

as inflammation of the heart muscle (also known as myocarditis), arrhythmias, enlargement of the heart or other heart conditions. According to the American Heart Association, an electrocardiogram (EKG) is a less costly alternative to echocardiograms, a test that generates a picture of the heart through the transmission of sound waves after a probe is placed on the patient's chest. While the average echocardiogram cost is \$600, an EKG costs approximately \$120.¹ The AHA indicates that electrocardiograms are 75% accurate and, like echocardiograms, may not always detect heart abnormalities or disease.

All of Florida's universities, colleges and community colleges require that student-athletes receive medical clearance before they are allowed to participate in an intercollegiate sport. This medical clearance can result from an exam conducted by the student's physician using a form prepared by the athletics department indicating the type of medical tests that are required. If a student does not present this documentation at the beginning of a sport's season he or she must submit to a physical exam arranged by the athletics department and usually conducted at the school's health center.

The well-known football institutions such as Florida State University, the University of Florida and the University of Miami, also administer EKGs to their students as part of their initial exam. For example, football players at FSU are required to have a sixteen page document filled out by themselves and their physicians detailing medical history and tests taken as a prerequisite to medical clearance. That school provides a full medical exam, including blood work, urinalysis, sickle-cell anemia screening and hearing, vision, and orthopedic evaluations, for their athletes through the student health center. These exams cost \$125 and include an EKG at a discounted price of \$63. Students who are not on scholarships must pay for these exams themselves.

A similar statute, Section 232.61(3), F.S., directs organizations that sponsor interscholastic athletic events for high school athletes to adopt bylaws requiring that those athletes pass a medical evaluation each year in order to participate in any sport. If the physician finds any cardiovascular abnormalities, the student may not participate unless a subsequent EKG or other cardiovascular assessment indicates the abnormality will not place the student at risk. That statute further provides that no student shall be allowed to participate in a sport until the results of his or her medical evaluation showing that the student has satisfactorily passed the evaluation are verified by the school. Section 232.61(4), F.S., allows students who do not wish to submit to the medical exams due to religious beliefs to participate as long as they do not hold the school liable for injuries suffered as a result of participation.

Unlike SB 628, section 232.61(3) does not require that the school provide the necessary medical exam, it simply requires that a physical assessment be satisfactorily completed before the student may participate in a sport. In addition, the high school provision clearly outlines the affect of not completing a physical on participation. SB 628 contains no similar provision. The bill also does not include a religiously-based waiver as does the high school provision.

¹ After contacting several medical providers and representatives of organizations, including the Florida Hospitals Association, the American Heart Association and its Tallahassee branch, and the Centers for Disease control , all of whom were unable to provide an average cost of an EKG, staff estimated an average cost figure by using data gathered from Tallahassee Memorial Hospital, Tallahassee Community Hospital, and one other local medical practice. According to the Florida Hospitals Association, EKG costs vary widely from hospital to hospital and depend on whether the service is provided inpatient or outpatient, whether a doctor or other medical personnel interprets the results, and other factors.

III. Effect of Proposed Changes:

Section (2) of this bill would require all universities and community colleges to provide student athletes who participate in organized athletics physical assessments that would include electrocardiograms. The bill does not state that four-year colleges are implicated by this proposal, but given that community colleges, where athletic activity is less prominent, are also named, it can be assumed that colleges were also contemplated.

The language of this bill appears to require each school to absorb the cost of providing complete physical exams to all of its athletes. A typical physical exam can cost between \$100-150 dollars, according to university and college athletic trainers. The additional average cost of an EKG, \$120, would raise the schools' per student obligation to at least \$220. Given that an estimated 3,555 athletes currently participate in intercollegiate sports at state universities² and at least 1,950 community college athletes,³ the costs to the schools would be at least \$660,600. This amount does not include the cost of giving all students who participate in *all organized athletics* the same exams.

According to several athletic trainers at state universities and representatives of the Division of Community Colleges, *organized athletics* captures three categories of postsecondary sports: (1) intercollegiate sports, which are governed by the NCAA; (2) intramural sports; (3) and club sports.⁴ Unlike intercollegiate sports, the latter two do not belong to the schools' athletic associations and do not always require medical clearance for participation. However, the numbers of students who participate in these activities is significant. At the University of Florida where there are 478 intercollegiate athletes, 12,000 additional students⁵ participated in intramural and club sports last year. It is not clear whether those athletes would be required by this bill to submit to pre-participation physical examinations as well. If so, the cost to the schools for providing these exams would increase significantly. It is likely that all students at these institutions ultimately would have to bear the cost of these exams in the form of higher student fees.

Subsection (3) of the bill requires that the electrocardiogram be analyzed by a specialist in EKG analysis. If the universities or community colleges do not yet have someone on staff licensed to read EKGs they would also have to hire additional personnel.

² The total number of student-athletes for the independent colleges and universities was not available, however, two schools provided their figures. The largest independent institution, the University of Miami, indicated it has 476 intercollegiate participants, while Bethune Cookman College, one of the smaller schools, has 250 participants. No organization contacted had overall figures for the number of college athletes in Florida.

³ The community college number is the most recent number recorded by the Division of Community Colleges and represents the 1999-2000 school year.

⁴ "Club sports" refers to those sports that are organized around student interest and involve competition with other schools. They include, for example, fencing, rugby, and crew teams.

⁵ Some students participate in more than one intramural sport which may have resulted in duplication in arriving at this total. However, intercollegiate athletes are not included in that number since they are prohibited from participating in intramural or club sports while members of an intercollegiate team.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

None.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

V. Economic Impact and Fiscal Note:

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

The language of the bill seems to indicate that the school would have to bear the cost of providing complete assessments, including cardiovascular assessments such as EKGs. Institutions without personnel licensed to read EKGs would also have to hire additional staff. Several independent colleges and universities have indicated they would either be forced to close their athletics programs or be placed in the position to charge higher student fees to fund their athletics programs due to this requirement.

C. Government Sector Impact:

The language of the bill indicates that state universities and community colleges would also have to bear the cost of electrocardiograms for their student athletes. Several small community colleges may not be able to bear this cost and have indicated they might have to close their athletic departments.

VI. Technical Deficiencies:

None.

VII. Related Issues:

None.

VIII. Amendments:

#1 by Education:

Adds colleges to list of institutions who will be required to provide physical assessments. Changes the class of affected athletes from those participating in organized athletics to participants in intercollegiate athletics. Requires that the assessment take place before an athlete can participate in a sport.

#2 by Education:

Creates subsection (4) providing a waiver on the basis of religious belief.

This Senate staff analysis does not reflect the intent or official position of the bill's sponsor or the Florida Senate.
