



Ed-Fi Unifying Data Model

Ed-Fi Data Standard v2.0
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Introduction

This document provides an overview and key details about the base and extended domains in the Ed-Fi Unifying Data Model (UDM).

Audience

This information is intended for organizations using the Ed-Fi Data Standard. The document is written for data modelers, but should be useful to business analysts, system developers, Local Education Agency (LEA), Regional Education Service Agency (RESA), and State Education Agency (SEA) personnel involved in collecting and using education data.

Prerequisites

To gain the most benefit from this information, the reader should already be familiar with the following knowledge areas:

- Data Modeling, see en.wikipedia.org/wiki/Data_modeling
- Unified Modeling Language (UML) as applied to conceptual Data Modeling, see en.wikipedia.org/wiki/Unified_Modeling_Language

Purpose

The purpose of this documentation is to provide an overview of the organization and high-level design of the Ed-Fi Unifying Data Model.

Overview

The Ed-Fi Unifying Data Model is an enterprise data model of commonly exchanged, shared, and analyzed K-12 education data. The model includes entities that will be easily recognized by people in the education field: students, teachers, assessment results, attendance, and many others. Those entities contain attributes (i.e., properties) that are also easily recognized: for example, assessment results have things like scores, date assessment was taken, and

accommodations. Entities also have natural associations (i.e., relationships): for example, students are related to schools via their enrollments.

The UDM is independent of any interchange mechanism, any database or data warehouse storage structure, or any type of application interface. It is meant to capture the meaning and inherent structure of the most important information in the K-12 education enterprise in order to facilitate information sharing of education data.

The purpose of the Ed-Fi Unifying Data Model is to enable information sharing and reuse of education data. The Ed-Fi Unifying Data Model provides a standard means for:

- **Data Description.** Provides a uniform means to describe education data, its structure (syntax) and meaning (semantics), thereby supporting its discovery and sharing.
- **Data Context.** Facilitates discovery based upon the definition of specific education data domains.
- **Data Sharing.** Supports the access and exchange of data based upon concrete implementation of the Ed-Fi Unifying Data Model or subsets of the Ed-Fi Unifying Data Model that provide semantic interoperability between systems.
- **Data Unification or “Harmonization.”** Provides the capability to compare education data artifacts across systems through a well-defined model that unifies the semantics of data artifacts into “common entities.”

As such, the UDM forms the foundation for the Ed-Fi technical materials. The Ed-Fi Data Standard includes an XML Schema representation of the Ed-Fi UDM and REST API Design Guidelines. The UDM may also be used for designing data stores, such as relational or dimensional database schemas, or for designing other types of application interfaces, such as a SOAP-based service interfaces.

Scope

The scope of the Ed-Fi Unifying Data Model is K-12 education data relevant to schools, LEAs, and SEAs. The Ed-Fi UDM focuses on the most granular

education data for specific students, teachers, schools, courses, grades, assessments, and so forth.

The Ed-Fi UDM generally does not include aggregate data but rather includes the fine-grained source data from which aggregate data may be calculated.

Ed-Fi Unifying Data Model

Ed-Fi Unifying Data Model Notation

The Ed-Fi Unifying Data Model (UDM) is expressed as Unified Modeling Language (UML) Class diagrams. UML Class diagrams capture the logical structure of a domain (in this case the education domain) as a set of entities, attributes, and associations between entities.

Ed-Fi Domains

The scope of education data is large and its organization is complex. Domains serve to provide views of the Ed-Fi Unifying Data Model to assist in its understanding and its application. In many cases, a specific Ed-Fi data exchange schema may only deal with data in a single domain, such as assessment or enrollment. In other cases, it may span several domains, such as with a student transfer record.

The Ed-Fi Unifying Data Model is organized into 16 base domains:

- Alternative/Supplemental Services
- Assessment
- Bell Schedule
- Discipline
- Education Organization
- Enrollment
- Finance
- Graduation
- Intervention

- School Calendar
- Staff
- Student Academic Record
- Student Attendance
- Student Cohort
- Student Identification and Demographics
- Teaching and Learning

These domains are generally well-recognized in the K-12 education data space.

Additional subdomains pre-defined in the Ed-Fi UDM are for specific and relatively common instances of Alternative/Supplemental Services:

- Career and Technical Education
- Migrant Education
- Special Education
- Title I Part A Services

Domain Models

The Ed-Fi UDM is presented in the following subsections, organized by domain. For each domain, the graphical UML model is provided as well the definitions for the entities and associations in the model.

Assessment

This domain defines a model that can be used for a wide variety of assessments, including early childhood assessment, state standardized assessments, college entrance exams, benchmark assessments, and/or course assessments. This domain contains:

- Learning Standards that drive the curriculum and the assessments
- Assessment Metadata that describe the assessment
- Student Assessment Results that follow a parallel structure of StudentAssessment, StudentObjectiveAssessment, and StudentAssessmentItem

Learning Standards

Many states have standard learning standards that drive the curriculum and the assessments. The Common Core State Standards Initiative (www.corestandards.org) is a national initiative for standards in this area. For states that use the Common Core, or have their own standards, the assessment model has entities for LearningStandard, which represents the lowest level of skills, and LearningObjective, which represents higher level aggregation of skills, as shown below. The model supports a hierarchical taxonomy of learning skills using multiple levels of LearningObjective, which may correspond to levels of subjects, domains, or strands; the Nomenclature attribute captures the appropriate naming of these levels whereas the SuccessCriteria attribute captures the criterion that teacher and students use to check for attainment of the objective.

LearningStandard may also be hierarchically organized to support the use case that adopters of the Common Core often decompose a standard into lower level standards in their curriculum. The HasAssociatedPrerequisite association captures prerequisites for a LearningStandard as would be specified in a learning map.

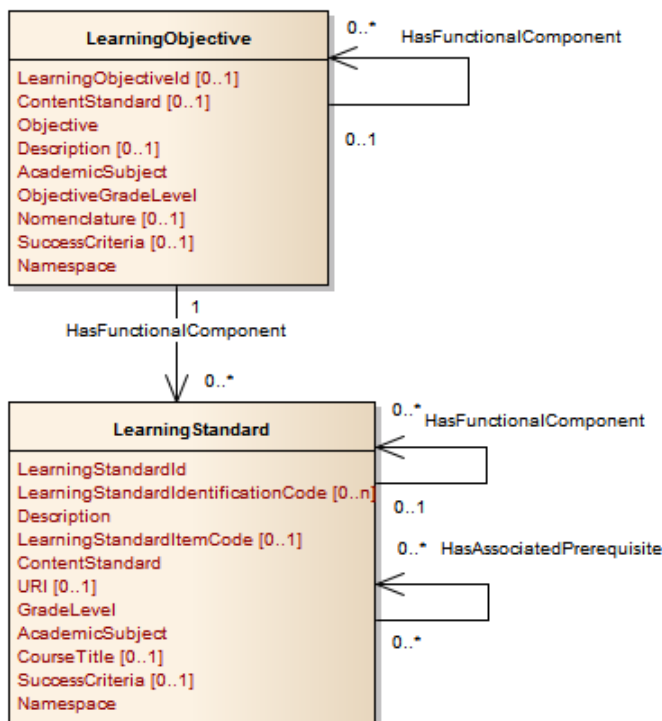


Figure 1. Assessment Model, Learning Standards

Assessment Metadata

Assessment metadata is information describing the assessment. The model reflects four levels of definition, designed to accommodate a wide variety of assessment reporting, as follows:

- The AssessmentFamily is the optional identification for a family of tests. For example, a family of statewide tests might be identified for a set of subject assessments at various grade levels. If required, AssessmentFamilies may be hierarchically organized. Semantically, characteristics of an AssessmentFamily are “inherited” by the individual Assessments.
- There are two options to associate an Assessment which are mutually exclusive: by Section and by Program. For example, if an Assessment is defined to assess Common Core Standards, then the association shall be with Section, on the other hand if the Assessment is defined to assess the Developmental Domains by an Early Learning program, then the association shall be with Program.

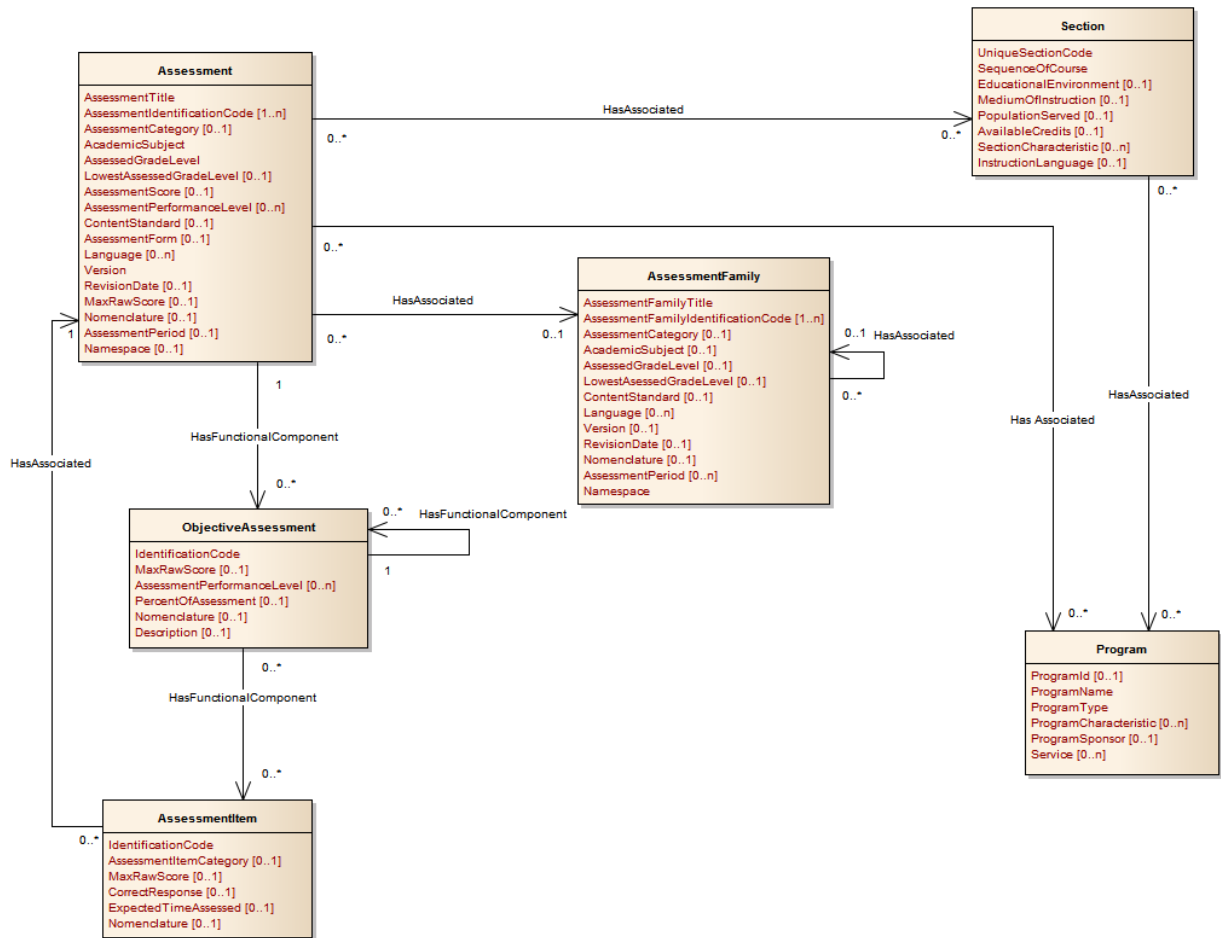


Figure 2. Assessment Model, Assessment Metadata

Student Assessment

Assessment represents a specific administration of an assessment. The Assessment entity contains the minimum amount of metadata required for an assessment.

- If the Assessment is associated with one or more sections, an association is made to the section(s).
- ObjectiveAssessment is the optional identification of portions of the assessment that test specific learning objectives. If required, there can be multiple levels of hierarchical ObjectiveAssessments.
- The AssessmentItem supports the optional identification of the individual questions or items on a test to be scored. Typically, the identification of AssessmentItems is done in conjunction with their mapping to LearningStandards.

- If the assessment references the common core or other state standards for LearningStandards and LearningObjectives, then the assessment metadata would reference the preloaded standards. If the assessment references its own set of LearningObjectives and/or LearningStandards, then that data would be loaded as assessment metadata. An ObjectiveAssessment may test one or more LearningObjectives, and/or may test one or more LearningStandards.

The student's assessment results follow a similar structure to the assessment metadata.

- StudentAssessment holds the overall assessment score and other information about a specific student's results for a specific assessment. The StudentAssessment is associated with a specific student.
- StudentObjectiveAssessment optionally holds the student's score for individually scored results for a specific LearningObjective. If the assessment metadata includes ObjectiveAssessments, then there would be corresponding StudentObjectiveAssessments for each student.
- StudentAssessmentItem optionally holds the student's score for individual AssessmentItems. If the assessment metadata includes AssessmentItems, then there would be corresponding StudentAssessmentItems for each student.

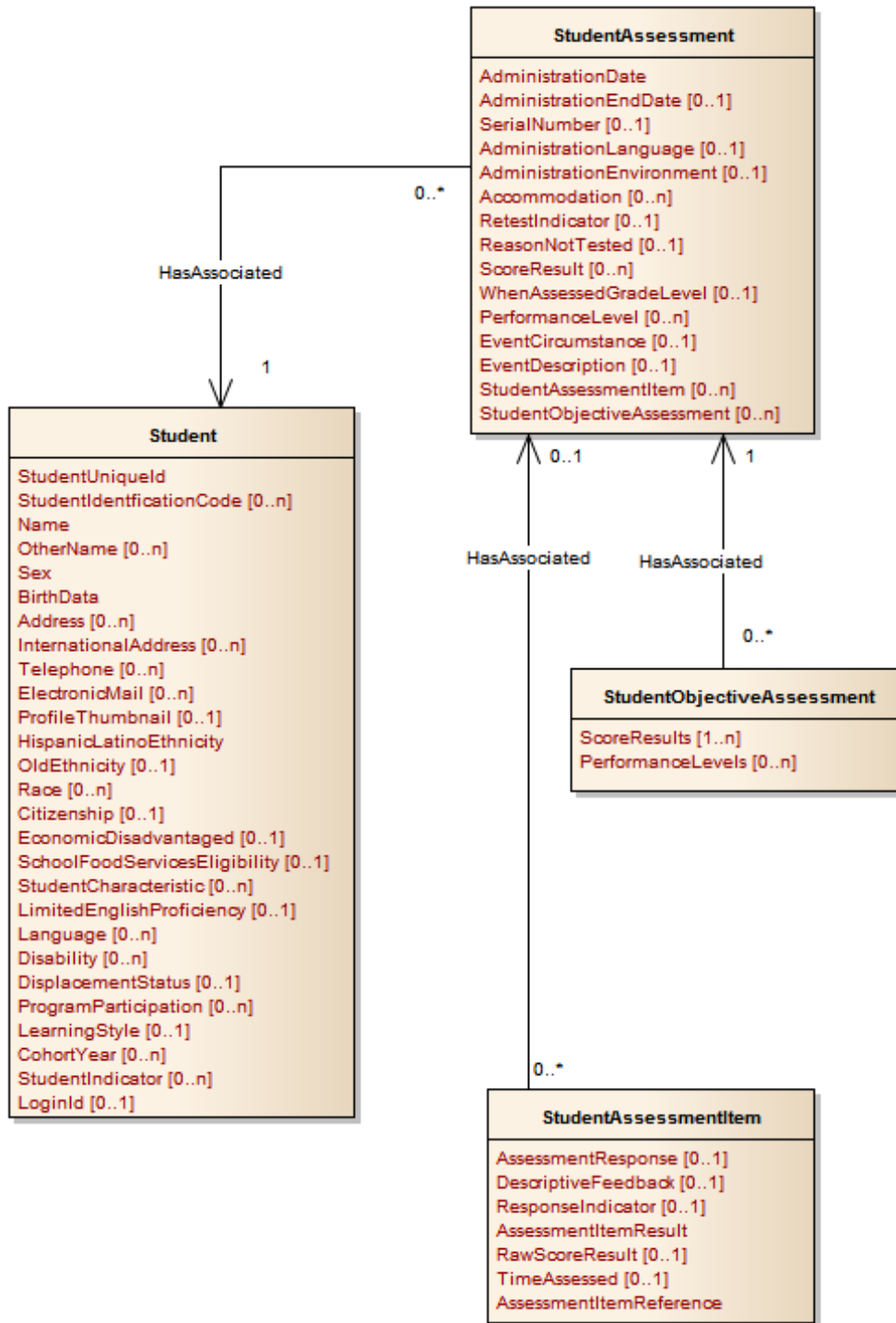


Figure 3. Assessment Model, Student Assessment Results

Table 1. Assessment Model Entities

Name	Description
Assessment	This entity represents a tool, instrument, process, or exhibition composed of a systematic sampling of behavior for measuring a student's competence, knowledge, skills, or behavior. An assessment can be used to measure differences in individuals or groups and changes in performance from one occasion to the next.
AssessmentFamily	This entity represents a logical grouping or association of assessments that share a common purpose, heritage or content standard. There may be hierarchies of assessment families, characteristics (e.g., Academic Subject) specified for assessment families, by convention, are inherited by the Assessments associated with the AssessmentFamily.
AssessmentItem	This entity represents one of many single measures that make up an assessment.
LearningObjective	This entity represents identified learning objectives for courses in specific grades.
LearningStandard	This entity is a sub-element of a learning objective consisting of a precise statement of the expectation of a student's proficiency.
ObjectiveAssessment	This entity represents subtests that assess specific learning objectives.
Program	This entity represents any program designed to work in conjunction with, or as a supplement to, the main academic program. Programs may provide instruction, training, services, or benefits through federal, state, or local agencies. Programs may also include organized extracurricular activities for students.
Section	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.
Student	This entity represents an individual for whom instruction, services, and/or care are provided in an early childhood, elementary, or secondary educational program under the jurisdiction of a school, education agency or other institution or program. A student is a person who has been enrolled in a school or other educational institution.

Name	Description
StudentAssessment	This entity represents the analysis or scoring of a student's response on an assessment. The analysis results in a value that represents a student's performance on a set of items on a test.
StudentAssessmentItem	This entity represents the student's response to an assessment item and the item-level scores such as correct, incorrect, or met standard.
StudentObjectiveAssessment	This entity holds the score and or performance levels earned for an ObjectiveAssessment by a student.

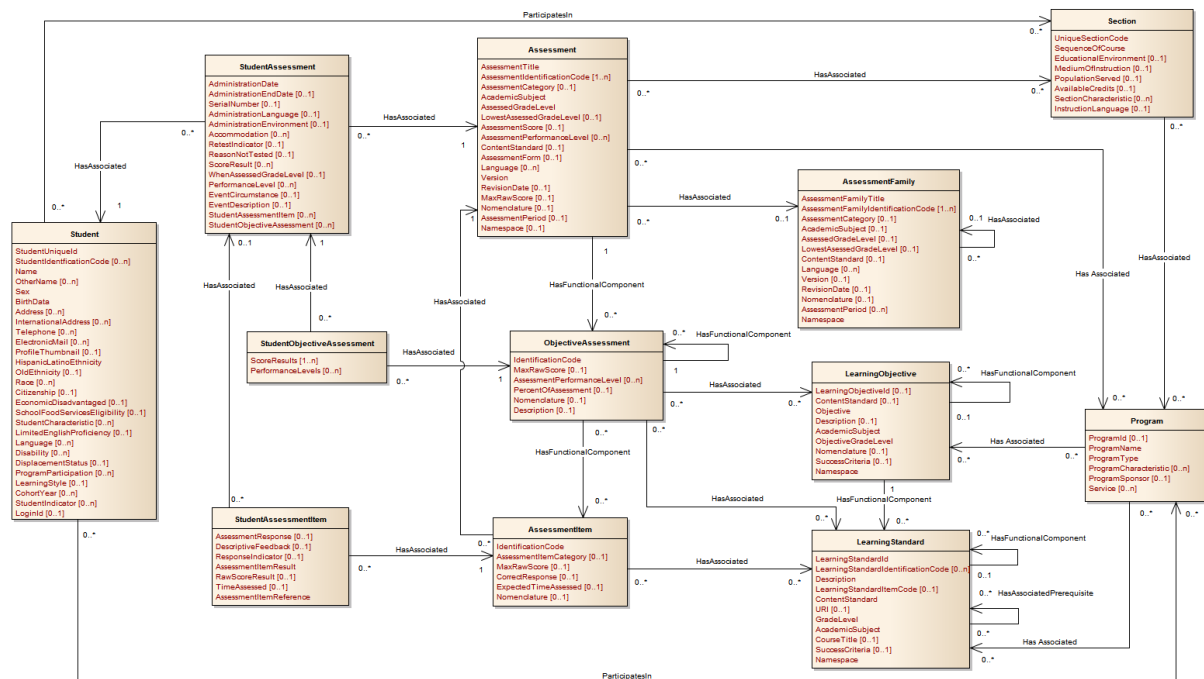


Figure 4. Assessment Model¹

Bell Schedule

The BellSchedule represents the class period scheduling in a day or over a course of days. The model is meant to accommodate a wide variety of bell schedules including block schedules, as follows:

- Sections are assigned a “logical” ClassPeriod, which represents the basic unit for scheduling that section.

¹ A full-resolution version of this model diagram is available on the Ed-Fi Alliance Tech Docs site at <https://techdocs.ed-fi.org/display/EFDS20/Assessment+-+UDM+v2.0>.

- A BellSchedule defines the MeetingTimes (time of the day) for each logical ClassPeriod. ClassPeriod does not have to meet every day and specific meeting days are defined in BellSchedule by the CalendarDate.
- The association between BellSchedule and CalendarDate indicates in which days of the Session the BellSchedule was in effect. This allows the school to have a BellSchedule that is special for a specific day, such as for a testing day or a late-start day.
- A School may have multiple BellSchedules defined, and may have different BellSchedules on the same calendar time period (e.g., for different grades).

Table 2. Bell Schedule Model Entities

Name	Description
BellSchedule	This entity represents the schedule of class period meeting times.
CalendarDate	This entity represents a day in the school calendar.
ClassPeriod	This entity represents the designation of a regularly scheduled series of class meetings at designated times and days of the week.
EducationOrganization	This entity represents any public or private institution, organization, or agency that provides instructional or support services to students or staff at any level.
MeetingTime	This entity represents the set of elements defining the meeting time for a class period.
School	This entity represents an individual for whom instruction, services, and/or care are provided in an early childhood, elementary, or secondary educational program under the jurisdiction of a school, education agency or other institution or program. A student is a person who has been enrolled in a school or other educational institution.
Section	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.

Name	Description
Session	This entity represents the prescribed span of time when an education institution is open, instruction is provided and students are under the direction and guidance of teachers and/or education institution administration. A session may be interrupted by one or more vacations.

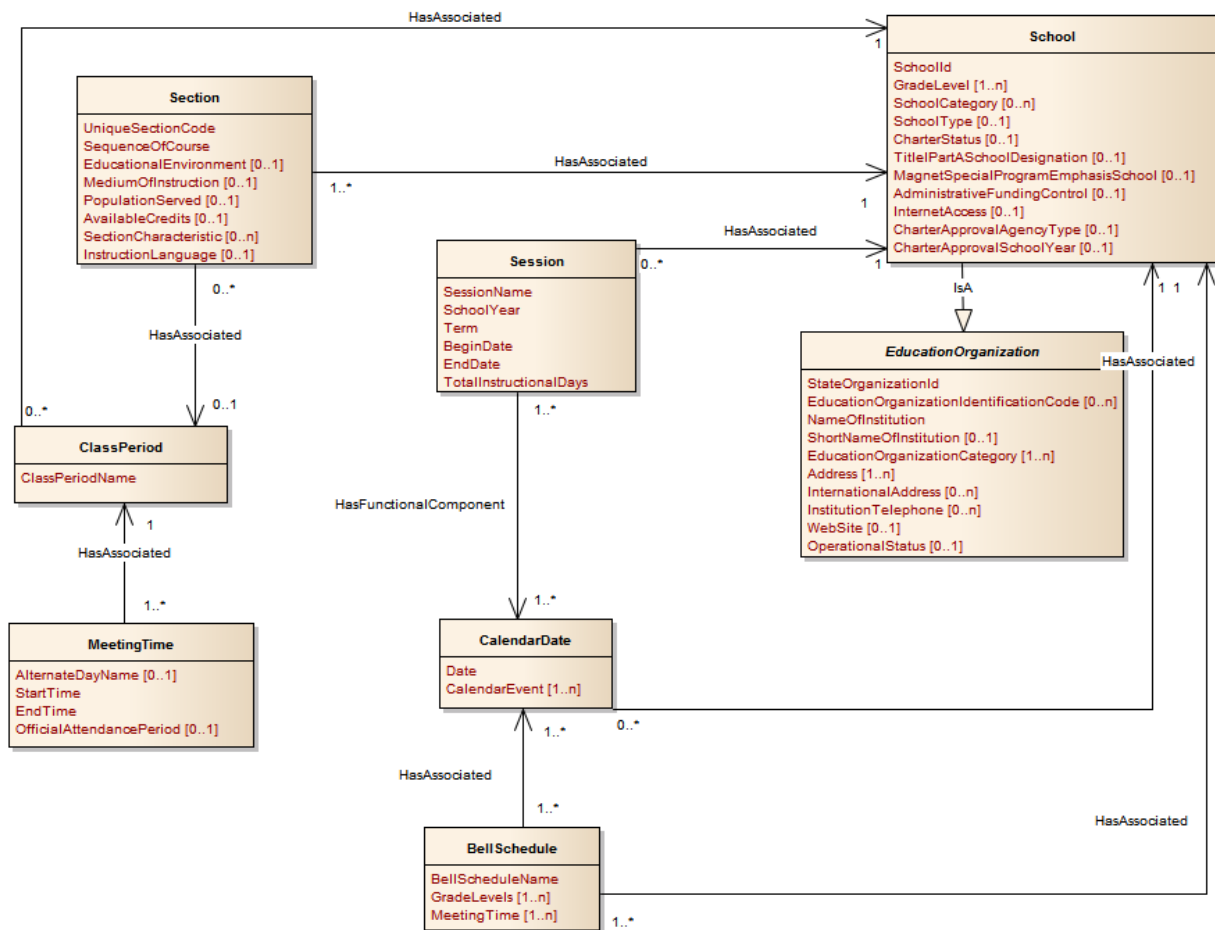


Figure 5. Bell Schedule Model

Discipline

The Discipline domain is based upon the concepts of a DisciplineIncident (i.e., the violation or offense) and a DisciplineAction (i.e., the punishment).

- A DisciplineIncident represents the actions or behaviors that constitute an “offense” in violation of laws, rules, policies, or norms of behavior. The DisciplineIncident is associated with the school where the incident occurred.
- StudentDisciplineIncidentAssociation links students to DisciplineIncidents and indicates their role in that incident. When multiple students are involved in a DisciplineIncident, the StudentParticipation attribute indicates what the involvement of the student was in that incident (e.g., perpetrator, victim, witness). The Behaviors attribute is used when students have different levels of involvement, and therefore different offenses, for the same discipline incident (e.g., one might have used a knife in a fight versus another who fought without a weapon).
- A DisciplineAction represents the punitive or other actions taken against the students. One or more DisciplineActions may be applied to one DisciplineIncident (e.g., suspension plus after-school study hall). Alternatively, one DisciplineAction could have multiple Disciplines as an attribute to accomplish the same thing.

Table 3. Discipline Model Entities

Name	Description
DisciplineAction	This event entity represents actions taken by an education organization after a disruptive event that is recorded as a discipline incident.
DisciplineIncident	This event entity represents an occurrence of an infraction ranging from a minor behavioral problem that disrupts the orderly functioning of a school or classroom (e.g., tardiness) to a criminal act that results in the involvement of a law enforcement official (e.g., a robbery). A single event (e.g., a fight) is one incident regardless of how many perpetrators or victims are involved. Discipline incidents are events classified as warranting disciplinary action.
School	This entity represents an educational organization that includes staff and students who participate in classes and educational activity groups.

Name	Description
Staff	<p>This entity represents an individual who performs specified activities for any public or private education institution or agency that provides instructional and/or support services to students or staff at the early childhood level through high school completion. For example, this includes:</p> <ol style="list-style-type: none"> 1. An “employee” who performs services under the direction of the employing institution or agency is compensated for such services by the employer and is eligible for employee benefits and wage or salary tax withholdings 2. A “contractor” or “consultant” who performs services for an agreed upon fee or an employee of a management service contracted to work on site 3. A “volunteer” who performs services on a voluntary and uncompensated basis 4. An in-kind service provider 5. An independent contractor or business person working at a school site
Student	<p>This entity represents an individual for whom instruction, services, and/or care are provided in an early childhood, elementary, or secondary educational program under the jurisdiction of a school, education agency or other institution or program. A student is a person who has been enrolled in a school or other educational institution.</p>
StudentDiscipline IncidentAssociation	<p>This association indicates those students who were victims, perpetrators, witnesses, and reporters for a discipline incident.</p>

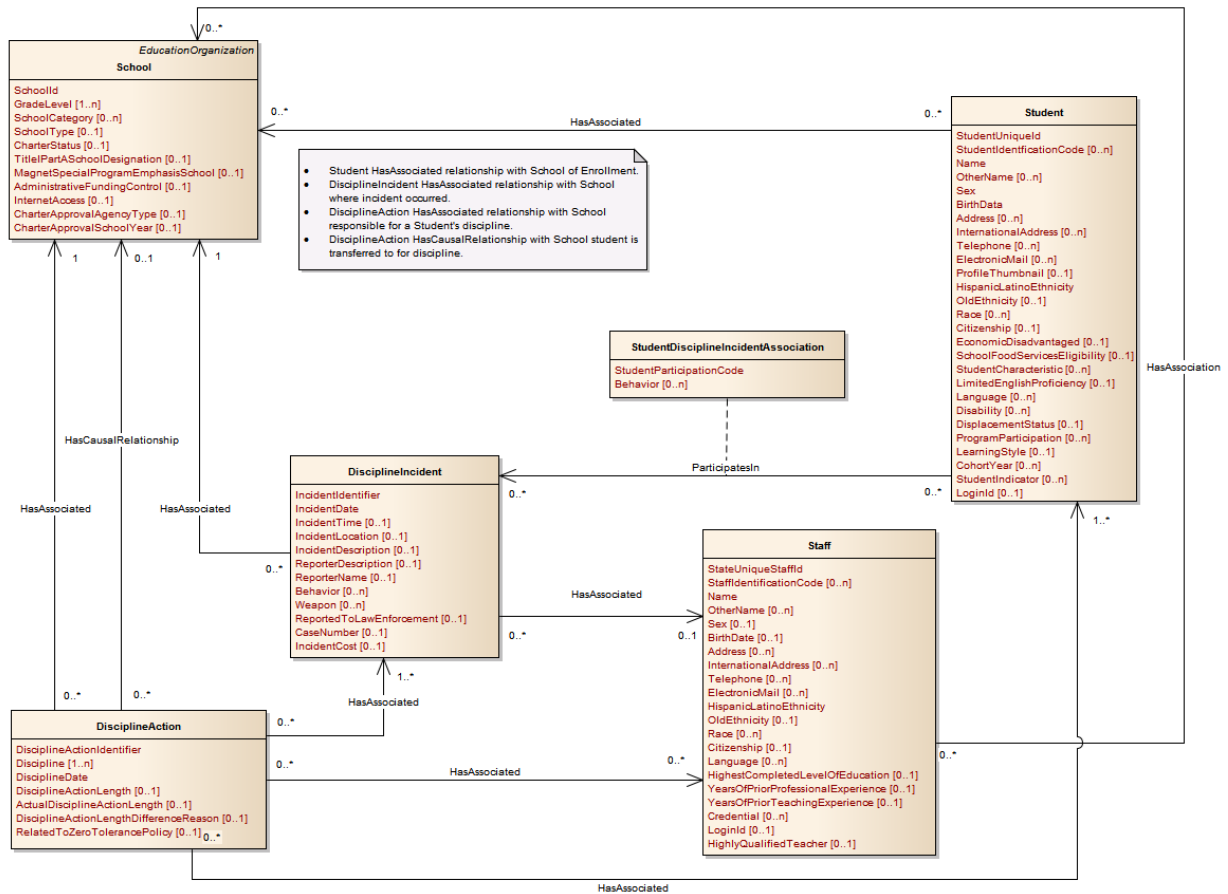


Figure 6. Discipline Model

Education Organization

The Education Organization domain defines the organizational structure and hierarchy of education organizations. The entity EducationOrganization serves as an abstraction for common attributes and associations. Throughout the model, if there is an association to/from an EducationOrganization the meaning is that the association may be associated with two or more types of organizations. The model supports the following structure:

- StateEducationAgency is an optional entity for the state department of education or equivalent.
- EducationServiceCenter is an optional entity for a regional organization between the district and state level.
- LocalEducationAgency represents a school district or charter management organization.

- School represents the point of education instruction.
- EducationOrganizationNetwork represents a self-organized membership network of peer-level schools or LEAs intended to provide shared services or collective purchasing.
- AccountabilityRating holds education organization ratings assigned by an accountability system.

Table 4. Education Organization Model Entities

Name	Description
AccountabilityRating	An accountability rating for a school or district.
EducationOrganization	This entity represents any public or private institution, organization, or agency that provides instructional or support services to students or staff at any level.
EducationOrganization Network	This entity is a self-organized membership network of peer-level education organizations intended to provide shared services or collective procurement.
EducationOrganization NetworkAssociation	Properties of the association between the EducationOrganization and its network(s).
EducationServiceCenter	This entity represents a regional, multi-services public agency authorized by state law to develop, manage and provide services, programs, or other support options (e.g., construction, food services, and technology services) to LEAs.
FeederSchoolAssociation	The association from feeder school to the receiving school.
LocalEducationAgency	This entity represents an administrative unit at the local level which exists primarily to operate schools or to contract for educational services. It includes school districts, charter schools, charter management organizations, or other local administrative organizations.
School	This entity represents an educational organization that includes staff and students who participate in classes and educational activity groups.
StateEducationAgency	This entity represents the agency of the state charged with the primary responsibility for coordinating and supervising public instruction, including the setting of standards for elementary and secondary instructional programs.

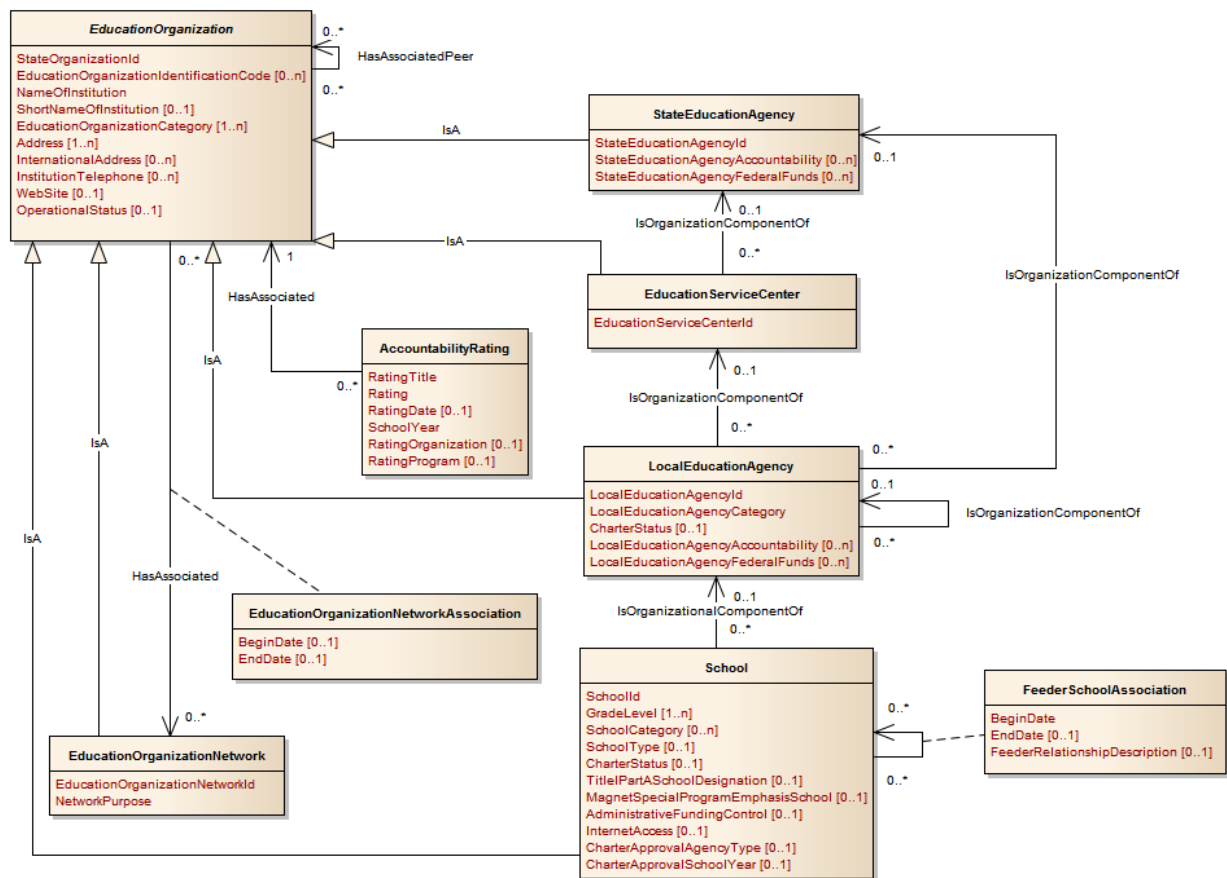


Figure 7. Education Organization Model

Enrollment

The Enrollment domain represents students' enrollments in schools, as specifically designated by the StudentSchoolAssociation. The model supports the two cases of where a student is limited to be enrolled only in one school at a time or cases where a state may have policies supporting multiple school enrollments. The semantics assume that a separate StudentSchoolAssociation is provided for each grade level for each student; in other words, a student is withdrawn in the previous grade level and enrolled in the next grade level when promoted.

For associations between a student and a school or LEA that is *not* enrollment (e.g., school of accountability), the StudentEducationOrganizationAssociation is defined.

Table 5. Enrollment Model Entities

Name	Description
EducationOrganization	This entity represents any public or private institution, organization, or agency that provides instructional or support services to students or staff at any level.
GraduationPlan	This entity is a plan outlining the required credits, credits by subject, credits by course, and other criteria required for graduation. A graduation plan may be one or more standard plans defined by an education organization and/or individual plans for some or all students.
LocalEducationAgency	This entity represents an administrative unit at the local level which exists primarily to operate schools or to contract for educational services. It includes school districts, charter schools, charter management organizations, or other local administrative organizations.
School	This entity represents an educational organization that includes staff and students who participate in classes and educational activity groups.
Student	This entity represents an individual for whom instruction, services, and/or care are provided in an early childhood, elementary, or secondary educational program under the jurisdiction of a school, education agency or other institution or program. A student is a person who has been enrolled in a school or other educational institution.
StudentEducationOrganizationAssociation	This association indicates any relationship between a student and an education organization other than how the state views enrollment. Enrollment relationship semantics are covered by StudentSchoolAssociation.
StudentSchoolAssociation	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 StudentEducationOrganizationAssociation.

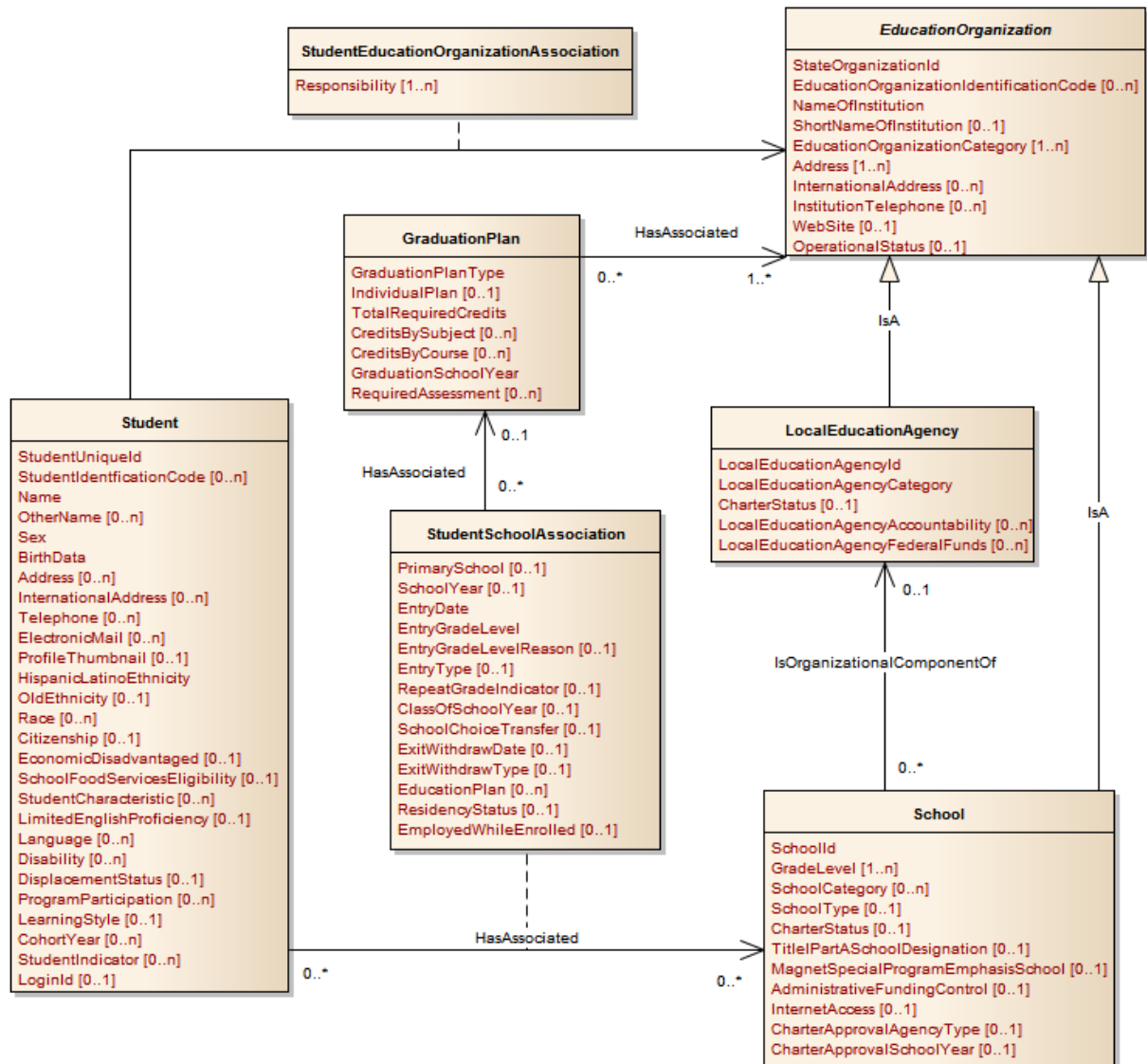


Figure 8. Enrollment Model

Finance

The Finance domain is designed to represent relevant financial information, including:

- Budgets and actuals
- Federal Fund allocations and expenses
- Staff and contracted staff actuals

Core to the Finance model is the Account entity, representing the chart of accounts, or an organization of aggregate accounts. The various codes (e.g., Object, Function, Fund) specific to the EducationOrganization are represented by AccountCodeDescriptor.

Table 6. Finance Model Entities

Name	Description
Account	This financial entity represents a funding source combined with its purpose and type of transaction. It provides a formal record of the debits and credits relating to the specific account.
Actual	This financial entity represents the sum of the financial transactions to date relating to a specific account.
Budget	This financial entity represents the amount of monies allocated to be spent or received by an education organization as related to a specific account.
ContractedStaff	This financial entity represents the sum of the financial transactions to date for contracted staff. ContractedStaff includes “contractors” or “consultants” who perform services for an agreed upon fee, or an employee of a management service contracted to work on site.
EducationOrganization	This entity represents any public or private institution, organization, or agency that provides instructional or support services to students or staff at any level.
EducationServiceCenter	This entity represents a regional, multi-services public agency authorized by state law to develop, manage and provide services, programs, or other support options (e.g., construction, food services, and technology services) to LEAs.
LocalEducationAgency	This entity represents an administrative unit at the local level which exists primarily to operate schools or to contract for educational services. It includes school districts, charter schools, charter management organizations, or other local administrative organizations.

Name	Description
Payroll	This financial entity represents the sum of the financial transactions to date for employee compensation. An “employee” who performs services under the direction of the employing institution or agency, is compensated for such services by the employer and is eligible for employee benefits and wage or salary tax withholdings.
Staff	<p>This entity represents an individual who performs specified activities for any public or private education institution or agency that provides instructional and/or support services to students or staff at the early childhood level through high school completion. For example, this includes:</p> <ol style="list-style-type: none"> 1. An “employee” who performs services under the direction of the employing institution or agency is compensated for such services by the employer and is eligible for employee benefits and wage or salary tax withholdings 2. A “contractor” or “consultant” who performs services for an agreed upon fee or an employee of a management service contracted to work on site 3. A “volunteer” who performs services on a voluntary and uncompensated basis 4. An in-kind service provider 5. An independent contractor or businessperson working at a school site
StateEducationAgency	This entity represents the agency of the state charged with the primary responsibility for coordinating and supervising public instruction, including the setting of standards for elementary and secondary instructional programs

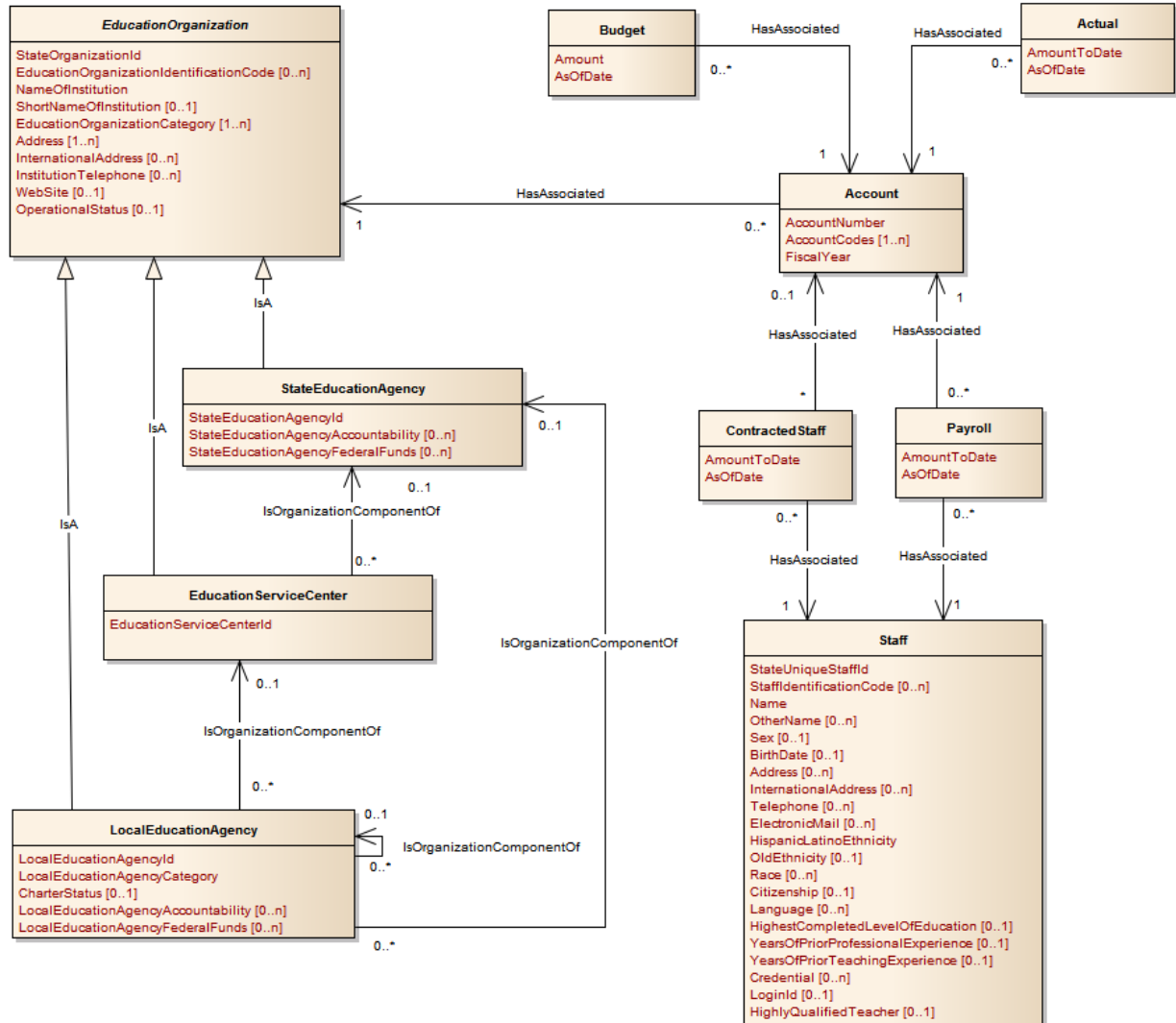


Figure 9. Finance Model

Graduation

The Graduation domain model represents student outcomes.

- A GraduationPlan entity represents either a generic graduation plan for all or many students or an individualized graduation plan. The GraduationPlan supports several levels of detail, including overall credit requirements, credits by subject area, or down to specific courses to be taken.
- A PostSecondaryEvent entity represents significant postsecondary education information, such as college applications, remedial course

enrollment, acceptances, and detailed postsecondary institution information.

- A Diploma element represents graduation certificate information with associated honors and other recognitions as part of the StudentAcademicRecord.

Table 7. Graduation Model Entities

Name	Description
EducationOrganization	This entity represents any public or private institution, organization, or agency that provides instructional or support services to students or staff at any level.
GraduationPlan	This entity is a plan outlining the required credits, credits by subject, credits by course, and other criteria required for graduation. A graduation plan may be one or more standard plans defined by an education organization and/or individual plans for some or all students.
PostSecondaryEvent	This entity captures significant postsecondary events during a student's high school tenure (e.g., FAFSA application or college application, acceptance, and enrollment) or during a student's enrollment at a postsecondary institution.
School	This entity represents an educational organization that includes staff and students who participate in classes and educational activity groups.
Student	This entity represents an individual for whom instruction, services, and/or care are provided in an early childhood, elementary, or secondary educational program under the jurisdiction of a school, education agency or other institution or program. A student is a person who has been enrolled in a school or other educational institution.
StudentAcademicRecord	This educational entity represents the cumulative record of academic achievement for a student.
StudentSchoolAssociation	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 StudentEducationOrganizationAssociation.

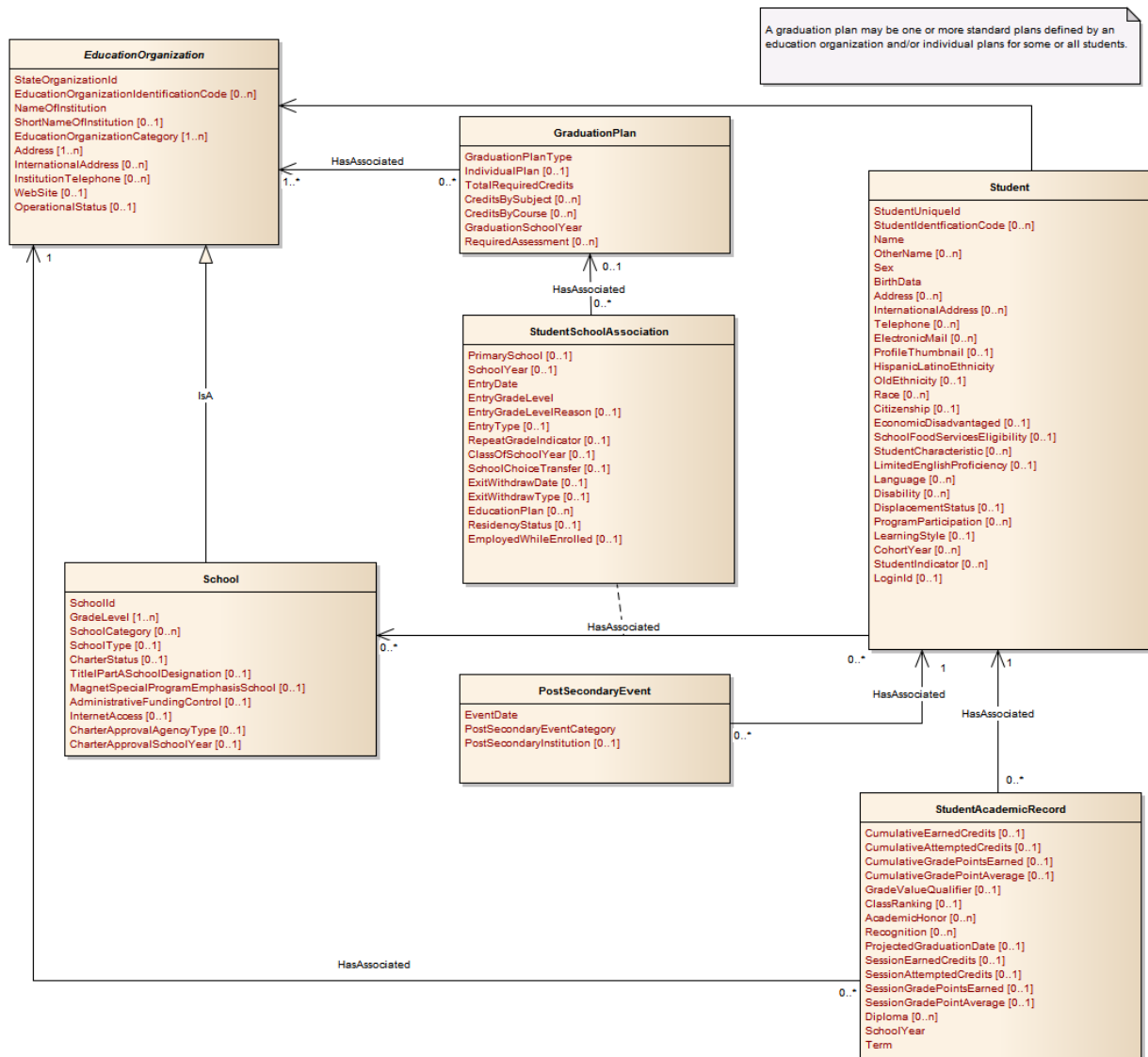


Figure 10. Graduation Model

Intervention

The Intervention domain describes educational interventions and, more generally, supplemental education content aimed at altering behavior or improving the understanding of a concept. Interventions span from in-classroom teaching methods to formal out-of-class intervention programs.

- InterventionPrescription describes an activity intended to address a specific problem or diagnosis. It identifies the kinds of students targeted and how the intervention should be delivered.

- Intervention is a specific implementation of an instructional approach, outlined in an InterventionPrescription, with one or more students in a Cohort. Interventions may be one-time actions or recurring actions over time. Interventions typically have assigned Staff. AttendanceEvents may be captured for Interventions.
- EducationContent metadata may be linked to InterventionPrescriptions and/or Interventions. The EducationContent includes descriptive information about the content conforming to the Learning Resource Metadata Initiative (LRMI).²
- StudentInterventionAssociation links Students to Interventions in which they participate. The effectiveness of an Intervention for a given Student is also captured. Data about a formal InterventionStudy for an InterventionPrescription may also be associated.

Table 8. Intervention Model Entities

Name	Description
AttendanceEvent	This event entity represents the recording of whether a student is in attendance for a class or in attendance to receive or participate in program services.
Cohort	This entity represents any type of list of designated students for tracking, analysis, or intervention.
EducationContent	This entity represents materials for students or teachers that can be used for teaching, learning, research, and more. Education content includes full courses, course materials, modules, intervention descriptions, textbooks, streaming videos, tests, software, and any other tools, materials, or techniques used to support access to knowledge.
EducationOrganization	This entity represents any public or private institution, organization, or agency that provides instructional or support services to students or staff at any level.
EducationOrganization InterventionPrescription Association	This association indicates interventions made available by an education organization. Often, a district-level education organization purchases a set of intervention prescriptions and makes them available to its schools for use on demand.

² For more information about the Learning Resource Metadata Initiative, see www.lrmi.net.

Name	Description
Intervention	An implementation of an instructional approach focusing on the specific techniques and materials used to teach a given subject.
InterventionPrescription	This entity represents a formal prescription of an instructional approach focusing on the specific techniques and materials used to teach a given subject. This can be prescribed by academic research, an interventions vendor, or another entity.
InterventionStudy	An experimental or quasi-experimental study of an intervention technique.
Staff	<p>This entity represents an individual who performs specified activities for any public or private education institution or agency that provides instructional and/or support services to students or staff at the early childhood level through high school completion. For example, this includes:</p> <ol style="list-style-type: none"> 1. An “employee” who performs services under the direction of the employing institution or agency is compensated for such services by the employer and is eligible for employee benefits and wage or salary tax withholdings 2. A “contractor” or “consultant” who performs services for an agreed upon fee or an employee of a management service contracted to work on site 3. A “volunteer” who performs services on a voluntary and uncompensated basis 4. An in-kind service provider 5. An independent contractor or businessperson working at a school site
Student	This entity represents an individual for whom instruction, services, and/or care are provided in an early childhood, elementary, or secondary educational program under the jurisdiction of a school, education agency or other institution or program. A student is a person who has been enrolled in a school or other educational institution.
StudentCohortAssociation	This association represents the Cohort(s) for which a student is designated.
StudentIntervention Association	This association indicates the students participating in an intervention.

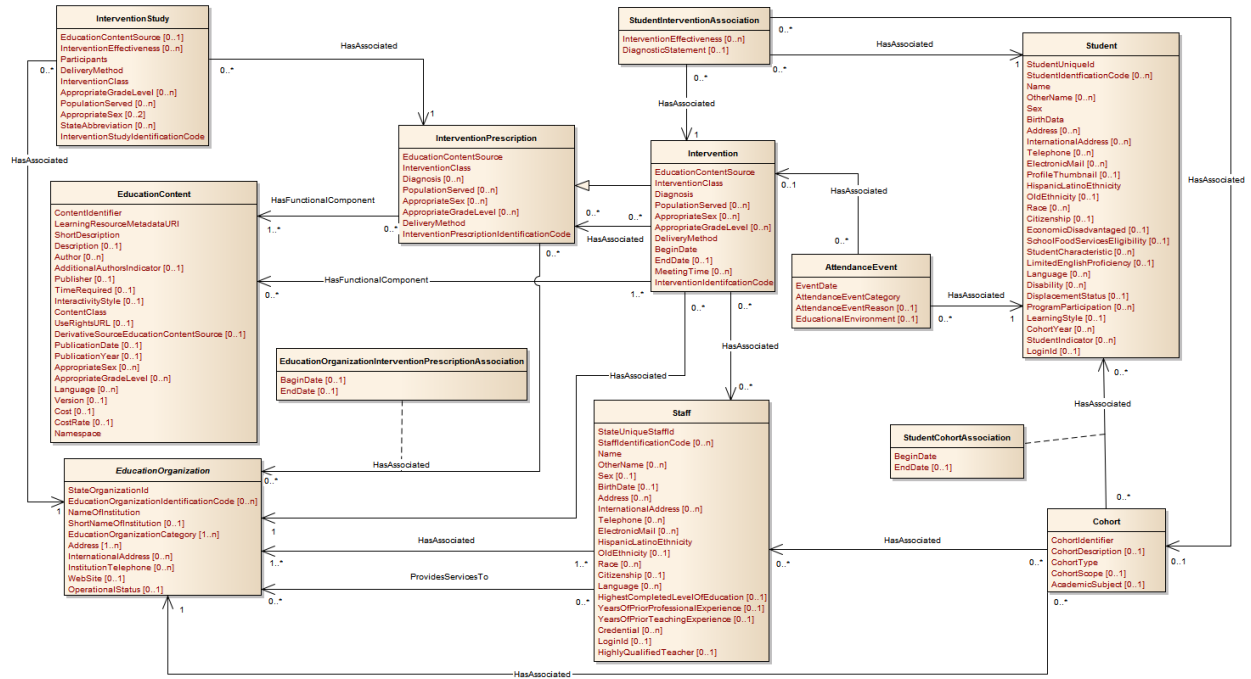


Figure 11. Intervention Model³

School Calendar

The School Calendar domain represents the instructional days, sessions, and grading periods defined for a school year. The defined sessions for a school year are associated with the education organization (e.g., SEA, LEA) or school that defines the calendar.

Table 9. School Calendar Model Entities

Name	Description
AcademicWeek	This entity represents the academic weeks for a school year, optionally captured to support analyses.
CalendarDate	This entity represents a day in the school calendar.
EducationOrganization	This entity represents any public or private institution, organization, or agency that provides instructional or support services to students or staff at any level.

³ A full-resolution version of this model diagram is available on the Ed-Fi Alliance Tech Docs site at <https://techdocs.ed-fi.org/display/EFDS20/Intervention++UDM+v2.0>.

Name	Description
GradingPeriod	This entity represents the time span for which grades are reported.
School	This entity represents an educational organization that includes staff and students who participate in classes and educational activity groups.
Session	This entity represents the prescribed span of time when an education institution is open, instruction is provided and students are under the direction and guidance of teachers and/or education institution administration. A session may be interrupted by one or more vacations.

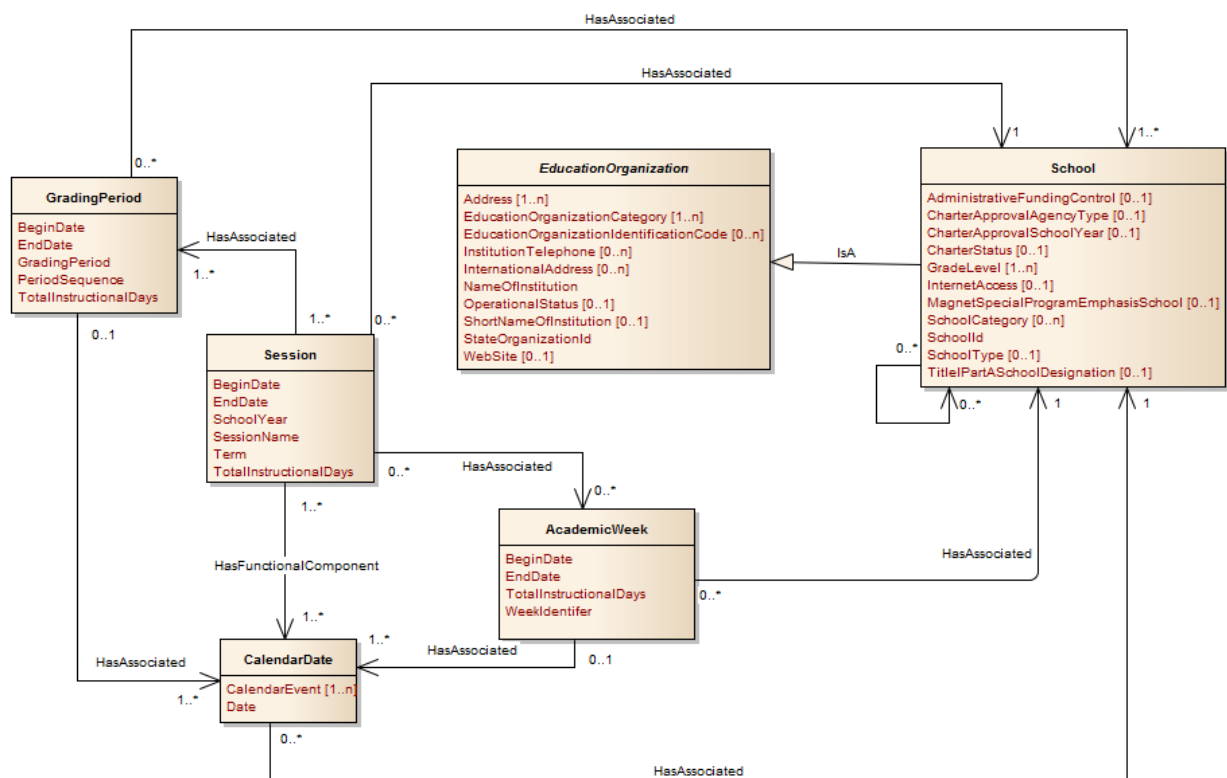


Figure 12. School Calendar Model

Staff

The Staff domain represents a wide variety of staff information:

- Staff captures information about experience and credentials.
- StaffSchoolAssociation captures additional information and associations relating to instructional duties.

- StaffEducationOrganizationEmploymentAssociation represents employment information.
- StaffEducationOrganizationAssignmentAssociation represents position assignments and roles. The employment and assignment associations are separated to accommodate a number of different types of situations. Staff may have multiple employment and assignment associations. Staff may be employed with one organization, such as an LEA, whereas their assignments are at other organizations, specifically schools. If an assignment is directly tied to employment (i.e., the staff member's pay would differ based upon the assignments), then an association is used from the StaffEducationOrganizationAssignmentAssociation to the StaffEducationOrganizationEmploymentAssociation.
- LeaveEvent tracks staff leave history.
- OpenStaffPosition indicates the employment postings for an education organization and captures the result of that posting.

Table 10. Staff Model Entities

Name	Description
EducationOrganization	This entity represents any public or private institution, organization, or agency that provides instructional or support services to students or staff at any level.
EducationServiceCenter	This entity represents a regional, multi-services public agency authorized by state law to develop, manage and provide services, programs, or other support options (e.g., construction, food services, and technology services) to LEAs.
LeaveEvent	This event entity represents the recording of the dates of staff leave (e.g., sick leave, personal time, vacation).
LocalEducationAgency	This entity represents an administrative unit at the local level which exists primarily to operate schools or to contract for educational services. It includes school districts, charter schools, charter management organizations, or other local administrative organizations.
OpenStaffPosition	This entity represents an open staff position that the education organization is seeking to fill.

Name	Description
School	This entity represents an educational organization that includes staff and students who participate in classes and educational activity groups.
Staff	<p>This entity represents an individual who performs specified activities for any public or private education institution or agency that provides instructional and/or support services to students or staff at the early childhood level through high school completion. For example, this includes:</p> <ol style="list-style-type: none"> 1. An “employee” who performs services under the direction of the employing institution or agency is compensated for such services by the employer and is eligible for employee benefits and wage or salary tax withholdings 2. A “contractor” or “consultant” who performs services for an agreed upon fee or an employee of a management service contracted to work on site 3. A “volunteer” who performs services on a voluntary and uncompensated basis 4. An in-kind service provider 5. An independent contractor or businessperson working at a school site
StaffEducationOrganizationAssignmentAssociation	This association indicates the education organization to which a staff member provides services; also known as school of service.
StaffEducationOrganizationEmploymentAssociation	This association indicates the EducationOrganization an employee, contractor, volunteer, or other service provider is formally associated with typically indicated by which organization the staff member has a services contract with or receives compensation from.
StateEducationAgency	This entity represents the agency of the state charged with the primary responsibility for coordinating and supervising public instruction, including the setting of standards for elementary and secondary instructional programs.
StaffSchoolAssociation	This association indicates the School(s) to which a staff member provides instructional services.

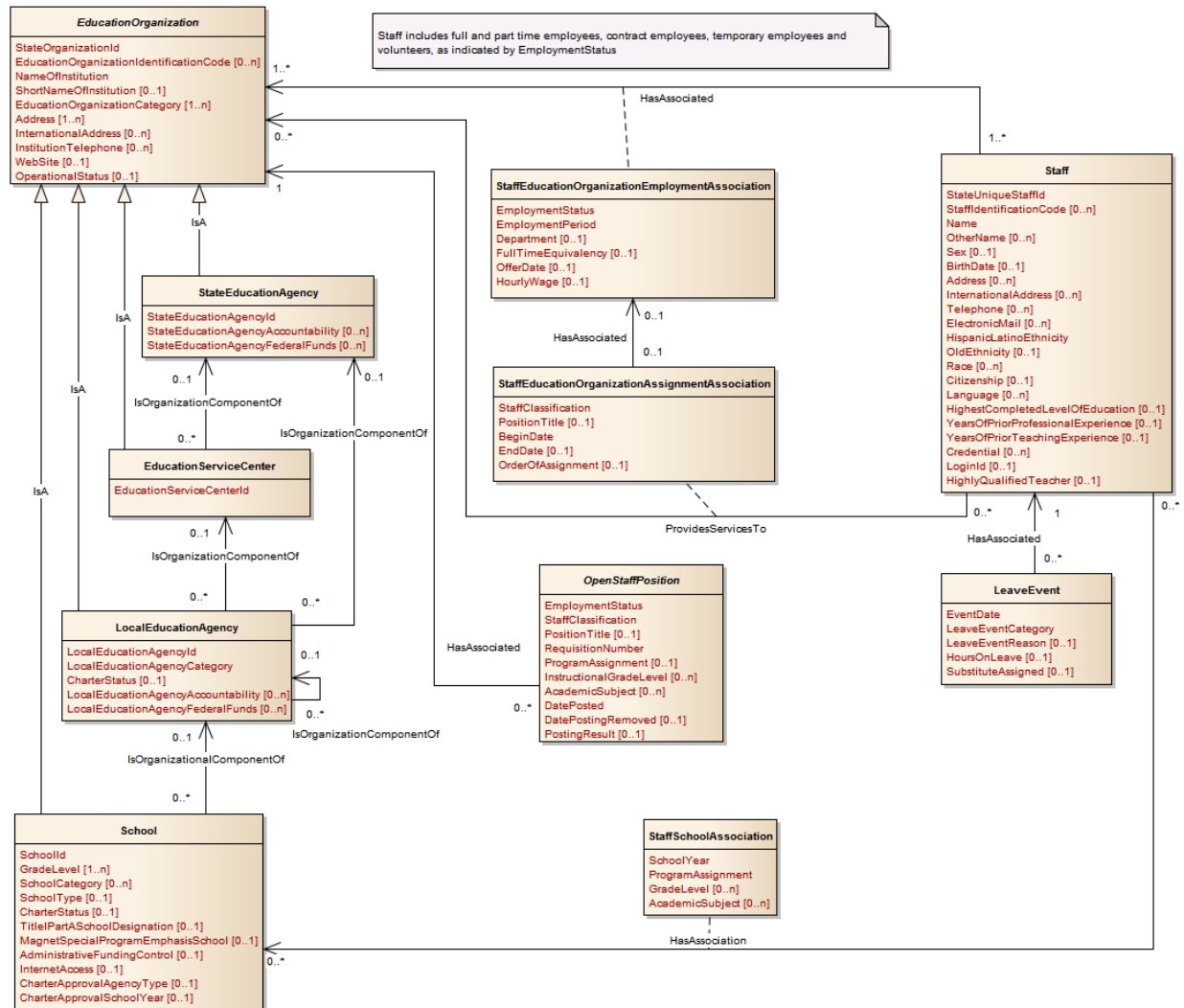


Figure 13. Staff Model

Student Academic Record

The Student Academic Record domain models the various kinds of student performance reporting.

- A student transcript contains information about course-level grades and credits. A student transcript consists of a StudentAcademicRecord associated with each Session which has a CourseTranscript for each course taken.

- Report cards contain information for grading period grades and competencies. A report card consists of a ReportCard entity for each GradingPeriod. A Grade is associated with each Section entity.
- A gradebook contains grades and competencies for classroom quizzes, tests, homework, and projects. An assignment in a Gradebook is represented as a GradebookEntry. Each student's score for that entry is a StudentGradebookEntry which can be a grade or a CompetencyLevelDescriptor.

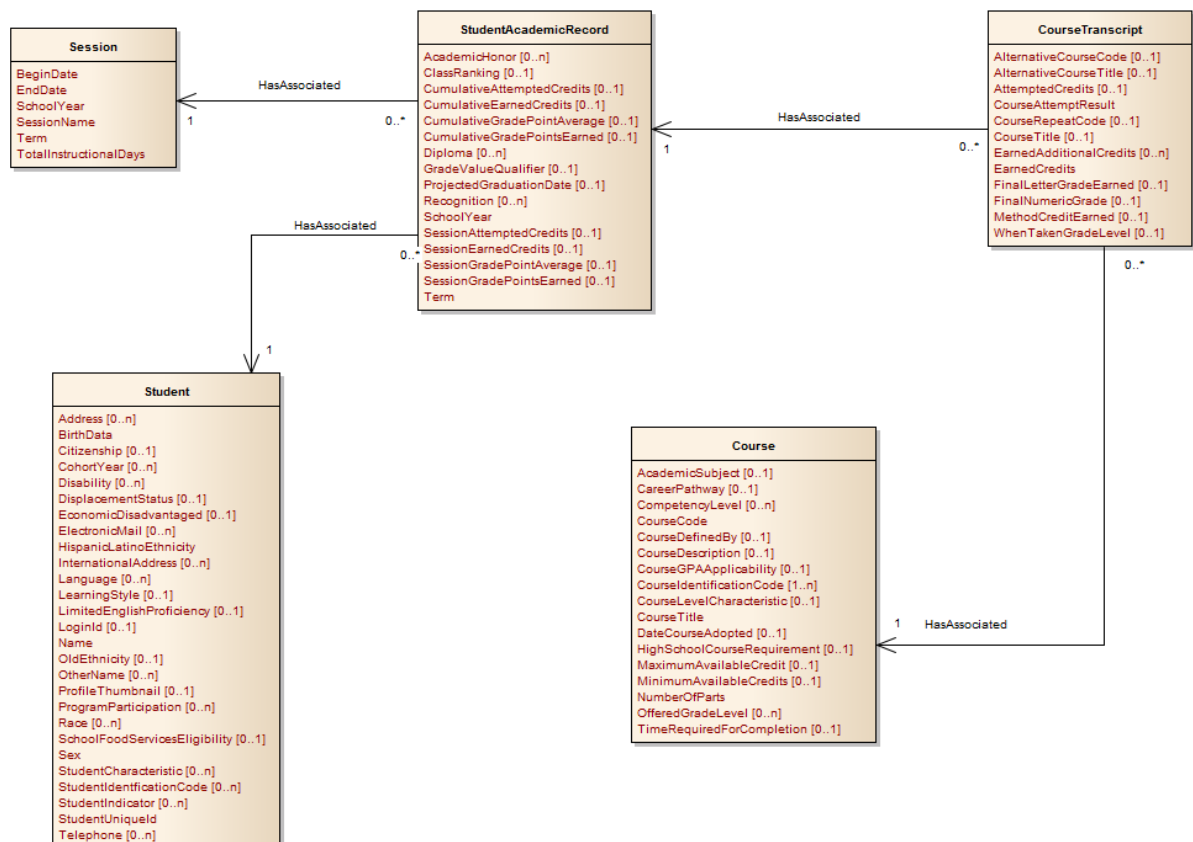


Figure 14. Student Academic Record, Student Transcript Model

A Student has a ReportCard for each GradingPeriod. A Grade is associated with each Section. For early grade levels, a StudentCompetencyObjective is assigned to CompetencyObjectives and a StudentLearningObjective is assigned to LearningObjectives, for example, assigning a “Satisfactory” for “Participates in class discussions.” The StudentLearningObjective is either associated to a Section or a Program.

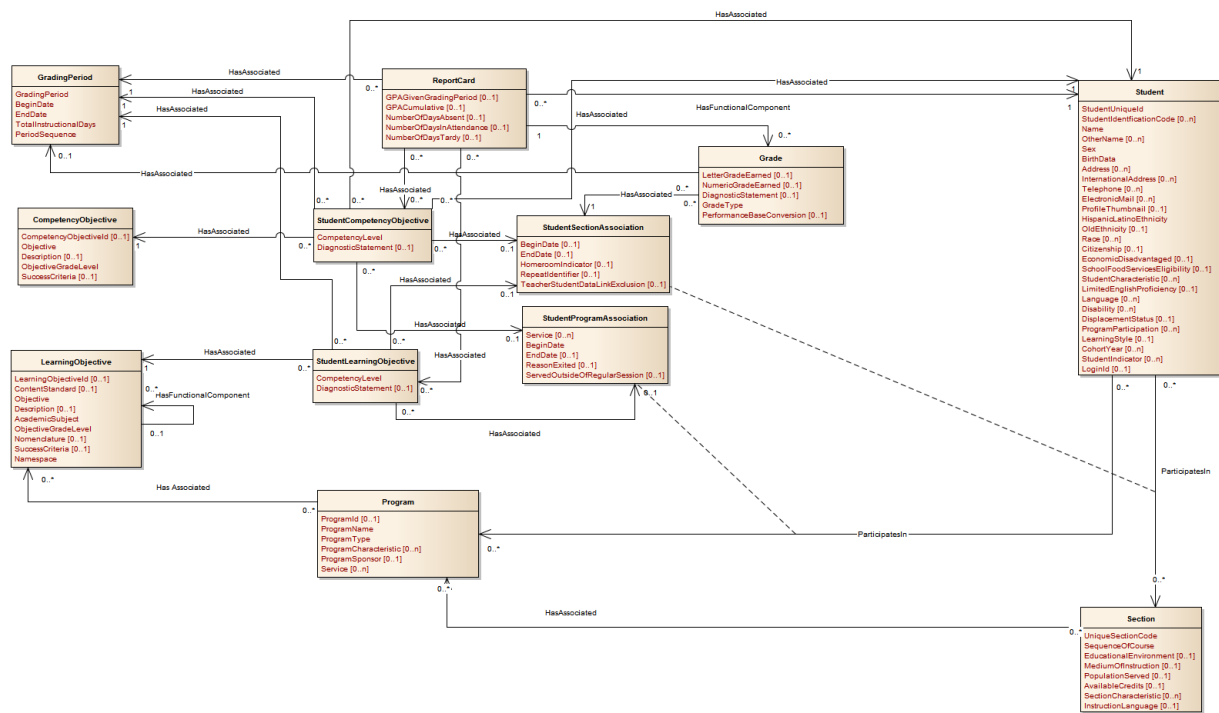


Figure 15. Student Academic Record, Report Card Model⁴

An individual assignment in a gradebook is represented as a `GradebookEntry`. A `GradebookEntry` may be mapped to `LearningStandards` or a `LearningObjective`. Each student's score for that entry is a `StudentGradebookEntry` which can be a grade or a `CompetencyLevel`.

⁴ A full-resolution version of this model diagram is available on the Ed-Fi Alliance Tech Docs site at <https://techdocs.ed-fi.org/display/EFDS20/Student+Academic+Record++UDM+v2.0>.

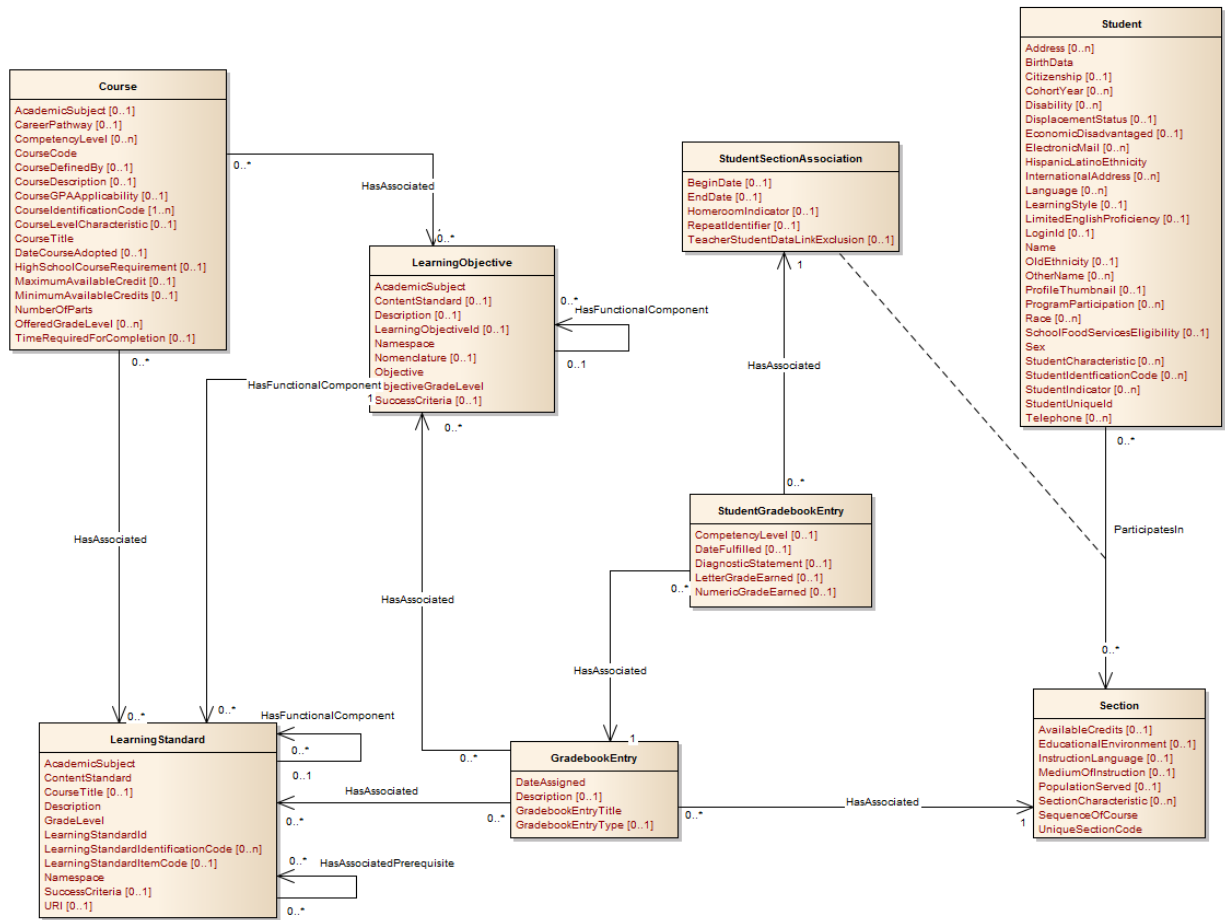


Figure 16. Student Academic Record, Gradebook Model

Table 11. Student Academic Record Model Entities

Name	Description
CompetencyObjective	This entity holds additional competencies for student achievement that are not associated with specific learning objectives (e.g., paying attention in class).
Course	This educational entity represents the organization of subject matter and related learning experiences provided for the instruction of students on a regular or systematic basis.
CourseOffering	This entity represents an entry in the course catalog of available courses offered by the school during a session.

Name	Description
CourseTranscript	This entity is the final record of a student's performance in their courses at the end of a semester or school year.
EducationOrganization	This entity represents any public or private institution, organization, or agency that provides instructional or support services to students or staff at any level.
Grade	This educational entity represents an overall score or assessment tied to a course over a period of time (i.e., the grading period). Student grades are usually a compilation of marks and other scores.
GradebookEntry	This entity represents an assignment, homework, or classroom assessment to be recorded in a gradebook.
GradingPeriod	This entity represents the time span for which grades are reported.
LearningObjective	This entity represents identified learning objectives for courses in specific grades.
LearningStandard	This entity is a sub-element of a learning objective consisting of a precise statement of the expectation of a student's proficiency.
Program	This entity represents any program designed to work in conjunction with, or as a supplement to, the main academic program. Programs may provide instruction, training, services, or benefits through federal, state, or local agencies. Programs may also include organized extracurricular activities for students.
ReportCard	This educational entity represents the collection of student grades for courses taken during a grading period.
School	This entity represents an educational organization that includes staff and students who participate in classes and educational activity groups.
Section	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.
Session	This entity represents the prescribed span of time when an education institution is open, instruction is provided and students are under the direction and guidance of teachers and/or education institution administration. A session may be interrupted by one or more vacations.

Name	Description
Student	This entity represents an individual for whom instruction, services, and/or care are provided in an early childhood, elementary, or secondary educational program under the jurisdiction of a school, education agency or other institution or program. A student is a person who has been enrolled in a school or other educational institution.
StudentAcademicRecord	This educational entity represents the cumulative record of academic achievement for a student.
StudentCompetencyObjective	This entity represents the competency assessed or evaluated for the student against a specific learning objective.
StudentGradebookEntry	This entity holds a student's grade or competency level for a gradebook entry.
StudentLearningObjective	This entity represents the competency assessed or evaluated for the student against a specific LearningObjective.
StudentProgramAssociation	This association represents the Program(s) that a student participates in or is served by.
StudentSectionAssociation	This association indicates the course sections to which a student is assigned.

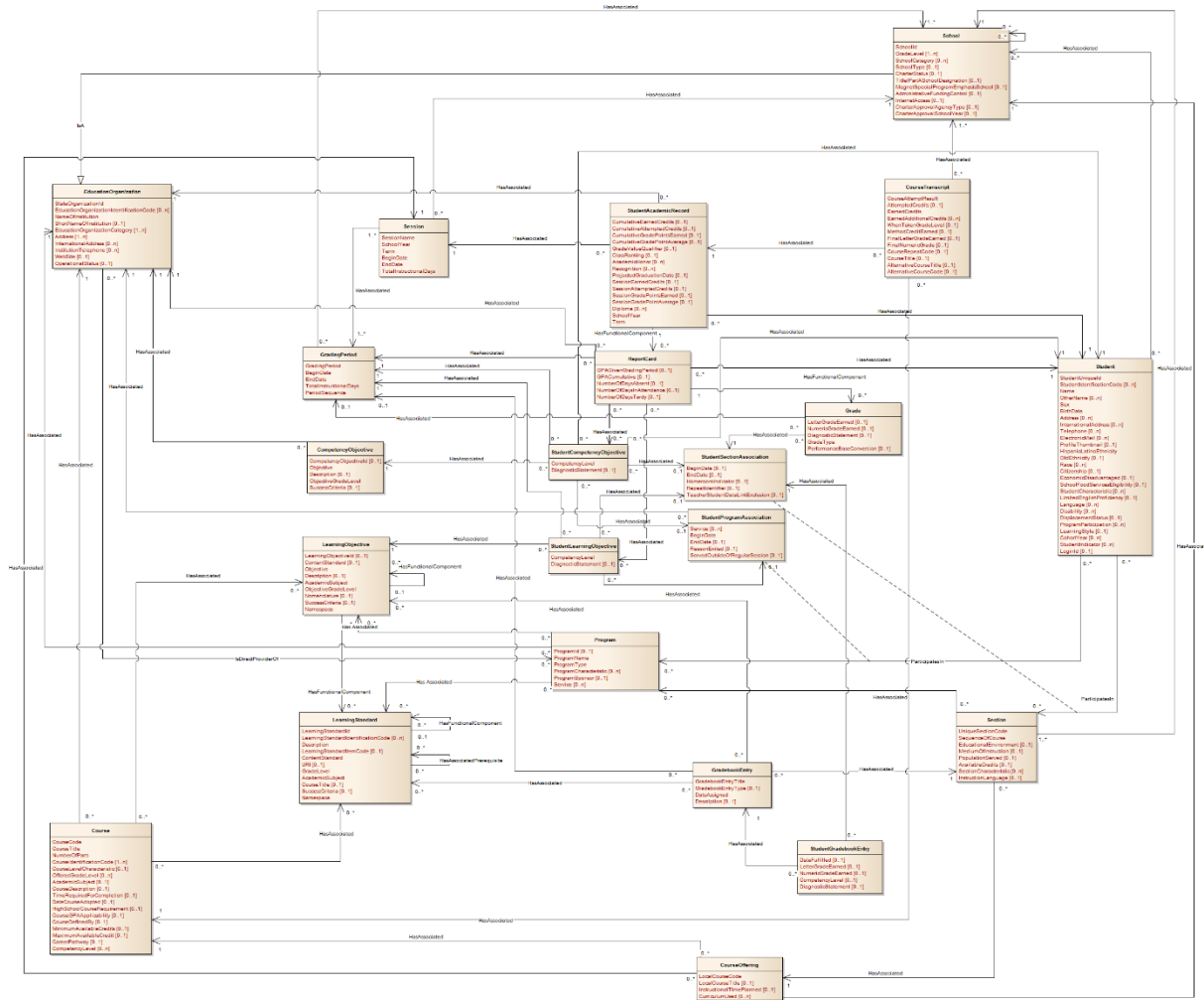


Figure 17. Student Academic Record Model⁵

Student Attendance

The Student Attendance domain represents both daily and class period (section) attendance. This model supports two approaches for collecting attendance data:

- One attendance event for each student-section (or each student-day), reporting both attendance and absences

⁵ A full-resolution version of this model diagram is available on the Ed-Fi Alliance Tech Docs site at <https://techdocs.ed-fi.org/display/EFDS20/Student+Academic+Record+-+UDM+v2.0>.

- “Exception only” reporting, providing attendance events only for absences and tardies

Table 12. Student Attendance Model Entities

Name	Description
AttendanceEvent	This association indicates the course sections to which a student is assigned.
Program	This entity represents any program designed to work in conjunction with, or as a supplement to, the main academic program. Programs may provide instruction, training, services, or benefits through federal, state, or local agencies. Programs may also include organized extracurricular activities for students.
School	This entity represents an educational organization that includes staff and students who participate in classes and educational activity groups.
Section	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.
SectionAttendance TakenEvent	Captures attendance taken event for given section.
Session	This entity represents the prescribed span of time when an education institution is open, instruction is provided and students are under the direction and guidance of teachers and/or education institution administration. A session may be interrupted by one or more vacations.

Name	Description
Staff	<p>This entity represents an individual who performs specified activities for any public or private education institution or agency that provides instructional and/or support services to students or staff at the early childhood level through high school completion. For example, this includes:</p> <ol style="list-style-type: none"> 1. An “employee” who performs services under the direction of the employing institution or agency is compensated for such services by the employer and is eligible for employee benefits and wage or salary tax withholdings 2. A “contractor” or “consultant” who performs services for an agreed upon fee or an employee of a management service contracted to work on site 3. A “volunteer” who performs services on a voluntary and uncompensated basis 4. An in-kind service provider 5. An independent contractor or businessperson working at a school site
Student	<p>This entity represents an individual for whom instruction, services, and/or care are provided in an early childhood, elementary, or secondary educational program under the jurisdiction of a school, education agency or other institution or program. A student is a person who has been enrolled in a school or other educational institution.</p>
StudentProgramAssociation	<p>This association represents the Program(s) that a student participates in or is served by.</p>
StudentSectionAssociation	<p>This association indicates the course sections to which a student is assigned.</p>

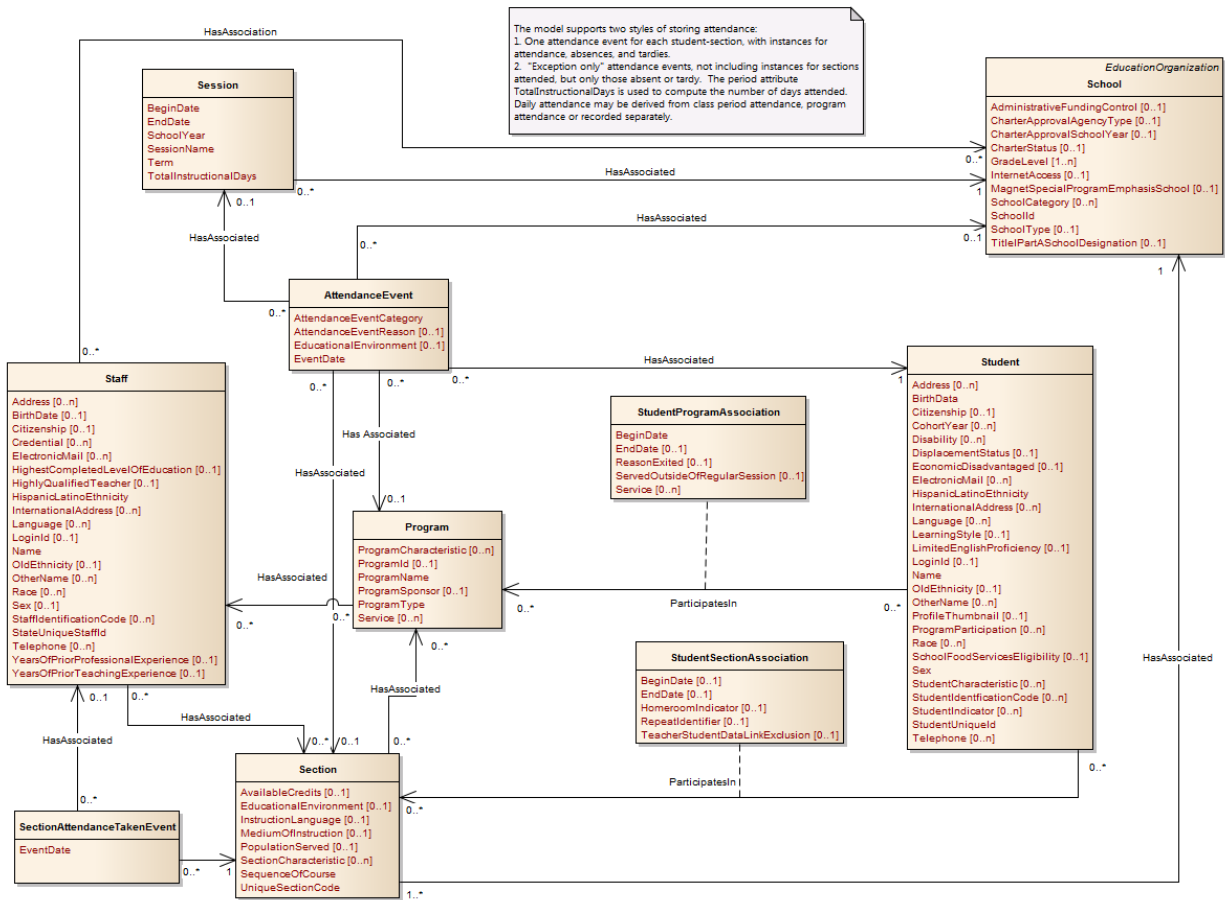


Figure 18. Student Attendance Model

Student Cohort

The Student Cohort domain represents a wide variety of collections of students that are distinct from class rosters or program participants. This could include students that are tagged for interventions or students tagged for the purposes of tracking or analysis, such as a school principal's "watch list." The StudentCohortAssociation captures the assignment of students to cohorts.

Cohorts may be associated with programs and may have staff associated with the cohort who is providing services, oversight, or sponsorship. Cohorts are associated with Intervention entities via the StudentInterventionAssociation.

Table 13. Student Cohort Model Entities

Name	Description
Cohort	This entity represents any type of list of designated students for tracking, analysis, or intervention.
EducationOrganization	This entity represents any public or private institution, organization, or agency that provides instructional or support services to students or staff at any level.
Intervention	An implementation of an instructional approach focusing on the specific techniques and materials used to teach a given subject.
Program	This entity represents any program designed to work in conjunction with, or as a supplement to, the main academic program. Programs may provide instruction, training, services, or benefits through federal, state, or local agencies. Programs may also include organized extracurricular activities for students.
Section	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.
Staff	<p>This entity represents an individual who performs specified activities for any public or private education institution or agency that provides instructional and/or support services to students or staff at the early childhood level through high school completion. For example, this includes:</p> <ol style="list-style-type: none"> 1. An “employee” who performs services under the direction of the employing institution or agency is compensated for such services by the employer and is eligible for employee benefits and wage or salary tax withholdings 2. A “contractor” or “consultant” who performs services for an agreed upon fee or an employee of a management service contracted to work on site 3. A “volunteer” who performs services on a voluntary and uncompensated basis 4. An in-kind service provider 5. An independent contractor or businessperson working at a school site
StaffCohortAssociation	This association indicates the Staff associated with a cohort of students.

Name	Description
StaffSectionAssociation	This association indicates the class sections to which a staff member is assigned.
Student	This entity represents an individual for whom instruction, services, and/or care are provided in an early childhood, elementary, or secondary educational program under the jurisdiction of a school, education agency or other institution or program. A student is a person who has been enrolled in a school or other educational institution.
StudentCohortAssociation	This association represents the Cohort(s) for which a student is designated.
StudentIntervention Association	This association indicates the students participating in an intervention.
StudentSection Association	This association indicates the course sections to which a student is assigned.

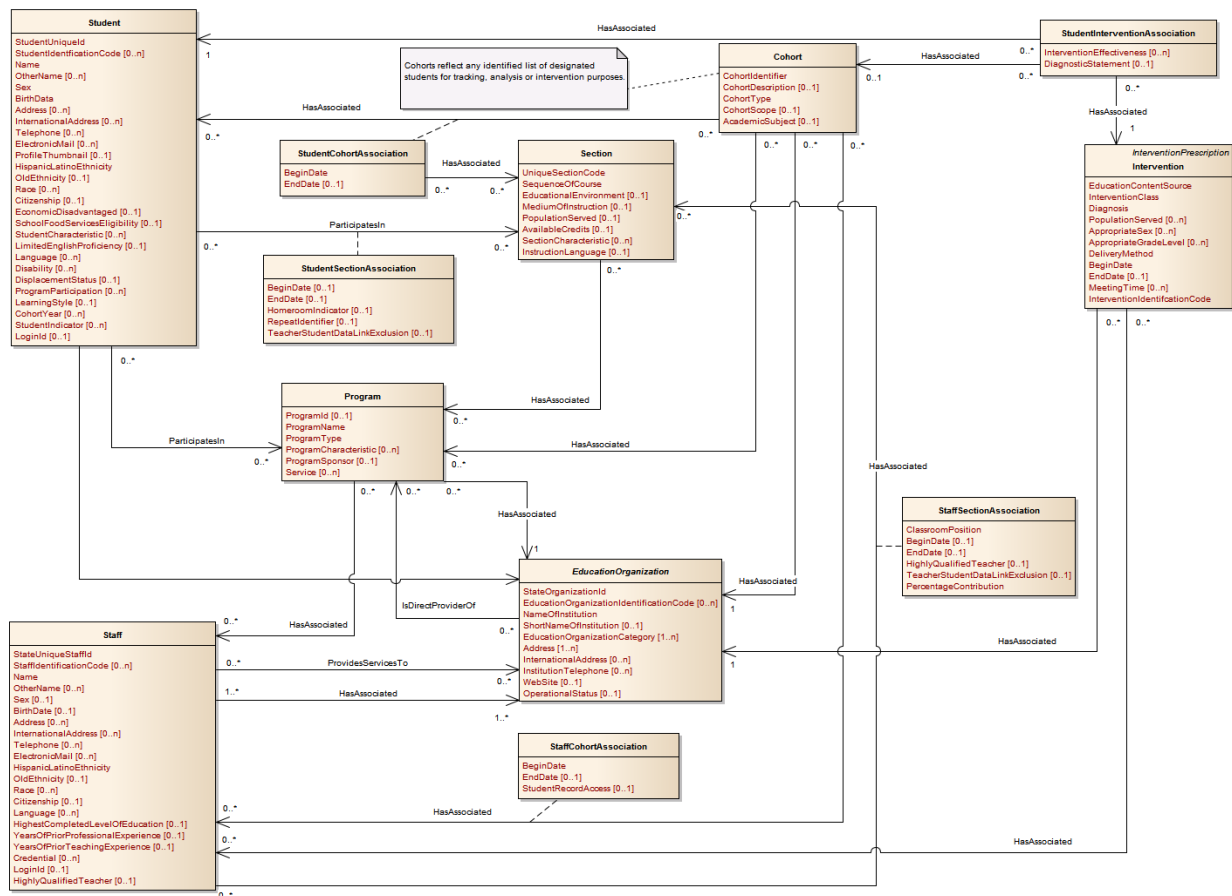


Figure 19. Student Cohort Model⁶

Student Identification and Demographics

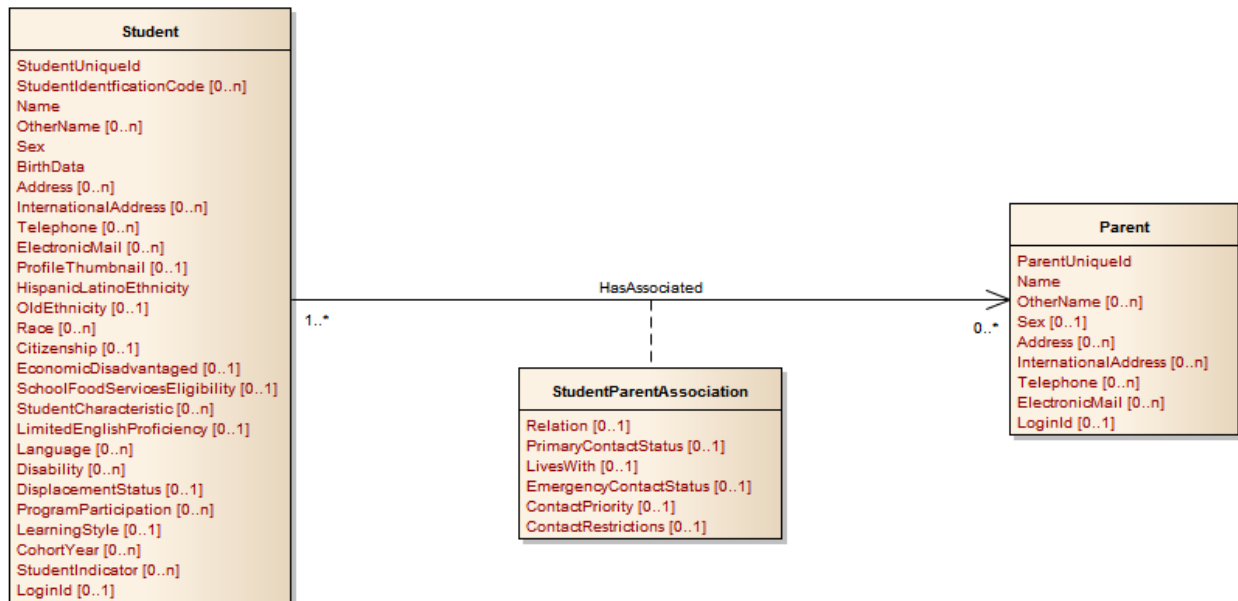
The Student Identification and Demographics domain represents the core information about students and parents.

- The Student entity captures important information and characteristics of a student.
- The Parent entity spans all variants of parent, guardian. It can also hold other important contacts that have been approved by the parent/guardian for contact in cases of emergency or even pick-up from school.
- The StudentParentAssociation links students and parents and indicates the relation.

⁶ A full-resolution version of this model diagram is available on the Ed-Fi Alliance Tech Docs site at <https://techdocs.ed-fi.org/display/EFDS20/Student+Cohort++UDM+v2.0>.

Table 14. Student Identification and Demographics Model Entities

Name	Description
Parent	This entity represents a parent or guardian of a student, such as mother, father, or caretaker.
Student	This entity represents an individual for whom instruction, services, and/or care are provided in an early childhood, elementary, or secondary educational program under the jurisdiction of a school, education agency or other institution or program. A student is a person who has been enrolled in a school or other educational institution.
StudentParentAssociation	This association relates students to their parents, guardians, or caretakers.


Figure 20. Student Identification and Demographics Model

Teaching and Learning

The Teaching and Learning domain represents the following concepts:

- The course catalog, representing the course definitions and course offerings available at a school in each session
- The student's class enrollments in sections and the teacher(s) assigned to that section

- Early childhood enrollments in programs and the staff members related to that program

The model is based upon multiple levels of definition, as follows:

- A Course entity represents the definition of the course, its characteristics, and its mapping to LearningStandards or LearningObjectives. A course may be defined a state, LEA or school level.
- The CourseOffering entity represents a course that is offered by a school during a session. The CourseOffering will have a LocalCourseCode and may have a LocalCourseTitle.
- A school will have one or more sections for each CourseOffering. Students are enrolled in specific sections. Each Section entity will have one or more assigned staff, will typically meet in a specific location in the school, and will be assigned a ClassPeriod entity for the session. Since early learning teaching and learning is based on programs, students are enrolled by association to the Program and Staff entities as well.

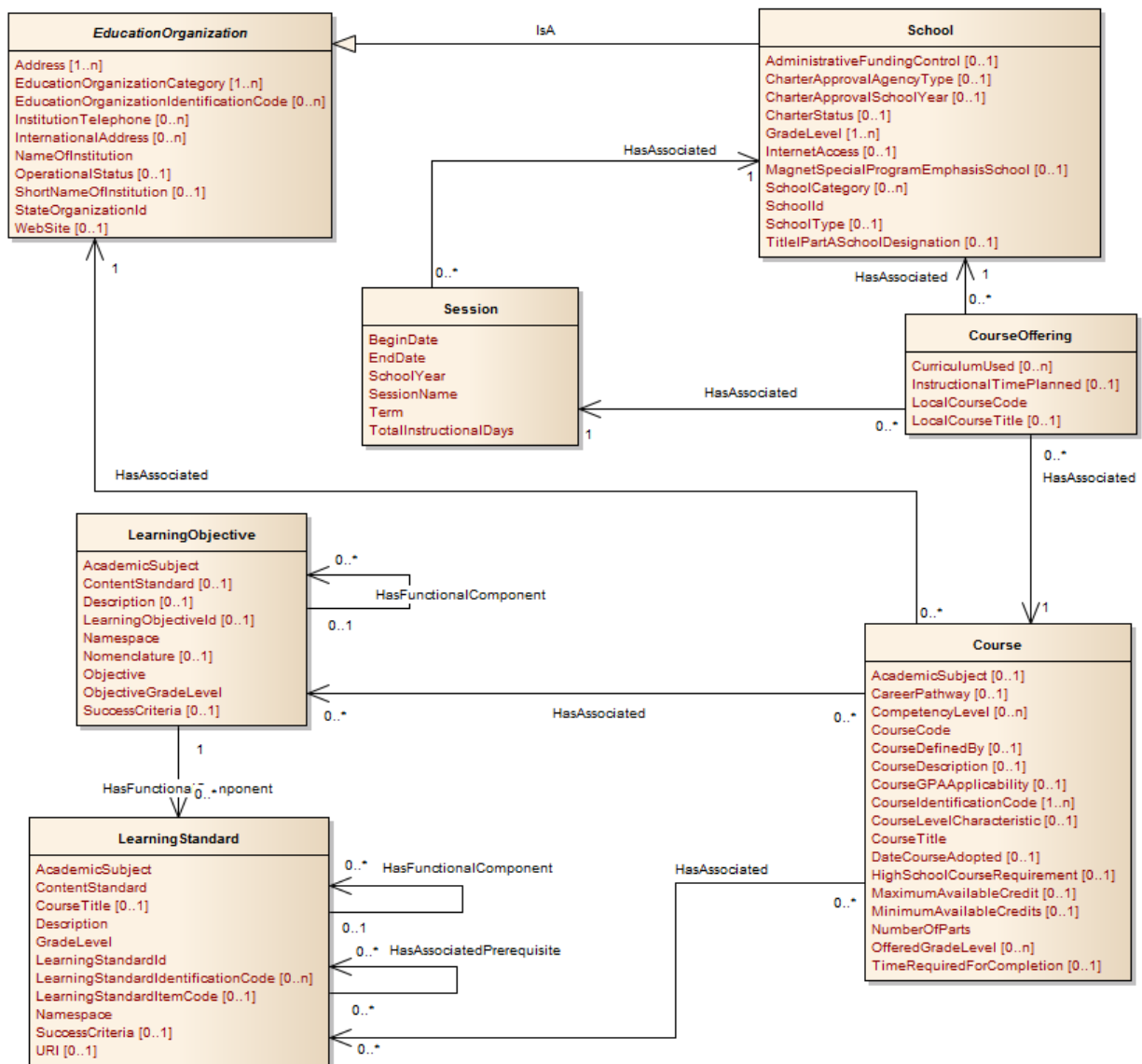


Figure 21. Teaching and Learning, Course Catalog Model

A school will have one or more Sections for each CourseOffering. Students are enrolled in specific Sections. Each Section will have one or more assigned Staff, will typically meet in a specific location in the school, and be assigned a ClassPeriod for the Session.

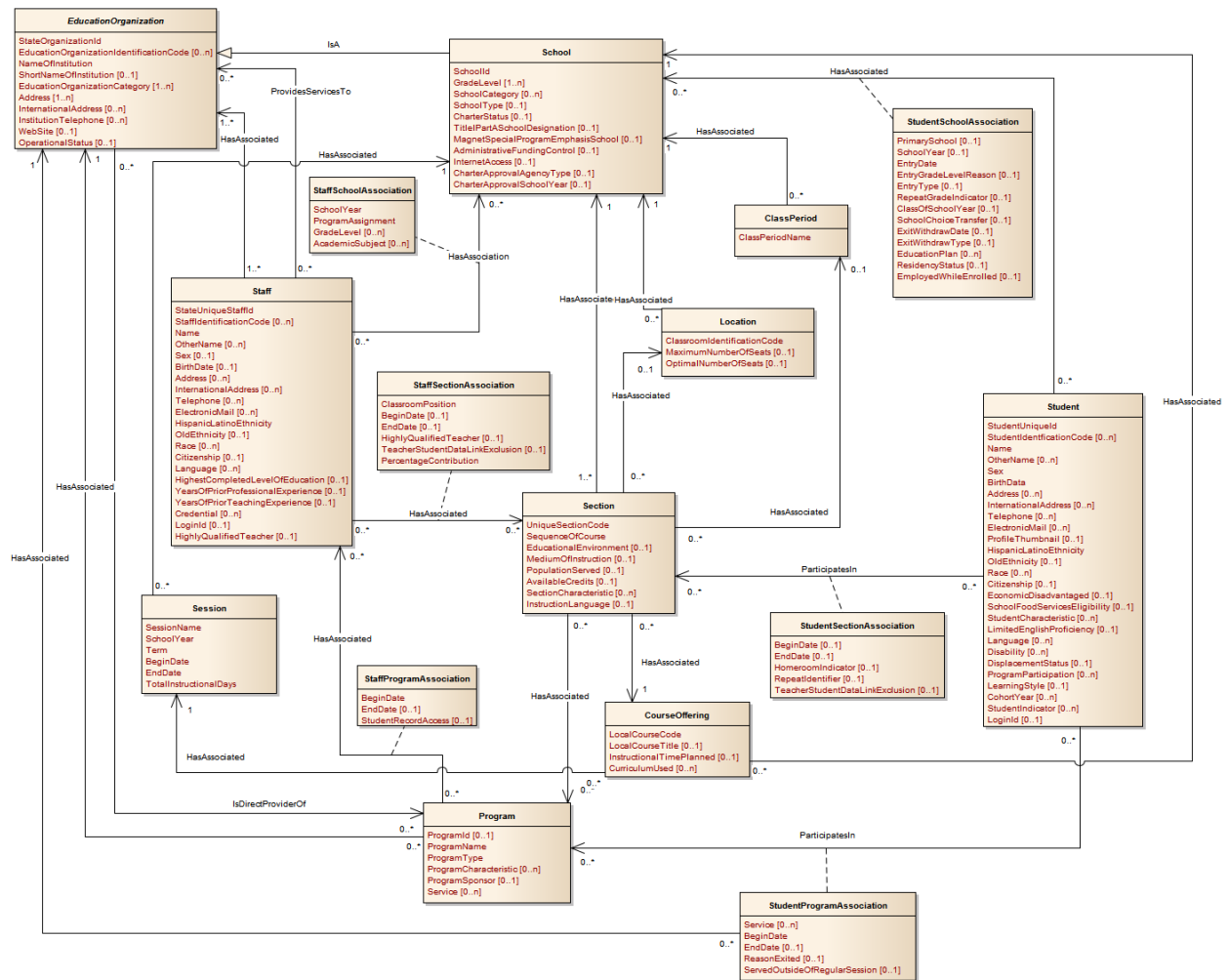


Figure 22. Teaching and Learning, Sections and Programs Model⁷

Table 15. Teaching and Learning Model Entities

Name	Description
ClassPeriod	This entity represents the designation of a regularly scheduled series of class meetings at designated times and days of the week.
Course	This educational entity represents the organization of subject matter and related learning experiences provided for the instruction of students on a regular or systematic basis.

⁷ A full-resolution version of this model diagram is available on the Ed-Fi Alliance Tech Docs site at <https://techdocs.ed-fi.org/display/EFDS20/Teaching+and+Learning+-+UDM+v2.0>.

Name	Description
CourseOffering	This entity represents an entry in the course catalog of available courses offered by the school during a session.
EducationOrganization	This entity represents any public or private institution, organization, or agency that provides instructional or support services to students or staff at any level.
LearningObjective	This entity represents identified learning objectives for courses in specific grades.
LearningStandard	This entity is a sub-element of a learning objective consisting of a precise statement of the expectation of a student's proficiency.
Location	This entity represents the physical space where students gather for a particular class/section. The Location may be an indoor or outdoor area designated for the purpose of meeting the educational needs of students.
Program	This entity represents any program designed to work in conjunction with, or as a supplement to, the main academic program. Programs may provide instruction, training, services, or benefits through federal, state, or local agencies. Programs may also include organized extracurricular activities for students.
School	This entity represents an educational organization that includes staff and students who participate in classes and educational activity groups.
Section	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.
Session	This entity represents the prescribed span of time when an education institution is open, instruction is provided and students are under the direction and guidance of teachers and/or education institution administration. A session may be interrupted by one or more vacations.

Name	Description
Staff	<p>This entity represents an individual who performs specified activities for any public or private education institution or agency that provides instructional and/or support services to students or staff at the early childhood level through high school completion. For example, this includes:</p> <ol style="list-style-type: none"> 1. An “employee” who performs services under the direction of the employing institution or agency is compensated for such services by the employer and is eligible for employee benefits and wage or salary tax withholdings 2. A “contractor” or “consultant” who performs services for an agreed upon fee or an employee of a management service contracted to work on site 3. A “volunteer” who performs services on a voluntary and uncompensated basis 4. An in-kind service provider 5. An independent contractor or businessperson working at a school site
StaffProgramAssociation	This association indicates the Staff associated with a program.
StaffSchoolAssociation	This association indicates the School(s) to which a staff member provides instructional services.
StaffSectionAssociation	This association indicates the class sections to which a staff member is assigned.
Student	This entity represents an individual for whom instruction, services, and/or care are provided in an early childhood, elementary, or secondary educational program under the jurisdiction of a school, education agency or other institution or program. A student is a person who has been enrolled in a school or other educational institution.
StudentProgramAssociation	This association represents the Program(s) that a student participates in or is served by.
StudentSchoolAssociation	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 StudentEducationOrganizationAssociation.
StudentSectionAssociation	This association indicates the course sections to which a student is assigned.

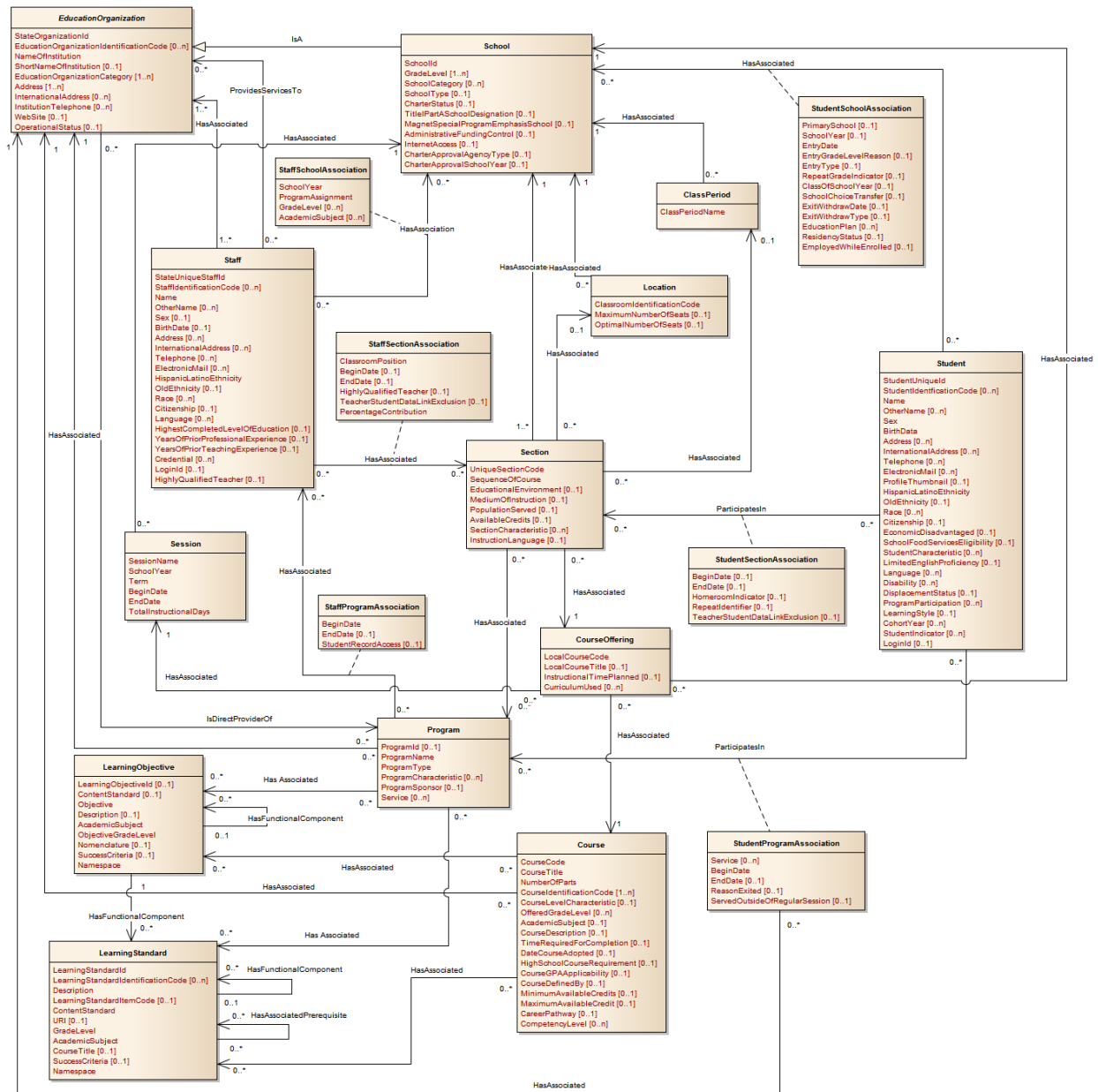


Figure 23. Teaching and Learning Model⁸

Alternative/Supplemental Services

This domain defines the model for a wide range of programs, including education programs, alternative programs, extracurricular programs, supplemental programs, and early learning programs.

⁸ A full-resolution version of this model diagram is available on the Ed-Fi Alliance Tech Docs site at <https://techdocs.ed-fi.org/display/EFDS20/Teaching+and+Learning++UDM+v2.0>.

- A Program entity defines programs with services offered by an education organization.
- A StudentProgramAssociation links Program entities to participating students.
- A StaffProgramAssociation links Program entities to assigned staff.

Table 16. Alternative/Supplemental Services Model Entities

Name	Description
AttendanceEvent	This event entity represents the recording of whether a student is in attendance for a class or in attendance to receive or participate in program services.
EducationOrganization	This entity represents any public or private institution, organization, or agency that provides instructional or support services to students or staff at any level.
Program	This entity represents any program designed to work in conjunction with, or as a supplement to, the main academic program. Programs may provide instruction, training, services, or benefits through federal, state, or local agencies. Programs may also include organized extracurricular activities for students.
School	This entity represents an educational organization that includes staff and students who participate in classes and educational activity groups.
Section	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.

Name	Description
Staff	<p>This entity represents an individual who performs specified activities for any public or private education institution or agency that provides instructional and/or support services to students or staff at the early childhood level through high school completion. For example, this includes:</p> <p>An “employee” who performs services under the direction of the employing institution or agency is compensated for such services by the employer and is eligible for employee benefits and wage or salary tax withholdings</p> <p>A “contractor” or “consultant” who performs services for an agreed upon fee or an employee of a management service contracted to work on site</p> <p>A “volunteer” who performs services on a voluntary and uncompensated basis</p> <p>An in-kind service provider</p> <p>An independent contractor or businessperson working at a school site</p>
StaffProgramAssociation	This association indicates the Staff associated with a program.
Student	This entity represents an individual for whom instruction, services, and/or care are provided in an early childhood, elementary, or secondary educational program under the jurisdiction of a school, education agency or other institution or program. A student is a person who has been enrolled in a school or other educational institution.
StudentProgramAssociation	This association represents the Program(s) that a student participates in or is served by.
StudentSectionAssociation	This association indicates the course sections to which a student is assigned.

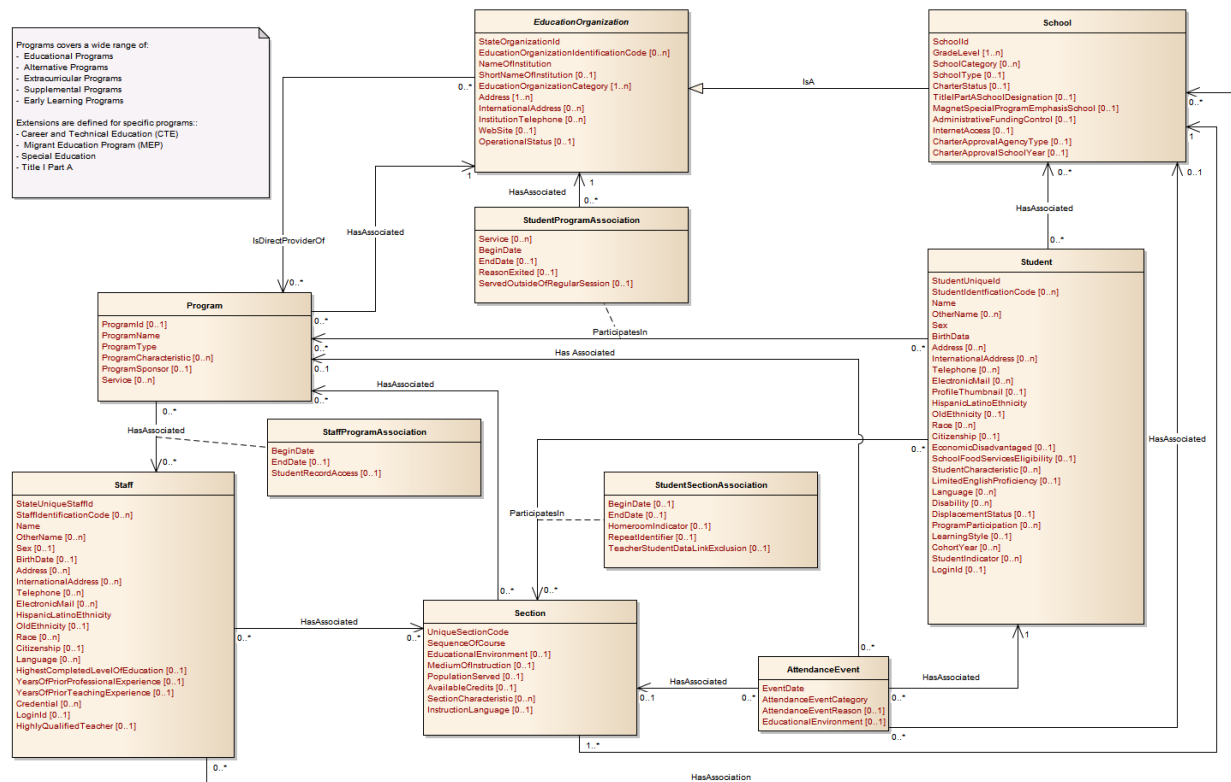


Figure 24. Alternative/Supplemental Services Model

Alternative/Supplemental Services Subdomains

Four additional subdomains have been pre-defined in the Ed-Fi UDM for specific and relatively common instances of Alternative/Supplemental Services:

- Career and Technical Education
- Migrant Education
- Special Education
- Title I Part A Services

Career and Technical Education

The Career and Technical Education subdomain of the Alternative/Supplemental Services extends the StudentProgramAssociation to specify attributes specific to the CTE program, such as the CTE cluster.

Table 17. Career and Technical Education Model Entities

Name	Description
AttendanceEvent	This event entity represents the recording of whether a student is in attendance for a class or in attendance to receive or participate in program services.
EducationOrganization	This entity represents any public or private institution, organization, or agency that provides instructional or support services to students or staff at any level.
Program	This entity represents any program designed to work in conjunction with, or as a supplement to, the main academic program. Programs may provide instruction, training, services, or benefits through federal, state, or local agencies. Programs may also include organized extracurricular activities for students.
School	This entity represents an educational organization that includes staff and students who participate in classes and educational activity groups.
Section	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.
Staff	<p>This entity represents an individual who performs specified activities for any public or private education institution or agency that provides instructional and/or support services to students or staff at the early childhood level through high school completion. For example, this includes:</p> <ol style="list-style-type: none"> 1. An “employee” who performs services under the direction of the employing institution or agency is compensated for such services by the employer and is eligible for employee benefits and wage or salary tax withholdings 2. A “contractor” or “consultant” who performs services for an agreed upon fee or an employee of a management service contracted to work on site 3. A “volunteer” who performs services on a voluntary and uncompensated basis 4. An in-kind service provider 5. An independent contractor or businessperson working at a school site

Name	Description
StaffProgramAssociation	This association indicates the Staff associated with a program.
StaffSchoolAssociation	This association indicates the School(s) to which a staff member provides instructional services.
StaffSectionAssociation	This association indicates the class sections to which a staff member is assigned.
Student	This entity represents an individual for whom instruction, services, and/or care are provided in an early childhood, elementary, or secondary educational program under the jurisdiction of a school, education agency or other institution or program. A student is a person who has been enrolled in a school or other educational institution.
StudentCTEProgram Association	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.
StudentProgramAssociation	This association represents the Program(s) that a student participates in or is served by.
StudentSectionAssociation	This association indicates the course sections to which a student is assigned.

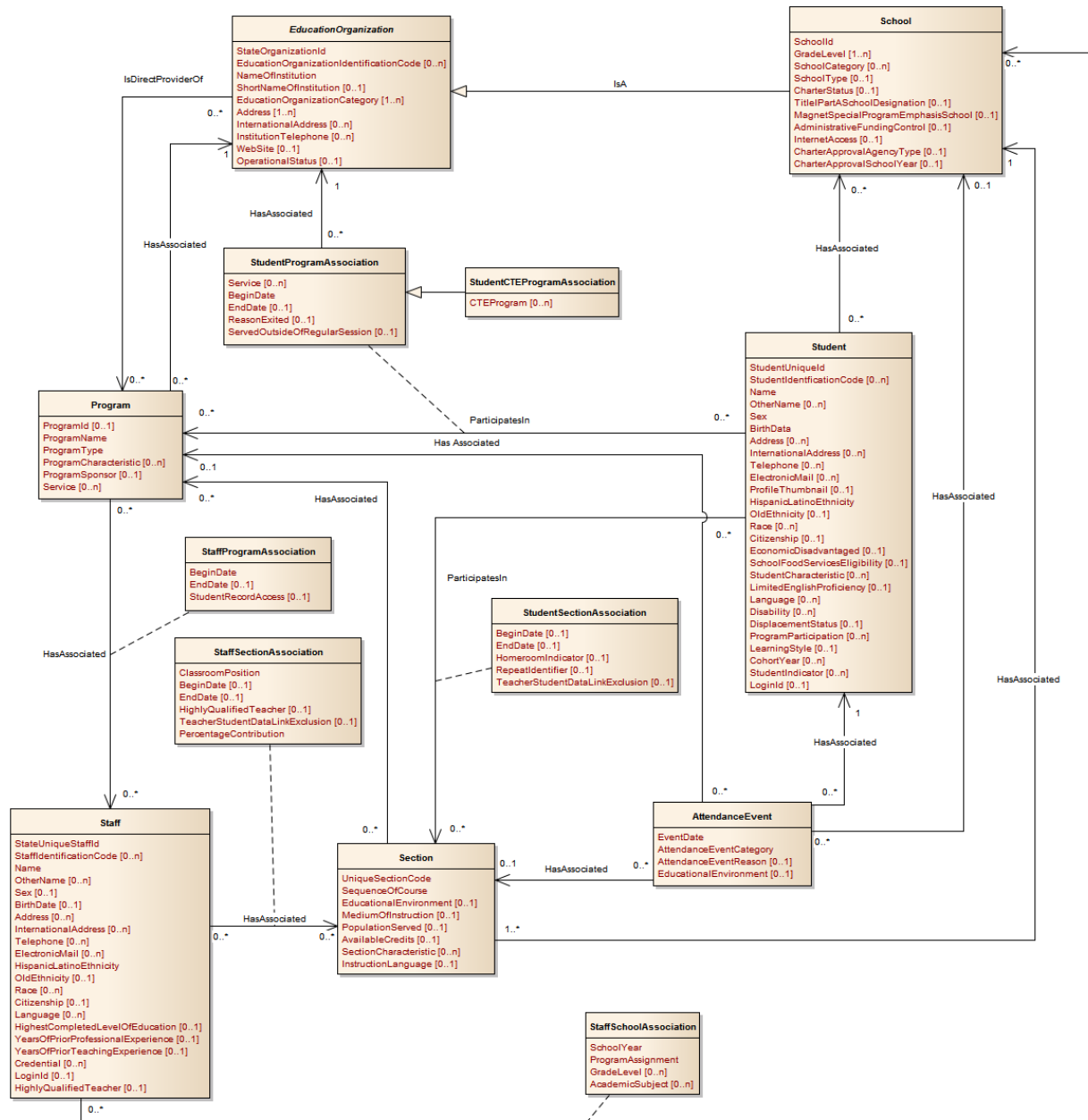


Figure 25. Career and Technical Education Model

Migrant Education

The Migrant Education subdomain of the Alternative/Supplemental Services domain extends the StudentProgramAssociation to specify attributes specific to the Migrant Education program, such as the first date and the most recent

entry of a student into the United States, the student's initial school entry date, and the student's last qualifying move.

Table 18. Migrant Education Model Entities

Name	Description
AttendanceEvent	This event entity represents the recording of whether a student is in attendance for a class or in attendance to receive or participate in program services.
EducationOrganization	This entity represents any public or private institution, organization, or agency that provides instructional or support services to students or staff at any level.
Program	This entity represents any program designed to work in conjunction with, or as a supplement to, the main academic program. Programs may provide instruction, training, services, or benefits through federal, state, or local agencies. Programs may also include organized extracurricular activities for students.
School	This entity represents an educational organization that includes staff and students who participate in classes and educational activity groups.
Section	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.
SectionAttendanceTakenEvent	Captures attendance taken event for given section.

Name	Description
Staff	<p>This entity represents an individual who performs specified activities for any public or private education institution or agency that provides instructional and/or support services to students or staff at the early childhood level through high school completion. For example, this includes:</p> <ol style="list-style-type: none"> 1. An “employee” who performs services under the direction of the employing institution or agency is compensated for such services by the employer and is eligible for employee benefits and wage or salary tax withholdings 2. A “contractor” or “consultant” who performs services for an agreed upon fee or an employee of a management service contracted to work on site 3. A “volunteer” who performs services on a voluntary and uncompensated basis 4. An in-kind service provider 5. An independent contractor or businessperson working at a school site
StaffProgramAssociation	This association indicates the Staff associated with a program.
StaffSchoolAssociation	This association indicates the School(s) to which a staff member provides instructional services.
StaffSectionAssociation	This association indicates the class sections to which a staff member is assigned.
Student	This entity represents an individual for whom instruction, services, and/or care are provided in an early childhood, elementary, or secondary educational program under the jurisdiction of a school, education agency or other institution or program. A student is a person who has been enrolled in a school or other educational institution.
StudentMigrantEducationProgramAssociation	This association represents the migrant education program(s) that a student participates in or receives services from. The association is an extension of the StudentProgramAssociation with added elements particular to migrant education programs.
StudentProgramAssociation	This association represents the Program(s) that a student participates in or is served by.
StudentSectionAssociation	This association indicates the course sections to which a student is assigned.

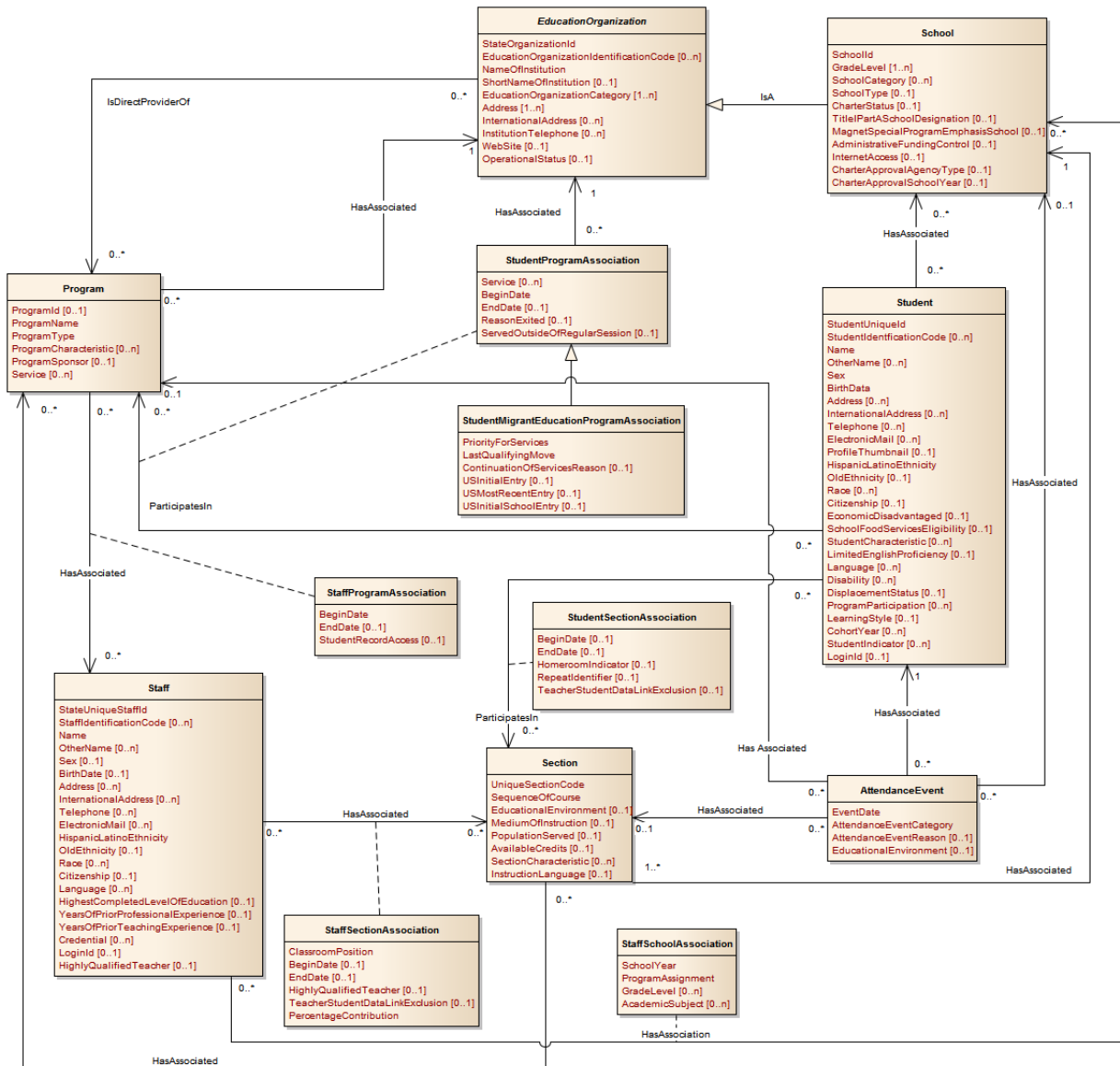


Figure 26. Migrant Education Model

Special Education

The Special Education subdomain of the Alternative/Supplemental Services domain extends the StudentProgramAssociation. A StudentSpecialEducationProgramAssociation entity provides important information about the student's participation in the Special Education Program, such as the service provider, key Individualized Education Program dates, and data about the nature of the student's disability. In addition, a RestraintEvents

entity is included to represent information about special education medical restraint occurrences related to a student.

Table 19. Special Education Model Entities

Name	Description
AttendanceEvent	This event entity represents the recording of whether a student is in attendance for a class or in attendance to receive or participate in program services.
EducationOrganization	This entity represents any public or private institution, organization, or agency that provides instructional or support services to students or staff at any level.
Program	This entity represents any program designed to work in conjunction with, or as a supplement to, the main academic program. Programs may provide instruction, training, services, or benefits through federal, state, or local agencies. Programs may also include organized extracurricular activities for students.
RestraintEvent	This event entity represents the instances where a special education student was physically or mechanically restrained due to imminent serious physical harm to themselves or others, imminent serious property destruction or a combination of both imminent serious physical harm to themselves or others and imminent serious property destruction.
School	This entity represents an educational organization that includes staff and students who participate in classes and educational activity groups.
Section	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.

Name	Description
Staff	<p>This entity represents an individual who performs specified activities for any public or private education institution or agency that provides instructional and/or support services to students or staff at the early childhood level through high school completion. For example, this includes:</p> <ol style="list-style-type: none"> 1. An “employee” who performs services under the direction of the employing institution or agency is compensated for such services by the employer and is eligible for employee benefits and wage or salary tax withholdings 2. A “contractor” or “consultant” who performs services for an agreed upon fee or an employee of a management service contracted to work on site 3. A “volunteer” who performs services on a voluntary and uncompensated basis 4. An in-kind service provider 5. An independent contractor or businessperson working at a school site
StaffSectionAssociation	This association indicates the class sections to which a staff member is assigned.
StaffProgramAssociation	This association represents the Program(s) that a student participates in or is served by.
Student	This entity represents an individual for whom instruction, services, and/or care are provided in an early childhood, elementary, or secondary educational program under the jurisdiction of a school, education agency or other institution or program. A student is a person who has been enrolled in a school or other educational institution.
StudentProgramAssociation	This association represents the Program(s) that a student participates in or is served by.
StudentSectionAssociation	This association indicates the course sections to which a student is assigned.
StudentSpecialEducationProgramAssociation	This association represents the special education program(s) that a student participates in or receives services from. The association is an extension of the StudentProgramAssociation particular for special education programs.

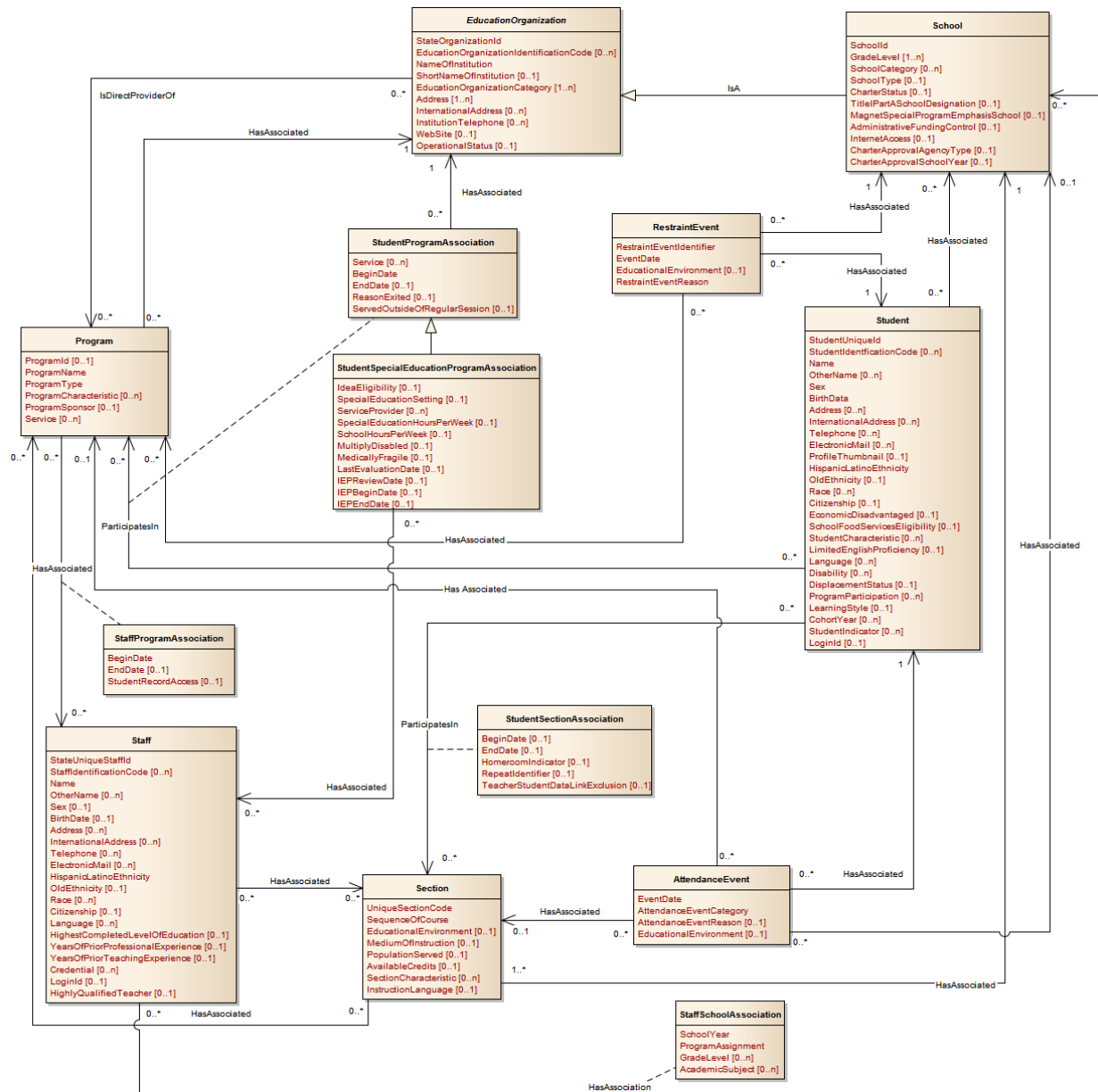


Figure 27. Special Education Model

Title I Part A Services

The Title I Part A Services subdomain of the Alternative/Supplemental Services domain extends the StudentProgramAssociation to specify Title I Part A participation for a student.

Table 20. Title I Part A Services Model Entities

Name	Description
AttendanceEvent	This event entity represents the recording of whether a student is in attendance for a class or in attendance to receive or participate in program services.
EducationOrganization	This entity represents any public or private institution, organization, or agency that provides instructional or support services to students or staff at any level.
Program	This entity represents any program designed to work in conjunction with, or as a supplement to, the main academic program. Programs may provide instruction, training, services, or benefits through federal, state, or local agencies. Programs may also include organized extracurricular activities for students.
School	This entity represents an educational organization that includes staff and students who participate in classes and educational activity groups.
Section	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.
Staff	<p>This entity represents an individual who performs specified activities for any public or private education institution or agency that provides instructional and/or support services to students or staff at the early childhood level through high school completion. For example, this includes:</p> <ol style="list-style-type: none"> 1. An “employee” who performs services under the direction of the employing institution or agency is compensated for such services by the employer and is eligible for employee benefits and wage or salary tax withholdings 2. A “contractor” or “consultant” who performs services for an agreed upon fee or an employee of a management service contracted to work on site 3. A “volunteer” who performs services on a voluntary and uncompensated basis 4. An in-kind service provider 5. An independent contractor or businessperson working at a school site

Name	Description
StaffProgramAssociation	This association indicates the staff associated with a program.
StaffSchoolAssociation	This association indicates the School(s) to which a staff member provides instructional services.
StaffSectionAssociation	This association indicates the class sections to which a staff member is assigned.
Student	This entity represents an individual for whom instruction, services, and/or care are provided in an early childhood, elementary, or secondary educational program under the jurisdiction of a school, education agency or other institution or program. A student is a person who has been enrolled in a school or other educational institution.
StudentProgramAssociation	This association represents the Program(s) that a student participates in or is served by.
StudentSectionAssociation	This association indicates the course sections to which a student is assigned.
StudentTitleIPartA ProgramAssociation	This association represents the Title I Part A program(s) that a student participates in or from which the Student receives services. The association is an extension of the StudentProgramAssociation particular for Title I Part A programs.

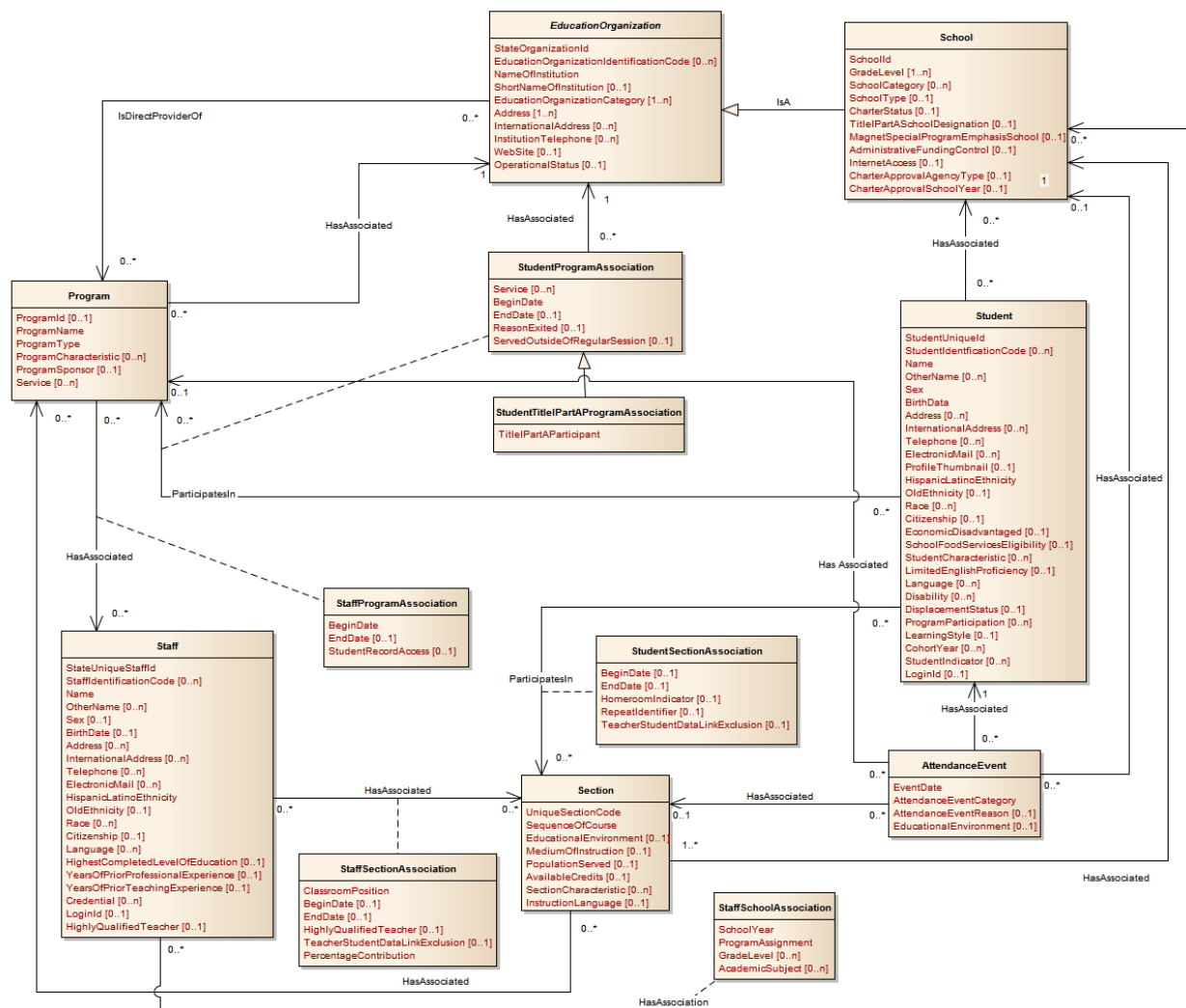


Figure 28. Title I Part A Services Model