



Missouri Growth Model: Executive Summary

Top 10 by 20

- **Goal 1: All Missouri students will graduate college and career ready.**
- **Goal 3: Missouri will prepare, develop and support effective educators.**

Introduction

The Missouri Growth Model is intended to encourage improved student achievement as part of the state's goal to reach the top 10 of states for education by 2020. The model was researched, developed and piloted from 2010-2012 with the input of technical experts on growth models, a Missouri Steering Committee and 157 Missouri school districts and charter schools representing about 50 percent of the state's student population. The completion of the pilot project culminated in a number of recommendations for the implementation of growth data in both the Missouri School Improvement Program (MSIP) and the Missouri Educator Evaluation System.

Please note that student growth is defined as the change in achievement (as measured by the Missouri Assessment Program English language arts and mathematics assessments) for an individual student between two or more points in time.

An overview of the following will be provided in this Executive Summary: purposes of the model, lessons learned through the growth model pilot project, a general overview of the Missouri Growth Model (see <http://dese.mo.gov/mogrowthmodel/documents/overview.pdf> for an overview of growth calculations for MSIP and <http://dese.mo.gov/mogrowthmodel/documents/technical.pdf> for technical documentation on the model) and the next steps for implementation.

Purposes of the Model

The Missouri Department of Elementary and Secondary Education (the Department), in consultation with members of the Missouri Growth Model Technical Advisory Committee (see <http://dese.mo.gov/mogrowthmodel/documents/tac.pdf>), focused its efforts on developing a system for measuring student growth in achievement that met the following purposes:

- Measure district-level growth against a standard tied to state targets.
- Use student-level results to inform classroom practice.
- Provide districts with growth data to incorporate into their educator evaluation systems.
- Provide growth data for the educator preparation program accreditation system.

These multiple purposes for the Missouri growth model helped shape the selection of a specific method for calculating growth. The state wanted to use a single aligned system for calculating growth over time

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and across a variety of contexts. The overarching goal of the measurement is to incentivize improvement in student achievement by comparing performance to the state's targets.

Lessons Learned

During the course of the growth pilot project, many important lessons were learned surrounding the processes needed to calculate growth data and generate related reports. One important lesson learned was that, because growth measures are estimates, there is always a chance they could be off. The solution devised by the Department is that growth data should be one of multiple measures of student achievement in any state accountability system or educator evaluation system. Growth is just one factor in determining the success of a school, district, educator or educator preparation program. Growth should not be used as the single, determining factor in evaluations.

Another lesson learned was that the model should support multiple uses and be aligned both in terms of methodology and decision-making frameworks. Using a single model for calculating growth helps simplify the system and allows for cross comparison of the resulting data. Using different growth calculations for different purposes would ultimately lead to confusion in the system and would not provide valid and reliable comparisons.

Ongoing professional development will be needed to help stakeholders interpret and use growth data. A growth model should be simple enough that principals, superintendents and teachers can understand how the calculation was created. This model is a tool for local education agencies as well as the state to determine the effectiveness of the schools and to strive to improve their performance.

The Basics of Calculating Student Growth

Missouri's goal is to become one of the top 10 states for education by the year 2020. The Missouri growth model starts with the state's own high standards for student achievement. Ambitious but achievable targets are then set using those standards. The Missouri model for calculating student growth uses student and district past performance to project future performance. Students' actual performance compared with projected performance is then evaluated against the state's targets.

Step 1

- A student's growth for the current year is projected based on available data.
- Student mobility, prior test scores and the district's or a school's prior performance are taken into consideration to generate projected test performance using statistical methods.

Step 2

- Student performance can meet, exceed, or fall short of projections.
- Actual growth of each student relative to projections is determined.
- Patterns in student growth are analyzed to estimate each district's impact.
- Impact estimates are compared to state targets.

The model's goal is to measure student growth according to standards designed to propel Missouri into the Top 10 of US States by 2020. To the extent possible, the standards will be determined by the national, international, and college and career ready assessments that will be in place by 2014-15. This approach will allow Missouri to compare growth against other states and nations in a fair and consistent manner.

Next Steps

Both status—a combined average of recent achievement results—and growth will be reflected in the MSIP 5 Annual Performance Report. In its fifth cycle, Missouri’s state accountability system gives credit to districts that show students are improving their skills in English language arts and mathematics. Districts can reach full accreditation through meeting rigorous status targets and/or showing significant student growth.

The data provided by the Missouri Growth Model will also be available as one measure of effectiveness in the Educator Evaluation Model. The educator evaluation system, piloted during the 2012-2013 school year, focuses on improving the practices of superintendents, principals and teachers. The growth model should be used by districts as one measure of data in addition to many others. Educator Evaluation System Essential Principle 4: Use of Student Measures of Growth in Learning, states the following:

“Multiple measures of growth in student learning, a positive change in student achievement between two or more points in time, should be included as a significant part of the evaluation process. Measures of growth in student learning may include, but are not limited to: common, benchmark and formative district-generated assessments; peer-reviewed performance assessments; mutually developed student learning objectives by evaluator and teacher; student work samples such as presentations, papers, projects, and portfolios; individualized student growth objectives defined by the teacher; and valid, reliable, timely, and meaningful information from standardized testing.”

Going forward, professional development will continue to be provided in the use of growth data. Opportunities for education will include webinars, workshops and presentations at conferences around the state.

In conclusion, it is important to note that implementation of the Missouri Growth Model is still in its early stages. The Department will continue to refine the model as necessary with feedback from district stakeholders and technical experts. Also, changes in the assessment landscape will need to be accommodated as they occur. Information and guidance regarding the use of growth data across multiple Department initiatives will be made available as implementation continues.