

STORAGE NAME: h0891a.edk

DATE: April 1, 1999

**HOUSE OF REPRESENTATIVES
COMMITTEE ON
EDUCATION K-12
ANALYSIS**

BILL #: HB 891

RELATING TO: Mathematics and Science Teacher Education

SPONSOR(S): Representative Andrews

COMPANION BILL(S): CS/SB 896

ORIGINATING COMMITTEE(S)/COMMITTEE(S) OF REFERENCE:

- (1) EDUCATION K-12 YEAS 6 NAYS 0
- (2) EDUCATION INNOVATION
- (3) EDUCATION APPROPRIATIONS
- (4)
- (5)

I. SUMMARY:

This bill establishes an in-service professional development program in mathematics and science with initial emphasis on grades K-8. The program must include an evaluation component that provides pre- and post- data for the analysis of student achievement, including an analysis of students whose teachers participated in the program relative to students whose teachers did not participate. It creates the Alliance for Improving Mathematics and Science (AIMS) in Florida's education programs.

The bill prescribes responsibilities and authority for AIMS. By December 1, 1999, the board must submit a proposed budget to the Commissioner of Education for implementing the program in 2000 - 2003. The budget must contain alternative plans for the participation of 100 percent, 50 percent, and 25 percent, respectively, of the state's teachers at the elementary and middle school levels by 2003. It expands the statewide student assessment program to include science beginning in 2003.

The bill revises State Board of Education (BOE) rules for school improvement and accountability to require each school to report the number and percentage of teachers who have achieved certification by the National Board of Professional Teaching Standards (NBPTS) and, for schools that contain a kindergarten or grade 1 through 8, the number and proportion of teachers who have successfully completed the program to improve mathematics and science teaching under s. 236.08106, F.S. It amends the School Community Professional Development Act, to require that teacher education programs in science, mathematics, and technology education be fully aligned with the content of science tasks included in statewide teaching scheduled for 2003. It requires that pupil progression requirements include proficiency in science. The bill revises the Excellent Teaching Program to include a salary bonus or increased stipend for teachers who successfully complete the program to improve the teaching of mathematics and science in Florida, under s. 231.6015, F.S. The bill revises educational funding accountability provisions to require the public school accountability report to parents include the number and proportion of instructional personnel in kindergarten through grade 8 who have achieved national certification or who have completed the program to improve mathematics and science teaching in Florida.

According to the Florida Coalition for Improving Mathematics and Science, a first-year budget of \$3,524,2277 and an annualized budget of \$7,994,096 is needed. If funded, the program would presumably reach 4,500 teachers annually, or approximately 8.2 percent of Florida elementary school teachers, at a cost of approximately \$1776 per teacher.

II. SUBSTANTIVE ANALYSIS:

A. PRESENT SITUATION:

The Florida Comprehensive Assessment Test

The Florida Comprehensive Assessment Test (FCAT) is a criterion-referenced assessment designed to measure specific Sunshine State Standards in the areas of reading for grades 4, 8 and 10 and math for grades 5, 8 and 10. The Sunshine State Standards provide benchmarks of what children should know and be able to do at each stage of their development.

Student Assessment

Section 229.57, F.S., prescribes requirements for a statewide student assessment program. The primary purpose of the program is to provide information needed for the improvement of the public schools. The program must be designed to:

- (a) Identify the educational strengths and needs of students.
- (b) Assess how well educational goals and performance standards are met at the school, district, and state levels.
- (c) Provide information to aid in the evaluation and development of educational programs and policies.

The commissioner must develop and implement a student achievement testing program as part of the statewide assessment program, to be administered at designated times at the elementary, middle, and high school levels to measure *reading, writing, and mathematics*.

School Improvement and Accountability

Section 229.592, F.S., prescribes requirements for a state system of school improvement and education accountability. Every public school in the state must have a school improvement plan. The commissioner is responsible for implementing and maintaining a system of intensive school improvement and stringent education accountability.

Upon request, the Florida Department of Education (DOE) must provide technical assistance and training to any school, school advisory council, district, or school board for conducting needs assessments, developing and implementing school improvement plans, developing and implementing assistance and intervention plans, or implementing other components of school improvement and accountability. Priority for these services must be given to school districts in rural and sparsely populated areas of the state.

School Community Professional Development Act

Section 231.600, F.S., requires DOE, public community colleges and universities, public school districts, and public schools in this state to collaborate to establish a coordinated system of professional development. The purpose of the professional development system is to enable the school community to succeed in school improvement as described in s. 229.591, F.S. DOE must design methods by which the state and district school boards may evaluate and improve the professional development system. The evaluation must include an annual assessment of data that indicate progress or lack of progress of all students. If the review of data indicates an achievement level that is unusual, the department may investigate the causes of the success or lack of success, may provide technical assistance, and may require the school district to employ a different approach to professional development. DOE must report annually to BOE and the Legislature any school district that has failed to provide an adequate professional development system. This report must include the results of the department's investigation and of any intervention provided.

Pupil Progression and Remediation

Section 232.245, F.S., prescribes provisions relating to pupil progression and remedial instruction. Each district school board must establish a comprehensive program for pupil progression which must include:

- (a) Standards for evaluating each pupil's performance, including how well he or she masters the performance standards approved by the state board according to s. 229.565, F.S.

- (b) Specific levels of performance in *reading, writing, and mathematics* for each grade level, including the levels of performance on statewide assessments at selected grade levels in elementary school, middle school, and high school as defined by the Commissioner of Education, below which a student must receive remediation and may be retained.

Each student must participate in the statewide assessment tests required by s. 229.57, F.S. A student who does not meet specific levels of performance as determined by the district school board in *reading, writing, and mathematics* for each grade level must be provided with additional diagnostic assessments to determine the nature of the student's difficulty and areas of academic need. Upon subsequent evaluation, if the documented deficiency has not been corrected in accordance with the academic improvement plan, the student may be retained. Each student who does not meet the minimum performance expectations in *reading, writing, and mathematics* must retake the state assessment test in the subject area of deficiency and must continue remedial instruction until the expectations are met or the student graduates from high school or is not subject to compulsory school attendance.

Each district must annually report to the parent or legal guardian of each student the progress of the student towards achieving state and district expectations for proficiency in *reading, writing, and mathematics*. The district must report to the parent or legal guardian the student's results on each statewide assessment test.

Excellent Teacher Program

Section 236.08106, F.S., prescribes requirements for the Excellent Teaching Program. The program is designed to provide incentives for teachers to seek the National Board of Professional Teaching Standards (NBPTS) certification and to reward teachers who demonstrate teaching excellence by attaining NBPTS certification and sharing their expertise with other teachers. Money is provided by the Legislature to fund a fee subsidy to be paid by the school district to the NBPTS on behalf of each individual who is an employee of the district school board or a public school within the district, who is certified to have demonstrated satisfactory teaching performance and who satisfies the prerequisites for participating in the NBPTS certification program, and who agrees, in writing, to pay 10 percent of the NBPTS participation fee and to participate in the NBPTS certification program during the school year for which the fee subsidy is provided. The fee subsidy for each eligible participant is an amount equal to 90 percent of the fee charged for participating in the NBPTS certification program, but not more than \$1,800 per eligible participant. The fee subsidy is a one-time award and may not be duplicated for any individual. A portfolio-preparation incentive of \$150 for each teacher employed by the district school board or a public school within the district who is participating in the NBPTS certification program is a one-time award paid during the school year for which the NBPTS fee subsidy is provided.

The section provides for an annual bonus equal to 10 percent of the prior fiscal year's statewide average salary for classroom teachers to be paid to each individual who holds NBPTS certification and is employed by the district school board or by a public school within that school district. An annual bonus equal to 10 percent of the prior fiscal year's statewide average salary for classroom teachers is paid to each individual who meets the requirements and agrees, in writing, to provide the equivalent of 12 workdays of mentoring and related services to public school teachers within the district who do not hold NBPTS certification.

The Educational Funding Accountability Act

Section 236.685, F.S., prescribes requirements for educational funding accountability. Each school board must classify each employee of the school board or school district into one of the following categories: instructional personnel; instructional specialists; instructional support personnel; administrative personnel; managers; or educational support personnel. The school public accountability report to parents must include the number of employees in each of these categories, by work location.

B. EFFECT OF PROPOSED CHANGES:

Math and Science Teacher Education Program

The bill establishes an in-service professional development program in mathematics and science with initial emphasis on grades K-8. It is intended to emphasize learning in relation to the Sunshine State

Standards and the subject matter content standards adopted by the Education Standards Commission. The program must be designed to focus on improving teacher command of content knowledge and on producing systemic, measurable change in student learning. It must employ proven strategies and must include a component for school board members and administrators. The program must include an evaluation component that provides pre- and post- data for the analysis of student achievement, including an analysis of students whose teachers participated in the program relative to students whose teachers did not participate.

AIMS (Alliance for Improving Mathematics and Science)

The Alliance for Improving Mathematics and Science in Florida's education programs is created. The organization is not a unit of state government and is assigned to the commissioner for administrative purposes. It creates a Council of six members to apprise decision makers of AIMS activities. It includes a member of the Senate and the House of Representatives, and representatives of the Governor, DOE, the Florida Community College System, and the State University System. It creates the position of chief executive officer, who will work under the general guidance of the Board and has general management responsibilities.

The bill prescribes responsibilities and authority for AIMS. By December 1, 1999, the board must submit a proposed budget to the commissioner for implementing the program in 2000 - 2003. The budget must contain alternative plans for the participation of 100 percent, 50 percent, and 25 percent, respectively, of the state's teachers at the elementary and middle school levels by 2003. It expands the statewide student assessment program to include science beginning in 2003.

Student Assessment

Science competencies are added to the specific student skills that the statewide student assessment program must measure.

School Improvement and Accountability

The bill revises BOE rules for school improvement and accountability to require each school to report the number and percentage of teachers who have achieved certification by the National Board of Professional Teaching Standards and, for schools that contain a kindergarten or grade 1 through 8, the number and proportion of teachers who have successfully completed the program to improve mathematics and science teaching under s. 236.08106, F.S.

School Community Professional Development Act

The School Community Professional Development Act is amended to require that teacher education programs in science, mathematics, and technology education be fully aligned with the content of science tasks included in statewide teaching scheduled for 2003.

Pupil Progression and Remediation

The bill requires that pupil progression requirements include proficiency in *science*, in addition to reading, writing, and mathematics.

Excellent Teaching Program

The bill revises the Excellent Teaching Program to include a salary bonus or increased stipend for teachers who successfully complete the program to improve the teaching of mathematics and science in Florida, under s. 231.6015, F.S.

The Education Funding Accountability Act

The bill revises educational funding accountability provisions to require the public school accountability report to parents include the number and proportion of instructional personnel in kindergarten through grade 8 who have achieved national certification or who have completed the program to improve mathematics and science teaching in Florida.

C. APPLICATION OF PRINCIPLES:

1. Less Government:

a. Does the bill create, increase or reduce, either directly or indirectly:

(1) any authority to make rules or adjudicate disputes?

No.

(2) any new responsibilities, obligations or work for other governmental or private organizations or individuals?

Yes. The bill creates AIMS, a non-state government entity, which is assigned to PEPC for administrative purposes.

(3) any entitlement to a government service or benefit?

No.

b. If an agency or program is eliminated or reduced:

An agency or program is not eliminated or reduced.

(1) what responsibilities, costs and powers are passed on to another program, agency, level of government, or private entity?

N/A

(2) what is the cost of such responsibility at the new level/agency?

N/A

(3) how is the new agency accountable to the people governed?

N/A

2. Lower Taxes:

a. Does the bill increase anyone's taxes?

No.

b. Does the bill require or authorize an increase in any fees?

No.

c. Does the bill reduce total taxes, both rates and revenues?

No.

d. Does the bill reduce total fees, both rates and revenues?

No.

e. Does the bill authorize any fee or tax increase by any local government?

No.

3. Personal Responsibility:

- a. Does the bill reduce or eliminate an entitlement to government services or subsidy?

No.

- b. Do the beneficiaries of the legislation directly pay any portion of the cost of implementation and operation?

No.

4. Individual Freedom:

- a. Does the bill increase the allowable options of individuals or private organizations/associations to conduct their own affairs?

No.

- b. Does the bill prohibit, or create new government interference with, any presently lawful activity?

No.

5. Family Empowerment:

- a. If the bill purports to provide services to families or children:

The bill does not purport to provide services to families or children.

- (1) Who evaluates the family's needs?

N/A

- (2) Who makes the decisions?

N/A

- (3) Are private alternatives permitted?

N/A

- (4) Are families required to participate in a program?

N/A

- (5) Are families penalized for not participating in a program?

N/A

- b. Does the bill directly affect the legal rights and obligations between family members?

No.

- c. If the bill creates or changes a program providing services to families or children, in which of the following does the bill vest control of the program, either through direct participation or appointment authority:

The bill does not create or change a program providing services to families or children.

(1) parents and guardians?

N/A

(2) service providers?

N/A

(3) government employees/agencies?

N/A

D. STATUTE(S) AFFECTED:

The bill creates ss. 231.6015, F.S., and 240.149, F.S. It amends ss. 229.57, 229.592, 231.600, 232.245, 236.08106, and 236.685, F.S.

E. SECTION-BY-SECTION ANALYSIS:

Section 1 amends s. 231.6015, F.S., to establish an in-service professional development program in mathematics and science with initial emphasis on grades K-8. It is intended to emphasize learning in relation to the Sunshine State Standards and the subject matter content standards adopted by the Education Standards Commission. The program must be designed to focus on improving teacher command of content knowledge and on producing systemic, measurable change in student learning. It must employ proven strategies and must include a component for school board members and administrators. The program must include an evaluation component that provides pre- and post- data for the analysis of student achievement, including an analysis of students whose teachers participated in the program relative to students whose teachers did not participate.

Teachers who participate in the program may receive compensation from the school district and may use successful participation for certificate extension or augmentation.

Section 2 creates s. 240.149, F.S., in which the Alliance for Improving Mathematics and Science (AIMS) in Florida's education programs is established. The organization is not a unit of state government and is assigned to the commissioner for administrative purposes. It establishes a Board of Directors that is appointed by the commissioner. The commissioner must make appointments on the recommendation of Postsecondary Education Planning Commission (PEPC), the Education Standards Commission, and the Workforce Development Board of Enterprise Florida. Four members must be employees of postsecondary education, four must be employees of district school boards (two of whom must be teachers), and four must be from the private sector. A representative of DOE is an additional ex-officio member with no voting privileges.

The section creates a Council of six members to apprise decision makers of AIMS activities. It includes a member of the Senate and the House of Representatives, and representatives of the Governor, DOE, the Florida Community College System, and the State University System. It creates the position of chief executive officer, who will work under the general guidance of the Board and has general management responsibilities.

The section prescribes the following responsibility and authority for AIMS:

- a. establish and maintain a system of professional development in mathematics and science,
- b. provide for the involvement of postsecondary education,
- c. produce specialized professional development program guidelines that emphasize content learning,
- d. select and prepare staff,
- e. establish priorities for selection of teachers to participate in this program,
- f. assure follow-up support for participating teachers,
- g. design and oversee an incentive plan which must provide for access to any merit pay plans developed by school districts and may provide for a stipend and a salary bonus for participating teachers, under s. 236.08106, F.S. Such a bonus must be in addition to the teacher's regular

- earnings from a school district and may not be awarded until a teacher has successfully completed the program and demonstrated through prescribed follow-up activities in the classroom an improvement in student achievement in mathematics or science, and
- h. assess impact to assure quality control.

By December 1, 1999, the board must submit a proposed budget to the commissioner for implementing the program in 2000 - 2003. The budget must contain alternative plans for the participation of 100 percent, 50 percent, and 25 percent, respectively, of the state's teachers at the elementary and middle school levels by 2003.

Section 3 amends s. 229.57, F.S., to expand the statewide student assessment program to include science beginning in 2003.

Section 4 amends s. 229.592, F.S. to revise BOE rules for school improvement and accountability to require each school to report the number and percentage of teachers who have achieved certification by NBPTS and, for schools that contain a kindergarten or grade 1 through 8, the number and proportion of teachers who have successfully completed the program to improve mathematics and science teaching under s. 236.08106, F.S.

Section 5 amends s. 231.600, F.S., relating to the School Community Professional Development Act, to require that teacher education programs in science, mathematics, and technology education will be fully aligned with the content of science tasks included in statewide teaching scheduled for 2003.

Section 6 amends s. 232.245, F.S., to require that pupil progression requirements include proficiency in science.

Section 7 amends s. 236.08106, F.S., to revise the Excellent Teaching Program to include a salary bonus or increased stipend for teachers who successfully complete the program to improve the teaching of mathematics and science in Florida, under s. 231.6015, F.S.

Section 8 amends s. 236.685, F.S., relating to educational funding accountability to require the public school accountability report to parents include the number and proportion of instructional personnel in kindergarten through grade 8 who have achieved national certification or who have completed the program to improve mathematics and science teaching in Florida.

Section 9 specifies an effective date of July 1, 1999.

III. FISCAL ANALYSIS & ECONOMIC IMPACT STATEMENT:

A. FISCAL IMPACT ON STATE AGENCIES/STATE FUNDS:

1. Non-recurring Effects:

According to the Florida Coalition for Improving Mathematics and Science, a first-year budget of \$3,524,2277 is needed.

2. Recurring Effects:

According to the Florida Coalition for Improving Mathematics and Science, an annualized budget of \$7,994,096 is needed. If funded, the program would presumably reach 4,500 teachers annually, or approximately 8.2 percent of Florida elementary school teachers, at a cost of approximately \$1776 per teacher.

3. Long Run Effects Other Than Normal Growth:

None.

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4. Total Revenues and Expenditures:

None.

B. FISCAL IMPACT ON LOCAL GOVERNMENTS AS A WHOLE:

1. Non-recurring Effects:

None.

2. Recurring Effects:

None.

3. Long Run Effects Other Than Normal Growth:

None.

C. DIRECT ECONOMIC IMPACT ON PRIVATE SECTOR:

1. Direct Private Sector Costs:

None.

2. Direct Private Sector Benefits:

None.

3. Effects on Competition, Private Enterprise and Employment Markets:

None.

D. FISCAL COMMENTS:

See above.

IV. CONSEQUENCES OF ARTICLE VII, SECTION 18 OF THE FLORIDA CONSTITUTION:

A. APPLICABILITY OF THE MANDATES PROVISION:

This bill does not require counties or municipalities to spend funds or take an action requiring the expenditure of funds.

B. REDUCTION OF REVENUE RAISING AUTHORITY:

This bill does not reduce the authority that counties or municipalities have to raise revenues in the aggregate.

C. REDUCTION OF STATE TAX SHARED WITH COUNTIES AND MUNICIPALITIES:

This bill does not reduce the percentage of a state tax shared with counties or municipalities.

V. COMMENTS:

None.

VI. AMENDMENTS OR COMMITTEE SUBSTITUTE CHANGES:

Amendment # 1 deletes a provision relating to authorization for districts to substitute other funds to support the program if they demonstrate significant modifications designed to implement the program.

Amendment #2 allows community colleges or state universities to report full-time equivalent (FTE) students if the instruction is provided by their own staff as part of a required teaching load.

Amendment #3 requires AIMS to be recognized as a non-profit organization under the Internal Revenue Service code.

Amendment # 4 places AIMS in the commissioner's office rather than PEPC for administrative purposes. It also requires the AIMS board to submit its proposed budget to the commissioner rather than to PEPC.

Amendment # 5 requires that at least two of the four AIMS board members that are school board employees be teachers.

Amendment #6 rephrases language relating to teacher education programs to require that teachers "know and understand" rather than "be proficient in" appropriate science and mathematics standards.

Amendment #7 adds a goal to the program, namely that teachers learn how to identify and challenge both students who excel and those who have average or below average aptitude.

VII. SIGNATURES:

COMMITTEE ON EDUCATION K-12:

Prepared by:

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Terri J. Chasteen

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