Changing Conversations About Student Growth

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Hawaii State Department of Education
The Problem
SLIPPING IN THE RANKS

U.S. ranking, worldwide, educational attainment:

HIGH SCHOOL

1ST
AGES 55-64

10TH
AGES 25-34

COLLEGE

3RD
AGES 55-64

13TH
AGES 25-34

Image courtesy of: COUNCIL ON FOREIGN RELATIONS
United States Struggles on International Educational Measures

- Grade 8 PISA 2009
- Grade 8 TIMSS 2011

- Finland
- Singapore
- South Korea
- Japan
- United Kingdom
- United States
- Russia
ENRICHMENT RECOMMENDED

The test score achievement gap between low- and high-income students keeps increasing.

Image courtesy of: COUNCIL on FOREIGN RELATIONS
THE WIDGET EFFECT
Our National Failure to Acknowledge and Act on Differences in Teacher Effectiveness

Image courtesy of: The New Teacher Project
Proficiency Misses the Mark
The Solution
What is growth?

What determines greater growth?
- Difficulty of tasks completed
- Number of benchmarks/standards met
- Time needed to teach/learn
- Number of questions answered correctly on a test

Do tests and standards account for:
- Differences in the difficulty of each year’s content
- Proficiency on standards from lower and higher grades
- Developmental readiness
NCLB’s Conception of Growth

<table>
<thead>
<tr>
<th>Grade</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
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<tbody>
<tr>
<td>3</td>
<td>80</td>
<td>83</td>
<td>87</td>
<td>91</td>
<td>95</td>
<td>97</td>
<td>98</td>
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<td>4</td>
<td>75</td>
<td>78</td>
<td>80</td>
<td>85</td>
<td>90</td>
<td>92</td>
<td>94</td>
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<td>5</td>
<td>73</td>
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<td>75</td>
<td>74</td>
<td>73</td>
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Longitudinal Growth

<table>
<thead>
<tr>
<th>Grade</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
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<td>73</td>
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<td>75</td>
<td>74</td>
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<td>72</td>
<td>69</td>
</tr>
</tbody>
</table>
What is high growth?

A three year old boy grows 4 inches taller

A 30 year old woman grows 4 inches taller
U.S. Competitive on International Educational Measures

- **Grade 8 PISA 2009**
- **Grade 8 TIMSS 2011**

<table>
<thead>
<tr>
<th>Country</th>
<th>PISA 2009</th>
<th>TIMSS 2011</th>
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<tbody>
<tr>
<td>United States</td>
<td></td>
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</tr>
<tr>
<td>Israel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Italy</td>
<td></td>
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<tr>
<td>Sweden</td>
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<tr>
<td>Turkey</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thailand</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indonesia</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comparative measures show the performance of students in mathematics, science, and reading in Grades 8 and 12 across different countries.
What is fast?

An eight minute mile

A five minute mile
What is high growth?

Cutting 1 minute off a 10 minute mile time

Cutting 10 seconds off a 5 minute mile time
The Hawaii Growth Model Produces Student Growth Percentiles (SGP)

Maria scored higher than 77% of peers with similar score histories.
Performed Poorly in the Past

Performed Well in the Past
Is a score of 8 good?

1, 1, 2, 3, 3, 3, 4, 4, 5, 5, 6, 8

SGP: 99

2, 5, 6, 7, 7, 7, 7, 7, 8, 8, 9, 10

SGP: 75
Is a score of 6 good?

2, 5, 6, 7, 7, 7, 7, 7, 8, 8, 9, 10

1, 1, 2, 3, 3, 3, 4, 4, 5, 5, 6, 8

SGP: 25

SGP: 85
Medium 3rd grade score (307)

335 353 376 303 415

Low 3rd grade score (150)

270 298 284 197 315

4th Grade Students

4th Grade Scores

High 3rd grade score (449)

445 436 451 371 480

335 353 376 303 415

270 298 284 197 315

445 436 451 371 480
Medium 3rd grade score (307)

Low 3rd grade score (150)

High 3rd grade score (449)
Medium 3rd grade score (307)

Low 3rd grade score (150)

High 3rd grade score (449)

Student Growth Percentiles
SGP Impacts All Levels

- State
- Complex Areas
- Complex
- School/Principal
- Classroom/Teacher
- Student
Median SGP Drives School Accountability Under Strive HI Index
Median SGP Drives School Accountability Under Strive HI Index

<table>
<thead>
<tr>
<th>Category</th>
<th>Reading Median SGP</th>
<th>Reading Points</th>
<th>Mathematics Median SGP</th>
<th>Mathematics Points</th>
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</thead>
<tbody>
<tr>
<td>Very High Growth</td>
<td>&gt; 58</td>
<td>50</td>
<td>&gt; 62</td>
<td>50</td>
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<tr>
<td>High Growth</td>
<td>55-58</td>
<td>35</td>
<td>56-62</td>
<td>35</td>
</tr>
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<td>Average Growth</td>
<td>50-54</td>
<td>25</td>
<td>50-55</td>
<td>25</td>
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<tr>
<td>Low Growth</td>
<td>45-49</td>
<td>15</td>
<td>43-49</td>
<td>15</td>
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<tr>
<td>Very Low Growth</td>
<td>≤ 44</td>
<td>0</td>
<td>≤ 42</td>
<td>0</td>
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</tbody>
</table>
Median SGP Drives Educator Accountability Under EES and CESSA
Median SGP Drives Educator Accountability Under EES and CESSA
The Promise
Kailua Complex

Higher Achievement
Lower Growth

Higher Achievement
Higher Growth

Maunawili Elementary

Lower Growth
Lower Achievement

Higher Growth
Lower Achievement
Strive Hi Hawaii Growth Model

Hawai‘i DXP 1st Annual Data Summit: Investing In Hawai‘i’s Future

October 11, 2013

MSGP Shows Relative Effectiveness

High Growth – Proficient

Low Growth – Proficient

Low Growth – Not Proficient

High Growth – Not Proficient
Hawai‘i DXP 1st Annual Data Summit: Investing In Hawai‘i’s Future

October 11, 2013

Grade 8

EXCEEDS PROFICIENCY

MEETS PROFICIENCY

APPROACHES PROFICIENCY

WELL BELOW PROFICIENCY

Grade and Year

Grade 3 2007–2008
Grade 4 2008–2009
Grade 5 2009–2010
Grade 6 2010–2011
Grade 7 2011–2012
Grade 8 2012–2013
Grade 9 2013–2014
Grade 10 2014–2015
How to interpret this student growth & achievement report

- **HSA Scale Score**
- **HSA Achievement Levels**
- **Student Growth Percentile**

Suggested Uses

- Review past growth to assess student academic progress toward HSA achievement goals.
- Develop remediation or enrichment plans based on rate of growth needed to reach higher HSA achievement levels.
- Identify the rate of progress needed in order to reach or maintain proficient status on the HSA next year.

<table>
<thead>
<tr>
<th>Math Achievement</th>
<th>Scale Score</th>
<th>Growth Percentile</th>
<th>Growth Level</th>
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<tbody>
<tr>
<td>High</td>
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<tr>
<td>Typical</td>
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<td>44</td>
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</tr>
<tr>
<td>Low</td>
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For more information please visit the Hawaii State Department of Education (HIDOE) at [www.doe.hi.k12.us](http://www.doe.hi.k12.us) or contact 808-586-3230

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