















CARDEA

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Cardea Analysis Methodology Guideline – WP2



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CARDEA MATRIX



CARDEA Analysis Methodology - Guideline

Data Summary

Within Cardea, a range of data was collected, created and maintained. These are summarised below.

- Existing data, specifically from collaboration with EARMA and the Research Administration as
 a Profession (RAAAP) Taskforce, will be used as appropriate. The EARMA data will be accessed
 through a gatekeeper in the organisation, and the RAAAP data is available from the INORMS
 website at https://inorms.net/activities/raaap-taskforce/raaap-survey-2022.
- New Data was generated as part of this project using a questionaniare (See Deliverables 1.4 and 2.1 for details).

The formats of data used by Cardea were text (txt, docx and pdf) and databases (.sat). The types were numerical (ordinal, discrete and continuous) and text responses to survey questions. Cardea collected 855 responses. See link to summary report: Cardea Report Summary FINAL Discl.pdf (ucc.ie)

The data was collected between September 2022 and January 2023 using an online Survey (hosted on UCC's Qualtrics. Where available standard, reliable and validated psychometric tools (e.g. Gallops 20 engagement) or existing demographic features (e.g. the CSO census questions) were used. The resulting data was numerical data as well as text. Composite results were derived from individual results. Our intention was not to collect personally identifiable information, but where a respondent provides such information, the data was cleaned and identifiable information removed. The data was collected *de novo* using a mixed methodology.

Purpose of additional data collection

The data collected in Cardea forms the basis for the project. The information supplied by the research managers will inform the design of the interventions that the project will deliver, including EDI, T&D, position papers and lobbying activities.

Participants who completed the questionnaire were offered the opportunity to sign up for updates on the project. Email addresses are stored separately from the research data and used only to provide an update on the findings. The data may find additional uses outside the project to inform policy making and by Research Managers themselves as benchmarking.

FAIR Data

Findable Data

A persistent identifier is associated with the collection on deposit in a trusted data repository(DRI) Please see link below. Rich metadata provided clearly indicates the origin and provenance of the shared data and enhances discovery and potential for reuse of the data. Leveraging the infrastructure of the repository discovery metadata is machine readable and indexed by relevant aggregators such as Europeana.

Key words have been developed and agreed upon across the consortium and used to aid discovery of shared output including data and publication

Please see link to DOI

Accessible Data

The anonymised dataset generated (Cardea survey data) has been deposited with the Digital Repository of Ireland (DRI) DRI supports the sharing and reuse of data. The standardised access protocol from DRI has been used, and all data is available to Open Access. No restrictions have been placed on the reuse of the data other than an attribution license (CC-BY).

Interoperable Data

The DRI metadata standard has been used to describe and identify all shared objects. In addition, a methodology playbook (including data dictionary) to include background to the study links to original literature on the development of survey instruments used, code books, details of any data cleaning and screening, analytic plan and units where appropriate has been produced. This describes the genesis of the data and offers a complete description of each subset/type/entry and has been made available to Open Access to facilitate resue.

All secondary data used during the project is clearly identified and linked to from the shared outputs using persistent identifiers where available.

All publications and reports will contain data availability statements directing readers to the underlying data using persistent identifiers. Persistent identifiers for related publications will be included in the metadata for all shared datasets.

Resuable Data

The data is publicly accessible and licensed under a Creative Commons Attribution Licence (CC-BY) in line with Cardea's ambition to adopt Open Research Policy. As with the datasets, the metadata is publicly accessible and licensed under a creative commons CC-BY licence. Every effort has been made to ensure high-quality data. Data analysis plans were prepared in advance, and standard statistical techniques were employed. Agreed systematic naming conventions were used with a published protocol for versioning. The raw data from survey responses were read only and manipulation applied to working files only. Although the survey and data are presented in English, a team of international collaborators assessed the readability for participants with English as a second language.

Data will be available for reuse on publication of the primary findings or within 12 months of the end of the project.

Allocation of resources

Project resources (staff time) were dedicated to preparing and implementing the topics in the data management plan for Cardea. The UCC team (as leaders of work package 1) assumed reposnsibility for updating and implementing the DMP approach. The required software (Qualitrics, SPSS, Excel, MSTeam) are available through UCC.

Data Security

The UCC ICT system will continue to be used to safeguard the Cardea Survey data against unauthorised access and use duing the active researchphase. MSTEAMS and the MS cloud are used and raw data is password protected.

All partners in the consortium have access to the raw data.

Legal and ethics

Ethical approval for the data collection has been provided by the Social Research Ethics Committee at University College Cork. (application Log 2022-149 entitled "Understanding Research Managers roles, careers and professional contexts.") All research will be conducted in line with the GDPR and the UCC Code of Research Conduct.

Data Results

In total, N = 855 partial responses were received. However, the completion rate was low, with only 45% of respondents completing the entire survey. This is possibly a consequence of the length of the survey which ran to 416 unique questions or sub-questions. Fully completed responses to all 11

sections of the survey were n = 389, and n = 456 completed at least nine of the sections. The final sections of the survey involved a detailed description of skills and training opportunities and was time-consuming to complete. However, the number of responses gives confidence in the results produced. The average time, inminutes, spent on the survey portal was m = 33.4, SD = 1479.0. Excluding those responses that took less than 10 minutes or more than 60 minutes the average response time was m = 33.5 minutes, SD = 13.9.

The survey adopted a mixed methods approach with a series of quantitative choices responses required, supplemented by free text areas to elaborate on these choices. This repot details the inferential and descriptive statistics from these responses. The survey was hosted in Qualtrics, data was downloaded to Excel where it was screened and cleaned and calculations were performed in SPSS V28. Qualitative analysis of text-based responses was completed using NVIVO. Unless otherwise states, missing values were removed listwise from the calculations. CI of 95% were used throughout. Participants responded to a range of demographic questions. These questions are included in the Deliverables 1.4 and 2.1

Link to CARDEA Raw Data https://zenodo.org/record/7882908#.ZHWt1HbMK71
Link to CARDEA Survey Report Cardea Report Summary FINAL Discl.pdf (ucc.ie)