

- SUBJECT:** Creating a master science teacher certification and grant program
- COMMITTEE:** Public Education — committee substitute recommended
- VOTE:** 8 ayes — Grusendorf, Oliveira, Branch, Dawson, Eissler, Griggs, Hochberg, Madden
- 0 nays
- 1 absent — Dutton
- WITNESSES:** For — Tim Bacon, Texas State Teachers Association; Sandi Borden, Texas Elementary Principals and Supervisors Association; Cathy Douglass, Texas Association of School Boards; Ted Melina Raab, Texas Federation of Teachers; Jeri Stone, Texas Classroom Teachers Association; Jo-Hannah Whitsett, Association of Texas Professional Educators
- Against — None
- On — David Anderson and Ann Smisko, Texas Education Agency
- BACKGROUND:** The 76th Legislature in 1999 enacted HB 2307 by Keffer, creating a master reading teacher certification and grant program to reward experienced teachers with special training in reading instruction and peer mentoring. The program awards \$5,000 grant stipends to teachers in high-need schools who earn the special reading certification and who work with other teachers and students to improve student reading performance. The 77th Legislature in 2001 established similar programs for master mathematics teachers (HB 1144 by Grusendorf) and master technology teachers (HB 1475 by Kitchen).
- DIGEST:** CSHB 411 would create a master science teacher certification and grant program. It would establish requirements for developing training materials and other teacher training resources and would authorize after-school and intensive science instruction programs for students.
- Master science teacher certification.** The State Board for Educator Certification (SBEC) would have to establish a master science teacher

certificate for elementary, middle school, and high school grade levels. To be eligible, a teacher would have to hold a teaching certificate, have at least three years of teaching experience, complete a course that included training in science instruction and professional peer mentoring, perform satisfactorily on the master science teacher certification examination prescribed by SBEC, and satisfy any of the board's other requirements.

**Master science teacher grants.** The education commissioner would have to establish grants to encourage teachers to become certified as master science teachers and to work with other teachers and students to improve student science performance. The commissioner would have to make grants to school districts from appropriated funds to pay stipends to selected certified master science teachers who taught at high-need campuses.

The commissioner would have to identify annually each high-need campus in a school district on the basis of criteria established by rule, including performance on fifth and tenth grade science assessments, and would have to rank campuses in order of greatest need. A school district could apply to the commissioner for grants of \$5,000 for each identified high-need campus to pay stipends to master science teachers. The bill would specify criteria by which the commissioner would have to approve, distribute, fund, reduce, and audit these grants to school districts.

The bill would not create a property right to a grant or stipend. A school district would be entitled to a grant only to the extent that the commissioner granted it and only to the extent that sufficient state funds were appropriated. The commissioner's decision about the amount of money to which a school district was entitled could not be appealed. The commissioner could audit the expenditure of money appropriated for purposes of the grant program.

**Science training.** The commissioner would have to develop training materials and other teacher training resources for a school district to use in helping science teachers achieve expertise in the appropriate science curriculum and comprehension of instructional approaches that have been proven effective in improving science skills. To the extent practicable, these training materials and resources would have to address instructional approaches designed to reduce disparities in science performance between groups of students. The commissioner would have to develop these training materials and resources in

consultation with appropriate faculty members at higher education institutions.

The commissioner, using appropriated funds, would have to make required training materials and other training resources available to science teachers through a variety of mechanisms, including distance learning, mentoring programs, small group inquiries, computer-assisted training, and mechanisms based on trainer-of-trainer models.

**After-school and summer intensive science instruction programs.** A school district could provide an intensive after-school or summer program in science instruction to:

- help students who were not performing at grade level in science;
- help students who were not performing successfully in a science course to complete the course; or
- aid any other students as determined by the district.

Before providing these programs, a school district's board would have to adopt a policy for:

- determining student eligibility, including teacher recommendations;
- ensuring that parents or people standing in a parental role received notice of the program;
- offering a program at one or more locations in the district that were easily accessible to eligible students; and
- measuring student progress on completion of the program.

The commissioner by rule would have to:

- prescribe a procedure that a school district must follow to apply for and receive funding;
- adopt guidelines for determining which districts received funding if sufficient funding was not available for each district that applied;
- require each district with a program to report student performance results to the commissioner; and
- disseminate information concerning instructional methods that have proved successful in improving student performance in science.

After-school and summer intensive programs established by the bill would have to be paid for with funds appropriated for that purpose.

CSHB 411 would reenact Government Code, sec. 822.201(b), relating to the definition of salary and wages and would make conforming changes to add sections of the Education Code affected by the new program.

SBEC would have to propose rules establishing requirements and prescribing an examination for master science teacher certification by January 1, 2005. Grants would be awarded to certified master science teachers beginning with the 2005-06 school year.

The bill would take effect September 1, 2003.

**SUPPORTERS  
SAY:**

CSHB 411 would implement Gov. Perry's initiative to improve science education, modeling a certification and grant program on the successful master reading teacher and master mathematics teacher initiatives.

Science and engineering skills are crucial for some of Texas' largest employers, such as M.D. Anderson Cancer Center, University of Texas Health Science Center, Scott and White, NASA, and Texas Instruments. According to the U.S. Department of Labor, engineering, biotechnology, health care, and information technology will be the most prominent employment areas in the next 10 years. Yet despite the importance of science-related skills to the state, Texas school students perform below the national average in eighth grade science. Texas students scored lowest among the 13 states participating in the Third International Mathematics and Science Study.

CSHB 411 would address the shortage of science teachers in Texas public schools and would make high-quality science education a priority. Without a strong foundation in scientific knowledge and skills, Texas students will not be prepared for advanced courses such as chemistry, physics, and biology necessary for technological jobs.

The bill would assist teachers in science instruction and would enable evaluation standards to keep pace with advances in the sciences. It also would aid in recruiting and retaining more highly trained science teachers, thus keeping Texas competitive in expanding fields of scientific knowledge.

OPPONENTS  
SAY:

CSHB 411 could create an expectation among educators and the public that the state would improve science performance in public schools when, in fact, the state might not be able to deliver on that promise. According to the bill's fiscal note, the proposed programs would cost the state close to \$22 million in general revenue in the coming biennium and \$49 million the biennium after that. In view of the budget cuts proposed for public education in the current version of the general appropriations bill, such cost projections raise serious doubts as to whether CSHB 411 could be funded. The grant program for master technology teachers created by the 77th Legislature has remained stalled for lack of funding, and the programs proposed by CSHB 411 could share the same fate.

NOTES:

The bill's fiscal note projects a cost to general revenue of \$21.8 million in fiscal 2004-05 due to developing certification tests and training materials and providing after-school or summer intensive science instruction programs. Costs are projected at \$22 million in fiscal 2006 with the beginning of grant awards and at \$27 million in each of the next two years. Rider 63 for the Texas Education Agency in HB 1 by Heflin, the general appropriations bill for fiscal 2004-05, passed by the House on April 17, would allow the education commissioner to use a portion of \$5 million in federal funds appropriated for the Texas Science Initiative to implement the master science teacher program.

The committee substitute deleted a section of HB 411 as introduced that would have required the commissioner to establish professional development institutes for science teachers at the fifth through eighth grade levels and to pay stipends for participating teachers. The commissioner would have had to develop and make available assessment tests that a school district could use to diagnose student science skills. The substitute also added the requirement that training materials and resources address instructional approaches designed to reduce disparities in science performance between groups of students.

The companion bill, SB 142 by Ellis, was reported favorably as substituted by the Senate Education Committee on April 14.