

# STATE BOARD OF EDUCATION

**HEARING TYPE:**      X   INFORMATION/NO ACTION

**DATE:**            **July 19-20, 2007**

**SUBJECT:**         **Joint Math Action Plan**

**SERVICE UNIT:**   Edie Harding, Executive Director  
State Board of Education

**PRESENTERS:**     Steve Floyd, Chair of SBE Math Committee; Dr. Corrine McGuigan,  
OSPI Assistant Superintendent for Research and Educator  
Development; Lin Douglas, PESB Interim Executive Director

## **BACKGROUND:**

Last fall the State Board of Education (SBE), Office of Superintendent of Public Instruction (OSPI) and Professional Educator Standards Board (PESB) created a Joint Mathematics Action Plan to address ways to examine and improve the educational system for our mathematics students. In light of the legislative actions outlined below and further work on the part of the three agencies, we have attached an updated version on the progress for implementing this plan. An update to the legislature on the progress by OSPI, SBE and PESB on math and science is required by September 1, 2007.

The 2007 legislature took the following actions:

- » Delayed the graduation requirement that students must meet the high school mathematics standards by passing an assessment until the class of 2013.
- » Required students that do not meet the standards through the Washington Assessment of Student Learning (WASL) or an alternative assessment to take 1-2 years of additional mathematics, until they graduate.
- » Required the SBE to increase the number of mathematics credits needed from two to three.
- » Provided significant additional funding for teacher professional development and pathways to create new math teachers.
- » Required OSPI to develop a curricular and instructional materials menu for mathematics and the SBE to determine when districts must use that menu for accountability purposes.

- » Required the SBE to create math and science panels to advise the Board on the draft standards and curricular/instructional materials menus.

In terms of the latest student achievement results from the June 2007 WASL, the percent of students in the class of 2008 who took the 10th grade mathematics WASL and met the standards needed for high school graduation has increased from 58 percent to 74 percent. Nonetheless, only 61 percent of the total class of 2008 (including those who have not yet taken the WASL) have met standard.

## Monitoring Progress on the Joint Mathematics Action Plan: July 6, 2007 Update

State Board of Education (SBE), Office of Superintendent of Public Instruction (OSPI) and  
Professional Educator Standards Board (PESB)

**Note: Bold Indicates Update**

Action	Responsibility	Completion Date	Progress
<b>I. Ensure Standards, Assessment and Curriculum Are Aligned</b>			
a. Clarify/revise the K-12 mathematics standards.	SBE/OSPI	<p>SBE must have review of standards done by September 2007</p> <p>OSPI must have Standards Revisions done by <b>January 2008</b></p>	<p><b>SBE: Strategic Teaching completes draft recommendations on the standards (Essential Academic Learning Requirements and Grade Level Expectations) by July 13. A final report will be issued August 30. A Washington panel of 20 members was formed to assist the consultant. Three focus groups will be held in Spokane, Pasco and Renton in July with teachers, other interested educators, and community people to review and comment on the draft recommendations.</b></p> <p><b>OSPI is considering several options for revision of the math standards. Among options being considered is hiring a nationally recognized team of content and standards development experts. OSPI continues to be committed to the January 30, 2008 deadline for standards revision.</b></p>
b. Revise mathematics WASL, as appropriate, so it aligns with standards and curriculum.	OSPI	Pilot 2008-2010; Implementation 2011	<p>OSPI Assessment staff will use results from the standards review to revise the test and item specifications. National Technical Advisory Committee (TAC) will be involved to assure measurement quality is maintained as changes are implemented. OSPI is soliciting proposals for a new vendor to develop and score the tests.</p> <p><b>SBE: Conducting study of End-of –Course Assessments, recommendations due to Governor January 2008</b></p>
c. Select K–12 mathematics curricula, allow OSPI to enter into a master agreements <sup>1</sup> .	OSPI/SBE	<p><b>December 1, 2007</b></p> <p><b>May/June 2008</b></p>	<p><b>The SBE must determine in its accountability work when districts will be required to purchase the OSPI curricular and instructional menu materials. Funding will be needed for local school districts to purchase materials.</b></p> <p><b>This work could commence in January 2008 and be available Summer 2008. OSPI will engage the services of experts in material review efforts.</b></p> <p>CONTINUED ON NEXT PAGE</p>

<sup>1</sup> OSPI is developing a broad master agreement for purchases beyond curriculum such as food services.

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c. continued...			<p>OSPI working with the General Administration office to define the process of establishing Master Price Agreements allowing OSPI the authority to enter into Master Price Agreements with publishers on behalf of purchasing school districts.</p> <p>School expenditure data by program area will be collected to ensure that money is being spent on high priority school programs.</p> <p>OSPI to conduct <b>Computational Fluency Program Review</b> March 2007; report to districts June 2007 and shared at Summer Institutes. <b>Completed. White paper commissioned and delivered on this topic June 2007.</b></p> <p>OSPI Summer Institutes will feature Diagnostic/Intervention sessions led by OSPI Mathematics Initiative Staff.</p>

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<b>II. Ensure Quality Teaching</b>			
a. Improve teacher recruitment and retention. Scholarships, conditional loans, and differential pay to attract mathematics teaching talent.	Legislature	April 2007	<b>Funding by legislature was provided to support 320 alternative route program scholarships (for this year there are 127), paraeducator pipeline and educator retooling program.</b>
b. Expand the alternative routes program with particular focus on new recruitment strategies.	PESB	January 2008	<b>PESB will increase the number of alternative route programs and develop a comprehensive recruitment campaign. An RFP has been issued to invite more program applications to offer alternative routes. A focus for the alternative routes will be to increase in math and science teachers.</b>
c. Require mathematics teacher preparation programs address the curricular menu and use formative and summative student performance data.	PESB	After curricular menu adopted	PESB action is dependent upon the independent review process and OSPI action. <b>OSPI has assigned 2 FTEs to work directly with the State's 22 colleges and universities to ensure these items are addressed. OSPI is also taking a more active and engaged role with each of the colleges and universities.</b>
d. Provide university faculty professional development.	PESB/OSPI	After standards, assessment and GLEs revisited	PESB is exploring options for university faculty involvement in OSPI-sponsored professional development. No state-level funding available. OSPI working with Washington Association of Colleges of Teacher Education (WACTE) to develop a plan to create the training needed at preparation institutes on the state's new mathematics EALRs/GLEs. <b>2 consultants have been re-assigned to work primarily with the State's 22 college and universities.</b>
e. Revise/adopt the endorsement competencies for elementary, middle level, and secondary mathematics.	PESB	July 2007 Pending standards review	PESB adopted revised secondary mathematics endorsement competencies during the March PESB meeting. <b>These endorsements provide a greater specificity in what teachers must know as grade level expectations are more detailed and now include grades 11 and 12 based on the 2004 revisions.</b> Revised Middle Level Mathematics/Science endorsement competencies scheduled for consideration during the July PESB meeting, <b>which prescribe more detailed competencies in skills and knowledge.</b> Revised Elementary Education endorsement competencies scheduled for consideration during the July PESB meeting.

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f. Align the mathematics content test for teachers with the new competencies.	PESB	September 2008	Alignment work is underway for the secondary mathematics endorsement test.
g. Integrate mathematics content into other content areas.	PESB	July 2007	A work group is currently reviewing the teacher preparation knowledge and skills standard. Mathematics integration will be addressed within the revisions to the standard. Consideration of the proposed revisions is scheduled for the July PESB meeting.
h. Eliminate out-of-endorsement assignments.	PESB	September 2009	Initial discussion of this issue was held at the May PESB meeting. <b>As the PESB takes steps to discontinue out-of-endorsement teaching assignments, the state must provide options for teachers to acquire the appropriate endorsements. The conversation will continue at the July 2007 meeting.</b>
i. Raise standards for continuing education providers.	PESB	March 2008	Initial discussion of this issue occurred during the March PESB meeting. <b>The PESB will consider options for renewing certificates that are less reliant on clock hours and credits. New standards-based criteria will be developed for approved clock hour providers.</b>
j. Implement a statewide master plan for professional development.	OSPI	Summer 2007	<p><b>OSPI has developed a new conceptual framework which considers professional development to be all learning related to a professional's work life beginning at recruitment and ending with retirement. OSPI will continue to build this new "Master Plan" until November 2007 with its partners throughout the state.</b></p> <p><b>OSPI hosted the Mathematics Symposium with K-20 stakeholder leaders out of which came a commitment to build a statewide mathematics system. OSPI in conjunction with ESDs identified and have implemented a new management and leadership system for regional professional development to address the needs of school districts. A research project will track the impact of the \$39 million available to school districts to use for math and science professional development during the next 2 years.</b></p>

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k. Provide time for educators to identify and implement effective strategies to improve mathematics achievement.	OSPI	Fall 2007	<p>OSPI is <b>providing</b> professional development for effective strategies, e.g., Segmented Mathematics Training, Computational Fluency practices, Diagnostic and Intervention Programs throughout the 2007 Summer Institutes.</p> <p><b>OSPI commissioned the Center for Strengthening the Teaching Profession to examine the variables around teaching and learning of math teachers in schools deemed</b></p> <p><b>a) Highly successful via WASL scores in mathematics or</b></p> <p><b>b) Highly successful in improving math performance from year-to-year.</b></p> <p><b>Initial findings indicate that the 3 most significant variables are:</b></p> <ol style="list-style-type: none"> <li><b>1) Teacher knowledge of mathematic content;</b></li> <li><b>2) Support of a strong professional learning community; and</b></li> <li><b>3) Support of the principal or other academic leadership within the school.</b></li> </ol>





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<b>IV. Deliver Effective Instruction and Interventions</b>			
a. Implement the segmented mathematics class and end of unit exams.	Legislature/OSPI	2007–08 School Year	Segmented mathematics <b>was not</b> approved as a CAA Option. Writing of accompanying course <b>is completed</b> . <b>Training was held in 9 ESD</b> regions this spring. Test map approved by the National TAC at the 1/18-19/07 meeting.
b. Examine effective use of time and opportunity to learn.	OSPI/SBE	2008	OSPI released a Request for Information (RFI) to organizations interested in developing Response to Intervention (RTI) strategies for mathematics K-12. RTI is the practice of providing high-quality instruction/intervention matched to student need, monitoring progress frequently to make decisions about changes in instruction or goals and applying child response data to important educational decisions.
c. Continue offering the Promoting Academic Success (PAS) program; make delivery changes based on feedback from districts and information from the WA St. Institute for Public Policy study/other information.	OSPI	Ongoing	Funding Required
d. Expand the availability of math intervention courses and materials.	OSPI	Summer 2007 for high school 2008 for middle and elementary	2007 Spring and Summer training on PAS materials. <b>Completed a review of diagnostic and intervention materials of “math facts” white paper and computational materials review.</b>

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e. Implement the use of diagnostic assessments.	OSPI	2010	<p>OSPI is obtaining proposals to award a contract for a new vendor to develop assessments for both the WASL and diagnostic assessments. These assessments will be tied directly to the new standards. The vendors are required to develop diagnostic classroom assessments that provide specific diagnostic information about students' knowledge of GLEs tied to the standards.</p> <p>Diagnostic assessments can also accompany text books. Once the math standard revisions are complete, text book recommendations can be made and diagnostic assessments can be linked to each text.</p> <p>Assisting teachers with diagnostics about how children learn will be work undertaken by OSPI and educational experts in learning and pedagogy.</p> <p>School Districts receive \$4. 8 million to develop diagnostic assessments for this biennium for reading, math, science and writing. OSPI was allocated \$50,000 per year to coordinate this work.</p>
f. Provide personalized intervention programs K-12.  Identify effective intervention programs and strategies.	OSPI	Ongoing	<p>See noted on Professional Development regarding Diagnostic Intervention Programs training at Summer Institutes.</p> <p>RTI sessions also at Summer Institutes.</p>

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<b>V. Strengthen Accountability: Data Management</b>			
a. Expand core student record system.	OSPI		<p>Core Student Records Systems (CSRS) Version 3 (CV3) is nearing the completion of the pilot that started June 2006.</p> <p>Districts will begin using CV3 next school year (2007-08) in parallel with the current CSRS system (CV2). CV3 is scheduled to replace CV2 and be the sole CSRS version beginning with the 2008-09 school year.</p> <p>Funding will be required to assist the 40 districts that currently do not have a student data system.</p> <p>As additional data elements are desired, funding will be required to map each district.</p>
b. Create teacher credential and placement data system.	OSPI/PESB		<p><b>The Legislature provided funding for a pilot project in 2 school districts for OSPI to explore the feasibility of an educator data system.</b></p> <p><b>OSPI is actively engaged in the redesign of the credential and placement data system – moving toward an all digital system which will incorporate the new professional development system into the credential and placement system. Sufficient funding is an issue and it is the intent of OSPI to seek outside funding to accomplish this goal.</b></p>

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<b>VI. Community Outreach</b>			
Develop a Public/Private Partnership.	OSPI/PESB/SBE	Ongoing	<p>The Partnership for Learning has assisted the SBE and OSPI in their mathematics discussions and has developed some advertisements and brochures on the importance of mathematics. They also recently completed an opinion survey on the need for additional mathematics in high school.</p> <p><b>The new Statewide Mathematical System includes a commitment to work accomplished through partnerships.</b></p>