



Chapter 4 Part II

Project-Based and Institutional Cost Considerations: *Budgeting & Costing*

February 15, 2023

Budgeting and costing considerations, including how an institution will incur, direct charge, and/or indirectly recover data management & sharing (DMS) costs, represent an important part of an institution's implementation of the [NIH Data Management and Sharing Policy](#). This document, Chapter 4 Part II of the [COGR NIH DMS Readiness Guide](#), discusses what institutions should consider when identifying, budgeting, reviewing costs, and more related to data management and sharing. This complements Chapter 4 Part I, [COGR Review of the Final NIH Policy for Data Management and Sharing: Budgeting and Costing](#), which identified the implementation challenges related to budgeting and costing for institutions and PIs/researchers.

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Considerations

The following are the topics COGR identified as points for institutions to consider when planning for any DMS-related costs the PI/institution intends to request in a project budget. While this is not an exhaustive list, COGR will continue to explore these topics and more with COGR membership, NIH, and the research community. COGR will update this chapter as topics develop and additional guidance is obtained.

Identifying DMS Costs

- Leverage faculty, research groups, library data service providers, and data managers who have experience with NIH DMS plans (e.g., genomic data projects and awards over \$500k direct costs per year) to obtain their insights on budgeting and charging DMS costs.

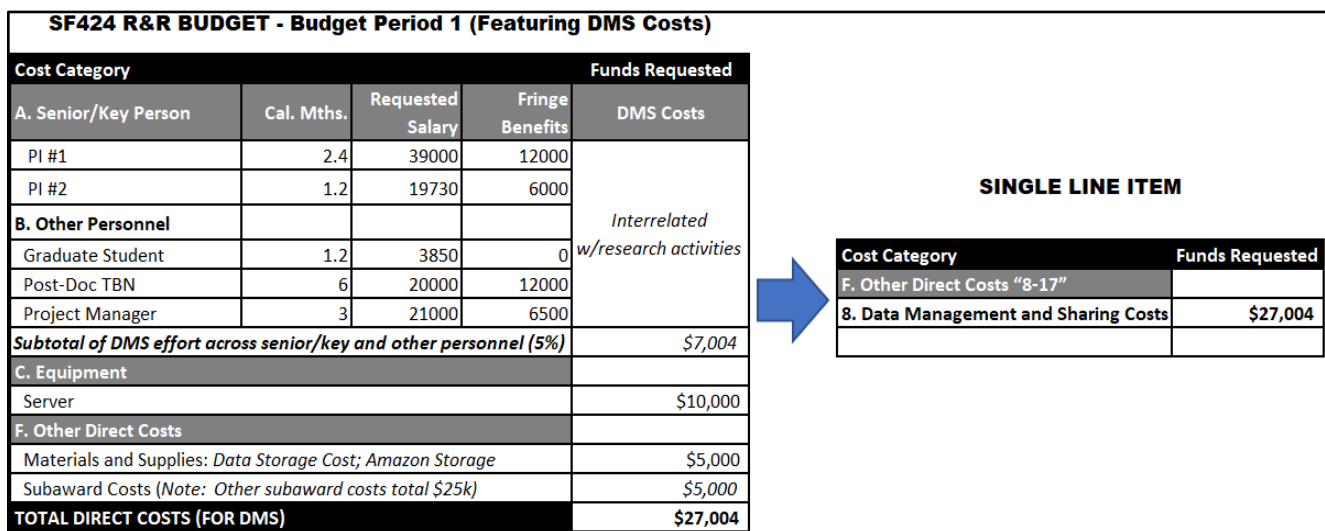
- Review the Funding Opportunity Announcement/Solicitation for exceptions or specific NIH Institute and Center requirements (i.e., details on budgeting, repositories, required software, storage requirements, etc.).
- Faculty and researchers may have concerns about absorbing additional DMS costs within existing budget caps. Discuss with faculty and researchers budget costs that should be considered in order to set realistic expectations within the DMS plan. Encourage researchers to plan early.

Single Line-Item Budget

The current construct of placing DMS costs into a single line item in the budget per [NOT-OD-22-189](#) presents challenges. While we understand and support NIH’s intent to have a succinct way to capture and track the cost impact of data management and sharing, the current construct deviates from existing budget and cost principles, which may inadvertently introduce underestimations, budget errors, and undue audit risk. This leads to questions about the reliability of this method for tracking DMS costs and the accuracy of data captured in a single line item.

Figure 1 depicts the cost items typically itemized and captured in the appropriate cost category of a detailed budget and the impracticality of transferring these costs to a single line item. NIH DMS policy specifies that for Research & Related (R&R) Budgets, DMS costs (including personnel costs) must be indicated as a single line item in section F. Other Direct Costs, as seen in the figure¹.

FIGURE 1: Illustration of the Issue - Detailed Budget to Single Line Item



However, labor costs usually would be captured in senior/key and other personnel cost categories, including those for DMS activities (i.e., curating data, developing supporting documentation, de-identifying data, etc.). Separating DMS labor costs from senior/key and other personnel costs is counterintuitive to budgeting and costing principles as they are interrelated with research activities

¹ See General Instructions SF424 (R&R) Version H, G.300 R&R Budget Form [F. Other Direct Costs](#)

of personnel efforts. This also raises the question of how to allocate salary and accurately capture fringe benefits dedicated to DMS activities and further poses potential challenges with tracking and monitoring of Senior/Key and Other Personnel effort commitments specific to their DMS-related activities under the single line-item method.

Recently NIH published [FAQ #F.3.](#), specifying that subaward DMS costs *must be included in a single line item in the prime applicant's budget (not within individual subaward budgets)*. This is counterintuitive to budgeting and costing principles, as subaward costs are usually captured in the subawards budget. This ensures proper exclusions of the subaward costs (in excess of \$25k) to F&A (indirect) costs in the prime's budget, proper allocation, accounting, reporting, and distribution to the subaward. The single line-item method poses challenges to all these factors. Similar to subaward costs and senior key, equipment is also normally budgeted in a separate category for transparency as well as calculation of F&A costs. Budgeting this in the “single line” creates similar budget issues.

COGR is working to fully understand all limitations and challenges associated with this approach and has engaged with NIH on this issue. NIH has acknowledged this challenge and expressed an intent to utilize the [FDP Pilot Phase 2 \(Costing Policies\)](#) to determine the feasibility of placing costs in a single line item as opposed to (the best practice) of placing costs throughout the budget line items.

In the interim, institutions may want to consider one of the following approaches to identify and quantify costs, pending additional guidance from NIH. We encourage institutions to maintain internal documentation for approaches used in budgeting efforts.

- A. Use the NIMH Data Archive (NDA) [Data Submission Cost Estimation Tool](#) as a preliminary tool, taking into account the considerations and adjustments described below. Note that the tool does not capture non-labor costs,² such as repository fees.
- B. Calculate high-level cost items using estimates only. This method is for investigators with experience budgeting DMS costs. Consider estimating labor costs³ by major categories (e.g., data curation- \$40K, de-identification of data - \$5K). Costs for specific groups like Data Managers or Data Experts are easily quantifiable in this model. The estimated labor costs are added to non-labor costs before applying F&A to the budget. This model may be added to internal budget templates to capture costs associated with DMS.
- C. Calculate labor costs as a percentage of the direct costs. This method should be used when specific details are unavailable or unknown at the time of the proposal. Labor costs would be added to non-labor costs, for example, estimating the time and resources needed to accomplish labor-associated tasks (i.e., an additional 5% of the investigator's time plus fringe benefits). Budget justification could include an explanation that the institution developed this method based on investigators' experience in meeting DMS requirements.

² *Non-Labor costs:* include costs associated for fees not associated with personnel effort/costs such as preserving and sharing data through established repositories, which may incur data deposit fees.

³ *Labor costs:* include costs that typically require personnel effort such as, curating data, developing supporting documentation, formatting data according to accepted community standards, transmission to and storage at a selected repository for long-term preservation and access, de-identifying data, preparing metadata to foster discoverability, interpretation, and reuse.

Repository-Specific Calculators

- While some of the NIH Institutes have pointed to the NDA Data Submission Cost Estimation Tool to estimate costs associated with DMS, such repository-specific calculators may not capture all associated costs, which can result in an underestimation. Institutions should consider developing budget tools to assist researchers with factoring in all associated costs. Principles to consider include:
 - Remember to include fringe benefits as part of the salary budget request.
 - Time estimates for tasks may be unrealistic. COGR has received feedback that the data and information needed to upload to the NDA repository may be challenging, and therefore the outputs may be inaccurate. For instance:
 - Tasks identified take longer than described, e.g., finding a data structure that will work or creating one is more likely to take three hours than one hour per data structure as suggested in the tool.
 - Some of the estimates need more multipliers, e.g., more time to work with some of the required data elements by the number of data structures, submissions, and subjects.
 - There may be limitations in finding data managers available. As a result, projects may need to use contractors, and the rate (\$45/hour) shown is unlikely to be adequate and should be adjusted accordingly.
- Per [2 CFR 200.430\(h\)\(2\)](#), faculty should not budget their time at an hourly rate, yet the NDA Data Submission Cost Estimation tool does exactly that. If institution faculty and research staff are completing the work, budgeting the time as salaries is more appropriate and aligns with the [NIH Grants Policy Statement](#).
 - The salary budget should be described in percentage terms/person months in the budget rather than hourly rates.
 - Showing the salary projections at the budgeting stage will support how salaries and wages will be expensed.
 - Budgeting as salaries supports the appropriate “effort” dedicated to DMS on a project.

Reviewing & Managing Costs

- Consider creating a list of questions that a grant manager can pose to the PI during budget development to prompt the inclusion of all relevant costs. Consider utilizing [COGR's Roles & Responsibilities Matrix](#) to develop prompting questions based on the DMS Responsibility/Activity. Some potential questions include:
 - Is there a deposit fee for any of the repositories you plan to use?

- Will you need dedicated personnel time to support data management and sharing activities to meet repository requirements? If not personnel time, will you need to engage the services of a core or vendor to complete tasks such as the following:
 - Data curation?
 - Developing supporting documentation?
 - Formatting data according to accepted community standards or for transmission and storage at a selected repository?
 - Preparing metadata?
 - De-identifying data (including data that may require more expensive methodologies to satisfy deidentification requirements for NIH)? Institutions with units dedicated to deidentification may want to leverage these groups and obtain cost estimates when developing budgets.
- Where are you planning to store the data while the project is active? Is there an associated fee?
- Is there a fee associated with any tools or software you plan to use to collect or analyze the data?
- Do you have subrecipients?
 - If yes, will they be responsible and need funds for data management and sharing activities? Will the data be sent to the prime and combined into a single data set, and will the prime deposit the data or the subrecipient?
 - Discussions should occur with subrecipients to discuss who is paying for what costs related to DMS and to make sure the costs to manage the subrecipients' data are included in the proposal budget (but only once for each data set).
 - How do the overall costs for the subrecipient to manage DMS align with the budget and details outlined in the DMS Plan?
- Consider local data management considerations, such as unique and specialized information infrastructure necessary to provide local management and preservation (for example, before deposit into an established repository).
- Consider who within the organization can help verify costs and advise researchers. What role, if any, will the central pre-award office play in reviewing DMS budgets? What units have experience and can support researchers, e.g., libraries, information technology? Who needs to be involved?
- How will budgets submitted with \$0 for DMS costs be managed and verified to ensure there truly are no associated costs with the proposed DMS Plan to the researcher or institution?
- Consider establishing resources that can be utilized across similar research areas (e.g., for data professionals or local expertise to assist faculty). A service center model may be considered to provide DMS services for researchers. Fees from the service center would then be directly charged to projects.

- Collect model budgets that accurately reflect associated costs to identify best practices for DMS budget categories for researchers to use. See COGR's Roles & Responsibilities Matrix for a list of expense categories.
- Create tools, resources, and budget sheets that faculty and research groups can utilize when building budgets. For example, create an institutional facilities and resources spreadsheet listing available DMS resources, a cost calculator, and budgeting tips such as what costs are included in F&A or should be budgeted as a direct cost⁴.
- During the initial year of implementation, be prepared to address any requested modifications/revisions during Just-In-Time. Consider if changes impact the budget. This should also be considered for progress reports/RPPR.

Additional Resources:

[NIH's Budgeting for Data Management & Sharing](#)

[COGR's NIH Data Management and Sharing Policy Resource Page](#)

[COGR's NIH Data Management and Sharing Readiness Guide](#)

[NIH's Data Management and Sharing Resource Page](#)

The considerations raised in this document represent immediate priorities related to budgeting and costing issues for DMS. We recognize that new questions and/or concerns may arise and encourage the COGR membership to reach out to COGR, NIH, the FDP, and other stakeholders as appropriate. COGR will continue to engage on areas that require additional clarification and guidance and as we do so we will keep the community updated.

If you have questions or concerns, contact:

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David Kennedy at dkennedy@cogr.edu

⁴ Note that per [NIH guidance](#), costs associated with preparing, preserving, and sharing data is an allowable cost. Typical project activities related to data analysis are generally not allowable as a DMS cost (but may be allowable as part of the research activities).