Report for policy makers

Becky Yuen

Introduction

This is the overall report for the analysis on the European Value Study (EVS) from 2017 which is a survey research program on how Europeans think about family, work, religion, politics, and society. We are mainly interested in Europeans thoughts on two questions:

1. When a mother works for pay, do Europeans think the children suffer?
2. When jobs are scarce, do Europeans think employers should give priority to local people over immigrants?

Descriptives of variables

In the following table, the variables are:

1. `v72` represents the first question of interest (1-strongly agree, 2-agree, 3-disagree, or 4-strongly disagree)
2. `v80` represents the second question of interest (1-strongly agree, 2-agree, 3-neither agree nor disagree, 4-disagree, or 5-strongly disagree)
3. `sex` (1-male or 2-female)
4. `age` (years)
5. `education` (1-lower, 2-medium, or 3-higher)

Table 1: Descriptive table for continuous variables

v72	v80	age
Min. :1.000	Min. :1.000	Min. :18.00
1st Qu.:2.000	1st Qu.:1.000	1st Qu.:35.00
Median :3.000	Median :2.000	Median :50.00
Mean :2.713	Mean :2.313	Mean :49.57
3rd Qu.:3.000	3rd Qu.:3.000	3rd Qu.:64.00
Max. :4.000	Max. :5.000	Max. :82.00

Table 2: Descriptive table for categorical variables

Education	Sex	Freq
Lower	M	4727.00
Medium	M	11992.00
Higher	M	8351.00
Lower	F	6802.00
Medium	F	13835.00

Education	Sex	Freq
Higher	F	11048.00

Graphs

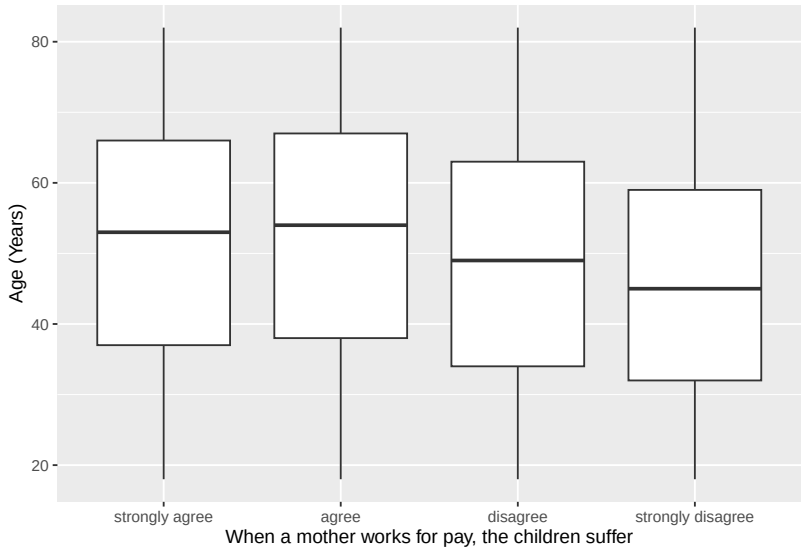

Figure 1: Boxplot for first question of interest (v72)

We can see that the distributions of age among categories of opinion are quite similar.

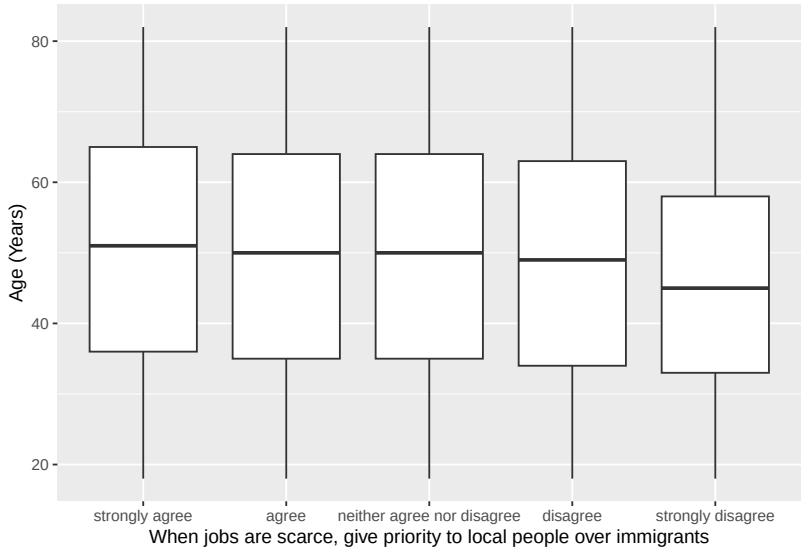

Figure 2: Boxplot for second question of interest (v80)

Same as the previous plot, we can see that the distributions of age among categories of opinion are quite similar.

Regression Analysis

Model: v72 ~ age + $\sqrt{\text{age}}$ + sex + education

	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	2.728	0.09723	28.06	4.655e-172
age	-0.004774	0.002203	-2.167	0.03023
sqrt(age)	-0.001149	0.02976	-0.03861	0.9692
sex-female	0.06448	0.007257	8.886	6.537e-19
education-medium	0.1233	0.009852	12.51	7.325e-36
education-higher	0.4012	0.01046	38.36	7.574e-318

Table 4: Fitting linear model: v72 ~ age + sqrt(age) + sex + education

Observations	Residual Std. Error	R^2	Adjusted R^2
56755	0.8576	0.04769	0.04761

The coefficient estimate for `sex` is 0.0644834 which means that the effect of a female respondent compared to a male is positive. The corresponding p-value is $6.5368574 \times 10^{-19}$ which is smaller than 0.05. Thus, `sex` is significant in the model.

Model: v80 ~ age + $\sqrt{\text{age}}$ + sex + education

	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	2.344	0.1427	16.43	1.646e-60
age	-0.003823	0.003232	-1.183	0.2369
sqrt(age)	0.006788	0.04367	0.1554	0.8765
sex-female	-0.03151	0.01065	-2.959	0.003084
education-medium	-0.03504	0.01446	-2.424	0.01536
education-higher	0.4238	0.01535	27.61	9.812e-167

Table 6: Fitting linear model: v80 ~ age + sqrt(age) + sex + education

Observations	Residual Std. Error	R^2	Adjusted R^2
56755	1.258	0.03124	0.03115

The coefficient estimate for `sex` is -0.0315131 which means that the effect of a female respondent compared to a male is negative. The corresponding p-value is 0.003084 which is smaller than 0.05. Thus, `sex` is significant in the model.