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What does a career track for data stewards look like?

The <u>RDA Professionalising Data Stewardship Interest Group</u> (RDA PDS IG) conducted a survey as part of a programme of work to better understand the current and future perspectives of people who were/are working as Data Stewards or similar Research Data Management (RDM) roles. This is the preliminary report on the survey results.

The premise for the survey and work of the RDA PDSIG is that Research Data Management professionals, like Data Stewards, play an increasingly vital role in research practices. However, such a role has not been formally or consistently recognised as a profession in the academic system. In order to capture a wide range of participants, Data Stewards were defined in the survey as "Data Stewards aim at guaranteeing that data is appropriately treated at all stages of the research cycle (i.e., design, collection, processing, analysis, preservation, data sharing and reuse)", even though we acknowledge that the definitions of data stewardship may vary according to different research context and research settings.

About the survey

The survey was intended as a starting point for unpacking what the career trajectory of Data Stewards across different regions and organisations looks like and was designed to be complementary to other work undertaken in the RDA PDS IG.

The survey was open for 4 months from June - October 2022. We received a total of 290 responses to the survey. For the analysis we retained only those responses that:

- consented to participation,
- responded to either currently working or having worked in the past in a data stewardship role and,
- responded to at least one other question.

Based on these exclusion criteria, we retained 241 valid responses for analysis. Among the 241 retained respondents, 221 indicated that they are performing data steward activities in their current positions. The majority of the retained respondents (Figure 1) were from Europe

(69%), followed by North America (17%). This trend of primarily Euro-centric responses is something that we see echoed in other surveys (Ayres, Lehtsalu, Parton et. al. 2022).

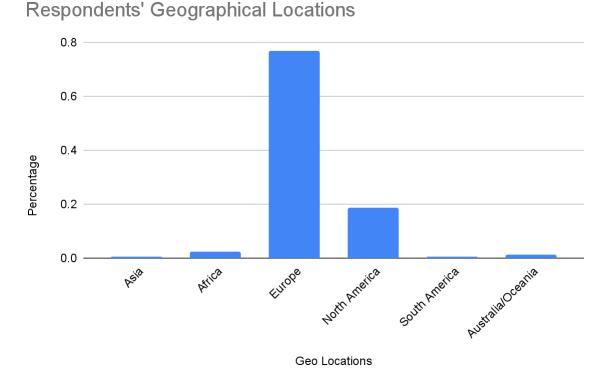


Figure 1 Respondents' Geographical Locations

Data availability statement

The survey dataset is openly available at (https://doi.org/10.5281/zenodo.10117910) under CC-By licence. We encourage community members to further analyse the results by making use of the dataset.

Survey results

We have not analysed all the survey results but have concentrated our analysis on the following 3 key questions.

What is a data steward and where do they work?

Before conducting the survey we were aware that there are many people performing data stewardship roles and activities without being identified as such in their job title (Figure 2). Whilst we can't make any definitive conclusions from this, it is worth reflecting on this point and to consider whether the lack of consistency in job titles (i.e. that professionals performing data stewardship roles do not have the title *data steward; see Figure 2*) may be a contributing factor in the recognition of the role of data stewards as a profession.



Figure 2 Job titles of respondents who currently perform data stewardship activities but do not have the job title 'data steward'. World Cloud created with wordart.com based on all responses to Q1:6 and Q1:6:TEXT.

Among the respondents from Europe, 94.6% of them are currently doing data steward related work. Among respondents from North America, 92.7% of them are currently doing data steward related work. Only 7.9% of North American respondents who are doing data steward related work and have the job title of a data steward, while in the European context this is 33%. The concept of data steward as a "job" or a profession might be more common or prevalent in Europe than in North America. Data steward as a job title does not seem to be a common practice. It might also be possible that, for instance in North America, people who are traditionally doing other data related work (e.g., data librarian) are taking up data steward related activities in their current position.

Regional Variations on Job Titles

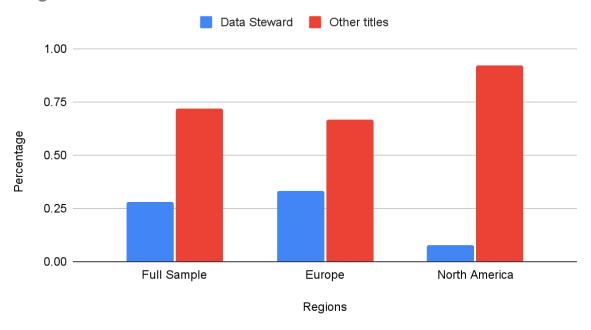


Figure 3 Regional variation on Job Titles

Regardless of the geographical differences, among all the respondents, (Figure 4) most of them are currently working in Higher Education (67.6%), followed by Public Research Organizations (21.1%).

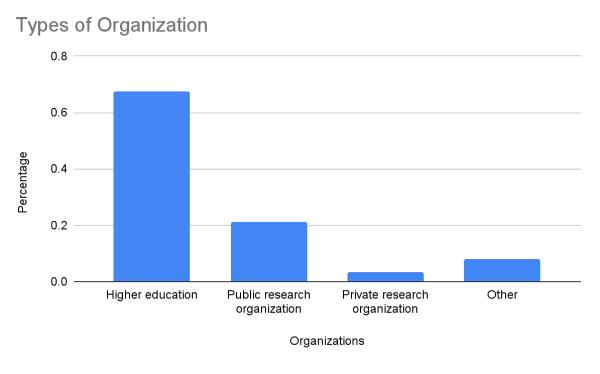


Figure 4 The types of organisations the respondents work

What are the current situations of data steward like jobs

If we want to consider the career track for data stewards we need to understand what the current situation is, the factors influencing career progression and the roles that people see themselves progressing to in the future.

On average, respondents have been in their current position (i.e., doing data steward related work) about 3.7 years, with no significant difference between European vs. North American respondents. There is a significant difference between permanent contract holders vs. fixed contract holders on their duration in their current position (Figure 5), where permanent contract holders have been in their position longer (4.28 yrs) than fixed term contract holders (1.68 yrs) on average. Unsurprisingly, permanent position holders tend to expect to stay in their current position much longer than other types of contract holders. Job stability might be an important aspect to explore further when considering data steward career tracks.

Duration in Current Position in Years for Different Contract Types

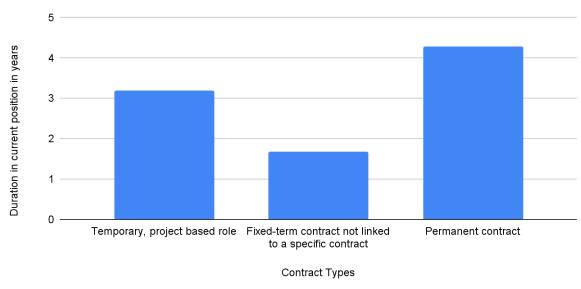


Figure 5 How long do respondents stay in current positions per contract types

The majority of our respondents (73%) have a permanent contract (Figure 6), while the percentage is slightly higher in Europe (76%) than in North America (65%). This seems a bit unexpected given the emerging role of data stewards. Meanwhile it may reflect the result of the job titles that many RDM professionals are already working under different titles/capacities.

Regional Variations on Contract Types

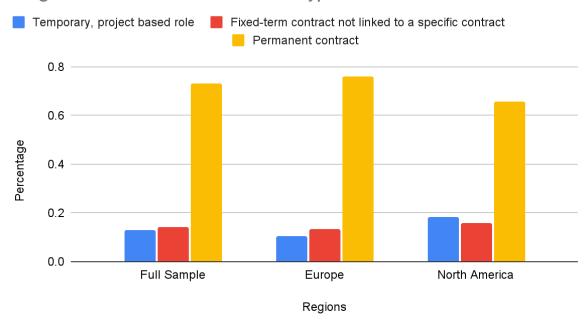


Figure 6 Regional variations on contract types

Where do people see themselves and how will their career progress?

Looking at the open-ended questions about the types of positions respondents see themselves applying for after their current positions, the following points stood out to us in our thematic analysis:

- As expected, respondents frequently expect to apply to either more **senior or managerial positions** (e.g. senior policy roles, managerial positions within RDM/Data Stewardship Services, managerial positions outside RDM/Data Stewardship Services) or to more **specialised positions** requiring content expertise (e.g. Data Librarian, Metadata Librarian, Research Data Management Librarian, Digital Preservation Specialist, Data Scientist, Data Protection Officer) after their current position. We noted with interest that the more specialised positions mentioned by respondents were often positions in established, professional fields such as librarianship or digital preservation or more recently emerged, well-defined positions in data governance.
- Many respondents also suggested that their next position may involve either a lateral move between research organisations or between a research organisation and industry or public administration organisation, or indeed saw themselves staying in the same position and expected the current role to evolve over time. Some respondents also highlighted the possibility to move between data stewardship positions and research positions, highlighting that for those respondents data stewardship is a career path parallel to an academic career path.

The above responses were in line with responses to another open-ended question about where respondents see themselves in 5-years time:

- Many respondents suggested that they see themselves moving into *managerial roles*, completing *lateral moves*, or building a *career progression for themselves*.
- We noted with interest that the geographical locations where respondents see themselves in 5 years time, if mentioned, were limited to the Netherlands, Germany, UK, and Europe at large. On the one hand, this is understandable because the majority of the respondents were from Europe. On the other hand, the specific countries mentioned are also the countries with perhaps the most professionalised data stewardship programmes.

Finally, we also noted that the above two qualitative questions received some despondent responses. Respondents expressed doubt about data stewardship being a profession and their ability to have a career within data stewardship. Even though there are only two respondents who expressed their concerns about data stewardship as a profession, it reflects the importance of the work of the groups such as the RDA PDS IG, there is still a lot that still needs to be done.

Our thematic analysis and coding is available together with the survey data (https://doi.org/10.5281/zenodo.10117910)

Suggestions for future work

On the basis of our preliminary analysis, there are still many answers needed to clarify the situation and perspective of the career track for RDM professionals.

What does this mean for data stewards career tracks and what do we still need to know?

- Do job titles matter? How do job titles influence the roles and responsibilities?
- Is the lack of standardised job titles a limiting factor for recognition and progression?
- How do job stability and contract types impact data steward career tracks, both in terms of how these positions are established within organisations and how they are perceived by the people filling these roles?
- Do people performing data stewardship functions consider data stewardship a profession?
- What actions are needed to professionalise RDM roles?

During the period of survey analysis, we have been in contact with several other initiatives on related topics, such as the EOSC Task Force on Data Stewardship Career Paths and Skills4EOSC project on Data Stewards Networks. There are ongoing conversations to join forces on these topics and we look forward to more collaborations to professionalise the research data management support in academia.