

Homework 1

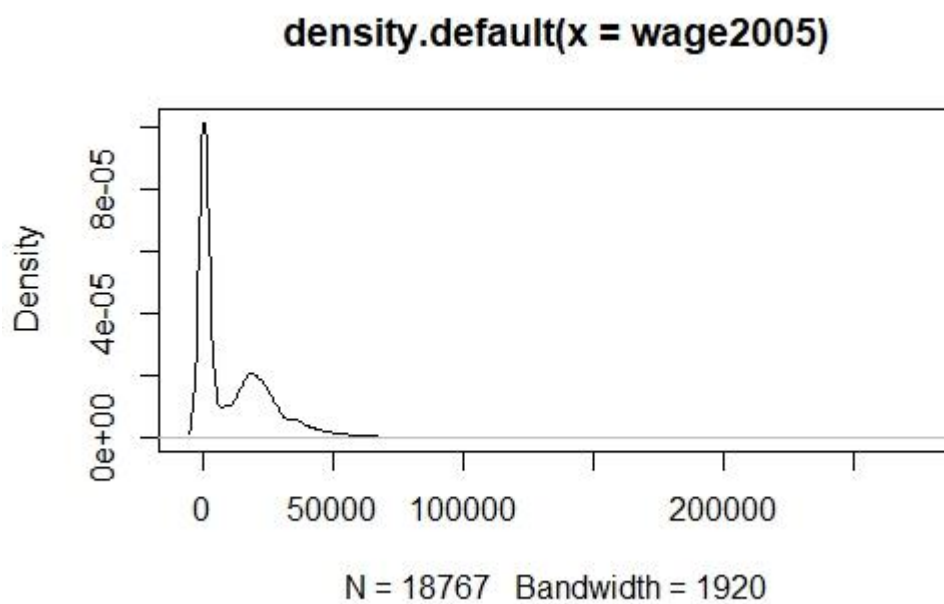
1. 10498

2. 3374

3. 25510

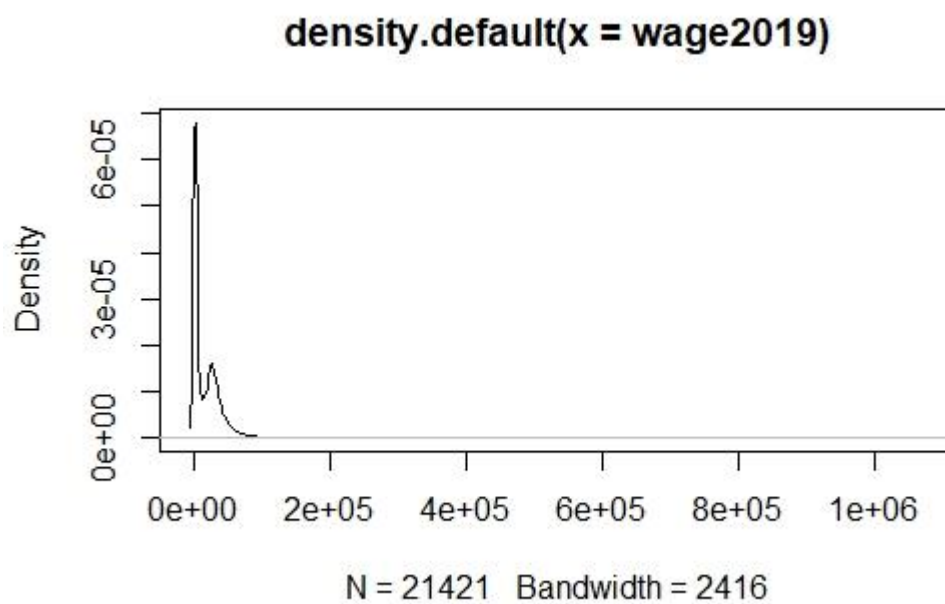
4. 2765

	.id	label	variable	Female	Male
	1	profession	profession	0 11 (36.67%)	19 (63.33%)
	2	profession	profession	11 30 (34.48%)	57 (65.52%)
	3	profession	profession	12 8 (29.63%)	19 (70.37%)
	4	profession	profession	13 29 (27.10%)	78 (72.90%)
	5	profession	profession	21 63 (22.83%)	213 (77.17%)
	6	profession	profession	22 65 (36.31%)	114 (63.69%)
	7	profession	profession	23 8 (14.29%)	48 (85.71%)
	8	profession	profession	31 68 (40.96%)	98 (59.04%)
	9	profession	profession	33 85 (44.27%)	107 (55.73%)
	10	profession	profession	34 184 (56.44%)	142 (43.56%)
	11	profession	profession	35 50 (45.87%)	59 (54.13%)
	12	profession	profession	37 179 (40.77%)	260 (59.23%)
	13	profession	profession	38 78 (17.49%)	368 (82.51%)
	14	profession	profession	42 258 (70.11%)	110 (29.89%)
	15	profession	profession	43 437 (78.88%)	117 (21.12%)
	16	profession	profession	44 1 (33.33%)	2 (66.67%)
	17	profession	profession	45 153 (61.69%)	95 (38.31%)
	18	profession	profession	46 410 (54.67%)	340 (45.33%)
	19	profession	profession	47 82 (16.05%)	429 (83.95%)
	20	profession	profession	48 22 (9.28%)	215 (90.72%)
	21	profession	profession	52 782 (82.23%)	169 (17.77%)
	22	profession	profession	53 27 (12.92%)	182 (87.08%)
	23	profession	profession	54 584 (85.63%)	98 (14.37%)
	24	profession	profession	55 353 (77.75%)	101 (22.25%)
	25	profession	profession	56 696 (90.39%)	74 (9.61%)
	26	profession	profession	62 64 (12.62%)	443 (87.38%)
	27	profession	profession	63 35 (6.31%)	520 (93.69%)
	28	profession	profession	64 29 (10.55%)	246 (89.45%)
	29	profession	profession	65 19 (10.67%)	159 (89.33%)
	30	profession	profession	67 147 (38.28%)	237 (61.72%)
	31	profession	profession	68 120 (40.40%)	177 (59.60%)
	32	profession	profession	69 40 (32.79%)	82 (67.21%)
5.	33	profession	profession	NA	8167 6949



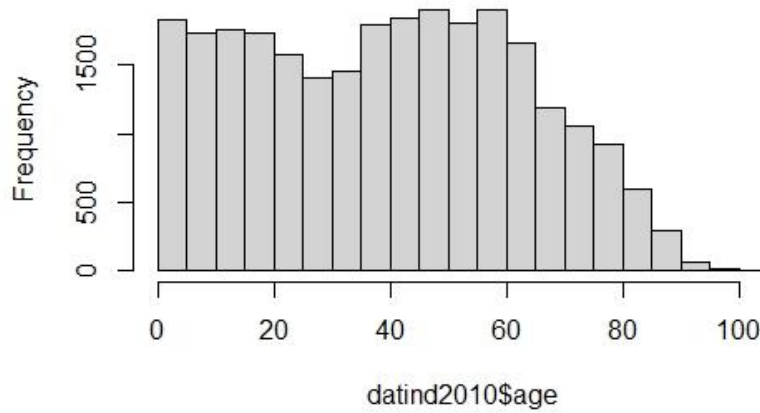
6.

2005: mean=22443, sd=18077, inter-decile=8.90, gini=0.377



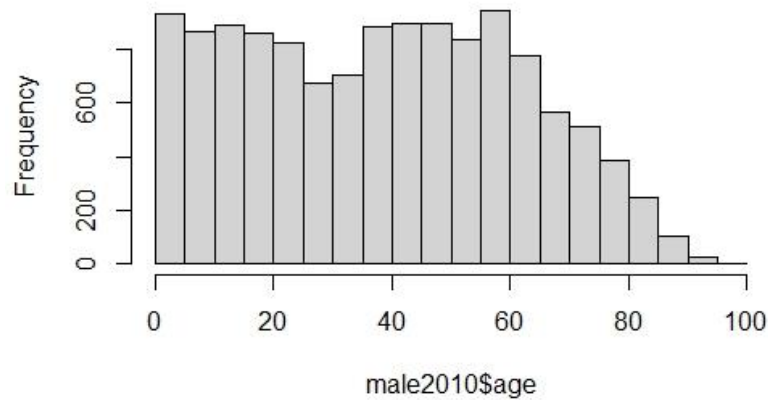
2019: mean=27579, sd=25107, inter-decile=13.86, gini=0.399

Histogram of datind2010\$age

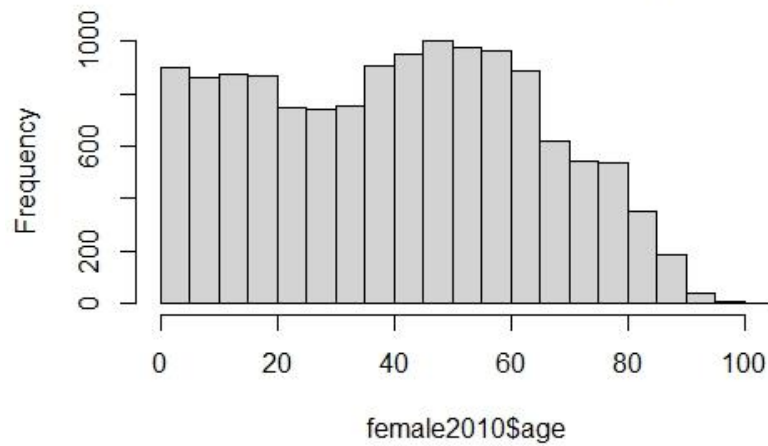


7.

Histogram of male2010\$age



Histogram of female2010\$age



There are fewer men around 30 years old. There are more elder men.

8. 3514

Exercise 2

1.

2.

3. idmen, year

4.

5. 12436

6. 17241

7. 7586

8. 209382

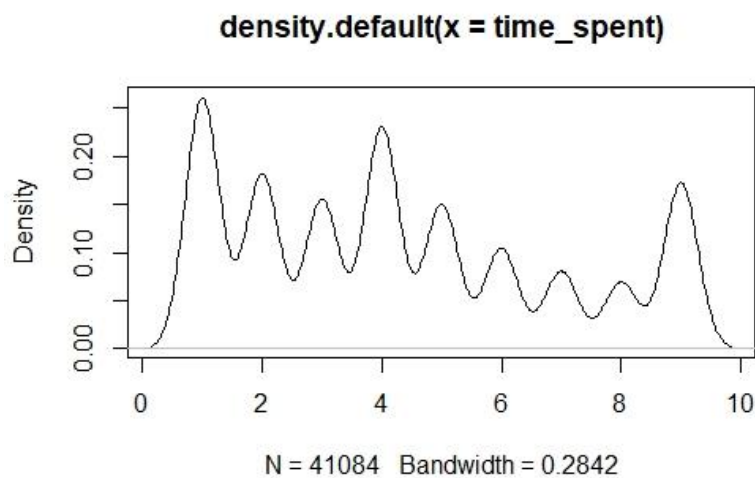
9. 51904

10. 2007: 2207811124040100 with 14 members;

2010: 2510263102990100 with 14 members.

11. 8984

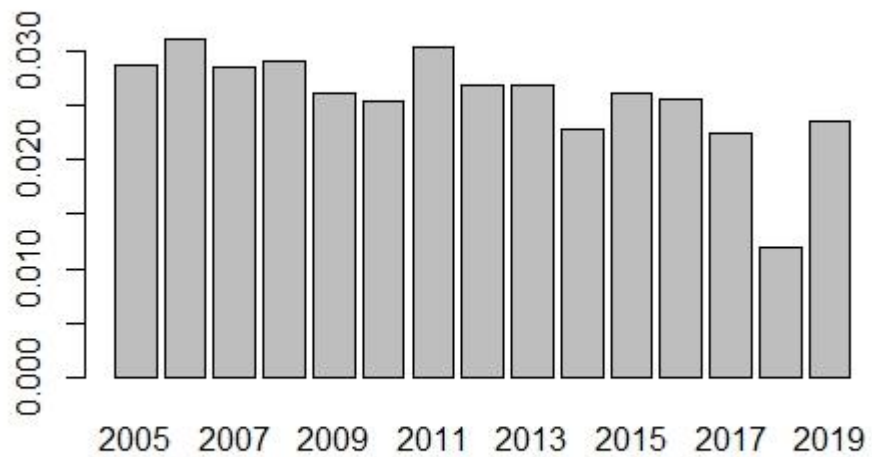
Exercise 3



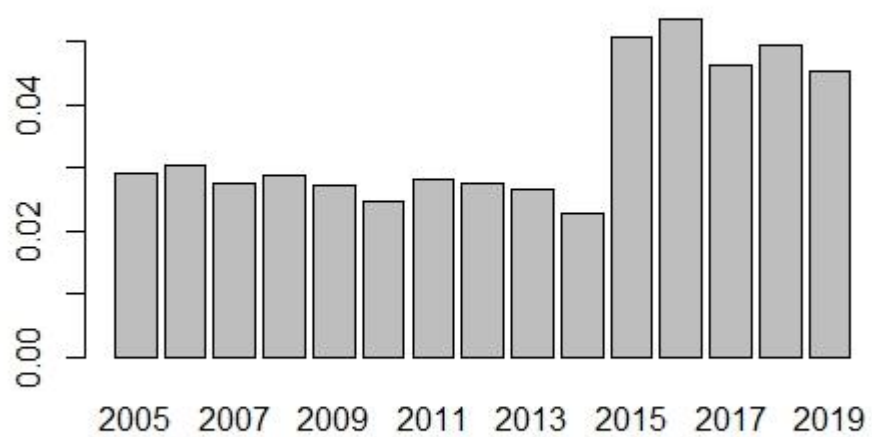
1.

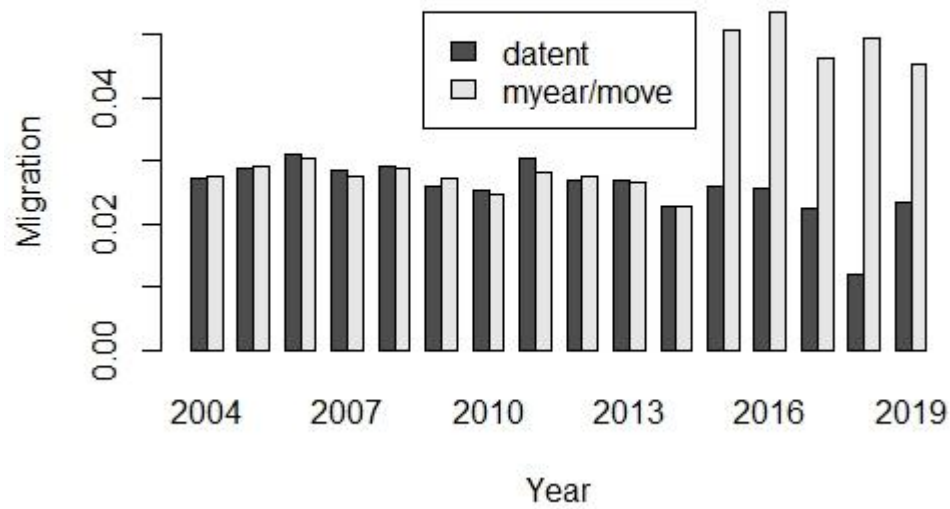
Mean=4.31, sd=2.64.

2. FALSE FALSE FALSE FALSE FALSE FALSE FALSE FALSE
FALSE FALSE



3. FALSE FALSE FALSE FALSE FALSE FALSE FALSE FALSE
FALSE FALSE





4.

I prefer the first method, since the other one involves "myear" and "move", which creates inconsistency.

5. 3369

Exercise 4

	Year	percent.At
1	2005	-4.92%
2	2006	-1.30%
3	2007	-2.00%
4	2008	-0.07%
5	2009	-0.63%
6	2010	-1.78%
7	2011	-1.44%
8	2012	-2.24%
9	2013	1.60%
10	2014	-0.19%
11	2015	0.05%
12	2016	-0.22%
13	2017	1.12%
14	2018	1.15%
15	2019	-1.52%