Preparation of a Data Management Plan and Tracking and Monitoring Scholarship and Fellowship Recipients

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What is a Data Management Plan? (DMP)

• All NSF proposals must include a supplementary document of no more than two pages labeled “Data Management Plan”.
• The DMP is NOT part of the 15 page Project Description.
• Even if no data will be produced (e.g., a workshop proposal), a DMP should be submitted that states: “No data are expected to be produced from this project.”
DMP cont.

• The DMP should describe how the PI(s) will manage and disseminate data generated by the project in sufficient detail to enable evaluation of the plan during the review process.
Since DMPs will be considered during the review process, consider the following when writing yours:

- Describe the data that will be collected, and the data and metadata formats used
- Describe what physical and/or cyber resources and facilities that will be used to store the data
- Describe what media and dissemination methods will be used to make the data and metadata available to others
- Describe the policies for data sharing and public access (including provisions for protection of privacy, confidentiality, security, intellectual property rights and other rights as appropriate).
- Describe the roles and responsibilities of all parties with respect to the management of the data
Final project reports

Required for all NSF awards should describe the implementation of the DMP including any changes from the original DMP and contain the following information:

• The data produced during the award period
• The data that will be retained after the award expires
• How the data will be disseminated and verification that it will be available for sharing
• The format that will be used to make the data available to others
• Where the data generated by the project has been stored for long-term public access
What is Data?

- The Federal government defines data in the OMB Circular A-110: “…the recorded factual material commonly accepted in the scientific community as necessary to validate research findings.” This definition includes both original data (observations, measurements etc.) as well as metadata (e.g., experimental protocols, statistical methods, etc.), and software or computer code that is required for replication.
Tracking and Monitoring Scholarship and Fellowship Recipients
Monitoring Students

- Classroom Performance
- Institutional level
- Long Term
Classroom Performance

• **Student progress monitoring** can help instructors evaluate how effective their teaching is
  • for individual **students**
  • or for the entire class
Institutional level

• Use social media
  • Facebook
  • Instagram
  • LinkedIn
Institutional level

- Campus social and educational events
  - Have informative presentations
  - Allow students and faculty members to socialize
  - Builds a community of learners
  - Give students incentives to attend
- Talk to faculty members about scholars progress
Institutional level

- Have a mentoring plan that includes monitoring student’s progress for their classes (similar to what is done for athletes)
  - For our scholarship program, we found that meeting with scholars at least once a month is best.
- Have students keep a portfolio
- The NOYCE program has a required data collection site (which is similar to the S-STEM program)
Long Term

- Social Network
  - Have a program Facebook page
- Program Website
- Program Newsletter
- Most departments now track their graduates
- Alumni Association
Why Monitor Scholars?

- Required for many federally funded programs
- Students must stay on track to graduate within the time frame given
- Ensure their GPAs are “useable”
- Monitoring scholars can improve your program
  - Improve mentoring
  - Improve the learning community
  - Strengthen your dissemination and assessment plan
Who does this work?

- The PI needs help
- Shared duties with the co-PIs
- Hire a program coordinator, with monitoring students as part of their duties
- Hire graduate students or advance undergraduate students (if possible)