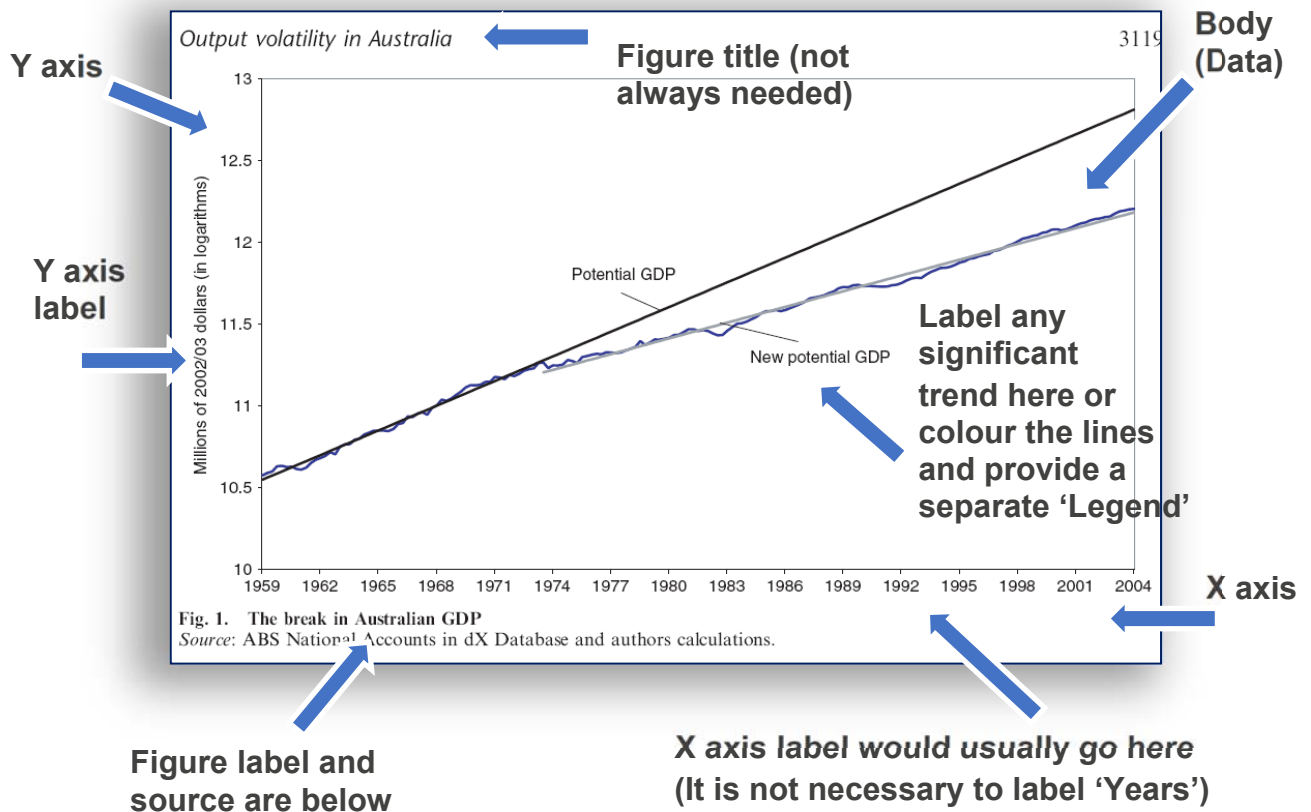# Figures and Tables

Using data to back up the points you make in your assignments is a good idea at university. Data is evidence that can support your argument. But what is the best way to present such information?

There are two main ways: Figures and Tables.

Figures

Figures can be diagrams of various kinds, e.g., drawings, logos or cartoons. They can also be graphs or charts. For example, see the line graph below.

- It is critical that you refer to the figure in the body of your report or essay: 'See Figure 1 below for the break in Australian GDP'. Never place a figure in your assignment and leave the reader without a lead-in phrase or directional "hook". Place this directional hook as near as possible in the text to the table being identified.
- It is important to identify the names of axes. Describe what is going on in the figures, for example, 'Potential GDP diverges from New potential GDP at a log of $11.3m in 1974, see Y axis in Fig. 1'. Never use a figure without describing the significant findings in the text of your report or essay.
- It is also important to cite any sources used when recording data. If multiple sources are used and a graph or chart is composed from disparate sources, write 'Adapted from Jones (1999), Smith (2002), Harrison (2010)'.
- Figures are often given a 'Figure title' but this is not done in some subjects (check with your lecturer to establish the convention appropriate to your discipline). Figures are always given a label below the figure, with 'Figure' often abbreviated as 'Fig.'.
- There are many kinds of graphs/charts: plot, scatter, histogram, pie, area, radar, etc. Choose the one that best represents the data you have.

Y axis

Y axis label

Output volatility in Australia

Figure title (not always needed)

Body (Data)

Potential GDP

New potential GDP

Label any significant trend here or colour the lines and provide a separate 'Legend'

Millions of 2002/03 dollars (in logarithms)

X axis

Fig. 1. The break in Australian GDP
Source: ABS National Accounts in dX Database and authors calculations.

Figure label and source are below

X axis label would usually go here (It is not necessary to label 'Years')

Tables

Tables are treated in a similar way to figures, with the following differences:

- Tables are labelled at the top of the table; figures are labelled below the figure.
- If appropriate, tables are given explanatory notes in footnotes. If there is more than one explanatory note, the footnotes can be numbered. Footnotes are prefaced with the word: 'Note' or 'Notes'.
- Headings are provided for data in columns; demarcation lines also need to be drawn to separate the lines of data (however, avoid unnecessary lines that might clutter the data).
- In general, figures (charts/graphs) are used to demonstrate a trend; tables, by contrast, are used to show precise data.
- Provide data to an appropriate decimal place, do not provide more detail than necessary.
- The word 'Table' is never abbreviated; however the word 'Figure' often is ('Fig.').

Table title →

Column titles or headings →

Body (Data) →

Source and explanatory footnote →

Demarcation lines

Table 1. Rate of female entrepreneurship in Sydney SMEs by selected birthplace, 2001.

Birthplace	Employer	Employer (%)	Own account worker	Own account worker (%)	Rate of entrepreneurship (%)[a]
Australia	19,928	3.7	29,224	5.5	9.2
English-speaking countries total	23,471	3.8	35,374	5.7	9.5
Non-English-speaking countries total	9834	5.3	12,645	6.8	12.1
Selected 10 Asian countries					
Laos	58	4.5	64	5	9.5
Thailand	185	7.6	130	5.4	13
Vietnam	750	6.2	825	6.8	13
Indonesia	154	3.3	186	4	7.3
Malaysia	247	4	274	4.4	8.4
Philippines	163	1	359	2.1	3.1
Singapore	99	4.7	116	5.5	10.2
China	1252	7.5	1655	9.9	17.4
Hong Kong	450	5.3	422	4.9	10.2
Taiwan	107	7.7	109	7.8	15.5
Total selected 10 Asian countries	3465	5.2	4140	5.6	10.8

Source: Unpublished census data, Australian population and housing census 2001.
Note: [a]% employers plus % own account workers.

Finally

- Consider whether a figure or table is necessary. Often a simple description in words in the body of your assignment is adequate. Use tables and figures to add something important, and when a lot of information needs to be condensed.
- If you use many tables and figures (e.g., in a major report, or a doctoral or masters' thesis), it is customary to provide a 'List of Tables and Figures' on a separate page at the beginning of the document. Separate the tables from the figures, and list them sequentially:
  Table 1: Title…
  Table 2: Title … etc., with corresponding page numbers.

  Follow these with:
  Figure 1: Title …
  Figure 2: Title …
  Figure 3: Title … and so on, again with a corresponding page number.

  This allows readers to easily find the relevant information.