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Author: Sponberg, Adrienne Froelich

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Debate over Science Funding Heats Up in Canada

ADRIENNE FROELICH SPONBERG

wo years ago, the Canadian government launched a new strategy to improve the country's scientific competitiveness by, among other things, promoting partnerships with industry and improving scientific infrastructure. In June, the government trumpeted its success in Mobilizing Science and Technology to Canada's Advantage: Progress Report 2009. But however pleased the government may be with its progress, researchers are becoming increasingly vocal in their dissent, arguing that the government's policy is missing the mark and threatening the future of the country's scientific enterprise.

The progress report touts the country's largest-ever investment in science and technology, including \$4.5 billion for infrastructure through the Canada Foundation for Innovation (CFI). So why are researchers upset? A primary concern is that the greater support for infrastructure displaces funds for the researchers who use the equipment. In Canada's Budget 2009, funding was cut by 5 percent for the country's three granting agencies: the National Science and Engineering Research Council (NSERC), the Social Sciences and Humanities Research Council, and the Canadian Institutes of Health Research.

John Smol, professor at Queen's University and Canada Research Chair in Environmental Change, says that the funds supplied by those agencies-for NSERC discovery grants, for example-offer the government the "most bang for the buck." While directed funding certainly has its place in government-funded science, funding programs that allow scientists' research to progress freely are more in line with how science actually works, he says. "Of the 10 papers I am most proud of, I don't think I anticipated a single one of them in the grant I wrote funding that work."

Since the budget cuts were announced, the outcry against the government's policies has become more vehement. Academic groups such as the Canadian Association of University Teachers (CAUT) have voiced concerns over the funding cuts, noting that "labs and research stations may be better equipped but are forced to cut back or close because they do not have sufficient funding for staff and operational costs." The editors of the CMAI (Canadian Medical Association Journal) criticized the Canadian economic stimulus plan (Budget 2009) in an editorial: "In saying yes to deficits and stimulus, yet being lukewarm to science, the unmistakable message from Finance Minister Jim Flaherty is that science is unimportant in Canada's economy." Several grassroots efforts protesting the government's policies have emerged as well, including an open letter to the government, "Don't Leave Canada Behind," which has gathered more than 2000 signatures, and "Protect Science Funding in Canada," a 3400-member Facebook group.

But not everyone thinks there is cause for complaint. In an opinion piece in the *National Post*, Michael Bliss, professor emeritus at the University of Toronto, says that many of the community's complaints are unfounded, and scientists risk further backlash if they continue to bite the hand that feeds them. "The danger is that politicians, instead of caving in, will respond by washing their hands of Canada's science community."

The budget may not have drawn as much criticism had it not been for the inevitable comparisons with Canada's southern neighbor. During the Bush administration, Canadians prided themselves on having the more comparatively favorable environment for science. Indeed, between 2002 and 2007, the number of university professors and assistants who moved from the United States to work in Canada increased by 27 percent, reported Elizabeth Church and Daniel LeBlanc in Canada's *Globe and Mail* (27 January 2009). But with the election of President Barack Obama, the tables have turned. In his inaugural address, Obama vowed to "restore science to its rightful place," and he swiftly set about instituting a string of new policies favorable to science, including a massive infusion of funds to federal science agencies through the economic stimulus package.

The turnabout with regard to funding raises concerns that top Canadian researchers will leave for the United States. In an April 2009 poll commissioned by the CAUT and the Canadian Federation of Students, two-thirds of Canadians surveyed admitted apprehension about Canada's ability to attract and retain researchers, given reductions in research funding.

But Smol is unsure whether a "brain drain" should be a major concern: "Researchers are mobile people by nature," he says, and there has always been movement between the two countries. Additionally, programs such as the Canada Research Chairs and the CFIboth of which receive new funding under the 2009 budget-have been successful in recruiting talent from abroad. Rather, Smol says, the biggest problem Canadian scientists face is that "science has never been able to capture the imagination of politicians." Until that happens, the debate over Canada's science policies will most likely rage on.

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Adrienne Froelich Sponberg (sponberg@aslo.org) is the director of public affairs and coeditor of the Limnology and Oceanography Bulletin for the American Society of Limnology and Oceanography.