

## TEST RESULTS TRANSMISSION FORMAT

### Revision History

Revision Description	Author/Modifier	Date
2.0: New version of the document is released. Major updates to definitions, requirements, acceptable values, and the layout of the document.	Smarter Balanced	03/12/20

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## **Purpose**

The purpose of this document is to provide a format specification describing the output of a Test Delivery System (TDS), which feeds into a Test Integration System (TIS), and then feeds into the Data Warehouse (DW). The interface is exactly the same for both: the TDS output contains the complete specification for TDS-to-TIS and TIS-to-DW. The specification includes a table describing each XML node and attribute. No matter the TDS or TIS, the DW requires student test result information to be ingested in this format. In addition, the XSD and a sample XML file are available.

## **Test Integration Data Flow Overview**

This document describes the data interface between a Test Integration component and one or more Data Warehouses.

Test Integration receives the completed assessment from Test Delivery, delivers responses to external scoring engines, receives and collates results from external scoring engines. Their format has been designed with optimal flexibility, in order to capture information for any type of assessment. For this reason, many of the nodes and attributes are normalized to name/value pairs, rather than being hard-coded to accept specific data fields.

## **Types of Data Ingests**

Service Providers may provide data to the DW for a variety of reasons as per the requirements of contracts with a specific member state or territory. The Test Results Transmission (TRT) Specification is written in broad terms to allow the highest number of scenarios to be covered. However, it should be noted, that this document cannot cover every scenario given the different reporting requirements of various states.

The information in a TRT is used in several capacities including reporting scores to educators, and analytics to evaluate test efficiency. Some TDS field requirements change depending on the type of test, use of data, and requirements of the client. The transmission of PII data and/or de-identified data may change requirements as well.

Therefore, a best practice is for Service Providers and Smarter Balanced to conduct a TRT mapping exercise to assist in providing a more granular discussion for each field and acceptable values.

## **Preparing for Ingest**

Before starting the transmission, Smarter Balanced and the Service Provider will complete a TRT mapping exercise. Service Providers and Smarter Balanced will review the following TRT specification and discuss any acceptable values or fields that require clarification.

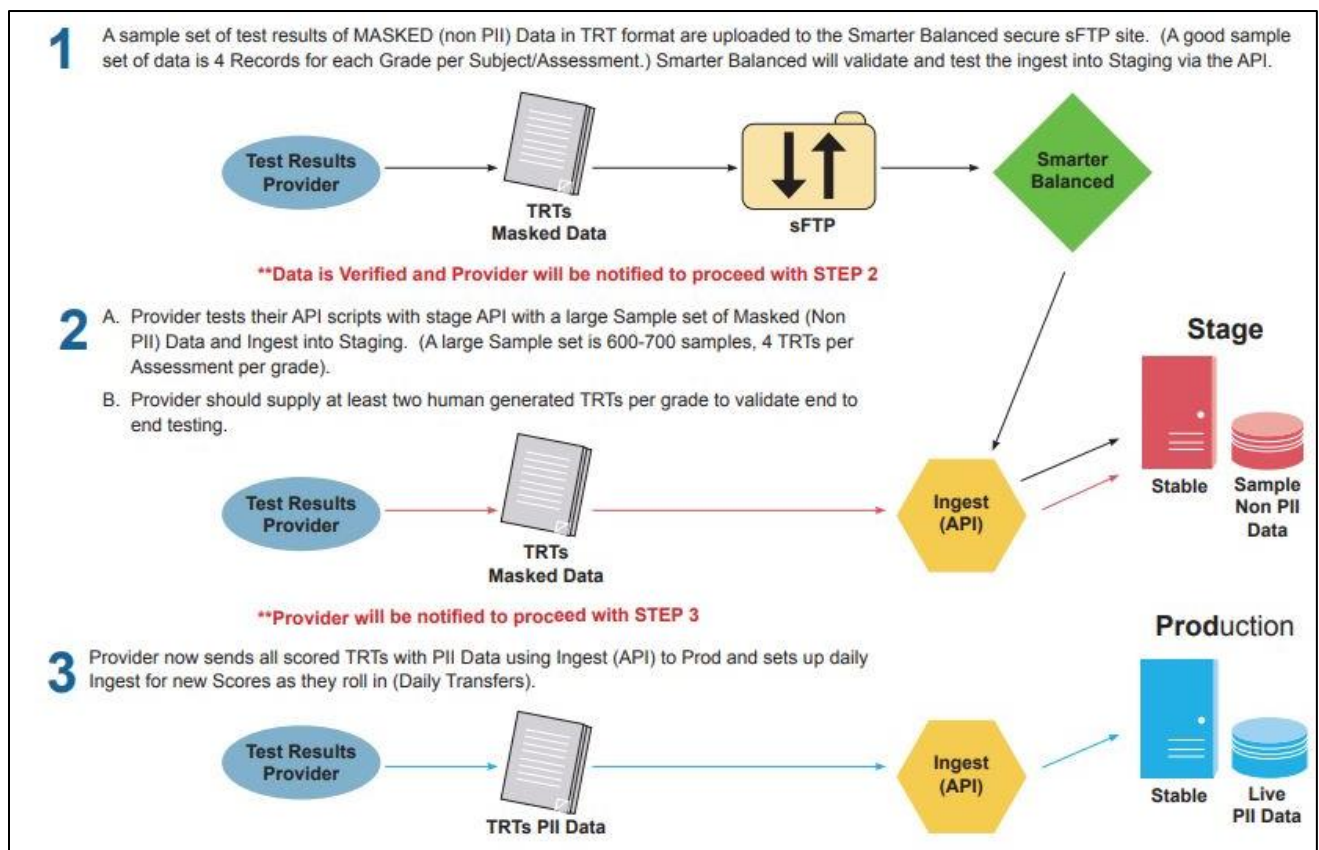
Next, the Service Provider and Smarter Balanced will review the subject configuration workbook for any non-Smarter Balanced assessments to develop the subject and test

definition files used in the Reporting Data Warehouse (RDW). TRTs for Smarter Balanced assessments will follow the naming conventions and configuration as set forth by the test package (these are noted in the TRT specification below).

## Data Transmission Process

Once the TRT mapping exercise and subject configuration workbook are complete, the standardized steps are described in [Figure 1](#) below for the transmission of TRTs from the Service Provider to the RDW. During each step listed below, Smarter Balanced will notify the Service Provider when the system is ready to accept TRTs and into which environment to submit them. The Service Provider will notify Smarter Balanced when they transmit and provide counts of how many TRTs were submitted upon completion for reconciliation.

Figure 1. Assessment Ingest Process



Step 1 in the graphic shows the testing of masked TRT samples. These are posted to the sFTP server for Smarter Balanced to review and validate. Smarter Balanced will test the samples and confirm the formatting is corrected based on the agreed TRT mapping.

In Step 2, the Service Provider sends the masked TRT samples (with any necessary corrections) through the API to Stage to test the API scripts. Once Smarter Balanced completes the quality check in Step 2, Smarter Balanced will inform the Service Provider when the system is ready for Step 3.

In Step 3, the final TRTs will be transmitted into the data warehouse using the API to Production. At the end of transmission, the Service Provider and Smarter Balanced will compare counts and review error reports to ensure the transmissions were successful.

## Test Integration Format Specification

### Test Integration XML Output Format

The following tables provide information regarding the XML output format and its associated XSD, such as the allowable values, sizes, and descriptions, as well as any standards alignment.

The fields in the following tables use these conventions:

- **Case sensitivity:** TDS Field names are case sensitive and follow the guideline that the XML *Node/Element* is in UpperCamelCase, while node *attributes* are in lowerCamelCase.
- **Order sensitivity:** TDS Fields are not order-sensitive.
- **Non-required (optional) fields:** By default, these fields do not need to be included in the XML file. A missing optional field is simply treated as not present or not applicable.
- **Cardinality:** The number of possible instances of a particular node is defined clearly in the XSD.

### CEDS References

The reference columns in the following tables contain footnotes to the appendix at the end of the document. The appendix contains the links to the Common Education Data Standards (CEDS) references that are used to determine appropriate standardization data.

### TDS Report: Test

[Table 1](#) provides the XML Output Format for the XML Hierarchy TDS Report: Test. [Table 2](#) provides clarification and definitions to some acceptable values.

Table 1. Test Integration XML Output Format (TDS Report: Test)

TDS Field Name (attribute)	Data Element Description	Data Type	Required	Width	Acceptable Values	Examples	CEDS Ref
name	Name of the test. For Smarter Balanced the name will match the Test Packages: (SBAC)-Assessment-Subject-SubjectCategory-Grade-AcademicYear. This will be submitted in the following format for non-Smarter Balanced Summative Tests: (State 2 Letter Abbreviation)-Assessment-Subject-Grade#-AcademicYear.	xsd: token	Required; Unique to the DW for each test	250	All test names will be reviewed and approved by Smarter Balanced prior to transmission.	CA-Math-5-Fall-2018-2019	<a href="#">1</a>
subject	Content area of test administered. (e.g., ELA, Math)	xsd: token	Required; Unique to the DW for each test	10	Must match assessment package.	ELA, Math, ELPAC	
testId	The Test Authoring ID of the test, independent of client, season, and year. For Smarter Balanced tests the testID originates in the Test Package. For non-Smarter Balanced assessments, the test ID should follow the following format: (State 2 Letter Abbreviation)-Assessment-Subject-Grade#	xsd: token	Required; Unique by test	255	All testIds will be reviewed and approved by Smarter Balanced prior to transmission.	SBAC-IAB-ELA-BriefWrites-11	<a href="#">2</a>
bankKey	ITS bank of blueprint. For Smarter Balanced assessments, the bankKey is 200	xsd: unsigned int	Required	8	Positive 32-bit integer	200	
handScoreProject	If this test has items that need to be scored by hand, this is the ID of the hand score project (either in own hand scoring center, or an ID to identify a subcontractor's hand scoring project).	xsd: unsigned int	Optional	8	Positive 32-bit integer		
contract	The name of the Service provider's contract with the client.	xsd: token	Optional	100	One or more printable ASCII characters	ELPAC, CAASPP, ELPA	

TDS Field Name (attribute)	Data Element Description	Data Type	Required	Width	Acceptable Values	Examples	CEDS Ref
mode	The method of how a student takes the assessment. Values are defined in the Test Acceptable Values Table.	xsd: token	Required	50	Online Paper Scanned		
grade	Grade the assessment is designed to be taken.	xsd: token	Required	100	See Test Acceptable Values ( <a href="#">Table 2</a> )		<a href="#">3</a>
assessment Type	This field represents the assessment purpose such as Summative or Interim.	xsd: token	Required	20	Interim Summative Note: Any other value needs validation prior to transmission.		<a href="#">4</a>
academicYear	Academic year in which the test is given in YYYY format.	xsd: integer	Required	4	1900 <= YYYY <= 9999	A test given during academic year 2020-21 would be coded 2021.	<a href="#">5</a>
assessment Version	Number identifying the version of the assessment in order to track changes made to an assessment.	xsd: token	Optional	30	Alphanumeric string	abcd12345	

### Acceptable Values for Test Section

Table 2. Test Section Acceptable Values and Definitions

XML Hierarchy	TDS Field Name (attribute)	Acceptable Value	Definition
TDS Report: Test	mode	Online	A student took the test using a computer system.
		Paper	The student took the test on paper and someone entered the answers into the system.
		Scanned	Use of scantron.
TDS Report: Test	grade	T	Infant/toddler



XML Hierarchy	TDS Field Name (attribute)	Acceptable Value	Definition
		PR	Preschool
		PK	Prekindergarten
		TK	Transitional Kindergarten
TDS Report: Test	grade (continued)	KG	Kindergarten
		01	First grade
		02	Second grade
		03	Third grade
		04	Fourth grade
		05	Fifth grade
		06	Sixth grade
		07	Seventh grade
		08	Eighth grade
		09	Ninth grade
		10	Tenth grade
		11	Eleventh grade
		12	Twelfth grade
		13	Grade 13
		PS	Postsecondary
		UG	Ungraded

### TDS Report: Examinee

[Table 3](#) provides the XML Output Format for the XML Hierarchy TDS Report: Examinee.

[Table 4](#) provides a list XML Output Format for the XML Hierarchy TDS Report: Examinee: examineeAttributes including the four TDS fields that will be submitted for each examineeAttribute submitted in a TRT. [Table 5](#) provides a list of acceptable examineeAttributes names and values.

Table 6 provides the XML Output Format for the XML Hierarchy TDS Report: Examinee: examineeRelationships.

Table 3. Test Integration XML Output Format (TDS Report: Examinee)

TDS Field Name (attribute)	Data Element Description	Data Type	Required	Width	Acceptable Values	Examples	CEDS Ref
key	Internal examinee key	xsd: unsigned long	optional	16	Positive 64-bit integer		
isDemo	This field allows a test to be marked as a demonstration TRT.	xsd: boolean	optional	5	True = demo user False = real student		

*TDS Report: Examinee: examineeAttributes*

The examineeAttribute values are the same as used for test registration. Student identity information (name, birthdate and studentIdentifier) is required at registration but may be removed before the data is transmitted from the test delivery system to the data warehouse. Removal is in accordance with local privacy policies. Fields for which this applies are marked “Reg – Y, Rep – N” in the “Required” column below, where Reg = Registration and Rep = Reporting.

In addition to required fields, any student demographic data reporting in the Smarter Reporting System must be transmitted in the ExamineeAttributes for each TRT. For example, if the state wishes to report to their users the Primary Language of the student, then the appropriate attribute must be sent in the TRT.

The following four fields in

[Table 4](#) will be submitted for each attribute from [Table 5](#) transmitted in a TRT.

Table 4. Test Integration XML Output Format (TDS Report: Examinee: examineeAttribute)

TDS Field Name (attribute)	Data Element Description	Data Type	Required	Width	Acceptable Values	Examples	CEDS Ref
name	Name, value, context, and contextDate fields repeat for each attribute provided. See Examinee Attributes (Table 5) for required and optional name and values.	xsd: token	Required for each name field transmitted. See Examinee Attributes (Table 5) for required and optional attributes.	See Examinee Attributes (Table 5)	See Examinee Attributes (Table 5)	Birthdate	<a href="#">6-31</a>
value	An acceptable value from Examinee Attributes (Table 5) for attribute name submitted.	xsd: token	Required for each name field transmitted. See Examinee Attributes (Table 5) for required and optional attributes.	500	See Examinee Attributes (Table 5)	09/01/2010	
context	Identifies when the attribute is submitted. Initial is before scoring phase has been validated. Final is transmission upon the scoring phase being finalized.	xsd: token	Required for each name field transmitted. See Examinee Attributes (Table 5) for required and optional attributes.	50	INITIAL FINAL	FINAL	
contextDate	Date of the context field submission.	xsd: dateTime	Required for each name field transmitted. See Examinee Attributes (Table 5) for required and optional attributes.	23	date+time in ISO 8601 format	2019-05-08T13:26:45.748000	

Table 5. examineeAttribute Table

TDS Field Name (attribute)	Attribute (Value)	Attribute Definition	Data Type	Required	Width	Acceptable Values	Business Rules	CEDS Ref
name	LastOrSurname	Last name of the student.	xsd: token; alphanumeric / special	Required; De-identified data: never	35	One or more printable ASCII characters	FirstName and LastOrSurname are required fields, but TR can be configured to not transmit this data if the State wishes to withhold identity data	<a href="#">6</a>
name	FirstName	First name of the student.	xsd: token; alphanumeric / special	Required; De-identified data: never	35	One or more printable ASCII characters	FirstName and LastOrSurname are required fields, but TR can be configured to not transmit this data if the State wishes to withhold identity data	<a href="#">7</a>
name	MiddleName	Middle name of the student.	xsd: token; alphanumeric /special	Required if available; De-identified data: never	35	One or more printable ASCII characters		<a href="#">8</a>
name	Birthdate	The year, month, and day on which a person was born, in the format YYYY-MMDD (zeropadded)	xsd: string; Numeric+dash	Required if available; De-identified data: never	10	1900 <= YYYY <= 9999 01 <= MM <= 12 01 <= DD <= 31	Add leading zero if less than 2-digit month or day	<a href="#">9</a>
name	StudentIdentifier	State assigned student Identifier which is unique within that state. Every student should have a unique SSID within their state.	xsd: token; alphanumeric	Required; De-identified data: never	40	One or more printable ASCII characters		<a href="#">10</a>

TDS Field Name (attribute)	Attribute (Value)	Attribute Definition	Data Type	Required	Width	Acceptable Values	Business Rules	CEDS Ref
name	AlternateSID	A State assigned student Identifier which is unique within that state. This identifier is used by states that do not wish to share student personal identifying information outside of state-deployed systems. Components sending data to Consortium-deployed systems would use this alternate identifier rather than the student's SSID.	xsd: token; alphanumeric	Optional	50	One or more printable ASCII characters	Do not validate SSIDs differently across different states.	
name	GradeLevelWhenAssessed	Student's enrolled grade.	xsd: token; alphanumeric	Required	2	See Examinee Acceptable Values ( <a href="#">Table 8</a> )	Add leading zero if less than 2 digits.	<a href="#">11</a>
name	Sex	Student's gender.	xsd: token; enum	Required	6	Male Female Nonbinary		<a href="#">12</a>
name	HispanicOrLatinoEthnicity	Hispanic Ethnic Flag	xsd: token; enum	Required	3	Yes No	At least one race field must be marked Yes	<a href="#">13</a>
name	AmericanIndianOrAlaskaNative	American Indian/ Alaska Native Flag	xsd: token; enum	Required	3	Yes No	At least one race field must be marked Yes	<a href="#">14</a>
name	Asian	Asian Flag	xsd: token; enum	Required	3	Yes No	At least one race field must be marked Yes	<a href="#">15</a>

TDS Field Name (attribute)	Attribute (Value)	Attribute Definition	Data Type	Required	Width	Acceptable Values	Business Rules	CEDS Ref
name	BlackOrAfricanAmerican	African American Flag	xsd: token; enum	Required	3	Yes No	At least one race field must be marked Yes	<a href="#">16</a>
name	White	White Flag	xsd: token; enum	Required	3	Yes No	At least one race field must be marked Yes	<a href="#">17</a>
name	NativeHawaiianOrOtherPacificIslander	Native Hawaiian or Pacific Islander Flag	xsd: token; enum	Required	3	Yes No	At least one race field must be marked Yes	<a href="#">18</a>
name	DemographicRaceTwoOrMoreRaces	A person having origins in any of more than one of the racial groups.	xsd: token; enum	Required	3	Yes No	At least one race field must be marked Yes	<a href="#">19</a>
name	Filipino	Filipino Flag - California test results include Filipino as a distinct ethnicity.	xsd: token; enum	Required	3	Yes No	At least one race field must be marked Yes	
name	IDEAIndicator	Student enrolled in IEP.	xsd: token; enum	Required	3	Yes No		<a href="#">20</a>
name	LEPStatus	Student identified as LEP.	xsd: token; enum	Required	3	Yes No		<a href="#">21</a>
name	EnglishLanguageAcquisitionStatus	Student identified as LEP.	xsd: token; enum	Optional	4	See Examinee Acceptable Values ( <a href="#">Table 8</a> )	This field is for California Longitudinal Pupil Achievement Data System (CALPADS). It replaces the LEPStatus field	<a href="#">21</a>
name	Section504Status	Student with 504 plan.	xsd: token; enum	Required	22	Yes, No Unknown/ Cannot Provide		<a href="#">22</a>



TDS Field Name (attribute)	Attribute (Value)	Attribute Definition	Data Type	Required	Width	Acceptable Values	Business Rules	CEDS Ref
name	EconomicDisadvantageStatus	An indication that the student met the State criteria for classification as having an economic disadvantage.	xsd: token; enum	Required	3	Yes No	This field is not CEDS compliant due to the name change from TitleI Targeted Assistance Participation Status	<a href="#">23</a>
name	LanguageCode	The code for the specific language or dialect that a student uses to communicate.	xsd: token; enum	Optional	3	see <a href="http://ceds.ed.gov/language/Codes.aspx">http://ceds.ed.gov/language/Codes.aspx</a>		<a href="#">24</a>
name	EnglishLanguageProficiencyLevel	An indication of the progress made by a student toward English proficiency.	xsd: token; Alphanumeric	Optional	20	One or more printable ASCII characters. Acceptable Values have changed to non-enum, alphanumeric entry.	This field is not CEDS compliant due to the name change from TitleIII Accountability Progress Status (CEDS ID 536).	
name	MilitaryStatus	An indication that the student's parent or guardian is on Active Duty, in the National Guard, or in the Reserve component of the US military service.	xsd: token enum	Optional	25	NotMilitaryConnected ActiveDuty NationalGuardOrReserve Unknown		<a href="#">25</a>

TDS Field Name (attribute)	Attribute (Value)	Attribute Definition	Data Type	Required	Width	Acceptable Values	Business Rules	CEDS Ref
name	MigrantStatus	Persons who are, or whose parents or spouses are, migratory agricultural workers (including migratory dairy workers, or migratory fishers) and who in the preceding 36 months, in order to accompany such parents or spouses or to obtain themselves temporary/seasonal employment in agricultural or fishing work have: (A) moved from one LEA to another; (B) in a state that comprises a single LEA, moved from one administrative area to another within such LEA; or (C) reside in an LEA of more than 15,000 square miles, and migrate a distance of 20 miles or more to a temporary residence to engage in a fishing activity.	xsd: token enum	Optional	3	Yes No <blank>		<a href="#">26</a>
name	FirstEntryDateIntoUS School	The year, month and day of a person's initial enrollment into a United States school.	xsd:string; Numeric+dash	Optional	10	YYYY-MM-DD <blank>		<a href="#">27</a>

TDS Field Name (attribute)	Attribute (Value)	Attribute Definition	Data Type	Required	Width	Acceptable Values	Business Rules	CEDS Ref
name	LimitedEnglishProficiencyEntryDate	The year, month and day a student classified as limited English proficient entered the LEP program.	xsd:string; Numeric+dash	Optional	10	YYYY-MM-DD <blank>		<a href="#">28</a>
name	LEPExitDate	The year, month and day a student classified as limited English proficient exited the LEP program.	xsd:string; Numeric+dash	Optional	10	YYYY-MM-DD <blank>		<a href="#">29</a>
name	TitleIIILanguageInstructionProgramType	Title III Language Instruction Program Type	xsd: token enum	Optional	27	See Examinee Acceptable Values ( <a href="#">Table 8</a> )		<a href="#">30</a>
name	PrimaryDisabilityType	The major or overriding disability condition that best describes a person's impairment.	xsd: token enum		3	See Examinee Acceptable Values ( <a href="#">Table 8</a> )		<a href="#">31</a>

*TDS Report: Examinee: examineeRelationships*

Examinee Relationships define the relationship of the student to the organizations (e.g. district, school).

Table 6. Test Integration XML Output Format (TDS Report: Examinee: examineeRelationship)

TDS Field Name (attribute)	Data Element Description	Data Type	Required	Width	Acceptable Values	Examples	CEDS Ref
entityKey	ART unique identifier for the entity referenced in the examineeRelationship "name" field.	xsd: token	Deprecated	22	Entity identifier + state abbreviation	983685	
name	Name of the entity referenced by the entityKey.	xsd: token	Name, value, context, and contextDate fields repeat for each relationship provided. See Examinee Relationships ( <a href="#">Table 7</a> ) for required and optional attributes.	100	See Examinee Relationships ( <a href="#">Table 7</a> ).	DistrictId	<a href="#">32-36</a>
value	Value of the attribute identified by the examineeRelationship "entityKey" and "name" fields.	xsd: token	Name, value, context, and contextDate fields repeat for each relationship provided. See Examinee Relationships ( <a href="#">Table 7</a> ) for required and optional attributes.	500	Must align with ART for the District ID/ School ID. One or more printable ASCII characters	99988877766655	
context	Identifies when the attribute is submitted. Initial is before scoring phase has been validated. Final is transmission upon the scoring phase being finalized.	xsd: token	Required for each name field transmitted. See Examinee Relationships ( <a href="#">Table 7</a> ) for required and optional attributes.	50	INITIAL FINAL	INITIAL	
contextDate	Date of the context field submission.	xsd: dateTime	Required for each name field transmitted. See Examinee Relationships ( <a href="#">Table 7</a> ) for required and optional attributes.	23	date+time in ISO 8601 format	2014-09-27T17:48:13.917-05:00	

Table 7. examineeRelationship Table

TDS Field Name (attribute)	Attribute (Value)	Attribute Definition	Data Type	Required	Acceptable Values	Business Rules	CEDS Ref
name	StateAbbreviation	2-character state code as defined by CEDS and as extended in acceptable values.	xsd: token; enum	Required	One or more printable ASCII characters	Must be present in database prior to adding students to it	<a href="#">32</a>
name	DistrictId	The district responsible for specific educational services and/or instruction of the student.	xsd: token; alphanumeric	Required; De-identified data: Optional	One or more printable ASCII characters	Must be present in database prior to adding students to it	<a href="#">33</a>
name	DistrictName	The name of a nonperson entity (in this case a district).	xsd: token; alphanumeric	Required; De-identified data: Optional	One or more printable ASCII characters		<a href="#">34</a>
name	SchoolId	The school responsible for specific education services and/or instruction of the student.	xsd: token; alphanumeric	Required; De-identified data: Optional	One or more printable ASCII characters	Must be present in database and associated with Attending District IRN (ResponsibleDistrictIdentifier)	<a href="#">35</a>
name	SchoolName	Institution Name	xsd: token; alphanumeric / special	Required; De-identified data: Optional	One or more printable ASCII characters		<a href="#">36</a>
name	StateName	Full state name	xsd: token; alpha	Required; De-identified data: Optional	One or more printable ASCII characters State Name: spaces and commas allowed.		

TDS Field Name (attribute)	Attribute (Value)	Attribute Definition	Data Type	Required	Acceptable Values	Business Rules	CEDS Ref
name	StudentGroupName	Name of the student group.	xsd: token; alphanumeric	Optional	One or more printable ASCII characters		

*Acceptable Values for Examinee Sections*

Table 8. Examinee Section Acceptable Values and Definitions

XML Hierarchy	TDS Field Name (attribute)	Acceptable Value	Attribute Definition
TDS Report: Examinee: examineeAttribute	name: GradeLevelWhenAssessed	T	Infant/toddler
		PR	Preschool
		PK	Prekindergarten
		TK	Transitional Kindergarten
		KG	Kindergarten
		01	First grade
		02	Second grade
		03	Third grade
		04	Fourth grade
		05	Fifth grade
		06	Sixth grade
		07	Seventh grade
		08	Eighth grade
		09	Ninth grade
		10	Tenth grade
		11	Eleventh grade

XML Hierarchy	TDS Field Name (attribute)	Acceptable Value	Attribute Definition
		12	Twelfth grade
		13	Grade 13
		PS	Postsecondary
		UG	Ungraded
TDS Report: Examinee: examineeAttribute	name: EnglishLanguageAcquisitionStatus	EL	English Learner
		EO	English Only
		IFEP	Initial Fluent English Proficient
		FREP	Fluent Reclassified English Proficient
		TBD	To Be Determined
TDS Report: Examinee: examineeAttribute	name: TitleIIILanguageInstructionProgramType	DualLanguage	Dual language
		TwoWayImmersion	Two-way immersion
		TransitionalBilingual	Transitional bilingual
		DevelopmentalBilingual	Developmental bilingual
		HeritageLanguage	Heritage language
		ShelteredEnglishInstruction	Sheltered-English instruction
		StructuredEnglishImmersion	Structured-English immersion
		SDAIE	Specially designed academic instruction delivered in English (SDAIE)
		ContentBasedESL	Content based ESL
		PullOutESL	Pull out ESL
		Other	Other
TDS Report: Examinee: examineeAttribute	name: PrimaryDisabilityType	AUT	Autism
		DB	Deaf/Blindness
		DD	Developmental delay

XML Hierarchy	TDS Field Name (attribute)	Acceptable Value	Attribute Definition
		EMN	Emotional disturbance
		HI	Hearing impairment
		ID	Intellectual disability
		MD	Multiple disabilities
		OI	Orthopedic impairment
		OHI	Other health impairment
		SLD	Specific learning disability
		SLI	Speech or language impairment
		TBI	Traumatic brain injury
		VI	Visual impairment
TDS Report: Examinee: examineeRelationship	Name: StateAbbreviation	AA	Armed Forces Americas
		AE	Armed Forces Africa, Canada, Europe, and Middle East
		AP	Armed Forces Pacific
		TS	Test State
		OT	Other
		Two-Character US State Identifiers	Defined by CEDS

### TDS Report: Opportunity

This section defines the opportunity and condition of the administration of the assessment.



Table 9. Test Integration XML Output Format (TDS Report: Opportunity)

TDS Field Name (attribute)	Data Element Description	Data Type	Required	Width	Acceptable Values	Examples	CEDS Ref
server	Name of the Test Delivery System (TDS) server used to administer this test.	xsd: token	Optional	128	One or more printable ASCII characters.		
database	Name of the Test Delivery System (TDS) database used to administer this test.	xsd: token	Optional	128	Zero or more printable ASCII characters.		
key	A globally unique identifier for the opportunity. Required to be unique by student and opportunity.	xsd: token	Required	36	One or more printable ASCII characters.		
oppld	A unique identifier (within client) of the test opportunity. Needs to be unique by student and opportunity.	xsd: unsigned Long	Required; this field must be a unique field.	16	Positive 64-bit integer		
startDate	Date and time the student started the opportunity.	xsd: dateTime	Required	23	date+time in ISO 8601 format		<a href="#">37</a>
status	Status of the opportunity.	xsd: token	Required	50	See Opportunity Acceptable Values ( <a href="#">Table 22</a> )		
validity	Validity of the individual test result. Valid means the student's responses are valid whereas invalid means the student's responses may be compromised (e.g. cheating).	xsd: token	Required	7	valid invalid		
completeness	If the opportunity meets the criteria of completing a test. Note: Not all assessments require all questions to be answered to be considered complete.	xsd: token	Required	8	Partial Complete		
opportunity	A counter for the number of times a student has taken this test.	xsd: unsigned Int	Required	8	Positive 64-bit integer		

TDS Field Name (attribute)	Data Element Description	Data Type	Required	Width	Acceptable Values	Examples	CEDS Ref
statusDate	The date and time the status of this opportunity last changed. Generally, this is close to the opportunityDateCompleted, but it can be much later (e.g. for resets, invalidations, hand scores being added).	xsd: dateTime	Required	23	date+time in ISO 8601 format		
dateCompleted	Date the student submitted the opportunity for scoring.	xsd: dateTime	Required	23	date+time in ISO 8601 format		<a href="#">38</a>
pauseCount	Number of times Examinee paused the opportunity.	xsd: unsigned Int	Required	8	Positive 32-bit integer		
itemCount	Number of items in the XML file. Note: these are presented items plus prefetched items (there could be items the student never saw).	xsd: unsigned Int	Required	8	Positive 32-bit integer		
ftCount	Number of field test items in count.	xsd: unsigned Int	Required	8	Positive 32-bit integer		
abnormalStarts	The number of times the test was restarted after an abrupt end to a test (e.g. browser, crash, power shutdown, network loss).	xsd: unsigned Int	Required	8	Positive 32-bit integer		
gracePeriodRestarts	The number of times the student paused the test and restarted it within the grace period (20 minutes).	xsd: unsigned Int	Required	8	Positive 32-bit integer		
TAID	ID of the Test Administrator that administered this test (often the TA's e-mail address).	xsd: token	Optional; De-identified data: never	128	Zero or more printable ACSII characters.		<a href="#">39</a>
TAName	Name of the Test Administrator that administered this test.	xsd: token	Optional; De-identified data: never	128	Zero or more printable ACSII characters.		

TDS Field Name (attribute)	Data Element Description	Data Type	Required	Width	Acceptable Values	Examples	CEDS Ref
sessionId	Test Delivery System's ID for the session in which this test was taken.	xsd: token	Optional; De-identified data: never	128	Zero or more printable ACSII characters.		
windowId	The ID of the window in which the test was administered (e.g., EOC-Spring)	xsd: token	Required	50	One or more printable ASCII characters.		
windowOpportunity	A counter that counts the number of times a student has taken this test in this window.	xsd: token	Optional	8	Zero or more printable ACSII characters.		
completeStatus	Deprecated field. Completeness is the required field.	xsd: token	Deprecated	8	Partial Complete		
administrationCondition	The type of administration for the opportunity. For interim assessments, the administration is considered either standard (SD) or non-standard (NS) and for summative assessments the administration is considered valid (Valid) or invalid (IN).	xsd: token	Required	20	Valid IN SD NS		
dateForceCompleted	The date and time a test is forced completed. Depending on client configuration, a force complete is when a student completes the test, but runs out of time prior to choosing to submit the responses.	xsd: dateTime	Optional	8	date+time in ISO 8601 format		
clientName	Name of the client this test is administered.	xsd: token	Required	255	One or more printable ASCII characters.	Oregon, California	

TDS Field Name (attribute)	Data Element Description	Data Type	Required	Width	Acceptable Values	Examples	CEDS Ref
assessmentParticipantSessionPlatformUserAgent	A list of product tokens (keywords) with optional comments that identifies the client hardware and software with which the assessment was delivered to the student during the assessment session. Implementation Note: The recommended approach is to store the userAgent string returned as part of an HTTP header.	xsd: string	Online: Required	512	<User-Agent string> blank	An assessment session delivery via iPad might have "Mozilla/5.0 (iPad; U; CPU OS 3_2_1 like Mac OS X; en-us) AppleWebKit/531.21.10 (KHTML, like Gecko) Mobile/7B405"	<a href="#">40</a>
effectiveDate	The first date of the first window for a given assessment.	xsd: string	Optional	10	YYYY-MM-DD, where 2000 <= YYYY <= 9999 01 <= MM <= 12 01 <= DD <= 31		
testReason	Enables more granular interim reporting by AIR360.	xsd: string	Optional	255			

### *TDS Report: Opportunity: Segment*

Defines the segments of the assessment and the position of items in the segment.

Table 10. Test Integration XML Output Format (TDS Report: Opportunity: Segment)

TDS Field Name (attribute)	Data Element Description	Data Type	Required	Width (chars)	Acceptable Values	Examples	CEDS Ref
id	Segment the item was administered on.	xsd: token	Required for Interims; Optional for Summative	250	One or more printable ASCII characters.		

TDS Field Name (attribute)	Data Element Description	Data Type	Required	Width (chars)	Acceptable Values	Examples	CEDS Ref
position	Position of the segment on the test.	xsd: unsigned Int	Required for Interims; Optional for Summative	8	Positive 32-bit integer, null allowed		
formKey	ITS key of the form (if algorithm=fixedform).	xsd: token	Optional for Interims; Optional for Summative	100	One or more printable ASCII characters.		
formId	If the algorithm is fixedform, then this is the ID of the form for the segment. Otherwise, null.	xsd: token	Optional for Interims; Optional for Summative	150	One or more printable ASCII characters.		
algorithm	Item selection algorithm that was used for this segment.	xsd: token	Optional for Interims; Optional for Summative	50	One or more printable ASCII characters.		
algorithmVersion	Version of the item selection algorithm that was used for this segment.	xsd: token	Optional for Interims; Optional for Summative	50	One or more printable ASCII characters.		

*TDS Report: Opportunity: Accommodation*

Table 11. Test Integration XML Output Format (TDS Report: Opportunity: Accommodation)

TDS Field Name (attribute)	Data Element Description	Data Type	Required	Width	Acceptable Values	Examples	CEDS Ref
type	Accommodation or accessibility feature.	xsd: token	Required	510	<a href="http://www.smarterapp.org/documents/ISAAP-AccessibilityFeatureCodes.pdf">http://www.smarterapp.org/documents/ISAAP-AccessibilityFeatureCodes.pdf</a>  Values are updated in separate document.		<a href="#">41</a>

TDS Field Name (attribute)	Data Element Description	Data Type	Required	Width	Acceptable Values	Examples	CEDS Ref
value	An acceptable accommodation value the accommodation type submitted. Note: There is a one to one relationship between value and code.	xsd: token	Required	510	One or more printable ASCII characters.		<a href="#">42</a>
code	An acceptable code for the accommodation type and value.	xsd: token	Required	510	One or more printable ASCII characters.		
segment	Segment number in which the accommodation applies. A 0 means the accommodation applies to the entire test (i.e. all segments)	xsd: unsigned Int	Required	8	Positive 32-bit integer, null allowed		

### Accessibility Features and Use Codes

For Smarter Balanced exams, Accessibility Features are divided into three categories: Universal Tools, which are made available to all students; Designated Supports, which require pre-authorization by a teacher or administrator; and Accommodations, which require a student to have a documented disability or IEP plan. The Smarter Balanced “Usability, Accessibility, and Accommodations Guidelines” offer more detail about the categories and specific features. Because the file format predates this categorization, the <Accommodation> element is used to report all accessibility feature types. The types whose acceptable values (codes) begin with TDS\_ are accommodations; those beginning with NEDS\_ are Non-Embedded Designated Supports; those beginning with NEA\_ are Non-Embedded Accommodations.

Raw information regarding accessibility feature use is reported in the <Accommodation> elements as described in the table above ([Table 11](#)). For each accommodation used by the student, a derivative “feature use code” is reported in a Score element. In these elements, the “measureLabel” property is set to “accommodation”, the “measureOf” property is set to the accommodation type, and the “score” property is set to one of “feature use codes” in the table above. The current open source solution does not track whether the feature was **designated** for a student and only tracks **uses** in select cases. Accordingly, only values 3, 4, 6, 7 and 8 are likely to appear in test results. The other values are defined to provide for future enhancement.

More information for Accessibility Features and Use Codes can be found [HERE](#).

### TDS Report: Opportunity: Scores

Table 12. Test Integration XML Output Format (TDS Report: Opportunity: Score)

TDS Field Name (attribute)	Data Element Description	Data Type	Required	Width (chars)	Acceptable Values	Examples	CEDS Ref
measureOf	The set of items this value measures. Usually a strand of an AffinityGroup.	xsd: token	Required	150	One or more printable ASCII characters.	See Scores Used by Smarter Balanced Reporting System ( <a href="#">Table 13</a> )	
measureLabel	Label of this measure.	xsd: token	Required	150	One or more printable ASCII characters.	See Scores Used by Smarter Balanced Reporting System ( <a href="#">Table 13</a> )	
value	Value of the measure.	xsd: token	Required	64	One or more printable ASCII characters.	See Scores Used by Smarter Balanced Reporting System ( <a href="#">Table 13</a> )	
standardError	The value of the standard error for the measure.	xsd: token	Required	8	Float, null allowed	See Scores Used by Smarter Balanced Reporting System ( <a href="#">Table 13</a> )	

### Scores Used by Smarter Balanced Reporting System

Smarter Balanced and related assessments report on overall scaled score and either three (math) or four (ELA) claim scores. The scaled score is mapped to one of four achievement levels. The claim scores are mapped to one of three performance ratings. Claim scores are on the same scale as the overall score. [Table 13](#) indicates how these scores and the accommodations appear in the "Score" elements of the test result format. Target scores are also used in the "Score" elements for the test result format.

Table 13. Scores Used by Smarter Balanced Reporting System

measureOf	measureLabel	Value	standardError	Description
Overall	ScaleScore	xsd: int	xsd: int	The overall scale score for the entire test.
Overall	PerformanceLevel	1-4	Not included	The achievement level corresponding to the scale score.

measureOf	measureLabel	Value	standardError	Description
1	ScaleScore	xsd: int	xsd: int	Math Claim 1 scale score
1	PerformanceLevel	1-4	Not included	Math Claim 1 achievement level
Sock_2	ScaleScore	xsd: int	xsd: int	Math Claim 2, 4 scale score
Sock_2	PerformanceLevel	1-4	Not included	Math Claim 2, 4 achievement level
3	ScaleScore	xsd: int	xsd: int	Math Claim 3 scale score
3	PerformanceLevel	1-4	Not included	Math Claim 3 achievement level
Sock_4	ScaleScore	xsd: int	xsd: int	ELA Claim 1 scale score
Sock_4	PerformanceLevel	1-4	Not included	ELA Claim 1 achievement level
2-W	ScaleScore	xsd: int	xsd: int	ELA Claim 2 scale score
2-W	PerformanceLevel	1-4	Not included	ELA Claim 2 achievement level
Sock_LS	ScaleScore	xsd: int	xsd: int	ELA Claim 3 scale score
Sock_LS	PerformanceLevel	1-4	Not included	ELA Claim 3 achievement level
4-CR	ScaleScore	xsd: int	xsd: int	ELA Claim 4 scale score
4-CR	PerformanceLevel	1-4	Not included	ELA Claim 4 achievement level
Target identifier format	StudentRelativeResidualScore	xsd: int	xsd: int	The summed residual between observed and overall student estimated score as defined in the referenced scoring calculation document.
Target identifier format	StandardMetRelativeResidualScore	xsd: int	xsd: int	The summed residual between observed and standard met score as defined in the referenced scoring calculation document.
Target identifier format	ItemCount	1-n	Not included	The number of items that were presented to the student in this target
Target identifier format	ItemCountScored	1-n	Not included	The number of items that were scored in this target



measureOf	measureLabel	Value	standardError	Description
Target identifier format	RawScore	xsd: int	Not included	Raw score
SOCK_ARGU_ORG	RawScore	xsd: int	Not included	ELA Writing Extended Response score for a writing purpose of argumentative with a trait of organization/purpose.
SOCK_ARGU_CON	RawScore	xsd: int	Not included	ELA Writing Extended Response score for a writing purpose of argumentative with a trait of conventions.
SOCK_ARGU_EVI	RawScore	xsd: int	Not included	ELA Writing Extended Response score for a writing purpose of argumentative with a trait of evidence/elaboration.
SOCK_EXPL_ORG	RawScore	xsd: int	Not included	ELA Writing Extended Response score for a writing purpose of explanatory with a trait of organization/purpose.
SOCK_EXPL_CON	RawScore	xsd: int	Not included	ELA Writing Extended Response score for a writing purpose of explanatory with a trait of conventions.
SOCK_EXPL_EVI	RawScore	xsd: int	Not included	ELA Writing Extended Response score for a writing purpose of explanatory with a trait of evidence/elaboration.
SOCK_INFO_ORG	RawScore	xsd: int	Not included	ELA Writing Extended Response score for a writing purpose of informational with a trait of organization/purpose.
SOCK_INFO_CON	RawScore	xsd: int	Not included	ELA Writing Extended Response score for a writing purpose of informational with a trait of conventions.
SOCK_INFO_EVI	RawScore	xsd: int	Not included	ELA Writing Extended Response score for a writing purpose of informational with a trait of evidence/elaboration.
SOCK_NARR_ORG	RawScore	xsd: int	Not included	ELA Writing Extended Response score for a writing purpose of narrative with a trait of organization/purpose.
SOCK_NARR_CON	RawScore	xsd: int	Not included	ELA Writing Extended Response score for a writing purpose of narrative with a trait of conventions.
SOCK_NARR_EVI	RawScore	xsd: int	Not included	ELA Writing Extended Response score for a writing purpose of narrative with a trait of evidence/elaboration.
SOCK_OPIN_ORG	RawScore	xsd: int	Not included	ELA Writing Extended Response score for a writing purpose of opinion with a trait of organization/purpose.

measureOf	measureLabel	Value	standardError	Description
SOCK_OPIN_CON	RawScore	xsd: int	Not included	ELA Writing Extended Response score for a writing purpose of opinion with a trait of conventions.
SOCK_OPIN_EVI	RawScore	xsd: int	Not included	ELA Writing Extended Response score for a writing purpose of opinion with a trait of evidence/elaboration.

*TDS Report: Opportunity: GenericVariable*

Table 14. Test Integration XML Output Format (TDS Report: Opportunity: GenericVariable)

TDS Field Name (attribute)	Data Element Description	Data Type	Required	Width	Acceptable Values	Examples	CEDS Ref
context	Optional field to be used for unique IDs that are not covered by other TDS fields. Typically used to combine student's opportunity of CAT and PT tests.	xsd: token	Note is optional, but if used all attributes are required.	50	One or more printable ASCII characters.		
name	Identifying name for the ID.	xsd: token	General use	50	One or more printable ASCII characters.		
value	Identifier value	xsd: string	General use	255	One or more printable ASCII characters.		

*TDS Report: Opportunity: Item*

These fields discuss the items that are in the test, how they were scored, and other pertinent information.

Table 15. Test Integration XML Output Format (TDS Report: Opportunity: Item)

TDS Field Name (attribute)	Data Element Description	Data Type	Required	Width	Acceptable Values	Examples	CEDS Ref
position	Ordinal position of item on test.	xsd: unsigned Int	Required: Interim; Optional: Summative	8	Positive 32-bit integer, null allowed		
segmentId	Should match provided Segment category provided.	xsd: token	Required: Interim; Optional: Summative	250	One or more printable ASCII characters.		
bankKey	Item Authoring bank identifying the group of the item for the assessment. Smarter Balanced provides this value for Smarter Balanced tests.	xsd: token	Required: Interim; Optional: Summative	40	One or more printable ASCII characters.		<a href="#">43</a>
key	Item identifier from Item Authoring. Smarter Balanced provides this identifier for Smarter Balanced tests. Internal ITS identifier.	xsd: unsigned Long	Required: Interim; Optional: Summative	40	Positive 64-bit integer		
clientId	How client identifies the item.	xsd: token	Optional: Interim; Optional: Summative	80	One or more printable ASCII characters.		
operational	Identifies if the item is operational or a field test.	xsd: unsigned Int	Required: Interim; Optional: Summative	8	1 if operational, 0 if field test.		
isSelected	Whether the student submitted the response for scoring or not.	xsd: unsigned Int	Required: Interim; Optional: Summative	8	0 if not submitted or 1 if submitted.		
format	The item type.	xsd: token	Required: Interim; Optional: Summative	50	See Opportunity Acceptable Values ( <a href="#">Table 22</a> )		<a href="#">44</a>
score	Number of scorepoints earned by Examinee.	xsd: float	Required: Interim; Optional: Summative	8	Unsigned float, -1 means not scored.		

TDS Field Name (attribute)	Data Element Description	Data Type	Required	Width	Acceptable Values	Examples	CEDS Ref
scoreStatus	Provided by independent item scoring engine.	xsd: token	Optional: Interim; Optional: Summative	50	NOTSCORED SCORED SCORINGERROR WAITINGFORMACH INESCORE		
adminDate	Date and time item was administered to Examinee.	xsd: dateTime	Required: Interim; Optional: Summative	23	date+time in ISO 8601 format		
numberVisits	Number of times the student modifies his response to the item.	xsd:unsigned Int	Required: Interim; Optional: Summative	8	Positive 32-bit integer, null allowed		
responseDuration	Total time student spent responding to an assessment item. For multiple items on a page, this value may be divided evenly among the items.	xsd: float	Required: Interim; Optional: Summative	8	Timespent in seconds. Decimals may express fractions of seconds.		
mimeType	MIME type of item response.	xsd: token	Required: Interim; Optional: Summative	255	One or more printable ASCII characters.		
strand	Top level strand in the strand hierarchy the item is on.	xsd: token	Optional: Interim; Optional: Summative	150	One or more printable ASCII characters.		
contentLevel	Lowest level strand in the strand hierarchy the item is a part of.	xsd: token	Optional: Interim; Optional: Summative	150	One or more printable ASCII characters.		
pageNumber	Number of the (online) page the item appears on.	xsd:unsigned Int	Required: Interim; Optional: Summative	8	Positive 32-bit integer		
pageVisits	Number of times the student visited the (online) page this item is on.	xsd: unsigned Int	Required: Interim; Optional: Summative	8	Positive 32-bit integer		
pageTime	Time (in milliseconds) the student spent on the (online) page this item is on.	xsd: int	Required: Interim; Optional: Summative	8	Signed 32-bit integer		

TDS Field Name (attribute)	Data Element Description	Data Type	Required	Width	Acceptable Values	Examples	CEDS Ref
dropped	Whether the item is dropped. If an item was administered but later inactivated, the DW might receive a new record with this flag turned on.	xsd: unsigned Int	Required: Interim; Optional: Summative	8	0 is not dropped. 1 item is dropped.		

TDS Report: Opportunity: Item: Response

Table 16. Test Integration XML Output Format (TDS Report: Opportunity: Item: Response)

TDS Field Name (attribute)	Data Element Description	Data Type	Required	Width	Acceptable Values	Examples	CEDS Ref
type	Type of responseValue. 'reference' is used for scanned paper tests where the scanned response is not included, but only a reference to the file containing the scanned response.	xsd: token	Optional unless Paper Pencil then Required	10	value reference		
<node text>	If responseType is 'value' then the actual response. Note that both MC and CR responses are captured here. If responseType is 'reference' then the filename where the scanned response is saved.	xsd: string	Online: Required	unlimited			<a href="#">45</a>
key	Each response will receive a unique identifier key, which will serve as a more accurate way to match it with an excepted score.	xsd: string	Optional	255			
date	Date and time the student responded to the item.	xsd: dateTime	Required	23	date+time in ISO 8601 format		<a href="#">46</a>

### TDS Report: Opportunity: Item: ScoreInfo

Table 17. Test Integration XML Output Format (TDS Report: Opportunity: Item: ScoreInfo)

TDS Field Name (attribute)	Data Element Description	Data Type	Required	Width	Acceptable Values	Examples	CED S Ref
scorePoint	Output of the machine scorer giving reasons for the assigned score. Contains dimension scores for certain items.	xsd: float	ScoreInfo element required for Item Types EQ, SA, and WER. Preferred for GI and TI. Optional for all other Item Types.	8	float, -1 allowed		
maxScore	Maximum score point.	xsd: float	If included ScoreInfo element is sent, this attribute is required.	8	float, -1 allowed		
scoreDimension	Identifies score dimension property.	xsd: token	If included ScoreInfo element is sent, this attribute is required.	255	One or more printable ASCII characters.		
scoreStatus	Provided by independent item scoring engine.	xsd: token	If included ScoreInfo element is sent, this attribute is required.	22	NotScored Scored ScoringError WaitingForMachineScore		
conditionCode	For hand-scored items and machine-scored NL items.	xsd: token	Optional	1	A-Z		
sequence	For computer adaptive assessments, the order in which items were presented to the student.	xsd: string	Optional	255			

TDS Report: Opportunity: Item: ScoreInfo: ScoreRationale

Table 18. Test Integration XML Output Format (TDS Report: Opportunity: Item: ScoreInfo: ScoreRationale)

TDS Field Name (attribute)	Data Element Description	Data Type	Required	Width	Acceptable Values	Examples	CEDS Ref
	For Short Answer and Writing Extended Response items, this element is used to record the scorer's response from a hand scoring system.	xsd: string	Optional	unlimited			

TDS Report: Opportunity: Item: ScoreInfo: Message

Table 19. Test Integration XML Output Format (TDS Report: Opportunity: Item: ScoreInfo: Message)

TDS Field Name (attribute)	Data Element Description	Data Type	Required	Width (chars)	Acceptable Values	Examples	CEDS Ref
	Contains hard-scoring information in JSON format, along with a scorer ID.	xsd: string	Optional	unlimited	JSON formatted string		

TDS Report: Opportunity: Item: ScoreInfo: SubScoreList

Table 20. Test Integration XML Output Format (TDS Report: Opportunity: Item: ScoreInfo: SubScoreList)

TDS Field Name (attribute)	Data Element Description	Data Type	Required	Width	Acceptable Values	Examples	CEDS Ref
	SubscoreList has no attrs, but can have nested ScoreInfo nodes for multi-dimensional items.	xsd: string	Optional	N/A	Nested <ScoreInfo> elements		

*TDS Report: Opportunity: Score*

Table 21. Test Integration XML Output Format (TDS Report: Opportunity: Score)

TDS Field Name (attribute)	Data Element Description	Data Type	Required	Width	Acceptable Values	Examples	CEDS Ref
value	The score (or condition code if type isn't final).	xsd: token	Required	10	One or more printable ASCII characters		
compName	Name of the component.		Required	50	Dimension: if the score is a dimension score. ScorePoints: if there are no dimensions and it is the score for the whole item. ConditionCodes: if the score value is actional a condition code (typically apply to all dimensions).		
dimension	Identifies score dimension property.		Required	50	One or more printable ASCII characters		
sequence	Used to count backreads. 1 for all other types.		Required	8	One or more printable ASCII characters		



TDS Field Name (attribute)	Data Element Description	Data Type	Required	Width	Acceptable Values	Examples	CEDS Ref
conditionCode	Blank if this record is for a regular score, otherwise list the condition code. Only used for final scores.		Required	10	Positive 32-bit integer		
type	Type of the score.		Required	50	One or more printable ASCII characters		
userId	ID of the scorer.		Required	50	Initial Reliability Resolution Backread Final		
userLastName	Last name of the scorer.		Optional	50	One or more printable ASCII characters		
userFirstName	First name of the scorer.		Optional	50	One or more printable ASCII characters		

### Acceptable Values for Opportunity Section

Table 22. Opportunity Section Acceptable Values and Definitions

XML Hierarchy	TDS Field Name (attribute)	Attribute (Value)	Attribute Definition
TDS Report: Opportunity	status	appeal	Test opportunity within a Test Delivery System has been flagged for appeal.
		completed (deprecated)	Deprecated.
		expired	Test opportunity within a Test Delivery System has expired
		handscoring	Test opportunity within a Test Delivery System is in the process of being hand scored.
		invalidated (deprecated)	Deprecated.

XML Hierarchy	TDS Field Name (attribute)	Attribute (Value)	Attribute Definition
		paused	Test opportunity within a Test Delivery System has been paused.
		reported	Test opportunity within a Test Delivery System has been reported as a TRT
		reset	Test opportunity within a Test Delivery System has been reset
		scored	Test opportunity within a Test Delivery System has been scored.
		submitted	Test opportunity within a Test Delivery System has been submitted. This status occurs before the test is scored.
TDS Report: Opportunity: Item	format	EBSR	Evidence-based selected response
		EQ	Equation
		ER	Extended Response
		GI	Grid Item
		HTQ	Hot Text Questions
		MC	Multiple Choice
		MI	Match Interaction
		MS	Multi-Select
		SA	Short Answer
		TI	Table Interaction
		TUT	Tutorial Item Type
		WER	Writing Extended Response
		WORDLIST	Item containing glossary entries
		Stimulus	Item type used for stimulus passages

## TDS Report: Comment

Table 23. Test Integration XML Output Format (TDS Report: Comment)

TDS Field Name (attribute)	Data Element Description	Data Type	Required	Width	Acceptable Values	Examples	CEDS Ref
context	Context of the comment (e.g. TESTITEM or GlobalNotes).	xsd: token	Comment element is optional; if included, this attribute is required.	200	One or more printable ASCII characters		
itemPosition	If this was an item level comment (context = TESTITEM), the position of the item the comment refers to.	xsd: unsigned Int	Comment element is optional; if included, this attribute is required.	8	Positive 32-bit integer, null allowed		
date	Date and time the comment was entered.	xsd: dateTime	Comment element is optional; if included, this attribute is required.	23	date+time in ISO 8601 format		
<node text>	Comment verbiage.	xsd: string	Comment element is optional; if included, this attribute is required.	unlimited			

**TDS Report: toolUsage**

Table 24. Test Integration XML Output Format (TDS Report: toolUsage)

TDS Field Name (attribute)	Data Element Description	Data Type	Required	Width	Acceptable Values	Examples	CEDS Ref
toolType	Tools used on certain items or item groups (passages). Type of the tool.	xsd: token	toolUsage element is optional; if included, this attribute is required.	100	One or more printable ASCII characters	TTS (TextToSpeech)	
toolCode	Code for the tool.	xsd: token	toolUsage element is optional; if included, this attribute is required.	100	One or more printable ASCII characters		

*TDS Report: toolUsage: toolPage*

Table 25. Test Integration XML Output Format (TDS Report: toolUsage: toolPage)

TDS Field Name (attribute)	Data Element Description	Data Type	Required	Width	Acceptable Values	Examples	CEDS Ref
page	Online page the tool was used on.	xsd: unsigned Int	toolPage element is optional; if included, this attribute is required.	8	Positive 32-bit integer		
groupId	Item or Passage ID.	xsd: token	toolPage element is optional; if included, this attribute is required.	59	One or more printable ASCII characters		
count	Number of times the tool was used.	xsd: unsigned Int	toolPage element is optional; if included, this attribute is required.	8	Positive 32-bit integer		

## Appendixes

### References

#### *External References*

Table 26. External References

No.	Reference	Link	Author	Version
1	Common Education Data Standards (CEDS) specification	<a href="https://ceds.ed.gov/elements.aspx">https://ceds.ed.gov/elements.aspx</a>	ceds.ed.gov	4.0
2	Administration and Registration Tool (ART) Upload File Formats	Located in Vendor packet	Smarter Balanced	
3	Smarter Balanced Reporting System User Guide	<a href="https://portal.smarterbalanced.org/library/en/reporting-system-user-guide.pdf">https://portal.smarterbalanced.org/library/en/reporting-system-user-guide.pdf</a>	Smarter Balanced	
4	Sample XML Outputs TRT On Boarding Pack	Located in Vendor packet	Smarter Balanced	1.0
5	Test Integration Format XSD (Schema)	Located in Vendor packet	Smarter Balanced	3.0

#### *CEDS Reference Table*

All CEDS references can be found on the website linked in [Table 26](#).

For convience, the table below provides the reference number used in the format specification tables, the appropriate TDS Feidl Name, any affected attributes, the CEDS Element ID, the webpage for the ID, and the CEDS Domain Entity Schema location for the element.

Table 27. CEDS References

CEDS Ref No.	XML Hierarchy	TDS Field Name (attribute)	Attribute (Value)	CEDS Element ID	Webpage	CEDS Domain Entity Schema
1	TDS Report: Test	name		<a href="#">CEDS Element ID 000977</a>	<a href="https://ceds.ed.gov/element/000977">https://ceds.ed.gov/element/000977</a>	K12 -> Assessments -> Assessment Administration -> AssessmentAdministrationName
2	TDS Report: Test	testId		<a href="#">CEDS Element ID 1067</a>	<a href="https://ceds.ed.gov/element/001067">https://ceds.ed.gov/element/001067</a>	K12 -> Assessments -> Assessment -> AssessmentIdentifier
3	TDS Report: Test	grade		<a href="#">CEDS Element ID 177</a>	<a href="https://ceds.ed.gov/element/000177">https://ceds.ed.gov/element/000177</a>	K12 -> Assessments -> Assessment -> AssessmentLevelForWhichDesigned
4	TDS Report: Test	assessment Type		<a href="#">CEDS Element ID 29</a>	<a href="https://ceds.ed.gov/element/000029">https://ceds.ed.gov/element/000029</a>	K12 -> Assessments -> Assessment -> AssessmentType
5	TDS Report: Test	academicYear		<a href="#">CEDS Element ID 243</a>	<a href="https://ceds.ed.gov/element/000243">https://ceds.ed.gov/element/000243</a>	K12 -> K12 School -> Session -> SchoolYear
6	TDS Report: Examinee: examineeAttribute	name	LastOrSurname	<a href="#">CEDS Element ID 172</a>	<a href="https://ceds.ed.gov/element/000172">https://ceds.ed.gov/element/000172</a>	K12->K12 Student->Identity->Name
7	TDS Report: Examinee: examineeAttribute	name	FirstName	<a href="#">CEDS Element ID 115</a>	<a href="https://ceds.ed.gov/element/000115">https://ceds.ed.gov/element/000115</a>	K12->K12 Student->Identity->Name
8	TDS Report: Examinee: examineeAttribute	name	MiddleName	<a href="#">CEDS Element ID 184</a>	<a href="https://ceds.ed.gov/element/000184">https://ceds.ed.gov/element/000184</a>	K12->K12 Student->Identity->Name
9	TDS Report: Examinee: examineeAttribute	name	Birthdate	<a href="#">CEDS ID Element 33</a>	<a href="https://ceds.ed.gov/element/000033">https://ceds.ed.gov/element/000033</a>	K12->K12 Student- >Demographic
10	TDS Report: Examinee: examineeAttribute	name	StudentIdentifier	<a href="#">CEDS Element ID 1071</a>	<a href="https://ceds.ed.gov/element/001071">https://ceds.ed.gov/element/001071</a>	K12->K12 Student- >Identity->Identification
11	TDS Report: Examinee: examineeAttribute	name	GradeLevelWhenAssessed	<a href="#">CEDS Element ID 126</a>	<a href="https://ceds.ed.gov/element/000126">https://ceds.ed.gov/element/000126</a>	K12 -> Assessments - > Assessment Registration

CEDS Ref No.	XML Hierarchy	TDS Field Name (attribute)	Attribute (Value)	CEDS Element ID	Webpage	CEDS Domain Entity Schema
12	TDS Report: Examinee: examineeAttribute	name	Sex	<a href="#">CEDS Element ID 255</a>	<a href="https://ceds.ed.gov/element/000255">https://ceds.ed.gov/element/000255</a>	K12->K12 Student- >Demographic
13	TDS Report: Examinee: examineeAttribute	name	HispanicOrLatinoEthnicity	<a href="#">CEDS Element ID 144</a>	<a href="https://ceds.ed.gov/element/000144">https://ceds.ed.gov/element/000144</a>	K12->K12 Student- >Demographic
14	TDS Report: Examinee: examineeAttribute	name	AmericanIndianOrAlaskaNative	<a href="#">CEDS Element ID 16</a>	<a href="https://ceds.ed.gov/element/000016">https://ceds.ed.gov/element/000016</a>	K12->K12 Student- >Demographic
15	TDS Report: Examinee: examineeAttribute	name	Asian	<a href="#">CEDS Element ID 20</a>	<a href="https://ceds.ed.gov/element/000020">https://ceds.ed.gov/element/000020</a>	K12->K12 Student- >Demographic
16	TDS Report: Examinee: examineeAttribute	name	BlackOrAfricanAmerican	<a href="#">CEDS Element ID 34</a>	<a href="https://ceds.ed.gov/element/000034">https://ceds.ed.gov/element/000034</a>	K12->K12 Student- >Demographic
17	TDS Report: Examinee: examineeAttribute	name	White	<a href="#">CEDS Element ID 301</a>	<a href="https://ceds.ed.gov/element/000301">https://ceds.ed.gov/element/000301</a>	K12->K12 Student- >Demographic
18	TDS Report: Examinee: examineeAttribute	name	NativeHawaiianOrOtherPacificIslander	<a href="#">CEDS Element ID 192</a>	<a href="https://ceds.ed.gov/element/000192">https://ceds.ed.gov/element/000192</a>	K12->K12 Student- >Demographic
19	TDS Report: Examinee: examineeAttribute	name	DemographicRaceTwoOrMoreRaces	<a href="#">CEDS Element ID 973</a>	<a href="https://ceds.ed.gov/element/000973">https://ceds.ed.gov/element/000973</a>	K12 -> K12 Student -> Demographic
20	TDS Report: Examinee: examineeAttribute	name	IDEAIndicator	<a href="#">CEDS Element ID 151</a>	<a href="https://ceds.ed.gov/element/000151">https://ceds.ed.gov/element/000151</a>	K12->K12 Student- >Disability
21	TDS Report: Examinee: examineeAttribute	name	LEPStatusEnglishLanguageAcquisitionStatus	<a href="#">CEDS Element ID 180</a>	<a href="https://ceds.ed.gov/element/000180">https://ceds.ed.gov/element/000180</a>	K12 -> K12 Student -> Limited English Proficiency

CEDS Ref No.	XML Hierarchy	TDS Field Name (attribute)	Attribute (Value)	CEDS Element ID	Webpage	CEDS Domain Entity Schema
22	TDS Report: Examinee: examineeAttribute	name	Section504Status	<a href="#">CEDS Element ID 249</a>	<a href="https://ceds.ed.gov/element/000249">https://ceds.ed.gov/element/000249</a>	K12 -> K12 Student -> Disability
23	TDS Report: Examinee: examineeAttribute	name	EconomicDisadvantageStatus	<a href="#">CEDS Element ID 86</a>	<a href="https://ceds.ed.gov/element/000086">https://ceds.ed.gov/element/000086</a>	K12 -> K12 Student -> Economically Disadvantaged -> EconomicDisadvantageStatus
24	TDS Report: Examinee: examineeAttribute	name	LanguageCode	<a href="#">CEDS Element ID 317</a>	<a href="https://ceds.ed.gov/element/000317">https://ceds.ed.gov/element/000317</a>	K12 -> K12 Student -> Language and CEDS Language Codes
25	TDS Report: Examinee: examineeAttribute	name	MilitaryStatus	<a href="#">CEDS Element ID 1576</a>	<a href="https://ceds.ed.gov/element/001576">https://ceds.ed.gov/element/001576</a>	K12 -> K12 Student -> Demographic
26	TDS Report: Examinee: examineeAttribute	name	MigrantStatus	<a href="#">CEDS Element ID 189</a>	<a href="https://ceds.ed.gov/element/000189">https://ceds.ed.gov/element/000189</a>	K12 -> K12 Student -> Migrant -> MigrantStatus
27	TDS Report: Examinee: examineeAttribute	name	FirstEntryDateIntoUSSchool	<a href="#">CEDS Element ID 529</a>	<a href="https://ceds.ed.gov/element/000529">https://ceds.ed.gov/element/000529</a>	K12 -> K12 Student -> Immigrant
28	TDS Report: Examinee: examineeAttribute	name	LimitedEnglishProficiencyEntryDate	<a href="#">CEDS Element ID 1247</a>	<a href="https://ceds.ed.gov/element/001247">https://ceds.ed.gov/element/001247</a>	K12 -> K12 Student -> Limited English Proficiency
29	TDS Report: Examinee: examineeAttribute	name	LEPExitDate	<a href="#">CEDS Element ID 570</a>	<a href="https://ceds.ed.gov/element/000570">https://ceds.ed.gov/element/000570</a>	K12 -> K12 Student -> Limited English Proficiency
30	TDS Report: Examinee: examineeAttribute	name	TitleIIILanguageInstructionProgramType	<a href="#">CEDS Element ID 447</a>	<a href="https://ceds.ed.gov/element/000447">https://ceds.ed.gov/element/000447</a>	K12 -> K12 School -> Institution Characteristics
31	TDS Report: Examinee: examineeAttribute	name	PrimaryDisabilityType	<a href="#">CEDS Element ID 218</a>	<a href="https://ceds.ed.gov/element/000218">https://ceds.ed.gov/element/000218</a>	K12 -> K12 Student -> Disability
32	TDS Report: Examinee:	name	StateAbbreviation	<a href="#">CEDS Element ID 267</a>	<a href="https://ceds.ed.gov/element/000267">https://ceds.ed.gov/element/000267</a>	K12 -> SEA -> Address USPS



CEDS Ref No.	XML Hierarchy	TDS Field Name (attribute)	Attribute (Value)	CEDS Element ID	Webpage	CEDS Domain Entity Schema
	examineeRelations hip					
33	TDS Report: Examinee: examineeRelations hip	name	DistrictId	<a href="#">CEDS Element ID 637</a>	<a href="https://ceds.ed.gov/element/000637">https://ceds.ed.gov/element/000637</a>	K12 -> K12 Student -> Enrollment
34	TDS Report: Examinee: examineeRelations hip	name	DistrictName	<a href="#">CEDS Element ID 204</a>	<a href="https://ceds.ed.gov/element/000204">https://ceds.ed.gov/element/000204</a>	K12 -> Identification -> Organization Identifier
35	TDS Report: Examinee: examineeRelations hip	name	SchoolId	<a href="#">CEDS Element ID 1069</a>	<a href="https://ceds.ed.gov/element/001069">https://ceds.ed.gov/element/001069</a>	K12->K12 Student- >Enrollment
36	TDS Report: Examinee: examineeRelations hip	name	SchoolName	<a href="#">CEDS Element ID 191</a>	<a href="https://ceds.ed.gov/element/000191">https://ceds.ed.gov/element/000191</a>	K12 -> K12 School -> Identification
37	TDS Report: Opportunity	startDate		<a href="#">CEDS Element ID 962</a> <a href="#">CEDS Element ID 963</a>	<a href="https://ceds.ed.gov/element/000962">https://ceds.ed.gov/element/000962</a> <a href="https://ceds.ed.gov/element/000963">https://ceds.ed.gov/element/000963</a>	K12 -> Assessments -> Assessment Administration ID
38	TDS Report: Opportunity	dateCompleted		<a href="#">CEDS Element ID 964</a> <a href="#">CEDS Element ID 965</a>	<a href="https://ceds.ed.gov/element/000964">https://ceds.ed.gov/element/000964</a> <a href="https://ceds.ed.gov/element/000965">https://ceds.ed.gov/element/000965</a>	K12 -> Assessments -> Assessment Administration
39	TDS Report: Opportunity	TAID		<a href="#">CEDS Element ID 88</a>	<a href="https://ceds.ed.gov/element/000088">https://ceds.ed.gov/element/000088</a>	K12 -> K12 Staff -> Contact -> Email

40	TDS Report: Opportunity	assessment ParticipantS essionPlatfo rmUserAgen t		<a href="#">CEDS Element ID 1152</a>	<a href="https://ceds.ed.gov/element/001152">https://ceds.ed.gov/element/ /001152</a>	K12 -> Assessments -> Assessment Participant Session -> AssessmentParticipantSessionPlatfo rmUserAgent
41	TDS Report: Opportunity: Accommodation	type		<a href="#">CEDS Element ID 385</a>	<a href="https://ceds.ed.gov/element/000385">https://ceds.ed.gov/element/ 000385</a>	K12 -> Assessments -> Assessment Participant Session
42	TDS Report: Opportunity: Accommodation	value		<a href="#">CEDS Element ID 724</a>	<a href="https://ceds.ed.gov/element/000724">https://ceds.ed.gov/element/ 000724</a>	K12 -> Assessments -> Assessment Item -> Assessment Item Response
43	TDS Report: Opportunity: Item	bankKey		<a href="#">CEDS Element ID 1181</a>	<a href="https://ceds.ed.gov/element/001181">https://ceds.ed.gov/element/ 001181</a>	K12 -> Assessments -> Assessment Item
44	TDS Report: Opportunity: Item	format		<a href="#">CEDS Element ID 1158</a>	<a href="https://ceds.ed.gov/element/001158">https://ceds.ed.gov/element/ 001158</a>	K12 -> Assessments -> Assessment Item -> Assessment Item APIP Interaction
45	TDS Report: Opportunity: Item: Response	<node text>		<a href="#">CEDS Element ID 724</a>	<a href="https://ceds.ed.gov/element/000724">https://ceds.ed.gov/element/ 000724</a>	K12 -> Assessments -> Assessment Item -> Assessment Item Response
46	TDS Report: Opportunity: Item: Response	date		<a href="#">CEDS Element ID 958</a> <a href="#">CEDS Element ID 959</a>	<a href="https://ceds.ed.gov/element/000958">https://ceds.ed.gov/element/ 000958</a> <a href="https://ceds.ed.gov/element/000959">https://ceds.ed.gov/element/ 000959</a>	K12 -> Assessments -> Assessment Item -> Assessment Item Response

### Prior Revision History for Version 1

Revision Description	Author/Modifier	Date
0.1: Initial Release (DRAFT)	Rami Levy	April 28, 2014
0.2: Clarified that this specification covers both the TDS-to-TIS and TIS-to-DW interfaces, as they are exactly the same.	Rami Levy	July 8, 2014

Revision Description	Author/Modifier	Date
0.3: Removed Opportunity/windowStart	Rami Levy	July 18, 2014
0.4: Added/updated complete list of acceptable values for ExamineeAttributes and Accommodations	Rami Levy	August 3, 2014
0.5: Updated based on Smarter feedback. Several comments updated, added to better describe allowable values; added effectiveDate attribute. Updated XSD and sample XML.	Rami Levy	August 14, 2014
0.6: Added and clarified proposed solutions for accessibility feature coding, achievement levels and subscores.	Brandt Redd (based on proposal from David Lopez de Quintana)	September 18, 2014
1.1 Updated reporting of accommodations	Brandt Redd (based on submissions from Rami Levy)	October 29, 2014
1.1 Changed “Eligible” for accommodations to “Designated”	Brandt Redd	6 December 2014
1.1 Corrections to sample XML for accommodations	Brandt Redd (based on information from Rami Levy)	17 December 2014
1.2 Updated XSD and added second sample result	Brandt Redd based on information from Rami Levy)	17 January 2015
1.4 Updated XSD	Brandt Redd based on information from Rami Levy)	28 January 2015
1.5 Updated requirements	Brandt Redd, Vivian Penet	23 May 2015
1.6 Added two new format properties: “completeStatus” and “administrationCondition”	Alex Dean	02 November 2015
1.7 Updated several fields from required to optional and added three new fields. Updated the sample XSD file.	Alex Dean	20 July 2016
1.8 Indicated that Smarter Balanced does not use the Formative assessment type	Alex Dean	10 February 2017
1.9 Added “responseDuration” Item field. Updated sample XSD and XML.	Alex Dean	7 March 2017
1.10 Adjusted the following: <ul style="list-style-type: none"> <li>Opportunity:Segment:algorithm and Opportunity:Segment:algorithmVersion are optional</li> </ul>	Alex Dean	13 April 2017

Revision Description	Author/Modifier	Date
<ul style="list-style-type: none"> <li>• Opportunity:item:Response:type is optional with a default value</li> <li>• Opportunity:responseDuration changed to float</li> <li>• Opportunity:validity added "blank" as an acceptable value</li> <li>• Opportunity:administrationCondition enum values match the data model</li> <li>• Opportunity:completeness and Opportunity:completeStatus are optional. Enum values match data model. Added footnote for both fields that explain completeStatus is preferred over completeness.</li> <li>• Opportunity:effectDate is optional</li> <li>• ExamineeAttribute:AlternateSSID is optional</li> <li>• Opportunity:assessmentParticipantSessionPlatformUserAgent added "blank" as an acceptable value</li> </ul>		
1.11 Adjusted the following: <ul style="list-style-type: none"> <li>• Scores used by Smarter Balanced Assessments table – align with the Test Results Data Dictionary</li> <li>• Added optional Filipino ethnicity field</li> </ul>	Alex Dean	09 May 2017
1.12 Added EnglishLanguageAcquisitionStatus field	Alex Dean	26 July 2018
1.13 Added MilitaryStatus field	Alex Dean	7 August 2018
1.14 Adjusted the following: <ul style="list-style-type: none"> <li>• Added target level scores to the "Scores Used by Smarter Balanced Assessments" table</li> <li>• Added "Other" as a Sex choice</li> </ul>	Alex Dean	28 November 2018
1.15 Adjusted the following: <ul style="list-style-type: none"> <li>• Opportunity: status – deprecated the expired status</li> <li>• Opportunity: completeness – added expired</li> </ul>	Alex Dean	21 May 2019