#### The Washington State Board of Education

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

#### STANDARD SETTING FOR GRADES FIVE AND EIGHT SCIENCE MEASUREMENTS OF STUDENT PROGESS (MSPS) AND ALGEBRA 1/INTEGRATED MATH 1 & GEOMETRY/INTEGRATED MATH 2 END-OF-COURSE (EOCS)

#### BACKGROUND

The 2009 Science Learning Standards will be assessed for the first time on the Measurements of Student Progress in grades 5 and 8 in May 2011. The 2008 Mathematics Learning Standards will be assessed on the 2011 End-of-Course. Standard setting panels will be convened to make a recommendation for the cut scores on these tests.

OSPI will present the plan for conducting the standard setting process in 2011 for the Board's approval. Standard setting panels were convened in the summer of 2010 to make recommendations to the Board on the cut scores for the Mathematics Measurements of Student Progress in grades 3 through 8. OSPI is planning to follow essentially the same process in 2011 as was followed for the standard setting that occurred in 2010.

Later this year, SBE will approve the scores students must achieve in order to meet performance standards. This briefing on the standard setting process will give SBE an opportunity to review and ask questions about the standard setting process.

#### EXPECTED ACTION

The Board is asked to approve the standard setting plan. The Board will approve cut scores in August 2011, based on the recommendations of the standard setting panels.

## Standard Setting for Grades 5 & 8 Science and the End-of-Course Math Exams

State Board of Education March 10, 2011 New Market Skill Center, Tumwater WA

Tom Hirsch, Assessment and Evaluation Services Cinda Parton, Director of Assessment Development, OSPI



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Grades 5 & 8 Science and EOC Mathematics

- Students in Grades 5 and 8 are taking the new Measurements of Student Progress in Science
- Students in Algebra 1, Integrated Mathematics 1, Geometry, and Integrated Mathematics 2 are taking the new End-of-Course exams
- Four standard-setting panels with 30 committee members each are convened in early August to provide recommendations on the cut scores for these new assessments



## Some Questions about Standard Setting

### □ What Is Standard Setting?

- Standard setting is a formalized process to determine how well students need to perform on an assessment to be classified into performance levels (i.e., "Basic", "Proficient", etc.)
- □ Why don't we do standard setting every year?
  - Once standards have been set, scores for tests given in later years are adjusted through statistical equating, assuring that the difficulty for the performance levels stays the same

□ Why don't we just use something like "80% Correct"?

 A pre-established percent correct would make the performance levels easier or more difficult simply due to how hard the questions are on a given year's test.



## Standard Setting: One of Several Comparability Studies for 2011

	Gr 3	Gr 4	Gr 5	Gr 6	Gr 7	Gr 8	HS
	Equate 2011 to 2010	Equate 2011 to 2010	Equate 2011 to 2010	Equate 2011 to 2010	Equate 2011 to 2010	Equate 2011 to 2010	Equate 2011 to 2010
READ		Equate Online to P/P	Equate Online to P/P	EquateP/P to Online	EquateP/P to Online	EquateP/P to Online	
	Equate 2011 to 2010	Equate 2011 to 2010	Equate 2011 to 2010	Equate 2011 to 2010	Equate 2011 to 2010	Equate 2011 to 2010	Build new '11 scale & cuts for Yr 1 & Yr 2 EOC
		Equate Online to P/P	Equate Online to P/P	EquateP/P to Online	EquateP/P to Online	EquateP/P to Online	
MATH							Align EOCs to Content Stds
							Concordance betw. '10 and
							-11
			Build new '11			Build new '11	Faulte 2011 to
SCI			scale and cuts			scale and cuts	2010
			Align MSP to Content Stds			Align MSP to Content Stds	
			Equate Online to P/P			Equate Online to P/P	



ALSHING UNIT

## Who Sets the Standards?

### The State Board of Education is legislatively authorized to set standards

RCW 28A.305.130 (4)(b)

"Identify the scores students must achieve in order to meet the standard on the Washington assessment of student learning and, for high school students, to obtain a certificate of academic achievement.

"The board shall also determine student scores that identify levels of student performance below and beyond the standard.

"The board shall consider the incorporation of the standard error of measurement into the decision regarding the award of the certificates.

"The board shall set such performance standards and levels in consultation with the superintendent of public instruction and after consideration of any recommendations that may be developed by any advisory committees that may be established for this purpose."



Grades 5 & 8 Science and EOC Mathematics

#### □ Recommendations to the Board come from:

- Grade-level panels and a cross-grade articulation committee for science
- Course-specific panels and a cross-course articulation committee for mathematics
- Superintendent Dorn also provides recommendations from a policy panel
- State Board sets standards in a special meeting August 10



## Description of Standard Setting Activities

#### Roles and Responsibilities

- Dr. Tom Hirsch serves as lead facilitator
- Drs. Chris Domaleski, and Yoonsun Lee serve as panel facilitators for science
- Drs. Chad Buckendahl and Brett Foley serve as panel facilitators for the end of course exams in mathematics
- OSPI and ETS staff provide logistical support and document the process but are not engaged with the deliberations of the panels



Grades 5 & 8 Science and EOC Mathematics

# <u>Day I</u>

- Welcome/Orientation/Administrative Tasks (Total Group)
- Panel Selection Process
- Overview of Standard Setting Process
- □ Review of Assessments (Total Group)
  - Assessment Development Process
  - Content, Item Development, Test Blueprint
- Taking/Scoring the Assessment (Grade-level Groups)
- Review of Performance Level Descriptors or PLDs (Grade-level Groups)
- Small Table Discussion of PLDs



Grades 5 & 8 Science, EOC Mathematics

## <u>Day 2</u>

- Small Table Discussion of PLDs (Grade-level Groups)
- Total Grade Level Group Discussion
- Description of Contrasting Groups (Total Group)
- □ Summary of Standard Setting Procedure (Total Group)
- □ Sample Practice Standard Setting (Grade-level Groups)
- Round I Ratings (Individuals)



Grades 5 & 8 Science, EOC Mathematics

## <u>Day 3</u>

- Discussion of round I ratings (Grade-level Groups)
- Presentation/discussion of Item Level Data
- Round 2 Ratings (Individual)
- Discussion of round 2 ratings (Grade-level Groups)
- Presentation of Impact Data Frequency Distributions
- Round 3 Ratings (Individual)
- Discussion of round 3 ratings (Grade-level Groups)
- Discussion of all grade level results (Total Group)
- Recommendations to Articulation Committee



# Standard Setting: Grades 5 & 8 Science, EOC Mathematics

## <u>Day 4</u>

Articulation committee

### **August 8 NTAC Process Review**

 Report of milestone events to National Technical Advisory Committee (NTAC); NTAC comments regarding implementation of planned process

### **August 8 Policy Articulation**

- Summarize recommendations from panels and articulation committees
- □ Review Impact Data (AYP) and Smoothing
- Consider/develop Policy Recommendations

### August 10 State Board

Sets cut scores



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QUESTIONS AND DISCUSSION

3.10.2011 | Slide 12



#### **ON COMMON CORE STANDARDS – SOUNDING BOARD SAYS...**

This is a summary of data collected from 79 National Board Certified teachers who are part of Sounding Board and responded to a survey about the Common Core Standards.

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The survey respondents identified themselves as....

- Mostly high school (51%) and elementary teachers (27%); some middle school teachers (18%)
- Predominately teachers of English language arts and/or mathematics (52%)

#### How did you learn about the Common Core State Standards?

Teacher respondents learned about the Common Core Standards in a variety of ways from talking with their friends and colleagues (58%) to reading and viewing information on websites and from OSPI.



CSTP created Sounding Board as an avenue to amplify the voices of accomplished teachers. Participants are Washington State National Board Certified Teachers who regularly provide their perspective on relevant and critical education issues or policy implementation questions.

Sounding Board teachers respond to short surveys. Their responses are thematically organized, summarized and communicated to decisionmakers, posted on CSTP's website and used in other materials.



### *OSPI's website provides a list of benefits for adopting the Common Core Standards. Select whether you agree, disagree or are unsure about each benefit.*











# Authorized by the state legislature, OSPI "provisionally" adopted the Common Core State Standards becoming one of 48 states to do so. Given what you've read and heard about the Common Core Standards, do you agree that the state should move in this direction?



#### What else did they say?

- I believe that national standards have the potential to lead public education in the right direction however I also worry that federally mandated standards removes district and state controls.
- In effect, this will take much of the financial responsibility of curricula update and coordination away from the state.
- Blazing this trail will not be easy however we have one of the nation's highest percentages of nationally certified teachers to lead the way.



**ADDITIONAL STANDARDS:** About 18% of teacher respondents feel additional state standards are needed in English language arts, and about 11% of teacher respondents feel additional state standards are needed in mathematics.

Here are additional standards they would add -

- > Additional emphasis on career & college research
- Additional emphasis on the use of various forms of technology to present their written work and/or research
- > Additional emphasis on public speaking skills regardless of career path
- > Additional information on literacy skills, and visual and dramatic arts illiteracies.
- Standards for writing.

Other comments -

- It's not so much adding standards as much as the detail that needs adding. One characteristic of our state math standards was their clarity. I don't feel the CCSS have that same level of clarity.
- I would not necessarily add more, I would better define within each standard what the standard would look like within the classroom. I would include increased levels of specificity within the reading portions. Much of this is already included in our current state standards and could be bulleted under the common core standards.

**ASSESSING ADDITIONAL STANDARDS:** If states add more standards, they are responsible to fund the development and assessment of their unique standards.

Here are some ways teacher respondents would assess additional standards.

- > Standardized multiple choice questions about comprehension that can be computer scored
- Student portfolios
- End-of-media literacy unit assessment
- Teacher observation, student interviews
  - Improve and connect to Classroom-Based Assessments

# If the Common Core Standards are adopted, teachers will need professional development, instructional materials and other resources to prepare for these changes. How vital would these supports be to you?

