



Analysing Survey Data Made Simple (ASDMS)

Chapter 1

Introduction to Data Analysis

What is Data Analysis?

Why Analyse Data?

Steps Involved in Data Analysis

Types of Data

Types of Quantitative and Qualitative Variables.

Analytical Techniques

Chapter 2

Analytical Techniques

Univariate (one-variable) and Bivariate (two-variable) techniques

Frequency Distributions

- Tables
- Graphs

Scatter Plots

Population Distributions

- Normal Distribution
- Skewness

Measures of Location

- Mean
- Median
- Mode
- Quantiles
 - Quartiles
 - Deciles

Measures of Variation

- Range
- Inter-quartile Range
- Standard Deviation
- Variance
- Coefficient of variation
- Covariance
- Correlation

Chapter 3

Survey Sampling

Concepts and Definitions

Weighting

Analysing Weighted Data

- Estimating the Total
- Estimating the Mean
- Standard Error
- Relative Standard Error
- Non-Sampling Error
- Estimating the Median
- Frequency Distribution
- Two-way tables

Chapter 4

Derived Estimates

Difference or Movement

- RSE% and SE of an Estimate of Difference or Movement Ratios
- RSE% and SEs the Numerator is a subset of the Denominator
- RSE% and SEs the Numerator is not a subset of the Denominator

Chapter 5

Confidence Intervals

Central Limit Theorem

Confidence Intervals

- Confidence Intervals for Differences and Ratios

Significance Testing

Appendices

1. Glossary
2. Individual Project
3. Answers to Exercises
4. Answers to Individual Project
5. Statistical computing in Microsoft Excel
6. How to create random numbers in Microsoft Excel