# ED*Facts* D&A
## Dashboards & Analytics

## ED*Facts* Dashboards & Analytics
### Ready for All SEAs — Not Just ES3 Partners

Try out the dashboards and analytics for ED*Facts* data at a newly launched website. ESP has created the State of Tranquility to demonstrate 11 dashboards with 51 views (Tableau's term for visualizations or graphics). This demo site is a fully functional preview for a state education agency (SEA) to discover the value in **ED*Facts* Dashboards and Analytics™** (D&A). Any SEA, not just ED*Facts* Shared State Solution (ES3) partners can use ED*Facts* D&A™.

ED*Facts* D&A provides graphically enhanced, meaningful, and timely dashboards to view 5 years of your ED*Facts* data. Even better, as soon as a new submission file is ready, it can be uploaded and viewed in dashboards. To enhance the value of these visualizations, ESP has headed up each one with decision questions addressed by the data and actions informed by the results presented. To view the complete set of dashboards with a sample five-year database visit www.ES3Facts.info or go directly to https://public.tableau.com/profile/esp.edfacts.d.a#!/.

Explore the complete Users Guide on the site. For questions, contact Dr. Evangelina Mangino, ESP's Expert Visualizations Designer (emangino@espsg.com); Steve King, ESP's Chief Architect (sking@espsg.com); or Greg Palmer, ESP's Product Manager for ED*Facts* D&A (gpalmer@espsg.com).

## ED*Facts* D&A Gives Fast and Insightful Feedback

ED*Facts* reporting is no longer a one-way street. Even better, ED*Facts* data have become interesting and useful. SEAs can immediately view data not yet submitted to the ED*Facts* Submission System (ESS) along with their ED*Facts* submission files for five years. ESP's Expert Visualizations Designer, Dr. Evangelina Mangino, and ESP's President, Dr. Glynn Ligon, worked together to design a format that presents data in a way to answer the questions educators are asking.

1. Data stewards and program managers can review the data for completeness and consistency with expected trends to identify and address possible data quality issues.

2. Program administration and policy makers can identify trends that may require actions, such as review of budget allocation policies or staff development needs.
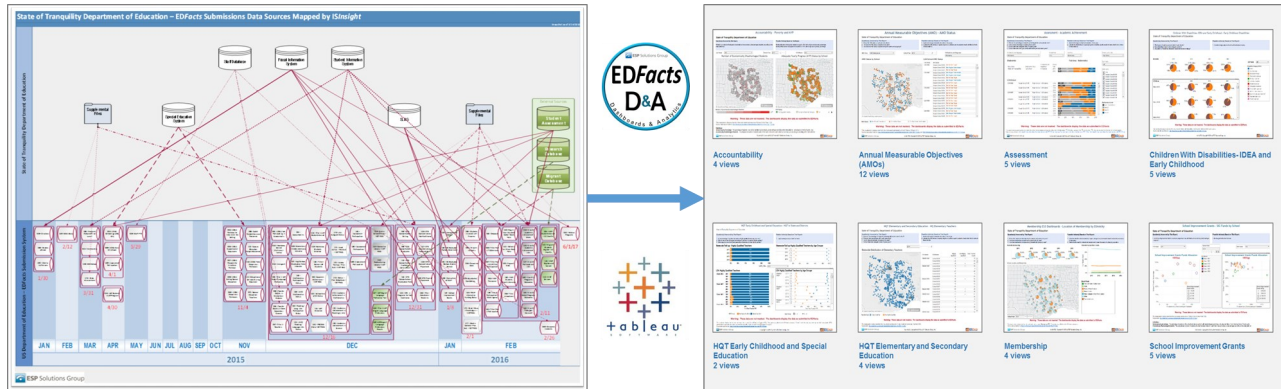
3. SEAs can provide access to the visualizations to districts or local education agencies (LEAs) so they can review their own data and also determine data quality or assistance to other schools.

## ED*Facts* D&A Dashboards

ED*Facts* D&A is a set of dashboard visualizations created from the actual data submitted by state education agencies (SEAs) to the US Department of Education.

Each SEA uploads their data to a secure SQL Server and is given access to a secured and encrypted portal site to access their ED*Facts* D&A Dashboards. Figure 1, in the newsletter insert, represents the landing area you see when you log into your SEA's portal site.

In addition, each high-level dashboard and accompanying visualizations may be accessed, viewed, and downloaded through the portal.



From Data to Insights with ED*Facts* Dashboards and Analytics

## How ED*Facts* D&A Evolved: The Story

Every SEA submits ED*Facts* data annually to the United States Department of Education. In addition, every SEA has multiple years of submission files in exactly the same format. The problem is that SEAs have a delay of

> ED*FACTS* DATA ARE IMPORTANT TO SEAS AND LEAS AND ARE AVAILABLE IMMEDIATELY UPON SUBMISSION AND IN A GRAPHICALLY ENHANCED FORMAT IN ED*FACTS* D&A.

up to two years before they are able to graphically view the data they submitted under the current system in ED Data Express. Unfortunately, the data are far less meaningful at that age, and often, the data are neither viewed nor utilized at the SEA or LEA levels as a result.

ESP believes that ED*Facts* data are important to SEAs and LEAs and, if made available in a graphically enhanced and timely manner, could provide tremendous benefit as an analytical tool. In addition, the process for viewing and downloading should be uncomplicated, and the cost for

sharing dashboards and visualizations across LEAs should be highly affordable or free.

ESP developed ED*Facts* D&A with a set of simple goals for visualizations and a working definition that a visualization is a report in graphic or table format. The following nine goals reflect the guiding principles that ESP followed in developing ED*Facts* D&A.

1. Any state could use their most recent five cycles of submission files without any modifications.

2. In fact, an SEA can use data not yet submitted if the data are in the submission file format.

3. All the quirks of ED*Facts* data would be resolved already in the design of the reporting.

4. An SEA literally could be up and running within a few days.

5. The visualizations would be interactive. A user could select districts, schools, years, and other views on demand.

6. The SEA would control distribution of the visualizations within the SEA, out to districts, or to the public.

7. An SEA would not have to be an ED*Facts* Shared State Solution (ES3) user to use ED*Facts* D&A.

8. The visualizations would have the value-added feature of each stating the decision question addressed and the action informed by the data.

9. The SEA could distribute the visualizations to anyone and everyone in print, on a website, or even interactively on the web without paying a fee per user.

ESP engaged in this project to solve issues heard from state agencies around ED*Facts* data. Through the integration of a graphically powerful business intelligence tool (Tableau), and a mechanism for uploading data to a secured environment, SEAs now have the ability to access and share their ED*Facts* data easily, immediately, and securely across all environments.

## IS*Insight* for ED*Facts* Processes

ESP uses IS*Insight* (see Figure 2 in the newsletter insert) to identify and document the data sources for each ED*Facts* submission.   IS*Insight* uses Microsoft Excel templates to capture the metadata of the data sources and Microsoft Visio to display a data roadmap from each SEA office or unit and data repository to an ED*Facts* timeline diagram.  This diagram helps understand and explain the complexity of the ED*Facts* submission cycle and the offices and individuals involved.

The IS*Insight* Excel templates are preloaded with the following ED*Facts* submission information.

- ED*Facts* submission number and name

- Data elements included in the ED*Facts* submission

- Due dates

- Report levels

The Excel template is also used to document specific SEA information for each ED*Facts* submission.

- Office responsible

- Name of the data repository or repositories used to create the ED*Facts* submission files

- Data steward (usually the program contact person responsible for data quality and completeness)

- Data manager (usually the person responsible for maintaining the data repository)

- Whether the ED*Facts* submission is created at the SEA or outsourced

## 6 Steps to Becoming an ED*Facts* D&A User



❶ Sign up!

❷ ESP creates your Tableau site.

❸ ESP creates secure database and SQL views.

❹ ESP sends you login information.

❺ You upload ED*Facts* submission files for specific files for the last 5 years.

❻ You access your visualizations.

Assessment

Directory

CWD IDEA Early Childhood

Accountability

Setting up and utilizing ED*Facts* Dashboards and Analytics is a simple process.

After your SEA signs up, ESP will create a Tableau site for your state and issue you a Tableau Server license.

You upload ED*Facts* submission files for the last 5 years to a secure SQL database in the same format that you submit to ED*Facts*  Submission System.

Once the data are submitted, your state will receive login information for your secure Tableau portal site.  You will utilize your Tableau Server license to access the Tableau portal.

In the Tableau portal, you will find your dashboards and visualizations to download and share throughout your SEA and LEAs.  Tableau has a free reader that any user in your SEA and LEAs can use to view your dashboards.

Contact Greg Palmer, ESP's Product Manager  at 617-549-2299 or gpalmer@espsg.com for  pricing and demonstration information.

# EDFacts Shared State Solution

## ESP Offers ETL and Implementation Services

ESP Solutions Group, Inc.
Phone: 512-879-5300
Fax: 512-879-5399
E-mail: info@espsg.com
**www.espsg.com**

Extraordinary Insight for Support of
EDFacts Shared State Solution
SEA Partners

## WWW.ES3FACTS.INFO

ESP Solutions Group is the developer of the EDFacts Shared State Solution (ES3) as an enhancement of its contracts with several SEAs. For newly adopting SEAs, the tasks of installing and configuring the solution, creating the ETL for the local sources to the staging data stores, and managing the process for the first year are available from ESP as contracted services. In future years, the maintenance of the ETL from local sources to the ES3 data stores is also a service provided by ESP.

The design of the EDFacts Shared State Solution is based entirely upon Microsoft tools. These were purposely adopted by the early SEAs to ensure that they and future partners could maintain the solution themselves without an obligation to any vendor. However, the availability of ESP as a service option provides both the risk mitigation and the support alternative when local staffing needs assistance.

Contact ESP at 512-879-5300 or info@espsg.com.

## EDFacts D&A Follows Model of "Action Reports"

#ESPTwiminars

Four months ago, ESP initiated the concept of using Twitter for seminars on hot topics by tweeting a series of insights about reporting. The visualizations designed for EDFacts data follow the lessons learned and reported as best practices in that "twiminar" entitled Action Reports.

In a related publication, ESP released a new poster, Teacher to Teacher: Informing Decisions (http://p20wforum.info/a-technology-framework-for-no-child-left-behind/). This illustration follows questions through the complex processes to the decisions and actions people take once data have been collected, processed, and provided to them.

How does this all relate back to EDFacts? Now with EDFacts D&A, those years of EDFacts data and the timely new data being reported in the current cycle can be visualized for decision makers.

Each dashboard visualization in Tableau has been designed from the beginning with decision questions in mind and related actions.

The expectation is that SEAs will use the dashboard visualizations immediately upon the availability of fresh submission files to provide program offices reports for audit, edit, and re-submission purposes. This gives program offices the ability to compare current submissions with the previous four cycles. The complete white paper

can be downloaded at http://p20wforum.info/action-reports-white-paper/.

In March, ESP published a twiminar on the topic of data quality. A central theme in that twiminar is that use of data engenders improvement in the quality of those data. This insight adds to the benefits from EDFacts D&A. Excellent dashboard visualizations will improve the ability of data providers and data users to understand the EDFacts source data as well as the reported aggregate statistics. In turn, they will have more of opportunities to detect and need accurate and timely data.

Follow us on Twitter @espsg to find more #ESPTwiminars.