

Testimony Before the
Select Committee on Public School Accountability

Presented by:
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Introduction

Madame Chair, Mister Chairman, members of the committee, I am Andrew Erben, President of the Texas Institute for Education Reform. Thank you for inviting me to testify. As you recall, Jim Windham testified at your last hearing in Dallas and outlined some of the specific concepts that TIER would like to see incorporated into the state's accountability plan. Today, I've been asked to focus on student growth and value-added measures as they relate to our recommendations.

Before I get into examples, I would like to outline the differences between "growth" and "value-added". According to one of TIER's policy advisors, Chrys Dougherty of the National Center for Educational Accountability, "[t]he growth models ask the question, 'are the students growing fast enough?' whereas value-added models ask, 'is the student growing faster than would be predicted by his or her prior test scores?' and 'which schools, teachers, or programs show the greatest evidence of effectiveness?'"¹ Simply put, growth is the amount of progress a child makes from one year to the next. Growth can be measured in a multitude of ways, but needs to include a vertical scale that measures growth across grades in each subject area. Value-added is related to growth in student achievement, but is not related to growth to a specific standard. It allows us to identify the amount of student achievement that results from the quality of education the child receives.

For example, let's assume we are using a vertical scale to assess students and students are expected to gain 10 points per year to achieve post-secondary readiness (10 points at the end of grade 1, 20 points at the end of grade 2, and so on to 120 points for graduation). Let's also assume that the longitudinal data we have collected indicates that a child who scores 100 on the grade 10 test will likely score a 110 on the grade 11 test (coincidentally, this is the same score necessary to keep the student on the post-secondary readiness track). In other words, the average growth we expect from students who score 100 in grade 10 is 10 points—regardless of the school they attend or the teacher they have (see Figure 1).

If a child who scored 100 in grade 10 scores 115 in grade 11, we have 15 points of growth. We expected 10 points of growth, so the additional 5 points can be attributed to the effectiveness of the teaching or the program. These 5 points were the value that the teachers added above what was expected. Similarly, if the same child scored 105 in grade 11, the teaching was likely ineffective and removed 5 points of value from what we expected.

¹ Dougherty, Chrys, Mellor, Lynn, and Smith, Nancy, *Six Key Uses of Longitudinal Data*, Data Quarterly Campaign, Volume 2, Issue 4, May, 2007, http://www.dataqualitycampaign.org/files/Publications-Newsletter_May07.pdf

There are several advantages to using a value-added model to assess educator effectiveness. First, since predictions are based solely on students' prior academic record, the model does not introduce bias by factoring in race or socioeconomic background. This system is fairer to teachers as well as it bases expectations solely on past academic performance. It also gives credit for a historically low-performing student who increases performance above predictions—even if the student has not yet caught up to grade-level norms.

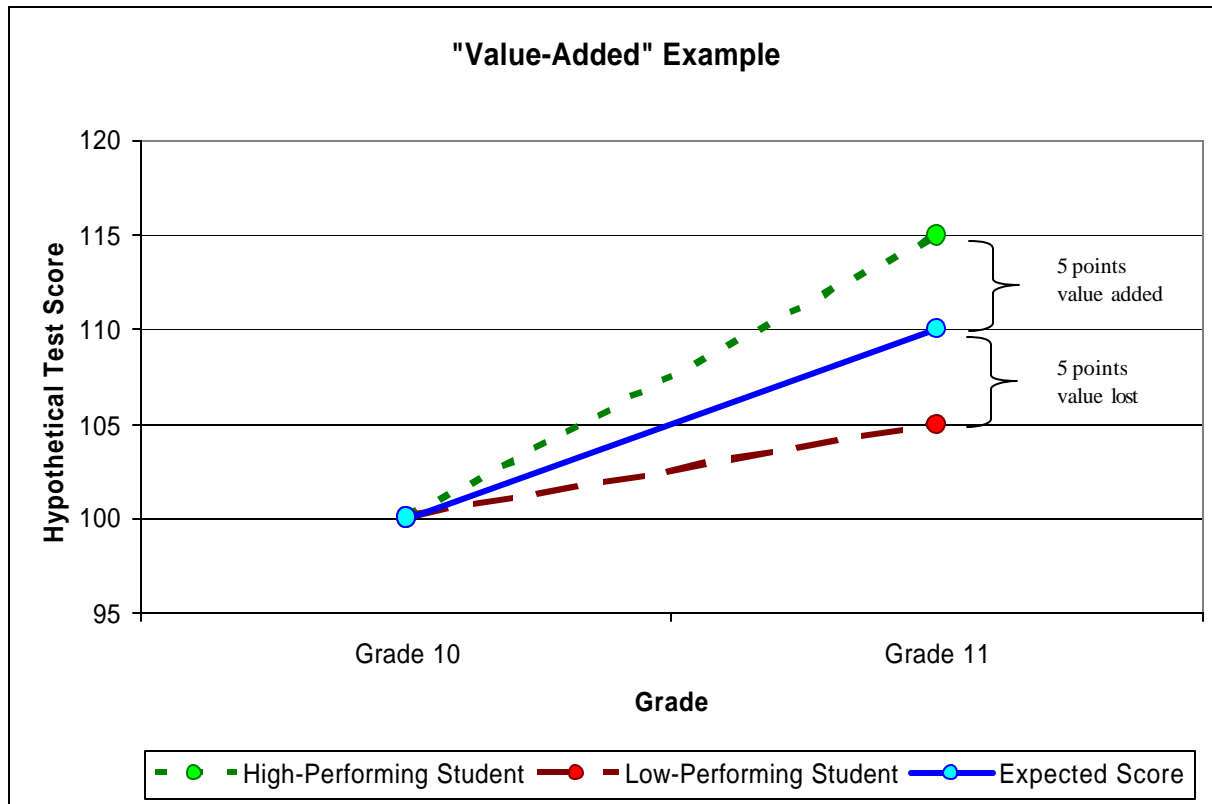


Figure 1.

Value-added measures can supplement absolute test scores to give a more accurate measure of student and teacher performance. Using the example above where students are expected to score 100 in grade 10 and 110 in grade 11, let's look at some at hypothetical examples (see Figure 2). For simplicity, assume that all students in the example are expected to grow by 10 scale points from grade 10 to grade 11.

Student 1 is a high-performing student that scored an above-average 108 in grade 10. In grade 11, Student 1 scored a 120. This student not only exceeded the absolute standard of 110, but that student increased performance by 12 points (value-added = 2) and actually reached the post-secondary readiness standard. This teacher and school would get credit for this student's absolute performance (above 110) and value-added performance (exceeded expectations by 2 points).

Student 2 was also a high-performing student in grade 3—scoring a 105. While his grade 11 score of 112 exceeded the absolute standard of 110, he only gained 7 points during the year

instead of the 10 expected. The teacher and school would get credit for the absolute performance, but would not receive credit for value-added performance. In addition, the educators should note that the student is no longer on track to reach the post-secondary readiness standard and steps should be taken to improve this student’s performance in grade 12.

Student 3 was a low-performing student—scoring a 95 in grade 3. While Student 3 did not achieve the absolute score of 110 in grade 4, the student exceeded expectations on a value-added basis by improving 13 points through the course of the year. In addition, the student is on track to meet the post-secondary readiness standard with a similar gain in grade 12. In this case, the teacher and school would get credit for the student’s marked improvement, even though he did not meet the absolute standard.

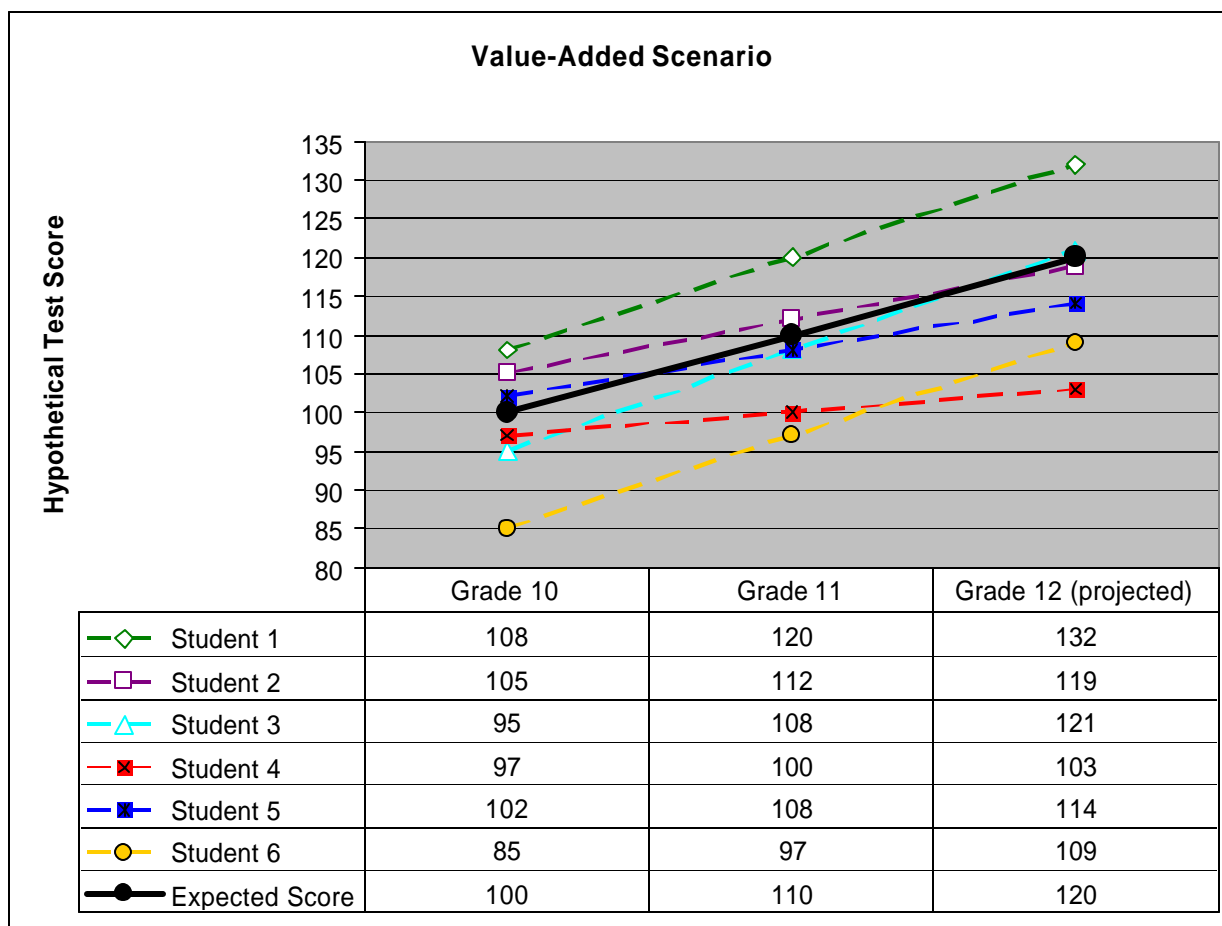


Figure 2.

Student 4 was also low-performing in grade 10. However, Student 4 only gained 3 points throughout the year which is well below the expected increase of 10 points and the absolute score of 110. As a result, no credit is given for this student and, without significant improvement in grade 12, the student will not reach the post-secondary readiness standard.

Student 5 started the year above standard—scoring a 102 in grade 10. However, Student 5 only gained 6 points during the year which was under the expected value-added gain of 10 points. In

addition, this dropped him below the cut score of 110 for grade 11. Therefore, the teacher and the school would not get credit on either a growth-to-standard or value-added basis. Again, educators should note this decline and take corrective action to ensure the student reaches the post-secondary readiness standard in grade 12.

Student 6 was well behind the class in grade 10, scoring an 85 on the assessment. Because of the student's starting position, it will be difficult to make up the 35 additional points he needs to reach post-secondary readiness by the end of grade 12. Due to the efforts of the school and the teachers, Student 6 gained 12 points and scored a 97 in grade 11. While this exceeded our predictions, the student is still not on pace to achieve post-secondary readiness and, as a result, the teacher or the school would not get credit on either basis.

Student 6's situation brings up an interesting point for discussion. Let's say Student 6 did not enter the public school system until grade 6 and was an English language learner. It is very likely that the school did a remarkable job of educating this student. In such cases, the school should be granted special dispensation so that the student does not count negatively in the school's accountability rating. However, if this student had been enrolled earlier, the special dispensation would not be available since the district had ample time to move the student onto a post-secondary readiness track.

I hope these examples help illustrate the differences between growth and value-added systems and the benefits of using both in the accountability system. TIER suggests that the state adopt growth-to-standard and value-added components with the following principles in mind:

1. As we've stated before, post-secondary readiness should be the goal of the public school accountability system. We define it as *"the range of academic, workforce & social proficiency students should acquire to successfully transition from high school to skilled employment, advanced military training, associate's degree, bachelor's degree or technical certification—without the need for remediation."*
2. Adopt a vertical scale that measures student performance toward post-secondary readiness and includes annual benchmarks to gauge whether students are on track to reach that goal. Unlike the Texas Growth Index—which is not tied to post-secondary readiness standards—the new scale would reflect the knowledge and skills students need to be successful in the above-mentioned pursuits.
3. Incorporate both growth-to-standard and value-added measures in the accountability system. In addition to giving teachers and schools credit for each student that meets or exceeds post-secondary readiness benchmarks, give credit for each student that advances more than one grade level per year—as long as the projected growth would result in post-secondary readiness by the end of grade 12.
4. Last session, TIER supported legislation charging the TEA with developing a method to measure annual improvement in each student's achievement on a year-over-year basis and to report average student improvement on a teacher and classroom level. We will again support such legislation. However, we must invest in data systems that produce the

longitudinal student data and the student-teacher data linkages necessary for such growth-to-standard and value-added measures to be effective. Robust data can be used to predict student success, determine the educational methods, course offerings, and/or teachers that are most effective in a given case, and help generate the multiple assessment measures that ensure accuracy and fairness.

5. Use value-added data, in conjunction with other measures and safeguards, to identify the truly outstanding teachers and the truly ineffective teachers. TIER does not envision a ranking system, rather a system in which exceptional educators are recognized and rewarded and ineffective educators can be given the tools they need to improve.

Thank you for your time. I'll be happy to address any questions you may have.