Two very important pieces of legislation that would markedly increase public access to taxpayer-funded research have been introduced into the U.S. Senate. The Federal Research Public Access Act of 2006, introduced by Senator John Cornyn (R-TX) and cosponsored by Senator Joseph Lieberman (D-CT), would require free online access within six months of publication for virtually all peer-reviewed journal articles resulting from federally funded research.

The American Center for CURES Act of 2005, introduced by Lieberman and cosponsored by Senator Thad Cochran (R-MS), has a similar provision for research sponsored by agencies in the Department of Health and Human Services (HHS).

These bills represent major steps in ongoing efforts to gain public access to federally funded research. They deserve strong backing from the American academic and research library community.

Rationale for the legislation
The rationale for both the Cornyn-Lieberman bill and the public access provision of the CURES bill is straightforward. The federal government spends more than $55 billion annually to fund a wide variety of research in health, scientific, and other fields. Research sponsored by the National Institutes of Health (NIH) alone results in more than 60,000 peer-reviewed articles per year. Wide, rapid, and easy access to the results of this research is essential for everyone who wishes to apply or build upon it, from other scientists and scholars to health care professionals, patients, manufacturers, teachers and students, policymakers, nonprofit organizations, and citizens. Giving taxpayers access to the non-classified research for which they have paid will advance research and all the benefits of research, from health care and pollution control to energy independence and public safety.

The present system of disseminating the results of publicly funded research is badly broken and severely limits access. Taxpayers pay for the research and very often the salary of the researcher, as well. Research articles are then published in peer-reviewed journals, which charge subscription fees or per-article access fees. The cost of subscriptions has risen three times faster than inflation for more than 20 years, and most subscriptions are unaffordable for most libraries.

Journals typically demand to own copyright, as well. The fundamental principle of the Cornyn-Lieberman bill and the public access provision of the CURES bill is to provide taxpayers free online access to the results of research that they fund through their tax dollars.

Provisions of Cornyn-Lieberman
The Cornyn-Lieberman bill would require federal agencies with extramural research...
Budgets that are more than $100 million to develop public access policies within one year of its passage. The policies developed by each agency would cover researchers that are employed, as well as those funded in whole or in part, by the agency. Specifically, the policies would require those researchers to submit electronic copies of their manuscripts, which have been accepted for publication in peer-reviewed journals, to the agencies that sponsored their research. The policies would also require that those manuscripts be deposited in a stable digital repository maintained by the federal government or in a repository approved by the agency. The public would gain free online access to manuscripts as soon as practical following publication, but not more than six months afterwards. The policies would also give publishers the option to replace the author's final version of the peer-reviewed manuscript with the final published version of the article.

The bill does not require public access to information used to produce final manuscripts, such as lab notes, preliminary data analysis, author's notes, or phone logs. The bill would also exempt classified research, research resulting in works that generate revenue or royalties for authors, and patentable discoveries. Authors who do not submit their work to a journal and authors whose works are not accepted for publication in a peer-reviewed journal are also not covered by the legislation.

**Provisions of CURES**

The purpose of the *American Center for CURES Act of 2005* is to create the American Center for Cures within NIH. The mission of the center would be to translate fundamental research into therapies. The bill has wide-ranging provisions designed to realize that purpose.

Section 449H of the bill would require that the final peer-reviewed manuscripts of all research funded by agencies in HHS be made openly accessible in PubMed Central, the digital archive of the National Library of Medicine, within six months of publication. The bill also explicitly states that noncompliance may be grounds for the funding agency to refuse future funding.

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**Senator John Cornyn on the Federal Research Public Access Act of 2006** said, “This legislation is an opportunity for our government to better leverage our investment in research and ensure a greater return on that investment. By sharing this information quickly and broadly with all potential users, we can advance science, accelerate the pace of new discoveries and innovations, and improve the lives and welfare of people at home and abroad.”

The CURES bill would cover research sponsored by NIH, the Centers for Disease Control and Prevention, the Agency for Healthcare Research, and other HHS agencies. HHS agencies combined account for more than half of all U.S. government funded research.

**Improving on Sabo**

The Cornyn-Lieberman and CURES bills significantly improve upon earlier legislation designed to provide public access to federally funded research. The *Public Access to Science Act*, introduced by Representative Martin Sabo (D-MN) in June 2003, attempted to achieve open access by exempting federally funded research from copyright protection. The Sabo bill, which was not vetted with the library community in advance, was seriously flawed. By amending copyright law it attracted wide opposition from the content industry and even alienated some organizations that might otherwise have supported an open access policy. While it mandated that federally funded research be placed in the public domain, it did nothing to ensure that the research would be made accessible to the public online.

Both the Cornyn-Lieberman and CURES bills, in contrast, mandate open access, but do not alter copyright law or require that research be placed in the public domain. Both bills would instead authorize agencies to invoke their federal purpose license, which gives them a nonexclusive license to reproduce, publish, or otherwise use the work for federal purposes, and to authorize others to do so (2CFR215.36[a] and 45CFR74.36[a]).
In short, the Sabo bill would have put federally funded research into the public domain without providing open access to it, while the Cornyn-Lieberman and CURES bills would mandate open access to federally funded research without putting it into the public domain.

**Comparison to NIH policy**

The Cornyn-Lieberman and CURES bills would significantly strengthen the public access policy announced by NIH last May. The NIH policy is voluntary; researchers are encouraged to submit their final peer-reviewed manuscripts to PubMed Central, but they are not required to do so. The NIH policy also allows delays or embargoes of up to 12 months between the date of publication and the date of public access through PubMed Central. The Cornyn-Lieberman and CURES bills go beyond the current NIH policy by requiring deposit, and they shorten the permissible delay for deposit and open access to within 6 months of publication, rather than 12.

The NIH policy was weakened by publisher lobbying prior to adoption and is not meeting its goals. That is evident in the very low participation rate by researchers. So far only three to five percent of eligible manuscripts are being deposited under the policy. Because deposit is not required, most researchers are not taking this extra step. Moreover, they are often pressured by their publishers to withhold their articles from NIH for as long as possible. NIH could have invoked its federal-purpose license to authorize its public access policy, but it decided to rely instead on publisher consent. As a result, most publishers with policies on NIH-funded authors have chosen to impose 12-month embargoes on deposits. By contrast, the Cornyn-Lieberman and CURES bills do not rely on publisher consent and therefore do not accommodate publisher resistance. They ensure both participation and timeliness by mandating them.

The advisory group established by NIH to review the implementation of its policy recognized the flaws in the NIH public access policy. Nine of eleven members of the Public Access Working Group voted on November 15, 2005, to recommend that NIH revise its policy in order to require deposit of all NIH-funded research in PubMed Central. The committee also recommended that NIH put a six-month deadline on the deposit and access requirement. The National Library of Medicine Board of Regents made a similar recommendation to NIH in January 2006. The Cornyn-Lieberman and CURES bills, if passed, will bring about these changes at NIH, even if the working group and NLM regents recommendations are not adopted. Conversely, those recommendations, if adopted, would bring the NIH policy to the new and higher Cornyn-Lieberman and CURES standards, even if the bills are not passed.

When the House of Representatives instructed NIH to adopt a public access policy in June 2004, it asked for both the public-access mandate and the six-month deadline. In that sense, therefore, the working group recommendation and the Cornyn-Lieberman and CURES bills would bring the NIH policy back in line with the original intent of Congress.
Bipartisan and international support

It is especially heartening to see bipartisan Congressional support for the principle of open access to federally funded research. Both the Cornyn-Lieberman and CURES bills are sponsored by a conservative Republican and a moderate Democrat. They should gain additional backing from members of Congress from both parties. Congressional support for the earlier NIH public access policy, including the proposed requirement for deposit, also came from both sides of the political aisle.

The Cornyn-Lieberman bill, the public access provision of the CURES bill, and proposed revisions to the NIH policy are part of growing support throughout the world for the principle of public access to taxpayer-funded research. The United Kingdom is moving toward adoption of a similar policy that will apply to all government-funded research. Following on the July 2004 recommendation of the report from the House of Commons Science and Technology Committee, the Research Councils of the United Kingdom (RCUK), which fund the majority of research at UK universities, announced a draft policy in June 2005 that would require deposit of government-funded research in open-access institutional and disciplinary repositories. Announcement of the RCUK’s policy is expected soon. Other countries are considering similar policies.

Importance for libraries

The Cornyn-Lieberman and CURES bills, if adopted, would substantially increase public access to the results of federally funded research. Their adoption would result in a major gain in access for faculty, students, other researchers, and the general public. Both bills protect the system of peer-reviewed journals. Both leave copyright law unchanged, let extramural grantees copyright their articles, and allow them to transfer copyright to journals. The six-month delay before research is made openly accessible will shield journal publishers from potential subscription or licensing cancellations. Journals will still have the exclusive right to distribute the final published version of articles, unless they allow those versions to be deposited by authors in repositories.

A coalition of library and public interest groups led by SPARC has worked diligently with the offices of Senators Cornyn and Lieberman on the development and introduction of these bills. The Cornyn-Lieberman bill and the public access provisions of the CURES bill have been carefully considered by representatives of the academic and research library community.

These bills represent an extraordinary opportunity to transform access to scientific, technical, and medical research. Their passage into law would give strong impetus to the worldwide movement for public access to government-funded research and to the open access movement generally. We hope you will join us in expressing enthusiastic support for both bills to your senators and representatives. Please ask your senators to become cosponsors of the bills and also encourage your representatives to support them in the House of Representatives, once comparable legislation has been introduced there.

Conclusion

Education is a core mission of all libraries. Libraries should make the same commitment to educating their personnel that they have made to educating their users. Training is pivotal in the development of library employees. It enables them to provide better service, to become more skilled employees, and to enhance their personal development. Libraries should develop a systematic plan to provide training for all their personnel.

Notes