

## **Goal 5. Continuous Improvement of the U.S. Education System:**

**Enhance the education system’s ability to continuously improve through better and more widespread use of data, research and evaluation, evidence, transparency, innovation, and technology.**

**Goal Leader: Amy McIntosh, Acting Assistant Secretary, Office of Planning, Evaluation and Policy Development (OPEPD)**

### **Public Benefit**

Education stakeholders, ranging from students and parents, to teachers and principals, to superintendents and the Secretary, need access to timely, appropriate, relevant, and actionable information. Information sources, which can range from datasets to rigorous evaluations and research studies, must be accessible through reliable technology and must reach needed audiences through dissemination, while applying appropriate controls to protect student privacy. The Department must continue to invest in its information resources so that internal and external stakeholders can use this information to make evidence-based decisions.

States continue to develop systems that will collect, manage, and appropriately report the valid, reliable data that are essential to achieving improvements across education, but there is much more work to do. The Department continues ongoing efforts to develop effective SLDS, design voluntary CEDS to increase interoperability, and develop the capacity of institutions and staff to utilize data to improve teaching and learning outcomes. It is not enough to support only the development of the systems and structures that will provide education agencies across the nation with the data necessary to generate accurate pictures of student performance and other critical elements, from early learning programs through postsecondary institutions and the workforce. The Department must continue to lead the national discussion of how these systems are best and most appropriately used to support students, improve instruction, address inequities, develop future teachers, and inform practice; all while ensuring the privacy of the nation’s students is safely protected.

Additionally, the Department must serve as a model for how data are disseminated. Information that SEAs and LEAs report to the Department should be made accessible, where possible, to inform the public and help with local decision-making, but these data must be shared in ways that protect student privacy and that are in compliance with federal and state privacy laws. The collection, storage, maintenance, and use of data must be responsible and must appropriately protect student privacy. Stewards and users of data must remember that these data describe real people and ensure that systems protect the rights of those people. The Department will help practitioners in the field ensure they are properly protecting privacy and communicating with parents and students about the proper use and management of student data.

The Department continues to prioritize the use of “evidence-based” practices through its competitive programs while supporting the creation of new evidence through rigorous project evaluations. This approach helps ensure that scarce dollars have their intended impact and also empowers states and districts to become more dynamic learning organizations, especially in areas with little existing rigorous evidence. Additionally, the Department continues to provide tools to stakeholders that help them understand what types of which strategies and interventions are effective for various “problems of practice.”

Better use of information, both for policy-makers, but also educators, depends on access to reliable technology. The Department’s vision for 21st-century learning requires that schools have a 21st-century technology infrastructure anchored around high-speed Internet to allow for innovation and personalization in the classroom. This vision is supported by the remarkable progress we have made towards the President’s ConnectED initiative goal to connect 99 percent of students in the nation’s schools to high-speed broadband by 2018. States, districts, and schools must have such infrastructure to incorporate cutting-edge methods for strengthening curriculum quality and delivery to meet more rigorous college- and career-ready standards; improving student access and engagement; developing comprehensive, formative, and summative assessment systems; and enhancing data management systems.

## Analysis and Next Steps

**Objective 5.1: Data Systems and Transparency.** Facilitate the development of interoperable longitudinal data systems for early learning through employment to enable data-driven, transparent decision-making by increasing access to timely, reliable, and high-value data.

### Objective Leader:

Ross Santy, Associate Commissioner, Alternative Data Division, National Center for Education Statistics (NCES), Institute of Education Sciences (IES)

### Explanation and Analysis of Progress:

The Department continues to focus upon providing technical assistance to the field to support the development and use of longitudinal data systems that serve the education needs of the states. In recent years a core focus for this work has been upon implementing and sustaining connections that span the complete student lifecycle. The [SLDS grant program](#) works with a State Support Team (SST) of experienced government and industry experts in the area of data systems development, connection and maintenance. The technical assistance provided by the SST is available to all states, not only to active grantees of the SLDS grant program. This level of support has enabled better conversations across states, sharing of both technical and business process best practices, and helped bring to life the number of new K-12 and postsecondary to workforce connections and P–12 to early childhood data connections that surpassed our targets for FY 2015 on both metrics.

Collaboration is key to the success of this objective. SLDS staff work frequently with other Department programs, including the ELC, as well as coordinating with Department of Labor’s Workforce Data Quality Information program. The Department continues to collaborate with technical experts, standards organizations and key stakeholders in the maintenance, enhancement and roll-out of CEDS. In FY 2015, in addition to successfully completing a new grant round and awarding 16 new SLDS grants to support collaborative data uses, a new contract was awarded to support CEDS enhancements, tools and uses over the next two years. States, postsecondary institutions and independent research groups continue to use the online CEDS tools to map their data systems, data uses and data models to CEDS.

The Department continues to model the transparency we are working to develop in the field by updating and expanding the ED Data Inventory. While work to improve the functionality and connections of the ED Data Inventory system have stalled due to budgetary limitations, the work to improve and enhance the Inventory’s content continues to move forward. Collections and reports from Department programs within seven different Principal Office Components are now represented in the Inventory. This resulted in 74 distinct publicly available datasets across the

Department being connected to an Inventory entry. The Inventory continues to provide source information to data.gov on a regular basis.

### **Challenges and Next Steps:**

As with previous years, state support for longitudinal data system development continues to be the largest dependency and area of risk for progress in this area. Several states have experienced increased political pressures over the past year to reduce collection and management of longitudinal student data. The most effective strategies towards building support within states for continuing to support longitudinal data system initiatives is to enable a strong set of best practice uses for the data that deliver value to stakeholders at multiple levels. The 16 new awards made in the SLDS FY 2015 grant competition are all focused upon data use. A key challenge that is being addressed right now is to develop a consistently applied and agreed upon metric (or set of metrics) for measuring and documenting good data use. The SLDS team has been driving work forward in this area as monitoring practices and protocols are set up for FY 2015 grantees.

Formalizing new phases for CEDS and the ED Data Inventory work will be very important in the coming months. As FY 2015 came to a close a new vehicle was put in place to support the development and use of CEDS for the next two years. As we start FY 2016, work is now getting back up to speed to engage the field in the continued development of the standards, and to support use of the online tools that enable agencies and interested individuals to interact with CEDS. Having the vehicle in place for two years will be helpful, as gaps in the work seen during both FY 2014 and FY 2015 should not occur. The ED Data Inventory is also at a critical juncture in its development. While the content of the inventory continues to be supported and enhanced, the technical work that was getting started at the beginning of FY 2015 to better integrate the Inventory and the collection clearance process systems at the Department had to be put on hold. Although, this should not cause problems for meeting the established goals connecting public data sets with entries within the Inventory in FY 2016, if the funding and integration issues are not resolved further progress into FY 2017 and FY 2018 may be threatened.

In FY 2016, the Department is launching the InformED initiative. InformED is the Department's groundbreaking effort to transform how the Department makes information available—and actionable—for internal users and for the public, building on lessons learned from the new College Scorecard. The InformED initiative would replicate across the education spectrum, from early childhood to adult education, what the Scorecard accomplished for higher education. Each of these Scorecard-like sites or "information hubs" would pull together the Department's diverse array of information on a particular topic, make it accessible with intuitive tools for decision-making, and allow open data access to unlock answers to pressing education questions and needs. As with the College Scorecard, the release of these data will enable external developers to create innovative new tools to further serve students. The Department is working to identify several key themes around which to center information and will develop new iterations of the College Scorecard. InformED will empower decision-makers by providing the full set of information, both data and studies that currently live in disparate locations, into one location with analysis and reporting tools and open data access to address relevant education questions. To support open access to education data and centralized dissemination of other evidence, the Department must invest in its underlying data infrastructure for managing the collection, quality, release, and analysis of data.

The Department is also continuing to improve its own internal data management practices through the maturation of the DST. What started as primarily a communication tool has evolved to document the key hurdles that prevent better data practices within the Department and to

make recommendations to address them. Leadership of the DST is currently reviewing a drafted Directive on Departmental Data Management Practices. The Directive, if implemented, would formally unite existing data strategy and data governance practices while also outlining the roles and responsibilities for offices that steward key data on behalf of the Department. This work is continuing the evolution of DST from a volunteer, collaborative organization to a true governance body that can effect change and implement better practice across the Department.

Continuous Improvement of the U.S. Education System Indicators of Success	Baseline	2013 Actuals	2014 Actuals	2015 Actuals	2015 Current Year Target	Current Year Results	2016 Out-Year Targets	2017 Out-Year Targets
<b>5.1.A.</b> Number of public data sets included in ED Data Inventory and thus linked to Data.gov or ED.gov websites	FY: 2013 55	55	66	79	79	<b>MET</b>	94	104
<b>5.1.B.</b> Number of states linking K–12 and postsecondary data with workforce data	FY: 2013 12	12	20	24	22	<b>MET</b>	25	25
<b>5.1.C.</b> Number of states linking K–12 with early childhood data	FY: 2013 19	19	26	32	27	<b>MET</b>	29	32

NA = Not applicable.

TBD = To be determined.

Academic Year (AY) is a collegiate year spanning August–May; School Year (SY) spans August–July and is aligned with a P–12 school year; Fiscal Year (FY) corresponds to a federal fiscal year; Calendar Year (CY) spans January–December.

Data Sources and Frequency of Collection:

**5.1.A.** Data Strategy Team Data Inventory and the public ED Data Inventory at <http://datainventory.ed.gov>; quarterly

**5.1.B.** State Longitudinal Data Systems (SLDS) grant monitoring (monthly updates from states, annual performance reports, final performance reports, and site visits); quarterly

**5.1.C.** SLDS grant monitoring (monthly updates from states, annual performance reports, final performance reports, and site visits); quarterly