

Connection Title: Access to college preparatory coursework: Percentage of middle schools offering Algebra I

Selected Descriptors:

Curriculum Organization->Core Curriculum
 Educational Levels, Degrees, and Organizations->Junior High Schools
 Mathematics->Mathematics
 Educational Levels, Degrees, and Organizations->Middle Schools
 Educational Levels, Degrees, and Organizations->Schools
 Education-to-Workforce (E-W) Indicator Framework ->EQ12: Access and completion of rigorous and accelerated college preparatory coursework

Author: Education-to-Workforce Framework Collaborators Group

Location: More Than One State

Source for CEDS Connection Information: Education-to-Workforce Indicator Framework
[\(https://educationtoworkforce.org/\)](https://educationtoworkforce.org/)

Description of CEDS Connection:

This Connection identifies the CEDS elements needed to measure how many middle schools offer Algebra I and includes the recommended analysis criteria. This Connection supports the Education-to-Workforce Indicator Framework.

Go Further with this Connection

You can use this Connection with your own data system. Click on the myConnect logo to apply the elements from your shared map to this Connection.



Data Elements

Metric

CEDS Elements:

A. K12 -> Course Section -> Course Section Identifier
 B. K12 -> Course Section -> Session Begin Date
 C. K12 -> Course Section -> Session End Date
 D. K12 -> Course Section -> Session Type
 E. K12 -> K12 Course -> Course Identifier
 F. K12 -> K12 Course -> School Courses for the Exchange of Data Course Code
 G. K12 -> K12 Course -> School Courses for the Exchange of Data Course Subject Area
 H. K12 -> K12 School -> Directory -> Grades Offered
 I. K12 -> K12 School -> Directory -> Operational Status Effective Date
 J. K12 -> K12 School -> Directory -> School Level
 K. K12 -> K12 School -> Directory -> School Operational Status
 L. K12 -> K12 School -> Identification -> School Identification System
 M. K12 -> K12 School -> Identification -> School Identifier
 N. K12 -> K12 School -> Session -> School Year
 O. K12 -> LEA -> Identification -> Local Education Agency Identification System
 P. K12 -> LEA -> Identification -> Local Education Agency Identifier
 Q. K12 -> SEA -> Identification -> State Agency Identification System
 R. K12 -> SEA -> Identification -> State Agency Identifier

Elements Not Currently in CEDS:

Analysis Recommendations

General Connection Information

CEDS elements are shown in ***bold/italicized*** font.

This metric is part of the Education-to-Workforce (E-W) Indicator Framework, specifically "E-W system conditions" which pertain to institutional or systemic environments, policies, and practices within E-W systems that support positive E-W outcomes.^[1] Using CEDS elements, this Connection will measure how many middle schools across the country offer Algebra I in their curriculum.

https://educationtoworkforce.org/sites/default/files/2023-04/E-W-Indicator-Framework_ChapterII_Indicators-and-metrics.pdf

This metric is a measurement for a key indicator, "Access to college preparatory coursework" and measures to see what percentage of middle schools are offering Algebra I.

Calculating a Response

Metric: Percentage of middle schools offering Algebra I

Use the following CEDS elements to determine the school years for which the data will be measured:

- ***School Year*** = most recent school year representing July 1 through June 30.

To determine the percentage of schools offering Algebra I in your state:

Identify the total number of operational schools:

- Pull all unique districts which is determined using a unique ***Local Education Agency Identifier*** where the ***Local Education Agency Identification System*** = SEA
- Pull all unique schools which is determined by using a unique ***School Identifier*** where ***School Identification System*** = SEA
- Filter records where ***School Operational Status*** = Open, New, Added, Changed Boundary, or Reopened and where ***Operational Status Effective Date*** is ≤ July 1 of the school year being reported

Narrow the list of operational schools to include only middle schools:

Filter schools where

- ***School Level*** = 02400 (Middle)
- ***Grades Offered*** = 05, 06, 07, or 08 (Only include the grades applicable to middle school in your state.)

Narrow the list of operational middle schools to only those that offer Algebra I:

- ***School Courses for the Exchange of Data Course Code*** = 02052 (Algebra I)

- *School Courses for the Exchange of Data Course Subject Area* = 02 (Mathematics)
- *Course Identifier* is not null
- *Course Section Identifier* is not null
- *Session Type* = Full School Year
- *Session Begin Date* is within the school year being reported
- *Session End Date* is within the school year being reported

Calculate the percentage

- Count the number of operational middle schools
- Count the number of middle schools offering Algebra I
- Divide the number of middle schools offering Algebra I by the number of operational middle schools and multiply by 100. This will provide the percentage for state

To determine the national average, sum the percentages for all states then divide the sum by the number of states.

► Related Connections

No related connections

► Related References

A. Title: Education-to-Workforce Indicator Framework; Source: Education-to-Workforce Indicator Framework (see <https://educationtoworkforce.org/>)

Author's Comments/Additional Information

Community Feedback

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Last Modified: 02/17/2025

Status: Shared with All