

**LEGISLATIVE EDUCATION STUDY COMMITTEE  
BILL ANALYSIS**

**Bill No:** SB 433

**49th Legislature, 1st Session, 2009**

**Short Title:** Use of Science in Teaching Biological Origins

**Sponsor(s):** Senator Kent L. Cravens and Others

**Analyst:** Dorinda Fox and David Harrell

**Date:** February 23, 2009

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**Bill Summary:**

SB 433 adds a new section to the *Public School Code* regarding the “teaching of biological origins.” More specifically, the bill:

- prevents the Public Education Department (PED), school district governing authorities, and school administrators from prohibiting teachers, when they are teaching biological or chemical evolution in accordance with adopted standards and curricula, from informing students about relevant scientific information about the strengths and weaknesses of biological evolution or chemical evolution;
- protects a teacher who provides such information from reassignment, termination, discipline, or other discrimination;
- states that this new section of the *Public School Code* “specifically does not protect the promotion of any religion, religious doctrine or religious belief”;
- allows teachers to hold students accountable for knowing and understanding material taught in accordance with adopted standards and curricula about biological evolution or chemical evolution but also prohibits students from being penalized for subscribing to a particular position on biological or chemical evolution;
- defines the term “scientific information” as “information derived from observation, experimentation, and analyses regarding various aspects of the natural world conducted to determine the nature of or principles behind the aspects being studied”; and
- expands this definition to say that the term “does not include information derived from religious or philosophical writings, beliefs or doctrines” but allows that “‘scientific information’ may have religious or philosophical implications and still be scientific in nature.”

**Fiscal Impact:**

SB 433 makes no appropriation.

## Issues:

SB 433 relates to the state Content Standards and Benchmarks for Science, which, in 2006, received a grade of “A” from both Quality Counts (*Education Week*) and the Fordham Foundation and which ranked seventh in the nation.

As the PED analysis explains, the New Mexico Content Standards and Benchmarks for Science provide the expectations for instruction in high schools including those related to biological evolution, which focus on understanding and analyzing the scientific data and observations which lead to scientists’ high level of confidence about the occurrence of evolution. These standards include the expectation that students will review current scientific knowledge in all areas, including biology and chemistry.

In addition, the analysis by the Higher Education Department (HED) cites these performance standards as indications that most of what SB 433 provides is already in the New Mexico Science Standards for grades 9-12:

- 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”; and
- 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).”

While it is difficult to predict the actual outcomes if SB 433 were enacted, the bill analyses by PED and HED, as well as the analysis by the Office of Education Accountability (OEA), all raise questions or concerns about the provisions of the bill.

- The PED analysis raises these points, among others:
  - Although the bill’s definition of “scientific information” excludes information derived from religious or philosophical writings, beliefs or doctrines, SB 433 goes on to say that scientific information may have religious or philosophical implications and remain scientific in nature. The PED analysis states that this point would allow the teaching of theories of biological origins such as intelligent design or creationism.
  - PED quotes 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.”

- Pursuing this legal point, the PED analysis cites several court cases in which efforts “to impose a religious view of biological origins into the curriculum,” as SB 433 seems to do, have been found to violate the Establishment Clause of the US Constitution. This analysis also says that SB 433 implicates Article 2, Section 11 of the state constitution, which guarantees freedom of religion, and Section 22-13-15 NMSA 1978, which prohibits the teaching of sectarian doctrine in public schools.
- Finally, the PED analysis suggests that enacting SB 433 would invite litigation.
- The OEA analysis questions some of the premises behind the bill:
  - that the theory of evolution lacks scientific validity; and
  - that teachers and students need protection when addressing “relevant scientific strengths or scientific weakness pertaining to biological evolution or chemical evolution.”

**Background:**

The issues raised by SB 433 have also been raised in previous legislative contexts. Two bills similar to SB 433 and two related memorials were introduced during the 2007 legislative session, but did not pass.

**Related Bills:**

None as of February 23, 2009.