> **Solution Brief**

Business Impact

"The [SAS] report allows our teacher preparation programs to use data … for program improvement. This research will help shape teacher preparation to meet the goal of training the most effective teachers."

Richard Rhoda, Former Executive Director, Tennessee Higher Education Commission

Challenges

- **Broad variation in the quality of completers.** The reasons for these variations are poorly understood, making it hard for programs to proactively take steps to improve.

- **Lack of insight into what's working.** EPPs need deeper insights into what's correlated to program success so they can improve programs, teacher performance and student outcomes.

- **Difficulty collecting performance data on completers.** State governments and EPPs are swamped with input data on graduates, but often lack outcome data on their initial performance in the classroom.

- **Inability to meet reporting demands.** Some states struggle to meet the new public reporting requirements on teacher performance and EPP effectiveness.

Improving educator preparation programs

The Issue

Improving the success of K-12 students is a top priority today. Because student outcomes are closely linked to the quality of instruction, realizing this goal will require improving how educator preparation programs (EPPs) prepare new teachers.

But few states have a way to identify both their best EPPs and those in need of improvement in terms of the student growth impact of their completers. Nor do they have insight into what makes some EPPs more effective than others in preparing new, highly effective teachers when looking at their students' growth.

Stakeholders need a way to complete the feedback loop between K-12 and EPPs by connecting the state's extensive data on student growth metrics with the data that EPPs have on their completers. These institutions of higher education typically have vast input data about their completers (such as their SAT/ACT scores, high school and higher education GPAs, course and clinical hour completion, etc.). But they often lack outcome data for each completer – specifically, data on the growth of the K-12 students that their completers are teaching.

Our Approach

SAS closes the loop between K-12 and EPPs by integrating a state's massive data stores on student performance with EPP data on the state's educator training programs and completers. We deliver software and services to help you:

- **Understand which EPPs stand out.** SAS uses many student growth methodologies to help states link teacher-level growth data to EPPs and compare EPP effectiveness.

- **Understand *why* some EPPs are more effective than others at producing highly effective K-12 teachers.** SAS links teacher-level growth data to various EPP program and completer data. These linkages may point to relationships between programmatic elements and student learning outcomes.

- **Use insights to improve how EPPs prepare new teachers.** States can analyze all of this data at once and visualize results to help inform EPPs about best practices within and across institutions.

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THE POWER TO KNOW.

The SAS® Difference:
Deeper insights to drive continuous EPP improvement

SAS provides end-to-end software and services to link and analyze big data sources for useful insights. You can:

- **Analyze diverse completer data sources.** SAS can incorporate many metrics on completers – including endorsements, degree type and program of study, mentor teacher, number of clinical hours and credit hours, transfer student status, standardized test scores, and historical effectiveness at a teacher's first school – and analyze them to identify relationships to student growth.
- **Access training.** SAS provides the data literacy training to help EPPs use this student growth information appropriately, ask the right questions, and drive continuous improvement.
- **Provide advanced analytics to EPPs to help improve program effectiveness.** SAS is one of the only value-added analytics providers with solutions that connect detailed data on EPP programmatic elements with teacher-level growth measures. EPPs can use the relationships between teacher-level growth measures and other completer information (such as GPAs and the number of credit hours in content versus pedagogy courses) to identify and share EPP best practices.

Case Study:
State of Tennessee

Situation

The state of Tennessee wanted to provide more specific effectiveness information to EPPs than the overall measure from the higher education report card. The goal was to identify the best practices and design elements within each teacher training program and share them with other higher education institutions and nontraditional EPPs.

Solution

SAS analyzed the effectiveness of recent program completers in terms of their endorsement area, degree type, mentorships, clinical/credit hours, transfer status, K-12 school placement, and traditional academic markers like GPA and Praxis scores. Results were codified in an advanced analytics report that can be shared within and across EPPs and states.

Results

- The project is an important first step toward understanding the relationship of teaching effectiveness data and characteristics of EPPs.
- EPPs can use their private, program-specific advanced analytics report to identify changes that may improve the effectiveness of their completers.
- The statewide public advanced analytics report can change the conversation among recent completers and their EPPs to improve program quality.

What if you could …

Identify the top educator preparation programs

Which EPPs consistently produce teachers that influence more student growth than average novice or veteran teachers in their states?

Drive continuous improvement

How can we identify and share best practices in teacher training program design to improve the future effectiveness of all teachers?

Create evidence-informed policies

How can policymakers use information to revise or pass new teacher preparation policies and garner support for changes?

You can. SAS gives you THE POWER TO KNOW®.

SAS Facts

- Each year, SAS is used to analyze test data on over 10 million students and provide growth metrics to over 450,000 educators.
- For more than 40 years, governments, K-12 and higher education institutions have used SAS for deeper insights from information.
- SAS helps customers at more than 75,000 sites improve performance and deliver value by making better decisions faster.

Learn more at: **sas.com/en_us/industry/education**

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