

AZ Ed-Fi Suite v7.3, Data Standard v5.2: Sections (SY 25-26)

Table of Contents

- [Summary](#)
- [Object Triggering Logic](#)
- [Required Resources \(Upstream\)](#)
- [Dependent Resources \(Downstream\)](#)
- [Error Log](#)
- [Object Data Elements Logic](#)
- [Appendix](#)

Summary

This entity represents a setting in which organized instruction of course content is provided, in-person or otherwise, to one or more students for a given period of time. A course offering may be offered to more than one section.

Object Triggering Logic

Action	Business Rule(s)
--------	------------------

Post

Report a record when a Section is created and saved.

- The Section must be scheduled into a term/period (Section Placement) to report.
- One record will report for each Section and Term Type combination.
- A record is only reported for Sections 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:
 - Course Inactive
 - Course State Exclude
 - 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 Section Information:
 - Section ID (New Section)
 - Section Placement
 - Instructional Setting
 - Location Override
 - Room
 - CTE Minutes per Week Override
 - CTE
 - Dual Credit
- When any of the following information is changed on Course Information:
 - Course ID (New Course)
 - SCED Sequence "part n"
 - Level
 - State Report Exclude
 - CTE
 - Dual Credit
 - Location Override
 - CTE Minutes per Week
- When any of the following information is changed on Course Grading Tasks:
 - Grading Task ID (New Course Grading Task)
 - Credits



	<ul style="list-style-type: none">• Changes to Resource Preferences mappings do NOT trigger. A manual resync must be performed on the resource if mappings are changed.
Delete	<ul style="list-style-type: none">• When a Section is deleted.• When the Section Placement is removed or changed.• When a record is in the Ed-Fi Identity Mapping Report but cannot be found on the Campus site.

Required Resources (Upstream)

The following resources must be sent prior to this resource:

- Schools
- Course Offerings
- Locations
- Class Periods

Dependent Resources (Downstream)

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

- Student Section Associations
- Staff Section Associations

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. <ul style="list-style-type: none"> • Double check that all bolded data elements below are reporting a valid value and no data elements below are reporting an invalid value.



<p>400: 'RESOURCE' failed. RESOURCE reference could not be resolved.</p>	<p>A resource that was referenced from a difference resource does not yet exist.</p> <ul style="list-style-type: none"> • 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.
<p>403: Authorization denied. The claim does not have any established relationships with the requested resource.</p>	<p>The key/secret being used does not have permission to send a record for the resource / referenced resource.</p> <ul style="list-style-type: none"> • 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.
<p>404: Failed to delete 'RESOURCE'. Record does not exist.</p>	<p>The attempt to delete a specific Ed-Fi record ID in the ODS failed because it did not exist.</p> <ul style="list-style-type: none"> • 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.

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.

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	sectionIdentifier (string)	<p>The local identifier assigned to a section.</p> <hr/> <p>Reports the Section ID.</p>	M	Section Information	.sectionID	✓
2	courseOfferingReference (reference)	<p>A reference to the Course Offerings resource associated with the Section being reported.</p> <hr/> <p>Reports the fields that are part of the Natural Key for the Course Offerings resource.</p>	M	N/A	N/A	✓

3	locationReference (reference)	<p>A reference to the Locations resource associated with the Section being reported.</p> <hr/> <p>Reports the fields that are part of the Natural Key for the Locations resource.</p>	O	N/A	N/A	
4	siteLocationSchoolReference (reference)	<p>A reference to the Schools resource associated with the Section being reported.</p> <hr/> <p>Reports the fields that are part of the Natural Key for the Schools resource for the School ID listed in Location Override.</p> <ul style="list-style-type: none"> • Reports first from Section Information • If Section Information Location Override is NULL, reports from Course Information. • Does not report if Course and Section Information Location Override fields are NULL. 	C	Course Information Section Information	Course .provider Section .provider	

5	availableCredits (number)	<p>The value of credits or units of value awarded for the completion of a course.</p> <hr/> <p>Reports the result of the following calculation:</p> <ul style="list-style-type: none"> • Total Credits (from all Grading Tasks on the Course) / Number of Terms the Section occurs. • Reports 1 if the student is in Grades K-8. 	M	Course Grading Tasks	GradingTaskCredit .credit	✖
6	classPeriods (array)	<p>A reference to the Class Periods resource associated with the Section being reported.</p> <hr/> <p>Reports the following data elements in an array:</p> <ul style="list-style-type: none"> • classPeriodReference <ul style="list-style-type: none"> ◦ Reports the fields that are part of the Natural Key for the Class Periods resource for all class periods the section is offered in. 	M	N/A	N/A	✔

7	courseLevelCharacteristics (array)	<p>An unordered collection of sectionCourseLevelCharacteristics. The type of specific program or designation with which the section is associated. This collection should only be populated if it differs from the course level characteristics identified at the course offering level.</p> <hr/> <p>Reports the following data elements in an array:</p> <ul style="list-style-type: none"> • courseLevelCharacteristicDescriptor <ul style="list-style-type: none"> ◦ Reports the Ed-Fi Code mapped to the value selected for Level on Course Information. <ul style="list-style-type: none"> ▪ This mapping can be found in the Resource Preferences of the Ed-Fi Connection under the Sections resource. ◦ Reports Dual Credit if the Dual Credit checkbox is checked on Course or Section Information. ◦ Reports Career and Technical Education if the CTE checkbox is checked on Course or Section Information. ◦ Does not report in all other situations. 	C	Course Information Section Information	Course .level CustomCourse .value CustomSection .value	✖
---	------------------------------------	--	---	---	--	---

8	educationalEnvironmentDescriptor (string)	<p><i>The setting in which a student receives education and related services.</i></p> <hr/> <p>Reports the Ed-Fi Code mapped to the value selected for Instructional Setting.</p> <ul style="list-style-type: none"> • This mapping can be found in the Resource Preferences of the Ed-Fi Connection under the Sections resource. • Do not report if NULL or not mapped to an Ed-Fi Code. 	M	Section Information	Section .instructionalSetting	
---	---	--	---	---------------------	-------------------------------	---

9	offeredGradeLevels	<p><i>An unordered collection of sectionOffered GradeLevels. The grade levels in which the section is offered. This collection should only be populated if it differs from the Offered Grade Levels identified at the course offering level.</i></p> <hr/> <p>Reports the following data elements in an array:</p> <ul style="list-style-type: none"> • gradeLevelDescriptor <ul style="list-style-type: none"> ◦ Reports the Ed-Fi Code mapped to the lowest and highest grade level rostered into the Section. <ul style="list-style-type: none"> ▪ This mapping can be found in the Resource Preferences of the Ed-Fi Connection under the Grade Levels resource. ▪ Reports regardless of Roster Dates. ▪ Does not include grade levels marked as State Exclude. ▪ A manual resync for Sections will need to be done if a student's grade level on Enrollment is changed. 	M	Enrollments	Enrollment.grade	✖
---	--------------------	--	---	-------------	------------------	---

1 0	sequenceOfCourse (number)	<p>When a section is part of a sequence of parts for a course, the number of the sequence. If the course has only one part, the value of this section attribute should be 1.</p> <hr/> <p>Reports the value selected in the SCED Sequence "Part n" field.</p> <ul style="list-style-type: none"> Report 1 if NULL. 	O	Course Information	Course.scedSequenceNum	✔
1 1	minutesPerWeek (number)	<p>Minutes reported per week.</p> <hr/> <p>Reports the value selected in the CTE Minutes per Week (Override) field.</p> <ul style="list-style-type: none"> Reports first from Section Information If Section Information CTE Minutes per Week Override is NULL, reports from Course Information. Does not report if Course and Section Information CTE Minutes per Week (Override) fields are NULL. 	C	Course Information Section Information	Course.instructionalTime Section.instructionalTime	EXT
1 2	availableCreditConversion	This data element is optional and does not report.	O	N/A	N/A	N/A
1 3	availableCreditTypeDescriptor	This data element is optional and does not report.	O	N/A	N/A	N/A
1 4	characteristics	This data element is optional and does not report.	O	N/A	N/A	N/A

15	courseLevelCharacteristics	This data element is optional and does not report.	O	N/A	N/A	N/A
16	instructionLanguageDescriptor	This data element is optional and does not report.	O	N/A	N/A	N/A
17	mediumOfInstructionDescriptor	This data element is optional and does not report.	O	N/A	N/A	N/A
18	officialAttendancePeriod	This data element is optional and does not report.	O	N/A	N/A	✖
19	populationServedDescriptor	This data element is optional and does not report.	O	N/A	N/A	N/A
20	programs	This data element is optional and does not report.	O	N/A	N/A	N/A
21	sectionName	This data element is optional and does not report.	O	N/A	N/A	N/A
22	note	This data element is optional and does not report.	O	N/A	N/A	EXT - N/A
23	timetableDayIdentifier	This data element is optional and does not report.	O	N/A	N/A	EXT - N/A
24	externalProviderTeachers	This data element is optional and does not report.	O	N/A	N/A	EXT - N/A



Appendix