

# Assessment 7 (Project): Data analysis report

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## Assessment 7 (project) instructions

### Type

Report

### Weight

40% = 1,000 words equivalent (not including graphics, computer code and output).

### Due

Monday, 23:00 AEDT (Sydney time), Week 7

### Expected time

Allow approximately 20-25 hours to complete this assessment

### What you need

The R statistical software suite and the needed packages will be provided on the Ed site or freely downloaded from CRAN.

Topics covered and activities performed in weeks 1 - 6 will be helpful in attempting the assessment.

### Instructions

**Task:** This is an individual assignment to be completed progressively and submitted by Monday of Week 7. Apply your knowledge and skills to various data analysis problems.

You will be provided with one or more datasets and a number of substantive research questions associated with each dataset. For **each** of the datasets, your submission will comprise two parts:

**Part 1:** Select the appropriate statistical techniques (particularly those covered in this course) to answer the research questions and carry out the analysis in R, including verification of the assumptions and requirements of the techniques.

**Part 2:** Write a concise report summarising your analysis and providing the answers to the substantive questions based on your analysis, aimed at a non-specialist audience.

## Presentation style/format

**Part 1:** The submission must be an [R notebook \(an HTML file incorporating R commands and their output, also having the original R Markdown file embedded in it\)](#). It should be possible to reproduce your analysis computations by running the R Markdown file.

The textual annotations around the commands and the output must provide justification for why a particular function, transformation, or other statistical technique was used. Similarly, output must be annotated with the conclusions drawn from it.

There is no limit on the length of this part, but extraneous code, output, and annotations will be penalised.

**Part 2:** Your report should be between 500 and 1,000 words per dataset (word count need not be strictly followed).

Your report should be rendered into a machine-readable PDF. You may compose it in MS Word, LaTeX, R markdown, or another tool of your choice. It should be written using correct spelling, grammar, and punctuation. You may use subsections as needed.

Quantitative information should be well-formatted, clearly described, and appropriately communicated (e.g., using figures and tables that are appropriately labelled, and not pasting computer output directly).

## How to submit

All parts for all questions must be submitted via Turnitin on the Assessment submission page in Moodle.

## Marking and feedback

Feedback and results will be provided to you one week after you submit your assessment via Turnitin.