

Using Data to Drive Success in Educator Prep

Massachusetts and Endicott College Collaborate for Continuous Improvement

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Teacher quality is widely cited as the most important in-school factor affecting student achievement. However, many new teachers do not feel well prepared to execute key classroom responsibilities. Twenty-six percent of teachers, for example, reported feeling unprepared in their first teaching position to meet the needs of students with varying abilities.¹ If student outcomes are going to significantly improve, the quality of our national teacher pipeline must become a policy priority.

For educator preparation programs (EPPs) to produce effective teachers, they must engage in a process of continuous improvement using timely, high-quality information about the performance of their respective graduates in the classroom as measured by student outcomes. While states have the capacity to provide this information through their comprehensive and secure longitudinal data systems, this critical feedback loop between states and EPPs often does not exist.

Few states are collecting quality data and reporting useful metrics of EPP performance. Data sharing tends to flow from EPPs up to states and the federal government as an act of compliance, a process that generally does not provide EPPs with the information they need to understand important program outcomes, such as where graduates are employed, how frequently they are retained, and how they perform in the classroom. As of 2014, only 22 states reported sharing feedback annually with in-state EPPs. Therefore, EPPs in most states lack the information needed to understand outcomes and improve program practice, and no EPPs are able to collect information on graduates who are employed out of state.² Three barriers prevent effective EPP use of state data for continuous improvement.

1. The data-use culture focuses on compliance rather than continuous improvement. Data sharing between states and EPPs remains primarily a compliance activity. While there has been movement at the K-12 level to use data as a tool for spurring improvement, EPPs have not necessarily taken the

same steps. The compliance culture around data minimizes the level of information shared between states and EPPs and makes building internal support for data use among program staff and administrators more difficult for programs.

2. States are not sharing the right data with EPPs. To understand the effectiveness of their programs, EPPs need information on how their graduates perform in the classroom. While states have made progress in developing the capacity to share this information with EPPs, nearly half still do not.³ Without this information, EPPs are left to assess program quality on their own with little knowledge of whether or not the program adjustments they make ultimately drive positive change in student outcomes.

3. EPPs lack the capacity and culture necessary to use data to improve their practice. While many groups have advocated for data literacy to be embedded in K-12 teacher training, few have applied that same request to EPP leaders themselves. Program leaders lack important data literacy skills, and many administrative teams lack the language, skills, and time necessary to cultivate a positive internal culture of data use.

Despite the policy challenges, there are bright spots in this work. Over the last three years, the Massachusetts Department of Elementary and Secondary Education (DESE) has implemented a number of policies meant to encourage continuous improvement in EPPs and provide targeted technical support.

1. MetLife, *The MetLife Survey of the American Teacher*, (New York: MetLife, 2006), 8.
2. Data Quality Campaign, *Data for Action 2014*, (Washington, DC: Data Quality Campaign, 2014).
3. Data Quality Campaign, 2014.

State Spotlight: Massachusetts and Endicott College

Leaders in Massachusetts felt that improving EPP quality was one strategy for improving teacher quality and ultimately student outcomes. The state began to think about how to incentivize and facilitate data use for continuous improvement within its 72 EPPs, ultimately deciding to do it through an update of its accreditation standards. In 2012, DESE updated the standards to include a requirement for an annual demonstration of continuous improvement as one of the six competencies that programs have to fulfill to receive or maintain accreditation. Along with the new continuous improvement requirement, the state also changed what kind of data it collected from programs to ensure that the information being collected was relevant to the EPPs. To help programs understand the new expectations and build internal capacity to use the new data for continuous improvement, a historical challenge for EPPs, DESE created a pilot program funding two EPPs to work with Harvard's Data Wise project.⁴ Endicott College was one of two schools accepted into the pilot program and began its work with Data Wise in 2013.

Sara Quay, Endicott's dean of education, knew that her program needed to change how it approached data use, not only to meet accreditation standards but also to ensure that it produced effective teachers. "I've been collecting data for years, and I've been using it, but I felt like it wasn't systematic," Quay said. "I didn't have a way of thinking through it that felt deep." Endicott collected data but struggled to use it in a way that was meaningful to the school and not just an act of compliance. The Data Wise program addressed this skill gap by giving participating programs a tangible framework to guide their process.

Just the simple act of putting steps down on paper took much of the uncertainty out of the continuous improvement process. One participating program leader credited these new skills and processes with helping her team finally demonstrate continuous improvement, which she had been trying to do for nearly two years.

DESE and Data Wise Partnership

The partnership between DESE and Harvard came through DESE's collaboration with the Council of Chief State School Officers as part of its Network for Transforming Educator Preparation taskforce. Through this partnership, DESE learned about the innovative work happening at Harvard's Data Wise project and decided to put out an application for EPPs that were interested in participating in the program. Although Data Wise was traditionally used by K-12 educators and administrators, both DESE and Data Wise felt it could be extremely useful for higher education practitioners as well. DESE ultimately chose two EPPs to partner with Data Wise, and the state funded the initial pilot using its Race to the Top funds.

In just a year and a half, Endicott has already seen a change in both how it uses data and how it thinks about program design internally. Michelle Bader-Mustone, Endicott's license assessment coordinator, believes that Endicott's new approach has pushed the program far past where it began: "[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." Reflecting on Endicott's experience provides important takeaways for both states and EPPs to consider when approaching continuous improvement work.

Lessons Learned for Other EPPs

1. Prioritize leadership to shift the culture of data use from one of compliance to one of continuous improvement.

Effective data use requires a lot of collaborative time, which can be a challenge when you need to coordinate multiple staff members for meetings and interim work. The siloed nature of higher education exacerbates this challenge since professors and administrators are often involved in their own self-led research and work. Additionally, higher education departments do not typically have common planning times or grade-level teams the way K-12 does, which adds to the

difficulty of setting aside collaborative work time. To address this issue, Endicott was very intentional when deciding who would serve on its data team, making sure to have a number of department leaders involved. In year one, the team included staff from across the program, including the dean of education, the director of the physical education program, the director of postbaccalaureate program licensure, and the license assessment coordinator.

4. The mission of the Data Wise project is to support educators in using collaborative data inquiry to drive continuous improvement of teaching and learning for all students. The project brings teachers, principals, central office personnel, university faculty, and graduate students together to develop and field-test resources that allow educator teams to engage in the [Data Wise Improvement Process](#) and practice the [ACE Habits of Mind](#).

Including the dean signaled to the entire program that the data work was a major priority and should be treated as such. This not only motivated the staff to carve out the necessary time to prioritize the work but also meant that any decisions produced by the group would be acted upon. Leadership involvement is a hallmark of Endicott's approach, and it was so clearly a key piece of the school's success that DESE required year-two applicants to include program leadership on their team to be eligible for funding.

The alignment between state leader and program leader expectations also made creating buy-in among program staff easier because the work was a systemwide priority, not simply a new idea that Endicott was exploring on its own. Throughout the pilot, DESE administrators stayed connected to the participating EPPs and attended some of the pilot programs' data meetings. This connection allowed DESE to see how the schools were thinking about data and any challenges the schools faced accessing it, which in turn helped the state understand how to better support EPPs.

2. Start small to build the internal capacity and culture necessary to effectively use data for continuous improvement.

In year one, programs focused on small, highly refined problems with the intent of getting the process of using data for continuous improvement down. Participants from across the pilot agreed that the value of their first year was getting their internal systems and culture to a place where continuous improvement could actually happen. Shifting program priorities and getting teams used to a new approach take time. The Endicott team learned that lesson by starting with small challenges and focusing on creating functional internal systems so they would be able to sustain this work, and over time the team moved on to more challenging programmatic issues.

In its second year, Endicott is focusing on the preparedness of its graduates to teach elementary-level math and determining what skills are needed to be a proficient teacher as measured by state teacher evaluations. To tackle the second issue, Quay's team is working with two principals who have student teachers and graduates of Endicott's program on staff. The principals will collect additional data through observations of those teachers and give the more detailed information back to Endicott. The program will then use that information to see where its student teachers fall on the evaluation versus its alumni who are one year removed from the program.

State Recommendations and Successes

All of this work in Massachusetts was spurred by DESE's decision to shift its approach from being a compliance-driven organization to one focused on continuous improvement and program support. DESE knew this shift could happen only if programs understood the value of data-driven decisionmaking, not only for themselves but also in terms of student outcomes. The state's first step in illuminating the value was through the updated accreditation

In 2015, the Data Quality Campaign named Mitchell Chester, commissioner of DESE, state policymaker of the year for his leadership and focus on statewide data-driven decisionmaking.

standards and collecting data that was really useful to programs. In pursuit of these goals, DESE made three important choices that helped lay the groundwork.

1. Set clear expectations.

By aligning its desired outcome with the accreditation process that programs already have to go through, DESE made very clear what EPPs were expected to do. The alignment meant that programs did not have to duplicate efforts (since they have to go through the accreditation process anyway) and could more easily advocate for time and resources to be spent on the data work, given its high level of importance. The state also allowed EPPs to determine how they

wanted to demonstrate continuous improvement. Programs could therefore focus on work that was meaningful and relevant to them, not just an act of "box checking." Elizabeth Losee, assistant director for educator preparation and educator assessment at DESE, is already seeing the benefits: "Historically data was by and large a compliance exercise to the state and federal government. The new 2012 standards really shifted the approach, and we're seeing a change."

2. Couple clear expectations with targeted training and support.

Massachusetts wanted EPPs to engage in continuous improvement but saw programs struggling to do so. Rather than punishing programs for struggling to implement behaviors and practices, DESE shifted its approach to support the programs in developing the skills and capacity they lacked. The state paired high expectations for the programs with strategic training and expert support to help EPPs succeed. If states

want EPPs to adopt a culture of data use, they have to change their own culture to prioritize support over compliance. As other states approach this work, they should consider how to embed the outcome(s) they want to see into existing policies and accountability measures as well as how to support EPPs in achieving those outcomes.

3. Give EPPs the high-quality data that they want and need.

In Massachusetts, the state education agency has access to both K-12 and teacher preparation data. This combination of data allows DESE to better understand important statewide trends, including the pipeline from teacher preparation to employment and teacher retention and evaluation (including student performance). This data is equally useful to EPPs, which can use the information to measure important programmatic outcomes, like employment and retention rates, and graduate performance in the classroom—information that is crucial to the continuous improvement process.

EPPs can use this information, however, only if it is made available by the state. For these feedback loops to exist, states must establish a reliable teacher-student data link (TSDL), linking teachers' outcomes in the classroom as measured by student growth with information on the teachers' preparation programs. States must also communicate with EPPs to understand what information the programs want and need to be successful in their continuous improvement work. A high-quality TSDL will be most effective when it provides relevant and high-quality data to its users.

Conclusion

To improve the quality of teacher preparation programs and ultimately student achievement, states and EPPs must work together to build and use data systems to engage in meaningful continuous improvement processes. One key strategy for meeting this goal is ensuring that states collect and share high-quality, timely data with EPPs. To do this, states must establish a reliable TSDL that not only links teachers with student outcomes but also identifies key details about the teacher's preparation, including program and degree. Additionally, states must focus on building a state-led culture of data use. For too long data has been used primarily as a tool for compliance instead of a tool for continuous improvement. If states want EPPs to adopt these practices, they must outline clear expectations around data use, support programs in building the capacity to effectively use data, and ultimately establish accountability systems that are actually valuable to programs themselves.

For their part, EPPs must also work to shift their internal culture toward data-driven decisionmaking to improve program quality. Access to and use of the right data can help EPPs understand which parts of their programs effectively prepare teachers for the classroom and which parts do not. Data allows EPPs to make informed program decisions based directly on teacher experiences in the classroom instead of making them in the dark, guessing what program adjustments will elicit the desired outcome. To ensure this culture shift happens, however, EPP leaders must equip their teams with the time and resources needed to build the data literacy skills that drive continuous improvement. Having access to data from the state is critical, but if EPPs still cannot use the information to improve program outcomes, change will continue to be slow to come.



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