# ECON613 HW1

# Yuanhang Zhao

# January 2022

# Exercise 1

#### 1.1

10498

#### 1.2

3374

## 1.3

25510

## 1.4

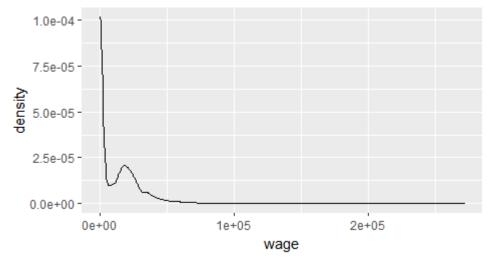
2765

#### 1.5

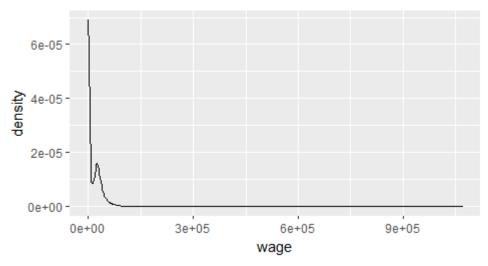
the table is in the R file.

#### 1.6

distribution for 2005



distribution for 2019



summary for 2005

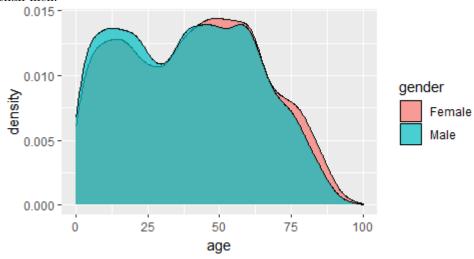
MEAN	STD	IDR	GINI
11992.26	17318.56	32340.40	0.67

summary for 2019

MEAN	STD	IDR	GINI
$\overline{15350.47}$	23207.18	40267.00	0.67

#### 1.7

in 2010, the number of Men in young age is greater than the women, and in old age, the number of women is greater than men.



#### 1.8

3514

# Exercise 2

#### 2.1.3

the variance names are ["X", "idmen", "year"]

#### 2.2.1

Number of households in which there are more than four family members is 12436.

Table 1: Number of households in which there are more than four family members by year

year	n
2004	745
2005	814
2006	862
2007	874
2008	814
2009	810
2010	821
2011	785
2012	816
2013	754
2014	783
2015	763
2016	753
2017	703
2018	647
2019	692

#### 2.2.2

Number of households in which at least one member is unemployed is 17242.

Table 2: Number of households in which at least one member is unemployed by year

2004     950       2005     1039       2006     1030       2007     975       2008     909       2009     1045       2010     1110       2011     1071       2012     1205       2013     1177       2014     1187       2015     1227       2016     1137       2017     1103       2018     991       2019     1086	year	n
2006     1030       2007     975       2008     909       2009     1045       2010     1110       2011     1071       2012     1205       2013     1177       2014     1187       2015     1227       2016     1137       2017     1103       2018     991	2004	950
2007 975   2008 909   2009 1045   2010 1110   2011 1071   2012 1205   2013 1177   2014 1187   2015 1227   2016 1137   2017 1103   2018 991	2005	1039
2008     909       2009     1045       2010     1110       2011     1071       2012     1205       2013     1177       2014     1187       2015     1227       2016     1137       2017     1103       2018     991	2006	1030
2009 1045   2010 1110   2011 1071   2012 1205   2013 1177   2014 1187   2015 1227   2016 1137   2017 1103   2018 991	2007	975
2010 1110 2011 1071 2012 1205 2013 1177 2014 1187 2015 1227 2016 1137 2017 1103 2018 991	2008	909
2011 1071 2012 1205 2013 1177 2014 1187 2015 1227 2016 1137 2017 1103 2018 991	2009	1045
2012 1205 2013 1177 2014 1187 2015 1227 2016 1137 2017 1103 2018 991	2010	1110
2013 1177 2014 1187 2015 1227 2016 1137 2017 1103 2018 991	2011	1071
2014 1187 2015 1227 2016 1137 2017 1103 2018 991	2012	1205
2015 1227 2016 1137 2017 1103 2018 991	2013	1177
2016 1137 2017 1103 2018 991	2014	1187
2017 1103 2018 991	2015	1227
2018 991	2016	1137
	2017	1103
2019 1086	2018	991
	2019	1086

#### 2.2.3

Number of households in which at least two members are of the same profession is 7615

Table 3: Number of households in which at least two members are of the same profession bu Year

year	n
2004	445
2005	497
2006	485
2007	492
2008	460
2009	453
2010	477
2011	492
2012	517
2013	460
2014	477
2015	469
2016	475
2017	459
2018	457
2019	500

#### 2.2.4

Number of individuals in the panel that are from household-Couple with kids is 58670.

Table 4: Number of individuals in the panel that are from household-Couple with kids by year

year	n
2004	3060
2005	3522
2006	3668
2007	3820
2008	3752
2009	3727
2010	3899
2011	3922
2012	4136
2013	3770
2014	3796
2015	3744
2016	3729
2017	3436
2018	3264
2019	3425

#### 2.2.5

Number of individuals in the panel that are from Paris is 22208.

#### 2.2.6

the idmen is 2207811124040100.

#### 2.2.7

Number of households present in 2010 and 2011 is 22410.

Table 5: Number of individuals in the panel that are from Paris by year

year	n
2004	1429
2005	1540
2006	1507
2007	1557
2008	1499
2009	1526
2010	1575
2011	1552
2012	1605
2013	946
2014	1088
2015	1325
2016	1305
2017	1252
2018	1223
2019	1279

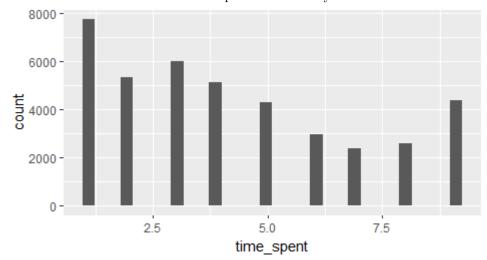
Table 6: Number of households present in 2010 and 2011

year	n
2010	11050
2011	11360

# Exercise 3

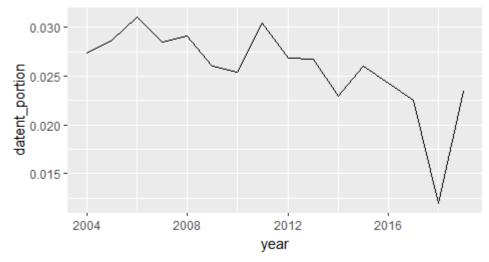
## 3.1

Below is the distribution of the time spent in the survey for each household



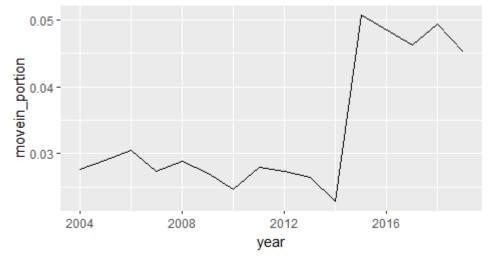
3.2

the detail for the table is in the r file.

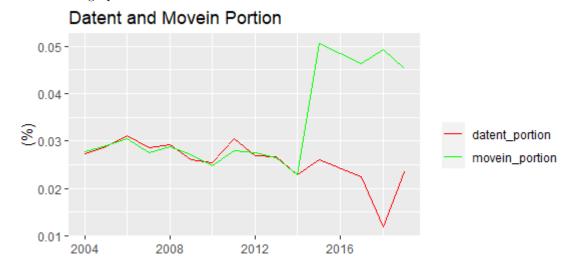


## 3.3

the detail for the table is in the r file.



# 3.4Below is the graph.



3.5 9851 households had at least one family member changed his/her profession or employment status.

# Exercise 4

Table 7: attrition across each year

year	$attrition\_rate$
2004	0.11
2005	0.17
2006	0.15
2007	0.20
2008	0.18
2009	0.16
2010	0.16
2011	0.15
2012	0.20
2013	0.18
2014	0.18
2015	0.18
2016	0.20
2017	0.20
2018	0.23