American Statistical Association
732 North Washington Street, Alexandria, VA 22314-1943
(703) 684-1221 ▪ Fax: (703) 684-2037 ▪ Email: *asainfo@amstat.org*
Web: *www.amstat.org*

July 31, 2010

Dear Dr. Helen Quinn and National Research Council Science Framework Committee,

On behalf of the American Statistical Association (ASA), I would like to convey our interest in the recently released public draft of the framework for science education. We applaud that the framework includes data analysis and statistical concepts in conjunction with collecting, analyzing, and interpreting data. As statistics bridges the science, technology, engineering, and mathematics curricula, statistics is rightly included in the science framework and should be included in K-12 science education in addition to mathematics education.

For the statistics content to provide substance and connection within a grade and growth across grades, more information is needed for teachers who do not have a statistics background to progress from the earlier grades to high school. It is important to begin the scientific method and statistical problem solving process of formulating questions and collecting, analyzing, and interpreting data—described in the *Guidelines for Assessment and Instruction in Statistics Education (GAISE) Report: A Pre-K–12 Curriculum* (www.amstat.org/education/gaise)—in elementary school and then progress to high school and beyond.

As data analysis and statistics are necessary components of scientific investigation, we recommend that a statistician be included on the future standards writing team with expertise in K-12 statistics education and statistical concepts related to designing, implementing, and analyzing experiments and observational studies. A statistician on the writing team could advise inclusion of text discussing important concepts such as formulating scientific questions that can be answered with data, distinguishing between association and causation, and other key concepts such as control/comparison, randomization, and replication in experimental design.

We appreciate the opportunity to review the current science framework and hope we will have the opportunity to review later drafts and ultimately the K-12 science standards. If the ASA can provide additional information or assistance, please contact Rebecca Nichols, ASA K–16 education manager, at rebecca@amstat.org or (703) 302-1877. We would be happy to recommend potential statisticians to serve on the future standards writing team.

Sincerely,

Sastry G. Pantula

Sastry G. Pantula, PhD
President, American Statistical Association