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CSAI Report

Review of State Accountability Systems That Include a Student Growth Indicator

How are states incorporating growth measures into their
accountability systems?

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Review of State School Accountability Systems That Include a Student Growth Indicator

No Child Left Behind (NCLB) stipulations placed focus on the percentage of students that met proficiency, but this focus overlooked how far below proficiency some students might be, and how much academic growth would be necessary to meet proficiency. Additionally, focus on proficiency status alone does not provide insight into how much academic growth a student has made, which can inform whether or not a student actually made progress over the course of a school year. Subsequent policy discussions about the role of student proficiency in accountability measures have included exploration of measuring student growth.

Student Growth Indicators

Student growth indicators measure the amount of academic progress a student has made between two points in time.¹ In addition to providing further detail about student learning progress, inclusion of student growth indicators can also provide a more comprehensive view of school performance. As part of accountability decision-making, growth indicators can provide information on how schools are affecting student growth. Under the Every Student Succeeds Act (ESSA), states are supported in continuing to include measures of student growth in accountability measures.

This state review was conducted to examine how states have integrated student growth measures into their school accountability systems, which can provide insight for other states looking to add or reformulate a state growth measure. In this scan, a measure of growth can encompass individual student measures of growth, or measures of student growth relative to other students. Some states also include measures for the growth of the lowest-performing students; states using such a measure are noted in the attached table.

Based on a review of states' Elementary and Secondary Education Act (ESEA) Flexibility Waivers, 29 states have accountability systems that include an indicator for student growth. These states' accountability system indicators are presented in the attached table, with information on other included indicators. All 29 of these states have a measure of student proficiency based on statewide assessments:

¹ Center for Public Education. Measuring student growth: A guide to informed decision making. Retrieved from: <http://www.centerforpubliceducation.org/Main-Menu/Policies/Measuring-student-growth-At-a-glance/Measuring-student-growth-A-guide-to-informed-decision-making.html>.

- **State-set targets** of student growth: growth is identified as the degree to which student achieve a set-set amount of growth or reach a performance benchmark
 - Used by 14 states: AR, CT, DE, FL, ID, IL, IN, MD, MN, MO, MS, NM, OK, SD
- **Student Growth Percentiles (SGPs)**: examine a student’s current academic achievement relative to academic peers who began at the same place; can include adequate growth percentiles (AGPs), which establish achievement targets and a time frame to assess a student’s growth toward target (i.e., growth-to-standard),² and median growth percentiles, which provide an indicator of how well the typical student in a class performed relative to similar students³
 - Used by 12 states: AZ, CO, GA, HI, KS, KY, ME, NV, NY, OR, UT, WV
- **SAS EVAAS model** for value-added growth: proprietary program that follows individual students over time and provides projection reports on students’ future performance⁴
 - Used by 3 states: OH, NC, TN

In addition to measures of state growth, these state accountability systems also incorporate other measures of student proficiency and positive student outcomes. Other indicators included in these state accountability systems include measures of:

Types of State Accountability System Indicators

Indicator	Example From Scanned States
Achievement Gap Reduction	Reduce gaps in student performance between highest- and lowest-performing students
Assessment Participation Rate	Ensure that schools and districts meet 95% student participation rate on state assessments
Attendance Rate	Meet state set target for daily attendance
College and Career Readiness	Calculate student participation in Advanced Placement, International Baccalaureate, or Career and Technical Education courses
Course-Taking and Completion Rates	Calculate percentage of grade 9 students that have earned at least four credits in certain subject areas by a fixed date
Dropout Rate	Calculate dropout rate for all schools
English Language Learner Reclassification Rate	Determine progress of ELL students toward English proficiency
Graduation Rate	Calculate four- and/or five-year cohort graduation rates

² Betebenner, D. W. (2011). *A technical overview of the student growth percentile methodology: Student growth percentiles and percentile growth projections/trajectories*. Dover, NH: The National Center for the Improvement of Educational Assessment.

³ RAND Education. *Student growth percentiles 101: Using relative ranks in student test scores to help measure teacher effectiveness*. Santa Monica, CA: RAND Corporation.

⁴ SAS Institute Inc. SAS EVAAS for K–12 Fact Sheet.

Indicator	Example From Scanned States
K–3 Literacy Improvement	For each grade, determine how well each school moved students who were not on track to read at grade level to being on track

Though ESEA Flexibility Waivers will be void on August 1, 2016, states may elect to maintain the same accountability system indicators. CSAI will monitor future state changes and update this information accordingly.

Table 1 below provides further information on school accountability indicators in the 29 states listed above. In the table, readers will find additional details about the various indicators states are currently using in addition to measures of student growth and proficiency.

For more information on state accountability systems and school ranking formulas, please visit the CSAI web site at www.csai-online.org.

Table 1. State Accountability System Indicators

State	Proficiency Measure	Growth Measure	Other Measures	Notes
Arizona	Proficiency on state reading and math assessments.	Student Growth Percentiles (SGPs) calculated to describe students' academic gains relative to other students who began at the same starting point.	Growth of all students. Growth of bottom 25% of students. Four-year graduation rate. ELL reclassification rate. Dropout rate.	See p. 72 of ESEA waiver.
Arkansas	Proficiency AMOs on state assessments.	Growth AMOs.	Graduation rate. AMOs for CCR-aligned assessments.	See p. 76 of ESEA waiver.
Colorado	Achievement status on state math and ELA assessments.	Student Growth Percentiles (SGPs), including: adequate growth percentiles (growth to a proficiency criterion) and median student growth percentile (normative growth relative to academic peers).	Academic growth gaps. Postsecondary and workforce readiness.	See p. 89 of ESEA waiver.

State	Proficiency Measure	Growth Measure	Other Measures	Notes
Connecticut	Performance indices for Smarter Balanced ELA and math assessments, as well as CMT and CAPT science assessments.	Percentage of students in grades 4–8 meeting growth targets (all students, and students in high-needs subgroup).	<p>Test participation rate (95% target).</p> <p>Percentage of chronically absent students (all students and students in high-needs subgroup).</p> <p>Percentage of students in grades 11–12 participating in at least one of the following: two courses in AP/IB/dual enrollment; or two courses in one of the seven CTE categories; or two workplace experience “courses” in any area.</p> <p>Percentage of grade 9 students on track to graduate.</p> <p>Percentage of first-time grade 9 students who graduate with a regular high school diploma in four years or less.</p> <p>Percentage of first-time grade 9 students who graduate with a regular high school diploma in six years or less (high needs subgroup).</p> <p>Percentage of graduating class enrolled in a two- or four-year postsecondary institution any time during first year after high school graduation.</p> <p>Percentage of students meeting/exceeding the “Health Fitness Zone Standard” in all four areas of the CT Physical Fitness Assessment.</p> <p>Percentage of students in grades 9–12 participating in at least one dance, theater, music, or visual arts course.</p>	See pp. 90–91 of ESEA waiver.

State	Proficiency Measure	Growth Measure	Other Measures	Notes
Delaware	Proficiency on Smarter Balanced ELA and math assessments, as well as DCAS science and social studies assessments (all adjusted for participation rate).	Growth in ELA and math. Growth to proficiency in ELA and math (percentage of full-academic-year students on track to be proficient in less than three assessment periods or by grade 11).	Average daily attendance. Percentage of grade 9 students who have earned at least four credits in four of the following areas: ELA, math, science, social studies, and/or foreign language (by July 31). Four-, five-, and six-year cohort graduation rates. Percentage of graduating students who have demonstrated success on one or more examples of college and career preparation.	See pp. 75–76 of ESEA waiver.
Florida	Achievement on state ELA, math, science, and social studies assessments (social studies only for middle and high schools).	Learning gains. Learning gains of low 25% of students.	Four-year graduation rate. Acceleration success: percentage of students eligible to earn college credit through AP, IB, AICE, dual enrollment, or industry certification (high school); or percentage passing high school-level EOC assessments or Industry Certification programs (middle school).	See p. 65 of ESEA waiver.
Georgia	State assessments.	Student Growth Percentiles (SGPs) — compares student growth relative to other students statewide with similar prior achievement (SGPs are calculated for students with at least two years of data).		See GADOE site .
Hawaii	Student achievement on ELA, math, and science assessments.	Hawaii Growth Model for growth in ELA and math (median growth percentiles).	Current year gap rate.	HI DOE site is currently being updated.

State	Proficiency Measure	Growth Measure	Other Measures	Notes
Idaho	Student performance on Smarter Balanced assessments.	Idaho Growth Model, which includes both median student growth percentile (relative to growth of other schools with similarly performing students) and median adequate growth percentile (adequate growth to get to target within three years or by grade 10).		See pp. 63–64 of ESEA waiver.
Illinois	Percentage of students meeting and exceeding standards on state assessments. Percentage of students meeting PARCC college-readiness benchmarks.	Growth of students in grades 4–11 (see p. 52 of ESEA waiver).	Four- and five-year graduation rates. Achievement gap reduction. Progress of ELL students toward English proficiency. Context targets for schools to establish learning environment and support systems (based on school climate survey).	See pp. 47–49 of ESEA waiver.
Indiana	Student achievement on ELA and math assessments (including EOC tests for high school).	Student growth (of students in bottom 25% and in other 75%).	Four- and five-year graduation rates. College and career readiness (AP exams, IB exams, dual/concurrent enrollment college credits, industry certifications).	See pp. 233–234 of ESEA waiver.
Kansas	Student achievement on state reading and math assessments: Assessment Performance Index (API) — assigns points to each of the top four proficiency levels in fixed equal increments, allowing schools to earn points for advancing students.	Student Growth Percentiles (SGPs) model (based on Betebenner model).	Achievement gap reduction. Reduction in number of non-proficient students.	See p. 99 of ESEA waiver.

State	Proficiency Measure	Growth Measure	Other Measures	Notes
Kentucky	Student achievement on state reading, math, science, social studies, and writing assessments.	<p>Student Growth Percentiles (SGPs) (50%) — compares individual student score to those of academic peers.</p> <p>Categorical Model (50%) — awards points for students who move from one performance level to a higher performance level.</p>	<p>Gap analysis: individual gap groups for AMO targets, non-duplicated gap group, and gap group novice reduction targets.</p> <p>College and career readiness (ACT, Compass, KYOTE, or career technical).</p> <p>Four- and five-year adjusted cohort graduation rate.</p>	See p. 66 of ESEA waiver.
Maine	Performance on state math and reading assessments.	<p>Performance compared to school’s 6th year proficiency goal.</p> <p>Proficiency compared to expected annual growth.</p> <p>Median student growth percentile in math and reading (for elementary schools).</p>	Four- and five-year high school graduation rates, compared to state goal of 90%.	See p. 68 of ESEA waiver.
Maryland	Meeting performance targets (AMOs) on state math, reading, and science assessments.	Percentage of students making one year’s worth of growth on state math and reading assessments.	<p>Gap between lowest and highest subgroups within a school (on state math, reading, and science assessments).</p> <p>Gap between lowest and highest subgroups within a school (cohort graduation rate and cohort dropout rate).</p> <p>Cohort graduation rate.</p> <p>College and career preparation (CCP) — AP/IB, CTE concentrators, college enrollment.</p>	See p. 106 of ESEA waiver.

State	Proficiency Measure	Growth Measure	Other Measures	Notes
Minnesota	Proficiency on state assessments in reading/language arts and math.	Multiple Measurements Rating (MMR): proficiency, individual student growth, growth gap reduction, graduation rates. Growth: “grade-to-growth” model ⁵ .	Attendance. Four-year on-time graduation rate.	See p. 101 of ESEA waiver.
Mississippi	Proficiency on state reading, math, and science assessments.	Growth on state assessments (of all students and of the lowest 25% of students).	Graduation rate. College and career readiness (contingent on state funding).	See pp. 59–60 of ESEA waiver.
Missouri	Student proficiency rate on ELA and math MAP assessments. Annual increase of proficiency rates on ELA and math as measured by MAP Performance Index.	Student growth outcomes in ELA and math.	Gap group achievement score. Graduation rate.	See p. 53 of ESEA waiver.
Nevada	Student performance on state reading and math assessments.	Student Growth Percentiles (SGPs) (based on Betebenner model — includes Adequate Growth Percentile that assesses whether or not a student is on track to proficiency within three years or by grade 8).	Four-year cohort graduation rate. Reduction in performance gaps. Average daily attendance (school-level). College and career readiness (percentage of students earning advanced diploma, percentage of students needing to enroll in remedial courses, demonstrated improvement on participation and performance in AP courses and ACT/SAT). Percentage of students who complete grade 9 with at least five credits.	See pp. 62–63, 72, and 75 of ESEA waiver.

⁵ Smith, R. L., & Yen, W. M. (2006). Models for evaluating grade-to-grade growth. In R. W. Lissitz (Ed.), *Longitudinal and Value Added Modeling of Student Performance* (pp. 82–94). Maple Grove, MN: JAM Press.

State	Proficiency Measure	Growth Measure	Other Measures	Notes
New Mexico	Student performance in math and reading.	School growth. Individual student growth (over three-year period) of highest- and lowest-performing students.	Opportunity to learn indicators: attendance, classroom survey. Four-, five-, and six-year graduation rates. Percentage of students participating in college entrance exams and coursework leading to dual credit and vocational certification. Bonus points for student and parent engagement.	See pp. 58–59 of ESEA waiver.
New York	Results from state ELA, math, and science assessments. Results from Regents exams in ELA and math.	Median student growth percentiles. Year-to-year gains in ELA and math performance, graduation rates.	Four- and five-year graduation rates. Participation on state assessments.	See NYSED site .
North Carolina	Results from end-of-grade and end-of-course assessments in mathematics, reading, and science.	SAS EVAAS model to measure the growth student groups make in one year.	Four-year cohort graduation rate. Students who achieve college readiness test minimum score required for admission into the University of North Carolina system. Students enrolled in Career and Technical Education Courses who meet standard on nationally normed workplace readiness assessment.	See NCDPI site .
Ohio	Performance index and performance indicators based on state reading and math assessments.	SAS at EVAAS model used to calculate value-added measure effect of schools on student growth. Progress: value-added measure and new value-added measures for gifted students, students with disabilities, and the lowest 20% of subgroup students.	Graduation: four- and five-year cohorts. Gap closure. K–3 literacy improvement. Prepared for success (how well students are prepared for college and careers without needing to take remedial courses).	See p. 58 of ESEA waiver.

State	Proficiency Measure	Growth Measure	Other Measures	Notes
Oklahoma	Student scores on all state criterion-referenced tests and end-of-instruction tests.	Student learning gains on state reading and math assessments. Improvement of lowest 25% of students on state reading and math assessments.	Four-year adjusted cohort graduation rate (including graduation rate of students who scored at Limited Knowledge or Unsatisfactory on grade 8 criterion-referenced reading and math assessments). Performance and participation in AP, IB, concurrent enrollment, Advanced International Certificate of Education courses, and national industry certification. Postsecondary readiness (SAT or ACT). Percentage of students completing college and career preparatory curriculum. Attendance rate. Dropout rate.	See p. 48 of ESEA waiver.
Oregon	Student achievement on state reading and math assessments.	Growth of all students and of disadvantaged subgroups (growth model is based on Betebenner model).	Graduation: all students, subgroup graduation rates. Participation rate. Attendance.	See p. 67 of ESEA waiver.
South Dakota	Percentage of students scoring at or above proficient on state ELA and math assessments.	For elementary and middle schools: growth of lowest quartile of students in a school or district (50%) and growth of all students in a school or district (50%) (note: if a school has less than 40 students with two or more years of test scores, all points will be based on growth of all students).	For elementary and middle schools: attendance (percentage of enrolled students meeting target of 94%).	See p. 57 of ESEA waiver.

State	Proficiency Measure	Growth Measure	Other Measures	Notes
Tennessee	Student achievement on state reading/language arts and math assessments. Student achievement on ACT.	Growth: measured by change in proficiency percentages, overall value-added scores (as measured by TVAAS).	Graduation rate. Gap closure status.	See pp. 44–51 of ESEA waiver.
Utah	Percentage of students scoring at or above proficient on ELA, math, and science SAGE assessments.	Student Growth Percentiles (SGPs): compares student progress with that of other students with same prior achievement pattern (calculated for all students and below proficiency students).	Assessment participation rate (95%). Graduation rate.	See p. 41 of ESEA waiver.
West Virginia	Student proficiency on state reading/language arts and math assessments.	West Virginia Growth Model: growth for a given student compared to other state students with similar prior academic-scale scores. Observed growth (median student growth percentile). Adequate growth (measured by state reading/language arts and math assessments).	Achievement gap (differences in proficiency between subgroups and non-membership students). Attendance rates. Four- and five-year adjusted cohort graduation rates.	See p. 88 of ESEA waiver.