The PVAAS scatterplots visually display the relationship between growth and achievement data from the statewide distribution of results for SY2012-13.

Entering Achievement or Vertical Axis:

- In the PSSA subject areas of Reading and Math, the entering achievement level is represented in Normal Curve Equivalents (NCE units), where an NCE of 50 equals the state average.
- In the PSSA subject area of Science and the Keystone content areas of Algebra I, Literature, and Biology, the entering achievement level is represented in scale score points. Note that the entering achievement for the Keystone content areas is based only on students enrolled in the Keystone related course in SY12-13 at the time of the Keystone exam.

Average Growth Index or Horizontal Axis:

- In the PSSA subject areas of Reading, Math, and Science, the Average Growth Index represents the growth in that grade level and subject area in SY12-13.
- In the three Keystone content areas, the Average Growth Index represents the growth of the students enrolled in a Keystone related course in SY12-13.

Additional information:

- Average Growth Index – A measure of student growth across the tested grade levels in a school. This index is a value based on the average growth across grade levels and its relationship to the standard error so that comparison among schools is meaningful. It indicates the growth the students have made over time.
- The Average Growth Index is similar to the Consumer Price Index, a common scale used to provide comparisons. If the standard error is not accounted for, users might get a skewed picture of the relative effectiveness of different schools.
- Average Growth Index (AGI):
  - If the AGI is equal to or near zero, this means the students met the standard for PA Academic Growth.
  - If the AGI is greater than zero, this means the students exceeded the standard for PA Academic Growth. The greater the AGI, the more evidence we have that the group of students exceeded the standard for PA Academic Growth.
If the AGI is less than zero, this means the students did not meet the standard for PA Academic Growth. The further the AGI is below zero, the more evidence we have that the group of students did not meet the standard for PA Academic Growth.

- Each dot in the scatterplot represents a school.

### Scatterplots Quadrants and Their Meaning

- **Slipping**: Adequate Achievement & Negative Growth
- **Exceeding**: Adequate Achievement & Positive Growth
- **Underperforming**: Below Adequate Achievement & Negative Growth
- **Improving**: Below Adequate Achievement & Positive Growth

- **State Average**
- **Standard for PA Academic Growth**

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<thead>
<tr>
<th>Slipping</th>
<th>Exceeding</th>
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<tr>
<td>Adequate Achievement &amp; Negative Growth</td>
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</table>

- Average Growth Index: 0
Grade 4 Mathematics Statewide

Grade 5 Mathematics Statewide
Grade 6 Mathematics Statewide

Grade 7 Mathematics Statewide
NOTE: For Keystones, the achievement and growth measures ONLY include students enrolled in a Keystone course at the time they took the respective Keystone exam.
Grade 6 Reading Statewide

Grade 7 Reading Statewide
Grade 8 Reading Statewide

Keystone Literature Statewide

NOTE: For Keystones, the achievement and growth measures ONLY include students enrolled in a Keystone course at the time they took the respective Keystone exam.
Grade 4 Science Statewide

Grade 8 Science Statewide
NOTE: For Keystones, the achievement and growth measures ONLY include students enrolled in a Keystone course at the time they took the respective Keystone exam.