

PLOS Response to NIH Request for Information: Maximizing Research Funds by Limiting Allowable Publishing Costs

[NIH Notice NOT-OD-25-138](#)

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1. Proposed Policy Options

We recognize NIH's aim to maximize the value of taxpayer funds and increase the efficiency of research funding. However, the proposed approach of capping or limiting allowable publication costs will not achieve this goal and risks creating unintended consequences. To advance NIH's mission, enabling open science should be at the core of any policy consideration, particularly increased transparency and access to all research outputs.

- Article processing charge (APC) caps are not an effective cost control mechanism. A fundamental driver of journal choice is the research assessment system, not author cost sensitivity. The current research assessment and incentive systems rely on numbers: the number of articles published and the Journal Impact Factor (or journal names/'prestige'), contributing to a hypercompetitive environment that rewards quantity and prestige (or falsely equates it with quality). Data, code, protocols and other important outputs are not shared and valued to the same extent as articles, and researchers who make them accessible are by and large not rewarded. To address the fundamental issue, efforts such as [Rethinking Researcher Assessment and Incentives at U.S. Academic Institutions](#) should be supported.
- Per-unit pricing models, such as APCs, entrench inefficiencies. Models that tie value to "per article" charges restrict flexibility, discourage sharing of diverse outputs (data, code, protocols) and embed the article as the primary research artifact of value. NIH should instead support models that move beyond articles and beyond APCs and reinforce open science.
- Imposing caps will likely encourage publishers to set publishing fees at the maximum allowable level, rather than reduce costs. This risks replicating the [experience of capped higher education tuition fees in the UK](#), where nearly all institutions charged the maximum allowable amount. This will further fuel a research "volume business" as

publishers continue to push for article growth, increasing profits and exacerbating the existing pressure on researchers to publish. The article growth economy is unhelpful for science, unhelpful for openness and entrenches the article as the primary valuable research artifact.

- A better alternative would be to fund institutions and libraries to secure open access publishing services, enabling system-level efficiency and reducing reliance on APCs and APC-driven models. These funds should be considered in tandem with the considerable institution and library spend already allocated to paywalled publication access via subscriptions.

NIH's proposal to limit allowable publishing costs should also be evaluated against the Nelson memo's stated aim to "provide free, immediate (without embargo), and equitable access to research that is federally funded." to avoid unintentionally hindering its aims.

In sum, rather than capping costs at the article level, NIH should encourage research assessment reform and collective funding to support business models that incentivize openness and quality across all outputs. Such approaches more closely reflect the values of transparency, accessibility, and equity that define open science.

2. Available Evidence Related to Publication Costs and Proposed Options

- Distribution of research spending. Roughly 80% of scholarly publishing expenditure remains in subscription access; only 20% supports open access fees. Yet that 20% unlocks more than 50% of publications for open availability ([DeltaThink](#)). Focussing only on cost management via APCs and associated caps risks pushing research back behind paywalls, raising total costs for taxpayers. While preprinting is proposed as a solution to this [uptake remains low](#) and they are not routinely reviewed.
- Limitations of preprints without review. PLOS supports preprints because they have the potential to accelerate the dissemination of new research. However, while valuable, preprints are not a substitute for peer-reviewed outputs. These limitations highlight that, without appropriate funding, preprints remove an important element of research validation. PLOS's [own experiment](#) shows that preprint review has associated cost and requires funding.
- Evidence on open access value. Studies show open access articles are read, downloaded, and cited more. PLOS analysis of [French Open Science Monitor data](#) demonstrated an 8.6% citation increase for OA articles, with additional benefits for data, code, and preprint sharing.

NIH's reliance on DOAJ averages for setting APC limits raises important questions. It is not clear whether NIH-funded researchers typically publish in the journals analyzed, whether they meet NIH quality and licensing criteria, or whether they publish at sufficient scale. The approach appears to work backwards from what the average journal in DOAJ charges, rather than reflecting the actual costs of the services NIH seeks to support. Not all DOAJ journals, for example, offer the required CC0 license, and standards vary significantly. Using this as the sole basis for policy may risk undervaluing quality and integrity.

Additional commentary on publication costs and open access economics can be found on the [PLOS Blog](#).

3. Peer Review Compensation

Peer review is an essential part of the research process, but paying reviewers directly creates unintended consequences and perverse incentives:

- Unintended consequences. Compensating reviewers could increase publication costs overall (publishers may pass on costs) and risk lowering quality if reviewers accept assignments outside their expertise to earn payments.
- Better alternatives. Recognition of peer review as a core part of research activity is more effective. Reviews should be published (with consent) and credited to reviewers, making them visible in research assessment exercises.
- Transparency. Peer review should, where possible, be conducted transparently and shared in line with open science goals. Transparent peer review strengthens accountability and ensures reviewers receive recognition for their contributions. See PLOS' commentary on [publishing peer review history](#).
- Evidence. The [Publons Global State of Peer Review \(2018\)](#) shows that recognition and career incentives have a greater impact on efficiency than direct payments.
- Training. Investment in peer reviewer training demonstrably improves review quality. NIH support for recognition and training would be a more sustainable policy direction.

Promoting recognition of peer review aligns with the principles of open science: transparency, accountability, and equitable credit for contributions beyond the published article. See PLOS' commentary on [peer review recognition](#).

NIH's calculation (\$1,000 extra per article) underestimates the [cost](#) of multiple review rounds and undervalues the seniority of many peer reviewers. This calculation risks creating unrealistic expectations and confusion in implementation.

And consideration must be given to the overall costs of publishing which extend beyond peer review. Essential services include research integrity checks, assessment of methodological rigor, editorial oversight, production, dissemination, and long-term archiving. Any cost framework that focuses too narrowly risks overlooking these necessary quality assurance and stewardship functions.

4. Publishing Best Practice

The NIH's proposed policy risks reinforcing a narrow focus on the article as the sole marker of academic and research value. This undermines the benefits of an open science ecosystem, which recognizes the importance of diverse outputs such as data, code, protocols, and preprints as integral to transparency and progress. In ["Rethinking how we publish to support Open Science"](#), we discuss the need to move beyond the article and beyond the APC:

- Beyond the article. Ascribing both academic and economic value only at the point of article publication entrenches legacy costs and discourages the sharing of other important outputs. Evidence such as the [State of Open Data 2024: Special Report](#) shows that lack of credit remains a primary barrier to wider data sharing.
- Alignment with open science. Business models should incentivize sharing the form of output most appropriate to the research, not just the article's Version of Record. PLOS has been moving away from APC-based [business models](#) since 2021, including through our project to [redefine publishing](#) "Beyond the Article and Beyond the APC." PLOS supports the position that for open science practices to be adopted widely, research outputs must be linked, discoverable, and credited in their own right, not just the article Version of Record.
- Benefits of openness. A knowledge-sharing ecosystem based on open science principles increases visibility, collaboration, and efficiency. Studies including an [assessment of Springer hybrid journals](#) and [data from the French Open Science Monitor](#) demonstrate citation and usage advantages for open access and for practices such as sharing data, code, and preprints.

Incorporating best practices ensures that taxpayer investment supports high-quality, trustworthy, and openly available science across all research outputs, not simply the cheapest or most traditional option. PLOS regularly shares updates on publishing innovations on our [blog](#).

5. Other Comments

- Implementation timeline. NIH's proposed effective date of January 1, 2026 leaves only three months after the consultation for preparation. By contrast, UKRI had a multi-year consultation and implementation timeline for their new OA policy. NIH should extend the timeline to allow institutions and researchers to adapt.
- Extended consultation. Given the potential scale of impact, NIH should allow more time to gather feedback, engage stakeholders, and avoid confusion among researchers.
- Systemic reform. The fundamental challenge is not APC pricing but the academic credit system. Reforming research assessment, such as [through initiatives by the National Academies](#), would be more effective at controlling costs and incentivizing openness.

Conclusion: NIH's goal to maximize taxpayer value will not be met by APC caps. A more effective approach is to support systemic reform in research assessment, enable collective funding mechanisms, and promote publishing practices aligned with open science, research integrity and transparency. PLOS urges NIH to adopt policies that advance the mission of **open science for all**, ensuring taxpayer-funded research is widely accessible, equitable, and maximally beneficial to society. For more reflections, see the [PLOS Blog](#).