# Education-to-Workforce (EW) CEDS Semantic Layer

These instructions are designed to guide you in the setup of the CEDS Semantic Layer in the CEDS Data Warehouse for the EW Framework Power BI reports.

## Step 1 – Install the CEDS Data Warehouse

If you already have an instance of the CEDS Data Warehouse installed, you can skip this step. (Note: States using the CIID Generate tool already have the CEDS Data Warehouse installed in their “generate” database.

If you have not installed the CEDS Data Warehouse and will be doing so for the first time or for the purpose of testing out the EW Framework Power BI reports, proceed to the [CEDS Data Warehouse repository](https://github.com/CEDStandards/CEDS-Data-Warehouse) and follow instructions in that repository. (Note: There are three scripts to run all located in the “src” folder)

## Step 2 – Create the Semantic Table

In the Education-to-Workforce-Indicator-Framework repository located on the CEDS Collaborative Exchange there is a folder called “src”. In that folder is the script needed to set up the sematic table in the CEDS Data Warehouse for the EW Framework Power BI reports. The document name is “CREATE Exchange.FactEwFrameworkMetrics.sql”

This should be run on the CEDS Data Warehouse database (CEDS-Data-Warehouse-V11-0-0-0 or generate or the name you have given to the CEDS Data Warehouse). This script will create both a new schema called “Exchange” to indicate it came from the CEDS Collaborative Exchange and a table called “FactEwFrameworkMetrics”

Additionally, a set of sample data that populates the FactEwFrameworkMetrics table is available in the same folder as a zip file. It contains inserts that produce 3 years of data in the table for testing purposes.

## STEP 3 – Create the Stored Procedure

The stored procedure “Exchange.Populate\_FactEwFrameworkMetrics” is used to populate data for the following two reports:

1. [Postsecondary enrollment directly after high school graduation](https://github.com/CEDS-Collaborative-Exchange/Education-to-Workforce-Indicator-Framework/tree/main/Indicators/Postsecondary%20enrollment%20directly%20after%20high%20school%20graduation)
2. [High school graduation](https://github.com/CEDS-Collaborative-Exchange/Education-to-Workforce-Indicator-Framework/tree/main/Indicators/High%20school%20graduation)

The stored procedure requires that you pass in the School Year, a 4-digit integer which reflects the end of the school year (e.g., 2025 would represent the 2024-2025 school year)

The data for these reports are pulled from 4 different fact tables within the CEDS Data Warehouse:

1. RDS.FactK12StudentEnrollments – This table is the primary table from which the students and their school information is pulled.
2. RDS.FactK12StudentCounts – This table is used to populate a few elements not yet available in the FactK12StudentEnrollments table: Disability Status, Section 504 Status and High School Diploma Type. In the future, these will be added to the FactK12StudentEnrollments and the Stored Procedure can then be adjusted.
3. RDS.FactK12StudentDisciplines – This table is used to populate the only one column: Disciplinary Action Taken Placed In Juvenile Detention Center.
4. RDS.FactPsStudentEnrollments – This table is used to determine if the student enrolled in Postsecondary by October 31st following graduation. It populates the column: High School Graduate Postsecondary Enrollment.
5. There are 6 additional columns which must be manually populated after running the stored procedure until the CEDS Data Warehouse is updated to include these data:
   1. CEDS Elements
      1. Locale Code/Locale Description – This element was added to CEDS on January 1, 2025 (<https://github.com/CEDStandards/CEDS-Elements/files/15439317/LocaleIssue_542.docx>) but does not yet have a location within the Data Warehouse.
      2. Parent Guardian Highest Level of Education Completed Code/Parent Guardian Highest Level of Education Completed Description – This element does not yet have a place in the CEDS Data Warehouse but will likely be place in a dimension table and can then be added to the FactK12StudentEnrollments table without impacting the grain.
      3. First Generation College Student Code / First Generation College Student Description – This element does not yet have a place in the CEDS Data Warehouse but will likely be placed in a dimension and added to the FactPsStudentEnrollments table without impacting the grain.
   2. EW Framework Disaggregates
      1. Urbanicity – This element is derived from the CEDS element Locale through the following calculation:
         1. Set to “Rural” if Locale Code = RuralFringe, RuralDistant, or RuralRemote
         2. Set to “Town” if Locale Code = TownFringe, TownDistant, or TownRemote
         3. Set to “Suburban” if Locale Code = SurburbanLarge, SuburganMidsize, or SuburbanSmall
         4. Set to “Urban” if Locale Code = CityLarge, CityMidsize, or CitySmall
      2. Parental Education Level – This element is derived from the CEDS element Parent Guardian Highest Level of Education Completed through the following calculation:
         1. Set to “High school diploma” if Parent Guardian Highest Level of Education Completed Description = High school diploma
         2. Set to “Doctoral degree” if Parent Guardian Highest Level of Education Completed Description begins with the word “Doctoral”
         3. Set to “Bachelor’s degree" if Parent Guardian Highest Level of Education Completed Description begins with the word “Bachelor”
         4. Set to “Master’s degree” if Parent Guardian Highest Level of Education Completed Description begins with the word “Masters”
         5. Set to “High school equivalency (e.g., GED)” if Parent Guardian Highest Level of Education Completed Description begins with the phrase “High school equivalency (e.g., GED)”
         6. Set to “Some college but no degree” if Parent Guardian Highest Level of Education Completed Description begins with the phrase “Some college but no degree”
      3. First-Generation College Student – This element is derived from the CEDS element First Generation College Student
         1. Set to “True” if First Generation College Student Code = Yes
         2. Set to “False” if First Generation College Student Code = No

## Required Elements

For the reports to work, the data must be populated into the appropriate fact tables within the CEDS Data Warehouse. This section outlines the required elements for each report.

#### Report: High School Graduation

* FactK12StudentEnrollments
  + Race
  + Sex
  + Entry Grade Level
  + Idea Indicator
  + Primary Disability
  + Eligibility Status for School Food Service Programs OR Economic Disadvantage Status
  + Migrant Status
  + ISO 6393 Language Code Home
  + English Learner Status
  + Homelessness Status
  + Military Connected Student Indicator
  + Program Type Foster Care
  + Active Military Status Indicator
  + Cohort Year
  + Cohort Graduation Year
  + Dimension: K12Schools
    - School Type
    - Name of Institution
    - School Identifier (Sea)
    - Local Education Agency Identifier (Sea)
* FactK12StudentDisciplines
  + Disciplinary Action Taken
* FactK12StudentCounts
  + High School Diploma Type

#### Report: Postsecondary Enrollment Directly After High School Graduation

* FactK12StudentEnrollments
  + Race
  + Sex
  + Entry Grade Level
  + Idea Indicator
  + Primary Disability
  + Eligibility Status for School Food Service Programs OR Economic Disadvantage Status
  + Migrant Status
  + ISO 6393 Language Code Home
  + English Learner Status
  + Homelessness Status
  + Military Connected Student Indicator
  + Program Type Foster Care
  + Active Military Status Indicator
  + Cohort Year
  + Cohort Graduation Year
  + Dimension: K12Schools
    - School Type
    - Name of Institution
    - School Identifier (Sea)
    - Local Education Agency Identifier (Sea)
* FactK12StudentDisciplines
  + Disciplinary Action Taken
* FactK12StudentCounts
  + High School Diploma Type
* FactPsStudentEnrollments
  + Enrollment Entry Date