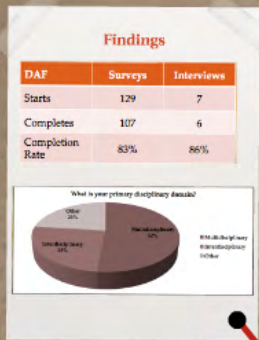


Research Design & Methodology

- Sequential Mixed-Methods Explanatory Research Design (Creswell & Plano Clark, 2011)
- Quantitative/qualitative DAF survey
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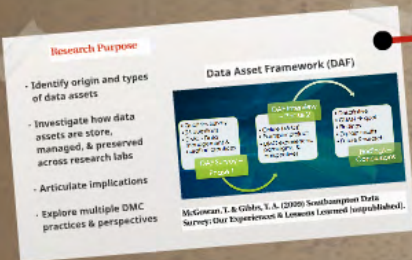
Research Purpose

1. Identify origin and types of data assets

2. Investigate how data assets are stored, managed, & preserved across research labs

3. Articulate implications

4. Explore multiple DMC practices & perspectives



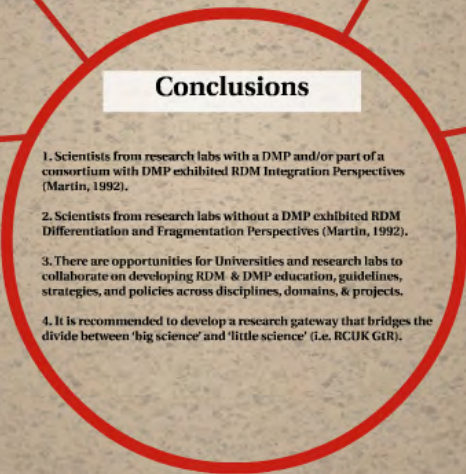
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Findings - Research Data Management Responsibility

Do you use standards, best practices, and guidelines to manage your research data?

Findings - Standards, Best Practices, and Guidelines

Do you use standards, best practices, and guidelines to manage your research data?

Findings - Barriers

What are the barriers to implementing and using standards, best practices, and guidelines?

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Exploring the Data Management and Curation Practices of Scientists in Research Labs within a Research University via an Adapted Data Asset Framework (DAF) Survey – Phase 1

Research Purpose

- Identify origin and types of data assets
- Investigate how data assets are store, managed, & preserved across research labs
- Articulate implications
- Explore multiple DMC practices & perspectives

Data Asset Framework (DAF)



McGowan, T. & Gibbs, T. A. (2009) Southampton Data Survey: Our Experiences & Lessons Learned [unpublished].

Research Labs

1. Center for Advanced Power Systems
2. **Antarctic Marine Geology Research Facility**
3. **Center for Ocean-Atmospheric Predication Studies**
4. Geophysical Fluid Dynamics
5. **Marine and Coastal Laboratory**
6. National High Magnetic Field Laboratory (NHMFL)
7. **National Science Foundation (NSF) EarthCube**

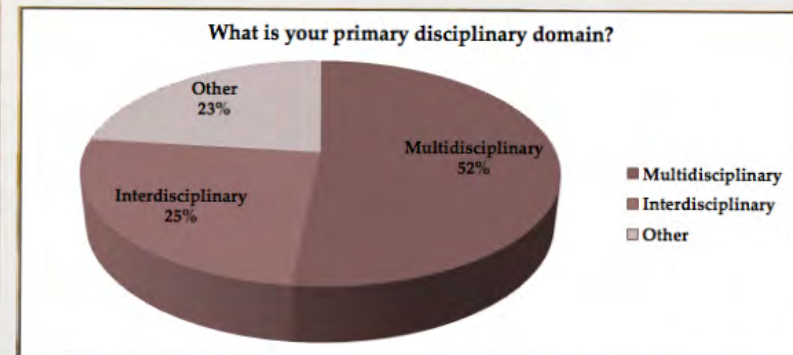
Role	Frequency	Percent	*Other
Senior Researcher	23	23%	IT Support
Principal Investigator	29	29%	Postdoctoral research associate
Research Assistant	26	26%	Research associate
Research Technician	3	3%	Operation project manager
Research Support	3	3%	Data management
Research Student	10	10%	Postdoctoral research associate
*Other	7	7%	Postdoc
Total	101	1.01	

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Findings

DAF	Surveys	Interviews
Starts	129	7
Completes	107	6
Completion Rate	83%	86%



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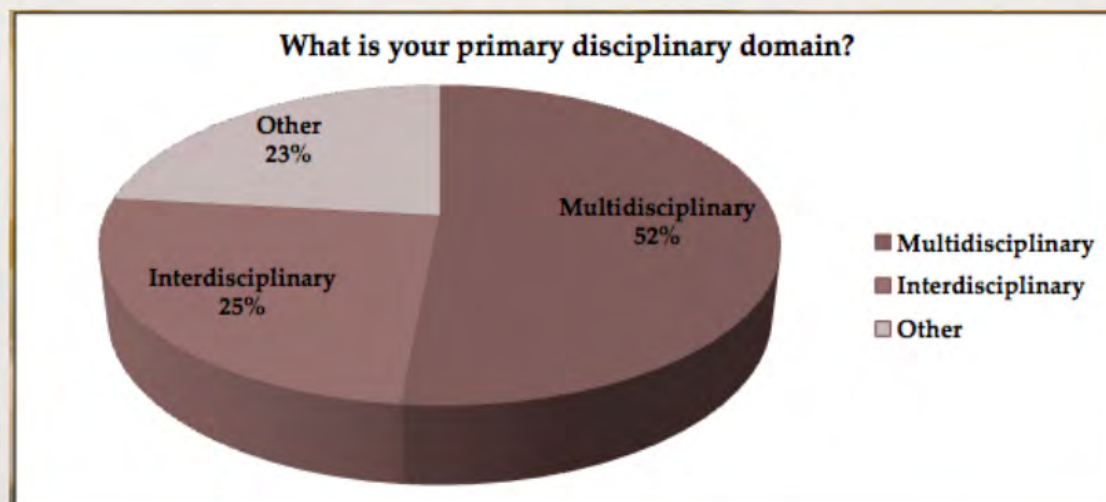


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Findings

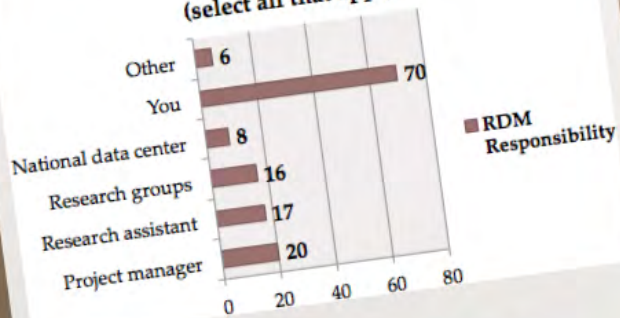
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Findings - Primary Data Types

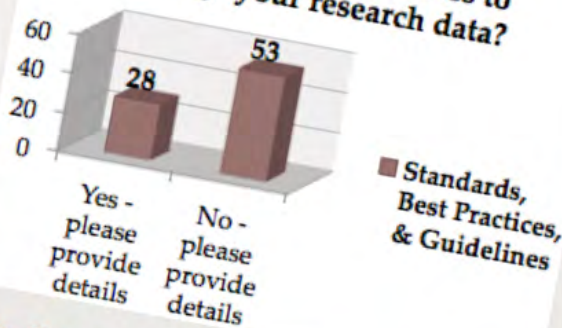
- **78% (74) Experimental (scientific experiments and computational results)**
- **61% (58) Derived data (processing or combining 'raw' or other data)**
- **51% (48) Computer code (model & simulation code)**
- **44% (42) Observational (scientific phenomena at a specific time or location)**
- **27% (26) Reference (ex. gene sequences, chemical structures or literary texts)**
- **3% (3) do not hold any primary data**
- **2% (2) Other (videos, images, audio files; project funding, cost & budget analysis)**

Who is responsible for managing your research data (select all that apply)?



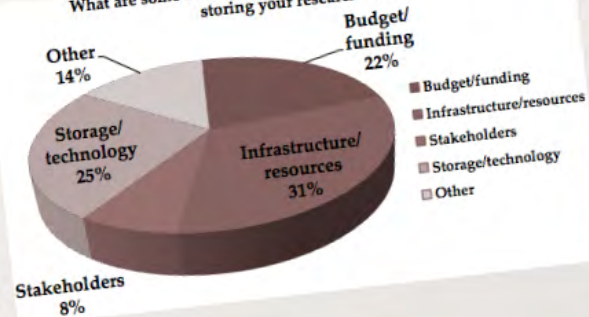
Findings - Research Data Management Responsibility

Do you use standards, best practices, and guidelines to manage your research data?



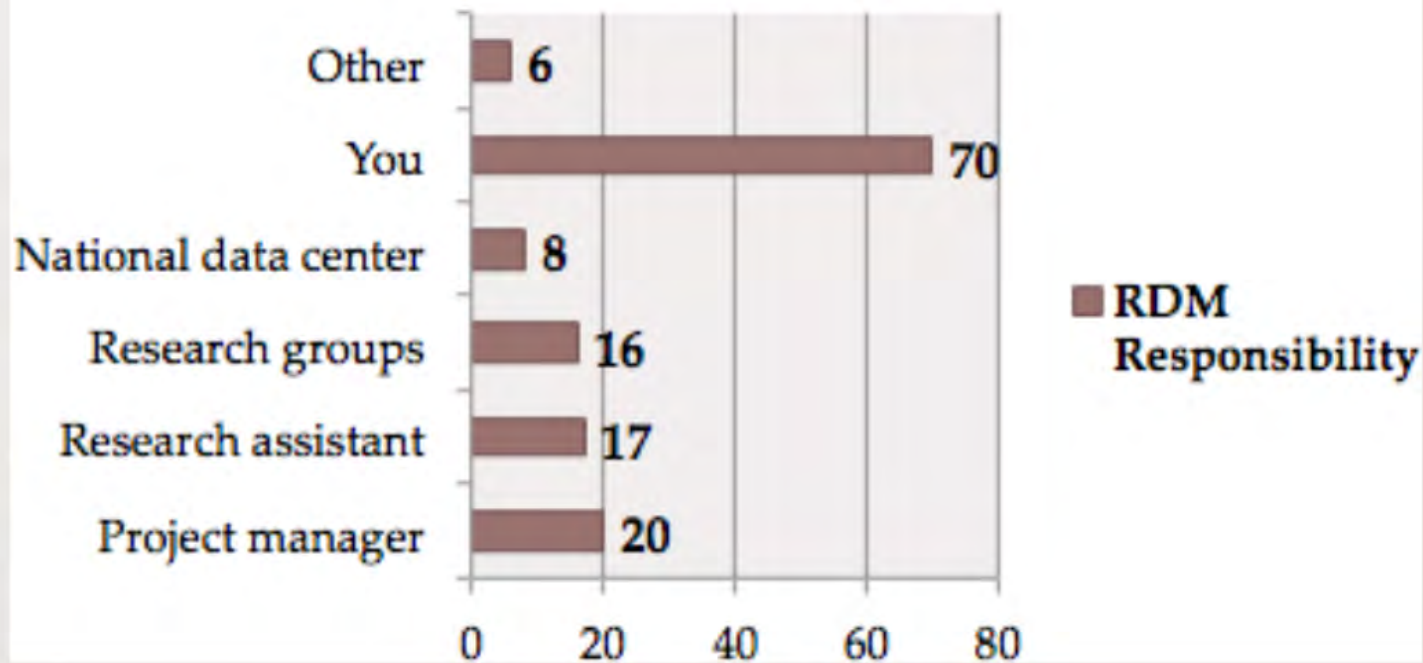
Findings - Standards, Best Practices, and Guidelines

What are some barriers for you with regards to managing and storing your research data?



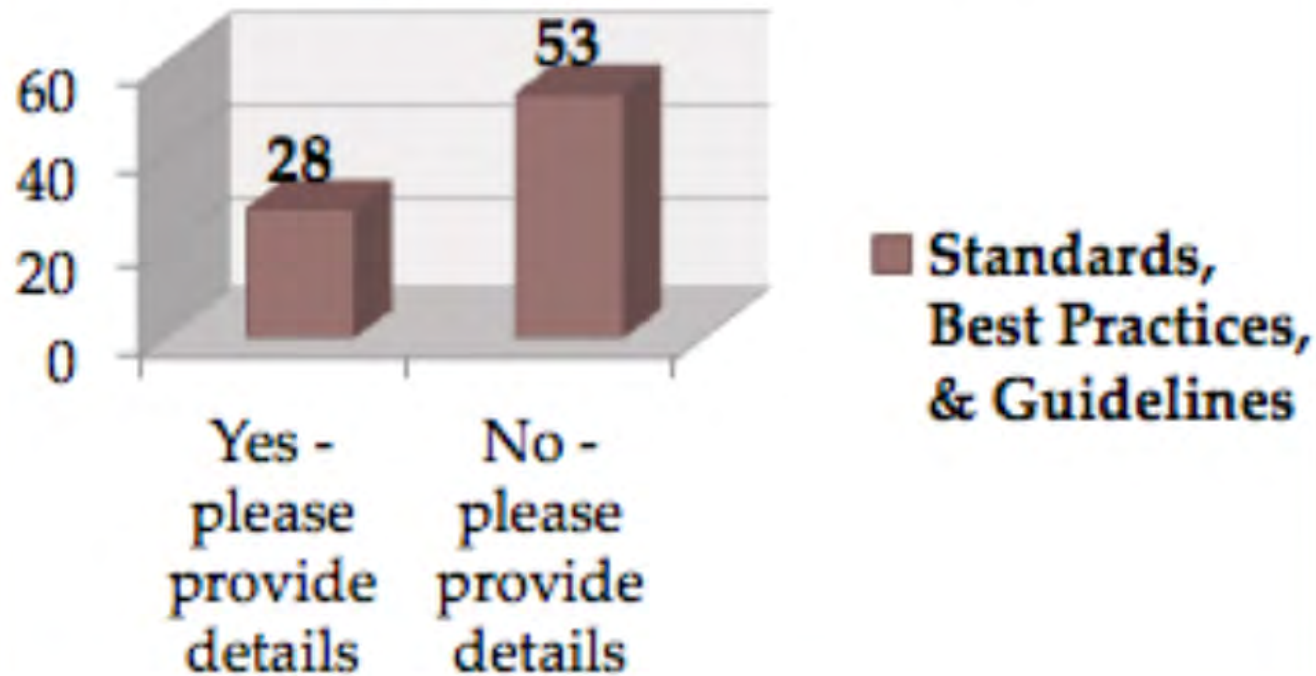
Findings - Barriers

**Who is responsible for managing your research data
(select all that apply)?**



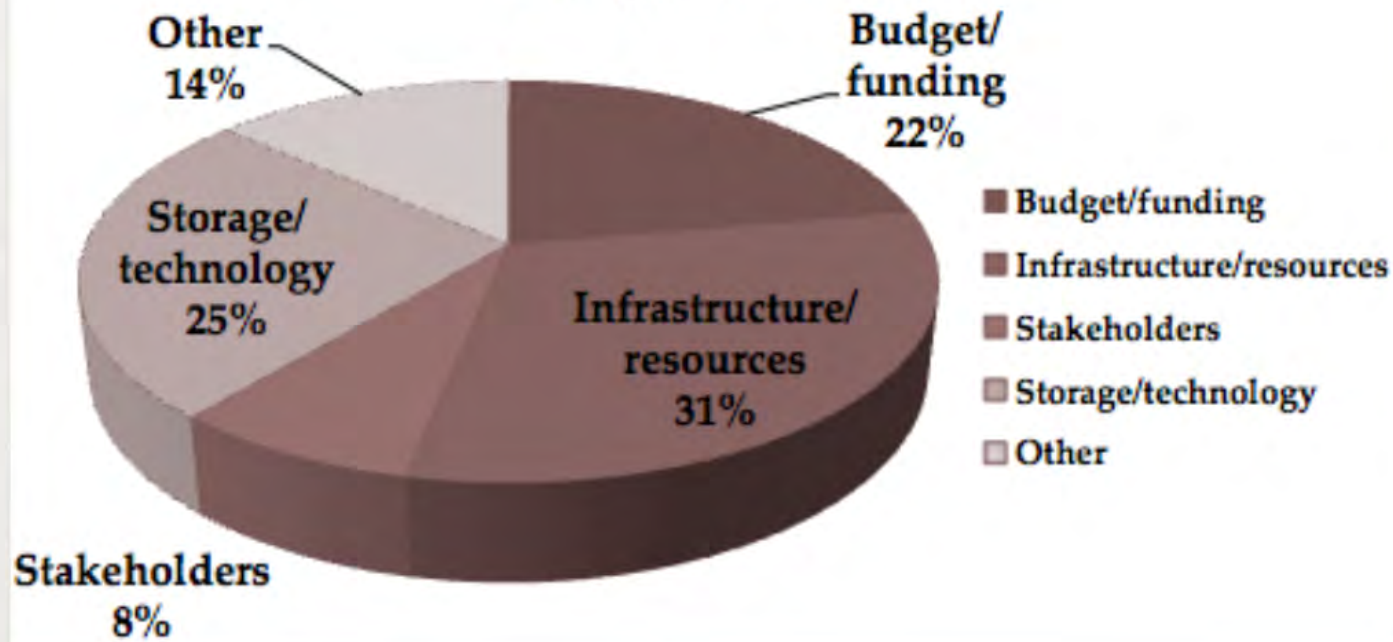
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Findings - Barriers

Research Implications

- A. Good DMC practices stimulate organized research data management awareness;**
- B. Organized research data management awareness allows stakeholders, institutions, and users to increase ROI;**
- C. Data management education exposure across multiple disciplines and departments raise data management cognition.**

Practical Implications

1. Adherence to best practices, standards, and guidelines foster cogent data policies, promote good DMC practice, and enable new research built on accessible & existing data;

2. Data standards improve departmental and institutional level data management accountability;

3. Good data policies support funding agencies data management plan requirements.

Social Implications

- Proper data lifecycle management increases data access, discovery, use/reuse;

- Metadata standards provide the origin, nature of research data, and extend the usefulness of data to science, research, and education;

- The current and future use of data allows users and the research learning communities to study, duplicate, and/or advance existing research thus creating new and/or derivative research.

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Conclusions

- 1. Scientists from research labs with a DMP and/or part of a consortium with DMP exhibited RDM Integration Perspectives (Martin, 1992).**
- 2. Scientists from research labs without a DMP exhibited RDM Differentiation and Fragmentation Perspectives (Martin, 1992).**
- 3. There are opportunities for Universities and research labs to collaborate on developing RDM & DMP education, guidelines, strategies, and policies across disciplines, domains, & projects.**
- 4. It is recommended to develop a research gateway that bridges the divide between 'big science' and 'little science' (i.e. RCUK GtR).**

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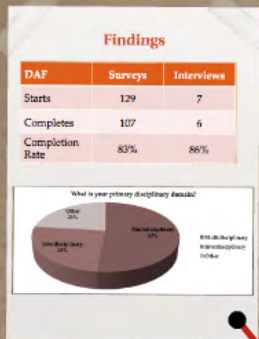
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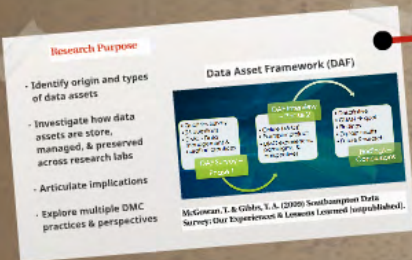
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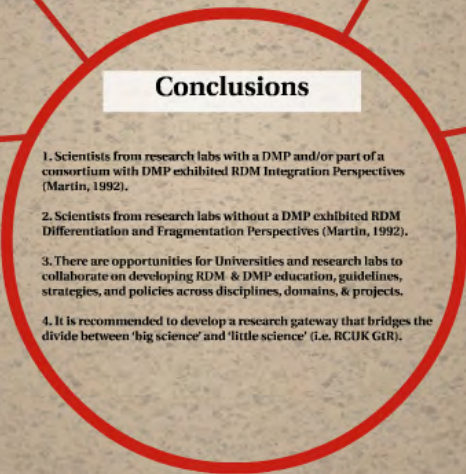
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