

Perspectives on Open Access Publishing & Research

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**GRANTEE & STAFF MEMBER**

**PERSPECTIVES ON OPEN ACCESS PUBLISHING & RESEARCH**

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## **INTRODUCTION**

The Robert Wood Johnson Foundation (RWJF) seeks to support innovative research that spans disciplines and reaches multiple audiences as it builds the evidence base in support of a Culture of Health. To that end, the Foundation wants to maximize the reach of its research investments with the ability to share the results with key audiences and stakeholders quickly, freely, and publicly. **Open access publications** offer one mechanism for disseminating information freely and publicly. Open access peer-reviewed publications allow free public access to their contents—sometimes immediately—and typically grant creative commons attribution licenses (“CC BY license”).<sup>1</sup>

The number and sophistication of open access publications have grown during the past two decades. At the same time, the philanthropic, academic, and other research funder communities, including the National Institutes of Health,<sup>2</sup> have placed more emphasis on open access because these publications allow for a timely and less expensive flow of research to the end user. RWJF convened other research funders during fall 2015 to learn more about different types of open access policies that may motivate grantees to publish in open access journals; their motivations for and paths to implementing policies; and the opportunities for partnership, including the challenges faced and strategies used to overcome them.<sup>3</sup> Though the convening

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<sup>1</sup> [Creative Commons](#), a nonprofit organization, formally defines its CC BY license as one that: “...lets others distribute, remix, tweak, and build upon your work, even commercially, as long as they credit you for the original creation.” To learn more about Creative Commons' licenses, click [<here>](#).

<sup>2</sup> The National Institutes of Health has required public access to publications resulting from its research investments since 2009, based on Division F Section 217 of PL 111-8 (Omnibus Appropriations Act, 2009). The law states: “*The Director of the National Institutes of Health (“NIH”) shall require in the current fiscal year and thereafter that all investigators funded by the NIH submit or have submitted for them to the National Library of Medicine's PubMed Central an electronic version of their final, peer-reviewed manuscripts upon acceptance for publication, to be made publicly available no later than 12 months after the official date of publication: Provided, that the NIH shall implement the public access policy in a manner consistent with copyright law.*” <https://publicaccess.nih.gov/policy.htm>. Accessed August 29, 2016.

<sup>3</sup> Scholarly Publishing and Academic Resources Coalition (SPARC). *Open Access and Research Funders: A Report on Challenges, Opportunities, and Collaboration*. April 2016.

<http://sparcopen.org/wp-content/uploads/2016/04/RWJF-SPARC-public-report.pdf>. Accessed August 29, 2016.

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helped RWJF's understanding of open access policies, staff members had lingering questions about the impact of an open access publication policy on Foundation grantees and the work that results from its grantmaking.

To better understand its researchers' and staff members' opinions of open access publishing, RWJF commissioned a series of phone interviews with its grantees and staff members, which took place May through July 2016.<sup>4</sup> These interviews also asked researchers for their opinions of open data and open research because they are closely related to the topic of open access publications. **Open data** means allowing public access and reuse of scientific data, while **open research** allows public access to all files, data, protocols, results, and manuscripts for a research project. Open research makes the full research process more transparent so that others can reproduce the work to confirm research findings or build upon it to answer new research questions.

This report summarizes the results of these interviews and outlines a set of recommendations for moving forward.

## Methods

The original interview sample included 24 grantees. In drawing the sample, several grantee characteristics were considered to ensure some variation based on:

- Organization types (academic, research, association, government, other), size, and geographic location;
- National Program Office (NPO) versus ad hoc;
- Gender; and
- Career length

All grants included in the sample were either active or recently closed. Of the original 24 grants in the sample, two were dropped from the final sample because grantees were advocacy organizations that did not typically conduct research. Only one investigator from the original sample could not be interviewed due to scheduling conflicts. In some cases, more than one investigator associated with a grant agreed to an interview, therefore a total of 27 investigators were interviewed.

Seventeen staff members from across departments of the Foundation were asked to participate in an interview, and 16 agreed to participate.

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<sup>4</sup> See Appendix 1 for grantee interview guide and Appendix 2 for RWJF staff member interview guide.

## **SUMMARY OF GRANTEE INTERVIEWS**

Of 27 grantee respondents, 13 grantee respondents worked in non-university settings (government, nonprofit/for-profit research, association, or hospital research organization) and 14 respondents worked in university settings. All major census regions of the United States were represented in the sample, though more respondents were from the Northeast. Women comprised almost two-thirds of the respondent group. Finally, respondents reported practicing numerous types of research including quantitative, qualitative, epidemiological, evaluation, health economics, and policy analysis.

### **Typical Journals**

Respondents typically seek publication in the following journals:

- Academic Medicine
- American Journal of Epidemiology
- American Journal of Managed Care
- American Journal of Preventive Medicine
- American Journal of Public Health
- Annals of Internal Medicine
- Business Economics
- Epidemiology
- Health Affairs
- Health Care Management Review
- Health Care Management Science
- Health Economics
- Health Services Research
- Implementation Science
- Inquiry
- JAMA
- JAMA Internal Medicine
- Journal of Health Economics
- Journal of Practice Management
- Lancet
- Medical Care
- Medical Care Research and Review
- Milbank Quarterly
- New England Journal of Medicine
- Pediatrics
- PLOS Medicine
- Preventing Chronic Disease

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- Preventive Medicine

A handful of specific field journals were omitted from this list to preserve respondents' confidentiality. Table 1 lists open access scores for the above journals that were rated using the [Open Access Spectrum Tool](#). The Scholarly Publishing and Academic Resources Coalition ([SPARC](#)) created this tool in partnership with PLOS and Open Access Scholarly Publishers Association ([OASPA](#)). The Open Access Spectrum Evaluation Tool scores journals from 0 to 100 on reader rights, reuse rights, copyrights, author posting rights, automatic posting, and machine readability. A score of 100 indicates that a journal has the following characteristics:

- “Free readership rights to all articles immediately upon publication;
- Generous reuse and remixing rights (e.g., CC BY license);
- Author holds copyright with no restrictions;
- Author may post any version of the article to any repository or website with no delays;
- Journals make copies of all articles automatically available in trusted third party repositories (e.g., PubMed, Central, OpenAire, institutional) immediately upon publication; and
- Article full text, metadata, supporting data (including format and semantic markup) and citations may be accessed via [application program interface (API)], with instructions publicly posted.”<sup>5</sup>

To date, none of the journals rated by this tool have a perfect score of 100.

**Table 1**  
**Open Access Scores of Grantees' Typical Journals Rated by Open Access Spectrum Evaluation Tool**

Journal Title	Open Access Score (scale 0-100, 100 is highest)*
Annals of Internal Medicine	0
Health Affairs	12
Implementation Science	96
JAMA	20
JAMA Internal Medicine	16

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<sup>5</sup> Open Access Spectrum Evaluation Tool. 2016. “Open Access Spectrum Evaluation Tool.” [www.oaspectrum.org/faq](http://www.oaspectrum.org/faq). Accessed August 29, 2016.

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<b>Journal Title</b>	<b>Open Access Score (scale 0–100, 100 is highest)*</b>
Lancet	23
New England Journal of Medicine	22
PLOS Medicine	96
Preventing Chronic Disease	84

## Funding Sources

Grantees reported a range of public and private funding sources, including:

- American Cancer Society
- Arnold Foundation
- Associations
- Bill & Melinda Gates Foundation
- Commonwealth Fund
- Contracts & commercial organizations
- de Beaumont Foundation
- Federal agencies including National Institutes of Health (NIH), National Institute on Aging (NIA), Centers for Medicare & Medicaid Services (CMS), Agency for Healthcare Research and Quality (AHRQ), Centers for Disease Control and Prevention (CDC), US Food & Drug Administration (FDA), Health Resources and Services Administration (HRSA), DOL, Administration of Children & Families, Patient-Centered Outcomes Research Institute (PCORI), and National Cancer Institute
- Greenwall Foundation
- William T. Grant Foundation

None of the respondents reported international funding sources.

## Institutional Open Access Policies

Respondents reported that their institutions did not have open access policies, at least of which they were aware—with one exception. One respondent's institution implemented an open access policy that offers three options, along with monitoring, financial support, and technical help to support its faculty. This institution asks each faculty member to do one of three things: (1) seek publication in an open access journal (coupled with a limited set of funds to support any associated costs for faculty and grad students); (2) submit the pre-production version of a manuscript accepted to a closed journal to the institution's repository (which is publicly

accessible and searchable through Google Scholar); or (3) opt out (with no repercussions). According to this respondent, the institutional library recently estimated that 47 percent of faculty members responded to the policy. Of those respondents, 37 percent either deposited their article into the institutional repository or provided information about an open access article and 10 percent opted out of the policy. The policy has been in effect for about two years. According to this respondent, a handful of universities have implemented similar open access policies.<sup>6</sup>

## **Information/Go-To Resources About Open Access**

University libraries were mentioned by several grantees as an excellent resource on the topic of open access publishing.

***The remainder of the grantee summary is categorized by university and non-university grantees because their responses varied.***

## **Non-University Grantee Responses**

Thirteen respondents worked in non-university settings such as nonprofit/for-profit research or government institutions. When asked to categorize their familiarity with the concept of open access publishing, seven respondents reported either moderate or extreme familiarity and somewhat/strongly favored the concept of open access publishing (one respondent joined the interview late and didn't respond to this question). Five of the 13 respondents reported slight familiarity with the concept. Three non-university respondents currently served on or have served on editorial boards in the past.

**Publishing practices** typically did not vary based on whether non-university respondents' grants were from RWJF or elsewhere. Five of the 13 respondents reported that they shared reports or issue briefs on their websites or through [www.RWJF.org](http://www.RWJF.org) because that is what they were funded to do under the grant. Eight of the 13 respondents reported that one of the goals of their work was to publish, and they either have something currently in review or have published peer-reviewed articles in the past. Grantees who worked in public health settings seemed more inclined to seek peer-reviewed publication, commenting that it was an effective mechanism for disseminating results to multiple channels—"One of the goals of the work is to publish. We feel it is important to get our work out in many different channels, including the scientific community so we can share our experiences and potentially help other jurisdictions." Ironically, many professionals who work in public health departments typically do not have direct access to these articles.

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<sup>6</sup> See Appendix 3 for links to examples of existing university open access policies.



Respondents from the public health domain shared the frustration of having to ask graduate students or colleagues who are adjuncts or faculty at local universities to download an article through their institution's library.

Ten respondents reported receiving **grants in the past from other funders with open access requirements**. Some non-university grantees have been required to post their data publicly and/or have been required to make their manuscripts or reports public. It is notable that none of the respondents had ever turned down a grant because of open access requirements. One respondent mentioned that the NIH application now includes a scientific rigor and reproducibility section, which is where applicants must address how they will share their programming information and data.

### Key Barriers and Issues Related to Publishing in Open Access Journals

Four non-university respondents reported experience **publishing in an open access journal**. In these cases, grantees' experiences were with *Preventing Chronic Disease* and *PLOS ONE*. They noted two key differences in the process of working with these journals as compared to non-open access journals. One was the cost of submitting an article to *PLOS ONE* (article processing fees<sup>7</sup> for *PLOS* journals range from \$1,495–\$2,900), which can be prohibitive to some. Another difference was the timing of acceptance to the release date of a publication; one researcher noticed a quicker turnaround time among the open access journals.

Non-university respondents typically noted three key barriers to publishing in open access journals:

1. Seven of the 13 respondents mentioned the **cost of publishing** in open access journals. One respondent also noted: "I find it somewhat strange and annoying to be asked to pay for the privilege of having work that I've already worked hard for [to be] published in an open access journal."
2. Though publishing in open access journals was not a career hindrance for the non-university group, seven of the 13 respondents were concerned about the **career interests** of their colleagues in academia. Academics are motivated to publish primarily in high-impact journals (which tend to be closed) by the tenure track and promotion process.

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<sup>7</sup> Article processing fees are assessed to authors to offset the expense of peer review management, production, online hosting, and other costs associated with managing an online, publicly accessible journal. Some journals offer financial support for these fees for authors who demonstrate need, including authors from developing countries.

3. Three of the 13 respondents felt that the **quality of peer review** in open access journals was potentially substandard compared to high-impact journals, or they were concerned that others viewed open access publications in this way.

When asked how some of these barriers could be lifted, non-university respondents offered two ideas: (1) six respondents suggested that funders offer financial support to **offset the fees associated with publishing in open access journals**; and (2) five respondents suggested that funders help **increase the number of citations** pulled from open access journals. An increase in open access article citations would help build the journals' impact factors and reputational capital. One idea for increasing citations of open access articles is for funders to disseminate their grantees' open access publications as widely as possible using their communication tools and social media networks. The resulting citations can help increase impact factors for open access journals.

## Benefits of Open Access Publishing

Despite the barriers to open access publishing, non-university respondents felt open access publishing could result in a number of benefits. Five respondents suggested that open access publications **democratize research** by allowing anyone—especially those who do not have academic affiliations and thus access to big journals—to more ably scan the evidence base of a publication. In many instances, open access publications can help a researcher avoid recreating the wheel or going down the wrong path entirely. Respondents in public health settings placed a lot of emphasis on this benefit. Furthermore, four respondents mentioned that open access publications **address inequities in access to big journals among researchers in developing countries**. Open access publications can also help **reduce the time lag** between review to publication and, therefore, research to practice (3 respondents). Finally, two respondents noted that open access publications allow for broader dissemination of research, which furthers both RWJF's as well as grantees' institutions' missions by broadcasting information to as many audiences as possible.

## Key Barriers and Issues Related to Open Data and Open Research

Another set of barriers and issues emerged from discussions about various elements of open data and open research, including sharing datasets, protocols, analysis plans, results, and manuscripts. The top three concerns among non-university respondents were:

1. **Protecting the privacy of human subjects** and honoring the uniform consent process when individual-level data are collected, which was mentioned by five respondents.

2. Three respondents felt that public dataset requirements would **limit the kinds of studies researchers can conduct** in order to protect the confidentiality of organizations and individual respondents.
3. Three respondents commented that sharing information about the methods and analyses behind a researcher's study could **conflict with their proprietary interests**. Respondents noted that this type of requirement might result in giving away their institution's competitive advantage.

A few other comments merit note, though they were mentioned with less frequency. Two respondents suggested that it felt inappropriate to ask researchers who spend years of their career building large datasets to make them public. In addition, one respondent brought up the issue of the academic career track, where researchers are trying to develop new methodologies to add to their tenure dossier. One respondent mused that open access data requirements, when described in a uniform consent form, might have the unintended consequence of reducing response rates. Another respondent mentioned that publishing datasets and codebooks requires a lot of resources in terms of the time and money needed to accomplish these tasks. Finally, one respondent was curious about who would use public access datasets and for what purpose. This concern, which came up more often among the university respondents, was related to inappropriate use and misinterpretation of the data.

When asked about ways to remove these barriers, non-university respondents provided one concrete idea related to open data: Embargo periods could allow researchers the time they need to produce their original work and get their data ready for online posting. In general, encouraging more open data will require a culture change from one where data sharing is not the norm to one where it is encouraged and expected.

## **Benefits of Open Data and Open Research**

Comments related to the benefits of open data and open research were more limited in terms of the number of people repeating similar themes. One respondent offered that it seems perfectly reasonable to share data collection instruments and fuller methodology descriptions because you always want to “stand on the shoulders of others.” In addition: “This is all about the betterment of society, not our careers. This is for societal good. RWJ is not paying for my career; they are paying for data to improve population health. Same thing, NIH should not be about people's careers. It's about knowledge to improve health.”

Another respondent felt that open research could encourage creation of a user-friendly place for people to look for research tools, which would facilitate connections between researchers conducting work in similar areas. If data become

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publicly available, anyone can replicate study findings. And, if researchers generate results that conflict with other similar research projects, publicly available data would facilitate better understanding of these conflicting results to improve the science.

Finally, one respondent clarified that there are different factors driving research. Some are conducting research purely to add to the literature and gain deeper knowledge on a topic. Others are conducting their research because they need real-time information that can be used in the practice world. Sometimes the nature of the research question is so pressing and with a scarcity of information, researchers are naturally inclined to share tools, methods, and results more collegially and collaboratively. “When talking about the practice world, it’s not about holding your tools tight. It’s about whether we are making a difference, and, if not, what do we need to do to change that?”

## University Grantee Responses

Fourteen respondents worked in universities, seven of whom were earlier in their careers than others (within 10 years of having received their PhD). When asked to categorize their familiarity with the concept of open access publishing, 12 of the 14 university respondents reported either moderate or extreme familiarity and somewhat/strongly favored the concept of open access publishing. Two respondents reported only slight familiarity with the concept of open access publishing. Eight university respondents also reported currently serving on or having served on editorial boards in the past.

**University respondents have the goal of publishing in peer-reviewed journals,** regardless of whether their funding was from RWJF or elsewhere. Only two respondents reported otherwise, that they had been specifically funded by RWJF to produce regular reports or white papers. These two respondents were also later in their career than others.

The majority of respondents reported receiving **grants in the past with open access requirements.** NIH or other federal funding requirements drove these numbers. Although, five respondents reported receiving private foundation funding where they were asked to either produce work in the public domain or share their datasets. No respondent reported ever turning down a grant because of an open access requirement.

## **Key Barriers and Issues Related to Publishing in Open Access Journals**

At least seven respondents had **experience publishing in open access journals** including *PLOS ONE*, *Implementation Science*, *Preventing Chronic Disease*, and the *International Journal for Health Equity*. Most reported positive experiences and felt these particular open access journals have good impact factors. Respondents later in their career tended to compare the open access journals to very high-impact factor, top tier journals while earlier career respondents compared them to medium tier journals. Respondents also noted that when they submitted articles to open access journals, it was because they were a good fit for their articles, not because they were open access. Respondent feedback suggests that academics typically submit their research articles to the journals with the highest impact factors in their fields, balanced with the likelihood that a journal will accept the article for publication. All respondents noted that the high article processing fees of open access journals as problematic, particularly for junior faculty.

University respondents were supportive of open access publishing in their comments but were more emphatic about their concerns compared to non-

university respondents. One particularly salient quote from a later career respondent was: “People think open access is always good. I’m sure there are going to be good things from it, absolutely sure, but I’m also sure there are going to be some costs and I don’t think we’ve fully thought it all through.” On the other hand, an earlier career respondent said, “I am very happy to hear that the Foundation is looking seriously at what it can do to foster [open access]. I think it’s the right step. Ultimately, people follow the money, and if the funding bodies are now serious about it, they are probably the best place to drive that culture. And I think that culture is really going to make a difference in terms of improving the science.”

University respondents voiced three top concerns about open access publishing:

1. Seven respondents commented that the **cost of publishing in open access journals** is a hindrance, particularly for junior faculty. In some cases, researchers weigh the costs of publishing in open access compared to the benefits—they consider whether the journal is high profile enough to warrant their time and investment. As mentioned earlier, the cost concern is particularly problematic for junior faculty members who have fewer resources. One respondent also mentioned that, at least among senior faculty, there is a philosophical issue with having to pay article submission fees.
2. **Quality of open access journals is also a major concern for university respondents.** Six respondents mentioned that not enough open access journals have strong reputations and high-impact factors. Eight respondents brought up career concerns along these lines—if required to publish in open access journals, it would impact their careers, particularly if open access journals are not the standard journals in a field. One respondent added: “We’re still academics and the fundamental currency in academia is publication, and the fundamental currency there is publication in high-prestige journals. It’s not a perfect metric but it’s one that is recognized.”
3. Another concern related to quality is the **emergence of predatory open access journals.** At least four respondents mentioned this concern and that it is particularly problematic in some fields. Predatory journals do not have the same, high standard editorial and peer review practices of other academic journals. One example of a predatory practice is when a publisher seeks submissions through spam messaging. Another example is a journal that lacks an editorial board.<sup>8</sup>

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<sup>8</sup> Straumsheim, Carl. “‘Predatory’ Publishing Up.” *Inside Higher Ed*, October 1, 2015. [www.insidehighered.com/news/2015/10/01/study-finds-huge-increase-articles-published-predatory-journals](http://www.insidehighered.com/news/2015/10/01/study-finds-huge-increase-articles-published-predatory-journals). Accessed August 29, 2016.

Also important to note were two university respondents' comments about open access publishing requirements severely limiting publishing options for researchers in some fields. Many subfields do not have any reputable open access journals and existing open access journals are not a good fit for their research.

When asked how some of these barriers might be lifted, university respondents had a few more ideas than non-university respondents. Three respondents suggested it would be helpful if money were available to **support fees associated with for open access journals**. One respondent also questioned whether funders could just pay the closed journal access fees to make their articles open. Another idea was that funders could support their researchers by promoting their open access articles upon release. Big funders have a lot of communication currency that could be particularly meaningful for early career faculty members. Another respondent suggested that funders try to strike NIH-like deals with top tier journals so their researchers' articles would be open access no matter where they are published. Finally, researchers need a national resource to help evaluate the quality of journals, particularly for open access. Funders might consider trying to build this type of resource for their grantees.

## Benefits of Open Access Publishing

At least four respondents mentioned that broader availability of their research would result in **wider scale policy impact**, with one respondent suggesting that researchers should have an ethical drive to getting their work into the public domain to advance science. University respondents felt it would be advantageous for other researchers and practitioners without library privileges to download articles freely. Two respondents felt another benefit of open access publishing would be a higher likelihood of being cited and picked up by the press.<sup>9</sup> Finally, one respondent mentioned the results could be disseminated more quickly.

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<sup>9</sup> Several studies suggest that open access publications do lead to an increased number of citations. For more information, see: Wagner, A. Ben. "Open Access Citation Advantage: An Annotated Bibliography." *Issues in Science and Technology Leadership* Winter 2010. Accessed August 29, 2016. doi:10.5062/F4Q81B0W. Jump, Paul. "Open access papers 'gain more traffic and citations.'" *Times Higher Education* July 30, 2014.

[www.timeshighereducation.com/home/open-access-papers-gain-more-traffic-and-citations/2014850.article](http://www.timeshighereducation.com/home/open-access-papers-gain-more-traffic-and-citations/2014850.article). Accessed August 29, 2016.

Moed, Henk. "Does Open Access Publishing Increase Citation or Download Rates?" *Research Trends* 28.

[www.researchtrends.com/issue28-may-2012/does-open-access-publishing-increase-citation-or-download-rates/](http://www.researchtrends.com/issue28-may-2012/does-open-access-publishing-increase-citation-or-download-rates/). Accessed August 29, 2016.

## Key Barriers and Issues Related to Open Data and Open Research

University respondents suggested more barriers to open data and open research than non-university respondents. Among the top three concerns were:

1. Four respondents mentioned **privacy concerns** related to open data. Some researchers might not be able to conduct current projects if they had to make data available because of HIPAA protections or other privacy issues.
2. Four respondents mentioned concerns about **the danger of misinterpretation when other researchers use publicly available data for secondary analysis**. Researchers using data for secondary analysis may not understand the theoretical rationale behind the data collection and could mis-analyze data by using it in ways it was not intended. On the other hand, one respondent had the following feedback about this issue: “I’m far less sympathetic to the criticism that’s been leveled that because the people who would be the secondary data analyzers are not intimately familiar with how the data was collected that they may be prone to make mistakes in analyzing the data. I’m less sympathetic to that argument because there is a science of doing [analysis] that is known and accepted and there is an ethical obligation of the primary researcher to clearly indicate what they did and how they did it.... The way science moves forward is through putting out information, having that be tested and verified, and contradicted if it needs to be. I’m not that concerned about that issue... It’s something that I think is used more as an excuse than anything else.”
3. Three respondents were concerned that **intensive data collection efforts that require multiyear investigations involve considerable fieldwork and researchers’ time and resources**. Sometimes a one or two year embargo period would not provide the time needed to adequately publish analyses from these datasets. Open access data requirements with one or two year embargo periods seemed unfair in these instances because it is so important for researchers to publish—if their data is suddenly available publicly, someone else could publish on it before them and then they lose their own unique contribution.

A few other concerns were mentioned less frequently. Two respondents conjectured that open data gives others the opportunity to smear researchers, especially if the work is controversial. At least one respondent felt that sharing data and other aspects of the research process publicly feels more like a “rule-following exercise” than something that benefits the public good. In this respondent’s opinion, open access research has not played out in a way that transparency was the end result. Similarly, another respondent asked what the demand for open data and research is and whether it is worth the time and effort to make it available. Who will pay for the resources required for making the full research process open? Another respondent voiced concern about whether making the methods publicly available could hurt researchers’ competitive edge.



When asked how these barriers might be lifted, university respondents offered a few ideas. Three respondents suggested **embargo periods** could help with releasing data publicly, but that they are not perfect. Regarding privacy and confidentiality, three respondents felt it is possible to design a plan to de-identify data before posting it into the public domain. De-identification protocols can be reviewed for safety. And where there are exceptions, data can ultimately be kept private. But it would be helpful to have an external entity for researchers to support them in de-identification, which can be time and resource intensive. One respondent suggested that funders create a line item in their budgets to accommodate for all the work that goes into making data and the fuller research process open.

### **Benefits of Open Data and Open Research**

A handful of respondents offered that open access research would result in the following benefits: (1) providing quicker access to important data for researchers to answer new research questions; (2) validating the primary researcher's conclusions, which would help address the reproducibility crisis; (3) encouraging researchers to think critically about their analysis plan, preventing data mining; and (4) capitalizing on the funder's original investment. .

## **THEMES/FINDINGS: RWJF STAFF MEMBERS**

In addition to grantees, 16 RWJF staff members agreed to an interview about their views of open access publishing and research. When asked to categorize their familiarity with open access publishing, five staff members felt that they were “not at all familiar” or “slightly familiar” with open access publishing. Of the remaining 11 who reported somewhat to extreme familiarity with open access publishing, all but one staff member supported the concept (one staff member felt they were a combination of “somewhat oppose” and “somewhat favor,” but not neutral). Regardless of the amount of support reported in the categorical responses, most staff members had reservations or caveats about their support of open access. Grantees and staff share a few similar concerns related to the cost and quality of open access publications and the potential impact of open access publishing requirements on career advancement, particularly for university faculty.

Two staff members were completely in favor of open access publishing and science, with no negative exceptions or caveats. First, these staff members felt the current business model in publishing is to control information, which restricts access to knowledge and is not one that can survive in this century. The scientific community needs to completely reframe how learning and knowledge are shared. Data should not be hoarded—the goal of research should be promulgation of knowledge, regardless of how negative or positive the finding. Second, open data and open research can help address the bias in the literature toward positive findings. Third, open access publications would help findings to emerge faster and reach more people. Finally, it could be difficult to monitor adherence to an open access or open data and open research policy. Either way, it feels more appropriate to encourage and incentivize open access and research.

The remaining staff members’ responses are summarized below. Their comments were varied, rather than repetitive as among grantees. Since most comments were limited to one or two staff members, the number of respondents is often not noted in this section.

### **Staff Members’ Thoughts on Open Access, Open Data and Open Research Requirements**

Staff members were supportive of the idea of requiring open access publishing or science among grantees. Among the more positive comments offered about open access, open data, and open research requirements were issues such as reducing publication bias toward positive findings; building community among researchers and helping others understand each others’ work; improving science by increasing transparency and replication in research; capitalizing on an original investment by allowing other researchers to use it; and reducing the power journals have over

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researchers and how they approach their work, which is often to analyze and write in a way to get something published rather than what is important for the greater good.

On the other hand, staff members had many concerns about open access, open data, and open research requirements. Two staff members shared concerns related to the limited availability of high-quality open access journals. One staff member commented: “Why can't we just pay *Health Affairs* the royalty instead of relegating our grantees into publishing in the three [acceptable] open access journals? I think they wouldn't like that.” In addition, another staff member mentioned the importance of the existing top tier journals in which both staff members and grantees have always aspired to publish.

Four staff members shared a similar concern with grantees about the potential **negative impact of open access publishing on career advancement**. These staff members felt that requiring open access publishing could be problematic for academics trying to advance or achieve tenure where journal impact factors are very important. The trend at RWJF has been to work with grantees in elite institutions. These grantees want to be promoted, and it's hard to change the requirements they face related to publication in elite journals. In addition, staff members want researchers who are earlier in careers to excel and an open access publishing policy could put them at a disadvantage.

Three staff members talked about the **broken peer review system** and felt this was more of an issue than open access. They felt that the peer review system is broken because it's run as a volunteer activity. Reviewers should be paid and have more accountability to do a good job on their review. The peer review process also takes too much time—by the time an article is published, it is no longer relevant. This delay in knowledge may actually encourage authors and funders to publish in the grey literature simply to get information out there more quickly, even when it may have been better to go through peer review.

Other staff member comments were related to open data. Requiring data to be made available publicly is a big cultural shift. Staff members thought that the concept has value but had concerns around interpretation and the potential for mis-analysis, similar to grantees' concerns. Also similar to grantees, staff members were concerned about privacy and confidentiality for certain types of data.

## **Possible Grantee Reactions to Conservative Open Access Policies**

When asked how they thought grantees would react to a conservative open access policy—for example, all peer-reviewed publications must appear in open access journals or all data must be made publicly available—staff members suggested a

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variety of scenarios. For grantees who publish multiple articles, if they have opportunity to pick and choose which articles they submit to open access journals, they probably would not have a big problem with an open access policy. But if a funder drew a line and said they may only publish in open access journals, grantees would likely be unhappy. Some grantees would opt to apply for funding elsewhere, especially if they still need tenure. Staff members noted two other possible unintended consequences. A conservative policy might encourage a different group of people to apply for funding who are either more senior or not on the academic trail, which could potentially reduce the diversity of the grantee population. On the other hand, a conservative policy could expand RWJF's grantee population with a new mix of grantees. Additionally, grantees might decide they would rather produce a white paper than publish in an open access journal they do not respect when peer review might have been more appropriate. Many researchers still view open access journals with a skeptical eye compared to the top-tier, high-impact journals.

In general, staff members suggested it was a bit presumptuous to have an "all or none" open access and/or open data and open research policy.

## **What Might an Ideal Policy Include and How Might RWJF Mitigate Risks to Grantees?**

Staff members felt that an open access or open data and open research policy would represent a significant culture change, and policies alone do not change culture. RWJF would need to take steps like outreach to universities and organizations doing work in areas it cares about to help facilitate the necessary culture change. Another idea was to implement a testing or pilot period for policies and study what happens and how it affects grantees. Similarly, RWJF ought to find ways to incentivize researchers to share their measures and intervention protocols to increase researchers' willingness to do so.

One staff member suggested an idea to mitigate the potential for misuse of publicly available data. The suggestion was that any publication using the data must include specific methodological and descriptive details about the data as well as a footnote or link to the original paper where the data were used. Additionally, perhaps open data and open research platforms could provide a link to the original research team. Another idea for open data and open research platforms was to require grantees to register their measures, which would enhance the ability to compare findings across studies.

Regarding the concern about privacy and confidentiality of data, one suggestion was to build on the institutional review board (IRB) process to determine which aspects of data and study design could be shared publicly. At the same time, the current IRB process has two major limitations when it comes to privacy and confidentiality. First, researchers and their associated IRBs are not necessarily privacy experts; if

these individuals and institutions must suddenly become privacy experts, this could become a big burden. Second, IRBs are very specific when it comes to informed consent. Consent forms state how data will be used now and in the future. Thus, researchers must state the specific purpose for which data will be used. If data are to be used again, participants must be contacted for permission to re-use their information.

Four staff members mentioned **the RWJF requirement for grantees to post their data publicly at the University of Michigan's Interuniversity Consortium for Political and Social Research (ICPSR)**. It seemed unclear which grantees are being asked to put their data on ICPSR because not all studies are actually being published there. Staff members who commented on this policy felt it was important to get a better understanding of how often data are accessed from ICPSR and used in other research. If RWJF planned to put a more stringent policy in place related to publicly available data, it ought to promote the data more widely and provide grantees with some technical assistance if they need help posting their data. Also, RWJF usually holds back 10 percent of a grant until data are posted on ICPSR but many grantees still do not fulfill this requirement. Then, program officers demand that their grantees get paid anyways. Grantees apparently feel some frustration when working with ICPSR—the process of finalizing data for posting is detailed and time consuming. Finally, staff members felt embargo periods to allow grantees the time they need to do their primary analyses are appropriate, but they do not want data to age so much it becomes irrelevant.

Regarding open access publications, one staff member suggested RWJF require grantees' publications to be open access but not specifically in an open access journal. The policy could be designed in a way that grantees still publish a peer-reviewed manuscript in a journal that makes sense for that publication but that they must also develop materials that can be disseminated more publicly. This would likely require getting closed journals to agree to allow authors to reproduce some of their published work in another format. RWJF could also work toward getting journals to agree to some variation on an open access policy, such as requiring they make RWJF articles available after a certain amount of time.

## **How Might Open Access Publishing Affect Your Grantees? How Might it Add Value for Them?**

Some staff members did not have enough grantees that publish in the peer-reviewed literature to comment on this question, but a few others had some thoughts on it. One comment was that grantee networks would be broadened, especially if RWJF helps promote the open access journals in which they are publishing. And, if others want to use their study design and data, it could increase their stature. Grantees like it when RWJF pays to have their articles available freely. It means lots of downloads

for them, which they often brag about. Yet there is also a tension for academics who need and want to publish in high-impact journals versus the Foundation, which wants information out in the public domain rapidly.

## **How Might Open Access Publishing Help RWJF Further Its Strategies and Goals? Are There Any Negative Consequences You Can Think Of?**

Two staff members commented that open access publishing supports the Culture of Health and the idea that we are all in this together and need “all hands on deck” to bring about a Culture of Health . Two other staff members suggested open access publishing could help ideas, research, and thoughts be disseminated more broadly. Open access research pushes the idea of more collaboration among researchers, which supports the Culture of Health and may facilitate “strange bedfellow” types of collaborations across fields, which RWJF is trying to increase in its programming. One staff member commented, however, that they did not think open access publishing would further RWJF's' strategy and goals.

## **What Support Would You Need to Explain the Open Access Policy to Your Grantees? To Monitor Adherence?**

Staff members suggested that the Foundation would need to describe its rationale behind an open access policy to grantees in a way that explains how open access will help them. Also, RWJF should clearly address a grantee's negative views about open access. Staff members felt monitoring adherence should be possible with annual reports, especially if deliverables are tied to payments. One staff member pointed out that monitoring could be difficult, though, especially since grantees often publish well past the grant close date. And, what would RWJF do if a grantee publishes in a closed journal like JAMA or NEJM—would there be a consequence? Finally, one concern emerged for the existing open access journals. If RWJF were to put a conservative open access publishing policy in place, how would the open access journals handle the onslaught of articles? Would they have the capacity?

## IDEAS & RECOMMENDATIONS

The following ideas and recommendations for increasing the availability of open access publications, open data, and open research were extrapolated from grantee and staff member interviews.

1. The first set of recommendations—**work with established, top-tier journals to increase more open access to their content**—could be achieved through grantmaking to a third party that closed journals view as neutral. RWJF could fund this project or set of projects solely or through a consortium of interested funders. Potential deliverables might include:
  - a. **Establishing a business case for closed journals to offer open access to more of their articles:** Top-tier journals have an established place and brand name quality among RWJF grantees and audiences. They curate, review, and disseminate some of the most important research in the country. Obviously, there is a cost to the infrastructure it takes to publish a top-tier journal, and these journals have large revenue streams. However, many respondents felt that there must be a feasible business model for top-tier journals to offer open access to more of their content (if not all). Other fields and businesses, such as the media, have adapted to the digital world and may offer solutions. For example, *The New York Times* is supported through advertising and various subscription plans, or “Visitors can enjoy 10 free articles (including blog posts, slide shows and other multimedia features) each month on NYTimes.com. Your free, limited access resets at the beginning of each calendar month.” **Caveat: For any journals that support nonprofit societies, be sure to understand if and how a change in business practice could affect the revenues directed toward their associations.** Some journals use the proceeds from their journal to help support these other responsibilities. Even if they are a nonprofit, they need the income to be able to serve the community they represent.
  - b. **Meetings and white papers to help closed journals understand the opportunity costs of closed access:** Reach out to the top-tier journals to start a dialogue about the opportunity cost of closed access. What are publishers’ goals in terms of disseminating and encouraging use of the content they publish? Do their aspirations match current business practices? The nature of how information is distributed today has evolved beyond those current practices. There is also a case to be made that Foundations are increasingly less likely to point their audiences to closed access journal Web pages if users are locked out of the research. And, that loss could cost top-tier journals a lot of Web traffic. If top-tier journals do not see these opportunity costs, the digital world will leave them behind.





to researchers in following the requirements of any grant agreements including open access publishing. For example, if a researcher has a publication accepted, a third party can help by finding out what the accepting journal's open access policies are and if the manuscript can also be submitted to an institutional repository (like PubMed).

**Items 3–5 are ideas for discrete grant projects.**

3. **Look to fields of science that embrace a spirit of openness for applications to health care and public health research:** Economics is one example of a social science field that is more supportive of open access publications, open data, and open research. It is customary and encouraged in the field of economics to publish working papers to various platforms like the [NBER Working Papers Series](#). This model encourages collegial commentary and early reviews of pre-publication manuscripts. Economic journals are also supportive in that they do not embargo articles that are shared in this way.
4. **Investigate if other funders can leverage or replicate the NIH policy:** An example of an open access policy that has an NIH-like option emerged during the interviews. One institution has implemented an open access policy that offers three options, along with monitoring technical help to support its faculty. This institution asks each faculty member to do one of three things: (1) seek publication in an open access journal (and they have a limited set of funds allocated for faculty and grad students); (2) submit the pre-production version of a manuscript accepted to a closed journal to the institution's repository (which is publicly accessible and search-able through Google Scholar); or (3) opt out. A handful of universities are experimenting with open access policies along these lines.
5. **Align open data and open research efforts with those of IRBs and the consent process:** When it comes to the broader concept of open access research, open access policies must complement institutional review board (IRB) processes. If RWJF were to go down the road of an enhanced open access research policy (e.g., requiring that data without privacy concerns are made available publicly or that researchers manage their entire project in a way that is accessible publicly), the Foundation should test its policy with standard IRB protocols to ensure the concept of open access is never in conflict with researchers' codes of ethics.
6. **Some more specific recommendations for RWJF to consider** for its internal operations:

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- a. **Review current grant agreement letters:** Universities are generally opposed to any restriction on their authors and typically do not want to allow funders the right of refusal. If RWJF were to consider instituting a broad open access publishing policy, the Foundation might want to conduct vetting of proposed grant agreement language with the grant departments of large, academic institutions that are typical grant recipients.
- b. **Create a clear line of funds to support and encourage open access publications, open data, and open research.** Everyone brought up the issue of cost, both in the context of open access publishing fees and the resources required to make data publicly available. If funders like RWJF would like to encourage more open access publishing, open data, and open research, consider adding a line item to grantee budgets or to create a source of funds internally that program officers can access when needed for their grantees.

**APPENDICES**

## Appendix 1: Grantee Interview Guide

[CONTEXT ABOUT INTERVIEWS PROVIDED]

I would like to start our conversation by asking you a few questions about yourself and your previous funding sources:

1. What type of research do you typically conduct?
2. Have you ever served on the editorial board of a peer-reviewed journal? If yes, which one(s)?
3. From what other large organizations have you received funding? For example, NIH, Ford, Gates?
4. Do you receive any international funding?

How familiar would you say you are with the concept of open access publishing?

- 1 – not at all familiar (SKIP NEXT QUESTION)
- 2 – Slightly familiar (SKIP NEXT QUESTION)
- 3 – Somewhat familiar
- 4 – Moderately familiar
- 5 – Extremely familiar

Do you support the concept of open access publishing?

- 1 – Strongly oppose
- 2 – Somewhat oppose
- 3 – neutral
- 4 – Somewhat favor
- 5 – Strongly favor

[FEW SAMPLE OA POLICIES PROVIDED]

### **FOR THOSE SOMEWHAT TO EXTREMELY FAMILIAR WITH OA POLICIES:**

1. The first few questions are about your general publishing practices:
  - How often do you publish work that results from RWJF's grantmaking in peer-reviewed journals?
  - [If they receive other funding...] How often do you publish work that results from your other funding sources? How many are shared in other ways?
  - What are the top 3 to 5 journals in which you seek publication for your RWJF-sponsored work? For your other work? Trying to understand overall landscape of journals you are publishing in so we get what is important in your field.
2. Does your institution or employer have a policy related to OA publishing (YES OR NO)? If yes,

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- What is the policy?
  - What do you think about this policy?
  - How does your institution monitor adherence to this policy? Can you describe this process? What are the repercussions of not adhering to your institution's policy?
  - Does your institution have a budget to support your work in an open access framework?
3. Have you ever received a research grant that included OA research or publishing requirements? (If NO, skip): [If the terms of that grant are not confidential]
- From whom?
  - What are the typical requirements of these OA policies?
  - How have they impacted your work?
  - How has open access affected your opportunities for promotion or tenure?
  - How did the OA policy affect where you sought publication of your research?
  - What did you like about the OA policy? What did you not like about the OA policy?
  - How does this funder monitor adherence to this policy? How does this funder support you in adhering to this policy?
4. Have you ever turned down a grant because of OA requirements that were too stringent (YES OR NO)? If yes and those discussions were not confidential, tell me more about that...
5. The next few questions are about any direct experience you've had publishing in an OA or hybrid journal. Have you ever sought publication in an OA or hybrid journal (a hybrid journal allows authors to pay to make their articles widely accessible)? [if NO, skip]
- In what journal(s) did you seek publication?
  - How did you find the process of publishing with an OA journal and/or a hybrid journal? How is it different or similar to publishing in a non-OA journal? [probe to discover if there is any difference in labor, time, administrative aspects of publishing in OA versus non-OA journals]
- Regardless of whether you sought publication in an OA or hybrid journal...
- What do you think are the top three barriers or downsides you might encounter when attempting to publish in these journals? (e.g., cost, process, professional, tenure, getting additional research grants)?
  - What would ease the barriers to publishing in OA and/or hybrid journals?
  - What do you see as the benefits to publishing in OA and/or hybrid journals?
6. The next few questions are more about your general thoughts on OA research.
- Do you see any advantages to ***receiving grants*** that require open access?
  - What are some of the things you like about OA policies, whether you've had a grant with OA requirements or not?
  - What are some of the things you don't like about OA policies?

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- Do you have a go-to resource that you use to inform yourself about OA publishing?
  - Are there gaps in the tools and resources available that should be filled to better support publishing in OA journals?
7. Is there anything else you would like to share with me about open access that I have not asked about?
  8. Now I'd like to ask you again, do you support the concept of open access publishing?
    - 1 – Strongly oppose
    - 2 – Somewhat oppose
    - 3 – neutral
    - 4 – Somewhat favor
    - 5 – Strongly favor

## **IF SLIGHTLY OR NOT AT ALL FAMILIAR WITH OA POLICIES:**

1. How often do you publish work that results from RWJF's grantmaking in peer-reviewed journals?
2. What are the top 3 to 5 journals in which you seek publication?
3. Reflecting on the various types of OA policy requirements I listed earlier, what do you think the key barriers to publishing in OA journals/venues are?
  - What do you think might ease the barriers to publishing in OA journals?
  - In your opinion, what are the benefits to publishing in OA journals?
  - What are the hindrances to publishing in OA journals?
4. Do you think your institution or employer would be supportive of OA publishing?
5. Do you see any advantages to receiving grants that require open access publishing? What types of OA publishing requirements might be non-starters?
6. What are some of the things you like about the concept OA policies? What are some of the things you don't like about the concept OA policies?
7. Is there anything else you would like to share with me about open access that I have not asked about?
9. Now I'd like to ask you again, do you support the concept of open access publishing?
  - 1 – Strongly oppose
  - 2 – Somewhat oppose
  - 3 – neutral
  - 4 – Somewhat favor
  - 5 – Strongly favor

## Appendix 2: Staff Member Interview Guide

[CONTEXT ABOUT INTERVIEWS PROVIDED]

How familiar would you say you are with the concept of open access publishing?

- 1 – not at all familiar (SKIP NEXT QUESTION)
- 2 – Slightly familiar (SKIP NEXT QUESTION)
- 3 – Somewhat familiar
- 4 – Moderately familiar
- 5 – Extremely familiar

Do you support the concept of open access?

- 1 – Strongly oppose
- 2 – Somewhat oppose
- 3 – neutral
- 4 – Somewhat favor
- 5 – Strongly favor

[A FEW SAMPLE OA POLICIES PROVIDED]

1. What are your thoughts on the potential OA requirements?
2. Just to be clear, depending on how conservative the policy is, it could place a barrier to grantees publishing in top-tier journals such as JAMA and NEJM. How do you think your grantees would react if we put that conservative policy in place?
3. What might an ideal policy include in your opinion and how might RWJF mitigate some of the risks associated with an OA policy?
4. How might OA publishing affect your grantees? How might it add value for them?
5. How might OA publishing help RWJF further its strategies and goals? Are there any negative consequences you can think of?
6. What support would you need to explain the OA policy to your grantees? To monitor adherence?
7. What support would your grantees need through both a transition to this policy as well as full implementation?

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## Appendix 3: Examples Of Existing University Open Access Policies

Duke University: <https://scholarworks.duke.edu/open-access/>

Indiana University: <https://openaccess.iupui.edu/>

Kansas State University: [www.lib.k-state.edu/open-access](http://www.lib.k-state.edu/open-access)

Massachusetts Institute of Technology:  
<https://libraries.mit.edu/scholarly/mit-open-access/open-access-at-mit/mit-open-access-policy/>

Oregon State University: <http://cdss.library.oregonstate.edu/open-access>

Rice University: <http://openaccess.rice.edu/rice-open-access-policy/>

UCLA:  
[www.library.ucla.edu/support/publishing-data-management/information-authors/uc-open-access-policy](http://www.library.ucla.edu/support/publishing-data-management/information-authors/uc-open-access-policy)

University of Rhode Island:  
<http://uri.libguides.com/c.php?g=42596&p=269438#13277619>