

## SCIENCE PUBLISHING



## Public Science

### NIH's New Open Access Policy Can Benefit Everyone

By Gavin Baker

**TUCKED AWAY IN THIS YEAR'S** federal budget is a provision that benefits the scientific community without spending a dime: a mandate for public access to the results of research by National Institutes of Health grantees.

The policy is the first open access mandate adopted by the U.S. government, and puts teeth into the voluntary policy in place at the agency since 2005. The NIH, which supported the provision, moved quickly to implement the law, announcing its new policy on Jan. 11. The measure follows similar policies instituted by funding agencies abroad, foundations, and universities.

Under the new policy, grantees—who will receive \$29 billion in taxpayer funding in fiscal year 2008, a figure greater than the GDP of 100 countries—will deposit a copy of their research articles accepted for publication into the National Library

of Medicine's PubMed Central database. PubMed Central will then provide free online access to the article—to the worldwide research community as well as citizens and taxpayers. Public access can be delayed up to one year at the researcher's request, for example, if the publishing journal asks for the delay. Previously, grantee research was only available from the publisher by subscription—and scientific journal subscriptions can cost thousands of dollars annually.

The new policy is not only notable for its novelty and the whopping amount of research it will make available, but also for the political clash it sparked. In 2007, open access advocates ramped up their efforts, led by the Alliance for Taxpayer Access—a letterhead coalition driven by the Scholarly Publishing and Academic Resources Coalition, a consortium of academic libraries. (Full disclosure:

the author is a consultant and former intern for SPARC.) In addition to rallying grassroots support, advocates circulated a letter of support signed by 26 Nobel Laureates, including former NIH director Harold Varmus.

Opponents, led by members of the Association of American Publishers, launched a coalition—dubbed PRISM, the Partnership for Research Integrity in Science and Medicine—to cast doubts on the provision’s impact on the peer review process and publisher copyrights, even equating public access with government censorship. PRISM in turn drew ridicule from science bloggers, who criticized the group’s statements as Orwellian and the group as astroturf, as PRISM declined to list its own membership. Even some AAP members distanced themselves from the effort. PRISM was seen as the offspring of Eric Dezenhall, known as “the pit bull of PR,” who had been hired by the AAP to develop a PR strategy to combat open access.

In the end, the open access provision was signed into law late last year—the biggest legislative victory to date for the American open access movement and, given the size and impact of NIH funding, for advocates worldwide. The adoption of the policy will introduce more authors to self-archiving—posting one’s own research results online for free access—then any single event to date. NIH funding results in an estimated 80,000 published articles annually, each of which may have several authors.

With any luck, the experience will encourage researchers to internalize the benefits of open access—and to share their experience with the students they teach and mentor. Journals likely will not suffer many, if any, cancellations. High rates of self-archiving in physics have not resulted in any attributable cancellations of journals in that field—though they may feel more pressure to provide value and limit price inflation. From 1986 to 2002 journal costs rose 227 percent, more than triple the rate of inflation in the same period as measured by the Consumer Price Index. But science and consumers will benefit immeasurably.

Researchers will gain more complete access to the scientific record; even the wealthiest research institution cannot afford to subscribe to every journal in publication. Free online access also lays the foundation to remove unnecessary permission barriers, using approaches such as the Creative Commons licenses, and to facilitate machine-assisted research via Semantic Web technologies. Taxpayers will benefit from free access to high-quality scientific information; for those without an annual subscription, content is often sold for \$30 apiece.

In the case of NIH research, that could mean the best source of information about potential treatments for a spouse, parent, or child who suffers from a disease. Indeed, patient advocacy groups are well-represented and active members of the open access Alliance for Taxpayer Access, including the 600 organizations of the Genetic Alliance.

Moreover, the impact of the NIH policy will be felt outside of biomedical research. If NIH grantees take a shine to open access, then it will become even more difficult for publishers and nay-sayers to disparage open access. As the PRISM coalition found out, scientists don’t take kindly to being told their research is junk just because it is shared for free.

Other research funding agencies will find more courage to pursue open access policies of their own, perhaps paving the way for a government-wide mandate akin to the Federal Research Public Access Act floated by Sens. John Cornyn and Joe Lieberman. Some may even push for stronger mandates than the NIH policy—such as the European Research Council policy released on Jan. 10, which halves the NIH’s maximum allowable delay from 12 months to 6.

Open access is a positive development for several goals of science policy: to accelerate research, control costs in higher education, and share information more effectively. The NIH public access policy will move forward on all three fronts and pave the way for progress to come. sp

---

*Gavin Baker is an information policy consultant and commentator with Baker Open Strategies, LLC.*