GEAM Analysis Handbook

INSPIRE Project

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Abstract

This manual aims to guide the statistical analysis of data generated by the GEAM questionnaire. It seeks to inspire and guide survey users in conducting statistical analysis beyond the basic descriptive.

It is aimed at members of gender equality working groups (practitioners, gender specialists, administrative staff) who have collected data with GEAM in their organisation, but are unsure how to analyse it in more detail.

Each chapter is a collaboration between equality practitioners and statisticians, allowing examples from different contexts to be included. It also provides a combination of R code, results, and their interpretation for practical use.

Preface

This manual aims to guide the statistical analysis of data generated by the Gender Equality Audit and Monitoring (GEAM) survey. It seeks to inspire and empower users to perform statistical analyses beyond basic descriptive statistics, delving deeper into the underlying dynamics of the collected data.

It is intended for members of gender equality working groups, including professionals, gender specialists, administrative staff, and other stakeholders who have collected data using GEAM in their organisations but are uncertain about how to analyse it in greater depth.

Each chapter represents a collaboration between gender equality professionals and statisticians, enabling the inclusion of examples from various types of organisations and contexts. Furthermore, it provides a practical combination of R code, derived results, and their interpretation, facilitating the applicability of the content.

The statistical analyses presented in this manual encompass methodologies ranging from univariate and bivariate analyses to describe general patterns, to more advanced techniques such as multivariate analysis, logistic and linear regressions, hypothesis testing, and others. Modern data visualisation tools are also covered, enabling results to be represented in a clear and accessible manner. All of this aims to equip users with analytical skills to extract meaningful and evidence-based conclusions, essential for implementing policies and actions to promote gender equality.

The development of GEAM began during the ACT project Communities of PrACTice for Accelerating Gender Equality and Institutional Change in Research and Innovation across Europe (2018–2021).Subsequently, as part of the INSPIRE project Building Europe's Centre of Excellence on Inclusive Gender Equality in R&I, GEAM has adapted to better address the needs of academics, administrative staff, and university students across various organisations.

In this manual, users will find not only a technical resource but also a starting point for fostering an organisational culture rooted in gender equality through informed analysis and evidence-based decision-making.

1 Introduction

This handbook aims to guide in the GEAM statistical analysis including the executable code in R.

See Knuth (1984) for additional discussion of literate programming.

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1 + 1
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[1] 2
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2 Characterising respondents

In summary, this book has no content whatsoever.

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1 + 1
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[1] 2
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3 Detecting gender gaps

This is a book created from markdown and executable code.

4 Intersectional, outcome-oriented analysis

This is a book created from markdown and executable code.

5 Comparing progress in time

This is a book created from markdown and executable code.

6 Comparing organisations

This is a book created from markdown and executable code.

7 Using data for GEP design or revision

This is a book created from markdown and executable code.

References

Knuth, Donald E. 1984. "Literate Programming." *Comput. J.* 27 (2): 97–111. https://doi.org/10.1093/comjnl/27.2.97.