## House Research

## **Short Subjects**

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## **Measures of Student Learning and School Accountability**

Policymakers are debating how to reconcile student achievement and growth measures The anticipated reauthorization of the federal No Child Left Behind Act (NCLB) and a state requirement that the Education Commissioner include a value-added component on the school report card by the 2008-2009 school year have led to a discussion about the student academic achievement model used to calculate adequate yearly progress and identify successful and failing schools. The legislature is considering the use of two different measures to determine student achievement: an achievement measure that shows what students have achieved at one point in time and a growth measure that shows how much progress students have made between two points in time.

The 2008 Legislature passed a bill adding a student growth measure with a value-added component onto the school report card, and the governor vetoed the bill. The federal law does not allow the value-added growth model for *federal* accountability because the model does not require all students to become proficient in reading and math by the 2013-2014 school year. However, the federal law does not prevent a state from using a value-added growth model for *state* accountability.

NCLB requires public schools to close the academic achievement gap among groups of students Under NCLB, schools and districts must show that they are making "adequate yearly progress" (AYP) sufficient to ensure that all students are proficient in reading and math. A major purpose of this law is to help states close the academic achievement gap that exists among different groups of students in many public schools, including students who are identified as members of racial and ethnic minority groups, those with limited English proficiency, those who are economically disadvantaged, and students with disabilities. The federal law imposes consequences and redirects the federal resources of schools that fail to sufficiently improve the test scores of low-performing students.

Schools that fail to make AYP for at least two years are considered to be "failing" To comply with the federal law, Minnesota's accountability plan identifies student "performance indicators" that it uses to determine which schools are making AYP. Student performance indicators must include reading and math proficiency, participation rates on reading and math assessments, high school graduation rates, and a K-8 indicator. All students in all groups must achieve proficiency on Minnesota's reading and math tests by the 2014 deadline. Schools where enough additional students in identified groups fail to achieve proficiency on state reading and math tests for two consecutive school years or more acquire the status of "failing" and are subject to increasingly severe sanctions.

AYP does not account for students' initial performance levels

As required by NCLB, AYP uses an achievement measure to assess student learning. Critics have contended that this requires schools to demonstrate significant academic achievement for all students without taking into account students' initial performance levels. As a result, schools are judged in part by how much knowledge students bring with them to school. Also, different schools are

subject to different standards because some must show only small academic gains and others must show very large academic gains in order to make AYP.

Achievement measures show proficiency of each student "subgroup" at one point in time To measure student performance and develop a more complete picture of student learning, some policymakers advocate using existing annual state test data to report two different but complementary school measures.

Minnesota currently uses an academic **achievement measure** to calculate AYP. This achievement measure shows what students have achieved at one point in time on the state reading and math tests based on state standards of academic proficiency. The achievement measure defines "success" by the number of students in each identified group who are proficient on the state tests. The measure is affected by demographic and other factors outside the school. It does not report students' rate of progress toward proficiency or the amount of student progress beyond what is proficient.

Growth measures show academic progress between two points in time A complementary student **growth measure** uses the same annual test data to determine how much academic growth or progress a student makes between two points in time. This measure can define "success" by how much a student learned compared with other students in similar circumstances. It is largely independent of demographic and other factors outside the school and more dependent on what happens in school. Schools can use **value-added growth** data to try to determine the impact of curriculum, instruction, programs, and practices on the rate of academic growth or progress of individual students and groups of students.

A federal pilot program uses a growth model to project future student proficiency Eleven states currently participate in a federal growth model pilot program. Many use a model that identifies schools where students are projected to become proficient in the future, giving the schools more time to make students proficient. One difficulty with the projection model is that, like the achievement measure, it holds schools to different standards—schools with high initial achievement levels need to make only small learning gains and schools with low initial achievement levels need to make very large learning gains. Another difficulty is that this model expects students' learning gains to increase at a constant rate across grades although data suggest that the rate at which students learn decreases over time.

A value-added growth model may be a fair way to compare schools' effectiveness Some policymakers argue that using a value-added growth model to measure the relative effectiveness of schools based on students' initial achievement levels is a fairer way to compare schools. They say that the model can be used to try to determine schools' impact on student progress and identify schools where students have low initial achievement levels and high academic growth and schools where students have high initial achievement levels and high academic growth. They argue that schools use such information to modify instruction and align professional development to better meet students' needs.

**For more information:** Contact legislative analyst Lisa Larson at 651-296-8036. Also see the House Research publications *Minnesota's K-12 Academic Standards and Assessments*, August 2006, and *Adequate Yearly Progress Under the No Child Left Behind Act*, November 2003.

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