

High School Math Curricula Recommendations – Background

During the 2007-09 biennium, state law (RCW 28A.305.215) required the Office of Superintendent of Public Instruction (OSPI) to review mathematics curricula and recommend to the State Board of Education (SBE) no more than three basic mathematics curricula at the elementary, middle and high school grade spans, within six months of the adoption of the revised standards.

The high school mathematics standards were adopted on July 30, 2008. OSPI conducted an instructional materials review that evaluated published core/comprehensive high school mathematics instructional materials using the 2008 revised Washington State Mathematics Standards and other factors, such as equity and assessments.

Many individuals and groups contributed to the development of the instructional materials review process, instrument design, materials review, data analysis and development of the report including the State Board of Education Math Panel, Materials Reviewers, National Experts and External Leaders and OSPI staff and consultants.

On January 15, 2009, Superintendent Dorn made the initial High School Core/Comprehensive Instructional Materials recommendations to the SBE for comment. Those initial recommendations were Holt Mathematics, Discovering Mathematics and Core-Plus Mathematics.

After the initial recommendations were presented to the SBE, the SBE contracted with Strategic Teaching, a consulting firm, to evaluate the initial recommendations. As part of their work, Strategic Teaching acknowledged the strength of the OSPI alignment review of these programs. Accordingly, they focused their review of the three recommended program bundles (as well as one additional program bundle) on mathematical soundness based on two mathematicians' reviews of five specific High School Performance Expectations and their development within each program. The four program bundles reviewed were Holt Algebra I, Geometry and Algebra II (Holt McDougal); Discovering Algebra, Geometry and Advanced Algebra (Key Curriculum Press); Glencoe McGraw-Hill Algebra I, Geometry and Algebra II (Glencoe McGraw-Hill) and Core Plus Mathematics, Contemporary Mathematics in Context Course I, II, III (Glencoe McGraw-Hill).

Holt Mathematics was the only publisher bundle that received a satisfactory rating from SBE consultants on mathematical soundness. Their conclusions on soundness differed substantially from mathematics consultants used by OSPI.

Because of differences of opinion on mathematical soundness among the OSPI and SBE mathematicians, the SBE recommended that OSPI and SBE hire additional independent mathematicians to conduct a final mathematical soundness review of the top seven programs most closely aligned to the standards. Unfortunately, funding to support that request was not available.

Superintendent Dorn, per statute, made his final recommendation of Holt Mathematics at the high school level. Legislation required that the State Superintendent "shall make any changes based on the comments and recommendations of the State Board of Education." (2SHB 2598, section 7 (b), Laws of 2008.)

The recommendation of Holt is not a state mandate. Local school boards can choose whatever curricula that best meets the need of their students. It is entirely possible that, with supplemental materials, locally chosen curricula can satisfy both criteria: that it is aligned with state standards and mathematically sound.

Information available on the OSPI and SBE Web sites provides resources and guidance for those intending to purchase materials this year. For those districts that have chosen to delay purchasing decisions, OSPI plans to conduct another K-12 mathematics instructional materials alignment review within the next two years as resources and funding allow. In future reviews, we anticipate even higher overall alignment rankings as publishers will have sufficient time to modify their products to fit the new Washington standards.

Reply from Deputy Superintendent of K-12 Education Alan Burke