State education standards are important because they presumably describe what students learn and produce the state’s desired educational outcomes. Therefore, it is not surprising that many teachers, administrators, and others have worked hard to implement rigorous standards. Yet despite these efforts, classroom activities and practices often have not aligned with standards for science education (Weiss 1997).

In this article I explore the relationship of state standards for the teaching of evolution to the actual teaching of that subject. I used Lerner’s (2000) analysis of states’ standards for the teaching of evolution as an indicator of the quality of those standards. Lerner, who used a variety of criteria to make his evaluations (e.g., if human evolution is treated explicitly), reported that

- ten states do a very good to excellent job of treating evolution in their educational standards (i.e., received a grade of A)
- fourteen states do a good job (grade of B)
- seven states do a satisfactory job (grade of C)
- six states do an unsatisfactory job (grade of D)
- thirteen states received a grade of F or F–, indicating that their standards are “useless for purposes of teaching evolution”
- ten of the states receiving grades of D or worse do not use the word evolution in their educational guidelines, and one (Maine) uses it only once

Nationwide, states’ standards for teaching evolution averaged a grade of C, or satisfactory (Lerner 2000). Although many educators were encouraged by Lerner’s report, others found it worrisome. Some states have high standards, but many others do not.

Table 1 summarizes the relationship of states’ standards for teaching evolution (Lerner 2000) to the evolution-related attitudes and actions of biology teachers in those states. Although the survey data presented in this table are limited in some respects (e.g., surveys of teachers’ evolution-related attitudes and actions have been published for only 15 states, and survey instruments and procedures were not uniform), interesting and consistent conclusions emerge. For example, in states with low standards for the teaching of evolution (e.g., states with grades of D, F, or F–, such as Illinois, Kentucky, Ohio, Georgia, and Kansas), relatively large percentages of biology teachers believe that creationism should be taught in science classes in public schools (Table 1). In some of these states, sizable numbers of biology teachers actually teach creationism in their classes, even though Edwards v. Aguillard established that doing so is unconstitutional (Moore 2002).

The presence of unsatisfactory or useless standards for teaching evolution also coincides with biology teachers’ lack of emphasis on evolution (as in Tennessee and Oklahoma) and states’ antiscience policies, such as requiring antievolution disclaimers in biology textbooks (as in Alabama, for example). Low standards for teaching evolution are found not only in the Bible Belt; they also occur in states such as Ohio and Illinois (Table 1).

The news is no better in states with satisfactory (a grade of C) standards for teaching evolution. For example, in one such state, Louisiana (Aguillard 1999, Moore 1999c),

- 29 percent of biology teachers want to teach creationism in their courses
- 24 percent of biology teachers believe that creationism is a scientifically valid concept, and another 17 percent believe that creationism may be scientifically valid
- 14 percent of biology teachers teach creationism in their courses
- 23 percent of biology teachers put little or no emphasis on evolution

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