Student Achievement and Growth on California’s K–12 Assessments

Iwunze Ugo and Laura Hill

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April 2017
California’s education system has undergone a number of major changes

- Smarter Balanced testing is one of the recent K–12 reforms
- Districts have more flexibility to direct spending, but must develop three-year accountability plans
  - Districts with large high-need student populations (English Learners and economically disadvantaged students) get extra state funding
- Closing academic achievement gaps is a major focus
With two years of Smarter Balanced scores, we can better assess student progress

- In the second year of testing, we can measure both achievement and growth
  - To assess achievement, we look at the share of students meeting state standards
  - To assess growth, we look at changes in test scores over time
  - A new state measure combines achievement and growth
- Given the goals of recent reforms, it is important to monitor achievement gaps
- It is also important to look at districts and schools that are performing better or worse than their peers
Outline

- Achievement—how students are doing now
- Growth—how much student scores have improved
- Achievement and growth together
- Looking ahead
More California students met state standards in the second year of testing

Achievement by grade

English Language Arts

Mathematics

Share of students who met the standard (%)

Grade

All 3 4 5 6 7 8 11

Share of students who met the standard (%)

Grade

All 3 4 5 6 7 8 11

2014–15

2015–16
Focusing on the 4th-to-5th grade cohort

- We track test results for students who were in 4th grade in 2014–15 and in 5th grade in 2015–16
- Following the same group of students allows a better sense of how they are adjusting to the new curriculum and testing
- The 4th-to-5th grade cohort is more useful than other grade spans
  - Students largely remain in the same schools
  - English Learner students are often reclassified during these years
5th-grade test results were similar in other states—and in California’s past experience

<table>
<thead>
<tr>
<th></th>
<th>Share of students meeting English standard</th>
<th>Share of students meeting math standard</th>
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<tbody>
<tr>
<td></td>
<td>Year 1</td>
<td>Year 2</td>
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<tr>
<td>Smarter Balanced: California</td>
<td>40%</td>
<td>49%</td>
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<td>Smarter Balanced: Other states*</td>
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<td>California Standards Test (CST)</td>
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*Michigan, Washington, Oregon, and Connecticut
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High-need students saw increases in achievement, but not enough to close gaps with other students

- Larger shares of high-need students met the standard in English
- Economically disadvantaged students: a 10 percentage point increase in achievement narrowed the gap from 36% to 35%
- English Learners: a 2 percentage point increase in achievement widened the gap from 36% to 42%
  - English Learner results are affected by reclassification
  - Combined results for current and reclassified ELs are similar to economically disadvantaged students
Outline

- Achievement—how students are doing now
- Growth—how much student scores have improved
- Achievement and growth together
- Looking ahead
Smarter Balanced scoring allows comparisons over time and across grades.

Smarter Balanced achievement levels (English)

<table>
<thead>
<tr>
<th>Grade</th>
<th>Mean scale score</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>2200</td>
</tr>
<tr>
<td>4</td>
<td>2400</td>
</tr>
<tr>
<td>5</td>
<td>2600</td>
</tr>
<tr>
<td>6</td>
<td>2800</td>
</tr>
<tr>
<td>7</td>
<td>3000</td>
</tr>
<tr>
<td>8</td>
<td>3200</td>
</tr>
<tr>
<td>11</td>
<td>3400</td>
</tr>
</tbody>
</table>

- **Standard Exceeded**: Orange
- **Standard Met**: Blue
- **Standard Nearly Met**: Cyan
- **Standard Not Met**: Purple
Growth was relatively low for high-need students

- Economically disadvantaged students saw scores increase by 50 points
  - Scores for non-disadvantaged students rose by to 53 points
- English Learner scores increased by 35 points
  - Scores for English-only students increased by 49 points
- Scores for current and reclassified ELs increased by 51 points
  - Some growth is attributable to a higher share of reclassified students in the second year
Achievement and growth vary widely across districts

- High-achievement districts are often high-growth
- Low-achievement districts tend to be low-growth
- Districts that are lagging their peers could be falling further behind
Schools saw larger shares of students at the extremes than districts

<table>
<thead>
<tr>
<th>Share of students by district/school type</th>
<th>Low-achievement, low-growth</th>
<th>Low-achievement, high-growth</th>
<th>High-achievement, low-growth</th>
<th>High-achievement, high-growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Districts</td>
<td>3.2%</td>
<td>1.7%</td>
<td>0.9%</td>
<td>2.5%</td>
</tr>
<tr>
<td>Schools</td>
<td>6.2%</td>
<td>1.9%</td>
<td>2.6%</td>
<td>3.9%</td>
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</tbody>
</table>
Outline

- Achievement—how students are doing now
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The state’s new academic accountability measure is based on achievement and growth

- The new accountability system combines two measures
  - Status: How well students are currently doing
  - Change: How much students have improved compared to previous years

- Performance levels will be applied to a range of areas
  - Academics, graduation rates and college/career readiness, suspension rates, and more

- The new measure includes five color-coded performance levels
### The California accountability model

<table>
<thead>
<tr>
<th>Level</th>
<th>Declined Significantly (Change)</th>
<th>Declined (Change)</th>
<th>Maintained (Change)</th>
<th>Increased (Change)</th>
<th>Increased Significantly (Change)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very High (Status)</td>
<td>Yellow</td>
<td>Green</td>
<td>Blue</td>
<td>Blue</td>
<td>Blue</td>
</tr>
<tr>
<td>High (Status)</td>
<td>Orange</td>
<td>Yellow</td>
<td>Green</td>
<td>Green</td>
<td>Blue</td>
</tr>
<tr>
<td>Medium (Status)</td>
<td>Orange</td>
<td>Orange</td>
<td>Yellow</td>
<td>Green</td>
<td>Green</td>
</tr>
<tr>
<td>Low (Status)</td>
<td>Red</td>
<td>Orange</td>
<td>Orange</td>
<td>Yellow</td>
<td>Yellow</td>
</tr>
<tr>
<td>Very Low (Status)</td>
<td>Red</td>
<td>Red</td>
<td>Red</td>
<td>Orange</td>
<td>Yellow</td>
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</table>
Low-performing districts and schools have above-average shares of high-need students

Performance levels for 5th-graders in English

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<tbody>
<tr>
<td></td>
<td>Share at performance level</td>
<td>Average district share of high-need students at performance level</td>
</tr>
<tr>
<td>Blue (highest)</td>
<td>15%</td>
<td>23%</td>
</tr>
<tr>
<td>Green</td>
<td>22%</td>
<td>48%</td>
</tr>
<tr>
<td>Yellow</td>
<td>47%</td>
<td>78%</td>
</tr>
<tr>
<td>Orange</td>
<td>12%</td>
<td>72%</td>
</tr>
<tr>
<td>Red (lowest)</td>
<td>4%</td>
<td>80%</td>
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<td>Average district share of high-need students at performance level</td>
<td>Average school share of high-need students at performance level</td>
</tr>
<tr>
<td>Blue (highest)</td>
<td>15%</td>
<td>19%</td>
</tr>
<tr>
<td>Green</td>
<td>22%</td>
<td>16%</td>
</tr>
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<td>38%</td>
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The share of high-need students is a strong predictor of performance, but there are outlier districts

- **Some districts exceed expectations**
  - The average blue district is 23% high need
  - Two blue elementary school districts—Rosemead (Los Angeles) and Savanna (Orange County)—are 86% and 77% high need

- **Other districts fall short**
  - Yellow and Orange districts are, on average, 75% high need
  - Two yellow/orange elementary school districts—Rancho Santa Fe (San Diego) and Spreckels Union (Monterey)—are 5% and 15% high need

- **Districts that exceeded expectations excelled, while districts that fell short were only slightly below average**
Some districts have overperformed for several years

- Five of the 20 districts that most exceeded expectations also did so on the 2014–15 Smarter Balanced tests
- Two districts also exceeded expectations on the 2012–13 CST
- Districts that have had consistent success with high-need students could help other districts close achievement gaps
Struggling schools tend to underperform their districts

District performance levels for low- and high-performing schools

Red schools (lowest performance level)
- 63%
- 11%
- 7%

Blue schools (highest performance level)
- 42%
- 34%
- 22%
- 2%
Outline

- Achievement—how students are doing now
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Smarter Balanced results reveal ongoing challenges and hopeful signs

- Student achievement improved in the second year of tests
  - California is catching up to other states
  - Early Smarter Balanced results are better than the early CST results
- Low-achievement districts are often also low-growth, but there are exceptions
- High-need students saw improvements but are behind their peers in achievement and growth
High-need students remain a focus for improvement

- Districts with large shares of high-need students will need support to improve student outcomes
  - The state is developing resources to support improvement efforts
  - High-performing districts with large shares of high-need students could provide examples of best practices
- English Learner reclassification policy will need to account for difficulties ELs have had with the new tests
- Other state indicators are an important part of the new system
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Notes on the use of these slides

These slides were created to accompany a presentation. They do not include full documentation of sources, data samples, methods, and interpretations. To avoid misinterpretations, please contact:

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Thank you for your interest in this work.