

Maximising the value of research data: developing incentives and changing cultures

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The value of sharing research data is widely recognised by the research community and funders are setting in place stronger policy requirements for researchers to share data. But the costs to researchers in sharing their data can be considerable and the incentives are sometimes few and far between. A recent report from the cross-disciplinary Expert Advisory Group on Data Access (EAGDA) highlights the need for a shift in cultures to provide greater support for researchers in sharing data and greater recognition for those who do it well. [Dave Carr](#) and [Natalie Banner](#), from the Wellcome Trust, highlight some of the key findings and recommendations emerging from this work.

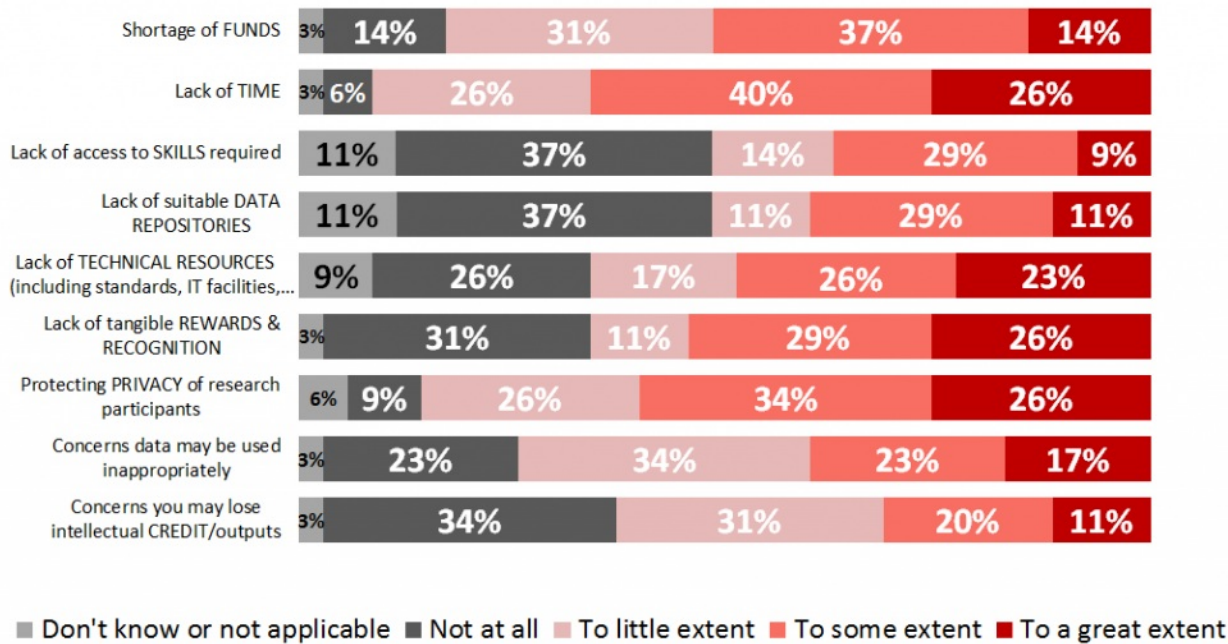


At the Wellcome Trust, we're excited about the possibilities for making research data available to others to access, combine and re-use in innovative ways – particularly across different disciplines. It was this interest that led us to establish EAGDA in partnership with the Medical Research Council, Economic and Social Research Council and Cancer Research UK in 2012 to provide strategic advice on data access issues, and to help us address the considerable challenges in putting our policies on data access into practice. In setting up EAGDA we were especially keen to learn if and how there could be crossover between the traditionally distinct research domains of biomedical science and the social sciences, in approaches to data access and sharing.

Over the last two years, EAGDA has helped to shape our thinking on how we can work with and across our research communities to facilitate wider access to the rich datasets generated by cohort and longitudinal studies, while anticipating and responding to the ethical, technical and legal issues that emerge from improving access to data. As a key initial priority, EAGDA initiated a study to better understand the factors that help and hinder researchers in sharing data and to examine whether new types of incentives were needed to foster a culture that promotes and encourages data access and sharing where possible. The work involved a web survey, in-depth interviews and focus group discussions to gauge the perspectives of a wide range of researchers and data managers at different stages of their careers, across the fields of genetics, epidemiology and the social sciences.

The results mirrored those of previous surveys in this area, in confirming that several major factors constrain researchers in sharing data. The web survey (figure 1) indicated that shortage of time and lack of funds were key barriers. It also indicated that many researchers were limited in their ability to share data by a lack of access to infrastructures and technical tools, and a lack of tangible rewards and recognition. Finally, the data highlight how protecting the privacy and confidentiality of research participants is a key concern for researchers undertaking epidemiological and social research, and that this often leads to a cautious approach to sharing.

Barriers to data sharing



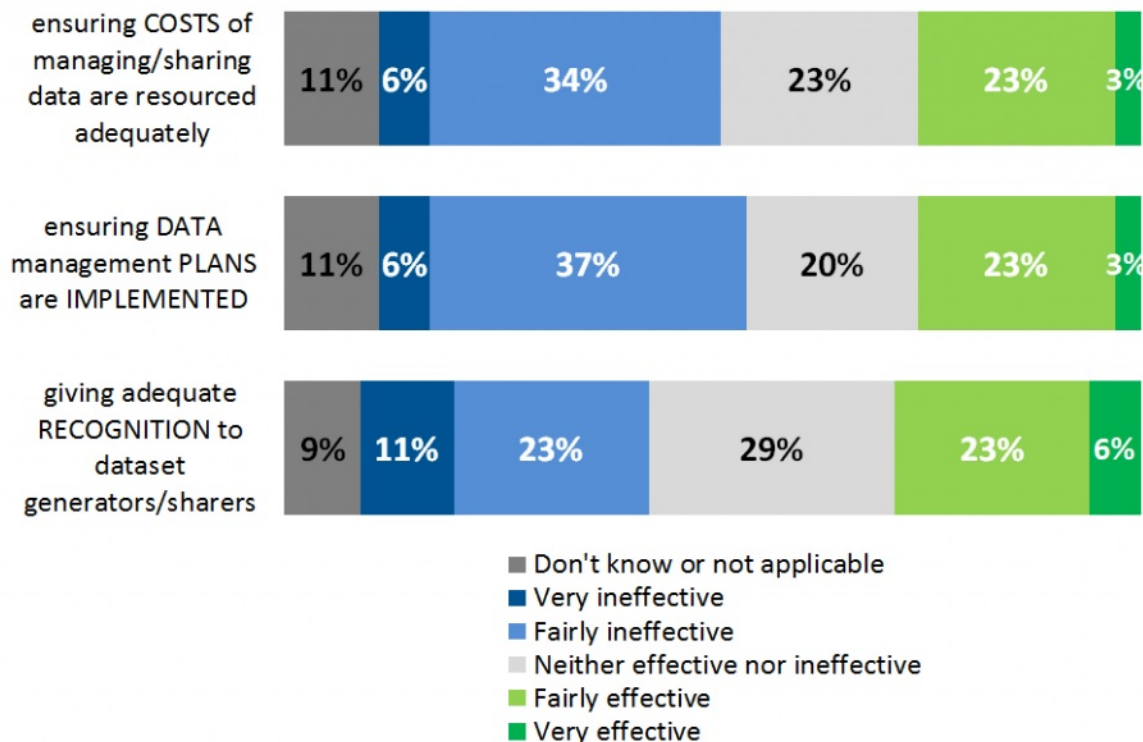
Base: All respondents n = 35

Q: Thinking of the research team/environment in which you work, to what extent do the following factors act to constrain you/your team in making datasets more widely available?

Figure 1 – barriers to data sharing. Source: ESTABLISHING INCENTIVES AND CHANGING CULTURES TO SUPPORT DATA ACCESS (May 2014)

EAGDA's report notes that there has been significant progress and investments made by funders in supporting data sharing over the past few years. Nevertheless, it is clear that as funders we need to do more. There was a strong view that the costs to researchers of sharing data are not always adequately anticipated or provisioned; that proposed approaches for data sharing are not always monitored in practice; and that there is typically very little, if any, formal recognition for data sharing in key assessment processes such as the Research Excellence Framework.

Effectiveness of funders



Base: All respondents n = 35

Q: Overall, in your experience, how effective, or not, are funding agencies in terms of supporting the following regarding their policies on data access and sharing?

Figure 2 – effectiveness of funder policies for data sharing. Source: ESTABLISHING INCENTIVES AND CHANGING CULTURES TO SUPPORT DATA ACCESS (May 2014)

In its recommendations, EAGDA calls on funders to sustainably build on their existing investments by:

- **Funding data management through the research life cycle:** through strengthening approaches for reviewing data sharing plans that funders request as part of grant applications, anticipating the costs involved, and ensuring the implementation of agreed plans is tracked post-award.
- **Recognising data sharing as valued research output:** through including data sharing as a formal criteria in funding decisions, and working with the higher education funding councils to promote data outputs for explicit inclusion as outputs in future Research Excellence Frameworks.
- **Supporting key skills and resources:** through working in partnership to create formal career paths for data managers and to develop and sustain key data repositories.

In several of these areas, the social sciences are a considerable distance ahead of the biomedical sciences. In particular, the UK Data Service provides a high quality and well-established central repository supporting researchers in the field. The existence of a single recognised central portal into which ESRC funded researchers are required to deposit their data enables the ESRC to enforce its policy requirements more effectively than the other EAGDA funders are able to do so at present. We are actively exploring how we might adapt the models which have served the social sciences so well, as well seek to build the resources needed to support better, more efficient data sharing in the biomedical sciences, and also to enable linkage of data across different research domains.

The MRC, ESRC, Cancer Research UK and the Wellcome Trust are reviewing and discussing EAGDA's

recommendations, and will publish a joint response over the coming weeks. As the report points out, stimulating the cultural change required to enable data sharing is a complex challenge, but if we are to achieve our goal of maximising the full value of data, it is a challenge we cannot afford to ignore.

We welcome any comments and feedback on the report, which is available on [EAGDA's website](#).

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Note: This article gives the views of the authors, and not the position of the Impact of Social Science blog, nor of the London School of Economics. Please review our [Comments Policy](#) if you have any concerns on posting a comment below.

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