Core Ed-Fi Suite v3.6.1, Data Standard v4.0: Student CTE Program Associations

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Summary

This association represents the career and technical education (CTE) program that a student participates in. The association is an extension of the StudentProgramAssociation particular for CTE programs.

Object Triggering Logic

Action	Business Rule(s)

Post	Reports a record when a Student has a Career Tech (CTE) program record that overlaps the configured year **AND** the associated student has an enrollment in the configured year.
	
	• Only CTE programs that are mapped to an Ed-Fi Code will be reported.
	  ○ This mapping can be found in the Resource Preferences of the Ed-Fi Connection under the Programs resource.
	• A record is only reported for CTE program records and Enrollments in the same School Year as the Ed-Fi Connection sending the record.
	  ○ School Year dates are defined in School Year Setup.
	    ■ If Start Date is NULL, 07/01/StartYear will be used.
	    ■ If End Date is NULL, 06/30/EndYear will be used.
	• Do not report a record if the any of the following exclusions are present:
	  ○ Enrollment No Show
	  ○ Calendar Exclude
	  ○ School Exclude

Delete /Post
 	
Put
	A DELETE / POST will be performed if the data element being altered is part of the resource's natural key. A PUT will be performed otherwise.
	
	• When any of the following information is changed on Enrollments:
	  ◦ Enrollment ID (New Enrollment)
	  ◦ Start Date
	  ◦ End Date
	  ◦ No Show
	• When any of the following information is changed on CTE program records:
	  ◦ Program ID (New Program record)
	  ◦ Program
	  ◦ Start Date
	  ◦ End Date
	  ◦ Student Status
	  ◦ Non-Traditional Participation
	  ◦ Certifications
	    ▪ Name
	    ▪ Attempted
	    ▪ Passed
	    ▪ Date
	• When any of the following information is changed on the CTE program setup:
	  ◦ Academic Program ID (New Academic Program)
	  ◦ Program Type
	  ◦ Category
	  ◦ State Code (CIP)
	• Changes to Resource Preferences mappings **do NOT trigger**. A manual resync must be performed on the resource if mappings are changed.

Delete	• When the associated Enrollment is deleted. • When the associated Enrollment is made to no longer overlap the configured year. • When the associated Student is now excluded in some way. • When the CTE program record is deleted. • When the CTE program record is made to no longer overlap the configured year. • When a record is in the Ed-Fi Identity Mapping Report but cannot be found on the Campus site.

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Required Resources (Upstream)

The following resources must be sent prior to this resource:

- Local Education Agencies
- Students
- Programs

Dependent Resources (Downstream)

The following resources are dependent on this resource (must be sent after this resource):

- N/A

Error Log

The following are potential Tier 1 (Ed-Fi API generated) or custom (Campus generated) errors you may receive when posting, updating, or deleting this resource. Please keep in mind that the "Error Message" below may not match your exact error message.

Error Message	Possible Causes / How to Fix
400: Validation of '**RESOURCE**' failed. **FIELD** is required.	An element of the JSON that is required is missing and needs to be added. • Double check that all bolded data elements below are reporting a valid value and no data elements below are reporting an invalid value.
400: '**RESOURCE**' failed. **RESOURCE** reference could not be resolved.	A resource that was referenced from a difference resource does not yet exist. • Resync the resource being mentioned in the error, then resync the errored resource. Alternatively, the resource being referenced may be incorrect. This can happen with Schools and the Ed-Fi School ID being used as an example. Double check the referenced values being sent are valid.

403: Authorization denied. The claim does not have any established relationships with the requested resource.	The key/secret being used does not have permission to send a record for the resource / referenced resource. • Double check your API credentials (key/secret). Sometimes specific keys/secrets cannot report specific resources. • The referenced person (student, staff, parent, contact, etc.) has not yet been associated to the key /secret. Resync their "linking" resource (Students Student School Associations, Staffs Staff Education Organization Assignment Associations, etc.) then resync the errored resource. • The referenced person (student, staff, parent, contact, etc.) may not exist in the ODS yet. Resync the "person" resource and the "linking" resource (Students Student School Associations, Staffs Staff Education Organization Assignment Associations, etc.) then resync the errored resource.
404: Failed to delete '**RESOURCE**'. Record does not exist.	The attempt to delete a specific Ed-Fi record ID in the ODS failed because it did not exist. • This error can be ignored. The ID was cleared from the Ed-Fi Identity Mapping Report and will not attempt to delete again.
409: A natural key conflict occurred when attempting to create a new resource '**RESOURCE**' with a duplicate key.	The Ed-Fi API has a natural key system alongside a standard REST ID system. This error is often protecting against the erroneous creation of a duplicate record in the API. However, it may also indicate that the natural key requirements of the Ed-Fi API have not been satisfied, and the key needs to be modified. • Check for duplicate data in your Campus site. If no duplicate data can be found, report the issue to Campus Support. 　○ This can be caused by numerous issues. Our code may be attempting to send duplicate records when it should not. The natural key (bolded fields below) may not be unique enough to satisfy Ed-Fi requirements in all cases. Most times this error will require a code change to fix.
409: The resource (or a subordinate entity of the resource) cannot be deleted because it is a dependency of the '**RESOURCE**' entity.	The resource that the application is attempting to delete is referenced from another entity. • Use the Delete Tool to delete the referenced resource in the error message. Then retry the delete on the original resource that errored.

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500: Internal Server Error.	Something unexpected happened and no specific error message could be returned.
	
	 • This issue usually occurs when the ODS is having issues. Confirm that there are no issues with the ODS the data is being sent to and then attempt to retry the errored record.
	 • Contact Campus Support if 500 errors continue to occur, can be replicated consistently, and the ODS the data is being sent to has no ongoing issues.
	    ◦ There is a chance that Campus Ed-Fi code is sending an invalid JSON request resulting in the 500 error.
	    ◦ There is a chance that an Ed-Fi Data Standard / API bug is causing the issue.
	    ◦ Investigation is needed in these cases as there are many different potential causes.

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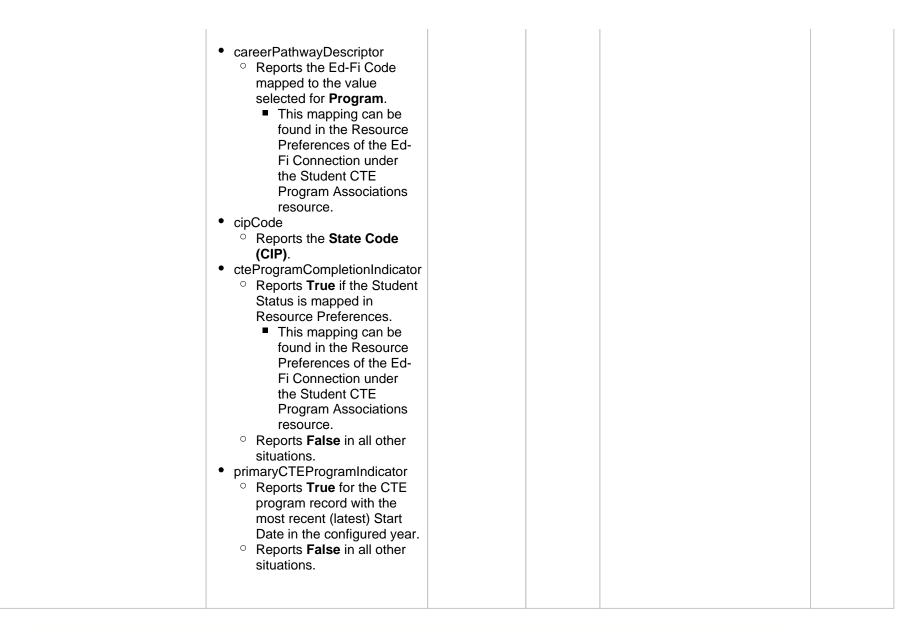
Object Data Elements Logic

Data element labels below in **BOLD** are part of the natural key of this resource and are required data elements for the record to send through Ed-Fi.

- The Mandatory / Conditional / Optional column indicates what the state requires for each data element. For Core Ed-Fi connections, it indicates what the data standard requires for each data element.

	Data Element Label	Business Rule(s)	Mandatory (M) Conditional (C) Optional (O)	Data Source GUI Path	Database Field	Uses Template Logic (✓/✗/ EXT)
1	**beginDate** (*date*)	*The earliest date the student is involved with the program. Typically, this is the date the student becomes eligible for the program.* Reports the **CTE Program Start Date**.	M	Academic Programs > Programs	ProgramParticipation .startDate	✓
2	**educationOrganizationReference** (*reference*)	*A reference to an Education Organization (Schools, Local Education Agencies, etc.) resource associated with the Student CTE Program Association being reported.* Reports the fields that are part of the Natural Key for the Local Education Agencies resource.	M	N/A	N/A	✓

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3	**programReference** (*reference*)	*A reference to the Programs resource associated with the Student CTE Program Association being reported.* Reports the fields that are part of the Natural Key for the Programs resource.	M	N/A	N/A	✅
4	**studentReference** (*reference*)	*A reference to the Students resource associated with the Student CTE Program Association being reported.* Reports the fields that are part of the Natural Key for the Students resource.	M	N/A	N/A	✅
5	ctePrograms (*array*)	*An unordered collection of studentCTEProgram AssociationCTEPrograms. The career cluster representing the career path of the Vocational /Career Tech concentrator.* Reports the following data elements in an array:	O	Academic Programs > Programs Academic Program Setup	ProgramParticipation .programID Program .code ProgramParticipation . studentStatus ProgramParticipation .startDate	✅

- careerPathwayDescriptor
  - Reports the Ed-Fi Code mapped to the value selected for **Program**.
    - This mapping can be found in the Resource Preferences of the Ed-Fi Connection under the Student CTE Program Associations resource.
- cipCode
  - Reports the **State Code (CIP)**.
- cteProgramCompletionIndicator
  - Reports **True** if the Student Status is mapped in Resource Preferences.
    - This mapping can be found in the Resource Preferences of the Ed-Fi Connection under the Student CTE Program Associations resource.
  - Reports **False** in all other situations.
- primaryCTEProgramIndicator
  - Reports **True** for the CTE program record with the most recent (latest) Start Date in the configured year.
  - Reports **False** in all other situations.

6	endDate (*date*)	*The month, day, and year on which the student exited the program or stopped receiving services.* Reports the **CTE Program End Date**. • Does not report if the CTE Program End Date is NULL.	O	Academic Programs > Programs	ProgramParticipation .endDate	✓
7	nonTraditionalGenderStatus (*booelan*)	*Indicator that student is from a gender group that comprises less than 25% of the individuals employed in an occupation or field of work.* • Reports **True** if Non-Traditional Participation is checked. • Reports **False** in all other situations.	O	Academic Programs > Programs	ProgramParticipation . nonTraditional	✓

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| 8 | privateCTEProgram (*booelan*) | *Indicator that student participated in career and technical education at private agencies or institutions that are reported by the state for purposes of the Elementary and Secondary Education Act (ESEA). Students in private institutions which do not receive Perkins funding are reported only in the state file.*

Reports **False**.

• This is hard-coded. | O | N/A | N/A | | ✅ |

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9	technicalSkills AssessmentDescriptor (*string*)	*Results of technical skills assessment aligned with industry recognized standards.*<hr>Reports the Ed-Fi Code mapped to the values entered in the CTE Program's Certifications section. • This mapping can be found in the Resource Preferences of the Ed-Fi Connection under the Student CTE Program Associations resource. • This mapping looks at the Attempted checkbox, Passed checkbox, and Date fields. • If there are multiple certifications, report based on the following priority order: ◦ Most recent (latest) Date ◦ Highest Participation Certification ID	O	Academic Programs > Programs	ProgramParticipationCertification .attempted ProgramParticipationCertification .passed ProgramParticipationCertification .certificationDate	✅
10	cteProgramServices	This data element is optional and does not report.	O	N/A	N/A	N/A
11	participationStatus	This data element is optional and does not report.	O	N/A	N/A	N/A
12	programParticipationStatuses	This data element is optional and does not report.	O	N/A	N/A	N/A
13	reasonExitedDescriptor	This data element is optional and does not report.	O	N/A	N/A	N/A
14	servedOutsideOfRegularSession	This data element is optional and does not report.	O	N/A	N/A	N/A

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15	services	This data element is optional and does not report.	O	N/A	N/A	N/A

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Appendix

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