

## Growth Data Help Summary

### How are growth score codes of low, medium, and high assigned?

In general, students who have a growth z-score of less than -0.5 have low growth (L); students who have a growth z-score between -0.5 and +0.5 have medium growth (M); students who have a growth z-score of greater than +0.5 have high growth (H). Students may have slightly higher or lower growth z-scores than these cut points because the nearest scale score is used for classification of low, medium, and high rather than a strict correspondence with the observed growth z-score. This means it is possible that a student may have a growth z-score of +0.55 but receive a growth code of medium.

### What is important to consider when using the growth score codes of low, medium, and high?

The growth score codes reported on the Minnesota Report Card > Student Progress and in the Data Center > Data Reports and Analytics > Assessment and Growth are based on the Minnesota Growth model. This model was developed only using results from the Minnesota Comprehensive Assessment (MCA) mathematics and reading assessments. Students must have taken and received valid scores on the MCAs in both 2015 and 2016 to receive a growth score. Additionally, students must have made normal grade progression (e.g., taking the grade 3 exam in 2015 and grade 4 exam in 2016). Students in grade 3 do not have a growth z-score or growth score code because they could not have taken the MCA in grade 2.

The growth score codes of low, medium, and high **do not represent** whether a student has learned less than, about a year, or more than a year's worth of material; there is no clear relationship between growth z-scores and information learned. The growth score codes only indicate how a student is performing relative to students who appeared to have a similar level of knowledge in the prior year. Students with low growth performed lower in the current year than the majority of students who had scored similarly to them in the prior year. Students with high growth performed higher in the current year than the majority of students who had scored similarly to them in the prior year. Students with medium growth may have performed better or worse in the current year than the average student who had scored similarly to them in the prior year.

The designations of low, medium, and high do not directly indicate whether a student is performing at a level that has them on a trajectory to become proficient or maintain proficiency. In general, students who were not proficient in the prior year need to have high growth in the current year to be on a trajectory which indicates it is likely the student will be proficient in future years. For students who were proficient in the prior year, high or medium growth has historically been predictive of maintaining proficiency. However, because medium growth can indicate falling behind their peers on average, caution should be taken with assuming medium growth is sufficient to maintain proficiency.

## What are growth z-scores?

Minnesota's Growth Model could be described as representing an empirical, actuarial, or normative approach to setting year-to-year expectations for changes in academic achievement. The basic approach is to define groups of students based on their MCA scores in the prior year (grade N) and determine their MCA score distributions in the current year (grade N+1).

Scores that report variations around a mean in standard deviation units are commonly referred to as z-scores. In general, a student's growth z-score can be calculated as:

$$\text{Growth z-score} = (\text{Student Score} - \text{Expectation}) / \text{Standard Deviation}$$

The average student in any group would be expected to earn the group mean, or a z-score of zero. Therefore, zero is the expectation for meeting growth targets each year. Negative growth z-scores represent current achievement below expectation, whereas positive growth z-scores indicate achievement better than expected, given the prior year score. For more information about how growth scores are calculated, please see the video about [MMR Growth](#).

Expectations or targets for students are set based on average improvements from year to year on statewide assessments. Expectations are slightly adjusted for the first three years after a test was first given. Therefore, growth expectations were set for mathematics grades three-eight in 2014, for reading in all tested grades in 2015, and for mathematics in grade 11 in 2016. [See the growth expectations for 2015](#).

## Where can I find more growth data in the MDE Data Center?

### Minnesota Report Card

- Student Progress report: Utilizes the Minnesota Growth model. The first panel shows the percentage of students "on track" for success. This is the percentage of students who had been proficient in the prior year and had high or medium growth plus the percentage of the students who had not been proficient in the prior year with high growth. The second panel shows the proportions of students receiving a growth score code of low, medium, or high in the most recent year of data available. The third panel shows the matrix of proficient or not proficient in the previous year with the growth score codes for the most recent year of data available.
- School Performance report: Presents the average growth z-score across math and reading used in MMR Growth. The achievement gap reduction score is also based on growth z-scores. MMR growth is fundamentally the same as the Minnesota Growth model, except students taking MTAS (and historically MOD) are also included.

### Data Reports and Analytics

- Determining Growth Target Ranges for 2015: Select the link called Assessment and Growth Files. There, select the test name to be Growth and 2015 for the year. This file provides the growth targets by test and grade for 2015 in both mathematics and reading. This file also describes the process by which growth targets are calculated.
- Minnesota Growth Model: To find Minnesota Growth data, select the link called Assessment and Growth Files. There, select the test to be Growth and the year of data you are seeking.

The xlsx extension file will provide Minnesota Growth data broken down by grade for all schools and districts in the state. In order to see information by grade by student group, the zip file must be downloaded. The functional requirements and growth targets files mentioned above are also both available there.

- Multiple Measurement Files: Provides a spreadsheet of all schools in the state, which includes all the information provided on the Minnesota Report Card's School Performance report.
- Multiple Measurement District Download: Provides information for all schools within a particular district in a spreadsheet with several tabs. Information by student group and subject are provided for each of the MMR domains, as appropriate.

For more information on MMR, please see the Multiple Measurement Rating (MMR) [webpage](#).  
MDE > School Support > Elementary and Secondary Education Act (ESEA) Flexibility Waiver > Multiple Measurement Rating (MMR).

### Secure Reports

If you have access to Assessment Secure Reports (as is required to download the DSR/SSR), you will have access to all Secure Reports listed below.

- Growth Detail Download: Provides a spreadsheet of individual student data, including specific students' growth z-scores, prior year, and current year score information.
- Proficiency and Growth Tracking report: Creates pivot tables from the Growth Detail Download using AYP filters and logic.
- Growth Summary Report and Download: Provides the data which is presented in the Student Progress report on the Minnesota Report Card. However, unlike the data on the Report Card, the data can be split by grade and student group.
- Multiple Measurement System report: Provides more in depth information for average growth z-scores by student groups and subject, as appropriate for the growth and achievement gap reduction domains using MMR Growth.

For more information on MMR, please see the Multiple Measurement Rating (MMR) [webpage](#).  
MDE > School Support > Elementary and Secondary Education Act (ESEA) Flexibility Waiver > Multiple Measurement Rating (MMR).