

MN Ed-Fi Suite v3.5.2, Data Standard v3.3.0-a: Student School Associations

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Summary

This association represents the school in which a student is enrolled. The semantics of enrollment may differ slightly by state. Non-enrollment relationships between a student and an education organization may be described using the Student Education Organization Association resource.

Object Triggering Logic

Action	Business Rule(s)
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Post	<p>Reports a record for each Enrollment-Transportation record combination that overlaps the configured year.</p> <ul style="list-style-type: none"> • The primary scenarios that define "Enrollment-Transportation" records are defined below: <ul style="list-style-type: none"> ◦ Enrollment Dates where a Transportation record is started in the middle of the Enrollment. ◦ Enrollment Dates where a Transportation record is ended in the middle of the Enrollment. ◦ Enrollment Dates with no overlapping Transportation records. ◦ Additional explanation of the Enrollment-Transportation records and how they would report can be found in the Appendix. • A record is only reported for Enrollments in the same School Year as the Ed-Fi Connection sending the record. <ul style="list-style-type: none"> ◦ School Year dates are defined in School Year Setup. <ul style="list-style-type: none"> ▪ If Start Date is NULL, 07/01/StartYear will be used. ▪ If End Date is NULL, 06/30/EndYear will be used. • A record will report for each Enrollment with a unique School and Enrollment Start Date combination. • When a student has two enrollments in the same School, Calendar, and Schedule Structure with the same start date, report from the enrollment service type in the following order: <ul style="list-style-type: none"> ◦ P: Primary Enrollment ◦ S: Partial/Ancillary ◦ N: Special Ed Services • When a student has two Primary enrollments in the same school with the same start date, post the record with the highest enrollment ID. • Do not report a record if the any of the following exclusions are present: <ul style="list-style-type: none"> ◦ Enrollment No Show ◦ Enrollment State Exclude ◦ Enrollment Grade Level Exclude ◦ Calendar Exclude ◦ School Exclude
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Delete /Post Put	<p>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.</p> <ul style="list-style-type: none"> When any of the following information is changed on Enrollments: <ul style="list-style-type: none"> Enrollment ID (New Enrollment) Grade Start Date End Date No Show End Action Service Type State Start Status State End Status Resident District Serving District School Choice When any of the following information is changed on Graduation: <ul style="list-style-type: none"> NCLB Cohort End Year When any of the following information is changed on Program Participation: <ul style="list-style-type: none"> Program Participation ID (New Program Participation) Program Start Date End Date When the following information is changed on a Transportation record: <ul style="list-style-type: none"> Transportation ID (New Transportation) Start Date End Date Transportation Code Transporting District 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 the student is now excluded in some way. When the Enrollment is deleted. When the Enrollment dates are changed 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.

Required Resources (Upstream)

The following resources must be sent prior to this resource:

- Students
- Schools
- Graduation Plans
- Calendars

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
Error code return from Ed-Fi. 400: [message:Validation of 'StudentSchoolAssociationPut' failed. Supplied values for unified key property 'schoolId' on 'StudentSchoolAssociation' are not consistent: schoolReference.schoolId = X, calendarReference.schoolId = Y].	The School ID being reported for schoolReference and calendarReference is different when it is required to match. Update the Calendar School ID or the Enrollment School ID.
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.


<p>409: A natural key conflict occurred when attempting to create a new resource 'RESOURCE' with a duplicate key.</p>	<p>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.</p> <ul style="list-style-type: none"> • Check for duplicate data in your Campus site. If no duplicate data can be found, report the issue to Campus Support. <ul style="list-style-type: none"> ◦ 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.
<p>409: The resource (or a subordinate entity of the resource) cannot be deleted because it is a dependency of the 'RESOURCE' entity.</p>	<p>The resource that the application is attempting to delete is referenced from another entity.</p> <ul style="list-style-type: none"> • Use the Delete Tool to delete the referenced resource in the error message. Then retry the delete on the original resource that errored.
<p>500: Internal Server Error.</p>	<p>Something unexpected happened and no specific error message could be returned.</p> <ul style="list-style-type: none"> • 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. <ul style="list-style-type: none"> ◦ 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)
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1	entryDate (date)	<p><i>The month, day, and year on which an individual enters and begins to receive instructional services in a school.</i></p> <hr/> <ul style="list-style-type: none"> • Reports the Enrollment Start Date when reporting from an Enrollment with no overlapping Transportation records. • Reports the Transportation Start Date when reporting from a Transportation record that overlaps the Enrollment. • Reports the Immediate Next Date when reporting from an Enrollment where a Transportation record just ended and there are no current overlapping Transportation records. <ul style="list-style-type: none"> ◦ The "Immediate Next Date" is defined as the day following the Transportation End Date. <p>Notes:</p> <ul style="list-style-type: none"> • For an in-depth example, please see the Appendix. 	M	Enrollments Transportation	Enrollment .startDate Transportation .startDate TransportationStudentDetail .startDate	
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2	calendarReference (reference)	<p><i>A reference to the Calendars resource associated with the Student School Associations being reported.</i></p> <hr/> <p>Reports the fields that are part of the Natural Key for the Calendars resource.</p> <ul style="list-style-type: none"> If the Enrollment Calendar is mapped to an Override Calendar via the Calendar Override Mapping Tool in the Resource Preferences of the Calendars resource, the Override Calendar will report for calendarReference. <ul style="list-style-type: none"> If the Override Calendar's School is different from the Enrollment Calendar's School, an error will occur and prevent Student School Associations from posting (see the Error Log section above for more details). 	O	N/A	N/A	✗
3	classOfSchoolYearTypeReference (reference)	<p><i>A reference to the School Year the student is expected to graduate.</i></p> <hr/> <p>Report the NCLB Cohort End Year.</p> <ul style="list-style-type: none"> Do not report if NCLB Cohort End Year is NULL. 	O	Graduation	Graduation . cohortYearNCLB	✓
4	schoolReference (reference)	<p><i>A reference to the Schools resource associated with the Student School Associations being reported.</i></p> <hr/> <p>Reports the fields that are part of the Natural Key for the Schools resource.</p>	M	N/A	N/A	✓

5	schoolYearTypeReference (reference)	<p><i>A reference to the School Year associated with the Student School Association being reported.</i></p> <hr/> <p>Reports the End Year of the calendar associated with the Enrollment.</p>	O	Calendar Information	Calendar .endYear	✓
6	studentReference (reference)	<p><i>A reference to the Students resource associated with the Student School Associations being reported.</i></p> <hr/> <p>Reports the fields that are part of the Natural Key for the Students resource.</p>	M	N/A	N/A	✓
7	entryGradeLevelDescriptor (string)	<p><i>The grade level or primary instructional level at which a student enters and receives services in a school or an educational institution during a given academic session.</i></p> <hr/> <p>Reports the Ed-Fi Code mapped to the value selected for Grade.</p> <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. 	M	Enrollments	Enrollment .grade	✓

8	entryTypeDescriptor (string)	<p><i>The process by which a student enters a school during a given academic session.</i></p> <hr/> <p>Reports the Ed-Fi Code mapped to the value selected for Enrollment State Start Status.</p> <ul style="list-style-type: none"> This mapping can be found in the Resource Preferences of the Ed-Fi Connection under the Student School Associations resource. Reports 0 (Last enrollment in a public school in the reporting district) when the State Aid Category is set to 46: ESY Enrollment. 	M	Enrollments	Enrollment .startStatus Enrollment .stateAid	✖
9	exitWithdrawDate (date)	<p><i>The recorded exit or withdraw date for the student.</i></p> <hr/> <ul style="list-style-type: none"> Reports the Enrollment End Date when reporting from an Enrollment with no overlapping Transportation records. <ul style="list-style-type: none"> If the Enrollment End Date occurs after the last instructional day of the calendar, report the Last Instructional Day of the Enrollment Calendar. Reports the Transportation End Date when reporting from a Transportation record that overlaps the Enrollment. <ul style="list-style-type: none"> If the Transportation End Date occurs after the last instructional day of the calendar, report the Last Instructional Day of the Enrollment Calendar. Reports the Immediate Prior Date when reporting from an Enrollment that is being ended by a Transportation record. <ul style="list-style-type: none"> The "Immediate Prior Date" is defined as the day before the Transportation Start Date. 	M	Enrollments Transportation	Enrollment .endDate Transportation .endDate TransportationStudentDetail .endDate	✖

		<p>Notes:</p> <ul style="list-style-type: none"> All calculated dates must be an instructional date associated to the Enrollment Calendar. <ul style="list-style-type: none"> The only exception to this is when the State Aid Category is set to 98: <i>Summer graduate/dropout</i> OR there are no Days defined in the Calendar. In this scenario, instructional days will be ignored. Report the past nearest instructional date if the calculated date is not an instructional day. <ul style="list-style-type: none"> Example: <ul style="list-style-type: none"> 2/13/2023 is the calculated date. This is not an instructional day. 2/12/2023 is not an instructional day. 2/11/2023 IS an instructional day. We would report 2/11/2023. For an in-depth example, please see the Appendix. 				
10	exitWithdrawTypeDescriptor (string)	<p><i>The circumstances under which the student exited from membership in an educational institution.</i></p> <hr/> <p>Reports based on the following priority order:</p>	O	Enrollments Calendar Information Transportation	Enrollment .endStatus Enrollment .endDate Enrollment .startDate CustomCalendar .value Transportation .endDate Transportation .startDate	

- Reports the Ed-Fi Code mapped to the value selected for **Enrollment State End Status**.
 - This mapping can be found in the Resource Preferences of the Ed-Fi Connection under the Student School Associations resource.
- Reports the Ed-Fi Code mapped to the value selected for **Calendar End Code Override**.
 - This mapping can be found in the Resource Preferences of the Ed-Fi Connection under the Student School Associations resource.
- Reports **99** (Students' enrollment status has changed) if:
 - The Transportation record overlaps the associated Enrollment by at least a single day **AND**
 - The Transportation End Date (cannot be NULL) is prior to the Enrollment End Date (cannot be NULL)
- Reports **40** (End-of-year, students were enrolled the last day of school) in all other situations.

Notes:

TransportationStudentDetail
.startDate

TransportationStudentDetail
.endDate

		<ul style="list-style-type: none"> The following logic determines if the Transportation record overlaps the Enrollment record: <ul style="list-style-type: none"> A Transportation record exists AND The Transportation End Date is NULL OR The Transportation End Date is after or equal to the Enrollment Start Date AND The Enrollment End Date is NULL OR The Transportation Start Date is prior or equal to the Enrollment End Date 				
11	specialEducation EvaluationStatus Descriptor (string)	<p><i>An indicator of the students' need for and participation in special education programs during this enrollment period.</i></p> <hr/> <p>Reports the Ed-Fi Code mapped to the value selected for Special Ed Status.</p> <ul style="list-style-type: none"> This mapping can be found in the Resource Preferences of the Ed-Fi Connection under the Student School Associations resource. Reports 1 (Not evaluated, non-disabled, no IEP/IFSP regular education only) when the Special Ed Status is NULL or not mapped to an Ed-Fi Code. 	C	Enrollments	Enrollment .specialEdStatus	EXT

12	stateAidCategoryDescriptor (<i>string</i>)	<p><i>State Aid Category.</i></p> <hr/> <p>Reports the Ed-Fi Code mapped to the value selected for State Aid Category.</p> <ul style="list-style-type: none"> This mapping can be found in the Resource Preferences of the Ed-Fi Connection under the Student School Associations resource. Reports 00 (Regular; resident enrolled at the resident district) when the State Aid Category is NULL or not mapped to an Ed-Fi Code. 	C	Enrollments	Enrollment .stateAid	EXT
13	homeboundServiceIndicator (<i>boolean</i>)	<p><i>The Homebound Service Indicator is used to validate Membership Days for students who have no Attendance Days. It is an indication of whether students were medically confined to their home and received instruction in the home during the enrollment period.</i></p> <hr/> <ul style="list-style-type: none"> Reports True when Homebound has a value of Y: Yes. Reports False in all other situations. 	C	Enrollments	Enrollment .homebound	EXT
14	specialPupilIndicator (<i>boolean</i>)	<p><i>An indicator representing a Student who qualifies as a Special Pupil for Care and Treatment at some time during the school year.</i></p> <hr/> <ul style="list-style-type: none"> Reports True when Special Pupils for Care /Treatment has a value of Y: Yes. Reports False in all other situations. 	C	Enrollments	EnrollmentMN .specialCare	EXT

15	residentLocalEducation AgencyReference (reference)	<p><i>A reference to the Local Education Agencies resource associated with the Student School Associations being reported.</i></p> <hr/> <p>Reports the fields that are part of the Natural Key for the Local Education Agencies resource for the Resident District selected.</p>	C	Enrollments	Enrollment .residentDistrict	EXT
16	membership (array)	<p><i>An array containing information about membership and attendance of the student.</i></p> <hr/> <p>Reports the following data elements in an array:</p> <ul style="list-style-type: none"> • membershipAttendanceUnitDescriptor <ul style="list-style-type: none"> ◦ Reports Hours if the Percent Enrolled is set to a value of 999 or 998. ◦ Reports Days in all other situations • attendance <ul style="list-style-type: none"> ◦ See the Attendance and Membership section in the Appendix below for specific calculation logic. • membership <ul style="list-style-type: none"> ◦ See the Attendance and Membership section in the Appendix below for specific calculation logic. • percentEnrolled <ul style="list-style-type: none"> ◦ Reports the Percent Enrolled. 	C	N/A	N/A	EXT

17	transportation	<p><i>An array containing information about the transportation of the student.</i></p> <hr/> <p>Reports the following data elements in an array for the most recent Transportation record that overlaps the Enrollment timeframe:</p> <ul style="list-style-type: none"> • transportationCategoryDescriptor <ul style="list-style-type: none"> ○ Reports the Ed-Fi Code mapped to the value selected for Transportation Category. <ul style="list-style-type: none"> ■ This mapping can be found in the Resource Preferences of the Ed-Fi Connection under the Student School Associations resource. ○ Reports 00 (Walker) when there are no valid Transportation records that overlap the Enrollment or when the valid Transportation record's Transportation Category is NULL or not mapped to an Ed-Fi Code. • transportingLocalEducationAgencyReference <ul style="list-style-type: none"> ○ Reports the Transporting District. <ul style="list-style-type: none"> ■ Reports the District Number from the Multi-Connection Ed-Fi Connection when Transporting District is NULL. ■ Reports the Ed-Fi District Number when District Number is NULL. ■ Reports the District Type + District State Number (0-padded on left) + 000 when the Ed-Fi District Number is NULL. 	C	Transportation	Transportation . transportationCode Transportation .startDate Transportation .endDate Transportation . transportingDistrict TransportationStudentDetail . startDate TransportationStudentDetail . endDate TransportationStudentDetail . value	EXT
18	alternativeGraduationPlans	This data element is optional and does not report.	O	N/A	N/A	N/A

19	educationPlans	This data element is optional and does not report.	O	N/A	N/A	N/A
20	employedWhileEnrolled	This data element is optional and does not report.	O	N/A	N/A	N/A
21	entryGradeLevelReasonDescriptor	This data element is optional and does not report.	O	N/A	N/A	N/A
22	fullTimeEquivalency	This data element is optional and does not report.	O	N/A	N/A	N/A
23	graduationPlanReference	This data element is optional and does not report. While template logic exists in MN for this data element, it will never report as mappings are not present and MN does not use the Graduation Plans resource.	O	N/A	N/A	✓
24	primarySchool	This data element is optional and does not report.	O	N/A	N/A	✗
25	repeatGradeIndicator	This data element is optional and does not report.	O	N/A	N/A	✗
26	residencyStatusDescriptor	This data element is optional and does not report.	O	N/A	N/A	✗
27	schoolChoiceTransfer	This data element is optional and does not report.	O	N/A	N/A	✗
28	termCompletionIndicator	This data element is optional and does not report.	O	N/A	N/A	N/A

Appendix

Student School Associations Object Triggering Example

Student School Associations Object Triggering Example

This area of the Appendix provides an example scenario for the Enrollment-Transportation selection logic and how it would report. Transportation records act as "segments" of an Enrollment which need to be reported separately in Minnesota. Infinite Campus has implemented logic to determine the appropriate **EFFECTIVE** Start and End Date of each Student School Associations record to account for this. Assume we have the following data:

- Enrollment
 - Service Type is *P: Primary*
 - Start Date is 01 Jul 2024
 - End Date is 15 Jun 2025
- Transportation
 - Record One
 - Start Date is 01 Aug 2024
 - End Date is 01 Oct 2024
 - Record Two
 - Start Date is 01 Jan 2025
 - End Date is 01 Mar 2025
- (Enrollment) Calendar
 - The last instructional day is 05 Jun 2025
 - Winter Break is 21 Dec 2024 through 05 Jan 2025 (noninstructional)
 - 01 Mar 2025 is a noninstructional day (weekend)
 - Assume if not explicitly mentioned that all other days are instructional.

The total Student School Association records that would report would be:

Segment	Record Type	Start Date	End Date	Explanation
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1	No Transportation	01 Jul 2024	31 Jul 2024	This period of the Enrollment has no Transportation records associated with it. An effective End Date is determined to be one day prior to the start of Transportation Record One.
2	Transportation	01 Aug 2024	01 Oct 2024	This period of the Enrollment is associated with Transportation Record One.
3	No Transportation	02 Oct 2024	20 Dec 2024	<p>This period of the Enrollment is between Transportation Record One and Transportation Record Two (i.e. has no Transportation records associated with it). An effective Start Date is determined to be one day after Transportation Record One and an effective End Date is determined to be the immediate most instructional day (based on the Enrollment Calendar) prior to Transportation Record Two.</p> <ul style="list-style-type: none"> The day prior to Transportation Record Two is 31 Dec 2024. This is not an instructional day on the student's Calendar, so we instead go back in time to the nearest instructional day, which is 20 Dec 2024.
4	Transportation	01 Jan 2025	28 Feb 2025	<p>This period of the Enrollment is associated with Transportation Record One. An effective End Date is determined to be the immediate most instructional day (based on the Enrollment Calendar) prior to the Transportation Record Two End Date.</p> <ul style="list-style-type: none"> The End Date of Transportation Record Two is 01 Mar 2025. This is not an instructional day on the student's Calendar, so we instead go back in time to the nearest instructional day, which is 28 Feb 2025. The Start Date of Transportation Record Two is used as the effective Start Date. We do NOT care about noninstructional days for Start Date of Transportation-based records.

5	No Transportation	02 Mar 2025	05 Jun 2025	<p>This period of the Enrollment is after Transportation Record Two (i.e. has no Transportation records associated with it). An effective Start Date is determined to be one day after Transportation Record Two End Date and an effective End Date is determined to be the immediate most instructional day prior to the Enrollment End Date.</p> <ul style="list-style-type: none">• The End Date of Transportation Record Two is 01 Mar 2025. Note that we use the Transportation record's End Date and NOT the calculated SSA effective End Date when determining the next record's effective Start Date. In this scenario, the immediate next day after the Transportation Record Two is 02 Mar 2025.• The Enrollment End Date is 15 Jun 2025. This is NOT an instructional day. We determine the effective End Date by taking the immediate most instructional day prior to the Enrollment End Date, which is the Calendar's last instructional day of 05 Jun 2025.
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Attendance and Membership

Single Enrollment Logic**Single Enrollment Logic**

Single Enrollment Logic is used when the student has exactly one valid, reportable Enrollment.

Exclusion Logic:

When a student matches one of the below exclusion criteria, attendance and membership will be returned as **0**.

- Enrollment State Exclude
- Enrollment No Show
- Calendar Exclude
- Grade Level Exclude

Additional Logic and Notes:

- Early Childhood students are defined as having an Enrollment Grade of *EC*.

Variable Logic:

1. Determine the **Percent Enrolled** by pulling the Percent Enrolled value from the student's Enrollment.
 - a. **999** will be used as the default for Early Childhood students that have a NULL Percent Enrolled on their Enrollment.
 - b. **100** will be used as the default for all other students that have a NULL Percent Enrolled on their Enrollment.
2. Determine the **Membership Attendance Unit Descriptor** (Days / Hours) by using the logic from Object Data Elements above.
 - a. **Hours** will be used as the default for Early Childhood students that have a NULL Percent Enrolled on their Enrollment.
 - b. This variable determines which calculation the student falls into below.
3. Determine the **Membership Override** by pulling the Membership Override value from the student's Enrollment.
 - a. There is a possibility that this is NULL. That is okay. Overrides are only considered when populated.
 - b. Membership Override should be entered in an Hours format for students reporting an *Hours* Membership Attendance Unit Descriptor.
 - c. Membership Override should be entered in a Days format for students reporting a *Days* Membership Attendance Unit Descriptor.
4. Determine the **Attendance Override** by pulling the Attendance Override value from the student's Enrollment.
 - a. There is a possibility that this is NULL. That is okay. Overrides are only considered when populated.
 - b. Attendance Override should be entered in an Hours format for students reporting an *Hours* Membership Attendance Unit Descriptor.
 - c. Attendance Override should be entered in a Days format for students reporting a *Days* Membership Attendance Unit Descriptor.
5. Determine the **State Aid Category** by using the logic from Object Data Elements above.
6. Determine the **Grade Level** by taking the State Grade Level mapped to the Local Grade Level **OR** using the Local Grade Level is State Grade Level is NULL.
7. Determine the **Kindergarten Code** by pulling the Kindergarten Schedule associated with the Local Grade Level assigned to the student's Enrollment.
8. Determine the **Max Membership Days** by pulling the Instructional Days Override associated with the Local Grade Level assigned to the student's Enrollment.
 - a. **-99** will be used as the default if NULL.
 - i. -99 is not actually used in any calculations, it is just a variable number that will never occur in real life that we can check against for validations in the code.
9. Determine the **Homebound Status** by pulling the Homebound value from the student's Enrollment.
 - a. There is a possibility that this is NULL. That is okay.

Calculation Logic:

Hourly Students (Membership Attendance Unit Descriptor = Hours)

MEMBERSHIP

1. If **Membership Override** has a value, **Membership** will be set to Membership Override.
2. In all other situations, calculate **Membership Minutes** by adding the total minutes associated with Sections for the time period where the student is actively rostered into that Section that meets the following criteria:
 - a. Period is Instructional
 - b. Course is Attendance
 - c. Course is Active
 - d. Section is scheduled into a Period
 - e. Day is Instructional
3. **Membership** is the result of the following calculation rounded to the nearest integer using normal rounding rules: $\text{MEMBERSHIP MINUTES} / 60$

ATTENDANCE

1. If **Attendance Override** has a value, **Attendance** will be set to Attendance Override rounded to the nearest tenths place (X.X) using normal rounding rules.
2. If Membership Override **AND** Attendance Override are NULL (**No overrides entered**):
 - a. Determine the **Absent Minutes** by adding the total minutes associated with the above Sections where the student has a Status of *A: Absent* or *E: Early Dismissal* **AND** an Excuse that is **NOT** *X: Exempt* and then subtracting the total Present Minutes associated with those Attendance entries.
 - b. **Attendance** is the result of the following calculation rounded to the nearest tenths place (X.X) using normal rounding rules:

$$(\text{MEMBERSHIP MINUTES} - \text{ABSENT MINUTES}) / 60$$
3. If **ONLY** Attendance Override is NULL (**Only Membership Override has a value**):
 - a. Determine the **Absent Minutes** by adding the total minutes associated with the above Sections where the student has a Status of *A: Absent* or *E: Early Dismissal* **AND** an Excuse that is **NOT** *X: Exempt* and then subtracting the total Present Minutes associated with those Attendance entries.
 - b. **Attendance** is the result of the following calculation rounded to the nearest tenths place (X.X) using normal rounding rules:

$$\text{MEMBERSHIP} - (\text{ABSENT MINUTES} / 60)$$
 - i. Our code assumes that the Membership Override entered is in an hourly format. If it is not - This part of the calculation will produce the incorrect value.

ATTENDANCE AND MEMBERSHIP FINAL VALIDATION CHECKS

- If Attendance is less than 0, it will be set to **0**.
- If Attendance is greater than Membership **AND** Attendance Override is NULL, it will be set to **Membership**.
- If State Aid Category is *46: ESY Enrollment*, set Attendance and Membership to **0**.
- If Homebound Status is Y: Yes, set Attendance to **0**.

Daily Students (Membership Attendance Unit Descriptor = Days)

MEMBERSHIP

1. If **Membership Override** has a value, **Membership** will be set to Membership Override.
2. If the student has a **Kindergarten Code** of *B: Full Day, Every Other Day/3 Days a Week*:
 - a. **Membership** is the total number of instructional days the student has an overlapping Roster record for.
3. In all other situations:
 - a. **Membership** is the total number of instructional days between the Enrollment record's start and end date (inclusive of both dates).

ATTENDANCE

1. If **Attendance Override** has a value, **Attendance** will be set to Attendance Override rounded to the nearest tenths place (X.X) using normal rounding rules.
2. Determine the **Half Day Absence** and **Whole Day Absence** from the Enrollment's associated Calendar.
 - a. If Half Day Absence **OR** Whole Day Absence are NULL:
 - i. Determine the **Absent Periods** by counting the number of Sections in Instructional periods where the student has a Status of *A: Absent* or *E: Early Dismissal* **AND** an Excuse that is **NOT** *X: Exempt*.
 - ii. Determine the **Period Schedule Periods** by counting the number of Periods within the Period Schedule being used.
 - iii. **Attendance** is the result of the following calculation rounded to the nearest tenths place (X.X) using normal rounding rules:

MEMBERSHIP DAYS - (ABSENT PERIODS / PERIOD SCHEDULE PERIODS)
 - b. In all other situations:
 - i. Determine the **Absent Minutes** by adding the total minutes associated with the above Sections where the student has a Status of *A: Absent* or *E: Early Dismissal* **AND** an Excuse that is **NOT** *X: Exempt* and then subtracting the total Present Minutes associated with those Attendance entries.
 - ii. Determine the **Absence Value** for that particular day by comparing the **Absent Minutes** to the **Whole Day Absence** and **Half Day Absence** to determine if the day counts as 1, 0.5 or 0.
 1. Whole Day Absence will use the Grade Level value first, then if NULL the Calendar value, then if NULL 240.
 2. Half Day Absence will use the Grade Level value first, then if NULL the Calendar value, then if NULL 120.
 3. Absence Value greater than or equal to Whole Day Absence is **1**.
 4. Absence Value greater than or equal to Half Day Absence is **0.5**.
 5. All other situations Absence Value is **0**.
 - iii. Determine the number of **Absent Days** by summing the **Absence Values** above.
 - iv. **Attendance** is the result of the following calculation rounded to the nearest tenths place (X.X) using normal rounding rules:

MEMBERSHIP DAYS - ABSENT DAYS

 1. When Absent Days is NULL, **Attendance** reports as **Membership**.

ATTENDANCE AND MEMBERSHIP FINAL VALIDATION CHECKS

- If Attendance is less than 0, it will be set to **0**.
- If Attendance is greater than Membership **AND** Attendance Override is NULL, it will be set to **Membership**.
- If State Aid Category is *46: ESY Enrollment*, set Attendance and Membership to **0**.
- If Homebound Status is *Y: Yes*, set Attendance to **0**.
- If Membership is greater than Max Membership Days **AND** Membership Override is NULL, set Membership to Max Membership Days.
- If Attendance is greater than Max Membership Days **AND** Attendance Override is NULL, set Attendance to Max Membership Days.

Multiple Enrollment Logic

Multiple Enrollment Logic

Multiple Enrollment Logic is used when the student has multiple valid, reportable enrollments. It follows the same logic as the Single Enrollment category, with a few exceptions:

- After calculating Membership and Attendance for each enrollment, combine the totals for enrollments of the **same grade level**.
 - If the combined total is greater than the **Max Membership Days**, the **LAST** enrollment's values will be reduced so that the combined totals are equal the Max Membership Days.
 - Only applies to Daily students.