

Midterm Project: Exploration on Hong Kong People's Values and Belief

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Introduction

As everyone knows, the 2019 Hong Kong protests lead Hong Kong and China into a severe situation. Clashes between police and activists have become increasingly violent. There are identity problems between protesters and officers. I concern about the situation very much and this project aims to explore Hong Kong people's values and belief and hope to find out some potential factors that lead to the conflicts.

Data Description

The dataset is World Values Survey data of Hong Kong from 2010 to 2014. The data are results from a survey with 114 questions. Overall, the data collected was based on a scale system. (For example some questions were answered on a 1-10 scale of satisfactory with 1.completely not satisfied and 10.completely satisfied.) The dataset contains 430 total columns and 1000 observations.

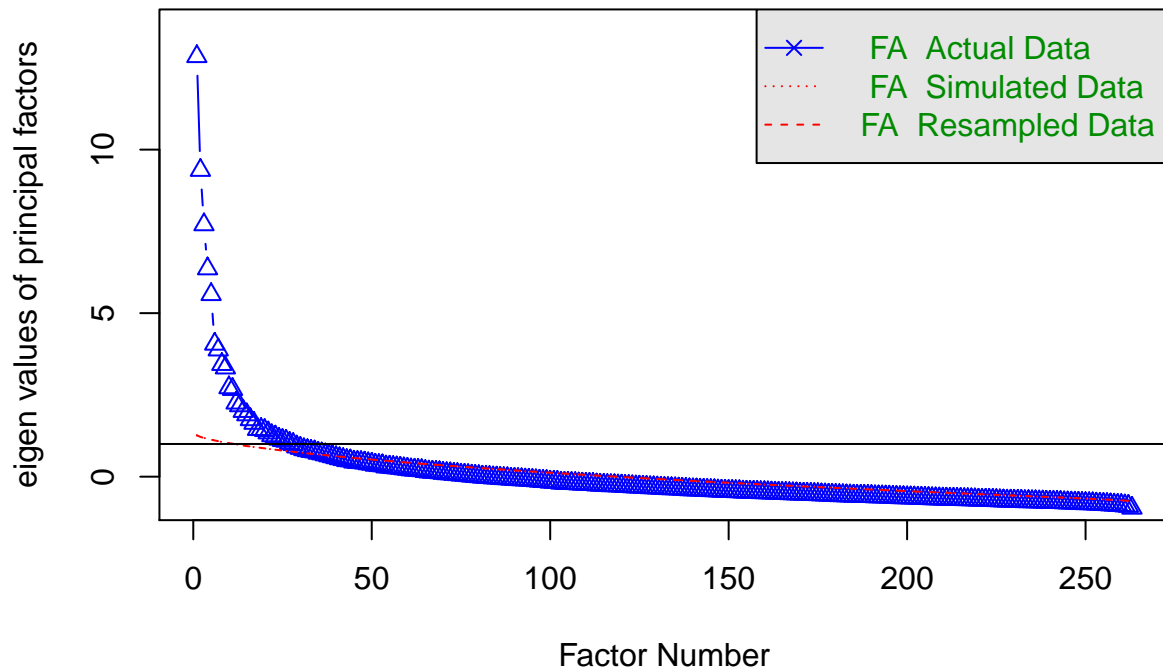
Data Cleaning

Prior to any analysis, the data was cleaned by fixing weird value: deleting columns that only has -2 and -4 value. It is because when a column only has -2 and -4 value it means no one of the 1000 observations answered the question.

Exploratory Factor Analysis

Since there are 430 variables, it is impossible to analyze all of them. To solve the problem, I did factor analysis. And the result shows that the 430 variables could be classified into 28 categories.

Parallel Analysis Scree Plots



```
## Parallel analysis suggests that the number of factors = 37 and the number of components = NA
## Warning in GPFoblq(L, Tmat = Tmat, normalize = normalize, eps = eps, maxit
## = maxit, : convergence not obtained in GPFoblq. 1000 iterations used.
## [1] 0.02358716
## [1] 0.7364923
##      RMSEA      lower      upper confidence
## 0.02890551 0.02484886      NA 0.90000000
```

EDA

In order to explore Hong Kong people's values and belief and find out potential factors that lead to the conflicts, there appear to be five main parts for analysis:

1. Satisfaction with life
2. Financial situation
3. Identity
4. Confidence in the government
5. Attitude towards democracy

Satisfaction with life

Satisfaction.with.your.life

For Figure 1, 10 means completely satisfied while 1 means completely not satisfied. It shows people are overall satisfied with their life.

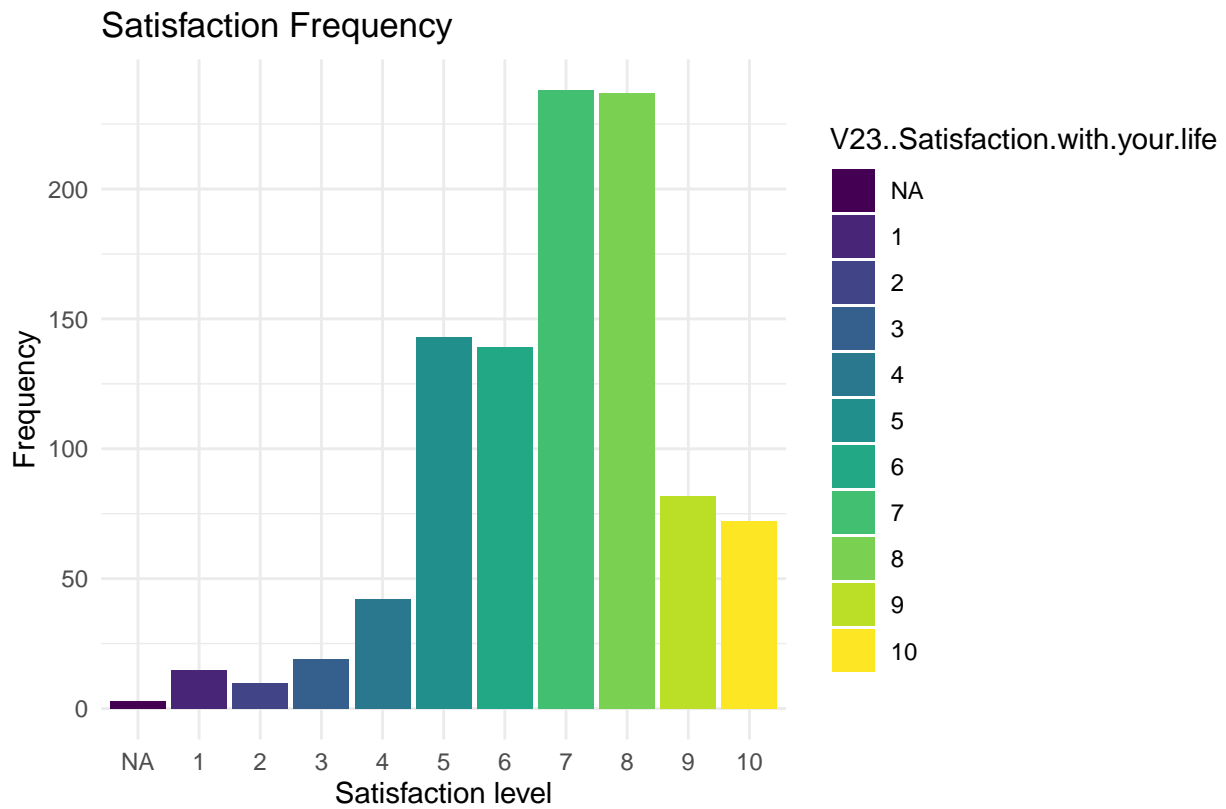


Figure 1

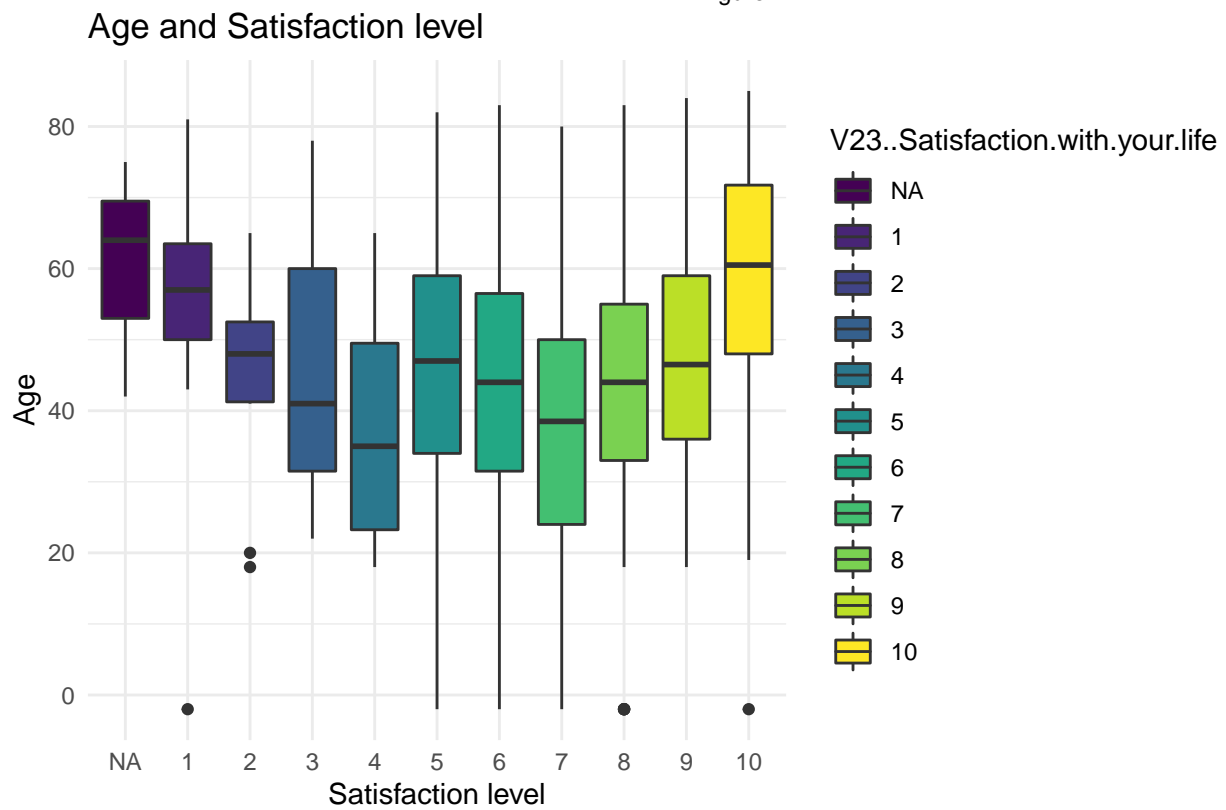


Figure 2

Feeling.of.happiness

Figure 3 shows most people are fairly happy.

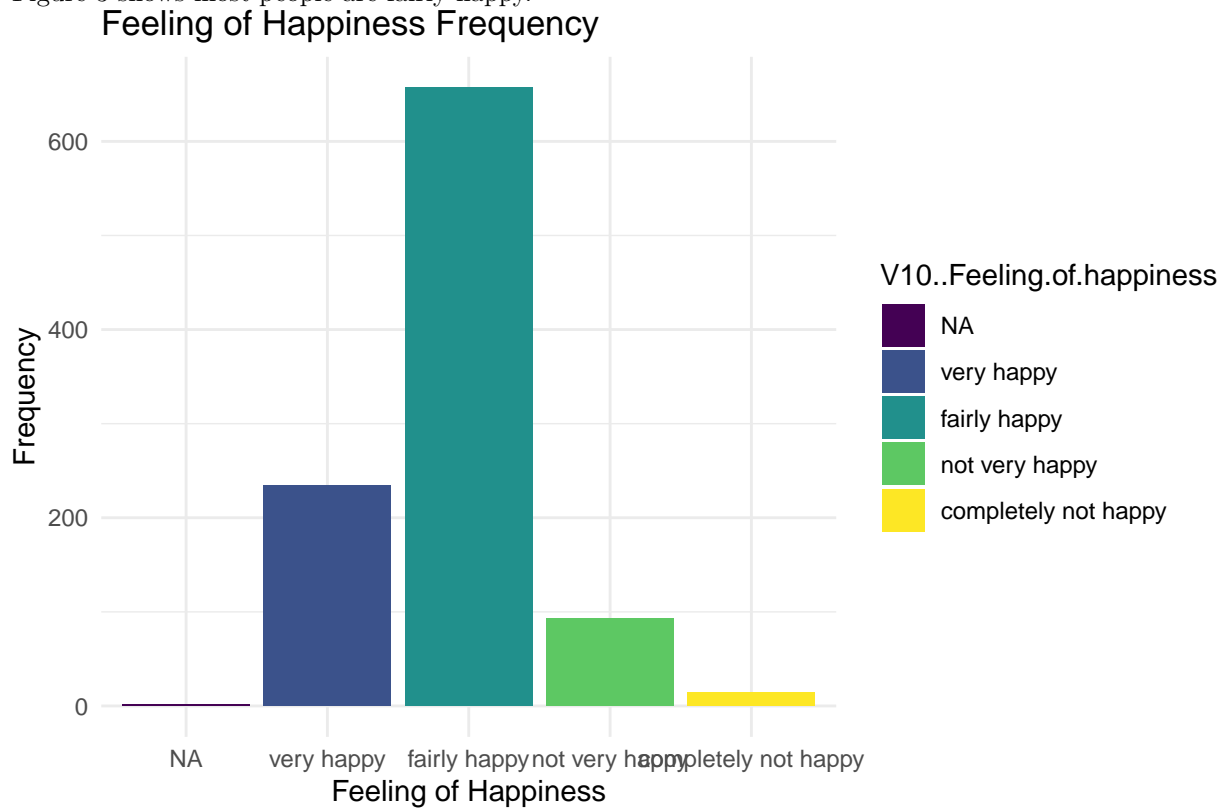
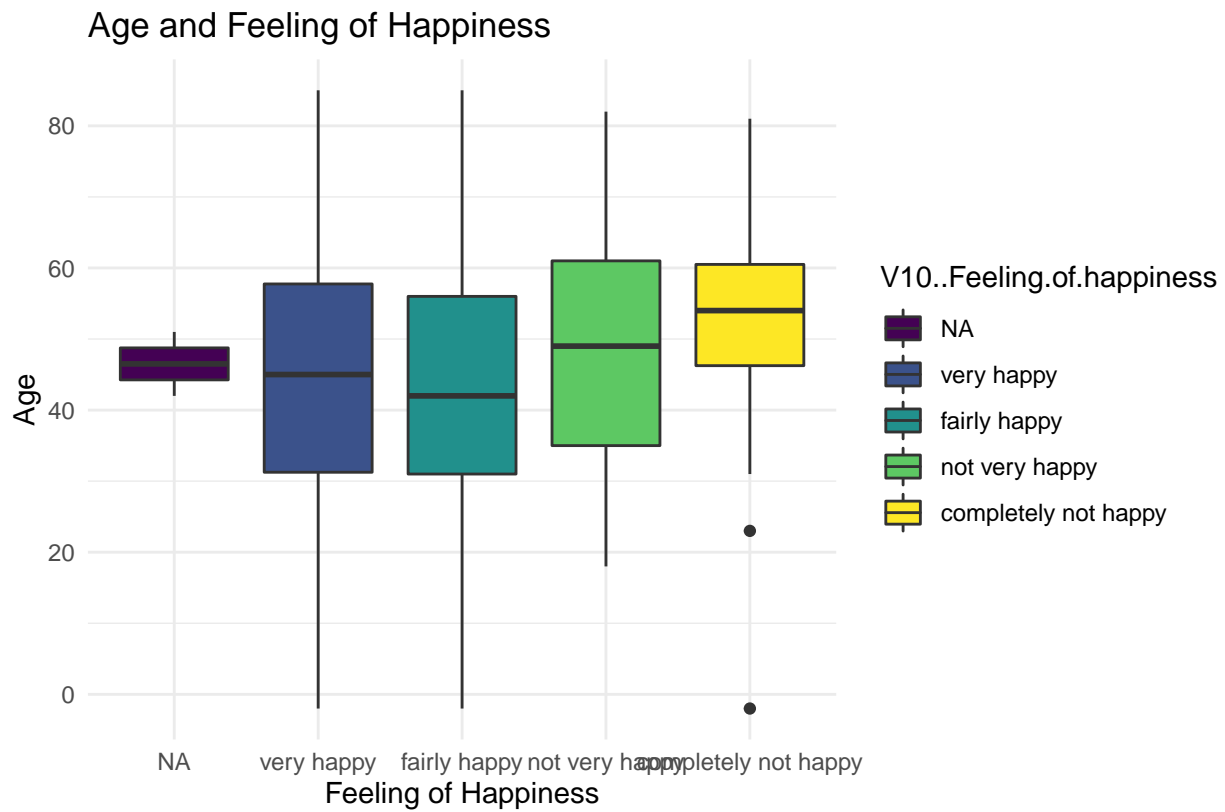


Figure 3



How much freedom of choice and control over own life

For Figure 5, 10 means much freedom to choose while 1 means completely no freedom to choose. It shows people are overall satisfied freedom.

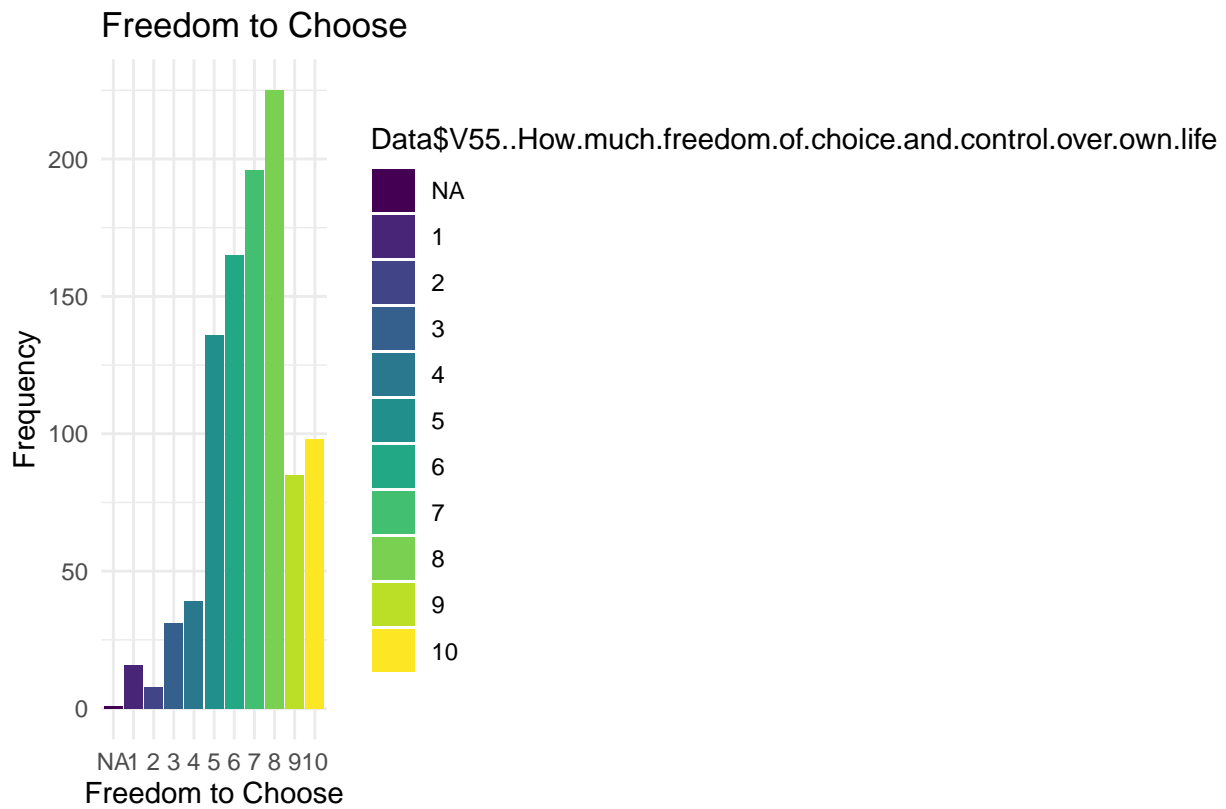


Figure 5

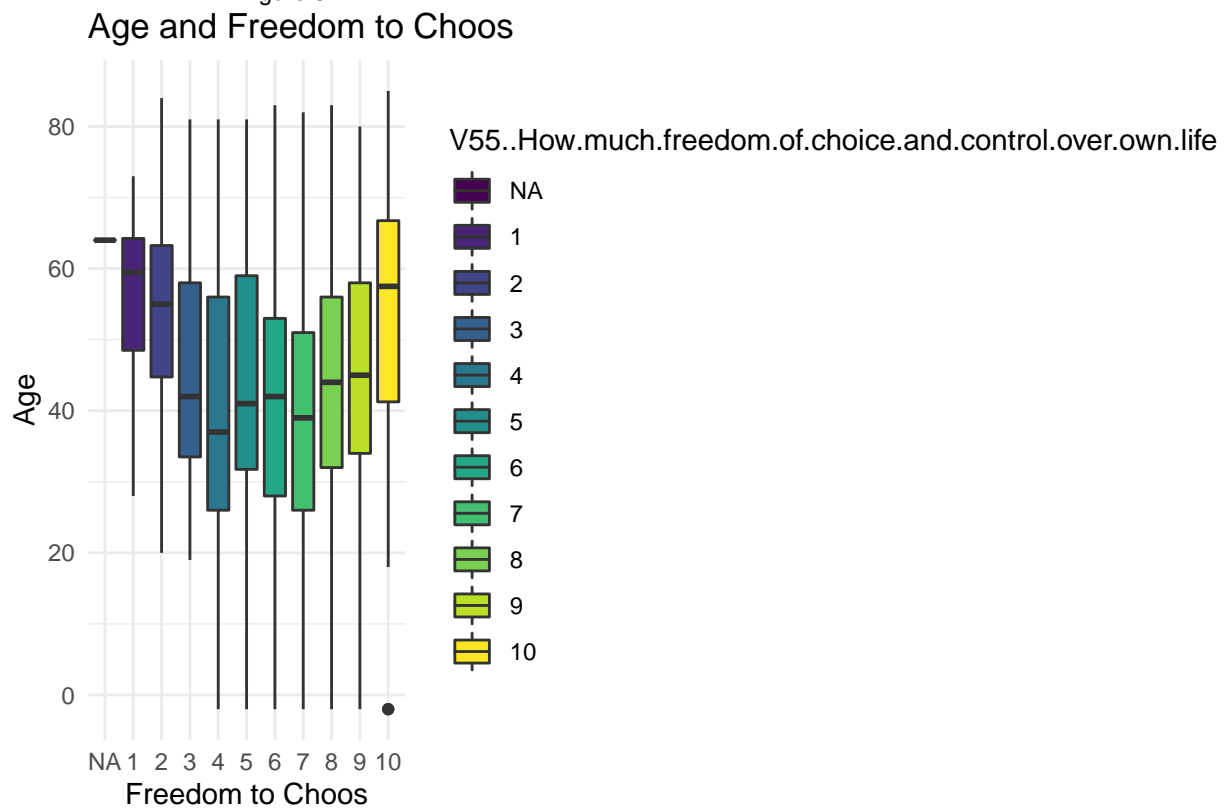


Figure 6

Financial situation

Scale.of.incomes

Figure 7 is in normal distribution form and it is reasonable. Figure 9 is Mosaic Plots for Satisfaction with life and Incomes. It shows people with low income are strongly dissatisfied with their life.

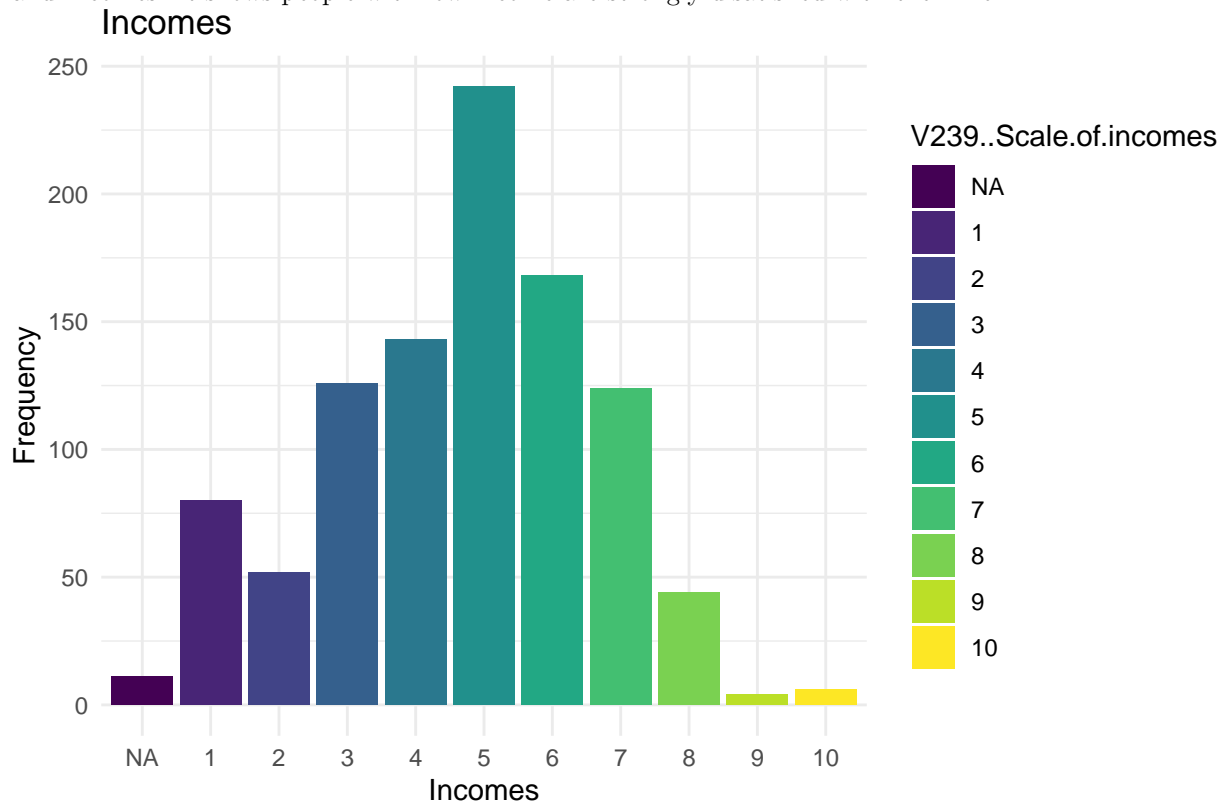


Figure 7

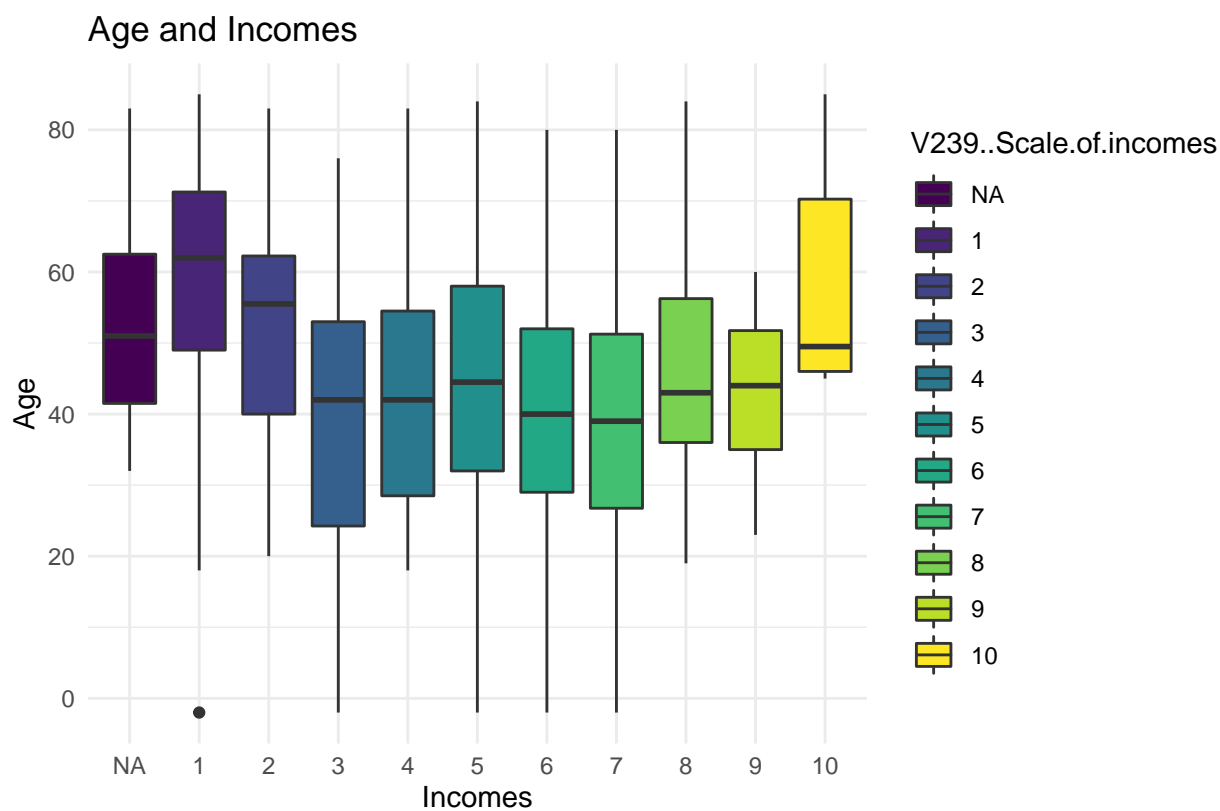


Figure 8

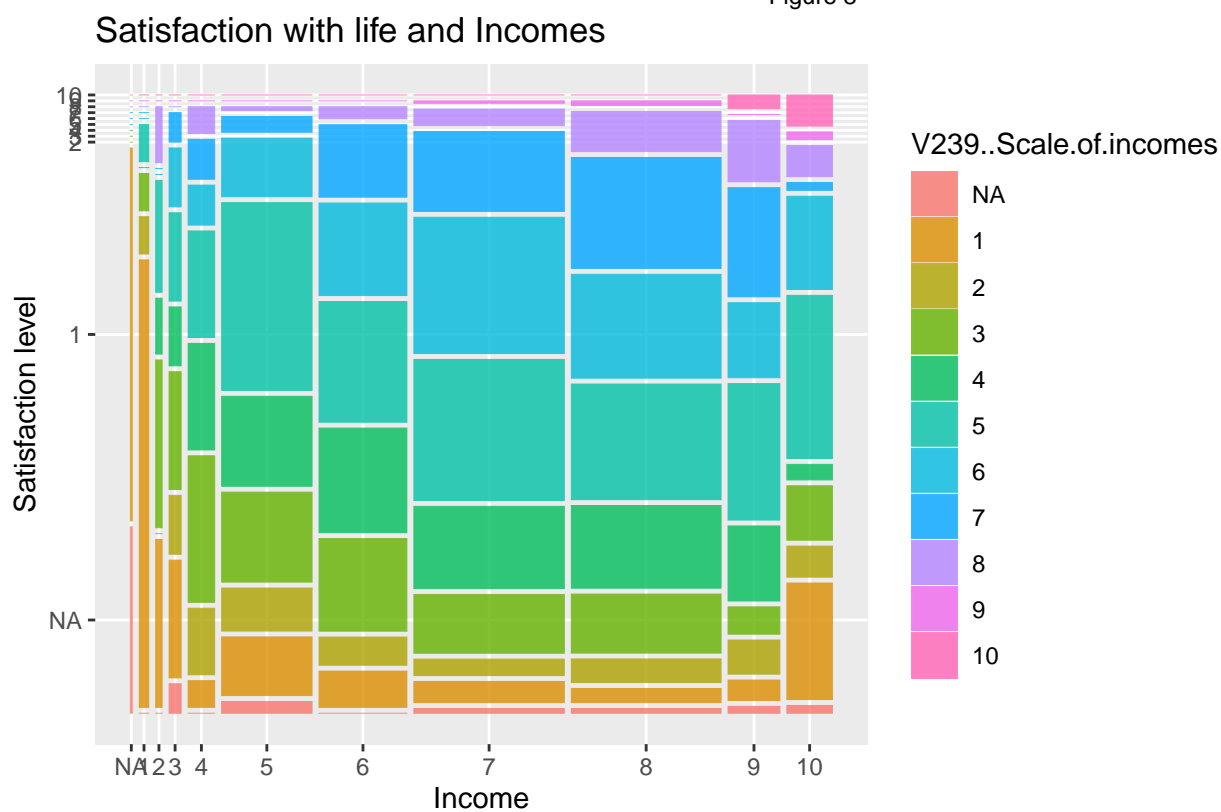


Figure 9

Satisfaction.with.financial.situation.of.household

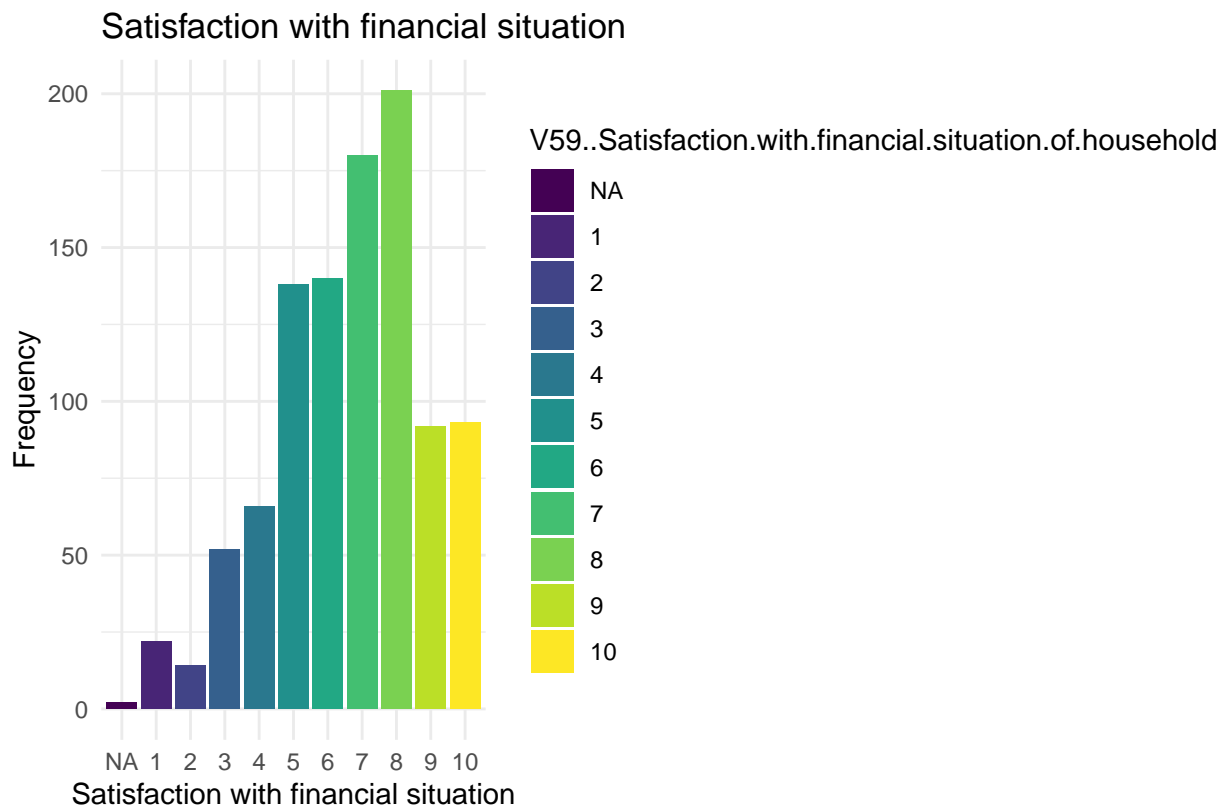


Figure 10

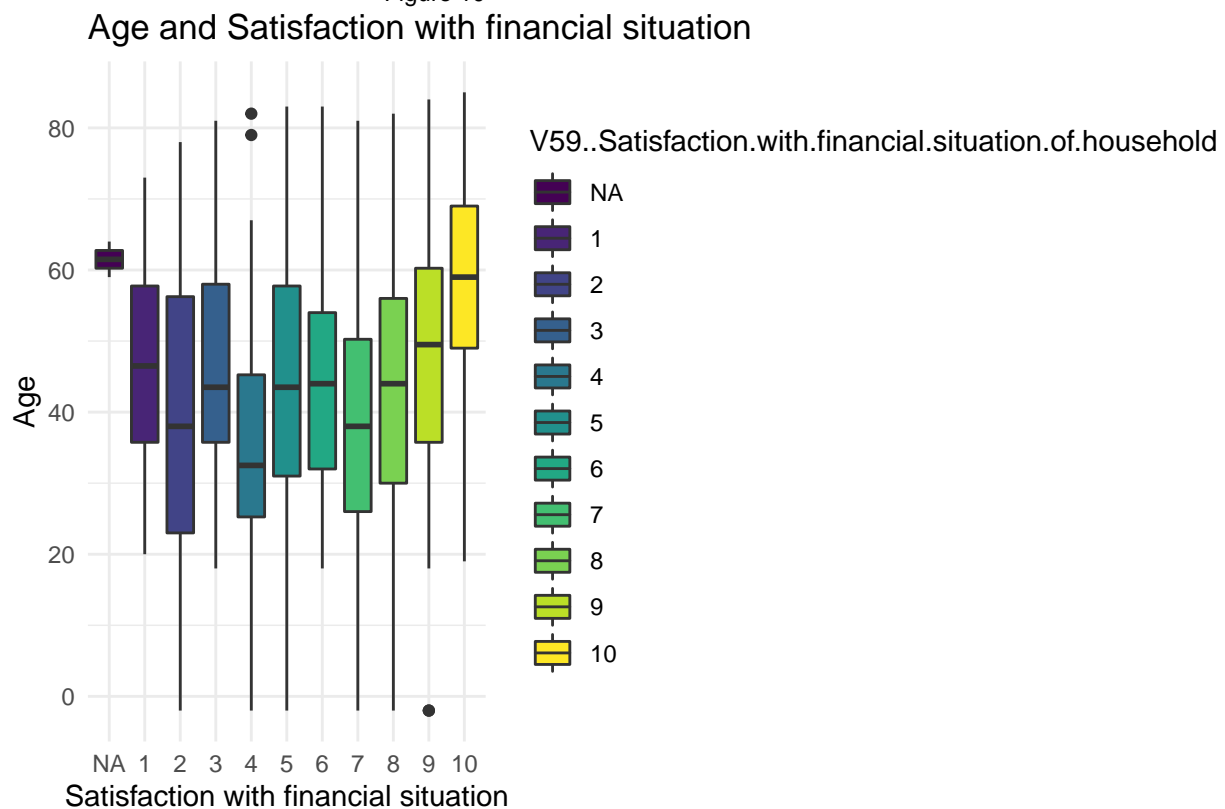


Figure 11

Are.you.the.chief.wage.earner.in.your.house

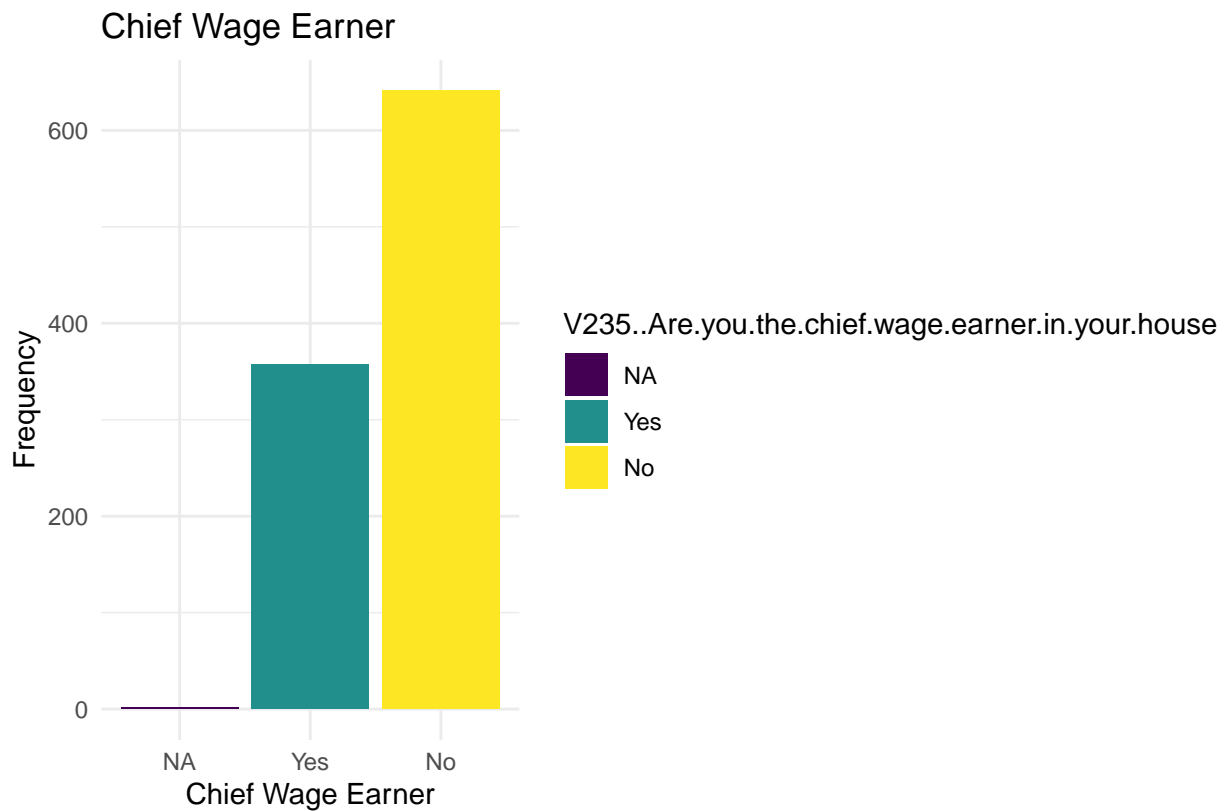


Figure 12

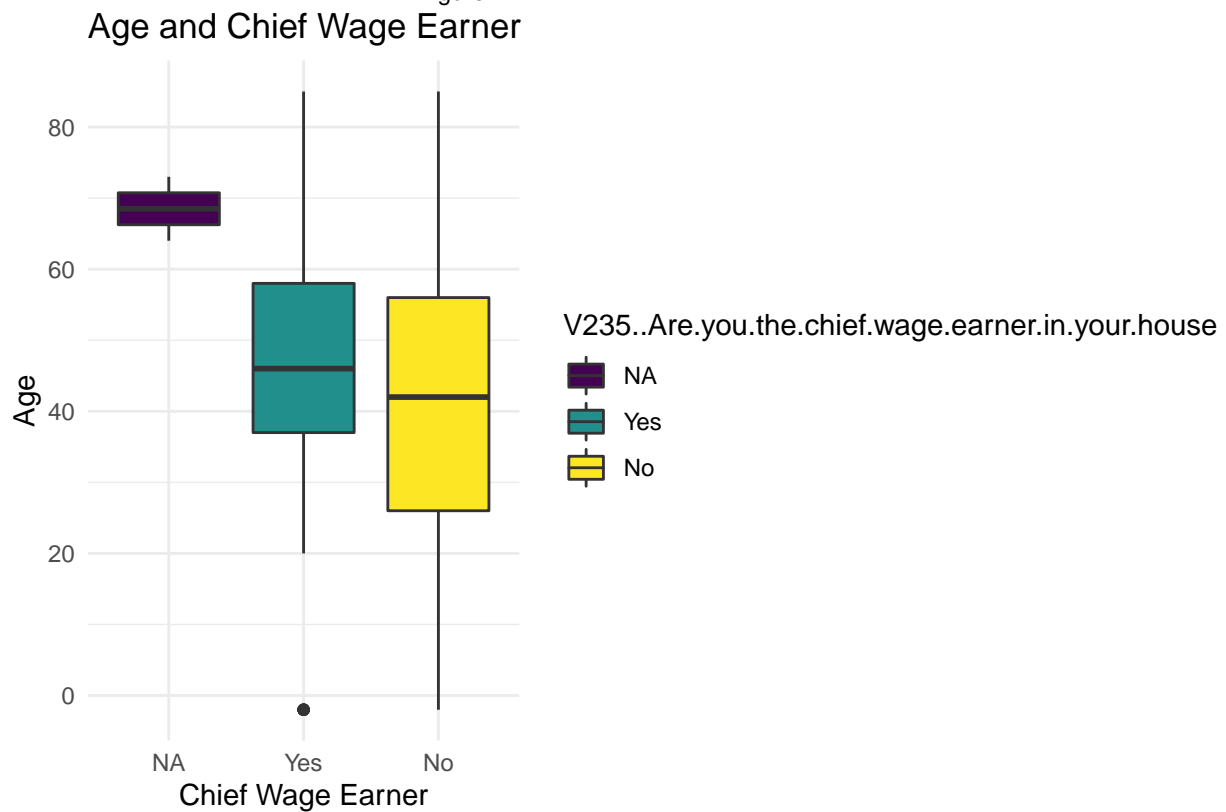


Figure 13

Is.the.chief.wage.earner.employed.now.or.not

It is suprisingly that Figure 15 shows older people have higher unemplotment rate.



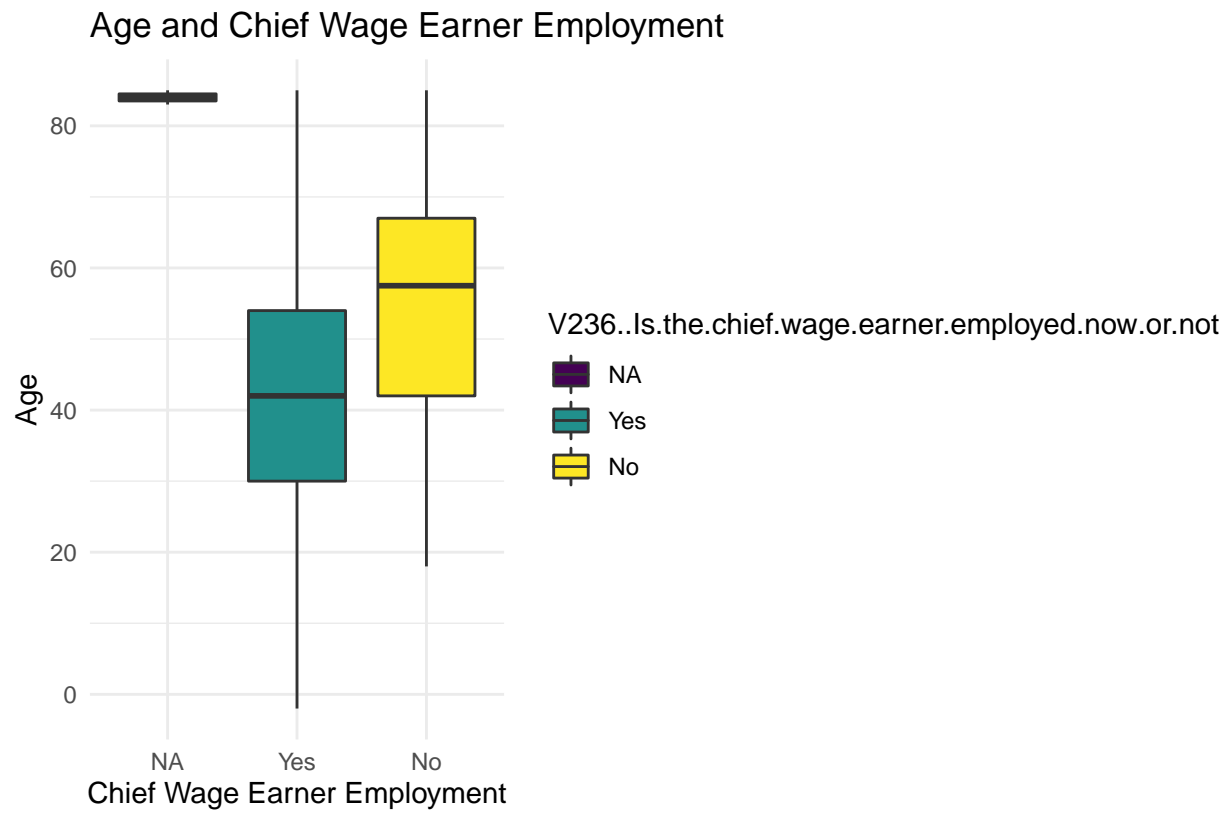


Figure 15

Family.savings.during.past.year

These plots show that Hong Kong people are overall in good financial situation.

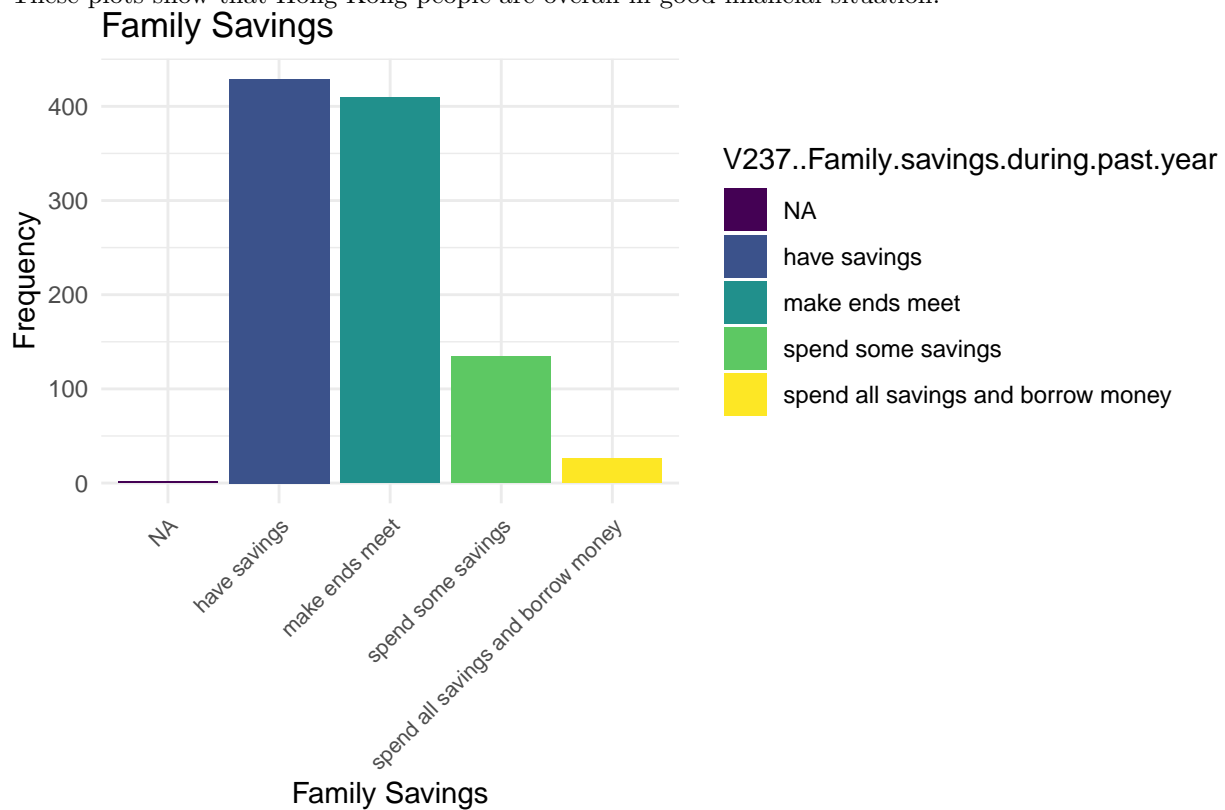


Figure 16

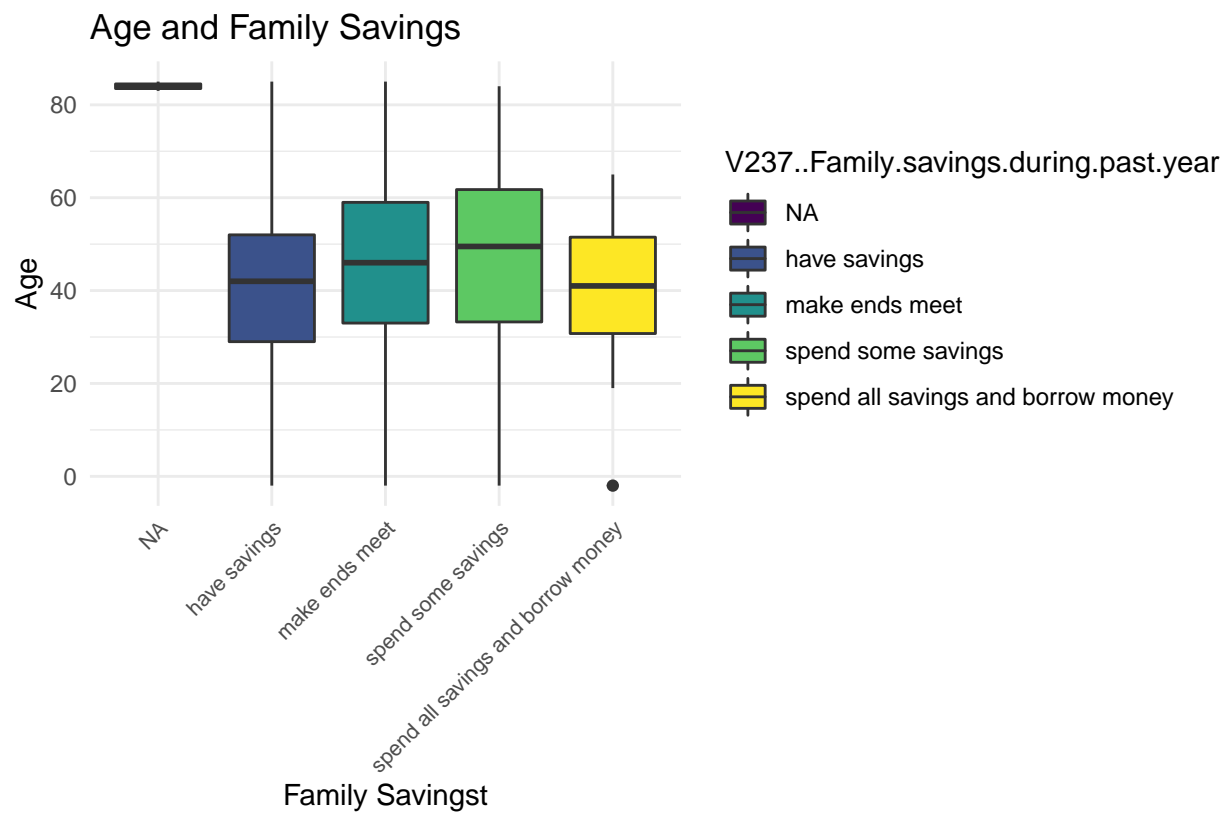


Figure 17

Identity

How.proud.of.nationality

Figure 18 shows people are proud of being a Hong Konger.

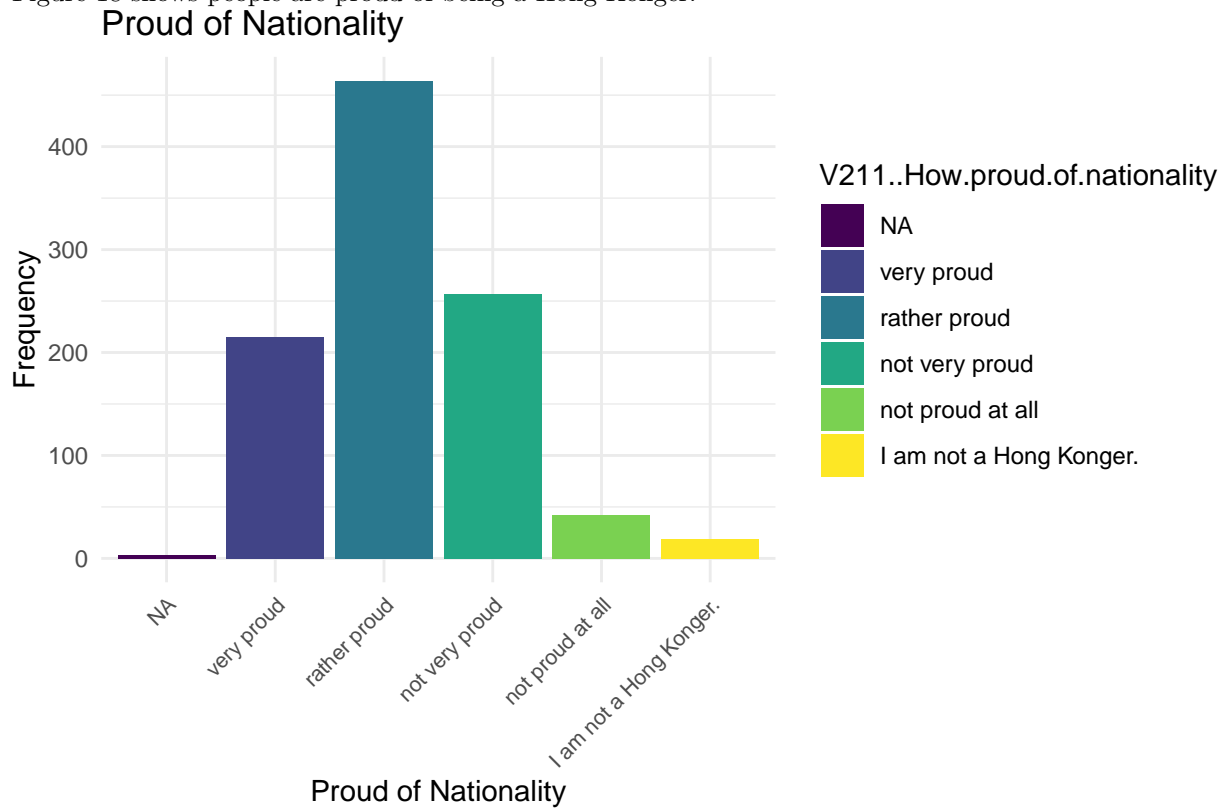


Figure 18

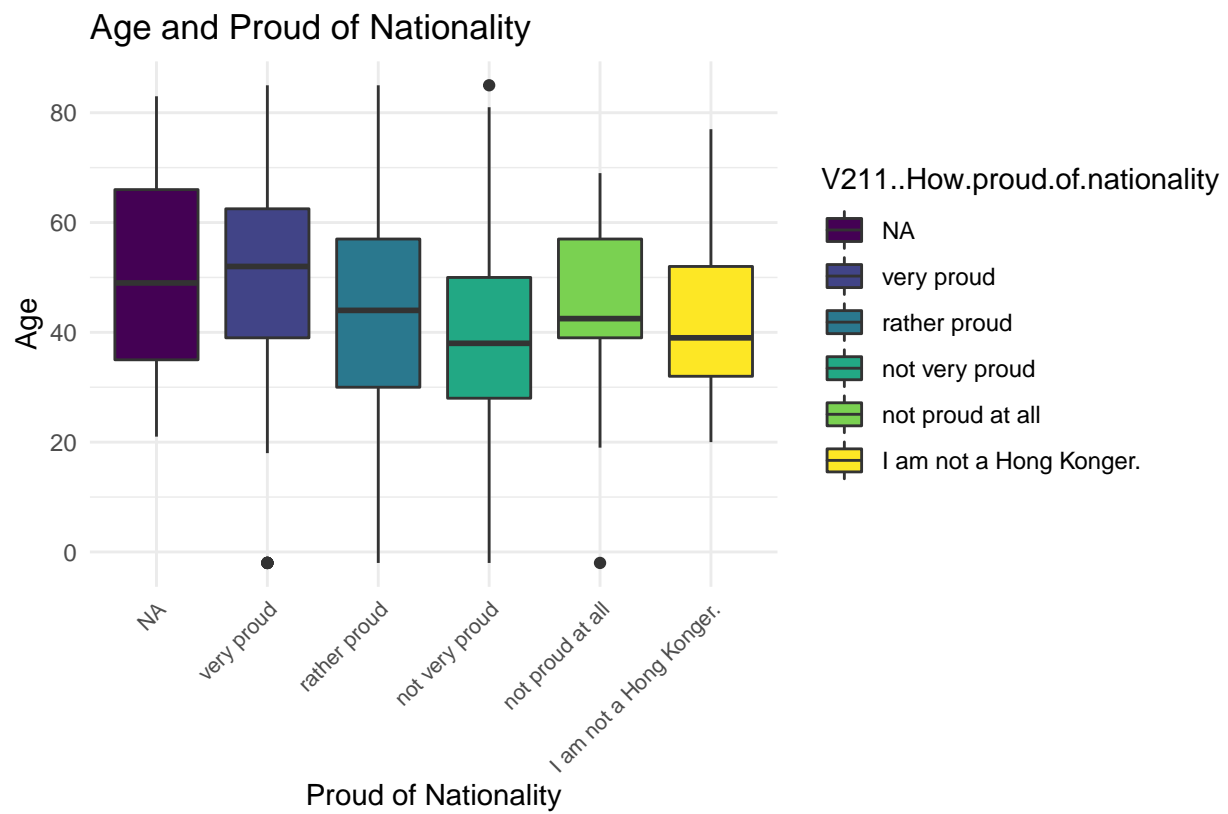


Figure 19

I see myself as a part of the local community, a Hong Konger

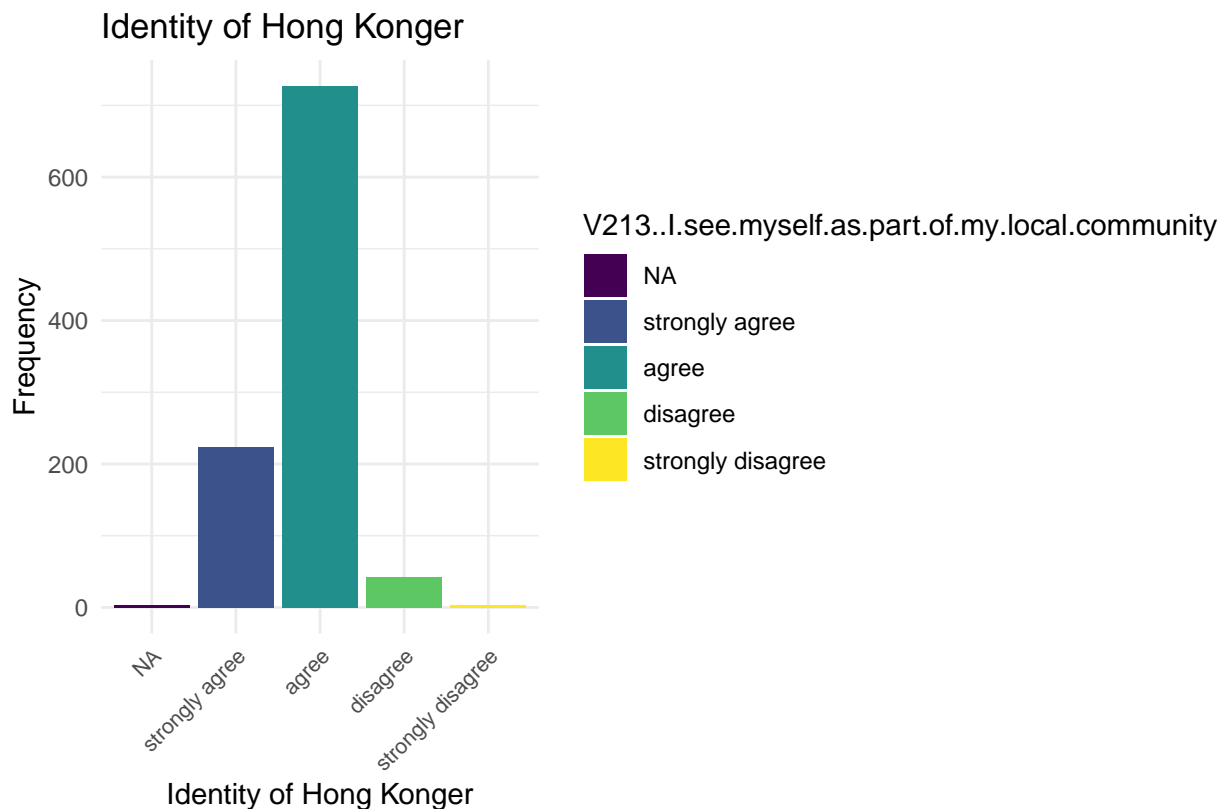


Figure 20

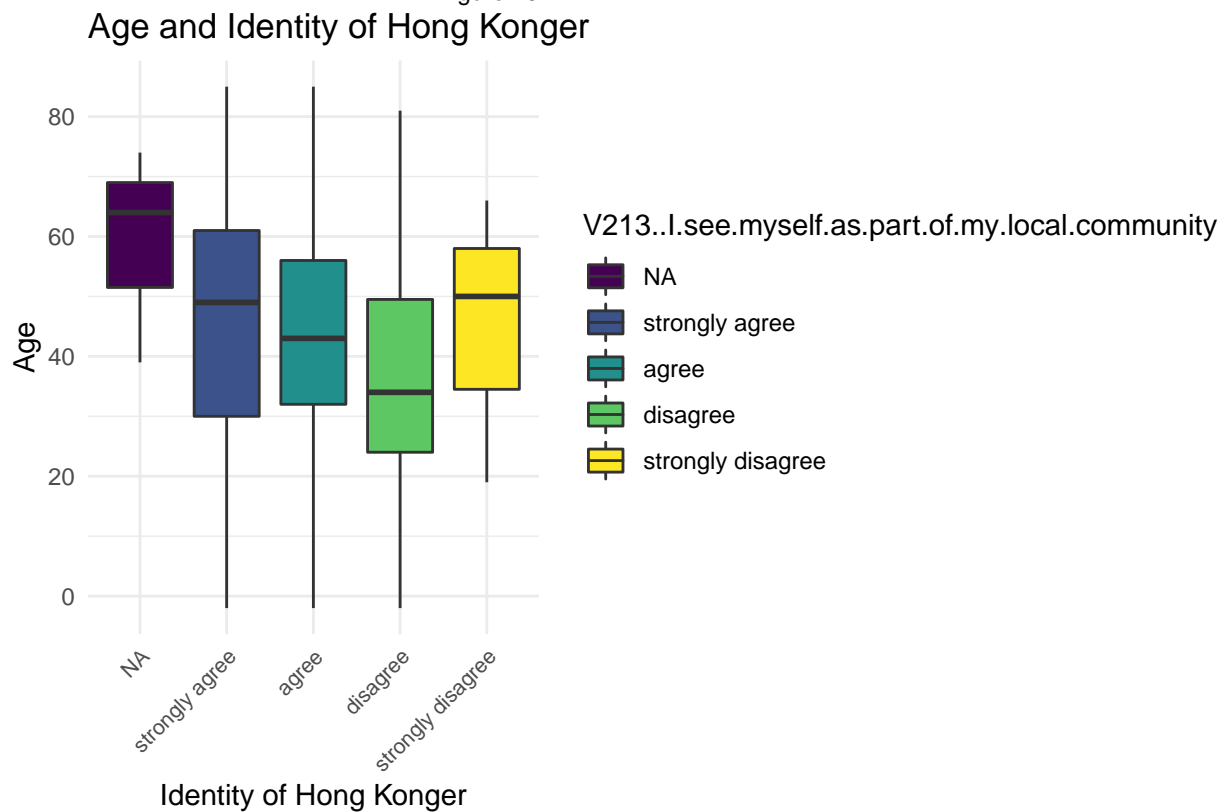
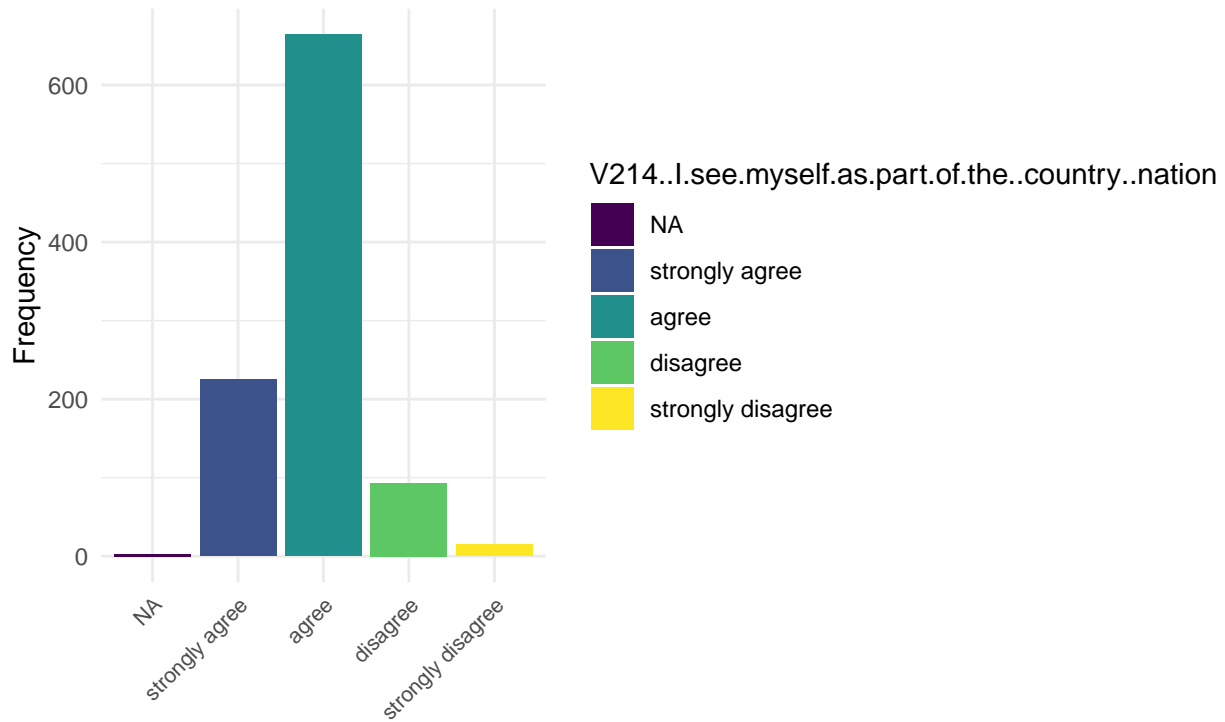


Figure 21

I see myself as a part of the Chinese nation

It is surprisingly that Figure 22 show most people consider themselves as a part of the Chinese nation. And Figure 23 shows that younger people are being less considering themselves as a part of the Chinese nation.

Identity of part of the Chinese nation



Identity of part of the Chinese nation

Figure 22

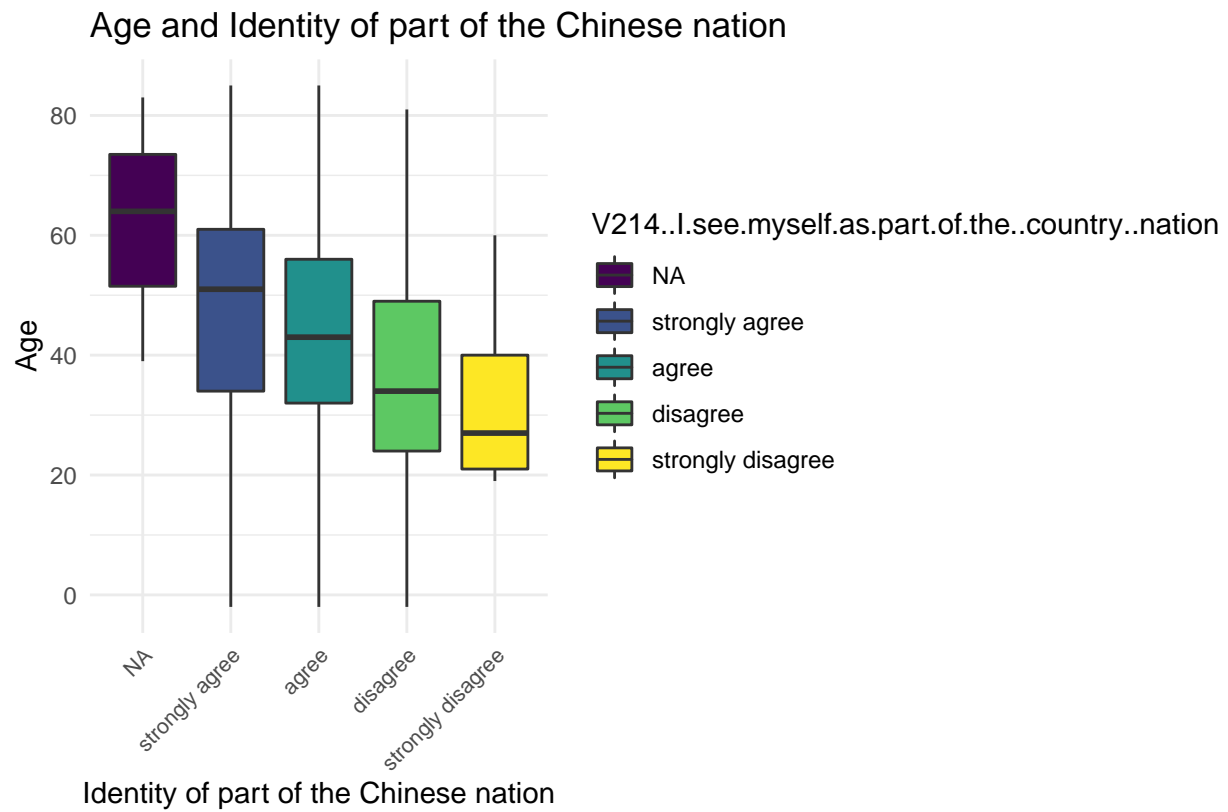


Figure 23

Confidence in the government

Confidence..The.police

Figure 25 shows younger people are significantly have less confidence in the police.

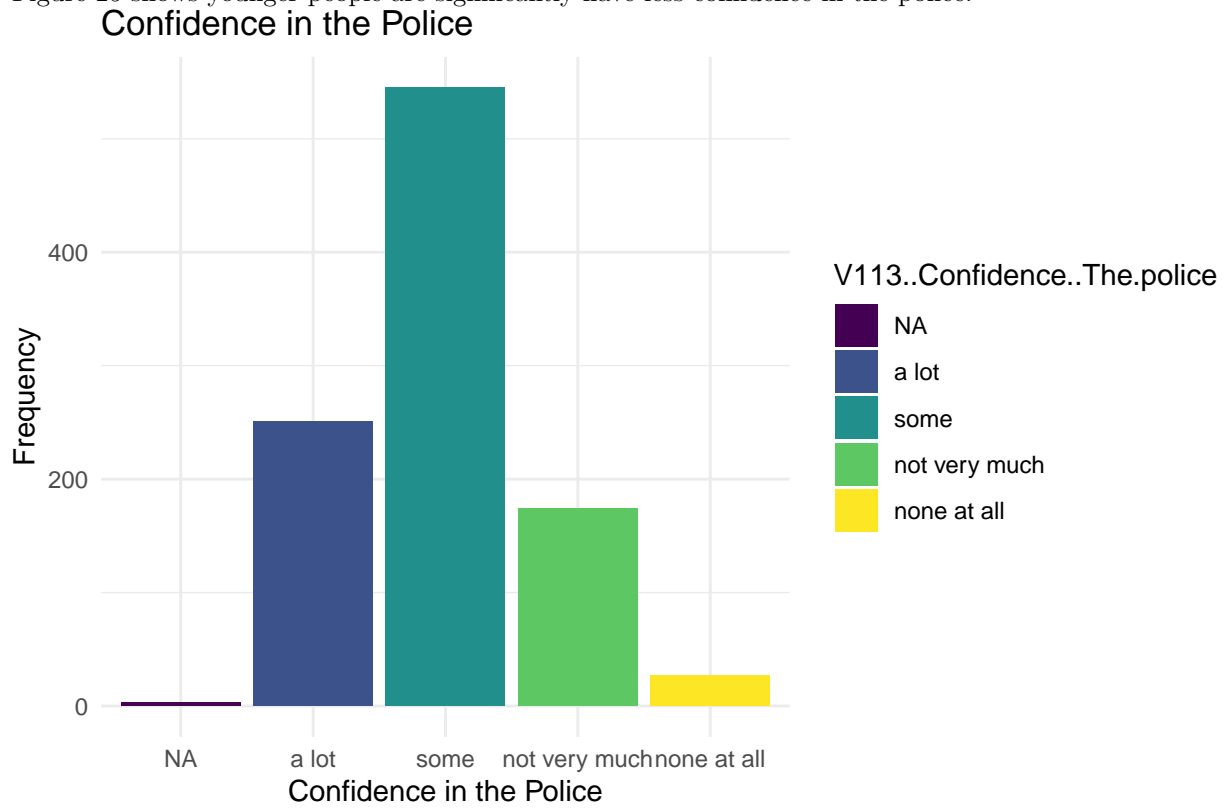


Figure 24

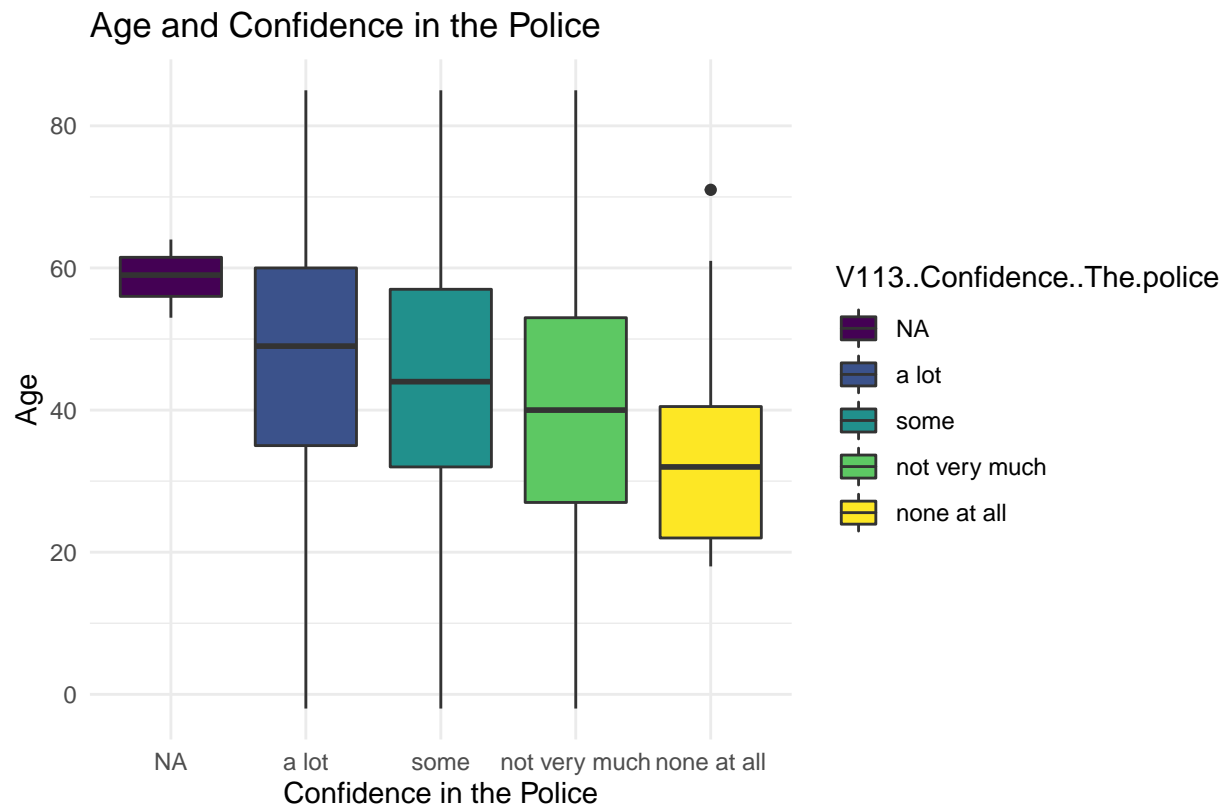
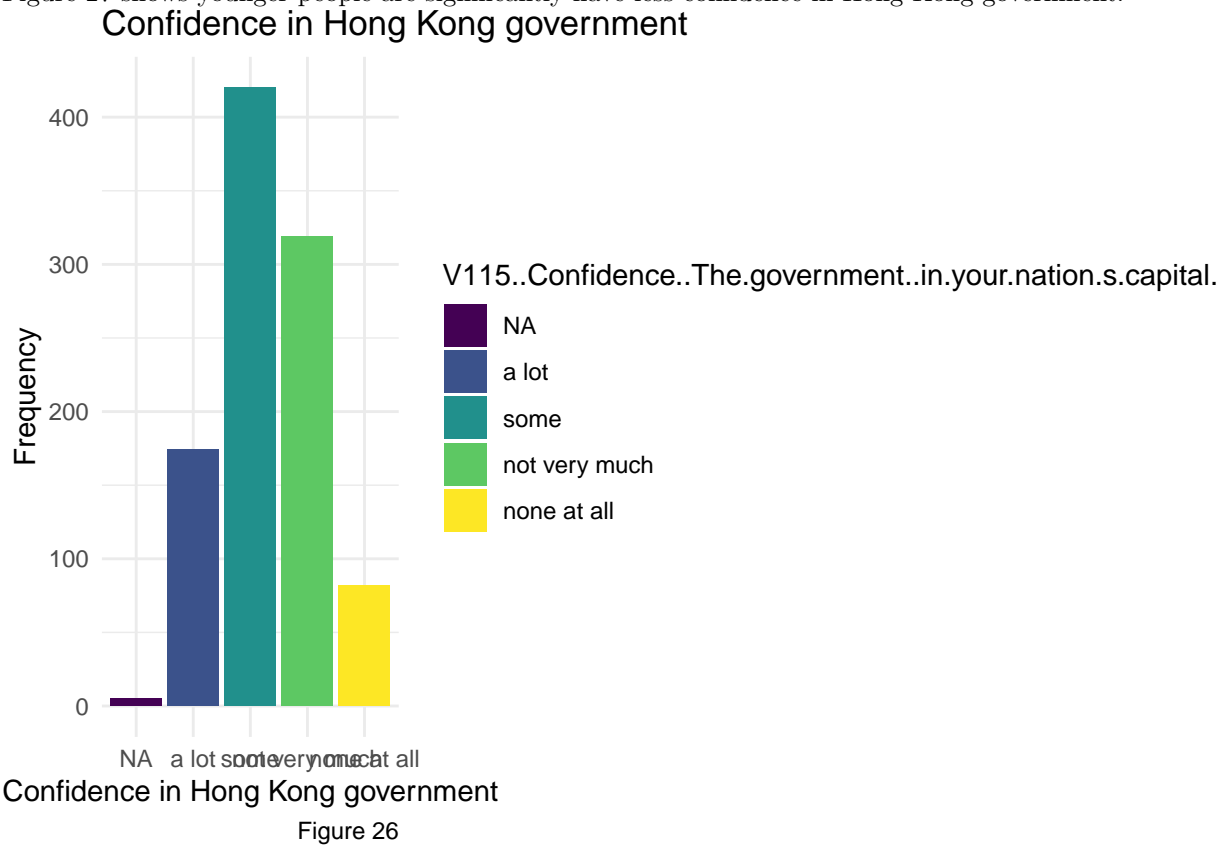
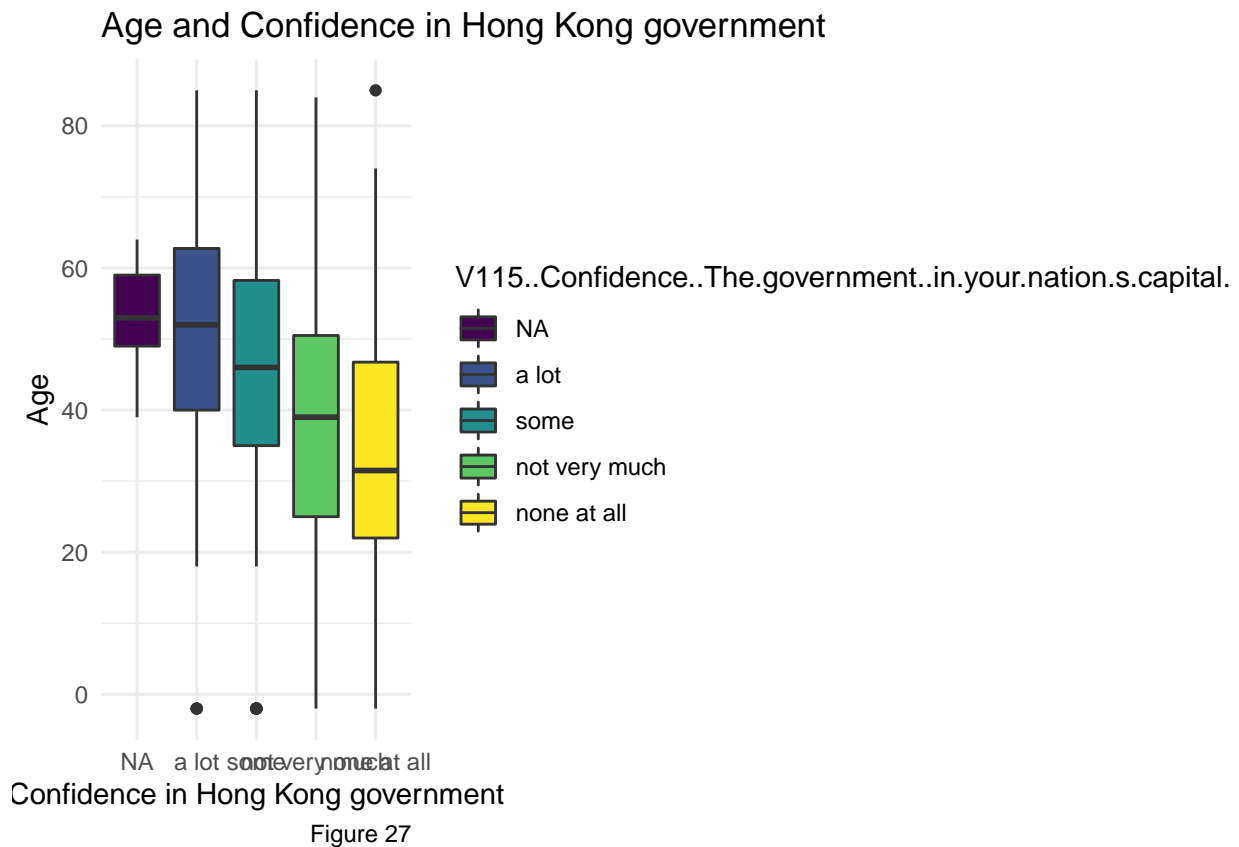


Figure 25

Confidence..Hong Kong government

Figure 27 shows younger people are significantly have less confidence in Hong Kong government.





Confidence..Mainland government

Sadly, Figure 28 shows most people have no confidence in Mainland government. Figure 29 shows younger people are significantly have less confidence in Mainland government.

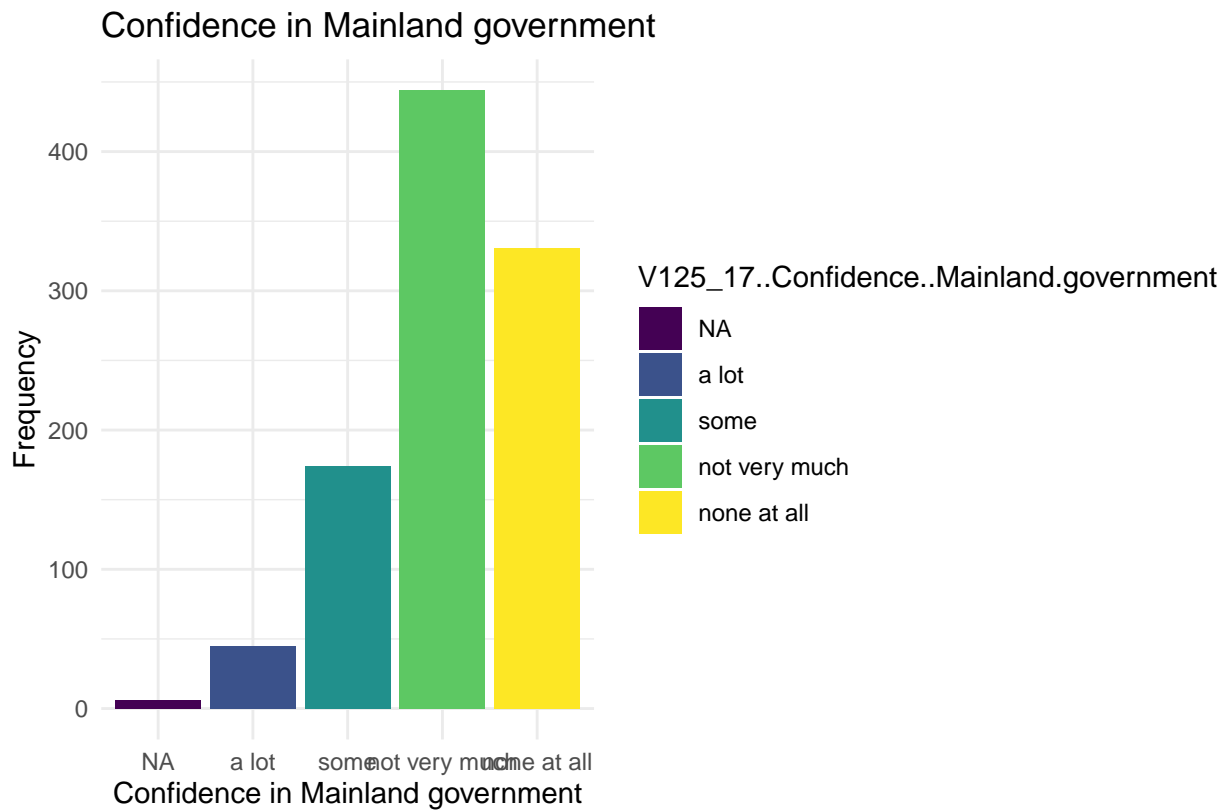


Figure 28

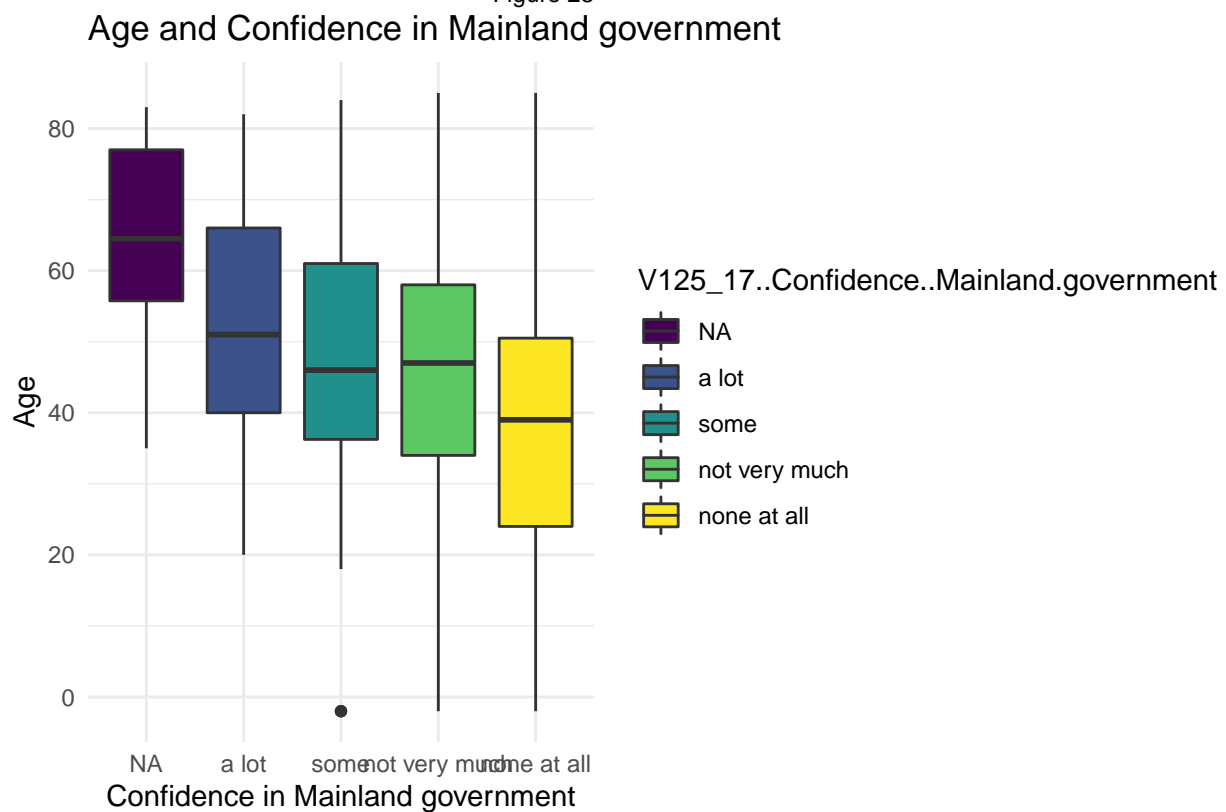


Figure 29

Attitude towards democracy

Importance.of.democracy

For Figure 30, 10 means very important while 1 means not very important. It shows people are overall consider democracy important.

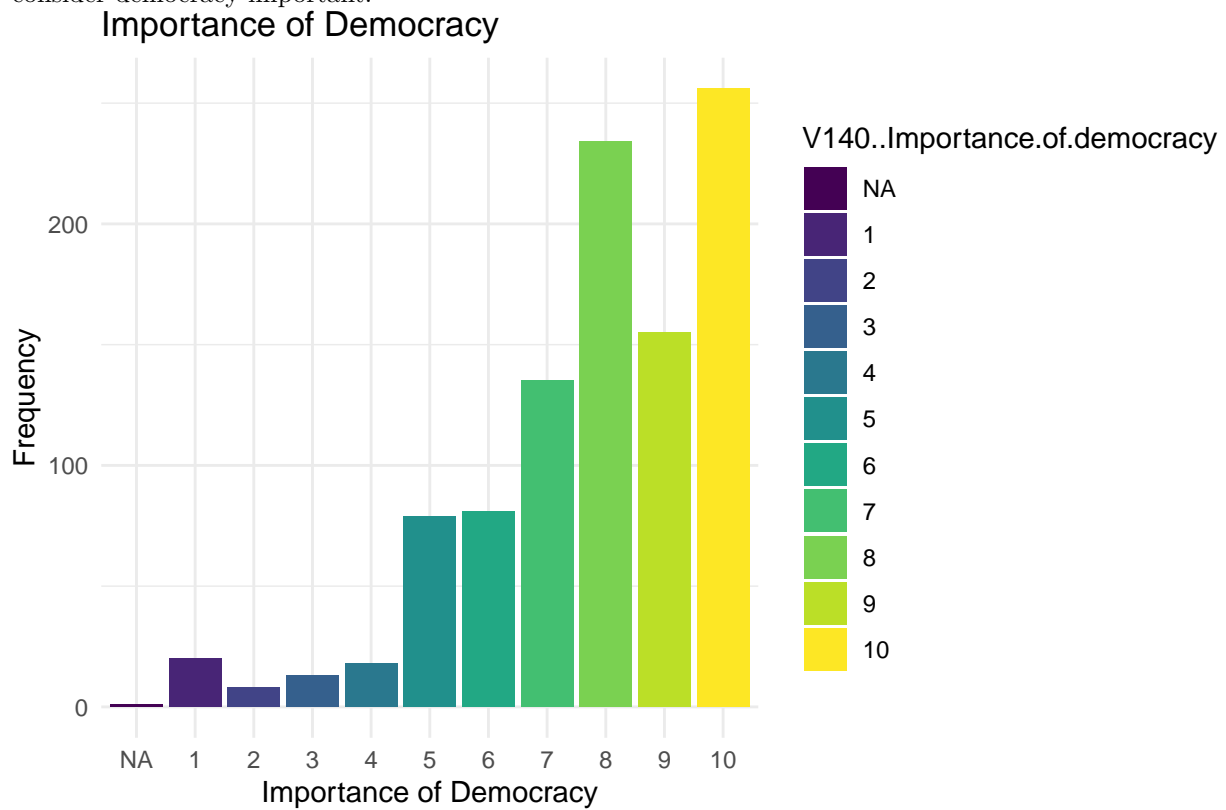


Figure 30

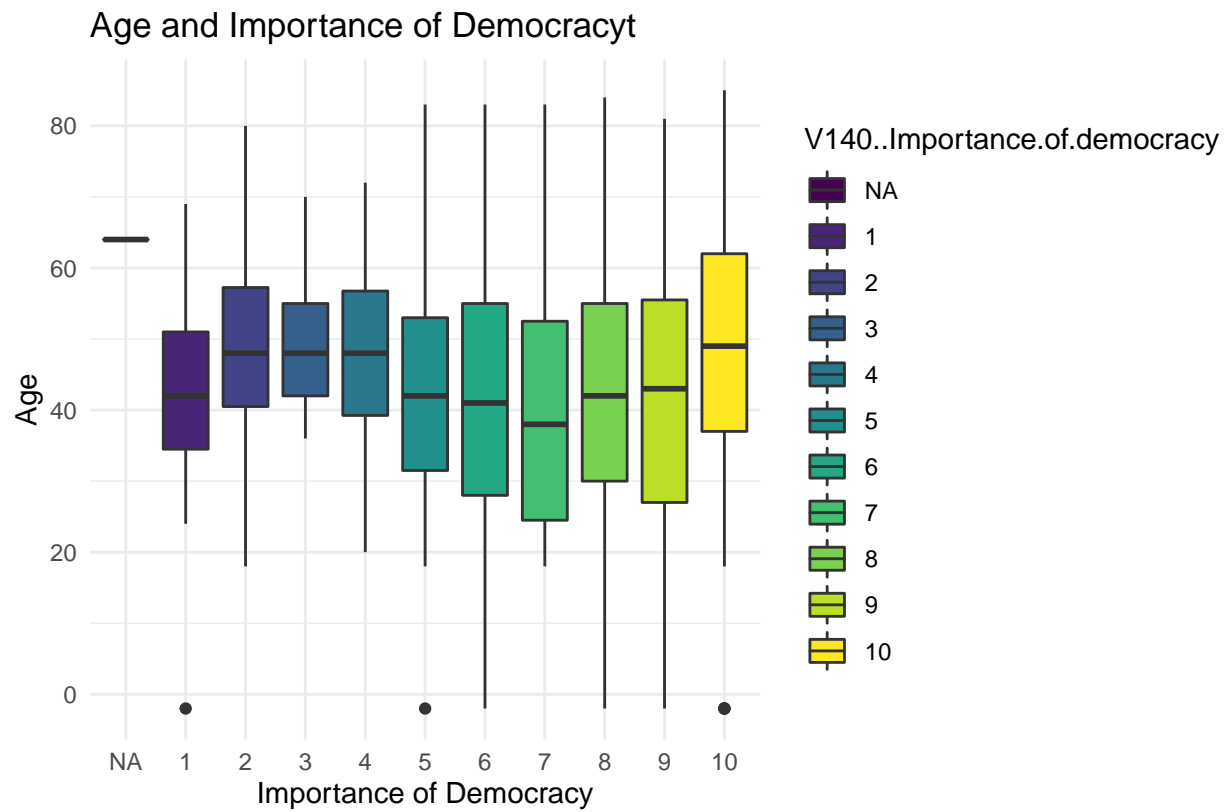


Figure 31

How democratically is this country being governed today

For Figure 33, 10 means very democratic while 1 means not democratic at all. It shows younger people think the society is more democratic.

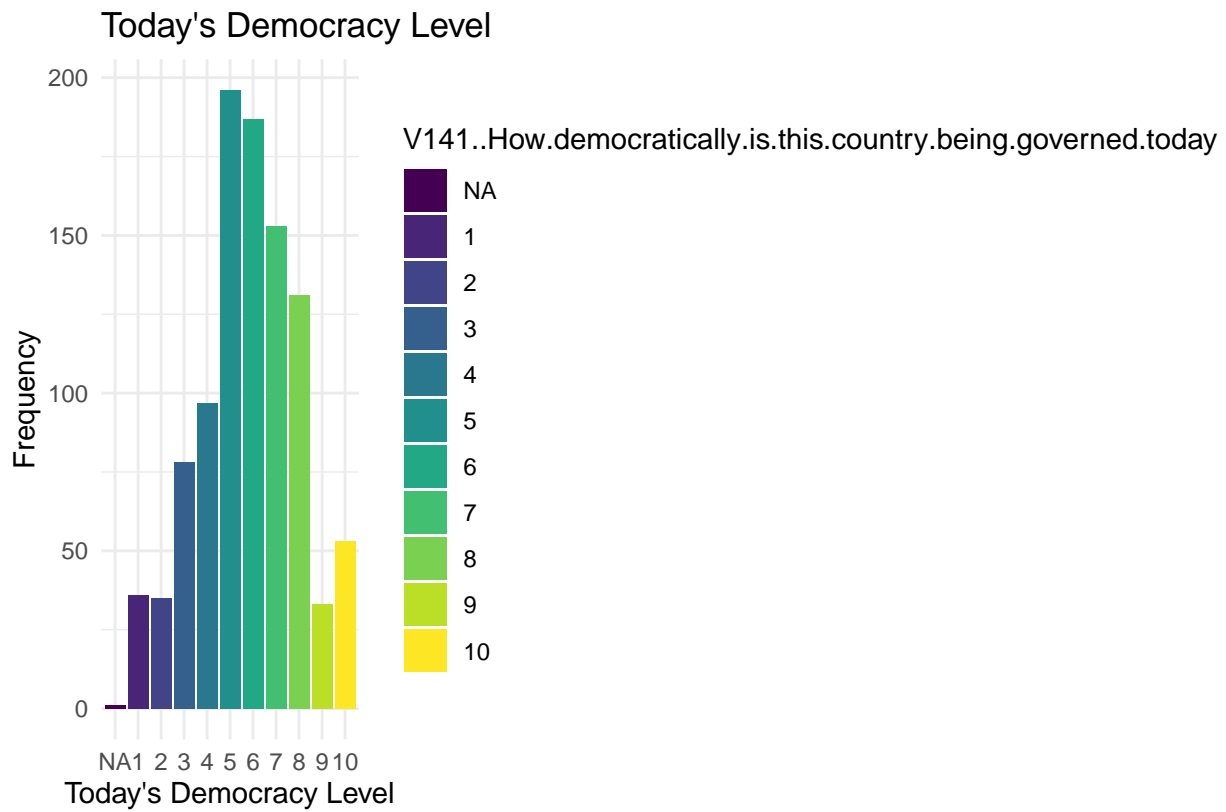


Figure 32

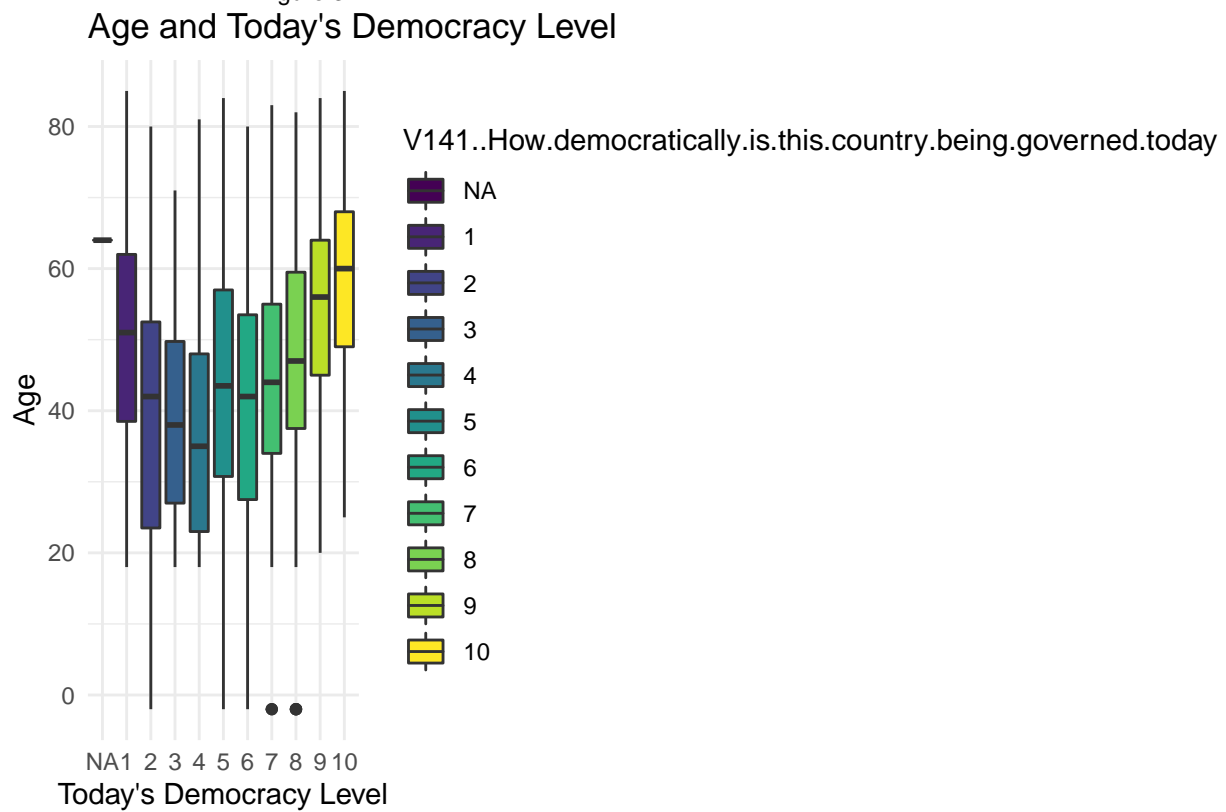
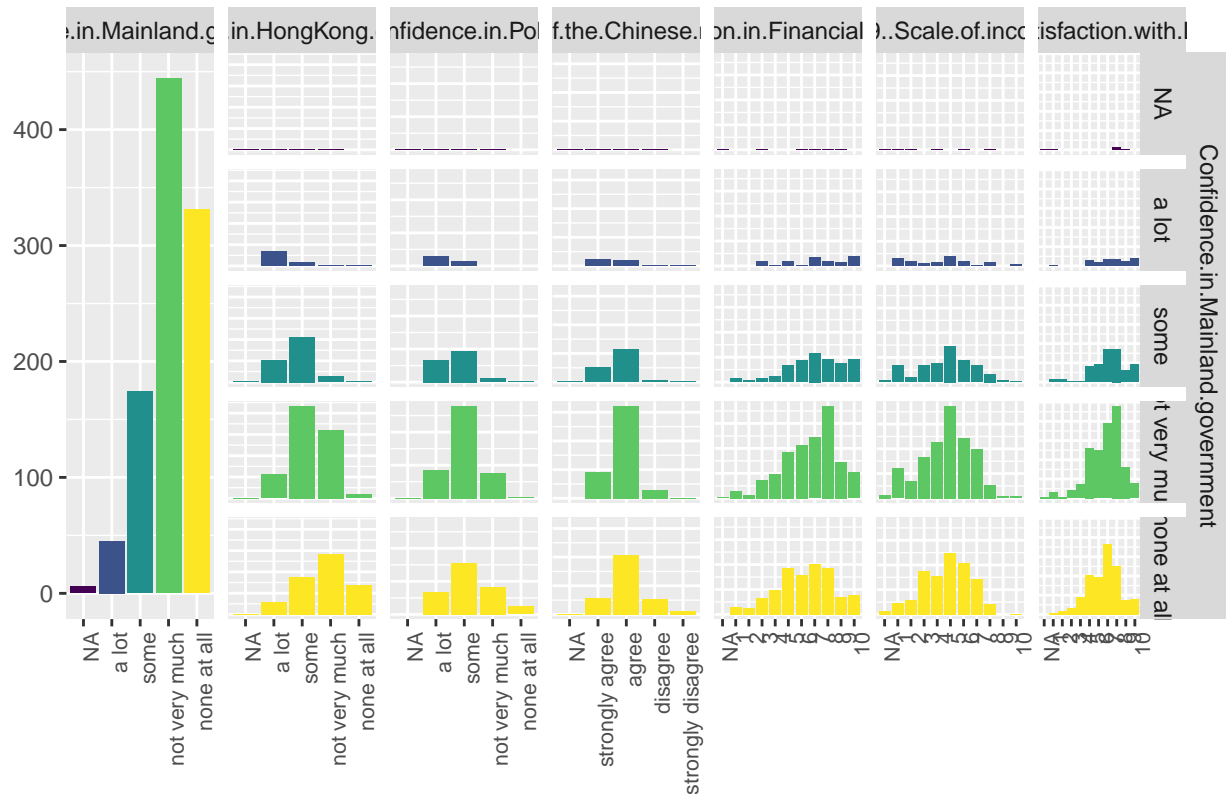


Figure 33

ggpairs plot between Confidence in Mainland government and other parts

ggpairs plots between Confidence in Mainland government and other main variables



The ggpairs plots show that people who have no confidence in Mainland government have high confidence in Hong Kong government and the police. And they also strongly agree that they are a part of Chinese nation. From this, We can say that Hong Kong protesters may be satisfied with Hong Kong government and have the same national identity with people from Mainland China. However, for some reasons, they are dissatisfied with Mainland government. Since younger people tend to feel more dissatisfied with Mainland government, the reasons may correlate with education.