

Re: FR Doc. 2011-28623

American Mathematical Society Response to OSTP Request for Information:  
Public Access to Peer-Reviewed Scholarly Publications Resulting from Federally Funded  
Research

Prepared By:

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To:

[publicaccess@ostp.gov](mailto:publicaccess@ostp.gov)  
Office of Science and Technology Policy (OSTP)

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Dear Sir or Madam:

The American Mathematical Society (AMS) is a scholarly society whose primary mission is to foster research and scholarship in the mathematical sciences. We are a membership organization with over 30,000 members worldwide and over 23,000 members in the United States. Most of the members are engaged in research in the mathematical sciences and the majority of the members are affiliated with higher education institutions. We are a scholarly publisher of leading research journals, books (monographs and advanced texts) and a premier reviewing and indexing publication *Mathematical Reviews*, available worldwide on the internet as *MathSciNet*.

The AMS has a total staff of 210 located in Providence, Ann Arbor and Washington, DC. The majority of the employees are engaged in scholarly publishing.

The AMS is affiliated with the Professional/Scholarly Publishing Division (PSP) of the Association of American Publishers (AAP) and with the Association of Learned and Professional Society Publishers (ALPSP). Both of these organizations have responded to the OSTP RFI regarding public access and we endorse their responses.

I am writing now to provide some additional remarks pertaining to the mathematical sciences and how the use of the research literature in mathematics may differ from the literature in other disciplines. The numbers that I cite are based on (1) the *Mathematical Reviews* database

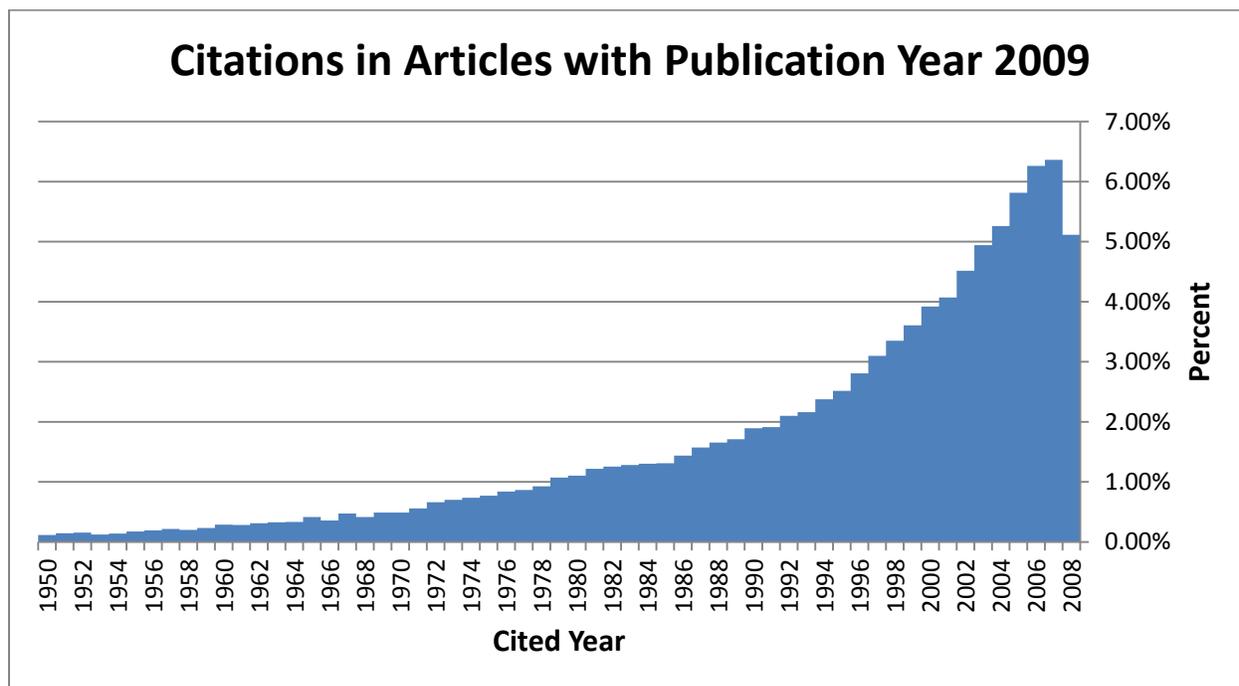
(MRDB) and (2) the AMS Publications Database (AMSPDB). Data from MRDB were extracted on January 25, 2011 and data from AMSPDB were extracted on February 2, 2011.

I. Question 8 in the OSTP RFI asks for input on the appropriate embargo period after publication before the public is granted free access to the full content of peer-reviewed scholarly publications.

The AMS makes all of the content of its journals freely available five years after publication. We believe that five years is an appropriate embargo period for the mathematical literature. There are two primary reasons:

1. Most of the literature is available much earlier anyway in public repositories or on authors' personal web pages; and
2. The "half-life" of a mathematics research paper is about eleven years.

The graph below shows a histogram of the *age distribution of cited articles* for citations made in mathematical sciences research articles published in 2009. The source is MRDB, which reported on 78,000 articles published in refereed journals in 2009.



For journal articles published in 2009, 50% of the citations contained in those articles were to papers published in 1998 or earlier. The usefulness and relevance of a mathematical sciences paper does not diminish appreciably over time.

Mathematicians customarily make their final manuscripts available as preprints. This is a tradition that goes back to at least the 1950s when it became easy to reproduce a research report. Today, many authors post preprints on ArXiv.org. To illustrate this point, of the articles published in *Journal of the American Mathematical Society* in 2009, 71% are available at ArXiv.org; of the articles published in *Transactions of the American Mathematical Society* in 2009, 57% are available at ArXiv.org.

II. In the mathematical sciences, many authors of research articles are not funded by a Federal Agency. The AMS has adopted a publication policy, the main point of which is to assure that all authors have the opportunity to publish in AMS journals regardless of their financial circumstances. The policy states:

**“The American Mathematical Society strongly endorses and adheres to the principle that a paper in the mathematical sciences should have an opportunity to be evaluated and properly published without regard to the financial circumstances of its authors.”**

A journal published under the Gold Open Access model might be regarded as discriminatory to unfunded authors under this policy.

In 2009, approximately 84% of the articles published in the AMS’s primary research journals had no U.S. Federal support. There are two reasons for the low percentage of Federally-supported articles: (1) scholarly research in the mathematical sciences is an international enterprise and the majority of authors are domiciled outside the U.S., and (2) many U.S. authors are not funded.

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