

BACKGROUND

The purpose of this study is to reflect on the current state of *skills, access, and trust* relating to data re-use within the ESIP member community. This includes access to data by the community, the skills needed to perform these tasks and how users evaluate trustworthiness of resources.

It is our belief that in order to better serve users, it is important to understand what skills are needed in searching for scientific data sets. This includes research, technological and cognitive skills. Collections must be discoverable and accessible. In order to make use of a collection, users must be able to successfully search and find scientific data sets within these repositories and the resulting data must be in a format which is useable for their purposes. Finally, when accessing scientific data repositories, individuals must evaluate the trustworthiness of the collections and determine the quality of data it houses before deciding to use repository resources.

The goal of this study is to understand the view point of the community on these topics.

RESEARCH QUESTIONS

Skills:

- What skills do ESIP members find valuable when searching for data?
- Where did they learn these skills?

Access:

- What steps do ESIP members take to discover data?
- What steps do they take when they cannot get access to data they need/encounter barriers during their searches?

Trust:

- How do they determine quality and trustworthiness for a source providing data?

METHODS

Participants:

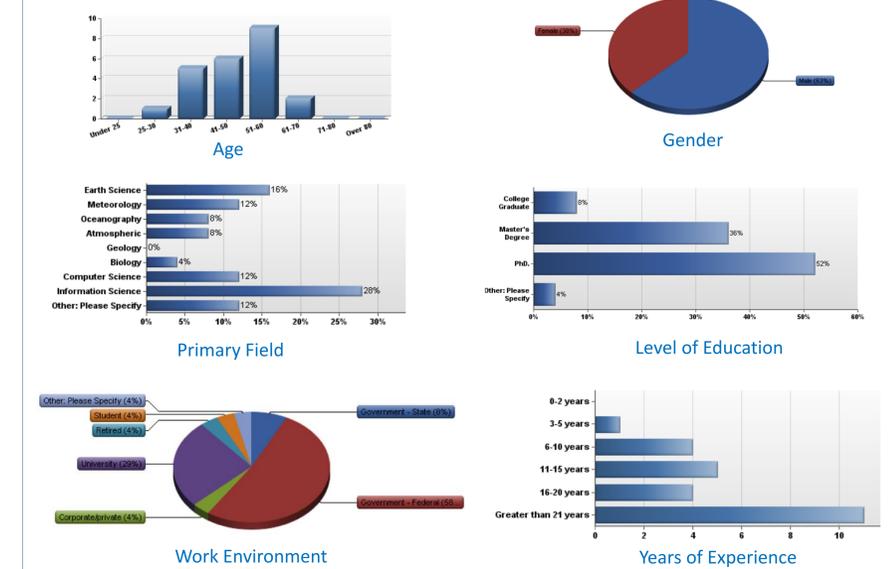
In mid-December, a questionnaire was sent to the ESIP community asking participants to recall their personal experiences with data re-use. Participants were recruited by email using the ESIP-ALL list-serve.

Procedure:

Qualtrics Survey software was used to administer the questionnaire.

DEMOGRAPHICS

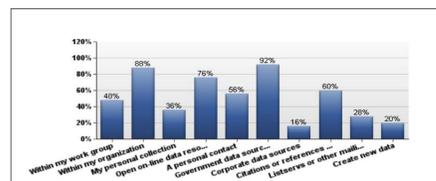
Participant Demographics *Number of participants: N=30 (5 participants do not re-use data)*



RESULTS

General Results

- 85% of participants reused data in the past 5 years
- 38% of participants indicated reuse of data was "very important"; 35% indicated "extremely important"
- 50% of participants indicated that they reuse data "often" and 19% indicated that they reused data "all the time"



Where do you look to find data sets for re-use?

Cross-tabulation Results

- 83% Male & 16% Female – were neutral about data reuse
- Quality of Metadata most important aspect in evaluating trustworthiness of data
- 100% of Oceanography and Atmospheric & 75% of Earth Science researchers indicated that reuse is "extremely important"

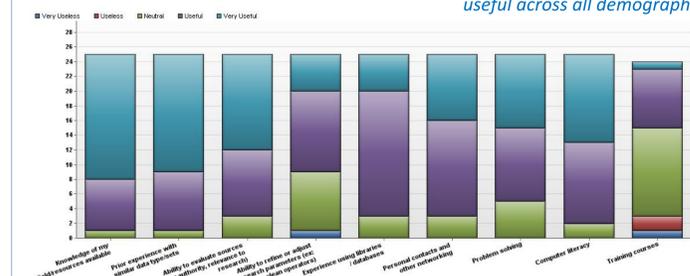
Participant Comments

- Data versioning, data citation, data re-use for educational purposes
- Useful data attributes dependent on community (semantics, format, coordinating systems, etc.)
- Quality of data can only be determined in relation to application: "One persons trash is another persons treasure"
- Documentation/Scientific validity

SKILLS

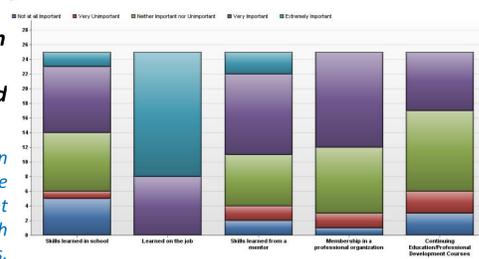
How useful are the following skills and traits in your efforts to search for data sets?

Training courses were the least useful across all demographics.



Where did you learn your skills for finding, trusting and re-use of data?

Participants found on the job training to be extremely important for learning search skills.



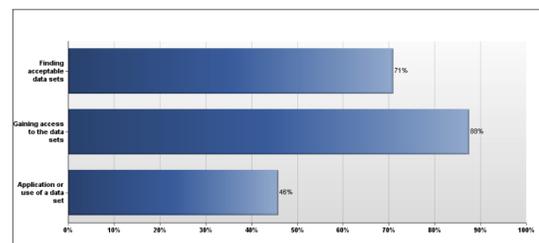
ACCESS

Have you ever encountered a barrier or other difficulty when attempting to locate data for re-use?

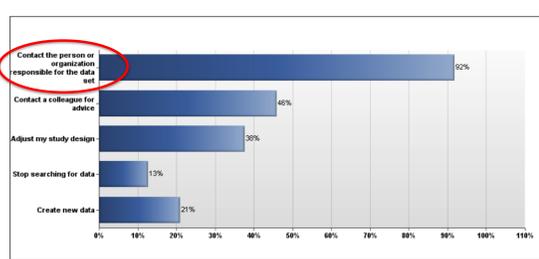
96% Yes 4% No

When you encountered [a] barrier, was it in relation to:

Poor metadata and costs were also suggested as barriers.



When you have encountered a barrier in your search process, what would you do next?



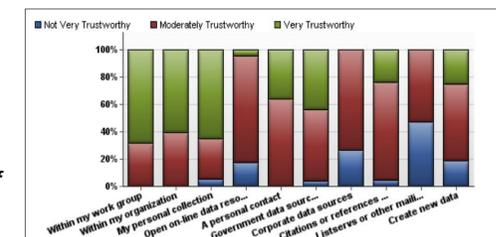
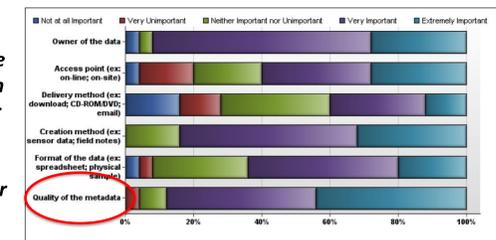
TRUST

Which characteristics are most important in determining your confidence and trust in the data you select for re-use?

[Based on the list of] locations you have searched when looking for data. Please rate the trustworthiness of these various sources.

If you generate data in your own research, do you consider how users might access or evaluate the trustworthiness of your data in the future?

84% Yes 8% No 8% I do not create data



CONCLUSIONS

The work presented on this poster are preliminary results. More analysis is required and we would like to recruit more people to complete this survey. Our long term goals include publishing the results of this study in a white paper.

Future work will involve comparisons of the survey participants to the general ESIP makeup. And will focus on key findings to better understand their impact. (E.G. Why are training courses not effect methods for learning search skills?)

Survey Link:

https://unc.qualtrics.com/SE/?SID=SV_1FyoCVG281ferKl

More information about our study:

<http://commons.esipfed.org/node/1068>