

## The Candidates Speak

Surely it is unnecessary to remind *Science's* readers that we are in the middle of a run-up to a U.S. presidential election. They—you—have a big stake in the outcome, because even more than in 2000, science and technology issues will undergird many of the critical policy decisions of the next administration. Accordingly, as we have done before, *Science's* editorial and news staffs sat down to think up the most important and most challenging questions about science that we could pose to these candidates and their staffs. In mid-June, we sent the questions around to the science policy mavens in each campaign, asking that they respond by mid-August. Senator Kerry met that deadline, barely. President Bush took 3 weeks more, so we let him have an untimed exam and got longer answers.

We are not going to trouble you with a point-by-point comparison of the candidates' views. But a few areas are worth some special attention, starting with the very first question, which was identical to the one asked in 2000. We asked both candidates to choose their science and technology priorities. Four years ago, candidate Bush emphasized education. This year, he emphasized bandwidth, research toward a hydrogen economy, and recruiting science and technology to fight terrorism. Candidate Kerry looked for a balanced research support portfolio, put changing stem cell policy near the top, and promised to elevate the Science Adviser position to its former status as Assistant to the President for Science and Technology.

The climate change query produced some interesting differences. Bush quoted sentences from a 2001 National Academy of Sciences report that indicated uncertainty about the effects of anthropogenic sources of global warming in this century, but omitted reference to the recent report from his own administration's task force that accepted the importance of those effects. He then turned to his plans for research on clean coal and hydrogen technology. By contrast, Kerry called the evidence for human involvement convincing and supported a cap-and-trade system that would resemble that in the McCain-Lieberman bill now before the U.S. Senate.

In their responses on space, both candidates said good things but ducked an important choice. Bush reprised his man-Moon-Mars (3M) project and talked almost entirely about human exploration. Kerry praised NASA and spoke of both manned and robotic successes. But neither he nor Bush dealt realistically with costs, especially not the price tag for 3M or other manned missions, nor did they realistically approach the challenging question of which kind of space exploration produces the greater scientific yield per dollar invested.

There's an interesting area of disagreement about matters of fact. Bush asserts that he holds firmly to NSDD 189: the 1985 Reagan doctrine declaring that there is no information or knowledge control mechanism short of classification. Kerry claims that instead Bush has created a murky area of "sensitive but not classified" information that is subject to control. It is to be hoped that Bush will turn out to be right on this one, but he will need to convince the Department of Commerce that it has gone "off message" by attempting to assert exactly that kind of control in university contracts.

Where do we find agreement? Well, it's no surprise that both men love the National Institutes of Health budget and support this administration's record of completing its doubling from \$13 billion to \$27 billion. Both praise the Ocean Commission report and say they will work to follow its recommendations. They both think that foreign students are an asset to the United States and cite our long history of benefiting from such exchanges. Kerry criticizes aspects of the implementation of the visa program, whereas Bush cites surveys that show that the majority of land-grant institutions have suffered no losses in foreign applicants, but the agreement outweighs the differences. And—wonder of wonders!—both support the role of peer review and merit-based competition in allocating federal funds for research. The only difference is in how they label legislative intrusion in the process: Kerry comes right out and calls it "pork."

But in case this analysis makes them look like Tweedledum and Tweedledee, look at their answers carefully. The president and his Democratic challenger have some real differences about core scientific issues: climate change, space, stem cells, and the Endangered Species Act, among others. There's a lot of important stuff here, and it will repay careful reading.

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