

Georgia Student Growth Model Visualization Tool User Manual

Introduction

This document provides information on accessing and utilizing the features of the Georgia Student Growth Model (GSGM) visualization tool. For more information about the GSGM, including interpretation of Student Growth Percentiles (SGPs) please refer to other informational materials available on the GaDOE Assessment Website (<http://www.gadoe.org/Curriculum-Instruction-and-Assessment/Assessment/Pages/Georgia-Student-Growth-Model.aspx>).

Accessing the GSGM Visualization Tool

The GSGM is housed within the State Longitudinal Data System (SLDS). In order to access the GSGM, educators need access to the SLDS through their district's Student Information System (SIS). Educators who do not have such access should work with their school or district's SIS Administrator. Once logged into the SIS, select the SLDS link, and then select the Growth Model link from the blue menu at the top of the screen.

Technology Requirements

Refer to the document "Browser Setting Specifications for Statewide Longitudinal Data System (SLDS) Version 5.0" for detailed information on configuring your computer settings to be able to access the GSGM through the SLDS.

Accessible Data

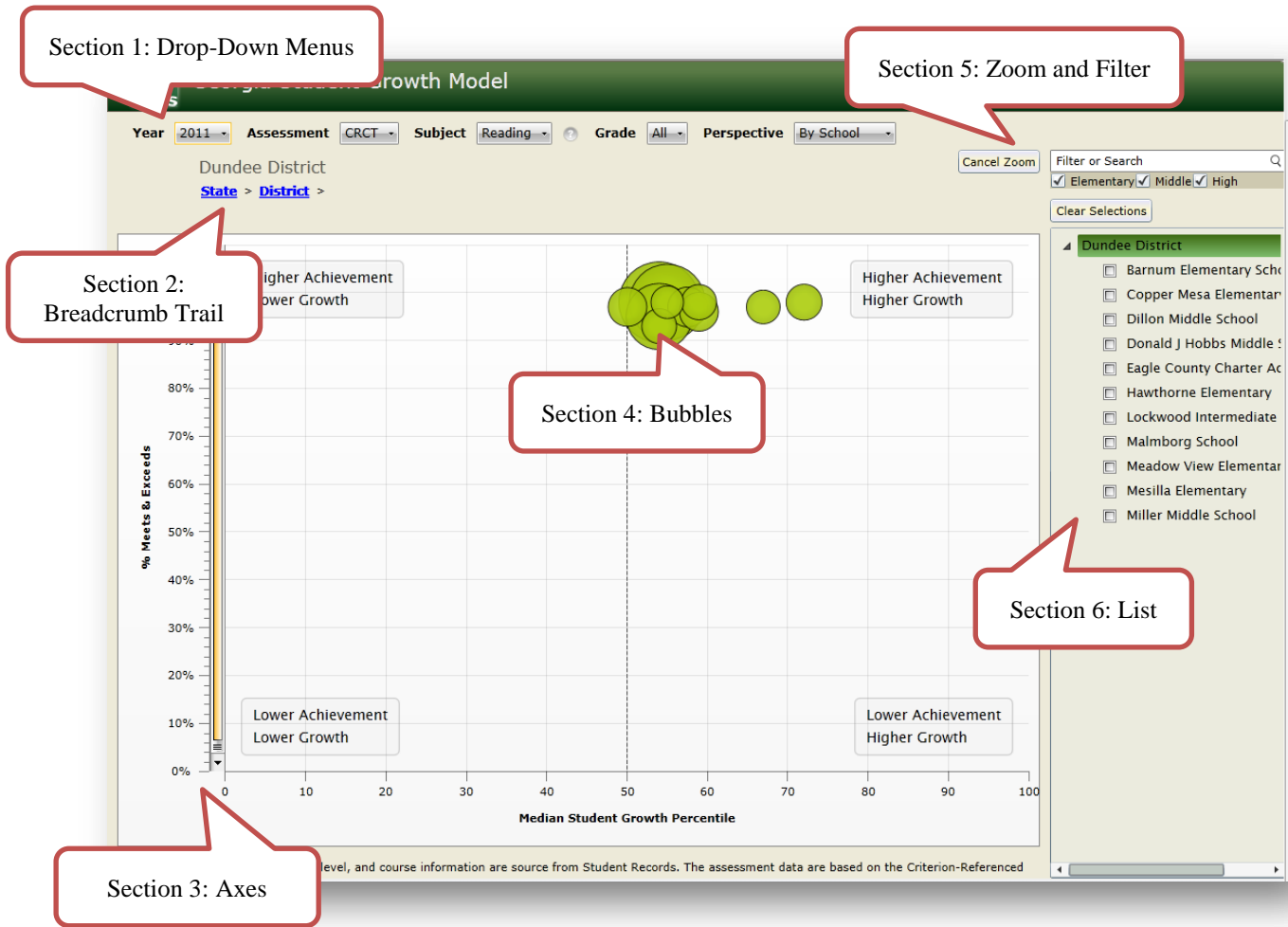
Users are restricted to the data they can access based on their roles within SLDS. District-level personnel are able to access all information about their district, including information at the district level, school level, teacher level, and student level. While district-level users can see how their district performed relative to other districts, such users are unable to access more specific information about other districts. School-level administrators are able to access all information about their school, including information at the school level, teacher level, and student level. While school administrators can see how their school performed relative to other schools in their district and how their district performed relative to other districts, such users are unable to access more specific information about other schools or districts. Teachers are able to access all information about the students they teach. While teachers can see how their school performed relative to other schools in their district, and how their district performed relative to other districts, such users are unable to access more specific information about other teachers, schools, or districts.

Information about students' districts, schools, teachers, and course sections are based on district-submitted and approved Student Record Course History data.

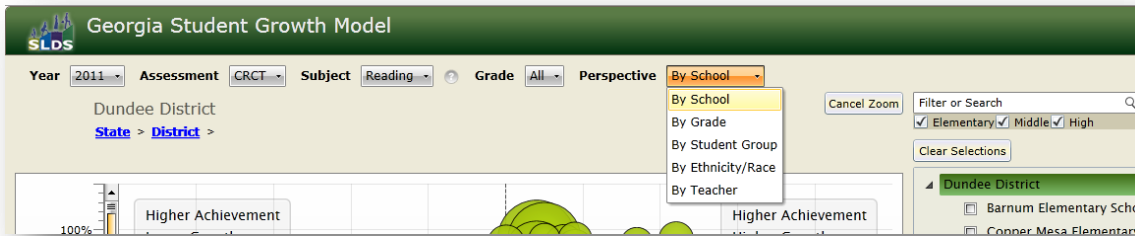
Navigation

This section provides information about the layout, features, and capabilities of the GSGM visualization tool. The features and capabilities are labeled in the layout section and are described in more detail in following sections.

Layout

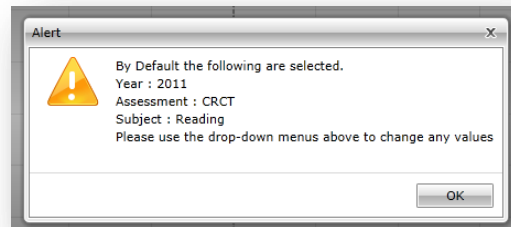


Section 1: Drop-Down Menus



The drop-down menus, located at the top of the screen under the Georgia Student Growth Model heading, are used to select the information that will be displayed on the bubble chart. There are five menus: Year, Assessment, Subject, Grade, and Perspective.

- **Year** is used to select the school year for which data is displayed. School years are labeled by the spring semester. For example, the 2010-2011 school year will be displayed as 2011.
- **Assessment** is used to select the assessment being displayed – CRCT or EOCT.
- **Subject** is used to select the subject being displayed. The options for the CRCT are Reading, English/Language Arts, Mathematics, Social Studies, and Science. The options for the EOCT are Ninth Grade Literature and Composition, American Literature and Composition, Mathematics I, Mathematics II, GPS Algebra (beginning with 2012), GPS Geometry (beginning with 2012), Biology, Physical Science, United States History, and Economics/Business/Free Enterprise.
- **Grade** is used to filter the growth model data by student grade level. For the CRCT, grade refers to the grade level of the assessment. For the EOCTs, grade refers to the student’s grade level. There is an “All” option that will yield results for all applicable grade levels.
- **Perspective** is used to select the unit of analysis that the bubbles represent. The options are By School, By Grade, By Student Group, By Race/Ethnicity, By Teacher, and By Section. The option selected defines what the bubbles represent. For example, if By School is selected, each bubble will represent a school. The list of available schools will appear on the right. Similarly, if By Student Group is selected, the bubbles will represent various student groups, which will appear on the right. Various perspective options are available depending on the data being viewed.



By default, the drop-down menus are set to certain values. When first accessing the GSGM, an alert will appear with the default selections, informing the user to use the drop-down menus to change any values. The default selections include:

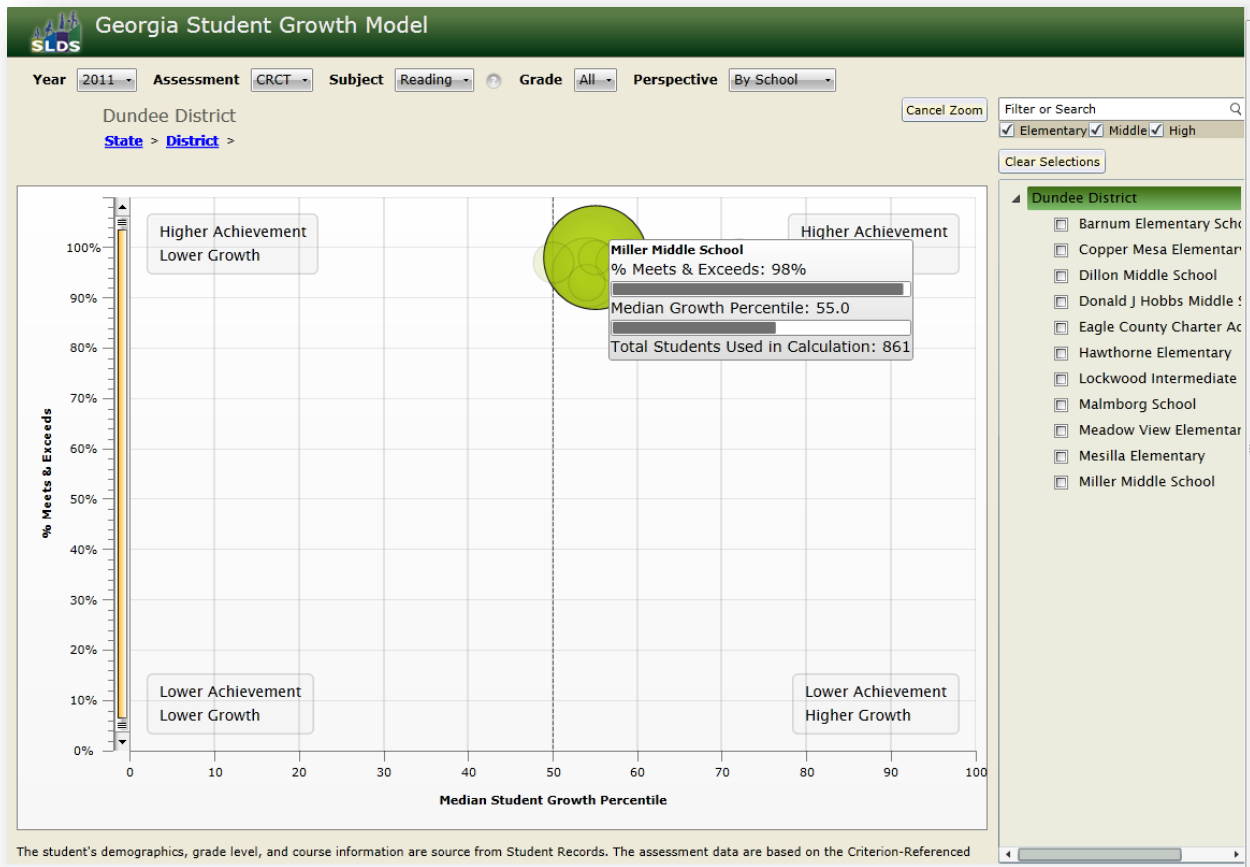
- Year: 2011 (*or most recent school year*)
- Assessment: CRCT
- Subject: Reading
- Perspective: *Varies depending on user*

Section 2: Breadcrumb Trail



The breadcrumb trail – located under the drop-down menus – keeps a record of how a user has drilled-down through the data. The breadcrumbs are active hyperlinks, which allow users to return to a previous view in the current trail. For example, a user reviewing data for Hawthorne Elementary School may have drilled-down to a specific teacher and then to one of that teacher’s specific course sections. The user can return to the school view by clicking the “school” hyperlink in the breadcrumb trail. The links in this trail should be used to return to previous views instead of the browser’s “back” button. This breadcrumb trail is very useful for reminding users what data is currently being displayed.

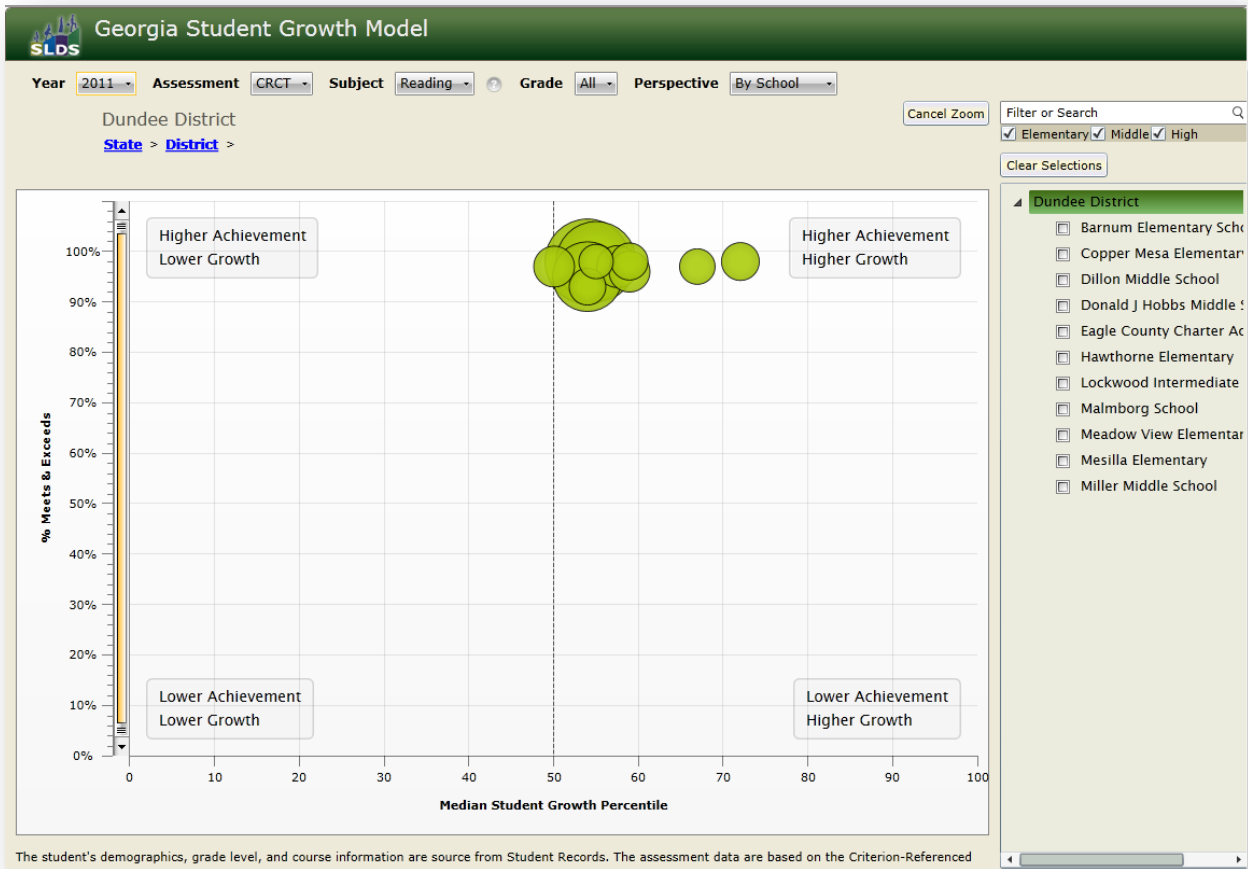
Section 3: Axes



The GSGM visualization tool displays median student growth percentiles as a function of the percentage of students meeting or exceeding state standards on the specified assessment. The horizontal, or x-, axis displays the median student growth percentile. The median is the middle value in an ordered list of growth percentiles for all students in a group. The vertical, or y-, axis displays the percentage of students meeting or exceeding the state standard on the assessment. In the example above, the bubble for Miller Middle School indicates that this school demonstrated 55th percentile growth and had 98% of students meet or exceed the state standard. This example is for the Reading CRCT for all grades in 2011 (this information is provided in the drop-down menus).

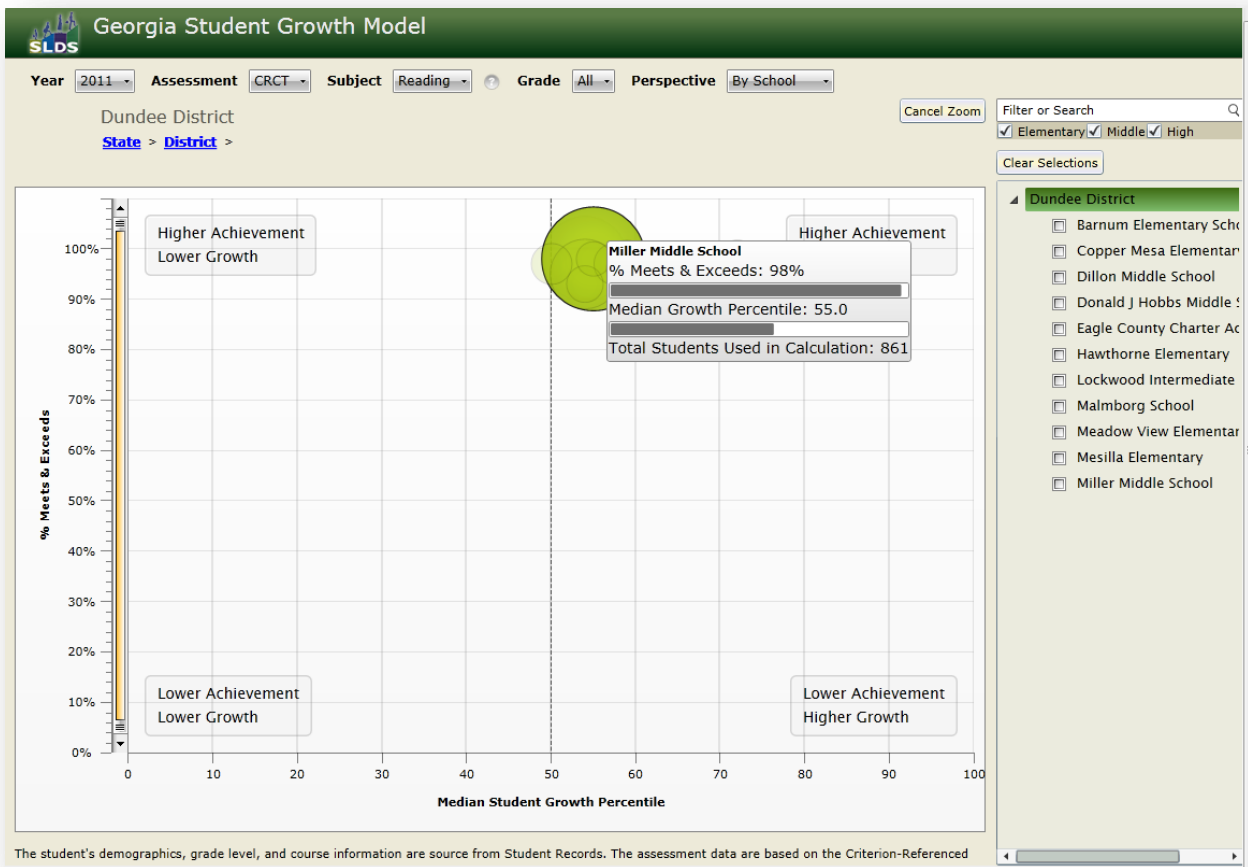
There are four labels on the graph that assist users in interpreting the relative position of bubbles. For the vertical axis, the percentage of students meeting and exceeding standards increases from the bottom to the top of the axis. For the horizontal axis, the median student growth percentile increases from the left to the right of the axis. The labels in the four corners of the graph provide such descriptions. The lower left-hand corner represents lower achievement and lower growth. The upper left-hand corner represents higher achievement and lower growth. The upper right-hand corner represents higher achievement and higher growth. Finally, the lower right-hand corner represents lower achievement and higher growth.

Section 4: Bubbles

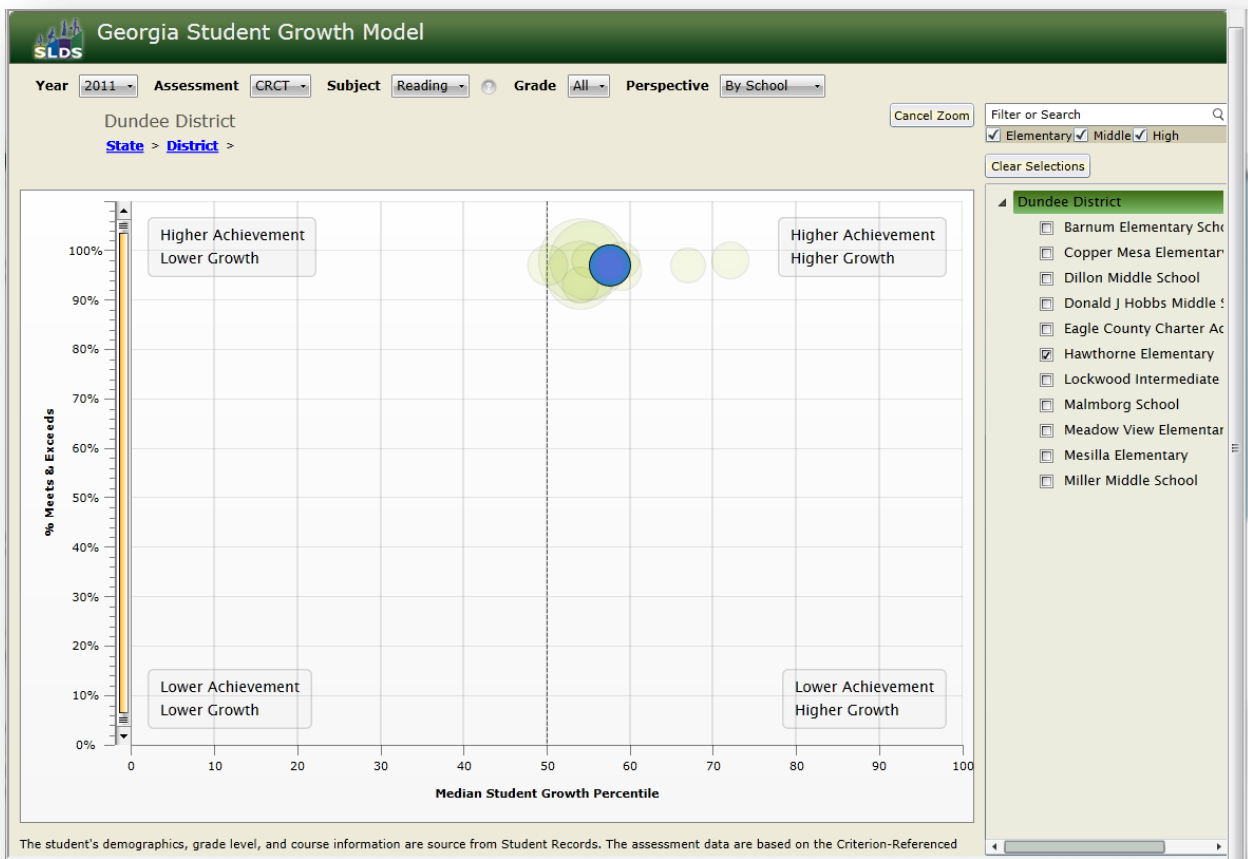


Sometimes referred to as a bubble chart, the GSGM visualization tool utilizes bubbles to convey information about student growth. A single bubble represents a group of students. That group could be a district, school, teacher, section, grade, or other student group. All of the bubbles displayed on the screen will be listed by their names in the list on the right. In the example above, the bubbles represent the schools in Dundee District that have growth percentiles for 2011 CRCT Reading. The size of the bubble is determined by the number of students included in the bubble's calculation. Larger bubbles represent larger numbers of students while smaller bubbles represent smaller numbers of students.

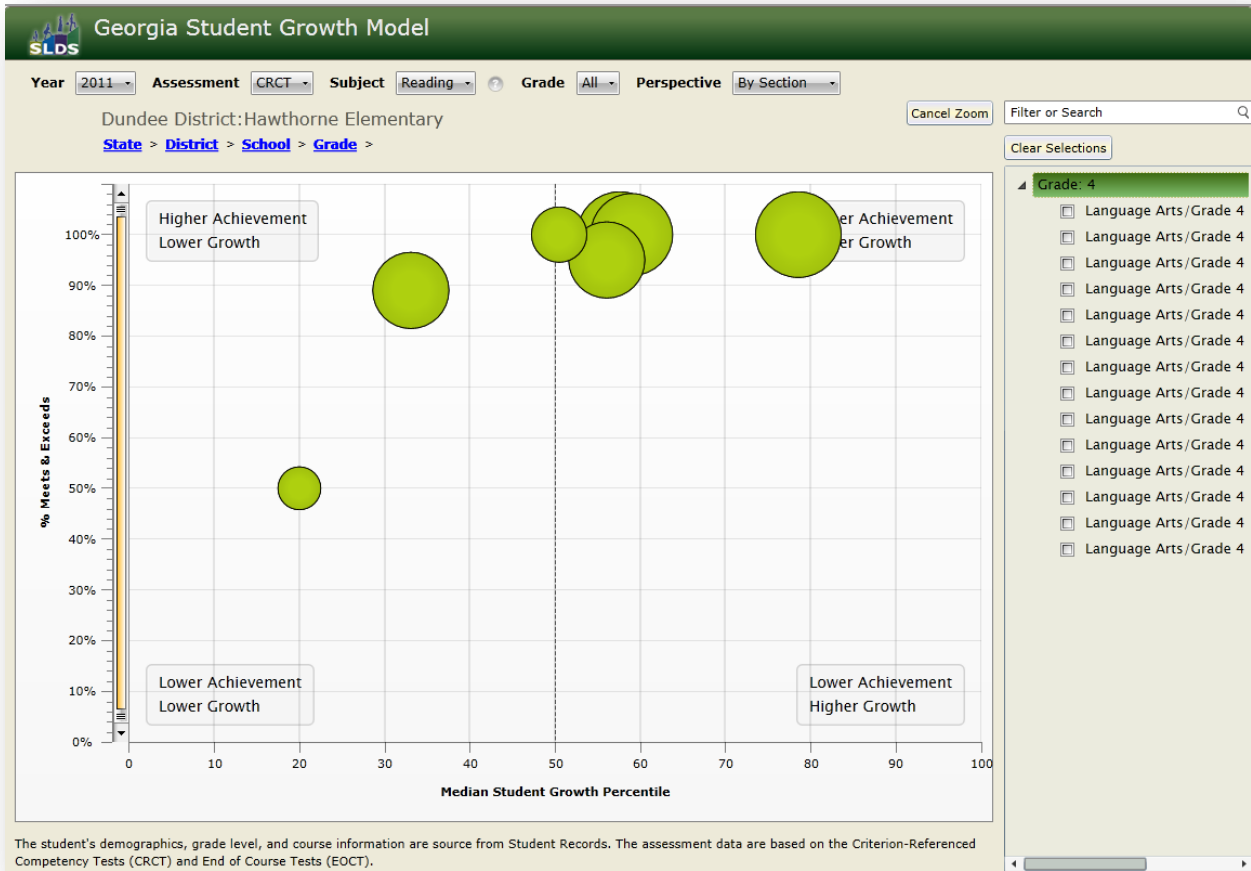
The visualization tool is interactive, meaning users can click on bubbles to gain additional information and drill-down through the data to view additional data.



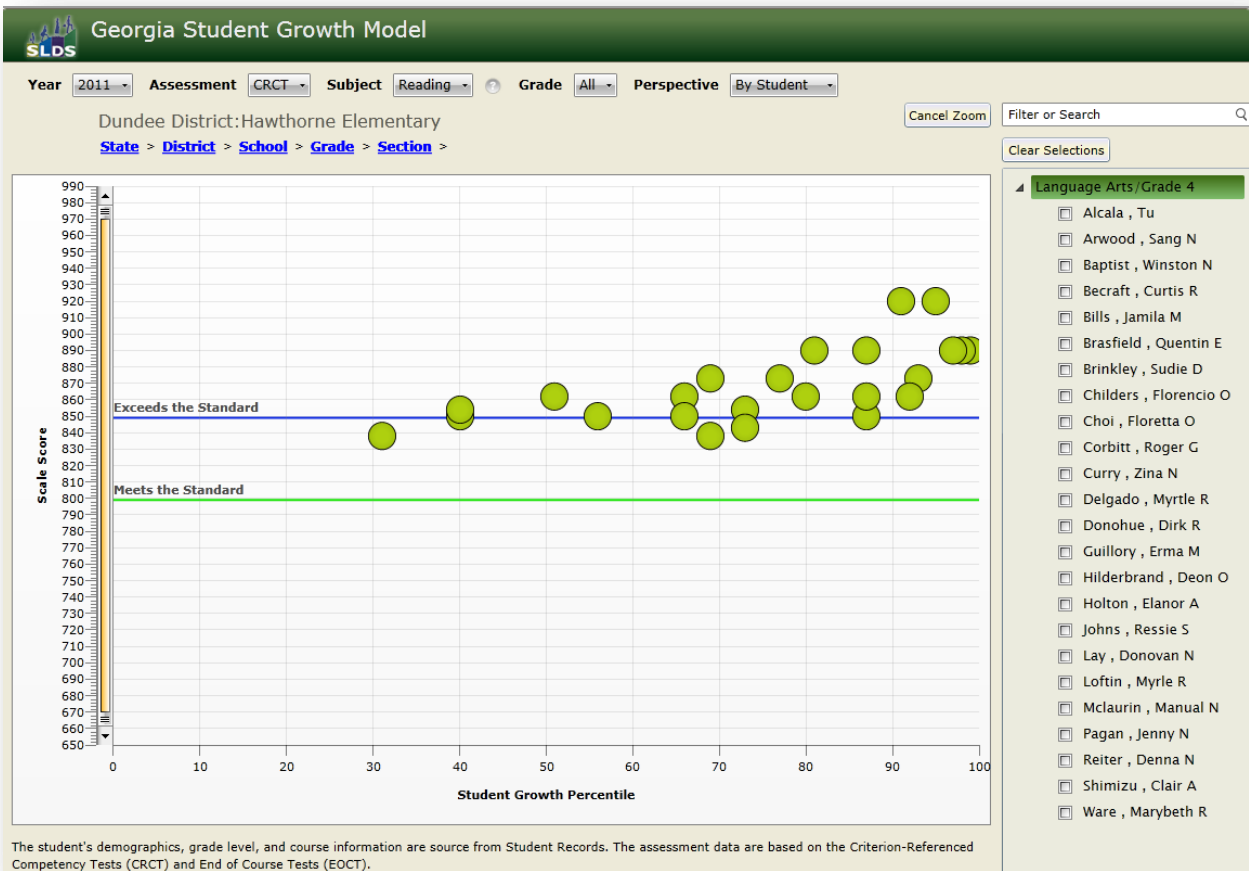
As demonstrated in the view above, if a user hovers his or her mouse over a bubble, a box will appear providing information about that bubble, including the % meets and exceeds rate, the median student growth percentile, and the total number of students used in that calculation. Additionally, the other bubbles on the chart will fade.



As demonstrated in the view above, if a user “checks” one of the schools in the list on the right, the bubble for that school will turn blue while the other bubbles fade. Multiple boxes can be checked, enabling multiple bubbles to be highlighted (the most recently checked bubble will be blue while previously checked bubbles will turn yellow; non-checked bubbles will remain faded green).

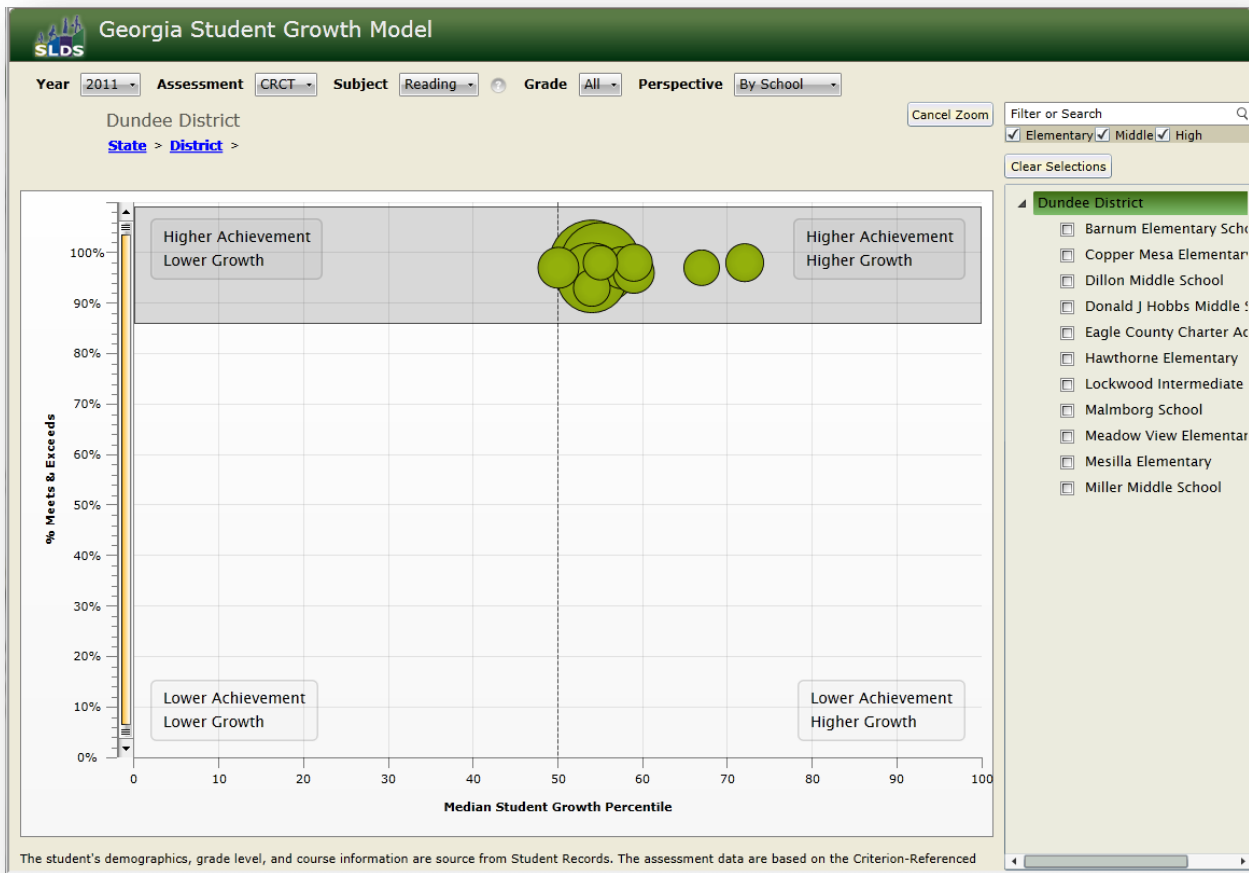


Clicking on a bubble or double-clicking on a name in the list on the right will drill-down into that bubble's data. As demonstrated above, the view has drilled-down to Hawthorne Elementary and then to the fourth grade. Displayed are the sections of fourth-grade Language Arts that were reported in 2011 Student Record.



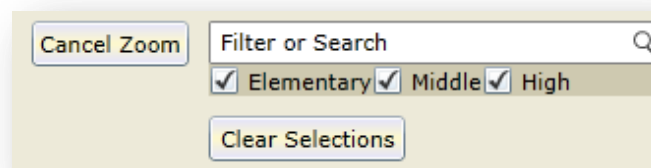
The most detailed drill-down available is a student level view. In the example above, the students in one particular Grade 4 Language Arts class in one school is displayed. Students' growth percentiles are plotted on the horizontal axis and their scale score is plotted on the vertical axis.

Section 5: Zoom and Filter



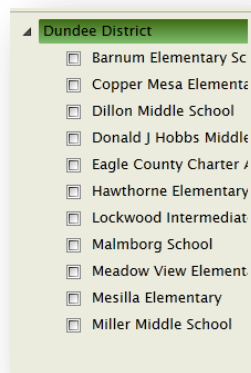
The zoom and filter features are two additional capabilities of the visualization tool. A user can click and drag the mouse anywhere on the chart to select an area on which to zoom. The zoom feature is demonstrated above, which will result in the selected area being featured more prominently on screen. The vertical axis will also be adjusted to account for the zoomed view.

This feature is particularly useful when very small or a significant number of bubbles are displayed on screen as it enables users to focus on an area of interest and enhances the ability to select specific bubbles.



Users can cancel the zoom and return to the full screen view by clicking the “Cancel Zoom” button in the upper-right hand corner of the screen. This is the same location as the filter/search function. There are three check-boxes that enable users to filter by school level (elementary, middle, high). By default, all three levels of schools are selected (note that only schools that have data meeting the specifications of the drop-down selections will be displayed). If a user was to unclick “Elementary,” the elementary schools in the list would disappear, as would their bubbles. There is also a textbox that can be used to search or filter for certain values. For example, a user could enter the name (full or partial) of a particular school, press the “Enter” key or click the magnifying glass, and the visualization would filter to only the entered entity. To go back to the previous view, click on the most recent addition to the breadcrumb trail. There is also a “Clear Selections” box that will clear all of the boxes in the list that have been selected.

Section 6: List



On the right-hand side of the screen is a list (label) of all the bubbles currently viewed on the chart. This list may include districts, schools, or teachers, for example.

As described in Section 4 of this document, if a user “checks” one of the entities in the list on the right, the bubble for that entity will turn blue while the other bubbles fade. Multiple boxes can be checked, enabling multiple bubbles to be highlighted (the most recently checked bubble will be blue while previously checked bubbles will turn yellow; non-checked bubbles will remain faded green). Double-clicking on a name in the list (not the check box) will drill-down to that level.