

TITLE V DATA INTEGRATION USE CASES

Title V Data Integration Use Cases

The goal of data integration is to produce data that can inform decisions and answer questions. Answers to key questions can support the improvement of programs at the local, state, and federal levels. Integrating data into an ECIDS allows Title V programs to get data back from the system to answer key questions and inform priorities. As Title V programs participate in integration efforts, it is important to clearly synthesize which data and/or reports the Title V programs require from the ECIDS.

Title V programs may be asked to supply information on the purpose for requested reports and the data being requested. They often provide this information in the form of a “use case,” which helps determine which data elements, timeframe, and geographic boundaries need to be pulled from the ECIDS. To facilitate this process, three use cases have been developed. Each use case gives an example of information that may need to be included to answer the question. Title V programs may wish to customize each question to meet individual program or state specific needs.

Each use case clarifies a question, lists the necessary data elements, identifies possible data sources, recommends a data analysis (see Figure 3), and ends with possible data visualizations.



Figure 3. Common Education Data Standards: Connecting Questions to Answers

Before moving from question to answer, there are some key considerations and suggestions for Title V programs.

Data Elements

Many systems only integrate the necessary data elements for answering key questions. Therefore, the suggested data elements listed for answering each question may need to be integrated into the state ECIDS. Sources contributing data to the ECIDS may need to revise agreements to include the data elements suggested in the toolkit.

ECIDS data sources may not currently collect the data elements needed to answer the Title V program use case questions. In these situations, Title V programs may want to request the collection and sharing of these needed data elements.

Finally, new data sources that collect the required data may need to be added to the ECIDS. Title V programs will be instrumental in introducing these new data sources to ECIDS leadership.

Analytic Considerations for Each Question

Basic analytic considerations are included for each question. However, depending on the sophistication of the ECIDS and the Title V program's needs, deeper analytic considerations may be required. For example, the data for each question could be analyzed by race/ethnicity, gender, or poverty level. As additional analysis considerations are identified, data elements will need to be added to the table in each question.

Computed Variables

Sometimes, a new variable will need to be computed based on existing data elements. For example, age of a child at first diagnosis of autism is calculated by comparing the child's data of birth and the date of diagnosis. A new variable is computed based on the existing data.

Data Suppression

Data suppression refers to the process of withholding or removing selected information to protect personally identifiable information. There are many methods for suppressing data. For example, when reporting developmental screening results by race/ethnicity, the ECIDS report may combine several race/ethnicities into one number to limit the disclosure of information about individual children. Title V programs should consult the ECIDS Data Governance Manual for the ECIDS policy on data suppression.

Data Quality Issues

Checking for data quality issues such as outliers, missing data, or drastic changes from year to year is a step in every Title V program use case. This step helps determine if the data are high-quality and reliable. Without taking this step, Title V programs may make decisions based on misleading information. As public health data are being integrated into ECIDS, Title V programs should expect some outliers, missing data, and/or inconsistent data.



Data element names and definitions vary across programs and ECIDS. The names and definitions used in this toolkit align with the [Common Education Data Standards \(CEDS\)](#). CEDS is an education data management initiative whose purpose is to streamline the understanding of data within and across P-20W institutions and sectors. The CEDS initiative includes a common vocabulary, data models that reflect that vocabulary, tools to help education stakeholders understand and use education data, an assembly of metadata from other education data initiatives, and a community of education stakeholders who discuss the uses of CEDS and the development of the standard.¹

⁵ [CEDS](#)

CEDS allows a diverse group of data users to move toward data sharing through the different tools and resources such as those listed below.

CEDS Align is a web-based tool that enables users to import or input their data dictionaries, align their elements to CEDS, compare their data dictionaries with those of other users, and analyze their data in relation to various other CEDS alignments. CEDS Align is designed to enable education stakeholders to understand how their data dictionaries relate to the Standards, as well as what similarities or gaps might need to be addressed in sharing data among educational sectors and across state lines.

CEDS Connect enables users at different levels to consider “connections” such as metric definitions of data points, policy questions, or federal data reporting requirements by establishing the data elements necessary to answer a given connection, as well as recommend logic and routines for analysis. CEDS Connect is designed to help the education data community work together toward standard definitions and methodologies that will provide common, comparable data measurements and reporting across districts, state, and multiple educational agencies. CEDS Connect also allows stakeholders from varied educational organizations to use the tool’s myConnect feature that builds upon CEDS Align to apply their Align maps to the elements needed for any connection.

myConnect allows users who have mapped their data systems to CEDS via the Align tool to apply them to a particular CEDS Connection. By using CEDS as a bridge, this allows users to see how the elements in their own data systems might correspond to the elements necessary to answer a particular policy issue or data question.

Next Steps

As Title V programs begin getting data from the ECIDS, they will identify more questions of interest. Title V programs may wish to develop additional questions and use cases for future longitudinal and short-term program analysis.

Use Case Resources and Tools

[Common Education Data Standards \(CEDS\)](#)

[Answering Critical Questions Using Data: Tools to Support Development and Data Element Identification](#)

[CEDS Resources for Policymakers and Practitioners](#)