

Survey Methods

Survey Participants and Sampling Method

This survey was administered by telephone to approximately 1,000 American adults who were 18 years of age or older and who indicated that they were registered to vote, voted, or were eligible to vote in the 2004 Presidential election, and were almost certain to or would probably vote in the 2006 Congressional election.

Telephone numbers were generated by a random digit dial process, thereby allowing access to all listed and unlisted phones. The sample was stratified by state and weighted by demographic characteristics to reflect the population voting in the 2004 Presidential election. The survey was designed by Greenberg Quinlan Rosner Research with input from the Coalition of Scientific Societies and Mercury Public Affairs. Greenberg Quinlan Rosner Research administered the survey during August 17-24, 2006 and tabulated all of the results presented in this report.

Survey Questions and Data Analysis

The relevant wording and response options for each question presented in the analysis are described below. The data for each question are reported descriptively as percentages. Except where noted, all percentages are based on the total number of responses provided for each item. To minimize the length of the survey the sample was split such that every respondent did not answer every question. The size of the sampling error, therefore, varies with the sample size for and the percentage distribution of responses to a particular question. Since the conservative assumption of a 50% response for each item was made, the sampling error at the 95% confidence level for samples of size 250, 500, and 1000 is +/- 6.2%, 4.4%, and 3.1%, respectively.

Acceptance of evolution: To examine acceptance of evolution, we asked half of the respondents ($n = 500$) about their views on the evolution of “humans and other living things” and the other half about their views on the evolution of “all living things.” The two forms of the question were otherwise identical and are shown below with the differences underlined and in parentheses:

Some people think that humans and other living things (or all living things) have evolved over time. Others think that humans and other living things (or all living things) have existed in their present form since the beginning of time. Which comes closest to your view?

If respondents indicated that living things evolved over time, they were asked:

And do you think that humans and other living things (or all living things) have evolved due to natural processes such as natural selection, or do you think that a supreme being guided the evolution of living things for the purpose of creating humans and other life (or life) in the form it exists today?

Surveyors noted if respondents refused to answer or said they did not know.

Teaching evolution, creationism, and intelligent design: All participants were asked in separate questions whether they favor or oppose teaching evolution, creationism, and intelligent design in public school science classes. After each question they were asked if they strongly favor or oppose or somewhat favor or oppose teaching that topic. Respondents were told to indicate if they were not sure. Surveyors recorded this response as well as if they refused to answer or did not know what evolution, creationism, or intelligent design were.

Scientific knowledge: To gauge participants' understanding of basic science concepts, all respondents were asked to indicate whether they agreed or disagreed with three scientific statements. They were then asked whether they strongly or somewhat agreed or disagreed with or were unsure about each of those statements. The statements were as follows: the continents or land masses on which we live have been moving for millions of years and will continue to move in the future; antibiotics kill viruses as well as bacteria; the earliest humans lived at the same time as the dinosaurs. Responses were determined to be correct if participants strongly or somewhat agreed with true statements or strongly or somewhat disagreed with false statements. Surveyors recorded whether participants refused to answer, neither agreed nor disagreed, or did not know.

Contributions of science to society: All respondents were asked to indicate which of various contributions that science makes to society they thought were the most and second most important. The choices included: developing new medicines and curing diseases; developing new technologies and creating jobs; identifying the best ways to protect our environment and natural resources; developing new technologies to protect our national security; improving general quality of life. For each contribution, the percentage reported reflects the percentage of respondents who identified it as the first or second most important contribution.

Role of science education: Respondents were presented with a list of contributions that science education might make to a student's future and asked to indicate whether they thought each item was a very important, somewhat important, not too important, or not at all important purpose of a public school science education. Five hundred respondents were presented with the following statements: learn how to draw conclusions from evidence; learn how science is conducted; gain a broad knowledge of the natural and technological world; explore moral and ethical questions related to science and technology. The remaining 500 respondents were presented with these statements: to learn how to think critically; learn about the real world, such as how antibiotics work; prepare for college or a career; understand the origin and diversity of biological life on earth, including about evolution.

Contribution of evolution to medicine: To examine whether people valued the contribution that evolution makes to medicine, 250 respondents were asked to indicate whether they thought the statement below was a very convincing, a somewhat convincing, a little convincing, or not at all convincing reason to only teach evolution in public school science classes.

Evolution is the basis of modern medical science. Scientists are concerned that illnesses like the bird flu may change and become harder to treat, causing millions of people to get

sick or die. Evolution helps us to understand this process and develop better medical responses. Rather than attacking the teaching of evolution, science students should be taught that evolution is critical to understanding medicine and the human body.

Responses of very or somewhat convincing were combined into a single percentage score.

Feelings about the scientific community: All respondents were asked to rate their feelings toward scientists, public school teachers, public school science teachers, doctors, and medical researchers. Ratings were on a 0-100 scale with zero meaning a very cold, unfavorable feeling, 100 meaning a very warm, favorable feeling, and 50 meaning not particularly warm or cold. For each person listed, the percentage of respondents who rated that person warmly was determined by calculating the percentage who rated them over 50%. While not reported in the main body of this report, the mean rating respondents gave to each group of people was also calculated and was as follows: scientists (72.5); public school teachers (74.0); public school science teachers (66.1); doctors (71.8); medical researchers (72.4).

Communicating scientific information: Half of the respondents (n = 500) were presented with a list of people who might get involved in explaining science to the public and asked to rate how interested they would be in hearing from each person about science. This list included a scientist, a science teacher, an elected school board member, a doctor or nurse, and a celebrity. The remaining respondents (n = 500) were asked how interested they would be in hearing from scientist, a science teacher, an elected school board member, a Supreme Court Justice, a member of the clergy, and a celebrity about evolution, creationism, or intelligent design. Both groups were asked to rate whether they were very interested, somewhat interested, not too interested, or not at all interested in hearing from these people. Responses of very or somewhat interested were combined into a single percentage score.

Educational attainment: All respondents were asked what the last year of schooling they had completed was.