

# 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

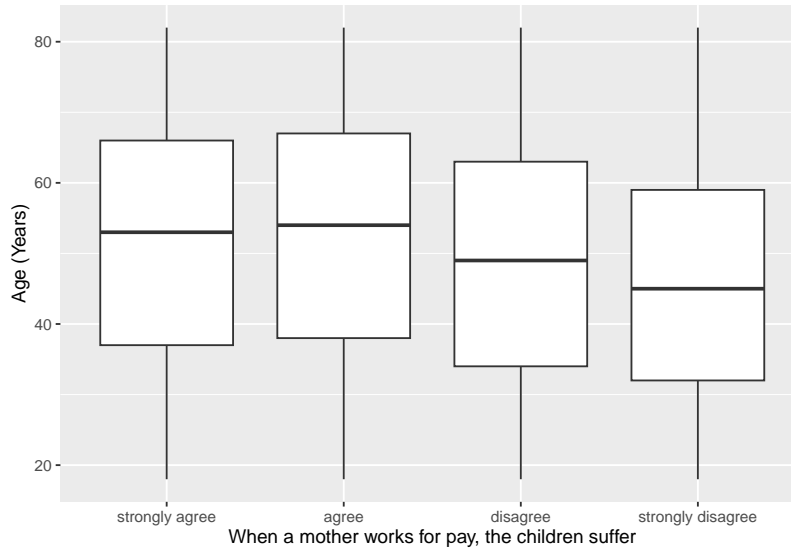


Figure 1: Boxplot for first question of interest (v72)

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

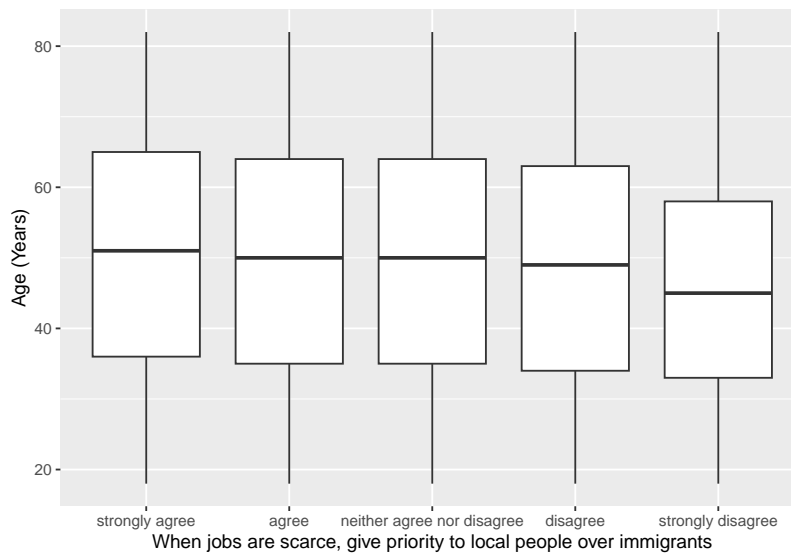


Figure 2: Boxplot for second question of interest (v80)

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

## Regression Analysis

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

	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:  $v72 \sim \text{age} + \text{sqrt}(\text{age}) + \text{sex} + \text{education}$

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

	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:  $v80 \sim \text{age} + \text{sqrt}(\text{age}) + \text{sex} + \text{education}$

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.