Presentation to the Pennsylvania State Board of Education

Proposed PSSA Cut Scores and Performance Level Descriptors: English Language Arts and Math 3–8

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Harrisburg, PA

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Agenda

- Background on PSSA
- Standard Setting Process
- Standard Setting Results
- Secretary’s Recommendations
Pennsylvania System of School Assessment (PSSA)

- Pennsylvania Core Standards
- Performance Level Descriptors
- New Assessments
- Standard Setting Process
- Reporting Results
Pennsylvania System of School Assessment (PSSA)

BACKGROUND
How do you set performance expectations for students on the assessment?
Using Performance Level Descriptors (PLDs)

- Developed by Pennsylvania educators
- Reflect the knowledge and skills expected of students at each of the four performance levels
  - Advanced
  - Proficient
  - Basic
  - Below Basic
Who met to recommend performance expectations for students on the PSSA in English Language Arts (ELA) and Math?
Who met to recommend performance expectations for the PSSA?

- **Bookmark Standard Setting Participants**
  - June 9–12, 2015
  - 58 Pennsylvania Educators

- **Standard Setting Review Committee**
  - June 19, 2015
  - 8 Pennsylvania Educators
    - 2 Bookmark Participants
    - 3 District-level Administrators
    - 3 Building-level Administrators

- **Independent Evaluators at Both Events**
STANDARD SETTING
What is standard setting?
Standard Setting

• The methodology used to define levels of performance and the range of scores on an assessment that correspond to those levels of performance
  – Advanced
  – Proficient
  – Basic
  – Below Basic
Standard Setting as Part of a Process

Content Standards
- Design
- Adoption
- Implementation

Assessment Development
- Determine Eligible Content
- Item Development
- Form Construction

Performance Standards
- PLDs
- Bookmark Placements
- Review Committee
Standard Setting Method: Bookmark

- Used historically in Pennsylvania
  - Most prevalent method for setting standards in K–12 assessments for the past two decades
- Grounded in content expertise and guided by Performance Level Descriptors (PLDs)
- Focuses on students’ expected knowledge and skills for each performance level
How did Bookmark Participants make recommendations?
How did Bookmark Participants make Recommendations?

• Reviewed the assessment, the Performance Level Descriptors (PLDs), and the assessment questions ordered by difficulty

• Made recommendations about items that differentiated students between performance levels (e.g., Basic/Proficient) using the PLDs

• When educators came to an item that only students in the next higher performance level should be able to answer, they would place a bookmark on that item
Standard Setting as Part of a Process

Content Standards
- Design
- Adoption
- Implementation

Assessment Development
- Eligible Content
- Item Development
- Form Construction

Performance Standards
- PLDs
- Bookmark Placements
- Review Committee
How did the Review Committee make recommendations?
How did the Review Committee make Recommendations?

- Reviewed Bookmark Participants’ recommendations
- Sought to provide a single recommendation to the PDE and Secretary
- Committee considered content and grade-level PLDs for context with the ability to adjust recommendations within 1 standard error
- Goal: recommend a set of cut scores for the system of 3–8 assessments in English Language Arts (ELA) and math
Bookmark Participants + Review Committee = ?
Collecting Evidence of Validity

- **Bookmark Participants: Content View**
  - Stick to process and design
  - Targeted representation
  - Confidence in their recommendations

- **Review Committee: System View**
  - Endorsement of the process
  - Endorsement of the participants’ recommendations
  - Minor adjustments (5 of the 36 recommendations) within the range of Bookmark Participants’ recommendations
How do recommendations translate into student performance?
English Language Arts

RESULTS AND IMPACT DATA
PSSA English Language Arts Impacts
Based on Review Committee

<table>
<thead>
<tr>
<th>Grade</th>
<th>Advanced</th>
<th>Proficient</th>
<th>Basic</th>
<th>Below Basic</th>
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<tr>
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<td>37.0%</td>
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<td>24.8%</td>
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<tr>
<td>Grade 6</td>
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<td>29.4%</td>
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<tr>
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<tr>
<td>Grade 8</td>
<td>14.6%</td>
<td>43.8%</td>
<td>31.2%</td>
<td>10.5%</td>
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</table>
### PSSA English Language Arts Impacts

#### Standard Setting (SS) and Review Committee (RC)

<table>
<thead>
<tr>
<th>Grade</th>
<th>SS Advanced</th>
<th>SS Proficient</th>
<th>SS Basic</th>
<th>SS Below Basic</th>
<th>RC Advanced</th>
<th>RC Proficient</th>
<th>RC Basic</th>
<th>RC Below Basic</th>
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<td>24.6%</td>
<td>13.3%</td>
<td>49.1%</td>
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<td>13.3%</td>
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<td>4</td>
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<td>37.0%</td>
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<td>12.8%</td>
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<tr>
<td>6</td>
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<td>39.5%</td>
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<td>39.5%</td>
<td>39.5%</td>
<td>29.4%</td>
<td>9.8%</td>
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<tr>
<td>7</td>
<td>41.9%</td>
<td>41.9%</td>
<td>34.9%</td>
<td>6.2%</td>
<td>41.9%</td>
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<td>34.9%</td>
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<tr>
<td>8</td>
<td>43.8%</td>
<td>43.8%</td>
<td>31.2%</td>
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<td>43.8%</td>
<td>43.8%</td>
<td>31.2%</td>
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## Final Recommendations: ELA

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<tr>
<th>Grade</th>
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<th>Basic</th>
<th>Proficient</th>
<th>Advanced</th>
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<td>1000 – 1142</td>
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<td>5</td>
<td>600 – 892</td>
<td>893 – 999</td>
<td>1000 – 1138</td>
<td>1139 + 17.8%</td>
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<td>44.2%</td>
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<tr>
<td>6</td>
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<td>875 – 999</td>
<td>1000 – 1114</td>
<td>1115 + 21.3%</td>
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<td>39.5%</td>
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<tr>
<td>7</td>
<td>600 – 844</td>
<td>845 – 999</td>
<td>1000 – 1129</td>
<td>1130 + 17.0%</td>
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<td>41.9%</td>
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<tr>
<td>8</td>
<td>600 – 885</td>
<td>886 – 999</td>
<td>1000 – 1129</td>
<td>1130 + 14.6%</td>
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<tr>
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<td>31.2%</td>
<td>43.8%</td>
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</table>
Math

RESULTS AND IMPACT DATA
PSSA Mathematics Impacts Based on Review Committee

<table>
<thead>
<tr>
<th>Grade</th>
<th>Advanced</th>
<th>Proficient</th>
<th>Basic</th>
<th>Below Basic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 3</td>
<td>20.0%</td>
<td>28.5%</td>
<td>23.6%</td>
<td>27.9%</td>
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<tr>
<td>Grade 4</td>
<td>16.9%</td>
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<tr>
<td>Grade 5</td>
<td>15.4%</td>
<td>27.4%</td>
<td>31.4%</td>
<td>25.8%</td>
</tr>
<tr>
<td>Grade 6</td>
<td>11.3%</td>
<td>28.5%</td>
<td>35.2%</td>
<td>25.0%</td>
</tr>
<tr>
<td>Grade 7</td>
<td>9.6%</td>
<td>23.5%</td>
<td>33.6%</td>
<td>33.3%</td>
</tr>
<tr>
<td>Grade 8</td>
<td>8.0%</td>
<td>21.9%</td>
<td>32.8%</td>
<td>37.3%</td>
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</tbody>
</table>
PSSA Mathematics Impacts
Standard Setting (SS) and Review Committee (RC)

Grade 3
- Advanced: 28.5%
- Proficient: 28.5%
- Basic: 21.4%
- Below Basic: 21.4%

Grade 4
- Advanced: 27.4%
- Proficient: 27.4%
- Basic: 30.8%
- Below Basic: 30.8%

Grade 5
- Advanced: 15.4%
- Proficient: 15.4%
- Basic: 31.4%
- Below Basic: 31.4%

Grade 6
- Advanced: 11.3%
- Proficient: 11.3%
- Basic: 37.5%
- Below Basic: 37.5%

Grade 7
- Advanced: 9.6%
- Proficient: 9.6%
- Basic: 33.6%
- Below Basic: 33.6%

Grade 8
- Advanced: 8.0%
- Proficient: 8.0%
- Basic: 42.6%
- Below Basic: 42.6%

Legend:
- Advanced
- Proficient
- Basic
- Below Basic

SS: Standard Setting Panel Recommendations
RC: Review Committee Recommendations
## Final Recommendations: Mathematics

<table>
<thead>
<tr>
<th>Grade</th>
<th>Below Basic</th>
<th>Basic</th>
<th>Proficient</th>
<th>Advanced</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>600 – 922</td>
<td>923 – 999</td>
<td>1000 – 1109</td>
<td>1110 + 20.0%</td>
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<td></td>
<td>27.9%</td>
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<tr>
<td>4</td>
<td>600 – 907</td>
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<td>1000 – 1106</td>
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<td>27.5%</td>
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<tr>
<td>5</td>
<td>600 – 900</td>
<td>901 – 999</td>
<td>1000 – 1112</td>
<td>1113 + 15.4%</td>
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<tr>
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<td>27.4%</td>
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<tr>
<td>6</td>
<td>600 – 896</td>
<td>897 – 999</td>
<td>1000 – 1104</td>
<td>1105 + 11.3%</td>
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<tr>
<td>7</td>
<td>600 – 903</td>
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<td>1000 – 1108</td>
<td>1109 + 9.6%</td>
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<td>23.5%</td>
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<tr>
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<td>600 – 905</td>
<td>906 – 999</td>
<td>1000 – 1107</td>
<td>1108 + 8.0%</td>
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<td>32.8%</td>
<td>21.9%</td>
<td></td>
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