Understanding data management plans

- Regardless of your area of research, it is very likely that you will generate data from your research project. You will need to have plans in place for how to manage, store, and share any data (with associated metadata) that you collect.

- Most grant agencies have a policy of data sharing and a requirement for the submission of a Data Management Plan (aka Data Management and Sharing Plan) as part of your grant proposal. If the agency doesn't require a formal separate document, you will need to address this topic within the body of your proposal text, in 1 or more paragraphs.

  - As examples, here is NSF's policy on data: NSF Data policy opens in new window

  - NIH's updated guidance for proposals submitted starting January 2023. The full website is here, and this is the link to the new NIH Data policy opens in new window

    - NIH also has a draft supplemental guidance document: NIH supplemental

  - Dept. of Energy's (DOE) policy on data: DOE data policy opens in new window

- There is a free available online platform that will tailor your document to a grant agency's requirements: Data Management Plan (DMP) tool opens in new window

  - **Set up an account in this platform** to use for this week's assignment.

  - Typically, there is a ~2 page limit for Data Management Plans (but check the grant agency/RFP).

  - It's a good idea to link this account to your ORCiD account - you can do this in DMP Tool by clicking on your name in the top right corner and highlighting the 'Third Party Applications' link.

- You can find information on many agencies' requirements here

[here opens in new window](#). Please note that this website has several pages of agencies/links!

- **Use this clearly written guidance** on crafting your data management plan, from [Boston University opens in new window](#)

- Sometimes, you may have to *incorporate funds into your budget (and budget justification)* for proper data storage - this may depend on the funding agency, the RFP instructions, and the type of data that you have acquired.

- While outside the scope of this course, there are many online data repositories, tailored for different types of data. Ask your PI and look at published papers in your field to see where their data are archived. One general data repository is [Dryad opens in new window](#) (which URI is a part of); you can create and link your Dryad account to your ORCiD.

- Here are some sample Data Management Plans that are freely available online:

  - Huge, searchable multilingual list on [DMPtool opens in new window](#). Pro tip -- type the grant agency (NIH or NSF or...) into the search box - there are many English language proposals in there.

  - [BES 510 DMP NSF generic.pdf](#)

  - [BES 510 DMP NSF generic 2.pdf](#)

  - [BES 510 NIH example DMP.pdf](#)

  - [BES 510 RI INBRE DMP.pdf](#)

- **BREAKING NEWS:** On May 12 2022 at 2pm Eastern Time: there is a 1 hour Data Management Plan workshop for NIH. Registration link is [here](#). Please note that this is not affiliated with BES 510. It is sponsored by [Dataworks](#) in FASEB (Federation of American Societies for Experimental Biology).

Proposal Submission/Review basics

- In class, I have briefly touched on proposal review processes a few times. Essentially, if you want your proposal to be funded (aka **awarded**), you want your documents to sail through the proposal review process.

  - Not surprisingly, different funding agencies have unique specific criteria and review processes. ALWAYS look at the section of the RFP that states how the proposal will be reviewed, and contact your program officer if you have questions.

  - NIH proposal review here: [NIH proposal review pdf](#) AND look at this: [NIH process opens in new window](#)

  - link for: [NSF proposal review opens in new window](#)

  - Google your favorite agency with the words 'peer review' or 'proposal review' and you'll likely find what you are looking for.

- That said, there are several pieces to keep in mind.

  - 1) Formatting requirements. Many agencies have specific fonts, sizes, page margins, file formats, etc. that must be used. Follow their rules - you do not want your proposal thrown out on a technicality (and yes, this happens).

  - 2) Submission deadline. In most cases, you will need to get your completed set of documents submitted your institutional submission platform and/or staff person ONE WEEK before the submission deadline. (Most URI Colleges have a departmental contact - ask me or your advisor if you're not sure where to turn). Don't wait to the last minute - these submission deadlines are usually NOT flexible. At all.

  - 3) Once your proposal is received by an agency and passes the formatting checks, they will assign an internal program officer to handle it. You may or (most likely) may not be informed as to who that is. That person will handle many proposals submitted by investigators across the

region/country/world for any given RFP.

- 4) In many cases, your proposal will be sent out for peer review. This means that people in your field, who you may interact with at conferences, etc. (but aren't currently collaborating with) may be reading your proposals and evaluating your work, *based on that agency's stated criteria*. In some agencies (such as NIH), this goes to an existing group (Scientific Review Group aka Study Section) -- in others, the program officer identifies potential reviewers from the (broadly relevant) scientific community and contacts them.

    - The more clearly written your proposal/documents are, the easier it will be for reviewers to (favorably!) evaluate it. Definitely have others look over any grant proposal documents prior to submission.

- 5) After peer reviews are received by the program officer, they (reviews + your proposal) will then typically be reviewed by an in-person/virtual review panel.

- 6) The program officer will take the recommendations by the panel and the initial peer reviews, for all proposals, and work with other program officers to decide on which ones to fund (=award), based on many criteria (funds available, geographic location, breadth of topics funded, etc....). There may be several additional levels of approval after that, depending on the agency.

- 7) This whole process may be quick (1-2 months if it is an internal university/small proposal) or lengthy (>6 months is not uncommon for large NSF, NIH, etc. proposals).

- 8) **No news is good news** - for RFPs that receive lots of proposals, those that are not competitively typically hear first from the grant agency (because for a program officer to say *yes* takes many more approval steps than saying *no).*

- 9) Regardless, you **should** get reviews back from the program officer. These are critically important to you -

ask the program officer for them if you aren't sent them automatically.

- Reviewers are supposed to review proposals without biases (I know..... that's impossible). Program officers know that it's impossible too, even when people do their best to minimize the biases they are aware of. If you receive a review that is not appropriate/obviously biased, you should contact your program officer right away and advocate for yourself. Program officers should disregard those reviews and not pass them on to you, but unfortunately that's not always the case.

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