

PTT Analysis of Entrance Exam Scores in Taiwan

Christine P. Chai

July 19, 2019

I just started the template.

Executive Summary

Write something here

Introduction

I am curious about the relationship between the high school entrance exam score percentiles and the college entrance scores in Taiwan. It seems obvious that a greater percentage of students from top high schools get admitted to prestigious universities¹.

However, the high school entrance exam is much easier than the college entrance exam, so some people studied little in middle school and was able to get into a good high school. Then some of these people kept studying little and ended up with a bad score on the college entrance exam. On the other hand, I have also seen some students from mediocre high schools worked very hard during the three years, and eventually earned a stellar score in the college exam.

Therefore, I decided to gather data and create my own analysis.

Data Collection

It is a challenge to obtain individual pairs of data as a representative sample. Although it is easy to send out a spreadsheet and ask my friends to report their scores anonymously, this approach can result in a large selection bias. Many of my friends graduated from the same high school or college as I did, so we are likely to have similar entrance exam scores.

Hence I retrieved data from the SENIORHIGH (high school)² discussion section on PTT³, the largest terminal-based bulletin board in Taiwan. I assume the data to be more representative (than if I had collected on my own) because anyone can get a PTT account and reply to the post. The majority of scores were reported in May 2015, and a few scores were reported in the following month or later.

Unfinished below

Background

In Taiwan, the high school entrance exam score percentiles are between 1% and 99%, and people often refer to the percentile rank (PR value) as from 1 to 99. This scoring system existed from 2001 to 2013⁴. The actual exam score ranges were different; for example, the maximum possible score was 300 in Year 2004, but it was increased to 312 in Year 2006. Therefore, the percentile ranks (PR values) serves as a normalized tool to compare academic achievements across different years.

College entrance scores (Spring and Summer?)

¹<https://bit.ly/2JSPXKc>

²<https://www.ptt.cc/bbs/SENIORHIGH/M.1432729401.A.995.html>

³If you have a PTT account, you can log into the website using a browser. <https://iamchucky.github.io/PttChrome/?site=ptt.cc>

⁴<https://bit.ly/2JNQaOI>

R Markdown

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see <http://rmarkdown.rstudio.com>.

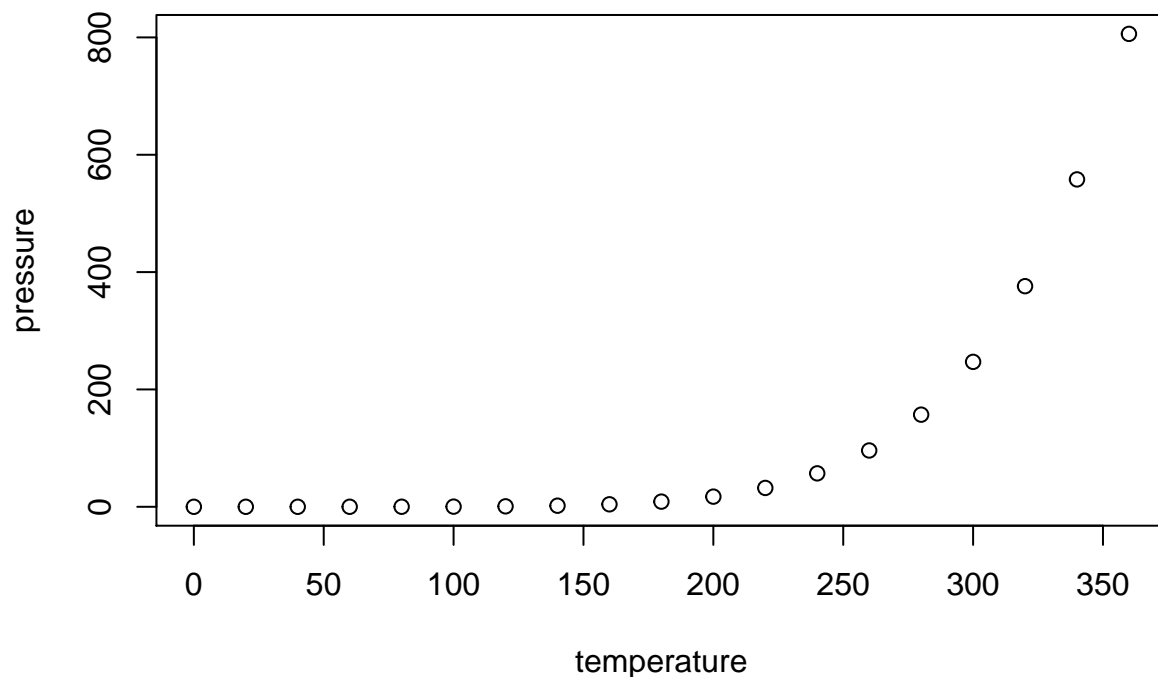
When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

```
summary(cars)
```

```
##      speed      dist
##  Min.   : 4.0    Min.    : 2.00
##  1st Qu.:12.0    1st Qu.: 26.00
##  Median :15.0    Median : 36.00
##  Mean   :15.4    Mean     : 42.98
##  3rd Qu.:19.0    3rd Qu.: 56.00
##  Max.   :25.0    Max.     :120.00
```

Including Plots

You can also embed plots, for example:



Note that the `echo = FALSE` parameter was added to the code chunk to prevent printing of the R code that generated the plot.