Singapore Society in Numbers

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Contents

Preface

This online book is a compilation of resources aimed at advancing quantitative social science in Singapore. It is meant to be a 'living document', so it will be updated as frequently as possible. The main goal is to promote interest, rigour, and transparency in trying to understand Singapore society quantitatively. It does so by:

1. **Providing information on Singapore-relevant datasets** that are currently used to answer research and policy questions (Chapter 1 and Chapter 2). This includes:
    - Descriptions of *publicly available* datasets and how to access them. This overview of the 'data landscape' will be helpful for social scientists to get started with research on Singapore, and prevent wasteful overlap in primary data collection across institutions.
    - A list of *restricted* or *non-publicly available* datasets that could be used to answer important research or policy questions if access was granted. If available, details on the dataset and reasons for data restriction will also be listed. It is hoped that this list will promote greater transparency in data sharing across research teams.
2. **Maintaining a repository of replicable case studies on Singapore society** (with annotated code, where possible) which can be used for illustrations in any quantitatively oriented college-level class (Chapter 3 to Chapter 7). These may be short summaries (blog-length) of published work, or side analyses that may not be appropriate for an academic journal but are useful for Singapore social science nonetheless.
3. **Occasional think pieces by researchers** on best practices and on how to improve quantitative social science in Singapore (Chapter 8).

Why I started this project

Quantitative research is not (and should not be) the only approach we take to understanding Singapore society, but constant appeals to "big data"[1] or claims of "evidence-based policy"[2] makes it ever more important for members of the public to **critically evaluate the use of numbers** in making arguments or in representations of social phenomena.

Educational institutions have an important role to play in this "data-driven" world. Every year, undergraduates studying the social sciences in our local universities take several courses in research methods to fulfil the requirements of their degrees. Part of this research methods sequence typically involves training in introductory statistics or "quantitative reasoning". Quantitative courses in social science departments differ from those taught in the natural sciences because they are thought to be more applied - the focus is on the use of statistical methods to answer questions about society. Understanding and applying these methods *to the Singapore context* is crucial here - at this point, students learn about (and hopefully are inspired by) the kind of questions they can ask about the very society they live in, given the quantitative tools they are learning.

[1] See, for instance, https://www.todayonline.com/singapore/business-big-data-singapore-has-built-cutting-edge

[2] Government agencies such as the Ministry of Social and Family Development often use such a phrase.

However, my first exposure to statistics as an undergraduate reading Sociology at NUS[3] was to textbooks containing examples only from Western societies (e.g., Agresti and Finlay, 2009; Treiman, 2009). While the use of these internationally-recognized textbooks may provide some assurance of quality education, sole reliance on foreign material often becomes a missed opportunity to inspire students to build on and improve Singapore social science. Without contextualization[4], abstract statistical concepts (e.g., hypotheses testing, chi-squared tests) seem removed from everyday experience, and impede the ability to take these important concepts beyond the classroom and into public dialogue.

I started this book with the view to use it primarily *as a teaching tool*[5], but it can be used in many other ways. It is hoped that in the long term, resources in this book will encourage quantitative literacy and research in Singapore by making it easier for interested parties to browse and use with Singapore-relevant data. Social science researchers may use the dataset listings as a springboard for collaboration, or present their own interesting case studies for the benefit of the Singapore public. Others (such as journalists, civil servants, or non-profit organizations) may find value in these material as a gateway to quantitative research on Singapore society, and how to think about pertinent issues surrounding such work.

How to contribute

Instructions on how to list a dataset, contribute a case study, or write a think piece for this page.

Acknowledgements

This book is being written through the **bookdown** package (Xie, 2019), which was built on top of R Markdown and **knitr** (Xie, 2015).

About me

Little write-up about myself

Contributors

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[4]Notwithstanding the terribly unhelpful stereotype of social science students being "good at writing but bad at numbers".

[5]For instance, the public repository of Singapore-oriented examples and illustrations may be used to supplement courses based on textbooks written by international scholars.

Part I

Datasets for Social Science

Chapter 1

Public Data

List of public data

Chapter 2

Restricted Data

List of restricted data

Part II

Case Studies

Chapter 3

Race

This is a section on race

3.1 Witty title for Case 1

This is an example of in-line code annotation and output.

```
par(mar = c(4, 4, .1, .1))
plot(pressure, type = 'b', pch = 19)
```

Figures can be referenced, e.g., see Figure 3.1. Similarly, you can reference tables generated from `knitr::kable()`, e.g., see Table 3.1.

```
knitr::kable(
  head(iris, 20), caption = 'Here is a nice table!',
  booktabs = TRUE
)
```

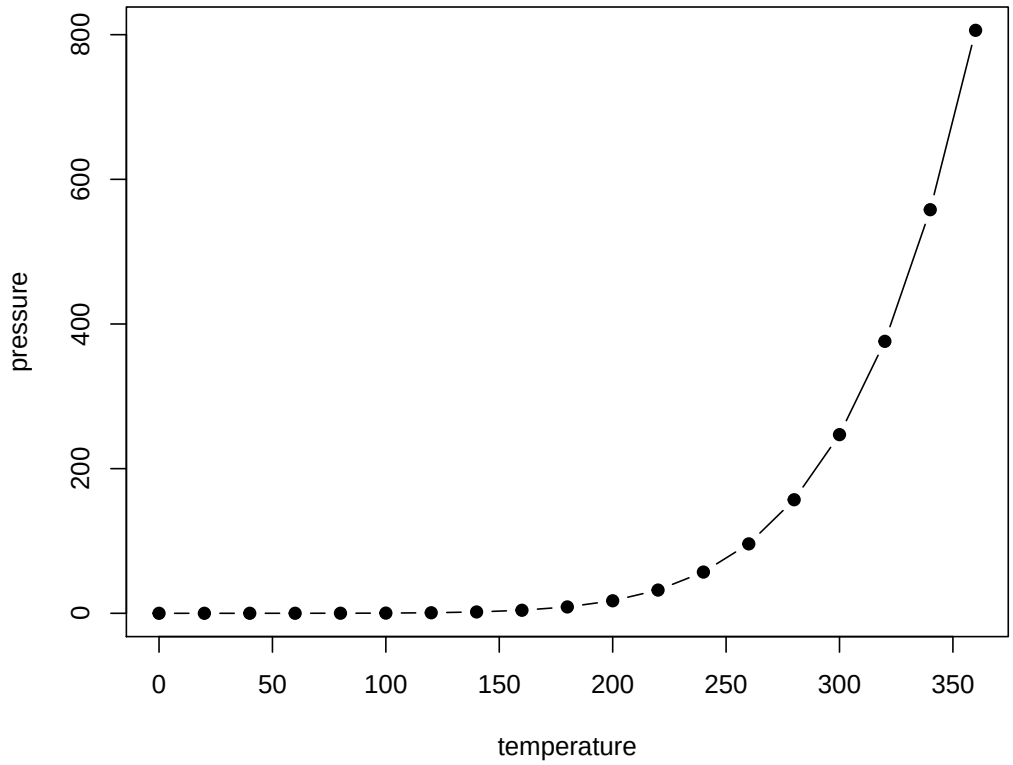

Figure 3.1: Here is a nice figure!

Table 3.1: Here is a nice table!

Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species
5.1	3.5	1.4	0.2	setosa
4.9	3.0	1.4	0.2	setosa
4.7	3.2	1.3	0.2	setosa
4.6	3.1	1.5	0.2	setosa
5.0	3.6	1.4	0.2	setosa
5.4	3.9	1.7	0.4	setosa
4.6	3.4	1.4	0.3	setosa
5.0	3.4	1.5	0.2	setosa
4.4	2.9	1.4	0.2	setosa
4.9	3.1	1.5	0.1	setosa
5.4	3.7	1.5	0.2	setosa
4.8	3.4	1.6	0.2	setosa
4.8	3.0	1.4	0.1	setosa
4.3	3.0	1.1	0.1	setosa
5.8	4.0	1.2	0.2	setosa
5.7	4.4	1.5	0.4	setosa
5.4	3.9	1.3	0.4	setosa
5.1	3.5	1.4	0.3	setosa
5.7	3.8	1.7	0.3	setosa
5.1	3.8	1.5	0.3	setosa

Chapter 4

Gender

Gender sections

4.1 Example one

4.2 Example two

Chapter 5

Class / SES

Class section.

5.1 Example one

5.2 Example two

Chapter 6

Religion

Religion section

6.1 Example 1

Chapter 7

Life Course

Life course sections

Part III

Think Pieces

Chapter 8

Thinking about Numbers

Think pieces section

8.1 Think piece 1

Bibliography

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