

Science in the Presidential Campaign and the Obama Administration

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A long, intense presidential campaign is finally behind us and a new president is ahead. Science arguably had a higher profile in the 2008 campaign than in any other modern presidential campaign, and President-elect Barack Obama emerged as the most vocal pro-science president elected in recent times. What does this mean for science research funding and science policy? Does it present opportunities for statisticians?

Science in the Campaign

Looking back at the campaigns, science entered relatively early and often, albeit with a low profile and mostly via democratic candidates. Both Obama and Sen. Hillary Clinton had “innovation agendas”—in the same spirit as the National Academies’ “Rising Above the Gathering Storm” report, Rep. Nancy Pelosi’s Innovation Agenda, and President George W. Bush’s American Competitiveness Initiative—in which, among many ‘innovation’ profiles, they promised to double spending for basic research.

Indeed, both candidates were expressing support for science in 2007 campaign appearances. Standing in front of a sign reading “reclaiming our commitment to science and technology,” Clinton vowed to end the war on science, citing that it was about more than security and the economy. “It is about democracy,” she said.

For his part, Obama replied to a question about science policy, saying, “We’ve seen a decline in real dollar terms in our investment in science and technology at precisely the time in which our economy is going to ultimately be dependent on our ability to maintain our technological edge.” He then pledged to significantly increase funding for NIH and NSF, honor science’s independence, and reinvigorate K–12 education in science and technology. Obama noted that his first visit to the Google campus in 2004 was inspiration for the chapter on innovation in his second book, *The Audacity of Hope*.

Obama reiterated his support for science, innovation, and technology in late 2007, addressing an audience at Google’s Mountain View campus, saying, “We can use technology to help achieve universal health care, to reach for a clean energy future, and to ensure that young Americans compete and win in the global economy. ... If America recommits itself to science and innovation, we can lead the world to a new future of productivity and prosperity.”

After winning the Pennsylvania primary on April 22, 2008, Clinton promised, “We will end the war on science and have a renewed commitment to science and research.”

Obama’s support for science continued through the rest of his campaign, including during a debate with Sen. John McCain. (Obama’s support has continued into the transition. During his December 7 appearance on *Meet the Press*, he said he would be interested in having lectures on science in the White House.) While I found no mention of science funding in any of McCain’s speeches, his campaign issued statements pledging full funding of the America COMPETES Act, which is essentially the legislative enactment of the “Gathering Storm” report.

Influence but no Debate

In December 2007, Science Debate 2008 was launched with the goal of hosting a campaign debate on issues relating to science. While a science debate wasn't realized, Science Debate 2008 was successful in raising the profile of science in the campaigns. With the support of tens of thousands of scientists; citizens; leaders from industry, academia, and government; and scientific institutions, including the ASA, they received detailed answers from Obama and McCain to 14 questions on topics ranging from climate change and stem cells to innovation and scientific integrity. Science Debate 2008 organizers reported 800 million media impressions to the Science Debate 2008 initiative.

The influence of science in the 2008 presidential campaign was a vast improvement over the 2004 campaign, when a group of science societies and universities invited Sen. John Kerry and Bush to participate in a virtual town hall meeting on science and technology using teleconferencing capabilities. With a noncommittal reply from the Kerry campaign and no reply from Bush, the virtual town hall meeting vaporized.

There is no question that former Vice President Al Gore was a strong science and technology supporter, most notably for climate change and promoting the spread of the Internet, but he did not promote those positions in his 2000 campaign as much as the 2008 candidates promoted theirs. [As a historical aside, we shouldn't forget that as a senator, Gore reached out to the ASA in 2000 for input on global warming, met with six ASA members, and addressed the 1991 ASA Winter Conference in New Orleans.]

Many factors account for the elevated influence of science in the 2008 campaign, including the perception of America's slipping science and technology edge; the growing concerns over climate change, energy, and health; Bush's position on stem cells and other science policy issues; and the emerging activism and sophistication of scientists. It will be interesting to see if this is the apex of science's influence or just the beginning.

ASA Science Policy Actions

ASA Board endorses H.R. 7069, a bill to make the U.S. Census Bureau independent (see accompanying story on p. 5)

ASA signs letters urging quick appointment of census director in new administration

ASA signs letter in support of Decennial Census budget

ASA nominates members for Census Advisory Committee on the Hispanic Population

Some might ask why this year's candidates didn't accept the Science Debate 2008 invite. Is it because scientists and those for whom science is a key issue make up too small a voting bloc? According to Joe Trippi, the prominent campaign manager for Gov. Howard Dean, the answer is "no." Rather, he contends there would be too much at risk in a debate on science issues and tendered that questions on stem cell research or when life begins would be a no-win situation.

For those asking if there will ever be a presidential campaign debate on science issues, Trippi's advice would be to limit the scope of the debate to climate change, energy independence, and health care. Others contend that pursuing a science debate is not the most prudent approach. David Goldston, chief of staff for former House Science Committee Chair Sherwood Boehlert, suggested in an early 2008 *Nature* column that such a debate could backfire and listed many considerations, including the "politicization" of science.

Science Debate 2008 wasn't alone in promoting science in the presidential campaigns. While I won't catalog all the interactions of science with the campaigns, I'll highlight a few. Inspired by a 2006 *Nature* article by Thomas Kalil—a science and technology official for President Bill Clinton and a member of Obama's transition team—urging that scientists start organizing "[t]o maximize the resources allocated to science and technology during the next U.S. administration," AAAS and AAU teamed to coordinate activities and disseminate information. They came closest to a science debate, hosting representatives of the Clinton and Obama campaigns at their annual meeting in Boston.

Scientists and Engineers for America (SEA) also played an important role in promoting science, not just in the presidential campaign, but for all candidates who took the time to respond to the SEA questionnaire. Illustrating the access of the science advocacy community to the campaigns, representatives of the Task Force on the Future of American Innovation—a coalition that advocates the funding of basic research in physical sciences and engineering—met with the campaigns of Clinton, Obama, and McCain, and senior representatives of Obama and McCain sat down with the task force this summer and early fall.

President Obama

According to a *New York Times* analysis, the annual cost of Obama's publicly stated science, technology, and innovation proposals is \$85.6 billion, including \$28 billion for the cost of doubling basic research funding. This is a sizable fraction (approaching

10%) of the total discretionary funding of the federal government for 2009. With a federal budget that was already tight before the financial crisis, it will be difficult to come up with new funding for these proposals, leaving the administration little alternative but to find the funding by cutting existing programs. While there is no question that the new administration will have different priorities than the current administration, it is doubtful it will be able to fund all its promises in the first year. The fiscal year 2010 budget request, expected in the spring, will be very telling.

It is safer to assume quick action on the policy front, where funding is not the primary obstacle. One can expect changes to policies on climate change and federal funding for stem cell research. Obama also has promised to respect the independence of scientists, an issue many scientists have had with the Bush administration (and the origins of the references above to the “war on science”). One also can expect quick environmental actions and a greater emphasis on energy efficiency, conservation, and alternative energies within the federal government.

Obama’s appointments to date are encouraging. Perhaps in response to calls for an early appointment, Obama has already selected John Holdren of Harvard University as his science advisor. (The ASA signed a letter supporting such an early appointment. The letter, signed by 178 organizations, further urges that the science advisor position be elevated to cabinet status.) The Obama team also has selected PhD scientists to head the Department of Energy and NOAA and is expected to create a chief technology officer.

Opportunity for the Statistical Community

The Obama campaign was known for its savvy, innovative strategies and sophisticated use of technology. We can expect science- and evidence-based decisions to prevail in the Obama administration. Further, Nate Silver’s *fiveThirtyEight.com* and other sites raised the profile for the power of statistics. While I found no evidence, I would speculate that the Obama campaign used elements of analytics—beyond data mining—in its campaign. What, if anything, does this environment portend for the statistics community?

I contend that this respect for science and its potential provides significant opportunities for statisticians. However, it is incumbent upon stat-

“How seriously Obama treats science may be judged by his response to the community’s urging that the science advisor position be elevated to cabinet status.”



isticians to make our case. We must educate policymakers about what statisticians can do to address the various challenges our country faces. Policymakers and their staffs have little knowledge appreciation for the powerful tools of statistics.

I recently accompanied some of our members to meetings with congressional committee staffers to discuss climate change issues. The concepts of decision support, uncertainty management, and the many other assets statisticians can bring to the table were new to the staff. Unfortunately, the ASA also was new to them. On the bright side, the congressional staff welcomed the meetings with ASA members and the contributions we can make.

Obama’s position on science’s independence could bode well for the federal statistical agencies, for which autonomy is a key issue. As one example, the ASA Board just endorsed Rep. Carolyn Maloney’s (D-NY) bill to make the U.S. Census Bureau an independent agency, removing it from the auspices of the U.S. Department of Commerce, and she is expected to reintroduce her bill in the 111th Congress. Supporting this bill will be one of the ASA’s priorities in the new Congress. To promote the autonomy of the federal statistical agencies, we need to educate Congress and the new administration about the invaluable role of the federal statistical system and the importance of insulation from outside influence.

We have our work cut out for us to raise the profile of the statistics discipline and statisticians. But, we have considerable contributions to make and we will be working in a favorable environment. If you have any comments, I can be reached by email at pierson@amstat.org. ■