



State Plans to Ensure Equitable Access to Excellent Educators

Implementation Tips Sheet #3: Collecting, Analyzing, and Responding to Data

February 2017

This tips sheet is the third in a series of briefs designed to help States monitor the implementation of their educator equity plans. It describes a process that State educational agency (SEA) staff can use to collect, analyze, and respond to data related to their equity goals. The tips sheet expands on **Tips Sheet #1: Setting Equity Goals**, which guides States through the development of a theory of action and high-quality goals for closing equity gaps, and **Tips Sheet #2: Identifying Metrics to Track Progress**, which outlines a process that SEA staff can use to develop measures of progress, or metrics, for their equity goals.

Collecting Data

Once States have identified their equity goals and established metrics to help track progress toward those goals, the next step is to collect the data needed to calculate the metrics. SEA staff may want to consider the following questions as they develop a plan to collect data:

- 1. What is the role of local educational agencies (LEAs)?** While SEAs have a clear role in collecting and analyzing some data, SEA staff may want to consider whether there is a role for LEAs as well. LEAs often have more detailed information about educators and students, and asking LEAs to collect and analyze these data may lessen the burden on both the LEA and the SEA by avoiding a duplication of efforts.
- 2. What existing data can be repurposed?** An SEA may be able to use data collected for other purposes, but it is important to pay attention to how data were collected and for what purposes to be sure they are repurposed appropriately. For example, when considering whether data can be repurposed, an SEA should look carefully

at how the data element is defined, the level at which it is aggregated, and the timeline and circumstances under which it is collected (e.g., required vs. optional, used for accountability, used for funding determinations). If an SEA plans to use data for accountability or other purposes for which those data have not historically been used, it should communicate the new purpose to LEAs to encourage the submission of high-quality data.

- 3. What is the value of a new collection relative to the level of effort?** An SEA should consider the time and effort that would be required for any new data collection and determine whether the new data collected will provide the information needed to measure a certain outcome in a more accurate or reliable way than current data collections.
- 4. How will we need to report the data?** SEA staff should clearly communicate to their IT and data and analysis colleagues the definitions for each data element and how the metrics will be calculated and reported once the data are collected.

Key Milestones

The Equitable Access Support Network (EASN) developed a data planning tool (see Figure 1 below) to help States prepare to collect their equity data. The tool identifies questions SEA staff can answer to determine their data needs, assess existing assets, and identify data gaps. It can be used after an SEA develops its theory of action, solidifies its equity goals, and identifies aligned lagging and leading indicators.¹

¹ See EASN's Implementation Tips Sheet #2 Identifying Metrics to Track Progress <https://easn.grads360.org/#communities/pdc/documents/10264> for details.

Figure 1: EASN Data Planning Tool



		Determine Data Needs	Assess Existing Assets			Identify Data Gaps			
[Theory of Action]		What data are required to calculate the metric?	Which of the data for the metric are already collected by the SEA?	What is the source (or sources) of the data?	At what level of granularity are the data collected (e.g., individual-level, aggregate)?	When are these data collected and when are they available to analyze at the SEA?	Which of the data required to calculate this metric are not currently collected by the SEA? Which of the data required for this metric are not collected in the right timeframe or in the way that is needed for this metric?	Do the data exist at the LEA level?	If the data are not available, what would it take to collect them? When, and at what level of granularity, are they needed?
Goal 1	[Lagging Indicator 1.1a]								
	[Leading Indicator 1.1b]								
	[Lagging Indicator 1.2a]								
	[Leading Indicator 1.2b]								

Once an SEA has determined its data needs, the next step is to seek approval for new data collection. State teams should consider state regulations, policies, and processes and work closely with the State's data team to define exactly what is needed to begin to collect the necessary data (e.g., the element definitions, code sets, business rules, and time dimension). In collaboration with data and information technology colleagues, State leads can then make a recommendation to the data governance team about a new or modified data collection, as necessary.²

After receiving approval to collect the data, SEA staff may want to identify a subset of LEAs to pilot the data collection before rolling out new data collection requirements more broadly. The SEA, with feedback from the pilot LEAs, should create a timeline for when each milestone in the data collection process needs to be achieved so that LEAs can report data on time. The SEA should determine when and how it will engage with student information system vendors and colleagues within LEAs. With its data team, the SEA can draft the data collection requirements, business rules, and guidance for pilot LEAs to use as they prepare for submission.

An SEA team can then test the new or revised collection with the pilot LEAs to see how it works, identify any additional guidance or clarifications that need to be made, and review the quality of the data to determine whether it needs to modify collection requirements before a statewide rollout. Additionally, the SEA can identify and draft the reports it plans to create with the new data to ensure the collection will provide the necessary information to track progress toward achieving equity goals.

² SLDS Issue Brief: Considerations for Collecting New Data Elements <https://slds.grads360.org/#communities/pdc/documents/11569>

During the pilot collection period, SEA staff should discuss with all LEAs their role in the collection process and identify the support LEAs may need to meet the requirements. SEA staff should clearly communicate with stakeholders the reasons for collecting the data and create a user-friendly report or data visualization of the data submitted so that LEA staff can validate, correct, and resubmit data as necessary. SEA staff should provide training to LEAs on the new data collection and guidance to LEA staff as they collect the data.

At the conclusion of the pilot, SEA staff can develop a statewide training and user support plan based on lessons learned from pilot LEAs. SEA staff should finalize all internal and external communications based on the new or revised collections, and incorporate the new or revised data into the State's data dictionary.

Spectrum of Effort

As SEA staff begin to plan for a new or revised data collection, they should consider the level of effort required to modify or collect data. The example included in Figure 2 below illustrates a level of effort spectrum.

As they determine the required level of effort, SEA staff should consider the following questions:

- How critical is it that we revise a data element or collect new data to assess the implementation of our equity plan?
- What is a high-level estimate of both the effort (i.e., hours) and timeframe (i.e., amount of time to get data) at the SEA and LEA levels to effectively collect the revised or new data?

Figure 2: Level of Effort Spectrum for Changing or Adding a New Data Collection



Tips to Collaborate with LEAs in the Data Collection Process

Because much of the work to improve equitable access is happening at the local level, the SEA can encourage and support LEAs to collect and analyze their own

data to assess whether their strategies are effective. For example, an LEA could create and administer a teacher satisfaction survey to collect new data on school climate. Even if the data collected by LEAs is not reported back to the SEA, SEA staff can consider



State Spotlight: Washington, DC

The District of Columbia Office of the State Superintendent of Education (OSSE) is a unique entity in that it functions much like an SEA but has both State and local responsibilities. OSSE serves 87,000 students in 113 traditional District of Columbia public schools and 115 charter schools, which are managed by 62 charter management organizations (CMOs). Each CMO is considered a separate LEA, and all are overseen by the Public Charter School Board.

OSSE and its LEA partners determined that they did not have all the data they need to identify trends in the recruitment and retention of teachers, and to design strategies to improve human capital practices. To help LEAs meet the goal of attracting and retaining excellent teachers, OSSE developed a voluntary collaborative of LEAs that will partner with a research organization to collect and analyze information on teacher pipelines and the retention of excellent teachers to inform their human capital management practices.

Once a year, participating LEAs will engage in a new data collection that includes some new and some existing data elements:

- Staff FTE
- Teacher evaluation data
- Teacher retention data
- Teacher licensure status
- Teacher PRAXIS exam status and score
- Teacher preparation program
- Number of vacancies by subject
- Teacher shortages

Acknowledging that the level of effort for the LEAs is high, OSSE will release participating LEAs from reporting the following data that is typically required:

- Full-time equivalent (FTE) staff
- Teacher shortages
- High-quality teachers (HQT)
- School-level teacher evaluation scores

LEAs participating in the collaborative will enjoy cross-LEA insights on the pipeline and retention of teachers within their organizations. In addition, participating LEAs will have access to information to which they would not typically have access otherwise, including how other LEAs attract effective teachers, which teacher preparation programs produce the most teachers considered effective, the differences between their LEA's and other LEAs' working conditions (e.g., salary and facilities), and strategies shown to increase teacher retention. This information can inform local policy development to help LEAs recruit and retain the high-quality teachers they need.

This project will also influence policy-making at the SEA level. OSSE leaders will work with LEAs to determine what policy or regulatory actions or reforms are necessary to improve human capital practices.

whether there are lessons from the LEA collection and reporting process that the SEA can incorporate in the State's monitoring plan.

Analyzing Data

Once the data are collected, the next step is to analyze the data. The table below outlines the questions SEA staff can use for planning purposes as they think about how to prepare for and conduct the analysis of leading and lagging indicators.

Step 1: Considerations for preparing leading and lagging indicators for analysis

When will the data for each indicator be available?

Who will analyze the indicator data? How will they obtain the data?

In what format should the indicators be presented for analysis and who is responsible for formatting them?

Step 2: Considerations for analyzing leading and lagging indicators

Who needs to be involved in and what will the process be for making meaning of the indicator results?

What communications will be generated regarding the indicator results and for which stakeholders?

Who and how will we determine what (if any) actions to take as a result of the data analysis (e.g., revise the indicator, revise the theory of action, stay the course, etc.)?

Guiding Principles

The following are guiding principles for SEA staff as they analyze equitable access data:

- 1. Make meaning of the data.** SEA staff can ask questions about the meaning(s) they make out of the data and discuss why they drew the conclusion(s) they did. The SEA can look for patterns in the data and ask, "What do we see when we look at the same data over time?"
- 2. Connect data to the bigger picture and avoid jumping to conclusions.** SEA staff should consider the big picture and keep in mind that one piece

of data cannot provide a full picture of the State's current situation. SEA leads should discuss the results with their data team and try to view the data in an objective and unbiased manner and use other data to support or refute potential claims.

- 3. Think about the context of the data collection.** Are the data high-quality? Is it clear to those who submit or collect the data what they will be used for? Could the collection instructions be unclear? Why might some data look different across different LEAs? When are data collected, and is this consistent across LEAs? It is important for the SEA to understand the context under which these data were collected so that it can be confident in the analysis.
- 4. Correlation does not equal causation.** Just because two measures appear to change in tandem does not necessarily mean they are related and that one measure is directly causing the other to change. It is important for SEA staff to look at additional evidence to validate causal relationships before reaching this conclusion.
- 5. Think about the level of aggregation of the data.** SEA staff should look at how the analysis changes when looking at school-level, grade-level, or subject area data. SEA staff can also consider including different student and teacher characteristics—such as socio-economic status and measures of teacher effectiveness—to make the analysis more valuable to districts and even individual schools.

Reflecting on and Responding to Data

As SEA staff reflect on and respond to the data they have collected and analyzed, they should again consider the role of the LEAs and how to engage them. The SEA should consider whether it will provide the data analysis to LEAs or encourage LEAs to do at least some of the analysis (meaning-making) on their own. SEA staff can also think about the venues they can provide to foster joint analysis and action planning across LEAs. Finally, the SEA should consider how it and the LEAs will determine the efficacy of each strategy to promote equitable access, including the evidence they will use to inform that determination.

Where Can My State Find More Information?

Several tools exist to support States in the collection and analysis of equity data. The EASN created a **State Equity Plan Definitions: Analysis Matrix** to show how some States have defined data elements. The Center on Great Teachers and Leaders' **Moving Toward Equity Data Review Tool** can help States identify and analyze equitable access metrics. States can also use the Common Education Data Standards **CONNECT tool** to

help identify which data elements to use and analyze. Finally, the Strategic Data Project's **Toolkit for Effective Data Use** can be a resource for States reviewing novice and effective teacher placement patterns.

States that would like support collecting, analyzing, or responding to data may reach out to the **EASN**, **Comprehensive Centers**, the Statewide Longitudinal Data Systems **State Support Team**, or program officers in the U.S. Department of Education's **Office of State Support** for assistance.

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