

# The Washington State Board of Education

Governance | Achievement | High School and College Preparation | Math & Science | Effective Workforce

<b>Title:</b>	<b>State Assessment Standard-Setting Process</b>	
<b>As related to:</b>	<input type="checkbox"/> Goal One: Advocacy for an effective, accountable governance structure for public education <input type="checkbox"/> Goal Two: Policy leadership for closing the academic achievement gap <input checked="" type="checkbox"/> Goal Three: Policy leadership to increase Washington's student enrollment and success in secondary and postsecondary education	<input type="checkbox"/> Goal Four: Effective strategies to make Washington's students nationally and internationally competitive in math and science <input type="checkbox"/> Goal Five: Advocacy for policies to develop the most highly effective K-12 teacher and leader workforce in the nation <input type="checkbox"/> Other
<b>Relevant to Board Roles</b>	<input type="checkbox"/> Policy Leadership <input checked="" type="checkbox"/> System Oversight <input type="checkbox"/> Advocacy	<input type="checkbox"/> Communication <input type="checkbox"/> Convening and Facilitating
<b>Policy Considerations / Key Questions</b>	Board members will be asked to consider whether the 2011 standard-setting process for the science Measurements of Student Progress (grades 5 and 8) and the math End-of-Course (EOC) assessments should include more information about the percent of students that will be affected by different cut scores.	
<b>Possible Board Action</b>	<input type="checkbox"/> Review <input type="checkbox"/> Adopt <input checked="" type="checkbox"/> Approve <input type="checkbox"/> Other	
<b>Materials Included in packet</b>	<input type="checkbox"/> Memo <input type="checkbox"/> Graphs / Graphics <input checked="" type="checkbox"/> Third-Party Materials <input type="checkbox"/> PowerPoint	
<b>Synopsis</b>	<p>OSPI recommends cut scores on state assessments to SBE based on the work of a team of panelists who participate in a structured standard-setting process. OSPI is proposing a change in the standard-setting process that will provide panelists with more information about actual student performance than they have had in previous years. This additional data may make it challenging for panelists to focus on issues of content (how much knowledge must be demonstrated for proficiency?) when confronted by issues of impact (how many students will actually meet proficiency?). Because students in the class of 2013 and 2014 must meet proficiency on one math end-of-course assessment in order to graduate, the stakes for students are high. Experts from the National Technical Advisory Committee will help SBE members consider the merits and drawbacks of the proposed changes before making a decision on whether to approve the standard-setting process.</p>	

**Standard Setting Process, 2011<sup>1</sup>**  
**Measurements of Student Progress for Grades 5 and 8 Science**  
**End of Course Exams in Algebra/Integrated 1 and Geometry/Integrated 2**

Purpose of Standard Setting. Panels of grade-level/course teachers will meet to establish recommendations to the State Board of Education on the performance standards for the new assessments in 2011. The recommendations are based on a thorough analysis of the Performance Level Descriptors and informed by all of the additional information provided during the process—the test items, teacher predictions (Round 1), student performance on each item (Round 2), and student performance on the test overall (Round 3)

Procedure Used in 2010. In the past, OSPI has guided the standard-setting panels through a three-day process. This process, used most recently to recommend cut scores for the Grades 3-8 Mathematics Measurements of Student Progress, has included the following strategies.

Day 1. The first day of standard setting is dedicated to training the panelists and familiarizing them with the assessment. Activities include:

- Taking the test as a “student.”
- Scoring their test.
- Discussing the Performance Level Descriptors in preparation for their use in making the necessary judgments on cut scores.
- Training in the use of the Ordered Item Booklet.

Days 2 and 3. Panelists engage in a three-round rating process with additional information provided in each round. This provides the panelists with three opportunities to consider and record their judgments. Panelists work through an Ordered Item Booklet (OIB) containing all of the test questions in order of difficulty. Each panelist is asked to individually select the item that represents *Proficient* performance as described in the Performance Level Descriptors. The panelist then continues into the booklet to find the item that identifies *Advanced* performance. Finally, the panelist goes back to the beginning of the booklet to identify the item corresponding to *Basic* performance.

For example, to mark the item that is the cut for Proficient, panelists consider a group of students that are just barely proficient (based on the Performance Level Descriptors). They page through the ordered item booklet asking themselves, “Would 2/3 of that group answer this question correctly?” When they reach the item where they have to answer “no” that’s the item where they make the cut.

Proposed Additions to the 2011 Process. There are two additions to the procedure employed in 2010 being proposed by OSPI and our National Technical Advisory Committee (NTAC). These additions would take place in Rounds 1 and 3.

Addition to Round 1. Panelists will receive more information during Round 1 than they have received in the past. In 2010, Round 1, the results of the Contrasting Groups Study were

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<sup>1</sup> Prepared by OSPI Staff

included in the information given to panelists prior to providing their first rating. Teachers participating in the Contrasting Groups Study were self-selected grade-level teachers, from all across the state. They completed an online training on using the Performance Level Descriptors to evaluate student work. These teachers submitted predictions for each of their students, based on that training, prior to the administration of the test. Their predictions indicated whether the student would be “proficient or above” or “basic or below” on the test. This data was correlated to the students’ actual performance on the test and provided panelists with a range of pages in the Ordered Item Booklet (OIB) that corresponded to the raw score cut indicated by the predictions.

In 2011, OSPI proposes to include information from the Contrasting Groups results and actual student performance on the items in the test. Instead of providing only the range of pages, panelists would receive “impact data” on the percent of students meeting the performance standard for each end of the range of pages. For example, if the Contrasting Groups Study produced a cut score between pages 23 and 28, the percent of students identified as proficient corresponding to the two pages (page 23 and page 28) would also be included for the panelists. As a result, panelists will have additional information about actual student performance to guide their decision-making than they have had in the past.

**The pros and cons of providing the Contrasting Groups Study information in this way are:**

**Pros**

- Provides additional information to assist panelists in making more informed decisions.
- Allows panelists to talk in concrete terms about the ratings.
- Helps panelists make reasonable decisions related to item judgments.

**Cons**

- May unduly influence some panelists.
- May distract discussion from content of questions.
- Puts pressure on facilitators to keep discussion relevant to the Performance Level Descriptors and the content in the items.

No additions are proposed for Round 2 of the ratings. Round 2 will remain the same as past practice used for the 2010 standard settings in grades 3 through 8 mathematics.

Addition to Round 3. In Round 3 in 2010, OSPI provided panelists with a cumulative frequency distribution showing the passing rate for each raw score. The raw score is the number of points required to pass the test. The raw score does not quite correspond to the pages in the Ordered Item Book (OIB). For example, choosing page 27 in the OIB as the cut for *Proficient* does not necessarily correspond to a raw score of 27 points. For 2011, OSPI proposes including information showing the raw score cut corresponding to the selection of each item in the Ordered Item Booklet (OIB).

**The pros and cons of providing the cumulative frequency distribution in this way are:**

**Pros**

- Every panelist will know the raw score cut they are proposing by their item selection.
- If a panelist wants to adjust the recommended cut score, this information will provide a more direct avenue. Since there is not a 1:1 correspondence between the page in the Ordered Item Booklet and the raw score, a panelist may adjust their recommendation by a single page thinking that will adjust the raw score by a single point. Since that's not necessarily the case, the additional information would allow them to adjust the raw score by the desired amount.

**Cons**

- Panelists may wish to make exaggerated changes in cut scores. For instance, if a panelist sees that moving a recommendation by two pages only raises the raw score cut by one point, the panelist may adjust a recommendation more than if he or she had not had that extra information
- Facilitators will have to remind panelists that changes should be based on content, not desired outcomes.

In summary, the NTAC is proposing two additions to the standard setting procedure used in summer 2010. The first addition occurs in Round 1 where, in addition to the range of pages from the Contrasting Groups results being identified in the Ordered Item Booklet, NTAC recommends including the impact data. The second proposed addition occurs in Round 3. Committee members would be provided with a listing of the raw score cuts associated with each page in the Ordered Item Booklet.

OSPI respects the proposals from NTAC and understands the pros and cons for each of the proposed changes. It is the position of OSPI that there are benefits for accepting these changes as recommended by NTAC but at the same time OSPI understands the concerns listed. Although the standard setting procedure used last summer was successful and would be satisfactory if followed again in 2011, the intent is to improve every year. NTAC feels this proposal would be an improvement. OSPI is ready to move forward with standard setting based on the decision made by the State Board of Education.