

# Using Data to Ensure That Teachers Are Learner Ready on Day One

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**Every student, no matter where he or she lives, deserves a great teacher. States, educator preparation programs (EPPs), and K–12 leaders must work together to ensure that all teachers are learner ready on day one in the classroom. But too often, these actors do not have access to the necessary information to fully prepare teachers for the unique needs of students in their states. This situation must change, and data is essential to making that happen. With their unique position and authority, states must lead the way by making sure that the right information is available to those who need it and that leaders have the skills needed to use that information for continuous improvement, not just accountability.**

Teacher quality is widely cited as the most important in-school factor affecting student achievement, but as the realities of K–12 classrooms continuously change, new teachers can feel underprepared to meet the diverse needs of their students. States must prioritize the quality of their teacher pipeline, especially as they consider different policies for school improvement.

Essential to improving pipeline quality is ensuring that the right data is available to inform the policy and practice changes needed to continuously improve EPP quality, teacher effectiveness, and ultimately student learning. Unfortunately, that data is not uniformly available today, in part because state, EPP, and local leaders operate in silos. These silos have created a vacuum of information for leaders at all levels.

State education agencies already collect information about teachers, like their licenses, where they teach, and how much they improve student learning, but that information is not consistently shared with EPPs. On the program side, EPPs are often frustrated by data collection and reporting requirements that do not help them answer

## Educator Preparation Programs Do Not Have the Data They Need

- The Council of Chief State School Officers and Teacher Preparation Analytics' [2016 report on EPP accountability](#) found that only 10 states include educator preparation program (EPP) graduates' observed performance as teachers of record as an indicator in their program review.
- The Data Quality Campaign's [2014 Data for Action](#) survey found that only 22 states report sharing teachers' classroom performance annually with in-state EPPs.
- [According to Deans for Impact](#), only 6 out of 23 surveyed program leaders have access to data on teacher performance as measured by students' academic performance.
- To better understand graduates' performance and needs and share that information with EPPs, the [American Association of Colleges for Teacher Education and Westat](#) piloted a new state survey instrument in spring 2017 for beginning teachers and their supervisors. Developed with input from state partners, the survey aims to provide more detailed information about graduates' experiences in the classroom and help states make more meaningful comparisons across programs.



important questions about their own program quality. And a lack of publicly available information on EPP outcomes means that EPPs and their stakeholders, from prospective teachers to K–12 principals, too often must spend their own limited time and resources to collect and synthesize information that could be provided by the state.

While states use data to hold programs accountable, that information is most powerful when it is also used

to inform continuous improvement. Data used solely for accountability will have limited value if programs do not have access to the information they need to improve EPP quality. Leaders across EPPs, states, and the K–12 system all have a role to play in continuously improving EPP quality, but ultimately state leadership is best positioned to bring together the leaders and stakeholders who are essential to making this work possible.

## Challenges to Using Data to Improve Educator Preparation

States annually collect information on EPPs, but the challenges detailed in this section too often keep system leaders, including those from K–12 and EPPs as well as policymakers, from accessing and using that data to continuously inform and improve teacher preparation. These challenges also leave the public without a full picture of teacher preparation in their state, so meaningful comparisons are difficult to make.

### Data on teacher performance is not uniformly shared with EPPs.

While states have made some progress around collecting more data on the performance and impact of new teachers, that information is not regularly shared with the EPPs that prepared them. Technical issues like system capacity and burdensome data collections, as well as a lack of common understanding of the value of sharing this data across systems, can leave EPPs and states in the dark. As of 2014, only half of states provided feedback data to EPPs despite having information on their graduates. Without this information, EPPs are left to assess program quality on their own without knowing whether the program adjustments they make ultimately drive positive change in K–12 student outcomes. At the state level, lack of information limits policymakers' ability to establish a sustainable, high-quality teacher workforce.

### What Is an EPP?

An EPP is any state-approved program that prepares teachers for the classroom, including programs within institutes of higher education and alternative routes to certification.

### The data that EPPs are currently required to collect does not answer questions or inform action.

Both the federal government and states collect data from EPPs, but often that information is not of great value to EPPs themselves. Federal collections in particular are **seen as burdensome and minimally useful**. Part of what diminishes the data's value is that programs do not receive meaningful feedback after the data has been reported to the state or federal department of education. Additionally, the data that states need for accountability is not necessarily the same data that EPPs need to continuously improve. This disconnect drains EPPs of valuable resources as they collect and share data that does not necessarily inform program improvement.

### Limited capacity exists within EPPs to use data for continuous improvement.

Using data for continuous program improvement has not traditionally been valued across the entire education system from early learning to higher education. EPPs, like other education stakeholders, can lack the internal capacity and time to use data. As such, getting the right people together to have data-informed conversations about needed improvements can be challenging. While progress is being made and an increasing number of programs and leaders value and use data, there remains a need for a systemwide focus on using data to continuously improve.

## Publicly available reports are not clear about how well EPPs prepare teachers for the classroom.

Few states create an easy-to-understand report showing how well their in-state EPPs prepare teacher candidates for the classroom. When reports are available, they are often targeted exclusively at program leaders when they should also be accessible to the public. This patchwork system of information puts the burden on system leaders and the public to seek out and interpret data on their own, making it difficult for stakeholders to take the following actions:

- ▶ prospective teacher candidates to accurately compare program options and make enrollment decisions
- ▶ K–12 principals to make strategic hiring decisions
- ▶ policymakers to make resource decisions as they have an incomplete picture of teacher workforce needs

The current system of data collection and sharing can be inefficient and puts the burden on individuals to seek out and understand the data they need. Policymakers cannot ensure the quality or sustainability of teacher pipelines when decisions are made in the dark.

## Take Action: State Policy Recommendations

To fully support continuous improvement in educator preparation, the right data must be collected; the actors who need the information must be able to access it; and most important, those people need the skills and support to use the data to drive change. Over the past 10 years, progress has been made as many states rethink their accountability measures for EPPs, with many adopting more rigorous standards. With this important foundation in place, states can continue this forward momentum and push toward an expectation of continuous improvement by taking the following steps:

### Collect the data that is most useful for transparency and the continuous improvement of EPPs.

- ▶ **Determine what data about inputs, context, and graduate outcomes is needed to continuously improve EPP quality.** To ensure that the data collected truly meets stakeholder needs, states can collaborate with key groups—including EPPs, local education agencies, and educators—to identify what questions they want to answer, what data is needed, and who needs access to the information. States should consider leveraging existing data governance bodies to work with stakeholders, identify key questions, and conduct needed data inventories.

### The District/School Role

Improving EPP quality will require collaborative efforts at all levels, including districts and schools. As the ultimate consumers of new teachers, district leaders are essential to EPP efforts to meet the needs of today's classrooms.

- ▶ **Conduct a statewide teacher survey.** States can help alleviate the burden on EPPs by conducting a survey and sharing the results with programs to encourage improvements that meet the needs of future candidates. The survey should include topics like the following:

- teacher training and professional development needs
- teachers' feelings of preparedness
- teachers' job satisfaction

While many EPPs already survey their own graduates, states are uniquely positioned to do this work at scale, asking the same questions of all teachers in the state to have comparable data across programs. To ensure full transparency, states can also make program-level findings publicly available. In addition, state surveys of new teachers' employers ensure that common questions are asked and that school administrators are not faced with multiple forms from multiple institutions.

### Getting Feedback Early

A 2016 analysis of states' EPP accountability practices by the Council of Chief State School Officers and Teacher Preparation Analytics found that of the states that currently survey new teachers, **18 try to survey EPP program completers in their first year of teaching.** States focus on getting this feedback early in a teacher's career, believing it will provide a more accurate sense of their preparedness.

Ensure that data about K–12 outcomes that is used to improve EPPs is high quality and secure.

- ▶ **Develop a high-quality teacher-student data link (TSDL).** Linking teachers to students by course—creating the TSDL—at the state level is critical to understanding the connection between student academic growth and teacher training and practice. A best practices TSDL is a linchpin of state success in policy implementation and evaluation of educator preparation quality. To facilitate ease of sharing, consider assigning the educator ID when candidates enroll in their preparation program.

### Establishing a Teacher-Student Data Link

To establish a high-quality teacher-student data link, states should focus on the following six areas:

1. Data linkages
2. Teacher of record definition
3. Roster verification
4. K–12 course scheduling and codes
5. Governance
6. Teacher ID number

For more details on these components, visit [Roadmap for a Teacher-Student Data Link](#).

- ▶ **Ensure that individual teachers' data is protected and secure.** States must establish clear privacy and security policies that ensure that teacher data is safeguarded. States will need to consider key questions about who should have access to which data at what level (i.e., individual performance data versus cohort or aggregate data).

Develop a feedback loop between local education agencies, states, and EPPs with the information EPPs most need for continuous improvement.

- ▶ **Securely share information about graduates' performance in the classroom with EPPs at least annually.** EPPs need guaranteed access to timely, quality data about their graduates' performance in the classroom to make meaningful changes to preparation (e.g., curriculum, course sequence, student teaching, etc.). States are best positioned to reduce the burden on EPPs and districts by taking the following steps:
  - Provide information about graduate performance in the classroom, along with other contextual information (e.g., placement, retention, employer survey), to EPPs.
  - Determine for how many years EPPs need access to information on their graduates; information on recent program graduates (e.g., within the past five years) is likely more valuable to EPPs in helping them understand how well they are preparing new teachers.

Help EPPs grow their existing culture and capacity to continuously improve.

- ▶ **Embed data-driven continuous improvement criteria into the state's program approval process.** As part of the state's program approval process, EPPs will be asked to demonstrate how they use information to inform ongoing improvements. These processes will be consistent with the expectations of the Council for the Accreditation of Educator Preparation, the profession's accreditor, which accredits more than 800 providers across the nation. During this process, states can also share timely information with EPPs

## POLICY IN ACTION

### Massachusetts Incentivizes and Supports Continuous Improvement in EPPs

In 2012, the Massachusetts Department of Elementary and Secondary Education focused its teacher quality efforts in part on **creating a culture of continuous improvement** in the state and EPPs. Leaders did this by taking the following steps:

- **updating state approval standards** to include a requirement that programs annually demonstrate continuous improvement to receive or maintain program approval
- **updating Massachusetts' data collection process** to ensure that the information being collected is relevant to the EPPs

- **facilitating partnerships** between EPPs and Harvard's Data Wise project to help build EPP capacity to use the new data for continuous improvement

*"[Before,] we collected a lot of data for the state, but it didn't really impact what we were doing in our program . . . we didn't use it. [Now,] we collect data that actually impacts our decision making."*

—Michelle Mustone, Director of Licensure and Assessment at Endicott College

that answers questions about problems of practice and helps administrators identify program areas that need improvement. Under these conditions, the data that EPPs spend valuable time collecting and using will serve multiple meaningful purposes and result in a more efficient system.

- ▶ **Use states' convening power to identify, support, and share best practices for continuous improvement of EPPs.** States can further support EPPs' continuous improvement by identifying and highlighting examples of best practices across the programs and by convening EPP leaders to identify shared challenges and learn from experts and one another.

### Catalyzing EPP/Nonprofit Partnerships

One way states can support EPPs is by creating policies that catalyze partnerships between EPPs and nonprofit organizations that can support building and expanding programs' capacity to make data-informed decisions. For example, the [Impact Academy](#) fellowship developed by Deans for Impact is a year-long leadership development experience that helps new deans develop the skills they need to lead data-informed change within their EPPs.

Make information about the educator workforce and EPP program easily accessible so that K–12 school leaders, policymakers, and the public can answer questions and make informed decisions.

- ▶ **Conduct a supply and demand analysis of the education workforce to identify gaps or surpluses in teacher candidates' credentials and district hiring needs.** States can work with local education agencies to complete a regular assessment of teaching workforce needs and make that analysis available to EPPs, districts, and policymakers. States are encouraged to incentivize EPPs to align recruitment and preparation practices and priorities with needs identified through the survey.

## POLICY IN ACTION

### Missouri Collaborates to Address Future Teacher Shortages

Missouri leverages its data to better understand its teacher workforce and proactively address potential teacher shortages. In 2014, as part of its [teacher equity plan](#), Missouri developed a shortage predictor model that identifies where the state is likely to see teacher shortages in the coming years. The model works to identify specific content areas and geographic locations that are most likely to experience a shortage so that Missouri's Department of Elementary and Secondary Education (DESE) and EPPs from across the state can strategically address the gaps. For example, knowing that more than 60 percent of US teachers work within 20 miles of where they went to high school, DESE is working with school leaders across the state to begin teacher recruitment at the high school level. DESE targets districts identified by the shortage predictor model and supports their work in identifying potential teacher candidates, while EPPs focus on eventually training those candidates in high-need content areas, ideally sending those teachers back to their home district. Collaboration between prekindergarten–grade 12 school districts, higher education, and DESE informed by data allows Missouri to be nimble and proactive in meeting its teacher workforce needs.

### Massachusetts Maintains Transparency and Teacher Privacy

Massachusetts uses a threshold (or n-size) of at least six graduates in a given year for most of its reporting. If programs do not meet this minimum n-size, the state can take the following steps:

- Aggregate program-level data to publicly report at the provider or institutional level.
- Aggregate across years to increase n-sizes and maintain the ability to report at the program level.

- ▶ **Publicly report multiple measures of EPP quality that answer stakeholder questions.** Accountability alone need not drive data collection and use—indicators of EPP quality should be publicly available so that anyone can access the data and understand it. States should ensure that the data about EPP inputs and outcomes is timely and easy to find and meets the needs of stakeholders including aspiring educators, school leaders, policymakers, and EPPs themselves.



## Tennessee Balances Accountability and Continuous Improvement to Better Support Its EPPs

In 2007, the Tennessee General Assembly passed legislation requiring the State Board of Education, together with Tennessee’s Department of Education and Higher Education Commission, to produce a [report card for all EPPs](#) in the state. Over the past several years, the report has become a widely used and trusted resource on Tennessee’s teacher quality.

In developing the initial report card, state leaders met with higher education and program leaders to gather feedback on what metrics would be most relevant. Today the report card includes not only the quantitative data required by law (e.g., licensure pass rates, placement, retention, and teacher growth data) but also qualitative data (e.g., principal observations) that provides a fuller picture of teacher performance in the classroom. The state has also focused on making the resource easy to read and navigate, creating an online interactive tool as well as downloadable PDFs.

In addition to the aggregate-level information presented on the report cards, the State Board also provides EPPs with secure access to their graduates’ individual teacher data, including their value-add scores broken out by subject. This data, not available to the public, gives EPPs the detailed information they need to make targeted program improvements.

State leaders credit the success of this work to three primary actions:

- 1. Ongoing collaboration with EPPs.** State leaders repeatedly meet with program leaders to ensure that the reports include data that programs want and need to fully understand their graduates’ performance. By seeking their input and acting on it, the state builds trust and buy-in from leaders across systems.
- 2. Investing time and resources in ensuring high-quality and accurate data.** The state has invested a lot of time in standardizing data collection and data cleaning to ensure that all the information being reported is reliable and correct. This step is a crucial part of building trust with program leaders and essential to creating a resource that people believe in and use.
- 3. Emphasizing transparency and meeting the public’s needs.** State leaders understood from the start that the reports would be used by a variety of people and that not all data needed to be accessible to everyone. By providing varying levels of access and specificity, Tennessee has created a suite of resources that balances the needs of its stakeholders while protecting the privacy and security of individual teacher data.



# Conclusion

When stakeholders like EPPs, state leaders, K–12 leaders, and prospective teachers have access to the information they need, they are better able to make informed decisions that lead to effective teachers and ultimately student success. EPPs can design programs of study that truly reflect K–12 classroom realities, state policymakers

can ensure that EPPs are meeting K–12 human capital needs, and the public can be confident that programs are producing high-quality teachers. Every student deserves an effective teacher, and states can do their part to make that a reality if they take action now.

# Resources

- ▶ [Using Data to Improve Teacher Effectiveness: A Primer for State Policymakers](#) (Data Quality Campaign)
- ▶ [Roadmap for a Teacher-Student Data Link](#) (Data Quality Campaign)
- ▶ [From Chaos to Coherence: A Policy Agenda for Accessing and Using Outcomes Data in Educator Preparation](#) (Deans for Impact)
- ▶ [Peering Around the Corner: Analyzing State Efforts to Link Teachers to the Programs That Prepared Them](#) (Bellwether Education Partners)
- ▶ [Accountability in Teacher Preparation: Policies and Data in the 50 States & DC](#) (Council of Chief State School Officers & Teacher Preparation Analytics)
- ▶ [Getting To Better Prep: A State Guide for Teacher Preparation Data Systems](#) (TNTP)
- ▶ [State Policy Statements to Enhance Educator Preparation](#) (American Association of Colleges for Teacher Education & Advisory Council of State Representatives)
- ▶ [Approaches to Evaluating Teacher Preparation Programs in Seven States](#) (Regional Education Laboratory Central)



The Data Quality Campaign is a nonprofit policy and advocacy organization leading the effort to bring every part of the education community together to empower educators, families, and policymakers with quality information to make decisions that ensure that students excel. For more information, go to [www.dataqualitycampaign.org](http://www.dataqualitycampaign.org) and follow us on [Facebook](#) and [Twitter](#) (@EdDataCampaign).

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