



MAKING THE MOST OF TVAAS:

Meeting the Needs of Tennessee Teachers to Understand and Use Student Growth Data

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EXECUTIVE SUMMARY

Research has shown that teachers are the most important in-school factor affecting student achievement. Value-added approaches—which use standardized assessments to calculate a teacher’s contribution to student academic growth—offer a way to understand teacher, school, and district impact on student learning. As states incorporate value-added measures into educator evaluation systems, how these measures are communicated and inform supports around educator improvement remain important matters for consideration.

Since the early 1990s, Tennessee has used the Tennessee Value-Added Assessment System (TVAAS) to provide data on student academic growth each year. Since 2010, TVAAS has been used as one of multiple measures of teacher performance, comprising up to 35 percent of teachers’ overall annual evaluations. TVAAS figures prominently in how Tennessee’s educators think about student learning, teacher performance, and personnel decisions.

In recent years, many teachers and school leaders have expressed confusion about how TVAAS measures student growth. Educators desire a clear understanding of TVAAS and how it informs evaluation and professional improvement policies and practices. Tennessee’s challenges during the first-year implementation of TNReady standardized assessments have only amplified concerns about how measures of student growth affect educators, schools, and districts. Further, a culture perceived by many educators of using data primarily for evaluating performance, rather than improving professional practice, has challenged confidence in value-added data reliability and practicality.

The State Collaborative on Reforming Education (SCORE) conducted the research detailed in this report because of our belief in the necessity of a multiple-measure evaluation approach for teachers grounded in high-quality assessment and observation, as well as our commitment to elevating educator voice. Through our engagement with educators, we learned that too many teachers and school leaders do not receive clear information on TVAAS, and they feel detached from how it works. A lacking sense of TVAAS-related support has, in turn, strained educator trust and belief in the credibility of the value-added system. Many educators who participated in our study view TVAAS as an accountability mechanism only, unable to see how TVAAS data can facilitate a conversation about professional growth. These issues compel committed resources and deliberate action.

Drawing from a robust collection of educator survey responses, as well as teacher, school leader, and district leader input from focus groups and interviews, this report presents our findings on TVAAS communication, resources, and training. We believe these findings and the following recommendations can guide meaningful action to support educators in understanding measures of student growth data to improve practice.

RESEARCH QUESTIONS

To guide our research, we asked the following questions:

- 1. What resources do educators use to understand TVAAS and how it factors into their evaluations? What are perceptions on information access and clarity, helpfulness of training, and quality of supports?**

2. How do educators use TVAAS data to inform instructional practice and personnel decisions? What are understandings and misconceptions?

3. What differences in perspective on TVAAS are associated with educator roles, years of experience with an evaluation system incorporating value-added data, geography, grade/s served, and school type?

KEY FINDINGS

School leaders receive more information on TVAAS than teachers, indicating a notable information gap. Generally, school leaders (e.g., principals, assistant principals) reported receiving information on TVAAS at higher rates than teachers, suggesting that current resources are not reaching or resonating with teachers.

Educators want clear, accessible, and differentiated information. Although nearly eight in ten teachers surveyed across the state have received information on the purpose of TVAAS, only one in ten reported communication about TVAAS is easy to understand. Educators expressed the need for resources that meet them at their level of learning about TVAAS, suggesting the need for tiered information and differentiated modes of delivery.

The more personalized trainings can be, the better. Differentiated training content—as well as small group and one-on-one conversations in which educators can engage with data connected to their classrooms—were cited as effective approaches to TVAAS training at the conceptual and technical levels.

Many educators use TVAAS data to inform instructional and personnel decisions. Despite frustrations understanding the data, teachers and school leaders use TVAAS in significant ways, from discussing instructional strategies with their colleagues to matching teachers with subjects where they have the greatest effect on student growth.

The TVAAS website is widely used, but educators find it difficult to navigate and understand. Educators rely on the TVAAS website to access and use student growth data to reflect on practice. However, educators face many challenges navigating the site's pages, discerning the purpose of reports, and extracting student data—presenting barriers to effective access and use of data.

Some teachers and school leaders use TVAAS data in concerning ways. Although many educators use TVAAS data in promising ways to inform their instruction and reflect on personnel decisions, in some instances TVAAS is being used primarily to maximize teacher or school growth scores, with potential detrimental effects on some students across schools or classrooms. A narrow focus on TVAAS data to inform the development of student tracking, student-teacher assignments, and targeting of instructional efforts marks an urgent need for clear examples of how TVAAS is used appropriately.

Perceptions of TVAAS reliability vary widely between teachers and principals. To gauge educator perceptions, we asked educators to rank TVAAS reliability on a scale of 1 to 10, with 1 indicating very unreliable and 10 indicating very reliable. Across the board, average teacher responses rated TVAAS lower than school leader responses.

Perceived confidence in TVAAS is greater at higher levels of administration. Our findings show a connection between trust and level of leadership. School administrators perceived greater trust in TVAAS among their district leadership than teachers perceived among their school's administrators.

RECOMMENDATIONS

1. Deliver clear, accessible, and differentiated information on TVAAS

The state should commit to regular advising from educators about the quality of TVAAS communication, resources, and supports. The Tennessee Department of Education (TDOE) should develop differentiated information according to educators' TVAAS knowledge level. In addition, the state should elevate promising practices around the use of TVAAS in personnel and instructional decisions. Communication and resource delivery should occur in both schools and teacher preparation programs across the state.

2. Develop state capacity to enhance TVAAS supports and connect these supports to educator improvement

There is an explicit need for enhanced, dedicated resources at the state level around TVAAS communication, supports, and coordination of efforts across stakeholders. In addition, intentional integration of evaluation and educator improvement efforts is needed so teachers and school leaders are supported in their professional learning and growth. TDOE should consider what organizational changes are needed to fully support educator understanding and use of TVAAS, as well as what value added means for educator improvement, and make the appropriate human capital investments and programmatic shifts.

3. Expand portfolio growth models so more teachers have individual growth data

TDOE should continue to promote portfolio growth models for teachers who would otherwise receive the options of literacy (English Language Arts-based composite growth), numeracy (math-based composite growth), or overall, school-level TVAAS growth score. Intentional conversations with district leadership are needed to explore benefits and drawbacks to these alternative assessments. TDOE should collaborate with policymakers to develop pathways for district portfolio growth assessment adoption and implementation.

4. Empower district and school leaders to deliver personalized, engaging TVAAS training

TDOE should work to provide districts with clear, consistent, and reliable communication resources and training modules on TVAAS to increase educator understanding and use across local contexts. Districts are key drivers of educator evaluation and improvement efforts. As such, districts—in the same way as the state—should intentionally integrate evaluation and teacher improvement efforts by examining how programs and human capital are structured to ensure educator support and growth.

5. Enhance the TVAAS website to improve educator use of growth data

The TVAAS website is the key gateway to accessing and viewing TVAAS data. SAS, under the direction of TDOE and consulted educators, should pursue ongoing improvement of TVAAS website navigation, clarity, and support functions. Teachers often cited the need for clarifying reports and the proper use of TVAAS data, as well as providing adequate help—either online or through telephone support.

INTRODUCTION

Teaching has a greater impact on students' academic growth than any other in-school factor.¹ Research has also shown receiving instruction from highly effective teachers can improve the educational trajectories of students from historically underserved populations, as well as those needing additional supports to master course content. To maximize student access to high-quality teaching in Tennessee, accurate measures are needed to indicate a teacher's impact on students' academic growth.

Based on original research, this report details educator understanding and use of the Tennessee Value-Added Assessment System (TVAAS)—the tool used to measure teacher contribution to student growth. We give particular concern to the resources and supports used at the state, district, and school levels to support teachers and school leaders learn about and use TVAAS. We then discuss how effective these resources have been in facilitating practices that harness student growth data to inform instructional practice, personnel decisions, and educator improvement strategies.

Our findings illuminate information gaps among educators, spotlight which training models work and which have been less effective, and describe promising and concerning ways student growth data are being used in efforts to improve academic outcomes.

WHAT IS TVAAS?

TVAAS produces quantitative evidence of the effect teachers and schools have on their students' learning growth. In the early 1990s, Tennessee became the first state to use a value-added system to measure student academic growth as an indicator of the impact of teachers, schools, and districts on student progress. In 2010, legislation formally incorporated TVAAS into Tennessee's teacher evaluation system.²

Tennessee uses a multiple-measure model of teacher evaluation to support teachers' professional development and ensure they are accountable for their students' academic achievement and annual growth. TVAAS data represent one important component of this multiple-measure approach to accountability and support for educators. Those data join results from classroom observations and other student performance measures to produce a fuller view of teachers' strengths and opportunities for improvement than any one measure can offer.

To calculate annual growth for students, TVAAS incorporates a student's past testing data and estimates his or her growth based on the average growth of students statewide. A student's performance on an assessment is compared to the average score of his or her student peers in similar grades and subjects. The difference between how a student would be expected to perform and his or her actual performance results in an annual measure of educator contribution to growth. Because this measure is calculated each year in relationship to each student's performance, assessment data can provide a basis for determining growth, as all students in the state take the same state-required tests.

TVAAS data, when used alongside other evaluation tools such as classroom observations or student surveys, can help schools provide individual supports for students in their areas of greatest need, as well as evaluate and support teachers in their own improvement and professional growth. TVAAS data also

provide school and district leaders key information on aggregate student academic growth, facilitating conversations about teacher placement and school- and district priorities. Finally, TVAAS data give parents, policymakers, and community members additional key information about whether a school or school district is advancing student learning.

WHY STUDY TEACHER EXPERIENCES WITH TVAAS?

TVAAS data have proven a powerful tool to understand teacher, school, and district impact on student learning. Many teachers, however, have expressed ongoing confusion about how TVAAS measures student growth and have questioned how TVAAS data are used.

As an independent, nonprofit, nonpartisan research and advocacy organization driven by a commitment to collaboration, the State Collaborative on Reforming Education (SCORE) is uniquely positioned to listen to educators and communicate their feedback to the Tennessee Department of Education (TDOE) and other key stakeholders to improve communication, training, and supports around TVAAS. This work reflects SCORE's commitment to improving the quality of teaching to improve student achievement in Tennessee. It also reflects our commitment to ensure educators' experiences and perspectives inform key decisions on policy and practice.

RESEARCH QUESTIONS AND DATA COLLECTION

Three primary questions guided our research:

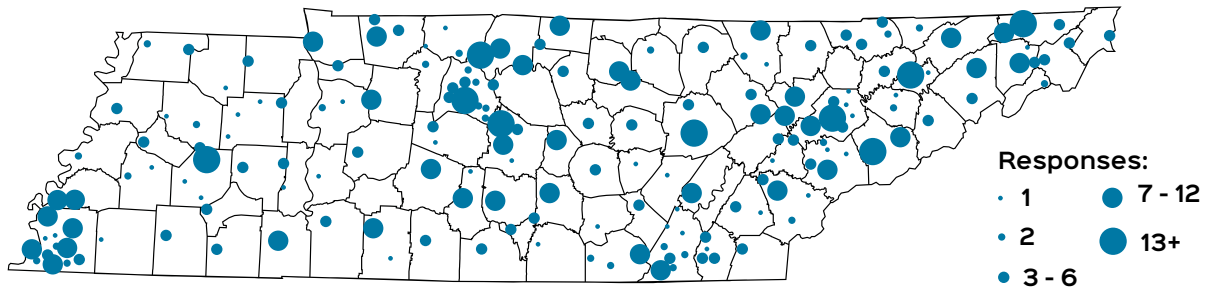
- 1. What resources do educators use to understand TVAAS and how it factors into their evaluations? What are perceptions on information access and clarity, helpfulness of training, and quality of supports?**
- 2. How do educators use TVAAS data to inform instructional practice and personnel decisions? What are understandings and misconceptions?**
- 3. What differences in perspective on TVAAS are associated with educator roles, years of experience with an evaluation system incorporating value-added data, geography, grade/s served, and school type?**

To address these questions, we collected data through a survey and a series of focus groups and interviews to get a clear sense of educators' understanding, use, and perceptions of TVAAS. We distributed a survey to a sample of 4,062 Tennessee teachers, instructional coaches, and school leaders. (The survey and focus group protocols used for data collection are available as an appendix posted to SCORE's website.) We invited educators to respond to the survey from a random sample of contact information provided by TDOE. In addition, SCORE contacted approximately 500 educators who have participated in SCORE programs or who receive regular communications from the organization.

Educators could take the survey, which required approximately 12 minutes to complete, between February 25 and March 13, 2016. In response to our request, 689 teachers and instructional coaches completed the survey. We also received responses from 299 principals or assistant principals to a separate version of the survey. The total of 988 responses generated an overall response rate of 24.3 percent. This level of

response enabled us to make statistically significant observations based on the data collected. Figure 1 represents the location of survey respondents across Tennessee.

Figure 1. Educator Survey: Respondent Location



In addition to survey data, we collected qualitative data through focus groups and interviews in seven communities statewide, including Chattanooga, Clarksville, Greeneville, Jackson, Knoxville, Memphis, and Nashville. Each focus group included educators from these locations, as well as from surrounding areas. We also conducted two virtual focus groups with current and alumni participants from SCORE's Tennessee Educator Fellows program. Teachers and school leaders participated in separate focus groups to promote candid conversation. For district-level perspectives, we interviewed leaders across professional learning, assessment, and data departments in several locations. We also conducted interviews with faculty and leaders at several teacher training programs in Tennessee. In all, we engaged approximately 140 educators, district leaders, and higher education stakeholders through more than 20 conversations. We visited a diverse set of Tennessee communities to hear a diverse set of perspectives on TVAAS.

Based on this input from teachers, school leaders, and district leaders about TVAAS, we believe the findings and action-oriented recommendations presented in this report provide a path toward enhanced support for Tennessee educators. This support, in turn, can enable educators to engage in continuous improvement in their essential work to promote student growth and achievement.

LEARNING ABOUT TVAAS

Because teaching is an inherently complex profession, any quantitative measure of teacher impact on student growth requires complex statistical modeling. Such complexity can present significant communication challenges in explaining how a model like TVAAS works, and what it means for educator evaluation and improvement. Further, recent research on evaluation systems has identified communication as a key component in the work to build durable trust and credibility with educators and promote a more positive culture around data use. Effective communication regarding value-added data and the provision of key support structures linking evaluation to educator growth and development are critical steps in the journey toward improving educator effectiveness, and ultimately student achievement, across our state.³ SCORE's engagement of educators across Tennessee has revealed opportunities for improving TVAAS communication, supports, and linkage to professional growth.

In this section, we present the following findings on TVAAS communication and supports:

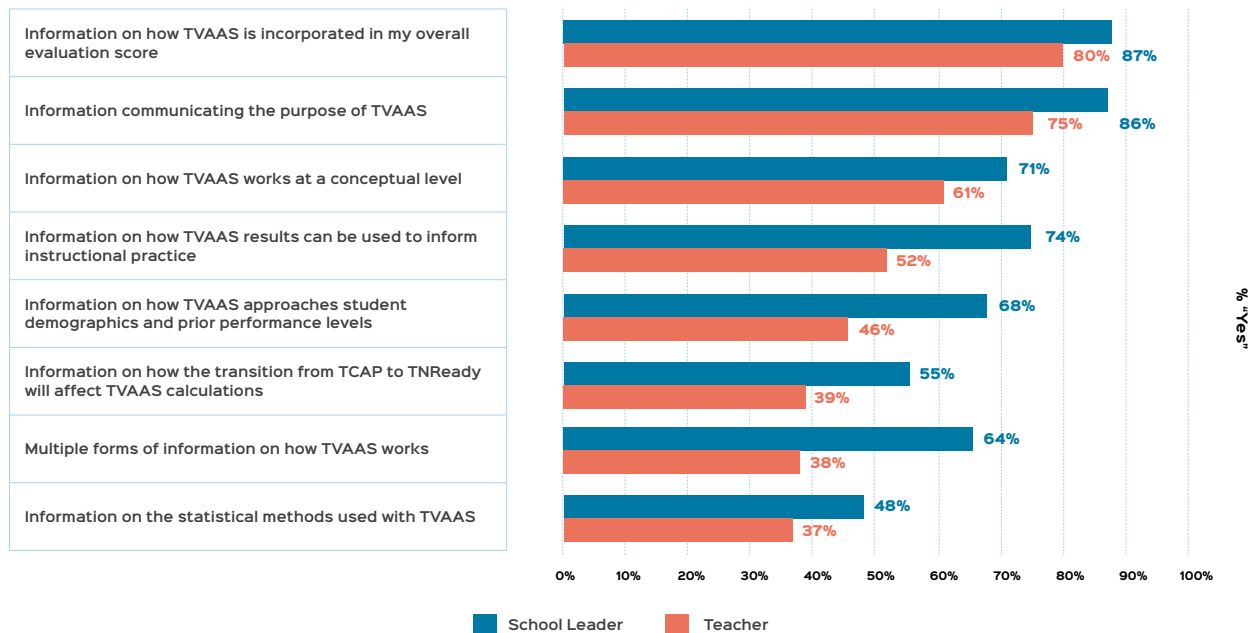
- School leaders receive more information on TVAAS than teachers, indicating a notable information gap
- Educators want clear, accessible, and differentiated information on TVAAS
- The more personalized trainings can be, the better

SCHOOL LEADERS RECEIVE MORE INFORMATION ON TVAAS THAN TEACHERS, INDICATING A NOTABLE INFORMATION GAP

In general, we found school leaders receive more information on TVAAS than teachers. For example, more than six in ten surveyed school leaders indicated they have received multiple forms of information about TVAAS, versus fewer than four in ten teachers. Similarly, seven in ten school leaders reported receiving information about how TVAAS controls for student demographics and prior performance levels, but fewer than five in ten teachers reported the same. Nearly eight in ten school leaders said they have received information on how TVAAS can be used to inform instructional practice, while only five in ten teachers—the primary users of such information—attested to receiving this information.

Generally, these data align with our conversations with school leaders and teachers in focus groups held across the state. When asked what resources they have received on TVAAS, teachers often cited use of the TVAAS website (less an information resource than a portal to interact with TVAAS data). In contrast, school leaders tended to cite use of informational resources on the TDOE website and district resources.

Figure 2. Survey Response
 “Please indicate whether you have received the following information on TVAAS”



These findings indicate a notable information gap between educators, prioritizing the need to reach teachers more effectively with TVAAS communications and resources.

EDUCATORS WANT CLEAR, ACCESSIBLE, AND DIFFERENTIATED INFORMATION ON TVAAS

To better understand how TVAAS works, educators want clear, accessible, and consistent information that meets their specific needs. As we spoke with educators across the state, we heard about their challenges understanding how TVAAS works at both a conceptual and technical level. For example, educators expressed the need to better understand how TVAAS is calculated. Commonly cited challenges in understanding TVAAS include but are not limited to: measurement of student growth across different assessments, measurement of high-performing students' growth, differences in calculating individual teacher and overall school TVAAS scores, and method of handling outlier student scores.

Survey responses reflected the challenges expressed by focus group participants. Although nearly eight in ten teachers reported receiving information on the purpose of TVAAS, only one in ten reported that communication about TVAAS is easy to understand. Of teachers who received an individual TVAAS score, eight in ten reported understanding how their score is incorporated into overall performance evaluation, yet only two in ten feel they could explain how student growth scores are calculated. This gap between information access and understanding is visualized in Figures 3 and 4.

Figure 3. Survey Response
 “Please indicate whether you have received the following information on TVAAS”

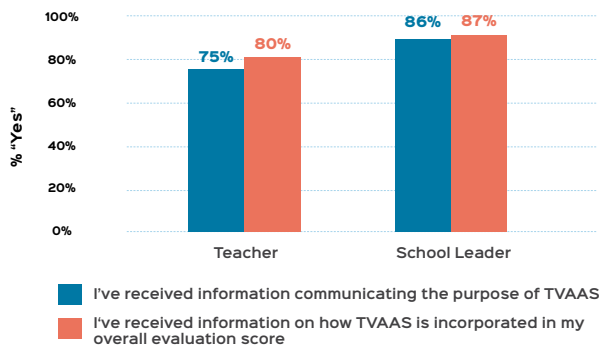
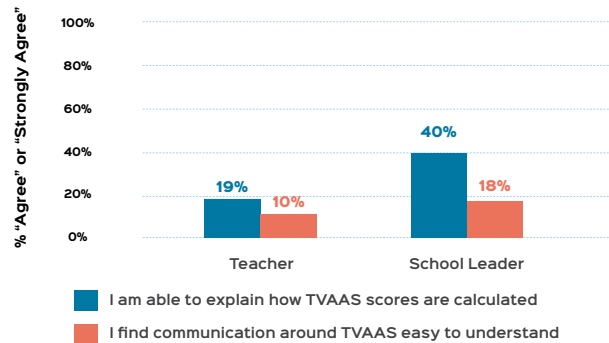


Figure 4. Survey Response
 “Please indicate how strongly you agree or disagree with the following statements”



School leaders indicate similar challenges. Nearly nine in ten administrators report receiving information on the purpose of TVAAS, but less than two in ten feel communication about TVAAS is easy to understand. Although most school leaders report having received information on how TVAAS is incorporated into their overall performance evaluation, only four in ten are able to explain how school scores are calculated. Since school leaders report receiving more information on TVAAS, this finding underscores the need for not just more, but clearer, accessible, and differentiated information.

Focus group participants frequently described uncertainty about how TVAAS scores are calculated. For example, many educators were unaware of the differences between the two models employed under TVAAS: (1) the “gain model” used in grades 4-8 to measure consecutive years’ growth across similar, sequenced subjects,

“A couple years ago, I began to emphasize data and growth. I would deliver presentations every year to schools around my district. I used metaphors to distinguish growth and achievement, explaining how important growth is. But I started getting questions about TVAAS, how it’s calculated, where projections come from, etc. Our district has performance-based pay, so TVAAS is a big factor. Eventually, I had to back off growth. I lost confidence in TVAAS scores. I couldn’t explain the calculation.”

–District Superintendent

versus (2) the “predictive model” used in grades 1-3 and 9-12 to measure growth across different, un-sequenced subjects. For the latter, educators strained to understand how growth could be calculated across subjects with loose content relationships, such as algebra, chemistry, and life sciences. Few teachers had found accessible answers to these questions in resources available to them.

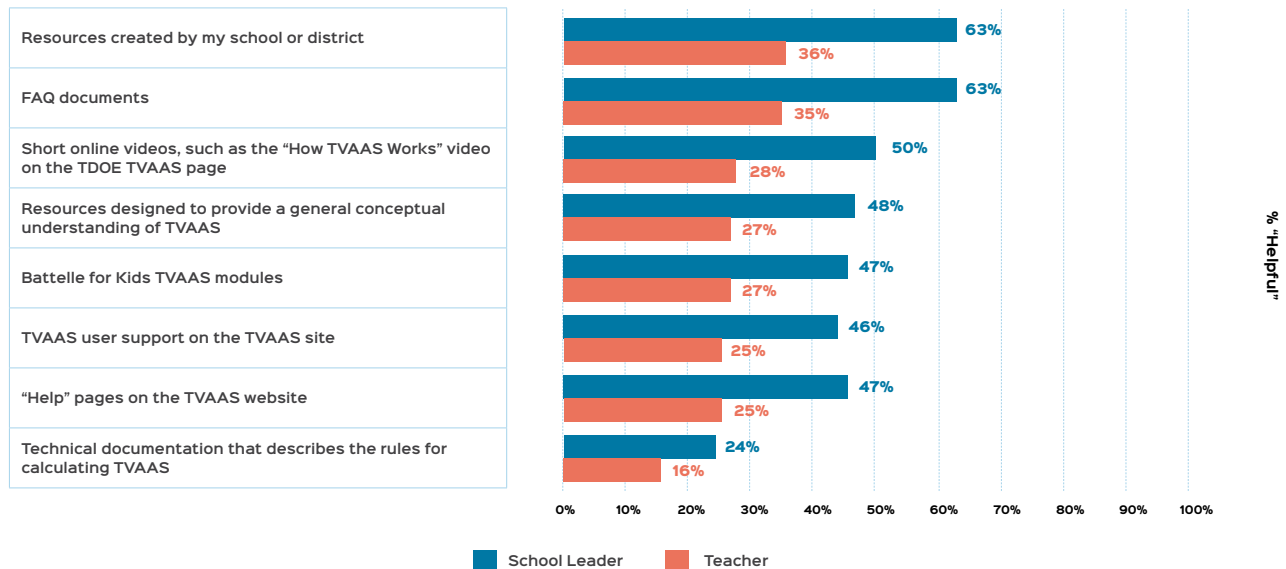
In several focus group locations, school leaders expressed questions regarding alignment of individual teacher growth scores and the overall school growth score. School leaders reported having teachers with TVAAS scores of 4 and 5, but receiving a school growth score of a 2 or 3. They questioned the relationship between the school’s overall score and the scores of the building’s teachers. In response to follow-up questions, educators were not able to identify existing resources explaining this relationship. Educators strained to recall trainings or conversations with

district and state-level staff on these topics.

Educators also expressed confusion about how TVAAS handles students scoring in upper and lower percentiles. For example, many teachers asked how a top-performing student could improve growth scores on TVAAS. Focus group participants expressed frustration with inconsistent messages regarding this area of concern. Teachers and school leaders also called into question how TVAAS weights students on the lower bounds of the growth calculation.

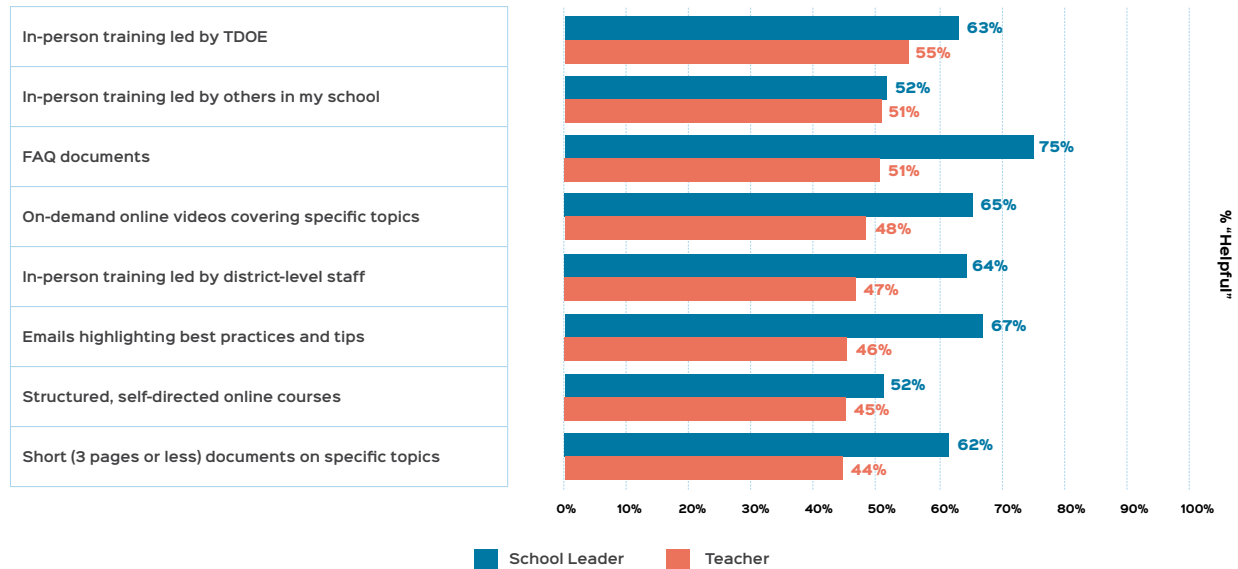
We found educator roles matter when considering what form TVAAS resources should take. When asked about existing information resources—from FAQ documents to online videos—nearly twice as many school leaders found these resources helpful compared to their teacher colleagues (see Figure 5). Low ratings among teachers indicate existing modes of resource delivery have either not met their needs or have not been successfully disseminated. In contrast, school administrators found district resources and FAQ documents very helpful sources of information.

Figure 5. Survey Response
“Please indicate how helpful you find the following types of resources on TVAAS”



How, then, do teachers want to learn about TVAAS? **Educators most frequently cited in-person training, either by a credible facilitator or from teacher peers in their schools.** Survey data in Figure 6 align with our focus group finding that teachers value an interactive learning experience over receiving information through, for example, a lecture-based presentation.

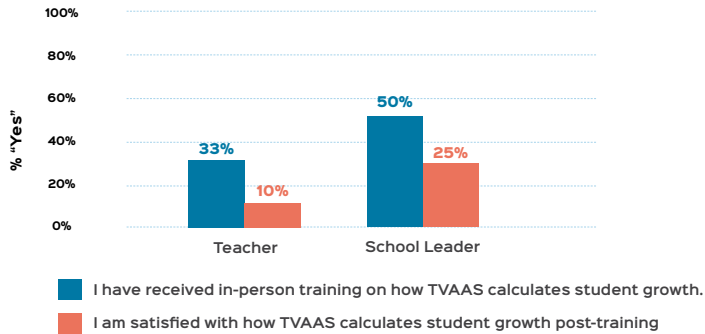
Figure 6. Survey Response
“Please indicate how helpful you would find the following resource or training formats”



Communications targeted toward teachers and school leaders should reflect nuances in their responses to our questions on preferred mode of delivery. According to our findings, school leaders most preferred FAQ documents, informational emails, and online videos as means of learning about TVAAS. Although teachers generally agreed with school leaders that these resources are helpful, they gave greater preference to in-person training opportunities. Teachers value conversations about their own students’ growth in small group settings with peers. Teachers cited discussing students’ projected growth, varying student cohort achievement, and talking through their individual scores with highly effective teachers as productive ways of grappling with student growth data and TVAAS generally.

Our findings indicate that current information resources are not reaching or resonating with teachers and school leaders to the extent needed. This overall finding suggests that clear, accessible, and differentiated information that meets educators at their level of comprehension of TVAAS is crucial.

Figure 7. Survey Response
“Please indicate whether you have received the following types of training or support on TVAAS”



have been satisfied afterward with their understanding of how TVAAS calculates student growth.

In focus groups, educators gave low effectiveness ratings for large-group, general trainings on TVAAS. Educators often have found these training formats either too abstract or too technical. They gave higher effectiveness ratings for in-person trainings where educators were able to self-select training content by choosing their knowledge level of TVAAS. This format provides educators tailored information in a small group setting.

Survey and focus group data revealed school leaders reported higher rates of training, as well as greater satisfaction with TVAAS trainings than their teacher colleagues. These disparities are likely tied to several issues. Teachers are twice-removed from district- and state-level trainings, but school leaders interface with district and state entities on a more frequent and direct basis. Furthermore, five in ten school leaders reported receiving in-person training on how TVAAS is calculated—significantly more than their teacher colleagues—increasing the likelihood of satisfaction with trainings.

Educators cited small groups and one-on-one conversations as powerful means to produce clearer conceptual understanding of TVAAS through real-world engagement with data connected to their classrooms.

Many teachers described the experience of training on the TVAAS website with their own student data as “revelatory.” For these educators, the personalized nature of the training brought clarity. These accounts speak to the power of personalized data to ground an otherwise abstract tool for educators. We found personalized training occurs most often between teachers and school leaders (see Figure 8).

THE MORE PERSONALIZED TRAININGS CAN BE, THE BETTER

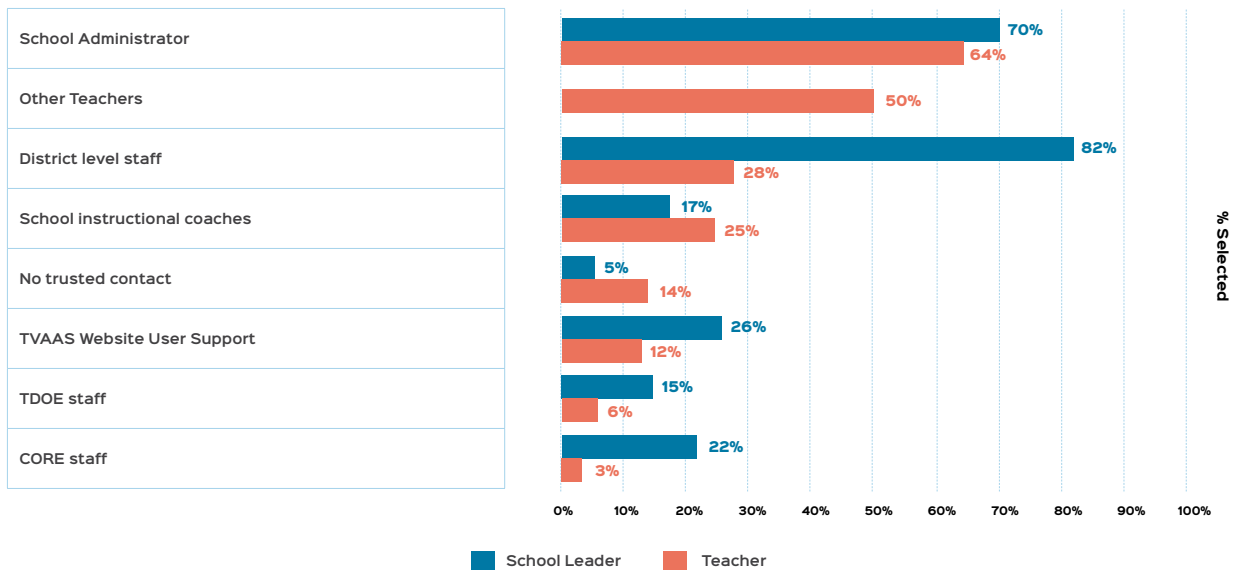
Given the challenges educators face understanding TVAAS calculation, and considering teachers’ preference for training opportunities over textual resources, we were concerned that so few teachers receive training on TVAAS (see Figure 7). When asked in a focus group setting, less than half of teachers reported receiving direct training on TVAAS. Similarly, only a third of teacher survey respondents reported they have received in-person training on how TVAAS calculates student growth. Furthermore, of those who have received training, only one in ten

“Our district put on some really good [training] sessions. State department, CORE office, that kind of thing. But I feel like I heard the same message over and over, and it was not always what I needed. I feel like there needs to be a course A, a course B, a course C. As you understand and develop and have some context with it, there’s a course for the newer person versus someone who’s had experience with it. I feel like the extension is not always there for people that were looking for a little more depth, what they’re really looking for in trying to answer questions.”

–Teacher Focus Group Participant

Figure 8. Survey Response

“Who do you consult as a trusted point of contact when seeking out information on TVAAS?”



Alternatively, school leaders lean heavily on their district contacts as trusted resources for questions and TVAAS training, followed by a reliance on fellow school leadership staff. This reliance is particularly prevalent in rural areas, where 48 percent of school administrators referenced their district as a trusted resource, compared to 33 percent of their peers in urban areas.

Our conversations with district and school leaders revealed how important district supports are in educators’ understanding and use of TVAAS. We found urban districts providing intuitive analytics dashboards, where TVAAS data are rendered more simply and use guidance is embedded. Both urban and rural district staff develop and deliver school- and teacher-level reports as needed, communicating growth and providing direction to educators as needed. District central offices relay tough questions from educators directly to the state through contacts at Centers of Regional Excellence (CORE) offices. They also deliver information back in a localized context. Across the communities we visited, districts scale and repeat TVAAS supports that work for their educators.

District support, where available, has greatly benefited both school leaders and teachers. In contrast, teachers did not view TDOE staff, including representatives in CORE offices, as leading resources, compared to a number of school leaders who turn to them as frequent resources.

Currently, only three in ten teachers report being satisfied with the frequency of training opportunities provided on TVAAS. According to educator survey responses and focus group feedback, both teachers and school leaders are eager for consistent, high quality, engaging TVAAS-related training.

USING TVAAS DATA

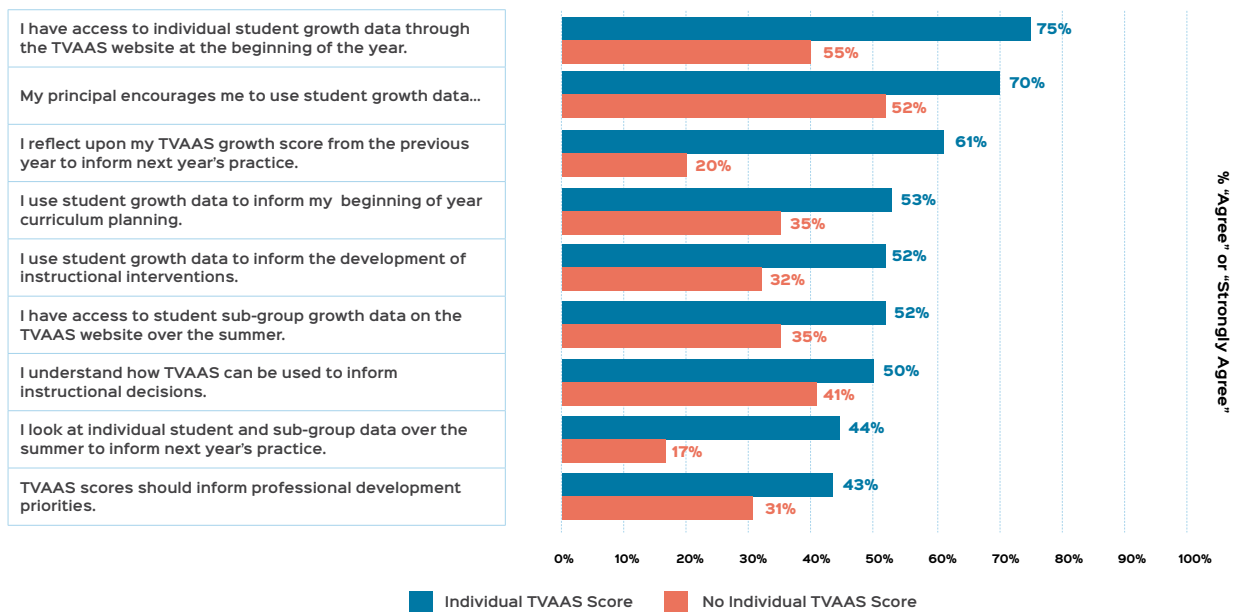
Despite challenges understanding TVAAS, educators use student growth data to inform instructional practice and personnel decisions. However, availability of data, as well as gaps in guidance and support, raise some critical issues. In this section, we present three findings on how TVAAS data are used:

- Many educators use TVAAS data to inform instructional and personnel decisions
- The TVAAS website is widely used, but educators find it difficult to navigate and understand
- Some teachers and school leaders use TVAAS data in concerning ways

MANY EDUCATORS USE GROWTH DATA TO INFORM INSTRUCTIONAL AND PERSONNEL DECISIONS

By asking how teachers use TVAAS data, we found statistically significant variance between those who receive an individual TVAAS score and those who do not—i.e., educators who choose from the options of either an aggregate school growth score, numeracy growth score, or literacy growth score. Teachers who receive individual growth scores are more inclined to use TVAAS data to reflect upon their practice than teachers who do not receive an individual value-added score (six in ten vs. two in ten), look at student performance grouping data (five in ten vs. three in ten), and be encouraged by their supervisors to engage with growth data (seven in ten vs. five in ten). These responses suggest that the more personalized the growth data, the more teachers will engage with it to inform instructional practice.

Figure 9. Teacher Survey Response
“Please indicate how strongly you agree or disagree with the below statements regarding TVAAS use for instructional purposes”



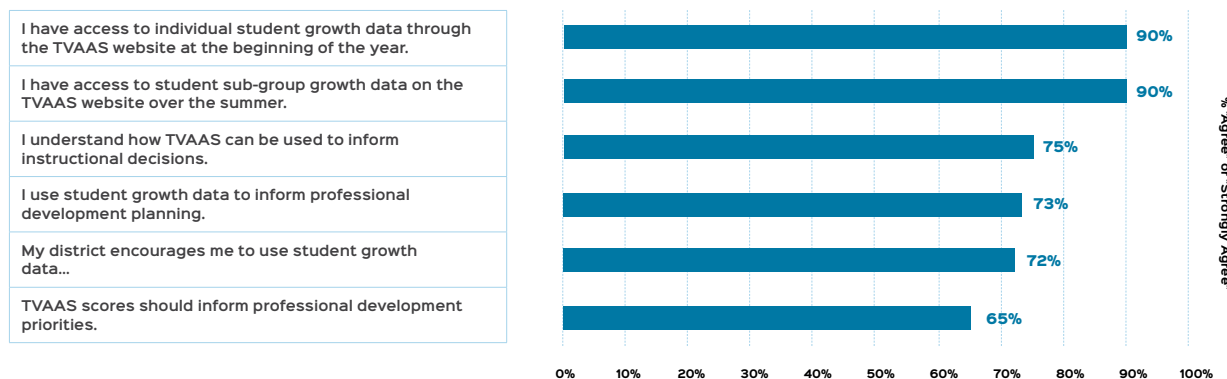
Generally, we found the heaviest use of TVAAS data occurs prior to the beginning of the school year. At that time, teachers engage with their own TVAAS data to understand previous-year growth and probe instructional strategies with their colleagues (see Figure 9). Teachers disaggregate student data to understand areas of opportunity with particular students and identify student performance groupings. In some cases, teachers reported using student projections further into the year to orient candid conversations with students about their learning trajectories and discuss opportunities for additional supports.

Although most teachers access TVAAS data annually, only half of our survey respondents reported understanding how TVAAS data can be used to inform instructional decisions. This data point stands in contrast to the seven in ten school leaders who feel they understand how TVAAS can be used to inform instructional decisions.

In every conversation around TVAAS data use, teachers shared a strong desire for more specific, actionable data on student growth to guide their instructional practice. **Teachers seek a clearer understanding of student progress by subject area.** To that end, they use a variety of formative assessment tools throughout the year, with varying alignment to year-end assessments, to better understand where ongoing instructional focus is needed in their classrooms. However, teachers raised the question of whether TVAAS could offer more detailed insights on student understanding of specific instructional content—or at least illuminate growth at a more granular level than subject-based performance generally. The question of how to use growth data to target instructional supports looms large in the minds of educators.

Many school leaders use TVAAS data to understand student growth, drawing conclusions to guide decision-making around personnel issues. Teacher focus group participants indicated TVAAS data heavily influence their school leaders' personnel decisions. School leaders themselves spoke of using TVAAS growth scores, in addition to observation data, to inform teacher grade and subject assignments. According to a recent report from the Tennessee Department of Education on teacher equitable access to highly effective teachers, 63 percent of school leaders use evaluation data to guide student-teacher assignments.⁴ Importantly, school leaders consult growth data to inform professional development strategies and build out support structures such as learning partnerships through which teachers are paired according to their strengths and areas of needed improvement.

Figure 10. School Leader Survey Response
“Please indicate how strongly you agree or disagree with the below statements regarding TVAAS use for instructional purposes”



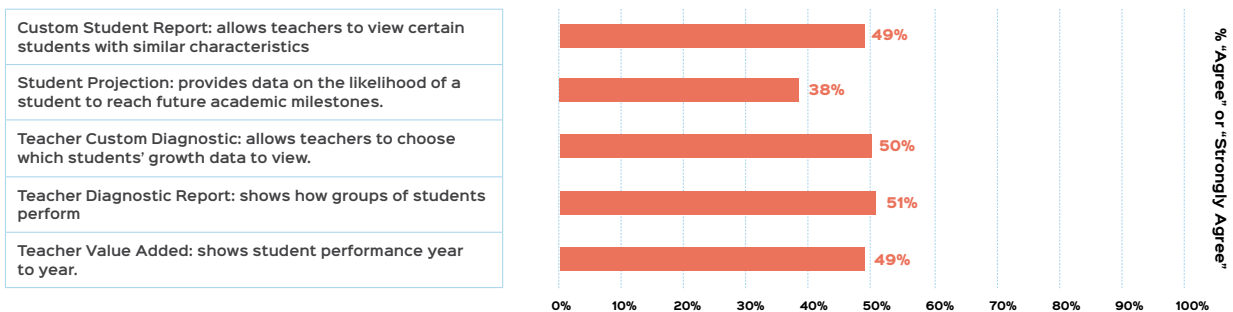
THE TVAAS WEBSITE IS WIDELY USED, BUT EDUCATORS FIND IT DIFFICULT TO NAVIGATE AND UNDERSTAND

The TVAAS website (www.tvaas.sas.com) is the primary resource used by Tennessee educators to view student growth data, as well as individual and school TVAAS scores. The TVAAS website is designed and managed by SAS, a North Carolina-based statistical analysis firm. The Tennessee Department of Education first contracted SAS to compute TVAAS in 1992, and continues to do so for district-, school-, and teacher-level data.⁵

According to data we collected for this study, the TVAAS website is a powerful tool used by nearly every educator at least once annually to understand their evaluation score and access a set of reports on student growth. Educators make the most use of the website at the start of each school year, as the previous year's summative data are often used to inform instructional practices and personnel decisions.

When asked about helpful reports on the website, teachers in focus groups most often referred to reports showing student growth in comparison to peers (i.e., "quintile report"). According to survey data, educators value the information provided by reports showing past student achievement related to subject area, and variation of student growth by demographics, as well as customized reports allowing a deeper understanding of specific students (see Figure 11).

Figure 11. Teacher Survey Response
"Please indicate how helpful you find the following report modules on the TVAAS website"



The website figures prominently in how teachers think about TVAAS and apply TVAAS data. The importance of the website makes challenges with navigating site pages, discerning the purpose of reports, and accessing particular student data critical to improving the use of growth data in the classroom.

In focus groups across Tennessee, educators described the website design as "clunky" and navigation across reports difficult. Teachers and school leaders spoke of their challenges in discerning the purpose of specific reports and contextualizing the data they were seeing. **As a solution, teachers suggested incorporating a simplified menu of options linked to intended uses of report data.**

"My first year, I had no idea how to do anything. I could log in, and I could see a number, and that was all I could do, because it was so difficult to navigate. In the following years, I've been able to navigate much better and work through, and find reports, but there's still that, 'Okay, to get this report, I have to go through this step, this step, this one. Wait, no, now I'm in the wrong place. Start back over from scratch.'"

– Teacher Focus Group Participant

District-level staff, often a key resource for school leaders in understanding and using TVAAS data, observed changes to the website design and functionality mid-year, without receiving formal communication about the changes. In one district, central office staff pointed to difficulties in viewing and exporting small sets of data by student groupings—a key disaggregation technique in helping principals and teachers understand where best to direct their focus.

SOME TEACHERS AND SCHOOL LEADERS USE TVAAS DATA IN CONCERNING WAYS

Teachers and school leaders use TVAAS data in ways they find useful. However, we identified some concerning practices that suggest prevalent misconceptions about calculation and proper application of the data. For example, although educators use TVAAS data to target students for instructional supports such as Response to Instruction and Intervention (RTI²), they also use the data to identify and focus on students with the greatest “predicted growth” in the attempt to achieve a higher end-of-year TVAAS score. In such cases, educators invest disproportionate attention and instructional supports in some students, potentially to the detriment of others.

Across focus groups, numerous participants conflated language relating to growth and achievement. For example, many educators referenced “bubble kids” when discussing use of TVAAS data to describe targeting instructional supports to students on the cusp of a higher proficiency level. Given that TVAAS data are not oriented toward proficiency levels, some educators may have derived misguided conclusions that then informed instructional practices.

Some focus group participants also spoke of school-level practices assigning students to teachers in attempts to “game the system” to produce the greatest overall growth score for their school. In one focus group, teachers described school leaders using student growth predictions to form high, medium, and low class-level “tracks.” School leaders assigned their most-effective teachers to the classes with the highest perceived growth potential to facilitate higher school TVAAS scores. Although using TVAAS data to inform teacher-subject assignments based on instructional strengths is a promising practice, this approach should be contrasted with putting students on static tracks according to projections. Recent research has shown that that students in higher track classes (e.g., advanced placement, or AP) exert more effort and attain higher levels of learning than they would in un-tracked setting. However, the opposite is true of students placed in lower track classes—the effect of which is lower effort and lower learning attainment.⁶ Therefore, using TVAAS to assign students to set class-level tracks is a troubling practice.

Attempts to “game the system” in the effort to maintain a high individual or school TVAAS growth score may represent a worst-case scenario, but also reflects the disaffection many educators feel toward TVAAS and use of TVAAS data in their evaluations. Empowering educators to make proper use of the data should address this lack of trust and confidence. Trainings and supports should also address the appropriate use of student growth data and their limitations.⁷ Clear guidance around promising use of growth data—as well as misuses—would provide much-needed direction for both teachers and school leaders in their application of TVAAS in practice.

PERCEPTIONS OF TVAAS

In focus groups across the state, we heard a broad range of educator views on TVAAS. One first-year principal with 30 years of teaching experience offered, “It’s personal, but I want it to be personal for

teachers. If [their TVAAS results] are red, I want it to sting a little bit. But a teacher’s TVAAS score is not a be-all, end-all. That red square does not define an educator.” In other cases, educators employed humor to offset frustration. Asked what resources they have received about TVAAS calculation, several teachers and school leaders independently referred to the value-added system as “voodoo,” citing their lack of information on how the system works. Teachers without individual TVAAS scores often balked at the system, characterizing it as a “blunt evaluation instrument” disconnected from their teaching work.

Still other school leaders spoke of TVAAS as a powerful tool to push continuous professional improvement among their teachers. We heard from many teachers that TVAAS is an important indicator of their performance, helping them become better in their practice through the pursuit of student growth. District leaders indicated the usefulness of TVAAS in understanding where effective teachers are and where additional supports are needed. These viewpoints illuminate the wide variance in perceptions of TVAAS and highlight particular opportunities for improved resources and supports.

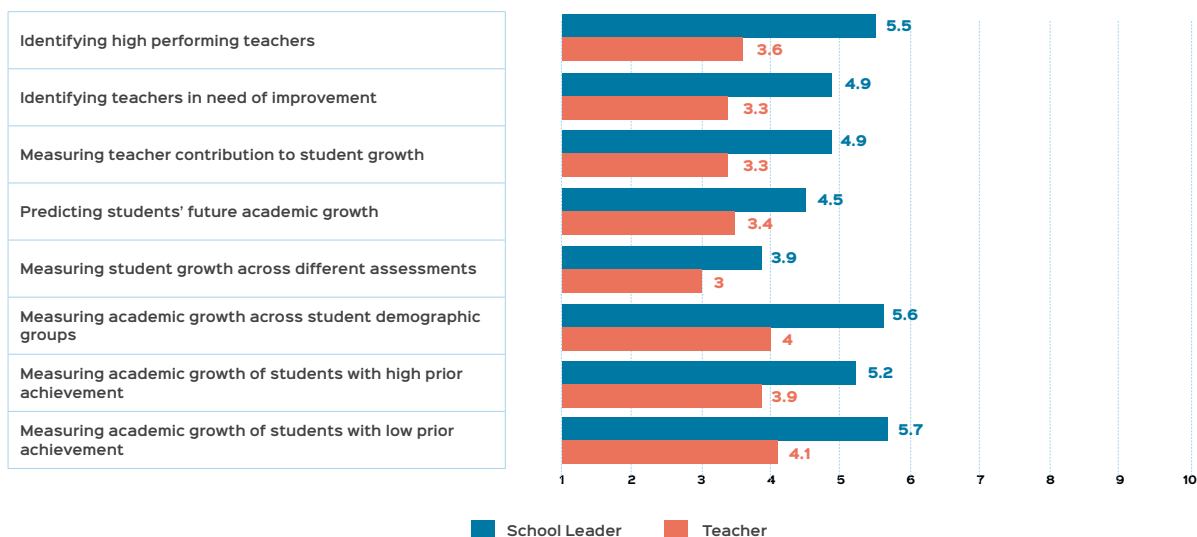
In this section we discuss the following findings regarding educators’ perceptions of TVAAS:

- Perceptions of TVAAS reliability vary widely between teachers and school leaders
- Perceived confidence in TVAAS is greater at higher levels of administration

PERCEPTIONS OF TVAAS RELIABILITY VARY WIDELY BETWEEN TEACHERS AND SCHOOL LEADERS

Educators expressed views on TVAAS reliability across several fronts, including the system’s accuracy in measuring teacher contributions to student learning growth and predicting students’ future academic learning growth. To gauge perceptions, we asked educators to rank the reliability of TVAAS on a scale of 1 to 10, with 1 being very unreliable and 10 being very reliable. Overall, educator responses fell on the lower end of the scale and revealed a consistent divide between teachers and school leaders (see Figure 12).

Figure 12. Survey Response
“Using the sliding scale of 1-10 please rate TVAAS reliability in the following areas”



Particular areas of divergence between teachers and school leaders on our survey included the reliability of TVAAS in identifying high-performing teachers, measuring academic growth of students with high prior achievement, and measuring growth of students with low prior achievement. In general, school leaders exhibited more trust in TVAAS accuracy than teachers. In focus groups across the state, we found general alignment with this trend. School leaders used more measured language when discussing TVAAS's accuracy, sometimes evoking equal parts appreciation and skepticism for it as a tool to facilitate conversations about educator improvement and a data point in making personnel decisions. Teachers' and school leaders' perceptions aligned regarding TVAAS's accuracy in measuring student growth across different assessments, specifically between TCAP and TNReady. However, both groups of educators expressed notably low confidence in the accuracy of TVAAS.

“My [previous] district was a little different. Our superintendent was big into TVAAS. What’s important to the superintendent becomes important to us. We had a lot of professional development, which broke TVAAS down, and we had to understand the data. Especially at the end, when we got it, we had to calculate our own growth by student ... But the new system I’m in, hardly any emphasis on it ... It all depends on the administrator.”

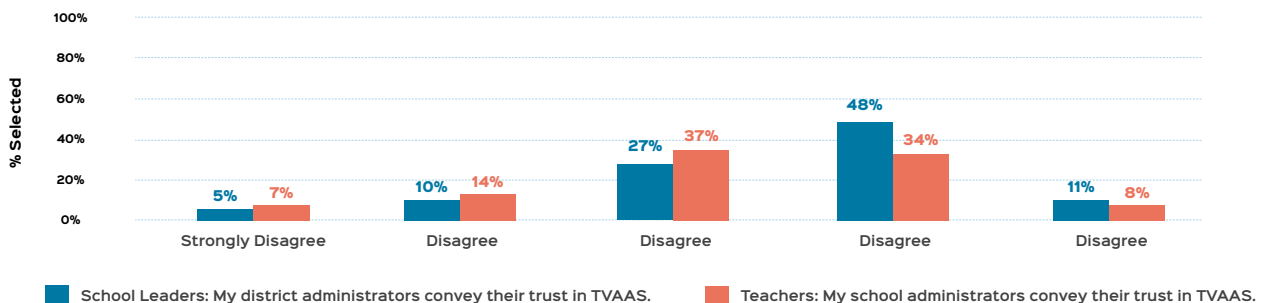
– Teacher Focus Group Participant

In districts with performance bonus programs that incorporated value-added data in evaluations, we found greater concern about TVAAS's accuracy in gauging teacher quality. In one such community, a district-level leader shared that her office received the most questions about TVAAS during the time bonus decisions are under consideration. Teachers in her district also routinely expressed confusion over the district's use of one-year TVAAS data in these compensation decisions, while the state relies on three-year composite data for evaluation scores. Where some teachers receive performance bonuses based in significant ways on TVAAS outcomes, teachers tended to express more negative perceptions of TVAAS's ability to measure teacher effects on student performance than those outside a pay-for-performance model.

PERCEIVED TRUST IN TVAAS IS GREATER AT HIGHER LEVELS OF ADMINISTRATION

District and school leaders play critical roles in supporting teachers and setting tone around data and evaluation. When district and school leaders express trust in TVAAS—and emphasize its use to inform teacher practice—teachers exhibited greater willingness to reflect on and use TVAAS data. Considering the role of leadership in how evaluation systems are perceived, we surveyed teachers and school leaders about their supervisors' trust in TVAAS. Our findings show a connection between trust and level of leadership. As indicated by Figure 13, school administrators perceived greater trust in TVAAS among their district leadership than teachers perceived among their school's administrators.

Figure 13. Survey Response
“Please indicate how strongly you agree or disagree with the following statement”



This finding re-affirms the perception among teachers that school leaders set the tone when it comes to use and perceptions of TVAAS. It also underscores the importance of high-quality information and supports around TVAAS to build trust among school and district leaders.

RECOMMENDATIONS

The findings in this report provide a wealth of information for state and district education leaders, policymakers, teachers, school leaders, and broader education stakeholders to consider. Based on our discussions, reflections, and analysis, SCORE offers the following recommendations to better meet the needs of Tennessee educators.

1: DELIVER CLEAR, ACCESSIBLE, AND DIFFERENTIATED INFORMATION ON TVAAS

Clear and accessible communication about TVAAS is key to increasing educator understanding and trust. Too many teachers rarely receive information on TVAAS, and if they do, it does not resonate with their understanding or experience as educators. Given our findings about what educators do and do not know about TVAAS, a multi-pronged approach to communication is needed. We offer the following recommendations:

The Tennessee Department of Education (TDOE) should:

Put structures in place to regularly collect educator feedback on TVAAS communication and supports. The success of educator evaluation and improvement efforts depends on incorporating the voices of teachers and school leaders.⁸ With SCORE's support, TDOE should structure ongoing conversations with educators to regularly collect feedback on TVAAS communication, resources, and training supports. For example, educator groups such as the Tennessee Teacher Advisory Council, District Assessment and Accountability Advisory Group, and Tennessee Organization of School Superintendents (TOSS), as well as members of other Tennessee educator professional associations, could offer unique perspectives on value-added implementation. TDOE also should regularly gather input from educators on how value-added data can be used to inform teacher professional development and growth efforts. Supplementing this work, TDOE should collect data on educator understanding and use of value-added data through the Tennessee Consortium on Research, Evaluation, and Development annual educator survey. The survey should contain specific questions about the clarity of TVAAS communications, most helpful modes of resource delivery, quality and format of trainings, and perceptions around accuracy.

Develop clear, accessible information in multiple formats on how TVAAS works. TDOE should provide several information resources, available online and in local settings, for school leaders and teachers to better understand TVAAS in both conceptual and technical aspects. Resources should feature tiered content to speak to educators' differing knowledge levels of TVAAS. Organizing information in a way that is accessible to educators at different points in the TVAAS learning continuum would help clarify areas of concern better than a "one size fits all" approach. In terms of delivery format, TDOE should consider educator-preferred modes of receiving information (e.g., FAQ guides, online videos, and direct emails). TDOE should develop a plan by fall 2016 about what resources

will be developed and when, and execute toward that plan for delivery during summer 2017. CORE office staff could play a key role in supporting educator use and understanding of information guides, in addition to training as described in Recommendation 4.

Highlight best uses of TVAAS data. TDOE should highlight promising practices using growth data to inform teacher instructional strategies and school leader personnel decision-making. Examples should be shared both online (e.g., videos and blog content) and in trainings to further convey ways to use growth data to inform educator development and facilitate administrators' decision-making.

Incentivize TVAAS learning and use through credentialing and certification pathways. TDOE should consider how to leverage credentialing to incentivize deep knowledge of and engagement with TVAAS data. Micro-credentialing, an emerging area of competency-based professional learning, could serve to recognize teacher and principal expertise on TVAAS. In addition, TVAAS knowledge should be incorporated into the Tennessee Educator Acceleration Model (TEAM) certification. The TEAM model fosters discussion around educator improvement through the lens of observation data. Featuring TVAAS as an element of evaluator credentialing in TEAM, as well as the TEAM process itself has the potential to promote more informed dialogue between school leaders and teachers regarding student growth and educator improvement strategies. CORE offices could play a key role in offering micro-credentialing courses and supporting school leader understanding of TEAM certification requirements.

In Partnership, the Tennessee Higher Education Commission (THEC) and TDOE should:

Enhance existing TVAAS “eLearning” modules and increase use across teacher training programs. Given the importance of student data in informing how teachers think about their practice, teacher training programs should probe how value-added data fit into the larger conversation around multiple measures of performance and how a system like TVAAS works. Faculty at several top teacher and leader preparation programs in Tennessee emphasized the need for clear, structured information on TVAAS that they could use in the classroom. Fortunately, an existing set of eLearning modules designed for preservice teacher candidates on value added and TVAAS is available through the SAS website. Unfortunately, few candidates know they exist. Because of the timing of their creation and changes to the TVAAS website, these modules would require updating. TDOE and THEC should work to update the modules and encourage their use across Tennessee educator preparation programs to ensure teacher and principal candidates understand how value-added data can inform their thinking about practice.

2: DEVELOP STATE CAPACITY TO ENHANCE TVAAS SUPPORTS AND CONNECT THESE SUPPORTS TO EDUCATOR IMPROVEMENT

Among their various duties, state education agencies develop, communicate, and implement policies. Often, limited resources pose challenges to achieving understanding and commitment among educators once policies reach the classroom. In addition, limited resources can strain the connection between evaluation and educator improvement efforts. Recent research highlights the importance of intentional support structures for teacher evaluation efforts.⁹ Such supports would go far to change educators' perceptions of TVAAS in the context of their professional learning and growth.

To address these points, we recommend the Tennessee Department of Education:

Develop internal capacity to enhance TVAAS supports, with intentional focus on teacher improvement. Our research has highlighted a significant amount of work at the state level to lead resource development and coordinate TVAAS supports. While resources could be leveraged outside TDOE for certain short-term needs, managing this work requires improved internal capacity. TDOE should align work streams to develop and coordinate TVAAS resources and training across Tennessee. In addition, TDOE should consider how programs and people are structured across evaluation and professional learning. Consistent focus on TVAAS is needed across these streams of work. With improved capacity, the TDOE would be able to ensure more consistent and thoughtful communication about TVAAS, better coordinate resource delivery across Centers of Regional Excellence (CORE) offices, and effectively bridge TVAAS with educator improvement and growth efforts at the state and local levels.

3: EXPAND PORTFOLIO GROWTH MODELS SO MORE TEACHERS HAVE INDIVIDUAL GROWTH DATA

Approximately 48 percent of teachers in Tennessee currently receive an individualized student growth score through TVAAS.¹⁰ If all districts participated in available alternative models of assessing student growth, approximately 70 percent of teachers could receive individual student growth data.¹¹ While there are collaboration-based benefits to having a shared growth measure across teacher grades and subjects, data on individual contributions to student growth are limited to too few teachers. Our findings show the more personalized the growth data, the more inclined teachers are to engage with it to reflect on their practice and inform instructional interventions. Portfolio assessment models—which capture student work through video, audio, and still pictures—provide important student growth information to teachers who would otherwise not receive such data, aiding their instructional improvement.

The Tennessee Department of Education should:

Continue expansion of portfolio growth models through intentional conversation with district leaders and policymakers. TDOE should continue to promote portfolio growth models for teachers who would otherwise receive a literacy, numeracy, or school-level TVAAS growth score. Currently, TDOE offers portfolio assessments in world languages, arts, physical education, and Pre-K/Kindergarten. TDOE should consider expanding portfolio assessments to subjects such as career and technical education to provide more teachers the opportunity for individualized evaluation data. The state should continue to engage district leaders to address the potential benefits and drawbacks of these alternative assessments to understand implications of their potential adoption. TDOE should also engage policymakers in discussions about portfolio growth models, guiding efforts to broaden the scope of adoption. With the support of SCORE, TDOE should develop a district engagement plan on portfolio growth models by early 2017.

Districts should:

Consider portfolio growth models as a supplemental tool to inform instructional improvement efforts. Districts should consult teachers and school leaders about the potential benefits and drawbacks of adopting portfolio growth models across subjects outside the realm of standardized testing. These discussions should consider which subject areas are right for adoption, where innovations could be developed, and how partnering with nearby districts around implementation—particularly in rural areas—could enable adoption of portfolio assessment models.

Policymakers should:

In collaboration with TDOE, develop policy pathways for district adoption of at least one portfolio growth model for teachers in untested subjects. Capacity and cost involved in implementing portfolio assessment models should be clearly articulated.

4: EMPOWER DISTRICTS AND SCHOOL LEADERS TO DELIVER PERSONALIZED, ENGAGING TVAAS TRAINING

Considering possible system approaches to teacher support around TVAAS and professional development, our findings suggest the state should work to provide resources and proven training models that districts can, in turn, use to support school leaders and teachers. We offer the following recommendations:

The Tennessee Department of Education should:

Work with districts and state partners to develop, field test, and deliver training modules. TDOE, through CORE offices, should partner with districts and key stakeholders to build and field test training modules focused on accessing and using TVAAS data in meaningful ways. Training modules around the “what” of TVAAS—what it is in concept and as a measurement tool—should more directly involve district staff and be structured in ways to accommodate educators at different stages of the TVAAS learning continuum. Training modules addressing the “how” of TVAAS—how to access and use the data to inform instructional practice and facilitate decision-making—should favor peer facilitators in small group, school-embedded settings. Using proven training modules, CORE offices, in partnership with organizations like TOSS or other professional associations, could systematically convene and train relevant district staff, school leaders, and teacher leaders in regions across the state in a “train the trainer” style. In addition, TDOE could offer TVAAS trainings through the Integrated Leadership Course (ILC) program. The ILC empowers high-performing principals to design and deliver professional learning content to their principal peers, with emphasis on practice. Through the ILC, school leaders could engage with TVAAS to better use student growth data in their leadership roles. Finally, TDOE should consider how TEAM certification requirements factor into TVAAS training efforts. TDOE should develop a plan for this training by the end of 2016, and execute toward that plan for delivery as soon as feasible.

School districts should:

Integrate TVAAS support and teacher development efforts. Because the desired outcome of an evaluation system is improved instructional practice and higher student achievement, districts should be supported in reflecting on their approach to evaluation and educator development. School districts should inventory what resources are currently allocated to TVAAS supports and teacher improvement, how they are arranged across departments and roles, and what changes could be made to link these areas of work. In partnership with TDOE, districts should build upon innovative models of educator support, such as the Instructional Partnership Initiative (IPI), which pairs teachers with high observation ratings with teachers in need of additional supports. High-performing teachers then provide coaching focused on instructional practice. Value-added data could provide a meaningful indicator in support systems like IPI. In addition, districts should encourage their principals to participate in ILCs. As districts leverage TVAAS resources provided by the state, clear links to teacher improvement should be mapped and initiatives developed to support professional learning.

5: ENHANCE WEBSITE TO IMPROVE EDUCATOR USE OF GROWTH DATA

The TVAAS website is the key portal for educators to access and engage with student growth data. Although many educators find value in the current TVAAS website, they offered a clear call for improved functionality. We recommend:

SAS, guided by the direction of TDOE and consulted educators, should pursue ongoing improvement of the TVAAS website functionality, clarity, and support. Below, we provide a potential set of priority items, based on educator input:

Communicate report concepts clearly. Some of the language on the TVAAS website is confusing. On the lower section of the landing page table, for example, there is a section called, “Estimated School Average Achievement” (when looking at school data). This leads a user to think in terms of achievement levels, rather than learning growth. This example, and other cases of misleading labels, should be addressed to improve clarity.

Enhance report navigation through a menu linking reports to desired actions. Teachers and school leaders in several focus groups mentioned the need for a menu of options that help link reports to desired actions educators would like to take in using growth data. For example, a menu of options that, among other areas, covered “talking to students about past growth” could link to the student projections report. This feature would simplify navigation and highlight the uses of reports.

Increase visual prominence, specificity of “help” function. Improvements have been made in the past year to the help functions of the TVAAS website, including a help link on every page that explains what information reports are showing. This help function should be made more prominent, and complemented by videos for high-use reports, walking educators through the purpose, data, and uses. Furthermore, educators sometimes have technical questions that warrant phone discussion. SAS should increase the visual prominence of the “Contact Us” user support function. SAS offers a call center where questions can be answered. However, few educators appear to know about this service. Efforts should be made to provide a pop-up box or other prominent help reminder.

Enable “batch-printing” of student projection reports. Educators use student projection reports as diagnostic tools to understand how a student is trending in terms of growth. Currently, this report can only be printed off one student at a time. Functionality should be improved to enable class-level batch PDF generation and printing.

Modifications to the website should be pursued as soon as possible and implemented by August 2017.

CONCLUSION

Value-added measures are an important part of the conversation about teacher evaluation and improvement. As our research highlights, there is much work to be done to better communicate and support educators in their understanding and use of student growth data in Tennessee.

In many ways, Tennessee is uniquely equipped to lead efforts in this effort. Several years of experience implementing multiple measures of teacher evaluation, coupled with CORE offices positioned to advance professional learning, set the foundation for real TVAAS-related improvements. The Tennessee Department of Education can take strategic steps to build capacity to ensure this work receives consistent, focused attention. Teachers, principals, and district leaders can contribute insights on a regular basis to enhance resources and supports. With the partnership of THEC, more pre-service teachers can receive information to prepare them best to use and understand TVAAS data when they enter the field. In partnership with SCORE and other groups, TDOE can advance the conversation on providing more teachers with individual growth data to improve instructional practice. Through key modifications to the TVAAS website, teachers and school leaders will be able to access and leverage student growth data in practical, still powerful ways.

SCORE undertook this project to amplify voices of educators and to identify the kinds of training and support they need to use and understand TVAAS data. More than a measure used for educator evaluation, TVAAS is a powerful tool, when used appropriately, to inform instructional approaches that meet students' needs and advance their educational growth. Based on what we heard from teachers and school leaders across Tennessee, our state faces real challenges but has an equally real opportunity to better equip educators through direct resources, training, and ongoing support. Our state's teachers should have every available resource to promote their students' achievement, including a TVAAS system they know and have the confidence to use. That confidence can further empower teachers to meet their ultimate goal of preparing every student for success.

ENDNOTES

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