## Statement of the AMERICAN SOCIOLOGICAL ASSOCIATION on Creationism and Related Religious Doctrines in U.S. Science Education October 18, 2006

The American Sociological Association (ASA) supports the teaching of science methods and content in U.S. public school curricula, and affirms the integrity of science education to include the teaching of evolution, a central organizing principle of the biological sciences that is based upon overwhelming empirical evidence from various scientific disciplines. ASA opposes proposals that promote, support, or advocate religious doctrines or ideologies in science education curricula. Religious doctrines and ideology include, but are not limited to, the non-scientific notion of "creationism," including "intelligent design." In two decades of careful peer-reviewed research, sociologists such as Francis B. Harrold and Raymond A. Eve have documented the relationships among popular cult beliefs, pseudoscientific ideas, and creationism. Creationism, in all its forms, has also been recognized as a religious doctrine by the U.S. federal courts.

ASA respects the right of people to hold diverse religious beliefs, including those that reject evolution and related principles of science, as a matter of faith. Such beliefs, however, should not be promulgated by science educators in the classroom because it would be a disservice to students to present such views as having a basis in science. The United States Constitution articulates the principle of separation of church and state as a means to prevent the government (including public schools) from advocating or imposing specific religious beliefs on our citizens.

Science is an objectively accountable endeavor. It requires systematic, empirical measurements that are intended to be replicated in order to rigorously test the accuracy of observations, concepts, hypotheses, and theories and to encourage further exploration and refinement. The goal of scientists is to determine whether propositions are empirically verifiable using transparent, objective methods of measurement. When scientifically proposed and testable ideas are found not to coincide with objective measures, they are rejected as scientifically unsuitable to explain observations. Creationism includes claims that are empirically un-testable and, therefore, not subjects for examination in the study of the natural and biological sciences.

By contrast, biological evolution is a scientifically developed and well-established principle supported by accumulated scientific knowledge in many fields. Efforts to qualify, limit, or exclude the teaching of biological evolution in U.S. public science curricula would adversely affect national science literacy, academic achievement, and technological and scientific advancement. Such efforts would deprive U.S. public school students of their right to genuine and coherent science education, which they need in a world where science and technology are socially and economically vital

areas of knowledge. Similarly, constraints on science curricula addressing theories of the evolution of the universe, the evolution of stars and galaxies, plate tectonics, and the biological development of life would also be detrimental to education and advances in U.S. scientific achievement and literacy.

Creationism, as a social movement and pseudoscientific cognitive process, is a legitimate topic for scientific examination (e.g., exploring social factors that influence social movements or documenting the social and behavioral correlates of cult beliefs). There are suitable curricular venues for teaching about these topics (e.g., contemporary social issues, sociology of religion, other behavioral science courses).

Natural and biological science curricula, however, are not the appropriate place. There are recognized authorities and respected educational standards and frameworks for teaching natural and biological science content. These standards are provided by organizations such as the National Academies of Science, National Science Teachers Association, and National Association of Biology Teachers.