD (mfCD in tblScoredItem)</i>	30
xxi.	<i>Graduation Requirement Footnote (CDFootnote) (tblScoredItem)</i>	30
xxii.	<i>Composite Performance Index (CPI) Points (tblScoredItem)</i>	31
xxiii.	<i>NumIn (tblScoredItem for Megafile)</i>	31
xxv.	<i>Student Growth Percentile (GP) (tblScoredItem)</i>	32
xxvi.	<i>Complexity(tblScoredItem)</i>	32
E.	Aggregate Calculations	32
i.	<i>Aggregation Summary</i>	32
ii.	<i>Number and Percent of Students by Achievement Level (tblSummary)</i>	33
iii.	<i>P34 (tblSummary)</i>	33
iv.	<i>Median Student Growth Percentile (tblSummary)</i>	33
v.	<i>State Reporting Category Performance Comparison (tblRepCatSummary)</i>	34
DATA DELIVERABLES SPECIFICATIONS		35
I.	WRITING COMPOSITION IMAGES	35
II.	MEGAFILE(S)	36
A.	<i>Generic Details</i>	36
B.	<i>Early ELA Specifics</i>	37
C.	<i>Math & Science MC Only Specifics</i>	38
D.	<i>Preliminary Release Specifics</i>	38
E.	<i>Post-Discrepancy Final Release Specifics</i>	39
III.	ACCOMMODATION DATA FILE(S)	39
IV.	QUESTIONNAIRE DATA FILE(S)	39
V.	ALT & STANDARD RESULTS DATA FILES	40
VI.	MISSING GRADE SPAN DATA FILE	40
VII.	STATE STUDENT RESULTS DATA FILE	40
VIII.	STUDENT REPORT TRANSLATION COUNTS	41
IX.	DISCREPANCY TABLE	41
X.	DISCREPANCY FILE	41
REPORT DELIVERABLES SPECIFICATIONS		42
I.	STUDENT LABELS	42
II.	STUDENT REPORT	43
APPENDIX		49
A.	<i>rPerfLevel Lookup for MegaFile Codes (PerfLev, Perf2)</i>	43
B.	<i>Historical PerfLevel Translations</i>	44
C.	<i>daDayForm Lookup</i>	45
D.	<i>daReportingCategoriesLookup</i>	45
E.	<i>Non-Standard Accommodation Footnote Text (Student Report):</i>	46
F.	<i>Graduation Requirement Status Footnote Text (Student Report):</i>	46
ADDENDA (POST-APPROVAL EDITS)		47

Year to Year Change Highlights:

1. Rules regarding the reporting of the PARCC items and aggregations on the student report and in the data files are incorporated into this document.
 - a. The reporting of the PARCC items and aggregations on the student report and data file is based on the PARCC attempt flag
 - b. The PARCC items are only tested in grades 03-08, ela and mat. Any reference to PARCC is only applicable to these grades and subjects.
 - c. References to the Writing Composition, unless explicitly mentioning PARCC are to the MCAS grade 10 Writing Composition.
2. The equating sample, used last year at grades 03-08 in ELA and Math for equating and state level aggregations will not be used this year.
3. In grades 03-08 ELA and Math the state level column in the *“Your child’s achievement compared to school, district, and state achievement”* section of the MCAS student report will not reported. A footnote (provided by the ESE) will provide an explanation.
 - a. The column *“Percent of Possible Points Earned by Students Who Performed at the Low End of the Proficient Level”* in the *“Your child’s scores in the reporting categories measured by each test”* section of the MCAS student report will be populated based on the aggregations rules outlined in this document.
4. The traditional MCAS writing prompt in grades 04 and 07 ELA is removed. Only the grade 10 writing prompt remains.
5. Worcester is the only district this year receiving a PARCC footnote on the MCAS Student Report. It is the only district where the value of testMCASdis is updated based on the value of testMCASsch.
6. HS STE: In addition to the standard inclusions rules for equating and item stats, students with a stugrade of 11 and 12 are excluded from equating and item stats.
7. LEP first is now provided in SIMS, Measured Progress will not be auditing it.

Decision Rules

I. Contract Overview

A. Test Administration(s)

This section lists all administrations covered by these decision rules.

Admin ID	Release ID	Description	Test Grade(s)	Subject
4	1	Early ELA (June)	03-08, 10	ELA (English Language Arts)
	2	Math & Science MC (June)	03-08, 10	Mathematics
			05, 08	Science
	3	Preliminary Reporting (August)	03-08, 10	ELA (English Language Arts)
			03-08, 10	Mathematics
			05, 08	Science
			HS: 09, 10	STE Science: Biology, Chemistry, Introductory Physics, or Technology and Engineering
			03-08, 10	ELA (English Language Arts)
			03-08, 10	Mathematics
	4	Post-Discrepancy /Final Reporting (September/Dec)	05, 08	Science
			HS: 09, 10	STE Science: Biology, Chemistry, Introductory Physics, or Technology and Engineering
			HS: 09, 10	STE Science: Biology, Chemistry, Introductory Physics, or Technology and Engineering

B. Deliverables List

Client and internal deliverables for the standard assessment are listed. Specifications for each deliverable are detailed in the Deliverable Specifications section provided.

Details Section	Deliverable	Type	Delivery	Release:			
				Early ELA	Math & Sci MC	Preliminary	Post-Discrepancy
II.B	Early ELA Megafile	.dat	FTP for State	✓			
Del. II.C	Math & Science MC Megafiles	.dat	FTP for State		✓		
Del. II.D	Preliminary State Megafile	.dat	FTP for State			✓	
Del. VI	Missing Grade Span List	.xls	FTP for State			✓ (if needed)	
Del. IX	Discrepancy Table	SQL	Internal for OIT			✓	
Del. V	Alt and Standard Results	.xls	FTP for State			✓	

Details Section	Deliverable	Type	Delivery	Release:			
				Early ELA	Math & Sci MC	Preliminary	Post-Discrepancy
Del. X	Discrepancy Data File	.xls	FTP for State				✓
Del. II.E	Post-Discrepancy State Mega File	.dat	FTP for State				✓
Del. VII	State Results File	.dat	FTP for State				✓ (after rerun)
Del. III	Accommodations File	.dat	FTP for State				✓
Del. IV	Questionnaire File	.dat	FTP for State		✓		
Del. I	Writing Composition Images	pdf	Website	✓			
Rep. I	Student Results Labels	pdf	Shipped to District				✓
Rep. II	Student Report – School Copy	pdf	Shipped to District				✓
	Student Report – Parent Copy	pdf	Shipped to District				✓
Del.VIII	Student Report Translation Counts	.xls	Internal for PM				✓

C. Processing Dependency on Alternate Assessment Data

Students may test via the Standard Assessment or the Alternate Assessment for each subject required in their grade. During the Early ELA and Math/Science MC Releases, students testing via both assessments are processed as-is without reconciliation. For Preliminary Reporting data from both methods are reconciled by DA and Alternate Assessment results are reported. During the discrepancy period the ESE may override the Alternate Assessment results on an individual student basis and have their Standard Assessment results reported during Post-Discrepancy reporting.

D. High School Sciences (STE)

High School Science consists of four individual science subjects: Chemistry, Biology, Introductory Physics, and Technology and Engineering. Student level determinations in tblStudememo (including but not limited to: partstatus, attempt status, rptLEP status) are based on the individual science submitted and stored, as well as compiled into overall science determination fields.

II. Internal Data Sources

A. Test Information and Item Banking (iRef)

i. Test Design

Grade	Subject	Form(s)	Items included in Raw Score	Item Types
03-08, 10	Ela	00 = common + Matrix forms in grade 10 only M= makeup WP ¹	Common	Grade 10 only: Composition Task (WR) All Grades: Comprehension (MC, OR, SR)
03-08, 10	Mat	00 = common + Matrix forms in grade 10 only	Common	MC, OR, SA
05, 08	Sci	00 = common + Matrix forms	Common	MC, OR, SA
09, 10	STE Sciences	00 = common + Matrix forms	Common	MC, OR, SA

¹ Form 'M' is the make-up writing prompt. All students are scaled using one set of parameters and therefore considered to be taking the common prompt. dalref only contains the form 00 writing prompt.

ii. Iref to dalref Translations(Measured Progress)

- IREF data for High School STE Sciences are stored as follows:
 - a. IREF Grade 09 'sci' = Technology and Engineering
 - b. IREF Grade 10 'sci' = Biology
 - c. IREF Grade 11 'sci' = Chemistry
 - d. IREF Grade 12 'sci' = Physics
- Biology is stored in dalref as 'bio' for grade 09 and 10, and again as 'sci' for grade 09 and 10 to support analysis and psychometrics.
- Chemistry, Physics, and Technology and Engineering are each stored in dalref at grade 09 and 10 as 'che', 'phy', and 'tec' respectively.
- Writing prompts are provided without the positional letter to distinguish the scoring dimensions on Form '01' (common prompt) and Form 'M' (make-up prompt).
 - a. The common prompt record is duplicated, and "C" or "T" is added to the position to support processing and analysis of the multiple scoring dimensions.
 - b. Form is set to '00' from '01'.
 - c. Equate is set to '0'. Psychometrics manages pulling equating data.
 - d. Type= 'WP'
 - e. Cat2 = 'CT' and 'CC' respectively.

- iii. **Item Reporting Categories**(*daReportingCategoriesLookup, daSciRepCatCodes, tblIref*)
- Reporting Categories (2 character abbreviated code and corresponding text) are stored in *daReportingCategoriesLookup* (see *Appendix D*). Not all categories are tested at each grade, and may vary by year. The sort order listed is a generic order the categories will appear in when they exist.
 - For sciences the reporting category is derived for each item from *dalref.Cat2*. The translation to the reporting category code is listed in *Appendix D* and stored in *daSciRepCatCodes*.
 - For Math and ELA the 2-character reporting category code for each item is provided by PM by Item Number and stored in *daReportingCategoriesCrosswalk*.
- iv. **Released Items**
- 50% of common items are released for 03-08 tests (all subjects).
 - 100% of common items are released for High School tests (all subjects).
 - Matrix, Field-Test, PARCC items are not released.
 - Released Items are identified in iREF as Released = '1'.

B. School Information (iCore)

i. School Types

School Types are calculated by DA based on the student's official school (*sprp_sch*):

SchType	Details	Description
'PRI'	Sprp_sch starts with 8 or 9.	Private Schools
'TES'	Sprp_sch starts with 6 or 7.	Test Site (or similar program)
'OTH'	Sprp_sch does not start with 6, 7, 8, or 9	All other schools

ii. ReportCodes

Information stored in ReportCode1-ReportCode4 is not applicable to MCAS reporting.

C. Scoring

i. Multiple Choice Scores – Scanning

Valid multiple choice scores are A, B, C, D, blank, and * = multiple responses. All responses except "blank" are considered a response attempt.

ii. Open Response / Short Answer Scores – Scoring

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

iii. Writing Composition Scores – Scoring

- The writing composition is scored on two dimensions:
 - a. Topic Development (CT)
 - b. Conventions (CC)
- Both dimensions are 100% double scored, and both scores are provided to Data Analysis (DA).
- If a dimension receives a scoring code instead of a score both scorer 1 and scorer 2 must agree.
- The final total score for each dimension is the sum of Scorer 1 + Scorer 2, calculated by DA, or the not scorable code.
- The following scores are valid for each individual score:

Raw Data Value	(tblStudemo) WRCode (DA use)	Description	Reported Value	Point Value	Response Attempted
1-6	Null	Writing Composition – Topic Development	Final score	2-12	✓
1-4 (per scorer)	Null	Writing Composition – Conventions	Final score	2-8	✓
A	1	Insufficient Evidence	IE	0	✓
F	2	Language Other than English	LO	0	✓
O	3	Off Topic	OT	0	✓
P	4	Plot Summary	PS	0	✓
I	5	Visible but Incomprehensible	VI	0	✓
B	6	Blank response		0	
N ¹	7	Not Scorable	NS	0	✓

1 N is not valid during the Preliminary or Post-Discrepancy data releases (Release 3 and 4).

iv. PARCC Non-Open Response – Scoring

- All responses except “blank” are considered a response attempt.
- For multi-select items, including those that are within a 2-part item, the student response must completely match the response key to earn credit. Incomplete responses, partially correct responses, or responses containing more than the required number of selections (i.e. three bubbles when only two are required) are scored as 0.
- 2-Part Independent Math Items: each correct response is worth 1 point.
- 2-Part Evidence Based Response (EBSR) ELA Items: a correct response to the first item is worth 1 point. A correct response to the second part is worth an additional point if and only if the first part is correct. All other responses receive 0 points.

v. PARCC Open Response / Short Answer Scores – Scoring

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

vi. PARCC Writing Composition Scores – Scoring

- The PARCC Writing Composition is scored on two dimensions:
 - a. Written Expression (T)
 - b. Convention (C)
- The final score for each dimension is based on the single final score provided by scoring. For Written Expression, this is weighted by a multiple of 3.
- The Overall PARCC Writing Composition score is the sum of the final, weighted, Written Expression score + the final Convention score, calculated by DA, or the not scorable code.
- The following scores are valid for each individual score:

Raw Data Value	(tblStudemo) PARCCWRCode (DA Use)	Description	Reported Value	Point Value	Response Attempted
0-3 (4, for grades 06,07,08)	Null	PARCC Writing Composition – Written Expression	Final score	0,3, 6, 9 (and 12 for grades 06, 07, 08)	✓
0-3	Null	PARCC Writing Composition – Convention	Final score	0-3	✓
A	1	Insufficient Evidence	IE	0	✓
F	2	Language Other than English	LO	0	✓
O	3	Off Topic	OT	0	✓
P	4	Plot Summary	PS	0	✓
I	5	Visible but Incomprehensible	VI	0	✓
B	6	Blank response		0	

D. Data Processing (DP)

i. Amend Flag (by subject)

- The Amend flag for each subject is set by DP based on test booklet reconciliation, the ESE Breach List, and discrepancy resolution data on an individual student basis. The default Amend flag value for all students is '0'.
- See the Amend Code Definition Lookup (Measured Progress Document) for valid Amend Flag values and their impact on reporting.

ii. Test Booklet Reconciliation

- If a student has multiple answer booklets for the same subject from the same school with the same sessions attempted the student is considered a possible security breach until resolved:
 - a. Only one record for the student is included for reporting for the subject, as determined in the Data Processing Specifications.
 - b. The Amend flag for the subject is set to '1' for the reported record.
 - c. The ESE may resolve the students and provide new instructions for reporting during subsequent reporting.
- If a student only submits an answer booklet for one subject then:

- a.** The submitted subject is reported with no special treatment.
- b.** Any missing subjects are included in the data with blank bookletnumber(s) for the subject(s) and the student is considered to have not tested in the missing subject(s).

- If a student's only answer booklet for a subject is Void the data is included during preliminary reporting and the Void flag is set to '1' for the subject. During final reporting any unresolved Void books are suppressed.

iii. Student Record Build Outs & View Determinations

- A record is created for all students submitting an Alternate Assessment Portfolio in the corresponding grade view.
- A record is created in the Grade 03, 04, 06, 07 view(s) for any student in SIMS with stugrade in (03, 04, 06, 07) and active_test = '1' and testMCASsch = '1'
- A record is created in the Grade 05,08 view(s) for any student in SIMS with stugrade in (05,08) and active_test = '1'
- A record is created in the Grade 10 view for any student in SIMS with stugrade in ('10','11','12','SP') and active_test = '1' and summarize = '1' that has not submitted an answer booklet. The student is defaulted to Biology for Science.
- Students submitting a High School ELA or Math book are included in the Grade 10 view, regardless of stugrade.
- Students only submitting a High School Science answer booklet:
 - a.** with stugrade \geq '10' (including 'SP') are included in the Grade 10 view.
 - b.** with stugrade \leq '09' (including missing) are included in the Grade 09 science view.
- See Data Reconciliation and Audits for Data Processing rules for setting Summarize for these scenarios.

iv. SciTry

- For High School sciences DP sets the SciTry variable to indicate which science test was submitted for the current year:
 - a.** '1' = Biology
 - b.** '2' = Chemistry
 - c.** '3' = Physics
 - d.** '4' = Technology and Engineering
- If a student in the grade 10 view does not submit a science booklet and is built out, they are defaulted to Biology (scitry = '1').
- For grades 03-08 SciTry is not applicable and does not exist.
- DA calculates the final reporting SciTry value as rptScitry.

E. Student Questionnaire Responses

- i.** Student responses to questionnaire data are provided in the student level view in grades 08 and 10. These fields begin with a 'Q' and are used in populating the Questionnaire Data File deliverable.

III. External Data Sources

A. Breach List

- i.* Students who are considered a security breach are provided by the ESE 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 Code Definition Lookup for each distinct scenario on the Breach List.
- iii.* Data Processing applies any necessary changes to the raw student record based on the ESE instructions, and applies the corresponding Amend Flag value from the lookup to the student for Data Analysis processing.
- iv.* Breach cases that affect the reporting of Item responses and raw scores are applied to the PARCC items. For example, if the breach list says not to report item scores, that will be applied to PARCC items as well as the MCAS items.

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 from SIMS*
 - 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'.
 - b.* Summarize = blank in SIMS is only applicable to students from the student directory that do not link to SIMS.
 - c.* 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*
 - (Starting in 2012-2013) 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 2013-2014 for HS students with Summarize = '1'.
- SciNTL='1' indicates a student has previously participated in Science as a first-year LEP student. These students are considered to have prior results in Science during the participation status assignment hierarchy. Corresponding fields for Math and ELA do not exist currently in SIMS.
- 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. Additional Historical Results

- SciTry_Prev contains the HS STE Science subject previously taken by a student when applicable.
- Historical grades, scaled scores, and growth percentiles for the prior 3 years (as applicable) are provided in SIMS for ELA and Math (*[e/m/s]GradeYYYY*, *[e/m/s]ScaledSYYYY*, *[e/m/s]SGPYYYYY*).
- Data are renamed by Data Processing using 'Yr3' as the most recent historical year and 'Yr1' as the earliest historical year (e.g. if current year = 2013 then Yr3 = 2012, Yr2 = 2011, Yr1 = 2010).
- The highest earned scaled score for each subject is provided for students in High School, as available, in SIMS as *high_[e/m/s]ScaledS*. Data are stored in DPRaw for DA as *[sub]ScaledScore*. These scores are not used in any determinations, but are reported in the megafile and used for aggregate calculations when applicable.
- Data Processing translates all historical achievement levels that are no longer reported (e.g. Mastery) into currently reported achievement levels (this applies to all incoming historical achievement levels). See *Appendix B*.
- These scores are not used in any determinations by MP, but are reported in the megafile and/or student report.

C. Student Growth Data

- Current year student growth percentiles (and corresponding standard errors) are provided for ELA and Math at the student level from the ESE based on preliminary results. Data are stored in *daStudentGrowthPercentile*.
- If a student's raw score was unavailable during preliminary reporting or if there are changes to the student record during the discrepancy period that impact the calculation of growth, the student will not receive growth results during *tblScoredItem* processing.

D. Grade Span Lookup (daESESchTypeLookup)

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

- ii.* Measured Progress 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.

E. List of Districts eligible to receive aggregations (daTestMCASdisLookup)

- i.* The ESE provides a list of districts (DA: testMCASdis) participating in MCAS and are eligible for district level aggregations

F. List of Schools eligible to receive aggregations (daTestMCASSchLookup)

- i.* The ESE provides a list of schools (DA: testMCASsch) participating in MCAS and are eligible for school level aggregations.

G. 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.

H. 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.

I. Sprp_sch and Sprp_dis: Exceptions List (daTestSiteLookup)

- i.* The ESE will provide this list to Data Analysis
- ii.* Supports the assigning of official student school and district (See Data Reconciliation Audits for details)

J. One School District List (daSingleSchDisLookup)

- i.* The ESE will provide this list to Data Analysis
- ii.* Supports Aggregate calculations (see Aggregate Calculations for details)

IV. Data Reconciliation Audits

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, reporting, and deliverables as applicable:

A. Summarize

- 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 \leq '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, summarize is defaulted to '0'.
- iv. The same rules are applied post-discrepancy, except summarize is taken from the updated Discrepancy data instead of SIMS. If summarize is updated during discrepancy reporting the participation status is set to blank to be reassigned.

B. LEPFirst

- i. LEPFirst is provided in SIMS and will not be 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 = '1' then update existing LEPFLEP to '1'.

E. Official School and Official District Code

i. Terminology:

- Discode = MP Testing Discode from DPRaw (See DP Specifications)
- SchCode = MP Testing SchCode from DPRaw (See DP Specifications)
- SendDiscode = Sending District from SIMS
- SimsDisCode = Official Discode from SIMS
- SimsSchCode = Official SchCode from SIMS
- Exceptions List = daTestSiteLookup

ii. Official District (sprp_dis)

- If the student's testing discode begins with a 6, 7, 8, or 9 and the testing school (discode+schcode) is not listed on the *Exceptions List* then 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'.
- 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*.

- Otherwise the official district is the testing district (discode) code concatenated with four zeroes at the end.

iii. Official School (sprp_sch)

- If the student's testing district code begins with a 6 or 7 and testing school (discode+schcode) is not listed on the *Exceptions List* 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 a student is from a collaborative school (testing district code begins with '95') then the official school is = 05XX0000 where XX is the 3rd and 4th digit of the testing district code
- 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*.
- Otherwise the official school is the testing school (discode+schcode).

F. YrsInSch and YrsInDis

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

G. OctEnrol (enrolled in same location since October)

- If sprp_sch or testing school (discode+schcode) = the official SIMS school code from June SIMS (simsDiscode + simsSchcode) then OctEnrol = Oct_off from SIMS. Otherwise set OctEnrol= '0'.

H. ConEnrol (continuously enrolled for 2 years)

- Only populated for students in the grade 10 view, otherwise blank.
- 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.
- If sprp_dis = SendDiscode+0000 from June SIMS then use the con_enr_dis value from SIMS. Otherwise set con_enr_dis = blank.
- ConEnr_sta is taken from SIMS.

I. Historical Scores and Growth for Reporting (Yr1, Yr2, Yr3)

- If a student's historical GradeYr3 is not the current test grade minus 1 year, then the Math and ELA scaledscoreYr3 and sgpYr3 are set to blank in tblStudemo.
- If a student's historical GradeYr2 is not the current test grade minus 2 years, then the Math and ELA scaledscoreYr2 and sgpYr2 are set to blank in tblStudemo.
- If a student's historical GradeYr1 is not the current test grade minus 3 years, then the Math and ELA scaledscoreYr1 and sgpYr1 are set to blank in tblStudemo.
- Example: if a student's grade is 08 and gradeYr3 is not 07, scaledscoreYr3 and sgpYr3 are set to blank for Math and ELA. If gradeYr2 is 06, scaledscoreYr2 and sgpYr2 are reported.

- J. **SciTry_Prev** (previous science subject tested)
 - i. If High_sPerf is not blank or SciNTL = '1', then SciTry_Prev should be populated in SIMS. If it is missing it will be defaulted to Biology (SciTry_Prev = '1').
- K. **testMCASdis** (district aggregation flag for grades 3-8 ela/math)
 - i. If sprp_dis in ('03480000' "Worcester") and testMCASsch = '0' then testMCASdis = '0'

This update is done to prevent alternate assessment students who may be accountable to these districts and participated in MCAS from being included in district results.

V. Student Participation and Reporting Status

A. Basic Definitions

The following criteria are defined for use during the participation status assignment hierarchy. Students may meet the criteria for multiple definitions, but during the hierarchy are assigned a single final participation status.

i. **Standard Test Attemptedness** (by subject)

- A student is considered to have **met attemptedness** if they have a response attempt for at least one common item in each test session.
 - a. The writing prompt is considered a session within the ELA test (grade 10 only) and an attempt must be present for a student to have met attemptedness in ELA.
 - b. For 3-8 ELA, session 3 consists of all PARCC field-test items and has no items considered common. This session is excluded from the standard test attemptedness determination.
- A student is considered to have **partially attempted** if they have a response attempt to at least one common item, but they do not have a common item attempted in every session (has at least 1 session with no common items attempted).
- All other students are considered to have **not attempted**.

ii. **PARCC Attemptedness** (by subject, grades 03-08 ela and math only)

- A student is considered to have **met PARCC attemptedness** if they have a response attempt for at least one PARCC (field-test) item.
- All other students are considered to have **not attempted PARCC**.

iii. **Not Tested Indicators** (by subject)

The following Not Tested reasons may be bubbled on the student's answer booklet.

- Absent (ignored)
- Medically Excused Absent (MED)

iv. **Transfer**

- The transfer bubbles (Added and Removed) on the SRB are ignored.
- If Active_Test ≠ '1' the student is considered a transfer student.

v. **Tested Alternate Assessment** (by subject)

- For the purpose of determining student participation status, students in the Alternate Assessment data with the following participations statuses are considered Alternate Assessment during preliminary and final reporting:

- a. Alt PartStatus = 'A': Tested Alternate Assessment.
 - b. Alt PartStatus = 'C': Tested Alternate Assessment Accountable Retester.
 - c. Alt PartStatus = 'W': Tested Alternate Assessment Not-Accountable Retester.
 - d. Alt PartStatus = 'N': Breach Alternate Assessment (Alt Amend Code = '26').
 - If a student is listed in the Alternate Assessment Override, the Alternate Assessment Amend Code is set to suppress the Alternate Assessment results and set the Alt PartStatus to 'Z'. This allows for the Standard Assessment results to be reported.
- vi. **Void (by subject)**
- Students whose only answer booklet has been voided (Void[sub] = '1') are considered Void. Booklets that remain void post-discrepancy are suppressed along with all corresponding data.
 - For grades 05 and 08 Science the void indicator is VoidMat because Math and Science share a single answer document.
- vii. **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_sPerf and sciNTL ≠ '1' from SIMS are considered to not have prior results.
 - **Previously Passed**
Students with a High_sPerf from SIMS in ('A', 'P', 'NI', 'A_A', 'P_A', or 'NIA') are considered to have previously passed the subject, regardless of sciNTL value.
 - **Previously Failed**
Students with a High_sPerf from SIMS in ('F', 'PRG', 'EMG', 'AWR', and 'INP') are considered to have previously failed the subject.
 - **Previously First Year LEP**
 - a. Students with SciNTL = '1' from SIMS are considered to have previously participated in science as a First Year LEP student.
 - If High_sPerf is not a Previously Passed status and SciNTL = '1', the student is considered Previously Failed.
- viii. **PARCC (by subject)**
- Student identified in SIMS (PARCC_[subject]) as participating in the PARCC assessment.

B. Participation Status Assignment Hierarchy (by subject)

- i. **Breach List (Amend Flag > '1' assign participation status per standard hierarchy, all rules are then trumped by specific breach instructions)**
- ii. **Void**
 - (Preliminary Partstatus = 'H')
 - *Data from booklets that remain void post-discrepancy are suppressed from final reporting.*

iii. **Multiple Answer Booklets** (*Amend*='1')

- (Preliminary PartStatus='1').
- (Final PartStatus='N').

iv. **Summarize = '1' or TestGrade = '09':**

- Tested Alternate Assessment - the student's participation status is taken from the Alternate Assessment Data:
 - a. **Breach Alternate Assessment** (PartStatus = 'N').
 - b. **Tested Alternate Assessment** (PartStatus = 'A').
 - c. **Tested Alternate Assessment Accountable Retester** (PartStatus = 'C')
- Without prior results:
 - a. If the student *meets attemptedness* then: **Tested** (PartStatus = 'Z').
 - b. If the student partially attempted or did not attempt:
 - If PARRC_[Subject]= '1' then **Not Tested PARCC** (Partstatus='Q')
 - If subject = 'ELA' and First Year LEP then: **Not Tested LEP** (PartStatus='F').
 - Otherwise if the student is a Transfer student then: **Not Tested Transfer** (PartStatus='D').
 - Otherwise if MED then: **Not Tested Medically Excused** (PartStatus='G').
 - Otherwise If testMCASsch ^= '1' then: **Did Not Test** (Partstatus='J') (this applies to grades 05 and 08, ela/mat only)
 - Otherwise: **Not Tested Absent** (PartStatus='E').
- Previously Failed:
 - a. If the student *meets attemptedness* then: **Tested Accountable Retest** (PartStatus='Y').
 - b. If the student *partially attempted or did not attempt* then: **Not Tested Accountable Retest** (PartStatus='L').
- Previously Passed:
 - a. (*Preliminary processing only*) If the student *meets attemptedness or partially attempted* then: **Ineligible Accountable Retest, Previously Passed** (PartStatus='P').
 - b. If the student *did not attempt* (or during final processing: if the student *did not attempt, partially attempted or meets attemptedness*) then: **Previously Passed** (PartStatus = 'K').
- v. **Summarize = '0'** (regardless of any prior test results):
 - Tested Alternate Assessment then the student's participation status is taken from the Alternate Assessment data: **Tested Not Accountable Alternate Assessment** (PartStatus = 'W') or **Breach Alternate Assessment** (PartStatus = 'N').
 - Otherwise, if the student *meets attemptedness* then: **Tested Not Accountable (Retest)** (PartStatus = 'R').

- Otherwise, if the student *partially attempted* then: **Partially Tested Not Accountable (Retest)** (PartStatus = 'B').
- Otherwise if the student *did not attempt* then: **Not Tested Not Accountable (Retest)** (PartStatus = 'J').

C. Participation Status Summary

Summarize	Prior Results	Description	Part Status	Test Stat*	Discrepancy Site		
					Code	Text	
n/a	n/a	Breach	<i>Breach Instructions are applied at the student level regardless of participation status and are identified by Amend > '1'</i>				
		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	
		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	
		Not Tested (/Partially Tested) – PARCC	Q	NTO	PRC	Exempted due to PARCC	
	Prev. Failed	Prev. Failed	Tested Alternate Assessment Accountable Retest	C	TR*	ALR	Retested Alternate Assessment
			Tested Accountable Retest	Y	TR*	RET	Retested
			Previously Failed (Not Tested /Partially Tested Accountable Retest)	L	NTO*	PRF	Previously Failed
			Ineligible Accountable Retest – Previously Passed & Retested (Preliminary Only- final see K)	P	NTO*	PPR	Previously Passed & Retested
			Previously Passed	K	NTO*	PAS	Previously Passed
			Tested Not Accountable Alternate Assessment (Retest)	W	TR*	ALN	Retested Alternate Assessment Not Aggregated
0	Any	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.

** This Not Tested status is also used in grades 05 and 08 ela/math for students at schools participating in PARCC.

D. Post-Discrepancy Participation Status Assignment

- i. DA only “recalculates” participation statuses for students with a blank participation status during post-discrepancy processing. All other participation statuses are maintained 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.

VI. Calculations

A. Rounding Rules

Calculation	Rounded (to the nearest)
Student Counts	Whole Number
Percents	Whole Number
Median Growth Percentile	Whole Number

B. Psychometric Input

i. *Item Analysis Interactions Specific for MCAS*

- Below are MCAS-specific conditions programmed within the standard Item Analysis System (DAMS). Any changes to the handling of these cases need to be vetted against this system to ensure accurate scoring and item calculations.
- **Multi-Day Testing (High School ELA and Math):**
 - a. High School ELA and Math tests are administered over a two-day period. As a result, students are assigned a Day 1 Form for the first day, and a Day 2 form for the second day. Both forms are provided in the views.
 - b. The IA dataset stores both forms individually as *[sub]form1* and *[sub]Form2*. Resulting scored data contains the concatenation of the two forms creating the unique total form (4 characters) for each student.
 - c. The table *daDayForm* holds the first item position on the 2nd day form to support the Item Analysis program. See *Appendix C*.
- **Writing Prompts**
 - a. If the contract nickname begins with “MCAS” and the subject is “ELA” and the total possible points is 8 or higher ($PVMax \geq 8$) then student scores of ‘0’ will be reset to blank in the matrix files for psychometrics.
 - b. This does not impact student scores or output scored datasets, but removes the response from the psychometric data for equating and scaling, as required.
 - c. This requirement only applies to the writing prompts. In the future, if any non-writing prompt items meet the conditions above the handling of these items for the matrix file will need to be discussed.

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

- 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').
- All other students are excluded (Ex[sub] = '1').
- 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').
- For High School STE in addition to the rules outlined above, students with stugrade in ('11','12') are excluded.
- DA Processing for High School Sciences (STE's):
 - a.** IA datasets are created for each individual STE subject for all hand offs.
 - b.** Psychometric Equating Hand-off:
 - Data Processing provides one Grade 10 view with all High School Science testers. Grade 09 students are identified via Stugrade = '09' for partstatus assignment.
 - c.** Scoring and Reporting Hand-off (Release 3 and 4):
 - Grade 09 and 10 are processed in separate views and IA datasets.
 - d.** Item Stats (Release 4):
 - Grade 09 and 10 data are in separate views but combined into one Grade 10 IA dataset for each STE subjects.

C. Scaling, Equating, and Item Statistics

i. Dif Stats Threshold

- 07 Math:
 - a.** 90 for nonLEPFLEP vs. LEPFLEP
 - b.** 100 for all other combinations
- 08 Math:
 - a.** 75 for nonLEPFLEP vs. LEPFLEP
 - b.** 100 for all other combinations
- All other 03-08 Grades/Subjects
 - a.** 100 for all combinations
- HS Sciences (09 and 10 combined):
 - a.** 50 for all combinations.
- HS ELA and Math
 - a.** 50 for nonLEPFLEP vs, LEPFLEP
 - b.** 100 for all other combinations

ii. Scaling

- Scaling is done using a lookup table provided by psychometrics and the student’s overall raw score (by subject).
- The scaled score lookup achievable scaled scores are always even numbers and are between 200 and 280 every year.
- 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.

iii. 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.
- Needs Improvement (Standard PerfLevel = ‘2’) or higher is considered “Passing” for the Standard Assessment.
- 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 Achievement Level	MCAS Description	MCAS Alt Achievement Level	MCAS Alt Description
1*	03-08: Warning (W) HS: Failing (F)	7	Incomplete Portfolio (INP)
		8	Awareness (AWR)
		9	Emerging (EMG)
		10	Progressing (PRG)
2	Needs Improvement (NI)	11	Needs Improvement (NIA)
3	Proficient (P)	12	Proficient (P_A)
4	Advanced (A)	13	Advanced (A_A)

1* In grades 03-08 Achievement level ‘1’ is stored as ‘6’ by MP but aggregated as ‘1’.

D. Student Level Calculations

i. Calculations by Participation Status Summary

Summarize	Prior Results	Description	Part Stat	rptLEP[sub] ¹	Test Stat	Current Year Reporting Results					Aggregation and Accountability Results						
						Raw Scores	Item Scores	rScaled Score (MP Reports)	Achievement Level (rPerfLevel, mfPerfLev)	mfScaledScore	Achievement Level (Perf2/mfPerf2)	CPI / Numin	Assess ²				
														('---' indicates data are blank)			
		Breach	<i>Breach Instructions are applied at the student level regardless of participation status and are identified by Amend > '1'</i>														
		Void (Preliminary Only)	H	any	NTO	earned	earned	---	VAB	---	---	---	0 ³				
		Multiple Answer Documents (Security Breach) :															
		<i>Preliminary</i>	I	any	NTO	earned	earned	---	DUP	---	---	---	---				
		<i>Final</i>	N	any	NTO	---	---	---	INV	---	---	---	---				
1 (or Grade=09*)		Tested Alternate Assessment	A	0	T	---	---	---	earned (Alt)	---	earned (Alt)	✓	1				
	1			NTL	---						---	---	---				
		Tested	Z	0	T	earned	earned	earned	earned	earned	earned	✓	1				
				1	NTL									Pass: earned Else: ---	Pass: earned Else: LEP	Pass: earned Else: ---	---
		Not Tested /Partially Tested – LEP (ELA Only)	F	1	NTL	earned ?		HS Pass: earned Else: --- ?	HS Pass: earned Else: MED	HS Pass: earned Else: ?	---	---	1				
		Not Tested /Partially Tested - Transfer	D	0 (M/S 1)	NTO						---	---	---	---			
		Not Tested /Partially Tested – Medically Excused Absent	G	0 (M/S 1)	NTM						---	---	---	---	---	---	0
		Not Tested /Partially Tested - Absent	E	0 (M/S 1)	NTA						---	---	---	---	---	---	0
		Not Tested /Partially Tested – PARCC	Q	0 (M/S 1)	NTO						---	---	---	---	---	---	1
F	Tested Alternate Assessment Accountable Retest	C	0	TR	---						---	---	earned (Alt)	---	highest (Alt)	✓	1
			1	NTL											---	---	---

Summarize	Prior Results	Description	Part Stat	rptLEP[sub] ¹	Test Stat	Current Year Reporting Results					Aggregation and Accountability Results		
						Raw Scores	Item Scores	rScaled Score (MP Reports)	Achievement Level (rPerfLevel, mfPerfLev)	mfScaledScore	Achievement Level (Perf2/mfPerf2)	CPI / Numin	Assess ²
F	Tested Accountable Retest	Y	0	TR			earned	earned	highest	highest	✓	1	
			1	NTL	earned	earned	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: LEP	Pass: highest Else: ---	---	---	---	1
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
O	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.

ii. PARCC Reporting of Raw scores and Item scores (by subject)

- All students who attempted PARCC will receive raw scores and Item scores, unless otherwise specified by the breach list.

iii. StudentID (tblStudemo)

- StudentID = rptStudentID from DPRaw (verified SASID).
- For non-demonstration students, if StudentID begins with '10' it was generated by DP for linking purposes, and will be set to blank for reporting.

iv. Accommodations and Accommodation Footnotes (tblStudemo)

- 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:
 - a. For ELA Comprehension accommodations (ElaAccom:), all ELA items (common, matrix, field-test) except for the writing prompts are considered in determining if items were attempted.
 - b. For ELA Composition accommodations (CompAccom:), only the writing prompts are considered in determining if items were attempted.
 - c. For Math accommodation (MatAccom:) all items (common, matrix, and field-test) are considered.
 - d. All of the underlying accommodation fields in DPRaw are maintained as provided, regardless of student attempt status.
- Standard Accommodations:
 - a. Accom_l = '1' if the student received any accommodations in ELA Reading Comprehension, otherwise set it to blank.
 - b. Accom_c = '1' if the student received any accommodations in ELA Composition, otherwise set it to blank.
 - c. Accom_m = '1' if the student received any accommodations in Math, otherwise set it to blank.
 - d. Accom_s = '1' if the student receive any accommodations in Science, otherwise set it to blank.
- Non-Standard ELA Accommodation (MP: elaNSAFootnote):
 - a. If elaaccom26='1' then elaNSAFootnote = '1'.
 - b. If compaccom29 = '1' then elaNSAFootnote = '2'.
 - c. If both elaaccom26 = '1' and compaccom29 = '1' then elaNSAFootnote = '3'.
 - d. Otherwise elaNSAFootnote = '0'.
- Non-Standard Math Accommodation (MP: matNSAFootnote):
 - a. If mataccom30='1' then matNSAFootnote = '4'.
 - b. Otherwise matNSAFootnote = '0'.
- For Non-Standard Accommodation Student Report text based on elaNSAFootnote and matNSAFootnote see *Appendix E*.

- v. **Attempt Status (Attempt[sub])** (*tblStudemo*)
 - Attempt[sub] indicates if a student fully meets attemptedness, partially attempted, or did not attempt the subject, based on the definition of attemptedness in *section V.A.i*
 - Calculated for all participation statuses, values:
 - a. 'F' = Fully Meets Attemptedness
 - b. 'P' = Partial Attempt
 - c. 'N' = No Attempt
 - d. Blank = subject is not assessed at the grade.
- vi. **ParentLetter** (*tblStudemo*)
 - The Parent Letter flag is set to '0' to indicate that a student should not receive a Parent/Guardian Report or Student Results Label in the following cases:
 - a. If a student is classified as Tested Alternate Assessment (PartStatus in 'A','C','W') in all required subjects for their grade then ParentLetter = '0'.
 - Class Pack Identifiers (Measured Progress) for printing the School and Parent version of the Parent/Guardian Report as we as the Student Results Labels are produced for all students with ParentLetter = '1'.
- vii. **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 (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:
 - a. If the student has prior results:
 - If the student meets attemptedness this year (Attempt[sub] = 'F') then: rptLEP[sub] = LEPFirst.
 - If the student partially attempts or does not attempt this year (Attempt[sub] = 'P' or 'N') then:
 - rptLEP[sub] = '1' if either LEPFirst = '1' or [sub]NTL = '1'.
 - Otherwise rptLEP[sub] = '0'.
 - b. If the student does not have prior results then rptLEP[sub] = LEPFirst.
- viii. **Alt** (*tblStudemo*)
 - [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'.
- ix. **TestStat** (*tblStudemo*)
 - [e/m/s]TestStat is populated based on the student's participation status, rptLEP status, and possible breach codes for the subject. It is not dependent on scores. See the Participation Status Summary table for values.

- x. **SpecialEd** (*tblStudemo*)
 - 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 Sped_off in SIMS. If it is blank it is defaulted to '0'.
- xi. **Sims CD** (*tblStudemo*)
 - 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.
- xii. **rptSciTry** (*tblStudemo, updated during tblScoredItem*)
 - SciTry is provided by Data Processing. For students that Previously Failed the SciTry will reflect the current-year science subject submitted and any submitted items will be scored.
 - DA will set SciTry to the Alt SciTry value for Alternate Assessment science students (SciPartstatus in ('A','C','W', Alt 'N')).
 - rptSciTry is then set to SciTry for tblStudemo and item analysis.
 - During tblScoredItem processing if it is determined that a student's prior science results should be reported (instead of the current test), rptSciTry will be updated to reflect the prior science subject and any item responses from the current test will be blanked.
- xiii. **tblIref** (*ItemOrder, RepCatCode, Released*)
 - The released item order is the order in which items appear in the ESE's Released Item Document, stored in tblIref.ItemOrder.
 - a. Includes common, non-flawed items only.
 - b. Items are ordered such that released items appear first, in order of test position, followed by unreleased items in order of test position.
 - c. Writing prompts are stored as WPCC and WPCT. WPCT appears as the first released item, followed by WPCC, then all items in ELA on the student report.
 - d. Item responses in tblScoredItem are stored according to ItemOrder, not position.
 - Released = daIref.Released (where '1' = released item, '0' = unreleased item).
 - RepCatCode is the 2-character reporting category code for each item:
 - a. Assigned by Item Number for Math and ELA using daReportingCategoriesCrosswalk.
 - b. Assigned by daIref.Cat2 for Science using daSciRepCatCodes.
- xiv. **tblPointsPossible** (*Reporting Category Points Possible, RepOrder*)
 - Common, non-flawed items (from tblIref) are summarized by reporting category and at the total test level in tblPointsPossible by grade, subject, and reporder.
 - a. Points = the total points possible in each reporting category by grade and subject and reporting category.

- b. RepOrder = the reporting category order.
 - The unique list of existing reporting categories in a grade and subject are ordered by the generic sort order from daReportCategoryLookup, and re-numbered from 1-max number of reporting categories.
 - The total test is set as RepOrder = 0.
- c. RepCatCode is the 2-character reporting category code, and RepCatText is the associated text. For RepOrder = '0' RepCatCode = '00', and RepCatText = 'Total'.

xv. **Raw Scores** (*tblScoredItem*)

- Writing Composition Task Total Dimension Scores
 - a. WPCT is the total raw score for the Topic Development dimension of the writing composition task is Scorer1 CT + Scorer2 CT.
 - b. WPCC is the total raw score for the Conventions dimension of the writing composition task is Scorer1 CC + Scorer2 CC.
 - c. If a student does not receive reported item scores the total composition scores are set to blank.
 - d. WPCT and WPCC scores are formatted as numeric scores (no leading zero), not scorable codes are set to 0, and blank responses are set to blank to support the Student Report and calculations.
 - e. mfWPCT and mfWPCC are WPCC and WPCT reformatted to support the megafire. Scores are always 2-digits (with leading zero if necessary), 2-digit not scorable codes are reported, and blank responses are blank.
- PARCC Writing Composition
 - a. The PARCC Writing Composition is made up of two dimensions: *Convention* and *Written Expression*
 - The raw score for *Convention* is the final *Convention* score.
 - The raw score for *Written Expression* is the final *Written Expression* score (already weighted).
 - The Overall PARCC Writing Composition score is: *Convention* raw score + *Written Expression* raw score.
 - The Overall PARCC Writing Composition score is reported on the parent report, unless the student does not receive item level data.
 - The *Convention* and *Written Expression* scores are reported in the student data file, unless the student does not receive item level data.
- Overall Raw Score
 - a. The student's overall raw score is the sum of scores for all common items, including the writing composition task total scores (if applicable).
 - b. 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.
 - c. PARCC :
 - The student's overall PARCC raw score is the sum of scores for all PARCC items, including the Overall PARCC Writing Composition score.

- If a student does not meet PARCC Attemptedness then the PARCC rawscore is set to blank.

xvi. **Points Earned** (*tblScoredItem*)

- MCpts = number of common multiple choice points earned in the test for the given subject.
- ORpts = number of common open response, short answer, and short response points earned in the test for the given subject (in ELA this includes the writing composition scores).
- If a student does not receive reported raw scores these calculations are set to blank.

xvii. **Reporting Category Points Earned** (*tblScoredItem*)

- The total points earned and the percent of possible points earned by the student are calculated by reporting category and stored in nRepCatx and pRepCatx where x is the RepOrder from tblPointsPossible.
- Calculations include all common items. Writing Composition scores are included in their respective RepOrder calculations in ELA.
- 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 (this also applies to the PARCC based reporting categories).

xviii. **Item Responses** (*tblScoredItem*)

- 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.
 - PARCC : If a student does not meet PARCC Attemptedness then all PARCC item responses will be blanked out (NULL) after raw score calculations are complete
- Otherwise, re-formatted and re-ordered (by released item order) responses to all common items are reported and stored in tblScoredItem to support the student report and megafile deliverables (excluding the State File, which includes all items):
 - Released Writing Prompts: see the Writing Prompt Total Score calculations.
 - Released and unreleased OR items: the item score or not scorable code is reported. Responses of 'B' (blank) are set to NULL.
 - 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.
 - 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).
 - PARCC items: the item score or not scorable code (if the item is the PARCC Writing Composition or one of its dimensions) is reported. Responses of 'B' (blank) are set to NULL.

xix. **Current-Year Reporting Results** (*tblScoredItem*)

- 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.
- **ScaledScore**
 - a. 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 MP field that is not directly reported.
 - b. Blank for alternate assessment students and students not eligible to receive a scaled score based solely on participation status.
- **PerfLevel**
 - a. Earned current-year achievement level based on scaledscore (1-4). Conditions based on pass/fail, rptLEP, or breach codes are not applied.
 - b. For Alternate Assessment students the un-translated PerfLevel from the Alternate Assessment data table StuPL is stored (7-13).
 - c. If the student does not receive an achievement level based solely on partstatus PerfLevel is blank.
 - d. Valid Values: numeric achievement levels (1-4, 7-13) or blank. Internal MP field that is not directly reported.
- **rScaledScore** (*MP reporting – labels and student report*)
 - a. rScaledScore is the current year earned scaled score for MP reporting purposes.
 - b. rScaledScore = ScaledScore, with suppression based on pass/fail status, rptLEP, or breach codes applied from the participation status summary table.
- **rPerfLevel** (*MP reporting – labels and student report, mfPerfLev*)
 - a. rPerfLevel is the current year achievement level or partstatus code for MP reporting purposes.
 - b. rPerfLevel = Perflevel, modified based on pass/fail status, rptLEP, or breach codes for reporting as follows:
 - 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.
 - Otherwise if grade is in 03-08 and perflevel = '1' then rPerfLevel = '6'.
 - Otherwise if perflevel is blank then rPerflevel = partstatus.
 - If a student has a breach code then rPerfLevel is assigned per the breach instructions to override any other standard rules.

- c. Valid values: numeric achievement levels (1-4, 6, 7-13) and partstatus codes.

- **mfPerfLev** (megafile: [e/m/s]PerfLev)
 - a. 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').

xx. **Aggregation/Accountability Results** (tblScoredItem)

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

- **mfScaledScore** (megafile: [e/m/s]scaleds)
 - a. 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.
 - b. mfScaledScore is populated as follows for Accountable students (or Grade 09):
 - mfScaledScore = rScaledScore for First Time Testers and First Time Testers that did not meet attemptedness (ABS, MED, TRN, LEP).
 - mfScaledScore = Highest between rScaledScore and the prior highest ScaledScore ([sub]ScaledScore from DPRAW) for Accountable Retest Students.
 - mfScaledScore = Prior highest scaled score for Previously Passed students ([sub]ScaledScore) from DPRAW).
 - 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.
 - Otherwise mfScaledScore is blank.
 - c. If rptLEP = '1' and the student's mfScaledScore (as determined above) is considered Failing, then mfScaledScore is set to blank.
 - d. mfScaledScore = rScaledScore for Not-Accountable students.
- **Perf2** (MP aggregate calculations)
 - a. Populated with the achievement level for MP aggregate calculations and to support the megafile Perf2 using current year and prior results as applicable.
 - b. Perf2 is blank for all students with rptLep[sub] = '1'.
 - c. Otherwise Perf2 is populated as follows for Accountable or Grade 09 students:
 - Perf2 = rPerfLevel for First Time Testers (1-4, '6' is translated to '1').
 - Perf2 is blank for First Time Testers that did not meet attemptedness (ABS, MED, TRN, LEP).

- Perf2 = Highest achievement level between rPerfLevel and High_xPerf for Accountable Retesters (science only).
 - Perf2 = Highest prior achievement level (High_sPerf) for Previously Passed students.
 - Perf2 = Translated Alternate Assessment Perf2 for students Tested Alternate Assessment or Accountable Retested Alternate Assessment. Translation is done from Alternate Assessment Achievement Levels of 7-13 to Standard Achievement Levels 1-4.
 - d. Otherwise perf2 is blank. Perf2 is blank for all Not-Accountable students except for grade 09 (available for grade 09 specific MP aggregations).
 - **mfPerf2** (*megafile: [e/m/s]Perf2*)
 - a. 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.
 - b. mfPerf2 is set to blank for grade 09 students in the megafile export.
- xxi. **Competency: Updating ELA_CD, Mat_CD, and Sci_CD** (*mfCD in tblScoredItem*)
- 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 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.
 - 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:
 - For Math and ELA:
 - a. If scaled score is ≥ 220 and scaled score is ≤ 238 then CD = ‘1’.
 - b. Otherwise if scaled score ≥ 240 then CD = ‘2’.
 - c. Otherwise CD is ‘0’.
 - For Science:
 - a. If scaled score ≥ 220 then CD = ‘1’.
 - b. Otherwise CD is ‘0’.
 - 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.
- xxii. **Graduation Requirement Footnote (CDFootnote)** (*tblScoredItem*)
- 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.
 - 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:
 - a. If SIMS_*[sub]*CD is ‘1’ or ‘2’ then CDFootnote = ‘4’ (*Already Met*).
 - b. Otherwise:
 - If mfCD = ‘0’ then CDFootnote = ‘1’ (*Not Met*).

- If subject is ELA or Math:
 - and mfCD = '1' then CDFootnote = '2' (*Met but requires proficiency plan*).
 - And mfCD = '2' then CDFootnote = '3' (*Met.*)
- If subject is Science and mfCD = '1' then CDFootnote = '3' (*Met*).
- For Student Report text see *Appendix F*.

xxiii. Composite Performance Index (CPI) Points (tblScoredItem)

- CPI Points are assigned based on results used for Aggregations and Accountability.
- For students whose accountability results are from the Standard MCAS Assessment:
 - a. CPI points are assigned based on their Accountability Scaled Score (mfScaledScore) per the following table:

Test	mfScaledScore Range	CPI Points
Standard MCAS	240-280	100
	230-238	75
	220-228	50
	210-218	25
	200-208	0

- b. If PartStatus is in ('K','P') and mfscaledscore is missing:
 - If mfperf2 is "NI" (Standard Assessment) set CPI = 50 to indicate the student passed via appeals.
 - 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	100
	P_A	
	PRG	
	EMG	75
	NIA	
	AWR	
	INP	25

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

xxiv. NumIn (tblScoredItem for Megafile)

- 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.
- See the calculations by participation status summary for a list of statuses that receive CPI points and numin = '1'.

xxv. **Assess** (*tblScoredItem* for *Megafile*):

- The subject specific Assess field is populated to indicate whether or not Accountable students have met the participation requirement this year based on the Calculations by Participation Status Summary table.
- Exception for ELA only, when Assess = '1': If LEP_off = '1' and ACCESS_Part = '0' then Assess = '0'.
- Fields are prefixed with *e/m/s* in the megafile.

xxvi. **Student Growth Percentile (GP)** (*tblScoredItem*)

- 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').
- For all other students, GP is blank.
- Growth is only calculated for students in Math and Reading, grades 04-08 and 10.
- After the discrepancy period, any student with changes to their preliminary raw score, perf2, partstatus, or StudentID will have growth data suppressed.

xxvii. **Complexity**(*tblScoredItem*)

- Complexity is populated with the student's alternate assessment composite complexity score (tblStuPL.Composite) for all students Tested or Retested (accountable or not-accountable) Alternate Assessment.
- Complexity is blank for Release 1 and 2 since Alt results are not incorporated.

E. Aggregate Calculations

i. **Aggregation Summary**

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.

- All reporting levels (sch/dis/sta): Only students eligible for accountability (Summarize = '1') are included in aggregate calculations, with the exception of Grade 09 specific calculations.
- For grades 03-08, ELA and Math aggregations the following additional requirements are applied:
 - a. District Level (dis): Only Students from districts listed in daTestMCASdislookup, where TestMCASdis='1', are eligible for inclusion.

Note: For Worcester (sprp_dis in ('03480000'), if testMCASsch <> '1' then testMCASdis is set to '0'. This update has been done in the student level data.
 - b. School Level (sch): Only Students from schools listed in daTestMCASschlookup where TestMCASsch='1', are eligible for inclusion.
- 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).

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

ii. **Number and Percent of Students by Achievement Level** (*tblSummary*)

- Grades 03-08, ela and mat: State level results are calculated but suppressed from the reports.
- Calculated by grade and subject at the school, district, and state level.
- Grade 09 and 10 HS Science: all individual science subjects are aggregated together by grade as “sci”.
- Calculations are performed using tblScoredItem.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).
- The following exclusions are applied to the pool of eligible students:
 - a. Grade 05, 08, and 09 Science(s), 03-10 Math and ELA:
 - Students with OctEnrol ≠ '1' are excluded at the school level, unless they are in a one-school district.
 - b. Grade 10 Science (HS STE's):
 - 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.
 - Students with ConEnr_Dis ≠ '1' are excluded at the district level (as well as at the school level for one-school districts).
 - Students with ConEnr_Sta ≠ '1' are excluded at the state level.
- 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).
- **Minimum N-Requirement:** if N < 10 for a school or district results are calculated but suppressed from reports.

iii. **P34** (*tblSummary*)

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

iv. **Median Student Growth Percentile** (*tblSummary*)

- The Median Growth Percentile (*median*) is calculated at the school, district and state level in Math and ELA for grades 04-08 and 10.
- The number of students with growth included in the calculation is stored in *MedianIncluded*.
- All students with tblScoredItem.GP populated are eligible to be included in the calculations.
- The following exclusions are applied to the pool of eligible students:

- a. Students with OctEnrol ≠ '1' are excluded at the school and district level, unless they are at a one-school district.
- State Median growth is defaulted 50 (after computing *MedianIncluded* at the state level) for Math and ELA, all grades.
- Median and MedianIncluded are null for grades/subjects without growth data.
- **Minimum N-Requirement:** if $N < 20$ for a school or district results are calculated but suppressed from reports.

v. **State Reporting Category Performance Comparison** (*tblRepCatSummary*)

- 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.
- Standard assessment students with partstatus = 'Z' and a scaledscore = '240' are included
- For PARCC reporting categories, the standard assessment students included above who also attempted PARCC are included.

Data Deliverables Specifications

I. Writing Composition Images

One pdf with results and an image of the student's submitted writing composition (or typed response) is posted to the website for viewing by the school, district, and state administrators for each student Tested in ELA with a writing composition. See the Holder Table Specifications for website details.

A. Calculations and Details

- i.* The table `wcilmgVwrFinalDistrict` is populated by DA to support the web views of the student composition images and scores.
 - PDFs are available for all students included in this table. Students excluded from this table will not have an image available. Inclusion Rules:
 - a. Only students with a writing composition `bookletnumber` are included (`bookletnumberWri` ≠ blank).
 - b. Students classified as INV (N), DUP (I, N), VAB (H), INC (B) or DNT (J) are excluded.
 - Calculations:
 - a. Score = sum of `mfWPCC` and `mfWPCT` from `tblScoredItem`, formatted to always contain 2-digits. If the student received a Not Scorable code instead of dimension scores, or if the dimension scores are blank, Score = "00".
 - b. WPCC and WPCT = `mfWPCC` and `mfWPCT` from `tblScoredItem`, respectively. Blank responses are formatted to "BL".
 - c. `Bookletnumber` = `tblStudememo.BookletNumberWri`
 - d. Grade = test grade
 - e. `SpecialEd` and `Plan504` are combined to create IEP504. If either `tblStudememo.SpecialEd` or `tblStudememo.Plan504` = '1' then IEP504 = '1'. Otherwise IEP504 = '0'.
 - f. If IEP504 = '0' then `RegularEd` = '1'. Otherwise `RegularEd` = '0'.
 - g. `tblStudememo.LEP` is renamed ELL.
 - h. If `ELL`, `FLEP`, `Ever_ELL`, or `Title1` are null then default to '0'.
 - i. If `Ethnic` or `Gender` are null then default to 'X'.
- ii.* If a student is included in `wcilmgVwrFinalDistrict` but does not have a writing composition image available, a generic pdf is created displaying their available score information.
- iii.* Specifications are available for internal processing in the Writing `CompositionTableLayout.xlsx` document.

II. MegaFile(s)

A. Generic Details

- i. Megafile deliverables are posted by grade to the FTP site for the state and contain data for all processed students.
- ii. All MegaFile deliverables follow the most recent layout: MCAS 2015-16 File Layout_new.xlsx.
- iii. PARCC data is reported starting with the pre-discrepancy release.
- iv. Test-result based fields that are not applicable to particular deliveries are left blank. SIMS based fields are populated for all releases.
- v. Amend
 - Students with Amend \geq '1' are reported as Amend = '1'.
 - Otherwise Amend is blank.
- vi. DataChanged
 - DataChanged indicates if a student's record has changed since a prior release of the file. It is defaulted to '0' for all students, and then incrementally updated for each data revision to the latest revision number in which a change occurred. Prior values are maintained through each revision.
 - The Early ELA and Math and Science MC contain incomplete results for students and should not be considered when setting datachanged for the Preliminary Data Release.
 - Students whose record changes during the discrepancy period are flagged as datachanged = '1' (first full revision) in the post-discrepancy reporting file (release 4).
 - Any additional reruns of post-discrepancy data will have changes flagged incrementally.
 - The file *DataChangedVariables.xlsx* indicates which fields are included in determining datachanged. eSGP and mSGP are excluded from the determination in Release 4 (post-discrepancy) when comparing to Release 3 (pre-discrepancy) because growth is not populated until release 4. These fields are included in all subsequent runs after Release 4.
- vii. Commas are suppressed from school and district names, and student names.
- viii. See Measured Progress document *SIMS Mapping.xlsx* for a crosswalk of Measured Progress calculated fields and renamed SIMS fields in DPRaw to their respective Megafile fields that are not specifically listed below, indicating that no additional formatting is required from the source table.
- ix. Attempt_[ela/mat] = if tblstudememo.Attempt[e/m] is 'F' then '1', if 'P' then '2', else blank. This calculation occurs prior to the calculation of the partstatus.
- x. parcc_attempt_[ela/mat] = '1' if at least one PARCC item was attempted, else blank. This calculation is independent of the partstatus calculation.
- xi. [e/m/s]Alt = tblStudememo.[e/m/s]Alt. If Alt = '0' then set to blank.
- xii. LEPFirst = tblStudememo.LEPFirst. If LEPFirst = '0' then set to blank.
- xiii. Accom26l = DPRaw.ElaAccom26. If it is '0', then set it to blank.
- xiv. Accom29c = DPRaw.CompAccom29. . If it is '0', then set it to blank.
- xv. Accom30m = DPRaw.MatAccom30. . If it is '0', then set it to blank.

- xvi. [e/m/s]TestStat = tblStudemo. [e/m/s]TestStat
- xvii. [e/m/s]ScaledS = tblScoredItem.mfscaledscore. This is the combined current year and prior year official scaled score results for students included in aggregations and accountability.
- xviii. [e/m/s]Perflev = tblScoredItem.mfPerfLev. This is the formatted current year achievement level or code.
- xix. [e/m/s]Perf2 = tblScoredItem.mfPerf2. This is the formatted combined current and prior year achievement level results for accountability and aggregations. Set to blank for Grade = '09'.
- xx. [e/m/s]_CD = tblScoredItem.mfCD. This is updated with current-year results.
- xxi. [e/m/s]SGP = tblScoredItem.GP by subject. This is the reported current-year student growth percentile.
- xxii. WPwptopdev = mfWPCT; wpcomconv = mfWPCC from tblScoredItem.
- xxiii. Item scores and raw scores are printed as they are stored in tblScoredItem in their respective fields without any additional formatting.
- xxiv. Historical grades, scaled scores, and growth percentiles by year are populated from the audited values in tblStudemo, where scores have been blanked when grades are not in the expected sequence.
 - If a historical scaled score is '0' it is set to blank.
 - If a historical growth percentile is '0' it is set to blank.
- xxv. If Grade = '09' then the following accountability fields are set to blank:
 - sPerf2
 - sCPI
 - sNumin
 - sAssess

(Grade 09 test results are not included in ESE aggregate calculations until their accountability year)

B. Early ELA Specifics

- i. File Name:MCASYYYY_ELAXX.dat
Where YYYY = 4-digit test year (e.g. 2013), XX = 2-digit file grade.
- ii. Files are produced for grades 03-08 and 10.
- iii. DataChanged = '0' for all students. If there is a rerun of the Early ELA file datachanged will be set based on comparison to the prior Early ELA file and incremented for each rerun. Values will not impact datachanged values in any other files.
- iv. MCASRowID
The mcasrowid is a 15 digit alpha-numeric field created in the following manner:
 - 2 digits = administration year (ie: 16 for the 2016 test)
 - 2 digits = grade (03-08 or HS (09 and 10 tests))
 - 1 digit = test (2 = ELA)
 - 10 digits = bookletnumber (derived by DP from the student's SASID or submitted answer document)
- v. The following ELA specific fields are not populated:
 - eAlt

- eComplexity
 - enumin
 - eassess
 - esgp
- vi. elaCD = tblScoredItem.mfCD and is considered a preliminary updated competency determination.
- vii. All math and science test based fields (fields from tblScoredItem) are blank. Math and science SIMS fields are populated with available data (DPRaw, tblStudememo sources for ReleaseID = 1).

C. Math & Science MC Only Specifics

- i. Files:
- For math, file name "MCASYYYY_MCMathXX.dat" where YYYY = 4-digit test year (e.g. 2013), XX = 2-digit file grade.
 - a. Produced for Grades 03-08 and 10.
 - For Science, file name "MCASYYYY_MCSciXX.dat" where YYYY = 4-digit test year (e.g. 2013), XX = 2-digit file grade.
 - a. Produced for Grades 05 and 08.
- ii. DataChanged = '0' for all students. If there is a rerun of the Math/Science MC Only files datachanged will be set based on comparison to the prior Math/Science MC Only files and incremented for each rerun. Values will not impact datachanged values in any other files.
- iii. MCASRowID

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

- 2 digits = administration year (ie: 16 for the 2016 test)
 - 2 digits = grade (03-08 or HS (09 and 10 tests))
 - 1 digit = test (3 = Math/Science)
 - 10 digits = bookletnumber (derived by DP from the student's SASID or submitted answer document)
- iv. The following Math/Science related fields are not populated:
- (m/s)Alt
 - (m/s)Complexity
 - (m/s)Scaleds
 - (m/s)Perf2
 - (m/s)numin
 - (m/s)assess
 - (m/s)sgp
 - (m/s)_cd
- v. All Test-based ELA specific fields will be left blank. ELA specific SIMS fields are populated with available data (from DPRaw, tblStudememo for releaseID = 2).

D. Preliminary Release Specifics

- i. File Name:MCASYYYY_XX.dat
Where YYYY = 4-digit test year (e.g. 2013), XX = 2-digit file grade.
- ii. Files are produced for grades 03-08, and HS (includes test grade 09 and 10 data).

iii. DataChanged = '0' for all students. DataChanged values from the Early ELA and Math/Science Released of the megafile are not maintained.

iv. MCASRowID

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

- 2 digits = administration year (ie: 16 for the 2016 test)
- 2 digits = file grade (03-08 or HS)
- 1 digit = test (1 = Standard)
- 10 digits = bookletnumber (derived by DP from the student's SASID or submitted answer document)

v. All SIMS and test-based data for all applicable fields are populated per standard decision rules.

E. Post-Discrepancy Final Release Specifics

i. File Name:MCASYYYY_XX.dat

Where YYYY = 4-digit test year (e.g. 2013), XX = 2-digit test grade.

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

iii. DataChanged is taken from the Preliminary Release file. 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.

iv. MCASRowID

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

- 2 digits = administration year (ie: 16 for the 2016 test)
- 2 digits = file grade (03-08 or HS)
- 1 digit = test (1 = Standard)
- 10 digits = bookletnumber (derived by DP from the student's SASID or submitted answer document)

v. All SIMS and test-based data for all applicable fields are populated per standard decision rules.

III. Accommodation Data File(s)

A. File Name: [sub]Accom.csv

B. One file is produced by subject including all students in all grades.

C. The file contains grade (tested grade), Bookletnumber, Discode, Schcode, simsDiscode, simsSchcode, sendDiscode, sasid, sped_off, and the subject-specific accommodations (renamed per the ESE naming conventions found in the State File Layout) from DPRaw.

IV. Questionnaire Data File(s)

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

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

C. Files are produced for Grades 08 and 10.

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

E. Questionnaire responses are taken as-is from DPRaw.

V. Alt & Standard Results Data Files

- A. 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 the ESE to determine if any students should have their Standard Assessment results override their Alternate Assessment results.

VI. Missing Grade Span Data File

- A. File will list all public sprp_sch codes that are in the Preliminary data (release 3) that are not listed in the Grade Span Lookup provided by the ESE.
- B. This file is only produced if needed. The ESE will provide an updated Grade Span lookup prior to final reporting to ensure all official schools have an associated grade span.

VII. State Student Results Data File – This Section may require updates after discussing how the PARCC items will be included

- A. File Name: MCASYYYY_XX.dat
Layout Name: 'MCAS Spring YYYY State File Layout.xls'
Where YYYY = 4-digit test year (e.g. 2013), XX = 2-digit test grade.
- B. Files are produced for grades 03-08 and HS (includes test grade 09 and 10 data).
- C. Student item responses are taken from daPlusData in test position order, including matrix and field-test items. Blank open response items ('B') are reformatted to blank.
 - i. For High School Science, if a student's rptSciTry is different from the daPlusData subject, the responses are set to blank, form is set to "00", and the subject is updated to reflect the rptSciTry subject.
- D. MoveIn and MoveOut calculations
 - i. If "Added" is bubbled on a student's answer booklet for any subject then Movein = '1'. Otherwise it is NULL.
 - ii. If "Removed" is bubbled on a student's answer booklet for any subject then Moveout = '1'. Otherwise it is NULL.
- E. Except for the variables listed above, all other variables (including datachanged) in the state file layout are pulled from the following sources without any additional formatting based on the following hierarchy:
 - i. Current megafdata data.
 - ii. Current tblstudemo data.
 - iii. Current Ddraw data.

VIII. Student Report Translation Counts

- A. File Name: MCASYYYY Interp Lang Counts.xls
- B. One file is produced by listing all schools and districts receiving student reports with a count of the number of students in each language:

DPRaw. FirstLanguage	Language	iCore Shipping Form
135	Arabic	01
001	Cape Verdean	02
002		
200	Chinese	03
520		
225	Haitian Creole	04
430	Khmer	05
445	Korean	06
006	Portuguese	07
665	Russian	08
007	Spanish	09
825	Vietnamese	10

- C. Guides are provided in the 03-08, 10 report format, or grade 09 report format. Grade 03-08 and 10 students receive the 2-3 subject report templates are counted together for the 03-08,10 counts. Grade 09 students and Grade 10 students receiving science-only reports are counted together for the Grade 09 template.

IX. Discrepancy Table

- A. Table Name: tblDiscrepancy
- B. Layout: MCASYYYYDiscrepancy.xls
- C. Contains reporting data for all students processed during preliminary reporting.
- D. Sources:
 - i. Data are taken from tblStudemo after audits when applicable.
 - ii. Otherwise they are taken from DPRaw.
 - iii. EditDiscode = discode, EditSchCode = Schcode.

X. Discrepancy File

- A. File Name: tblDiscrepancy
- B. Layout: MCASYYYYDiscrepancy.xls
- C. Contains all data from tblDiscrepancy after the discrepancy period has closed with the edits from the field, ESE users, and MP users. Only students that had an update made are included (Edit = 'U', DESEflag = 1, or MPflag = 1, or DESEReviewed = 1).

Report Deliverables Specifications

I. Student Labels

A. Definitions

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

- i. Suppress – if grade = '10' and summarize = '0' then do the following:
 - If the student returned a HS Science booklet and both Math and ELA booklets were not returned (BookletNumberSci is not NULL and BookletNumberELA is NULL and BookletNumberMat is NULL) then Suppress = 1.
 - Otherwise, Suppress = 2.

These students are not required to test and will have certain aggregation displays suppressed from their reports. The two Suppress values are used to identify which report template to use when reporting the student.

- ii. Data listed as being taken “from SIMS” are taken from tblStudemo, after any necessary audits are complete. If the student does not link to SIMS the data are blank.

B. Templates

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 Suppress = 1.
- ii. Two subjects – grades 03, 04, 06, 07
- iii. Three subjects – grades 05, 08, 10 where Suppress ≠ 1.

C. Label Displays

- i. Student Name (Section1a) –
 - 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
 - This section requires special formatting when one or more of the names are missing:
 - a. If Lname is blank and Fname is blank, then section = “BLANK NAME”
 - b. If Lname is blank and Fname is not blank, then section = “Fname BLANK”
 - c. If Lname is not blank and Fname is blank then section = “BLANK Lname”
- ii. Grade
 - If grade='10' and summarize = 0 and StuGrade <> 'SP' then use the use StuGrade from SIMS.
 - Otherwise use the Test Grade and remove any leading zeroes.
- iii. SASID – Student ID from SIMS, no special formatting applied.
- iv. 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.
- v. Birth Date – DOB from SIMS, no special formatting applied. Stored in tblStudemo.DOB.

- vi. Test Date: “Spring 20YY” where 20YY = test year, e.g. 2013.
- vii. Subject Title (Section1i, Section1l, Section1o) – Formatted with the following values:
 - If subject = ‘ela’ then ‘English Language Arts’
 - If subject = ‘mat’ then ‘Mathematics’
 - If subject = ‘sci’ then and grade is 05 or 08 then ‘Science and Technology/Eng’
 - 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’
- viii. Scaled Score – student earned scaled score stored as rScaledScore in tblScoredItem. If a student did not earn a scaled score for a tested subject (rScaledScore is NULL) the display is formatted as “---”.
- ix. Achievement level (Section1k, Section1n, Section1q) – 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 from tblScoredItem. This is always populated if the subject existed at the tested grade.

II. Student Report

The following sections discuss the formatting of the various displays presented on the student report. All calculations and aggregation rules can be found in earlier sections of this document. These sections will refer to the following schema notation files when necessary for providing information for specific report templates:

MCAS1516StudentReportSchemaNotation03.pdf

MCAS1516StudentReportSchemaNotation04.pdf (templates for test grades 04, 06, 07)

MCAS1516StudentReportSchemaNotation05.pdf (templates for test grades 05, 08)

MCAS1516StudentReportSchemaNotation09.pdf (templates for test grades 09, 10)

For 15-16, the 03-08 field tested Math and ELA PARCC items are incorporated into the existing 03-08 student report and are reported for students receiving an MCAS student report with item level and reporting category data.

A. Definitions

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

- i. NoScience – Student tested in grade 09 or 10 and either did not return a HS science booklet (BookletNumberSci is NULL) or the student is not expected to participate in the HS science test (PartStatusSci is in ‘A’, ‘C’, ‘W’, ‘K’, ‘L’, ‘P’). These students will have certain science displays suppressed from their reports.
- ii. Suppress – if grade = ‘10’ and summarize = ‘0’ then do the following:
 - If the student returned a HS Science booklet and both Math and ELA booklets were not returned (BookletnumberSci is not NULL and BookletNumberELA is NULL and BookletNumberMat is NULL) then Suppress = 1.
 - Otherwise, Suppress = 2.

These students are not required to test and will have certain aggregation displays suppressed from their reports. The two Suppress values are used to identify which report template to use when reporting the student.

- iii. Data listed as being taken “from SIMS” are taken from tblStudemo, after any necessary audits are complete. If the student does not link to SIMS the data are blank.

B. Cover Page

- i. Title (Section1a) – “Spring 20YY MCAS Tests” where 20YY = test year, e.g. 2014.
- ii. 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

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

- If Lname is blank and FName is blank, then section = “BLANK NAME”
 - If Lname is blank and FName is not blank, then section = “BLANK, FName”
 - If Lname is not blank and FName is blank then section = “Lname, BLANK”
- iii. SASID – Student ID from SIMS, no special formatting applied.
 - iv. School Name and District Name – School and District names from iCore based on testing school. No special formatting applied.
 - v. Grade
 - If grade='10' and summarize = 0 and StuGrade <> 'SP' then use the use StuGrade from SIMS.
 - Othersiwe use the Test Grade and remove any leading zeroes.
 - vi. DOB – DOB from SIMS, no special formatting.

C. Reporting Category Display

- i. Subject (Section6a) – Formatted with the following values:
 - If subject = 'ela' then 'English Language Arts'
 - If subject = 'mat' then 'Mathematics'
 - If subject = 'sci' then and grade is 05 or 08 then 'Science and Technology/Engineering'
 - 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 = ELA
 - 2 = Mathematics
 - 3 = Science (includes grade05/08 and HS sciences)
- iii. Reporting category text and two-character codes (Section6b and Section6c) – refer to daReportingCategoriesLookup for the approved text and codes (see *Appendix D*).

- iv. Points earned by your child (Section6f) – nRepCatX variables from tblScoredItem, no special formatting where X= the Reporting category RepOrder in tblPointsPossible.
- v. Possible Points (Section6g) – Points variable from tblPointsPossible, no special formatting.
- vi. Percent of points earned by your child (Section6d) – pRepCatX variables from tblScoredItem. If the pRepCat variable is not blank, then place % symbol immediately after the number. Example: 15%.
- vii. Percent of points earned by minimally proficient kids (Section6e) – pPoints variable from tblRepCatSummary. Place % symbol immediately after the number. Example: 15%.
 - This data is always displayed when the grid is displayed, regardless of whether or not the individual student has earned reporting category points.
 - 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).
- viii. Students identified as NoScience do not receive the science grid portion of the display.
- ix. Students identified as Suppress do not have this display on the report (all subjects).
- x. The PARCC reporting categories are incorporated into this display as applicable.

D. Released Item Display

- i. *Subject Title* (Section7a) – Formatted with the following values:
 - If subject = 'ela' then 'English Language Arts'
 - If subject = 'mat' then 'Mathematics'
 - If subject = 'sci' and grade is 05 or 08 then 'Science and Technology/Engineering'
 - 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 = ELA
 - 2 = Mathematics
 - 3 = Science (includes grade05/08 and HS sciences)
- iii. *Order of rows within each grid*

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

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

iv. *Order of items*

- For tests without writing, the items are ordered from left to right in released item order
- For tests with writing, the two writing prompt scores are presented first followed by the rest of the test items in released item order: WPCT, WPCC, followed by all other items.
- Item responses in tblScoredItem are already ordered by released item order.
- PARCC Item responses will be reported in the order they are seen in the test booklet, this includes the Overall PARCC Writing Composition score.

v. *Formatting of Student Responses*

- Formatting of the items for the Student Report is mostly completed in tblScoredItem, with the following additions:
 - a. If the student correctly responded a '+' is stored in tblScoredItem for all MC items and "SA" math items. This is translated to a 'P' in the reporting data so that a check mark is displayed.
 - b. Incorrect MC and "SA" math items are already formatted to display the student's incorrect response option.
 - c. Otherwise for all other open response and all PARCC items the points earned by the student from tblScoredItem is presented along with the possible points for the item separated by a "/". Examples: 2/4 or 7/12.

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

vii. Item responses are blanked out in tblScoredItem for students that should not receive reported item responses in the display (this also applies to the PARCC items, based on Parcc Attemptedness and the breach list).

viii. The PARCC items will be displayed in two additional tables. One for ELA and one for math. See the approved student report schema files.

E. Student Achievement Level and Scaled Score Statements (inside, section2)

i. Test Grade reference (Section1b) – "Your child's 2015 grade Section1b achievement levels and scores"

The Section1b refers to the grade of the test taken. This Section1b reference does not appear on the grade 09 test or on the reports for kids identified as Suppress (1 or 2).

When it appears, Section1b is equal to the test grade with leading zeros removed.

- ii. Achievement level (Section2a, Section2g, Section2n) – 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 tblScoredItem.
- iii. Score (Section2c, Section2i, Section2p) – contains the reported scaled score, the rScaledScore variable from tblScoredItem.
- iv. Growth Percentile (Section2e, Section2k) – contains the student growth percentile as provided by the ESE and stored in tblScoredItem.

- v. Graduation requirement footnotes (Section2b, Section2h) – contains the text from tblCDFootnoteLookup (see *Appendix F*) associated with the CDFootnote variable in tblScoredItem.
- vi. Growth Percentile footnotes (Section2f, Section2l)
 - *GP* = student growth percentile from tblScoredItem.
 - ELA: "Your child's [Current year, e.g 2016] MCAS English Language Arts score is higher than the scores of *GP*% of the students in the state who received similar MCAS English Language Arts scores in prior years."
 - Math: "Your child's [Current year, e.g 2016] MCAS Mathematics score is higher than the scores of *GP*% of the students in the state who received similar MCAS Mathematics scores in prior years."

F. Scaled Score / Achievement Level Bar Graph Display

- i. Current year scaled scores
 - Use rScaledScore from tblScoredItem
 - Contains standard error bar (lowScaledScore and highScaledScore from tblScoredItem)
- ii. Historical scaled scores
 - Use scaled scores from SIMS for ELA and Math stored in tblStuDemo as [subject]scaledscore1 and [subject]scaledscore2 and [subject]scaledscore3 (1 = 2013, 2 = 2013, 3 = 2014), where [subject] = ela or mat.
 - No standard error is reported.
 - Science does not have a bar graph to show prior year scores in addition to the current score.
 - Grades 03 and 09 do not have historical scores.
 - Grade 04 reports only one year (2014) of historical scores.
 - Grade 10 reports will display years of 2015, 2014, and 2013
- iii. Historical score footnote
 - If a historical score is missing, an * is placed to the right of the year label for the missing score and the following footnote appears below the display:

*Score not available

G. Achievement Level Comparison Table

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

- iii.* State column – the state achievement level percentages from tblSummary.
 - For grades 03-08 ela/mat: State level achievements are not reported.
- iv.* Percentages are formatted with a % directly after the number. Example: 15%
- v.* Display is not shown on reports for students identified as Suppress = 1 or 2.
- vi.* If the display is shown, the school, district, and state data are displayed regardless of whether or not the student earned an achievement level.
- vii.* New PARCC related footnotes:
 - (3-8) A footnote will appear indicating that the ela and math state results are NOT reported.
 - (3-8) For students in the district Worcester a footnote will appear indicating that the ela and math district results only include a portion of the students in that district.

Please see approved report notation files for final text.

H. Student Growth Percentile Display

- i.* Your Child – presents the student’s growth percentile
 - GP from tblScoredItem is used to mark the location of the circle with score.
 - lowGP and highGP from tblScoredItem are used to draw a standard error bar behind the student score circle.
- ii.* School/District – Median value from tblSummary for school/district based on official school and district (sprp_sch and sprp_dis).
- iii.* School/District Medians are displayed regardless of whether or not the student has a growth percentile displayed.

Appendix

A. PerfLevel Lookup for MegaFile Codes (*PerfLev, Perf2*)

For reformatting *tblScoredItem rPerfLevel* to *mfPerfLevel* and *Perf2* to *mfPerf2*.

Achievement Level or Part Flag	Mega File 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
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
Q	PRC	Participated in PARCC

B. 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

C. daDayForm Lookup

This table lists the first item position on the second day of testing:

Grade	Subject	Day2FirstItem
10	ela	37
10	mat	27

D. daReportingCategoriesLookup

This table lists the possible item reporting categories by subject. The actual reporting categories that exist may vary by grade and year. The provided sort order is the generic hierarchy of appearance when a reporting category exists for a grade:

Subject	Generic Sort Order	dalref. Cat2	Item Display Code: (RepCatCode)	Student Report Text: (RepCatText)
ela	1		LA	Language
	2		LT	Reading
	3		CT	Composition Topic Development
	4		CC	Composition Standard English Conventions
	5		PR	PARCC Reading
	6		PW	PARCC Writing
mat	1		OA	Operations & Algebraic Thinking
	2		NT	Number & Operations in Base Ten
	3		NF	Number & Operations-Fractions
	4		MD	Measurement and Data
	5		RP	Ratios & Proportional Relationships
	6		NS	The Number System
	7		EE	Expressions & Equations
	8		FN	Functions
	9		NQ	Number & Quantity
	10		AF	Algebra & Functions
	11		GE	Geometry
	12		SP	Statistics & Probability
	13		PM	PARCC Mathematics
sci	1	1	ES	Earth and Space Science
	2	2	LS	Life Science
	3	3	PS	Physical Sciences
	4	4	TE	Technology/Engineering
bio	1	1	BC	Biochemistry and Cell Biology
	2	2	GE	Genetics
	3	3	AP	Anatomy and Physiology
	4	4	EV	Evolution and Biodiversity
	5	5	EC	Ecology
che	1	1	TH	Properties of Matter and Thermochemistry
	2	2	AS	Atomic Structure and Periodicity
	3	3	BR	Bonding and Reactions
	4	4	SO	Solutions, Equilibrium, and Acid-Base Theory
phy	1	1	MF	Motion and Forces
	2	2	HT	Heat and Heat Transfer
	3	3	WV	Waves and Radiation
	4	4	EM	Electromagnetism
tec	1	1	ED	Engineering Design
	2	2	CM	Construction and Manufacturing
	3	3	FL	Fluid and Thermal Systems
	4	4	EL	Electrical and Communication Systems

E. Non-Standard Accommodation Footnote Text (Student Report):

tblStudemo. NSAFooter ID	Non-Standard Accommodation	Text
1	ElaAcom26	Information provided by the school indicates your child received a nonstandard accommodation (the ELA Reading Comprehension test was read aloud to your child) as required by his or her IEP or 504 plan.
2	CompAccom29	Information provided by the school indicates your child received a nonstandard accommodation (the ELA Composition test was scribed for your child) as required by his or her IEP or 504 plan.
3	ElaAccom26 and CompAccom29	Information provided by the school indicates your child received a nonstandard accommodation (the ELA Reading Comprehension test was read aloud to your child; the ELA Composition test was scribed for your child) as required by his or her IEP or 504 plan.
4	MatAccom30	Information provided by the school indicates your child received a nonstandard accommodation (your child used a calculator for the non-calculator session of the Mathematics test) as required by his or her IEP or 504 plan.

F. Graduation Requirement Status Footnote Text (Student Report):

tblScoredItem. CDFooter	Text
1	Your child has not met the MCAS graduation requirement in this subject.
2	Your child has met the MCAS testing requirement in this subject for graduation, but requires an Educational Proficiency Plan.
3	Your child has met the MCAS graduation requirement in this subject.
4	Your child has already met the MCAS graduation requirement in this subject.