## **Tutorial and Laboratories**

## Week 9

The *objectives* of this tutorial and lab is to practise on reading CSV files and put them in tidy format so we can perform analysis on these data.

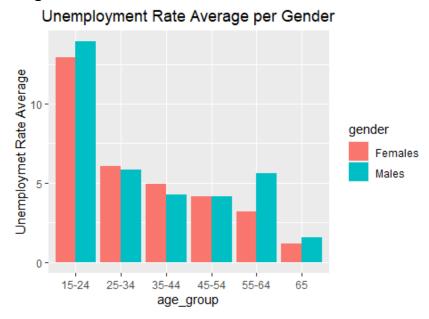
## **Exercise 1**

in this exercise we will practice on how to read data from different files and put them into a tidy format, so we facilitate the analysis or visualization based on these data.

- 1- Download the following two files:
  - a. Females data file
  - b. Males data file

Please note that these two files represent the unemployment rate of different age groups in Australia, which are recorded for males and females between 1978 and 2017.

- 2- load the data files into separate data frames
- 3- Tide the data for each file separately, so you will be able to visualize the relationship between the unemployment rates for both the males and females across the different age groups. The output graph should be like the following one:



Steps to tide-up the data could be as follows:

- a. Fix the problems with the year and month data for some rows
- b. Change the year format to a complete year format (e.g. 2001, ...)
- c. Turn the data from wide to long

d. separate the age group column to reflect gender and groups of age

## Assignment-1:

Please use the remaining time to work on assignment 1 and raise your questions to the tutors.