Homework 3

Exercise 1

Number of students, schools, programs: 151697, 689, 32

Number of choices (school, program): 2843

Number of students applying to at least one senior high schools in the same district to home: 112106

Number of students each senior high school admitted

	schoolcod	size
1	10101	374
2	10102	220
3	10103	389
4	10104	209
5	10105	324
6	10106	359
7	10107	288
8	10108	292
9	10109	283
10	10110	445
11	10111	520
12	10112	274
13	10114	318
14	10115	222
15	10116	416
16	10117	428
17	10118	469
18	10119	370
19	10120	248
20	10121	452

The cutoff of senior high schools (the lowest score to be admitted)

	schoolcod	cutoff
1	10101	284
2	10102	343
3	10103	316
4	10104	245
5	10105	260
6	10106	293
7	10107	281
8	10108	248
9	10109	257
10	10110	343
11	10111	371
12	10112	316
13	10114	319
14	10115	274
15	10116	205
16	10117	330
17	10118	275
18	10119	235
19	10120	243

The quality of senior high schools (the average score of students admitted)

	schoolcod	quality
1	10101	320.1898
2	10102	394.1273
3	10103	353.8226
4	10104	297.0096
5	10105	351.2778
6	10106	339.9081
7	10107	311.6597
8	10108	303.3459
9	10109	282.0353
10	10110	407.3124
11	10111	412.0635
12	10112	375.562
13	10114	345.9937
14	10115	315.8333
15	10116	289.9736
16	10117	369.6238
17	10118	315.2111
18	10119	288.6459
19	10120	278.9919
20	10121	382.4071

Exercise 2

	choice	schoolcod	choicepgn	sssdistrict	ssslong	ssslat	cutoff	quality	size
1	100101/General Arts	100101	General A	Wa Munic	-2.28503	10.03062	198	244.1923	78
2	100101/Home Economics	100101	Home Eco	Wa Munic	-2.28503	10.03062	199	229.45	40
3	100101/Technical	100101	Technical	Wa Munic	-2.28503	10.03062	201	235.102	49
4	100102/Agriculture	100102	Agriculture	Wa Munic	-2.28503	10.03062	273	292.7816	87
5	100102/Business	100102	Business	Wa Munic	-2.28503	10.03062	283	303.1294	85
6	100102/General Arts	100102	General A	Wa Munic	-2.28503	10.03062	291	310.8023	86
7	100102/General Science	100102	General Sc	Wa Munic	-2.28503	10.03062	273	298.5843	89
8	100102/Home Economics	100102	Home Eco	Wa Munic	-2.28503	10.03062	262	279	44
9	100102/Visual Arts	100102	Visual Arts	Wa Munic	-2.28503	10.03062	250	273.0714	42
10	100104/General Arts	100104	General A	Wa Munic	-2.28503	10.03062	319	335.907	43
11	100104/General Science	100104	General Sc	Wa Munic	-2.28503	10.03062	313	333.75	44
12	100104/Home Economics	100104	Home Eco	Wa Munic	-2.28503	10.03062	282	309.3556	45
13	100105/Business	100105	Business	Wa Munic	-2.28503	10.03062	251	267.6184	76
14	100105/General Arts	100105	General A	Wa Munic	-2.28503	10.03062	258	274.8182	77
15	100105/Home Economics	100105	Home Eco	Wa Munic	-2.28503	10.03062	242	257.7342	79
16	100106/Agriculture	100106	Agriculture	Wa Munic	-2.28503	10.03062	223	240.625	40
17	100106/Business	100106	Business	Wa Munic	-2.28503	10.03062	238	253.5385	39
18	100106/General Arts	100106	General A	Wa Munic	-2.28503	10.03062	248	268.975	40
19	100201/Business	100201	Business	Lawra	-2.80094	10.5464	288	314.5789	76
20	100201/General Arts	100201	General A	Lawra	-2.80094	10.5464	319	339	39

Exercise 3

	V1.x	schoolco	choicepgm	dis
1	181629	30108	General Arts	7.719788
2	220022	30801	General Arts	37.28004
3	181920	30402	Business	0
4	207944	30109	Business	7.719788
5	259049	30305	Visual Arts	14.03482
6	208933	9030401	Motor Vehicle M	0
7	182139	30304	Home Economi	14.03482
8	181703	30402	General Arts	0
9	181772	30203	Visual Arts	16.57445
10	181704	30108	General Arts	7.719788
11	208872	30303	Technical	14.03482
12	179891	30105	Business	7.719788
13	182125	30402	Business	0
14	181984	31102	General Arts	39.53629
15	181348	31202	Business	46.46183
16	179915	30305	General Arts	14.03482
17	218509	40105	General Arts	29.58229
18	267223	30303	General Arts	14.03482
19	264139	30402	General Arts	0
20	287327	31201	Agriculture	46.46183

Exercise 4

	choice_rev	V1	score	agey	male	jssdistrict	rankplace	school	program	scode_rev	pgm_rev	cutoff	quality
1	100/Arts	311927	374	16	1	Adansi We	1	4	4	100	Arts	194	274.9276
2	100/Arts	203546	402	16	0	Wa Munic	3	6	6	100	Arts	194	274.9276
3	100/Arts	272715	358	15	1	Wa Munic	1	2	2	100	Arts	194	274.9276
4	100/Arts	313075	357	19	0	Kintampo	1	2	2	100	Arts	194	274.9276
5	100/Arts	327636	358	15	1	Accra Met	1	3	3	100	Arts	194	274.9276
6	100/Arts	324894	357	17	0	Wa Munic	1	5	5	100	Arts	194	274.9276
7	100/Arts	272718	396	18	1	Wa Munic	1	2	2	100	Arts	194	274.9276
8	100/Arts	236278	359	15	0	Tema	3	4	4	100	Arts	194	274.9276
9	100/Arts	334375	372	17	1	Upper Der	1	3	3	100	Arts	194	274.9276
10	100/Arts	203715	392	14	0	Wa Munic	2	6	6	100	Arts	194	274.9276
11	100/Arts	324585	387	17	0	Tamale	1	4	4	100	Arts	194	274.9276
12	100/Arts	272644	380	17	1	Jirapa/Lan	1	5	5	100	Arts	194	274.9276
13	100/Arts	272561	399	16	1	Sisala/Tun	1	5	5	100	Arts	194	274.9276
14	100/Arts	261500	383	18	1	Bibiani/An	1	1	1	100	Arts	194	274.9276
15	100/Arts	272577	455	16	1	Wa West (	1	3	3	100	Arts	194	274.9276
16	100/Arts	334479	379	19	1	Adansi We	1	2	2	100	Arts	194	274.9276
17	100/Arts	272703	386	16	1	Wa West (	1	2	2	100	Arts	194	274.9276
18	100/Arts	324680	390	18	1	Wa West (	1	5	5	100	Arts	194	274.9276
19	100/Arts	313133	362	16	0	Bolgatang	1	2	2	100	Arts	194	274.9276
20	100/Arts	272557	362	17	1	Tamale	1	3	3	100	Arts	194	274.9276

Exercise 5
Exercise 6
Exercise 7
I think either of the models is appropriate. Maybe using the second model is more interesting, since the independent variable varies across choices.