

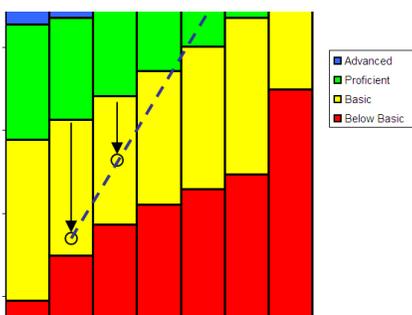
Year One Growth Model Description

The South Dakota Incentive Plus (SDI+) program has four areas in which schools receive incentives. One of those areas is based on achievement (test scores). The first two years of the project, school-wide incentives based on achievement will be implemented.

Because the primary tool for measuring achievement, the Dakota STEP (DSTEP), has been closely associated with No Child Left Behind (NCLB), it is important to contrast the different approach of the SDI+ growth model to NCLB.

The DSTEP has established progressively rising proficiency levels at each grade level, for example in reading 3rd grade = 595; 4th grade = 607; 5th grade = 621, etc. The NCLB approach looks at a single year of student scale scores and counts the number of students who score above that proficiency level. This approach can ignore students who have made great academic growth but are still below proficiency—for many students, their starting point is so low it is nearly impossible to reach the proficiency bar. The SDI+ approach, on the other hand, examines individual student's scores over two years and measures growth from year one to year two. This approach downplays the individual student starting point, and instead emphasizes the progress students make over the course of the school year.

Since each grade level has a different proficiency cut point, traditional growth models cannot allow comparisons across grade levels. Therefore SDI+ has adopted a more relevant and flexible measure: *distance from proficiency*. For example, a student in 4th grade may be -20 scale score points below the proficient line, but in fifth grade the same student may be -7 points below proficiency (see diagram below). This student has *gained* 13 points on proficiency from 4th to 5th grade, even though they are still below the proficiency line.



The SDI+ growth model calculates each student's distance from the proficient line for two consecutive years and determines if a student has gained, maintained, or lost ground to proficiency. These gains are averaged at each school to determine if the school will receive

the school-wide incentive. If the school has a positive gain (rounded to the whole number) or more, they receive the incentive; if the school has zero or negative gain, they receive no achievement incentive.

Students must meet certain criteria to be included in this incentive calculation:

- The student completes the DSTEP two concurrent years.
- The student is designated *school-include* the second year (the current year); this designation, calculated for NCLB, determines if the student is enrolled in the school from October to March.
- The student progresses one grade level from year one to year two.
- Students who take the alternative DSTEP-A (STAARS) are not included.

To receive incentives, schools must show gains in one area, either reading or math.

Other Considerations

Students who “tank” a test can cause extreme positive or negative growth that could potentially skew school averages. All individual student scores will be capped at two standard deviations to limit extreme growth scores.

All high schools and K-3 buildings cannot use DSTEP as they do not have two concurrent grade levels taking the test. DACS or SAT tests are used as alternatives, with a growth model based on normal curve equivalent scores (NCE).

Next Steps

There are limitations to using any single test for measuring student progress. SDI+ will investigate ways to incorporate other tests or measures, including formative types of assessment, into the growth model. We anticipate the growth model will change and evolve over time.

Also, because the SDI+ uses the building leadership team (BLT) model for instructional improvement, educators need good data tools to inform them of student progress and needs. It is our intent to develop more informative-style reports/tools over the course of the project.