Data Management Planning for KU Social Scientists drafting Grant Applications

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Data Management Planning

By the end of this presentation, you will be able to:

» Explain the importance of data management plans for grant applications

» Identify what must be included in a data management plan

» Locate resources to help you draft a data management plan

Data Management Planning

WHY? (1/2)

Researcher's Perspective

» It is required

» It strengthens your application

» It helps refine your research

» Makes your research more efficient

» When publicly shared, increases research impact

» Strengthens science through sharing and replication

» Reduces risk of data-loss disaster

» Data citation credit

Data Management Planning

WHY? (2/2)

Funding Agency's Perspective

» Demonstrates which applicant has a plan

» Improves research efficiency

» Opportunity for data interoperability

» Strengthens science through sharing and replication

» Reduces risk of disaster (e.g. confidentiality breaches, lost data, etc.)

Data Management Planning

a plan for managing your data

is defined by the funding agency

guidance here based on the
NSF grant application guidelines
(13-1, Jan 2013)

Data Management Plan = DMP

there are others:

National Institute of Health – Data-Sharing Plans

Data Management Planning

WHO?

You

as the PI, you have the
primary responsibility for
drafting and then enforcing your
DMP

even after the grant ends

Data Management Planning

Before you begin:

» What would you like to know?

» What are your research questions?

» How do you plan to gather the data?

Data Management Planning

Composed of Answers to Five Questions

» What types of data or other materials will the research produce?

» What standards will you use for documentation and metadata?

» What steps will you take to protect privacy, security, confidentiality, intellectual property or other rights?

» If you allow others to reuse the data, how will the data be accessed and shared?

» How will data be archived for preservation and long-term access?

Data Management Planning

Question One:

What types of data or other materials
will the research produce?

» Newly collected or generated data

» Reused data

» Products other than data

Data Management Planning

Action Step:	
Make a list of products from your research project	

special considerations for social scientists

Surveys	Texts
Interviews	National survey data
Data analysis files	Biomarkers
Online material	Administrative data

Class syllabi   Manuscripts   Photos

Data Management Planning

Question Two:

What standards will you use for documentation and metadata?

» Context and tracking modifications of the data are essential to validity and reliability

» Metadata is data about data, such as who produced the data, when it was produced, how it was modified, etc.

» Consider details at multiple levels - Variable level, modifications, study level, external events, etc.

Data Management Planning

Action Steps:

Decide how you will document your data - collection, modification, coding, etc.

Identify if your discipline has a preferred standard

special considerations for social scientists

» Historically, this was the "codebook, now, whole data lifecycle

» Multiple individuals with different strategies, often not using a standardized instrument

» Common metadata standards in the social sciences are DDI, FGDC, TEI

» ICPSR has a minimal list of metadata elements that are a good starting place

Data Management Planning

Question Three:

What steps will be taken to protect privacy, security, confidentiality, intellectual property or other rights?

» Be aware of privacy and confidentiality requirements from funder, disciplines, institution, and law

» Think through digital and physical security for the data

» Consider intellectual property implications as well

Data Management Planning

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Action Step:

Define how you will keep the data

private, secure and confidential

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special considerations for social scientists

» Social scientists' data is often personally identifiable; qualitative data presents even more complications

» Consider these questions for the life of the project and after project concludes

» For example, might impose an anonymization scheme on shared data, but likely wouldn't anonymize during transcription

Data Management Planning

Question Four:

If you allow others to reuse the data, how will the data be accessed and shared?

» Data sharing is required by NSF at no more than incremental cost, within a reasonable time

  BUT privileged and confidential info only released in a way that protects privacy of subjects

» Data sharing increases research impact, researcher profile, and stimulates new research

Data Management Planning

Action Step:

Define:

(1) what data will be shared

(2) when you will share it

(3) how you will make others aware of it

(4) who the primary contact will be

special considerations for social scientists

» There are discipline specific cultures around data access and reuse

» In addition to data, consider open access to research publications

Data Management Planning

Question Five:

How will data be archived for preservation and long-term access?

» Decide what you will do with the data, and for how long, when the project ends

» Identify resources to keep the data usable over time

» Consider retention of physical objects (audio recordings, paper transcripts, notes) and digital objects (electronic files, spreadsheets, etc.)

» Prevent loss, deterioration and obsolescence

Data Management Planning

Action Step:

Decide whether you will deposit your data in an archive or define another long-term strategy

special considerations for social scientists

» ICPSR (Interuniversity Consortium for Political and Social Research) is the premier social science data archive in the U.S. – accepts external data

» Many institutions have their own social science data archives – check with your collaborators

Data Management Planning

KU Policies

» Faculty's Open Access Policy

» Data Classification and Handling Policy

- Procedures Guide

» Electronic Data Disposal Policy

- Procedures Guide

» Intellectual Property Policy - Lawrence Campus

Data Management Planning

KU Tools

These can be explicitly cited in your DMP
as institutional resources

» <u>Hawk Drive</u> – temporary file storage and small-size data transfers, including to non-KU collaborators

» <u>Research File Storage</u> – file storage for life of projects, free allotment up to 250GB and a fee-based service above 250GB

» <u>KU ScholarWorks</u> – long-term digital repository, primarily manuscripts but accepts data as well

Data Management Planning

Additional Resources

Guidelines for Effective Data Management Plans (ICPSR)

Guide to Social Science Data Preparation and Archiving (ICPSR)

Sample Social Science DMPs (UNC)

DMP Drafting Checklist (UMN)

Additional resources and KU-specific sample plans through IPSR

Data Management Planning

Tools for when you get the grant:

DMP you draft for application is minimal and preliminary, probably need a more complete one once you begin

DMP Online Drafting Tool

(California Digital Library)

DMP Online Drafting Tool

(Digital Curation Centre, UK)

Additional resources and KU-specific sample plans through IPSR

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So, can you . . .

» Explain the importance of data management plans for grant applications?

» Identify what must be included in a data management plan?

» Locate resources to help you draft a data management plan?

THANK YOU