CEDS Connect

Connection Title: Access to college preparatory coursework: Percentage of high schools offering college preparatory courses in English, math, laboratory science, social science, foreign language, and visual or performing arts.

Selected Descriptors:
Educational Process: School Perspectives->Admission Criteria
Curriculum Organization->Advanced Courses
Educational Process: Societal Perspectives->College Preparation
Curriculum Organization->Core Curriculum
Curriculum Organization->Courses
Curriculum Organization->Curriculum
Curriculum Organization->Required Courses
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/)

Description of CEDS Connection:

This Connection identifies the CEDS elements needed to measure the percentage of high schools offering college preparatory courses in English, Math, Laboratory Science, Social Science, Foreign Language, and Visual or Performing Arts. For the full title of this Connection/metric, see Analysis Recommendations > Calculating a Response. The recommended analysis criteria are included. 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:	Elements Not Currently in CEDS:
A. K12 -> Calendar -> Session -> School Year	
B. K12 -> Course Section -> Course Section Identifier	
C. K12 -> Course Section -> Session Type	
D. K12 -> K12 Course -> Course Identifier	
E. K12 -> K12 Course -> School Courses for the Exchange of Data Course Code	
F. K12 -> K12 Course -> School Courses for the Exchange of Data Course Subject Area	
G. K12 -> K12 School -> Directory -> Grades Offered	
H. K12 -> K12 School -> Directory -> Operational Status Effective Date	
I. K12 -> K12 School -> Directory -> School Level	
J. K12 -> K12 School -> Directory -> School Operational Status	
K. K12 -> K12 School -> Identification -> School Identification System	
L. K12 -> K12 School -> Identification -> School Identifier	
M. K12 -> LEA -> Directory -> Local Education Agency Operational Status	
N. K12 -> LEA -> Directory -> Operational Status Effective Date	
O. K12 -> LEA -> Identification -> Local Education Agency Identification System	
P. K12 -> LEA -> Identification -> Local Education Agency Identifier	

▶ 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 pertains to institutional or systemic environments, policies, and practices within E-W Systems that support positive E-W outcomes. 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 whether students have access to the full set of courses needed to meet the requirements for admission at most colleges.

Calculating a Response

The full title of this metric is:
Percentage of high school graduates who successfully complete the coursework required for admission to a four-year college or university, which includes:
- *four years of English classes*
- *four years of math classes (including at least four of the following: pre-algebra, algebra, geometry, Algebra II or trigonometry, precalculus, calculus, statistics, quantitative reasoning, and data science)*
- *Three years of laboratory science (including biology, chemistry, and physics)*
- *Two years of social sciences*
- *Two years of foreign language*
- *One year of visual or performing arts*

Use the following CEDS elements to determine the school year:
- **_School Year_** = most recent school year, representing July 1 through June 30

Use the following CEDS elements to identify high schools:
Identify the total number of operational high schools:
- Pull all unique districts which is determined by using a unique **_Local Education Agency Identifier_** where **_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 evaluated

Narrow the list of operational schools to include only high schools:
- Filter records where **School Level** = 02402 (High School)
- Filter records where **Grades Offered** = 09, 10, 11, 12

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ENGLISH

Narrow the list of operational high schools to only those that offer a college preparatory English course sequence lasting at least four years:
- Pull all courses offered by the high school using **Course Identifier** and **Course Section Identifier**
- Filter courses where **Session Type** = Full School Year or Semester and where **Session Begin Date** and **Session End Date** fall within the school year being evaluated

Narrow the list of courses to include only records where **School Courses for the Exchange of Data Course Subject Area** = 01 (English Language and Literature), and **School Courses for the Exchange of Data Sequence of Course** is ≥ 4. (Alternatively, if your school does not use SCED codes, you would need to count the number of English courses offered. This count should also include courses that are split over two semesters which is determined by using **Session Type** = Semester.)

Count the number of operational high schools where the count of college preparatory English courses offered is ≥ 4.

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MATH

Narrow the list of operational high schools to those that offer a college preparatory math course sequence lasting at least four years:
- Pull all courses offered by the high school using **Course Identifier** and **Course Section Identifier**
- Filter courses where **Session Type** = Full School Year or Semester and where **Session Begin Date** and **Session End Date** fall within the school year being evaluated

Narrow the list of courses to include only records where **School Courses for the Exchange of Data Course Subject Area** = 02 (Mathematics), and **School Courses for the Exchange of Data Sequence of Course** is ≥ 4. (Alternatively, if your school does not use SCED codes, you would need to count the number of math courses offered. This count should also include courses that are split over two semesters which is determined by using **Session Type** = Semester.) The list of courses must include at least four of the following: Pre-algebra where SCED Code = 02051
- Algebra where SCED Code = 02052
- Geometry where SCED Code = 02072
- Algebra II or trigonometry where SCED Codes = 02056, 02106
- Precalculus where SCED Code = 02110
- Calculus where SCED Code = 02121
- Statistics where SCED Code = 02205
- Quantitative reasoning where SCED Code = 02158
- Data science where SCED Code = 22161

Count the number of operational high schools where the count of college preparatory math courses offered ≥ 4.

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LABORATORY SCIENCE

Narrow the list of operational high schools to those that offer a college preparatory laboratory science course sequence lasting at least three years:
- Pull all courses offered by the high school using **Course Identifier** and **Course Section Identifier**
- Filter courses where **Session Type** = FullSchoolYear or Semester and where **Session Begin Date** and **Session End Date** fall within the school year being evaluated

Narrow the list of courses to include only records where **School Courses for the Exchange of Data Course Subject Area** = 03 (Life and Physical Sciences), and **School Courses for the Exchange of Data Sequence of Course** is ≥ 3. (Alternatively, if your school does not use SCED codes, you would need to count the number of laboratory science courses offered. This count should also include courses that are split over two semesters which is determined by using **Session Type** = Semester.) The list of courses must include the following at a minimum:

- Biology where SCED Code = 03051
- Physics where SCED Code = 03151
- Chemistry where SCED Code = 03101
- Count the number of operational high schools where the count of college preparatory laboratory science courses offered ≥ 3

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SOCIAL SCIENCE

Narrow the list of operational high schools to those that offer a college preparatory social science course sequence lasting at least two years:
- Pull all courses offered by the high school using **Course Identifier** and **Course Section Identifier**
- Filter courses where **Session Type** = FullSchoolYear or Semester and where **Session Begin Date** and **Session End Date** fall within the school year being evaluated.

Narrow the list of courses to include only records where **School Courses for the Exchange of Data Course Subject Area** = 04 (Social Sciences and History), and **School Courses for the Exchange of Data Sequence of Course** is ≥ 2. (Alternatively, if your school does not use SCED codes, you would need to count the number of social science courses offered. This count should also include courses that are split over two semesters which is determined by using **Session Type** = Semester.)

Count the number of operational high schools where the count of college preparatory laboratory science courses offered ≥ 2.

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FOREIGN LANGUAGE

Narrow the list of operational high schools to those that offer a college preparatory foreign language course sequence lasting at least two years:
- Pull all courses offered by the high school using **Course Identifier** and **Course Section Identifier**
- Filter courses where **Session Type** = FullSchoolYear or Semester and where **Session Begin Date** and **Session End Date** fall within the school year being evaluated

Narrow the list of courses to include only records where **School Courses for the Exchange of Data Course Subject Area** = 24 (World Languages), and **School Courses for the Exchange of Data Sequence of Course** is ≥ 2. (Alternatively, if your school does not use SCED codes, you would need to count the number of foreign language courses offered. This count should also include courses that are split over two semesters which is determined by using **Session Type** = Semester.)

Count the number of operational high schools where the count of college preparatory foreign language courses offered ≥ 2.

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VISUAL OR PERFORMING ARTS

Narrow the list of operational high schools to those that offer a college preparatory visual or performing arts course sequence lasting at least one year:
- Pull all courses offered by the high school using **Course Identifier** and **Course Section Identifier**
- Filter courses where Session Type = FullSchoolYear or Semester and where **Session Begin Date** and **Session End Date** fall within the school year being evaluated

Narrow the list of courses to include only records where **School Courses for the Exchange of Data Course Subject Area** = 05 (Visual and Performing Arts), and **School Courses for the Exchange of Data Sequence of Course** is ≥ 1. (Alternatively, if your school does not use SCED codes, you would need

to count the number of visual or performing arts courses offered. This count should also include courses that are split over two semesters which is determined by using *Session Type* = Semester.)

Count the number of operational high schools where the count of college preparatory visual or performing arts courses offered ≥ 1.

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CALCULATE HIGH SCHOOLS WITH COLLEGE PREPARATORY COURSES

From the lists above, count the total number of high schools that offer the specified course sequences in English, math, laboratory science, social science, foreign language, and visual or performing arts.

Divide the total number of high schools that offer the specified course sequences in English, math, laboratory science, social science, foreign language, or visual or performing arts by the total number of high schools, and multiply by 100.

▸ **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

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