

Fiscal impact reports (FIRs) are prepared by the Legislative Finance Committee (LFC) for standing finance committees of the NM Legislature. The LFC does not assume responsibility for the accuracy of these reports if they are used for other purposes.

Current FIRs (in HTML & Adobe PDF formats) are available on the NM Legislative Website (legis.state.nm.us). Adobe PDF versions include all attachments, whereas HTML versions may not. Previously issued FIRs and attachments may be obtained from the LFC in Suite 101 of the State Capitol Building North.

FISCAL IMPACT REPORT

ORIGINAL DATE 3/11/09

SPONSOR Cravens LAST UPDATED _____ HB _____

SHORT TITLE Use of Science in Teaching Biological Origins SB 433

ANALYST Hoffmann

APPROPRIATION (dollars in thousands)

Appropriation		Recurring or Non-Rec	Fund Affected
FY09	FY10		
	NFI		

(Parenthesis () Indicate Expenditure Decreases)

SOURCES OF INFORMATION

LFC Files

Responses Received From

Attorney General's Office (AGO)
 Department of Finance and Administration (DFA)
 Public Education Department (PED)
 Higher Education Department (HED)

SUMMARY

Synopsis of Bill

Senate Bill 433 creates a new section of the Public School Code to disallow the prevention of any teacher from informing students about relevant "scientific information" regarding scientific strengths or weaknesses pertaining to biological or chemical evolution and would protect teachers from adverse consequences for doing so. This bill would also prevent teachers from penalizing students for holding a position on chemical or biological evolution.

FISCAL IMPLICATIONS

Senate Bill 433 carries no appropriation.

The PED comments that it would anticipate no additional costs to implement, but that costs related to potential litigation could be high but are difficult to estimate.

SIGNIFICANT ISSUES

The PED reports a number of significant issues related to Senate Bill 433.

The definition of “scientific information” in the bill indicates that it does not include information derived from religious or philosophical writings, beliefs or doctrines. However, it goes on to say that it may have religious or philosophical implications and still be scientific in nature. This would allow the teaching of theories of biological origins such as intelligent design or creationism.

According to the National Academy of Sciences and Institute of Medicine of the National Academies, “There is no scientific controversy about the basic facts of evolution. ...arguments that attempt to confuse students by suggesting that there are fundamental weaknesses in the science of evolution are unwarranted based on the overwhelming evidence that supports the theory. Creationist ideas lie outside the realm of science, and introducing them in science courses has been ruled unconstitutional by the U.S. Supreme Court and other federal courts” (National Academies, 2008. *Science, Evolution, and Creationism*, p. 52).

Senate Bill 433 implicates the First Amendment “Establishment Clause” to the U.S. Constitution, as well as Art. 2, § 11 of the New Mexico Constitution. It also raises the question of whether it constitutes the teaching of sectarian doctrine in public school, which is prohibited by Section 22-13-15, NMSA 1978.

In *Edwards v. Aguillard*, 482 U.S. 578 (1987), the U.S. Supreme Court held that a requirement that public schools teach “creation science” along with evolution violated the Establishment Clause and turned the proscription against teaching “creation science” in public schools into a national prohibition. More recently, the United States District Court in Pennsylvania in *Kitzmiller v. Dover Area School District*, 400 F.Supp.2d 707 (M.D. Pa. 2005) considered a case in which parents of school-aged children and a member of the high school science faculty brought an action against a school district and school board, challenging the constitutionality of the district's policy on the teaching of “intelligent design” in high school biology class, which required students to hear a statement mentioning “intelligent design” as an alternative to Darwin's theory of evolution. The court held that the policy amounted to an endorsement of religion in violation of the Establishment Clause, that it violated the Establishment Clause under the test established in *Lemon v. Kurtzman*, 403 U.S. 602 (1971), and that it violated the freedom of worship provision of the Pennsylvania Constitution.

The endorsement test recognizes that when government transgresses the limits of neutrality and acts in ways that show religious favoritism or sponsorship, it violates the Establishment Clause. The court in *Kitzmiller* went into an extensive discussion of the history of the “intelligent design” movement and the development of the strategy to challenge the teaching of evolution by focusing students on alleged gaps in the theory of evolution. The court noted that the term “intelligent design” came into use after the Supreme Court’s decision in *Edwards* and called it “creationism re-labeled.” Based on the evidence submitted and an intensive analysis of the case law, the court concluded that the language of the policy, while attempting to sound neutral, amounted to an endorsement of religion. The language in Senate Bill 433 has the same problem because by stating that “scientific information” may have religious or philosophical implications; it essentially compels the state to require the teaching of theories that amount to religious doctrine. That would not only violate the Constitution but also involve the teaching of sectarian doctrine which is prohibited by Section 22-13-15.

As articulated by the Supreme Court, under the Lemon test at page 612, a government-sponsored message violates the Establishment Clause of the First Amendment if: (1) it does not have a secular purpose; (2) its principal or primary effect advances or inhibits religion; or (3) it creates an excessive entanglement of the government with religion. Lemon's purpose prong "asks whether government's actual purpose is to endorse or disapprove of religion. A governmental intention to promote religion is clear when the State enacts a law to serve a religious purpose." The implication of Senate Bill 433 is that its purpose is to allow the teaching of theories like "intelligent design" without penalty. In considering the effects prong, the effect of promulgating a rule that would allow a curriculum change regarding theories of biological origins would be to impose a religious view of biological origins into the curriculum, in violation of the Establishment Clause. Senate Bill 433, if passed, would be subject to a court challenge based on the First Amendment's Establishment Clause.

The New Mexico Higher Education Department reports that it stands in opposition to this bill along with the vast majority of New Mexico's scientific community.

The HED additionally includes the current New Mexico science education standards below.

Most of what is requested in this bill is already in the New Mexico Science Standards for Grade 9-12 (<http://www.ped.state.nm.us/MathScience/dl08/Standards/G9-12ScienceStandards.pdf>):

- Strand I Standard I Benchmark II #4. Critically analyze an accepted explanation by reviewing current scientific knowledge.
- Strand II Standard II Benchmark II # 9. Critically analyze the data and observations supporting the conclusion that the species living on Earth today are related by descent from the ancestral one-celled organisms.
- Strand III Standard I Benchmark I #16. Understand that reasonable people may disagree about some issues that are of interest to both science and religion (e.g., the origin of life on Earth, the cause of the Big Bang, the future of Earth).

PERFORMANCE IMPLICATIONS

The PED states that this bill does not implement or support the PED's core performance measures and benchmarks.

ADMINISTRATIVE IMPLICATIONS

The PED maintains that New Mexico Standards for Science already expect teachers to review current scientific knowledge supporting scientific explanations, making this change to statute unnecessary.

OTHER SUBSTANTIVE ISSUES

The DFA contributed the following additional comments.

If Senate Bill 433 is enacted the bill may set a precedent that could be followed in other curricular areas, including geology or earth science, anthropology, physics and cosmology.

The Intelligent Design curriculum was struck down as a violation of the Establishment Clause of the US Constitution in 2005, when Judge John E. Jones, III found in the *Kitzmiller v. Dover Area School District* decision, that the “overwhelming evidence established that intelligent design is a religious view, a mere relabeling of creationism, and not a scientific theory”; and further “that ID is nothing less than the progeny of creationism.”

Edwards v. Aguillard (1987) is the U.S. Supreme Court ruling that prevented the teaching of creation science in public school science classrooms.

WHAT WILL BE THE CONSEQUENCES OF NOT ENACTING THIS BILL

According to the PED, the state will avoid likely litigation resulting from enacting this bill and students will continue to learn the fundamental scientific concepts of biology and chemistry. In its 2007 analysis of the related Senate Bill 371 and House Bill 506, the PED stated that a consequence of not enacting those bills would have been that “the state would not be put in the unenviable position of defending litigation about enacting a bill that violated both the federal and state constitutions.”

CH/mt