In Aggregate: Trends, Needs, and Opportunities from Faculty Research Data Management Surveys

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US Federal Data Management

- National Science Foundation Data
 Management Plan Requirement (2011)
- Office of Science and Technology Policy Memo (2013)
- HR 1770 / S760 OPEN Government Data Act (2017)



What are the educational needs of faculty (and staff, graduate students, undergraduates, etc) at my institution?





How many exist and are there general conclusions?





Methodology

- Searched LISTA, Google Scholar
- Reviewed reference and citation lists of identified articles
- Categorization and Coding
 - General Article Information
 - Instrument Metadata
 - Needs Assessment Audience
 - Question Types
 - Needs Assessment Results
 - Library Outcomes



Criteria

- Inclusion Criteria
 - Case Studies
 - Focused on RDM needs and behaviors of researchers
 - Single or multi-institution
 - Discipline specific or agnostic
 - Survey, focus groups, or interview methodologies
 - United States institutions
 - Published or completed manuscript prior to December 2016

- Exclusion Criteria
 - International or undefined population
 - Library RDM service implementation
 - Case studies of general library service evaluation
 - Not a conference presentation or poster only



Results

50

potential studies

35

documents

33

unique case studies



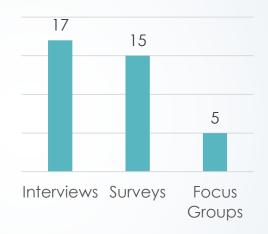
Results: Study Demographics

- Publication Dates (2007-2016)
 - Highest years of publication: 2015 (n=9); 2014 (n=4)
- Place of publication
 - 22 journals; 3 white papers; 1 unpublished manuscript
- Number of Authors (1-6)
 - Most common number of authors was 2 (n=15)
- Type of Institution
 - Highest Research, Doctoral Granting [Carnegie Classification] (n=24)
 - Public Institutions (n=25)



Results: Case Study Methodology

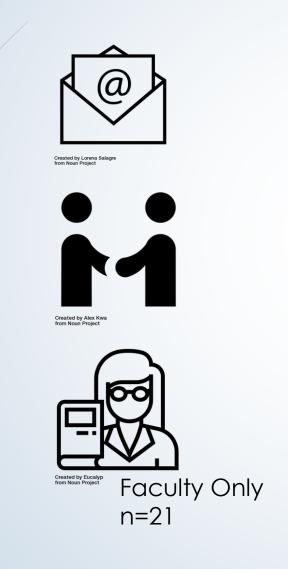
- Interviews, Surveys, and Focus Groups
- Count of Methodology Type

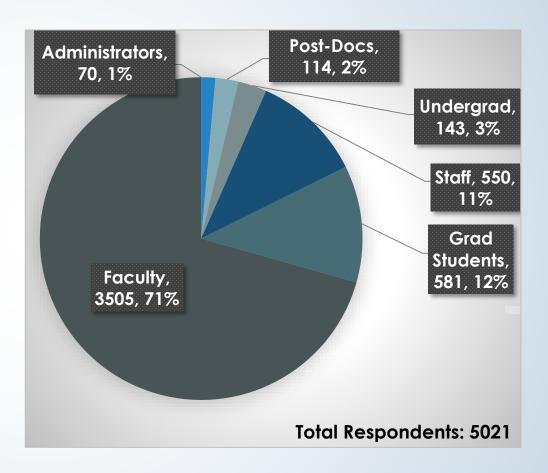


- Response Size/Rate
 - Interviews: 5-56 participants
 - Surveys: 5%-65.6% of target population
 - Focus Groups: 8-31 participants
- Instrument availability
 - ~60% were available as appendices or supplemental documents



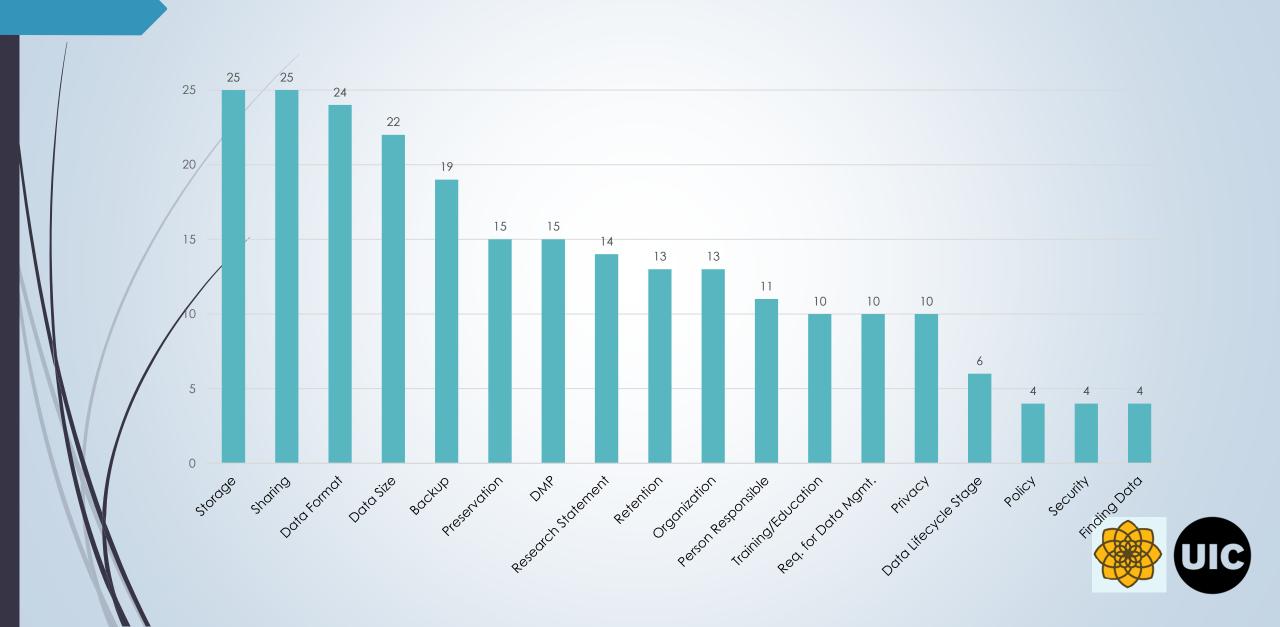
Results: Recruitment and Respondents







Questions Administered



50%

25-50%

>25%

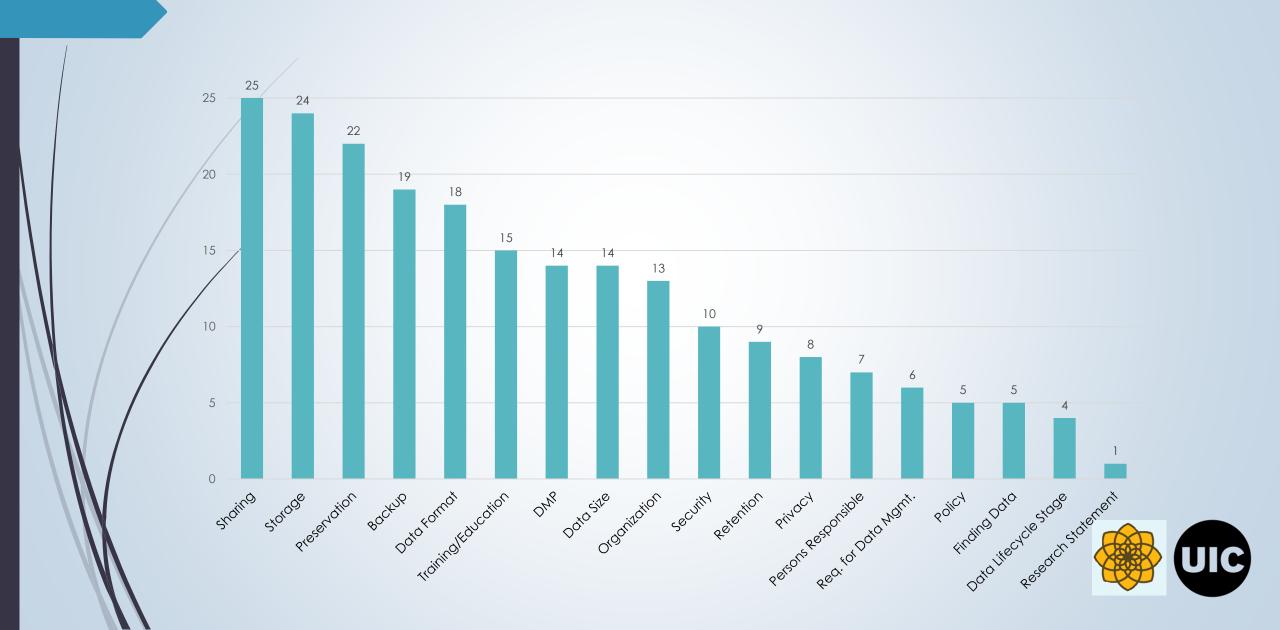
Storage; Data Sharing; Format; Data Size; Backup

Preservation; DMPs; Statement of Research; Retention; Organization; Persons Responsible for Data; Training/Education; DM Requirements; Privacy

Security; Policy; Life Cycle; Finding Data



Results Discussed





25-50%

>25%

Preservation;

Storage; Data

Sharing; Data Type;

Backup

Security; DMPs;

Retention; Organization;

Training/Education; Data

Size

Policy; Life Cycle; Finding

Data; Persons Responsible

for Data; Privacy; Statement

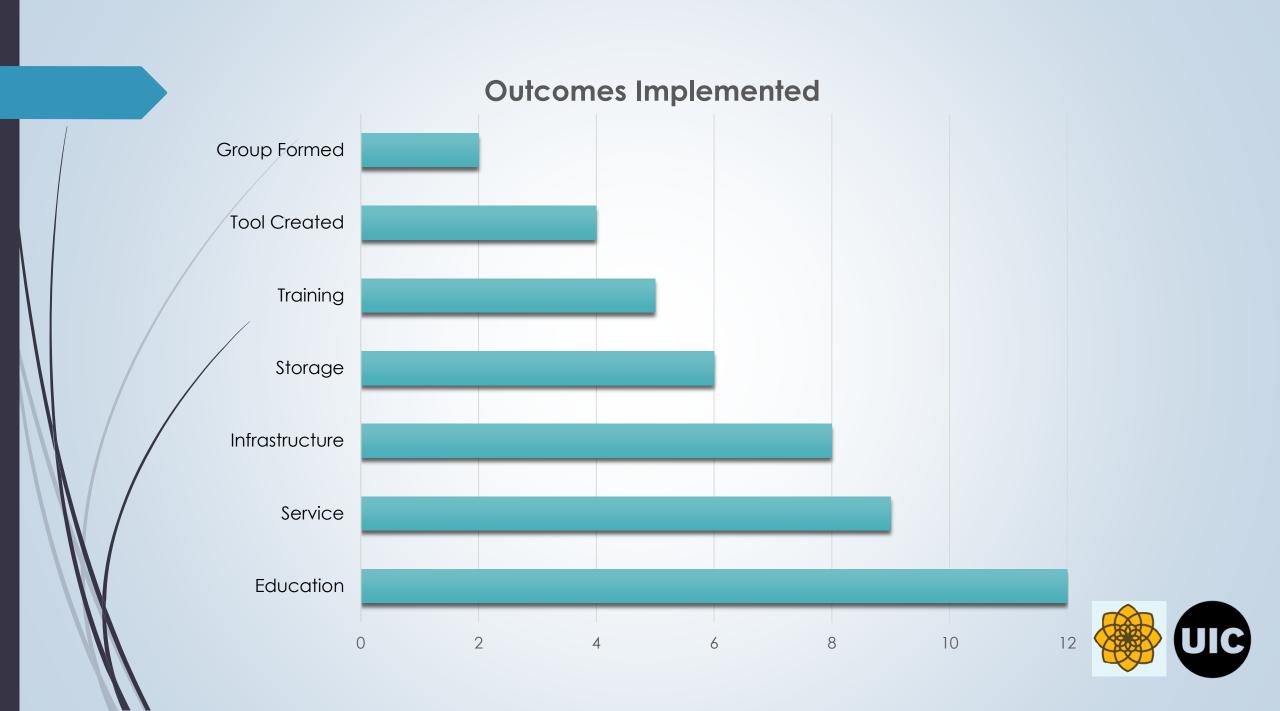
of Research; DM

Requirements









Discussion: Findings

- These needs assessments are being published by public research institutions
- The majority have an extremely low response rate
- Post-docs, staff, and undergraduates are not clearly represented
- STEM/STEM Adjacent most heavily represented

- Training and Education needs were expressed in nearly 50% of the case studies
- Sharing data is a major concern
- Both active and preservation storage are problematic



Recommendations

- Future research may be needed to address
 - Non-faculty audience (staff, students)
 - Liberal Arts; Community Colleges; Smaller Research Institutions
 - Humanities, Business, and Social Science Scholars
- Future research unlikely to be needed
 - Only faculty needs assessments
 - Highest Research, Doctoral Institutions
- Reuse available survey instruments
- Release full survey instruments, sources, and modifications



Questions?

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