## Notes

Wu Yanhui and Wang Junming 2019.04.10

## Data

age							_	_
2 39 4007 2 1 .3634287 .2949319 .2095751 3 41 3919 3 2 .2586531 .4361147 .2258598 4 42 4072 4 3 .2935456 .2332505 .3512164 5 40 4130 5 3 .3711109 .1682706 .2884656 6 37 4064 6 2 .4454358 .2074483 .166786 7 38 4047 7 4 .4105323 .2364385 .1919639 8 40 4025 8 1 .3408215 .2804236 .2501718 9 41 4064 9 1 .3232263 .239344 .3054812 10 36 3926 10 2 .4014423 .3643469 .1106047 11 45 3934 11 2 12 39 3962 12 3 13 38 3983 13 2 14 40 3991 14 2 15 40 3870 15 3 16 39 4056 16 3		age	income	id	choice	c1	c2	C3
3         41         3919         3         2         .2586531         .4361147         .2258598           4         42         4072         4         3         .2935456         .2332505         .3512164           5         40         4130         5         3         .3711109         .1682706         .2884656           6         37         4064         6         2         .4454358         .2074483         .166786           7         38         4047         7         4         .4105323         .2364385         .1919639           8         40         4025         8         1         .3408215         .2804236         .2501718           9         41         4064         9         1         .3232263         .239344         .3054812           10         36         3926         10         2         .4014423         .3643469         .1106047           11         45         3934         11         2         .         .         .           12         39         3962         12         3         .         .         .           13         38         3983         13         2	1	43	4031	1	2	.2509485	.2825712	.3700794
4         42         4072         4         3         .2935456         .2332505         .3512164           5         40         4130         5         3         .3711109         .1682706         .2884656           6         37         4064         6         2         .4454358         .2074483         .166786           7         38         4047         7         4         .4105323         .2364385         .1919639           8         40         4025         8         1         .3408215         .2804236         .2501718           9         41         4064         9         1         .3232263         .239344         .3054812           10         36         3926         10         2         .4014423         .3643469         .1106047           11         45         3934         11         2         .         .         .           12         39         3962         12         3         .         .         .           13         38         3983         13         2         .         .         .           14         40         3991         14         2         .	2	39	4007	2	1	.3634287	.2949319	.2095751
5         40         4130         5         3         .3711109         .1682706         .2884656           6         37         4064         6         2         .4454358         .2074483         .166786           7         38         4047         7         4         .4105323         .2364385         .1919639           8         40         4025         8         1         .3408215         .2804236         .2501718           9         41         4064         9         1         .3232263         .239344         .3054812           10         36         3926         10         2         .4014423         .3643469         .1106047           11         45         3934         11         2         .         .         .           12         39         3962         12         3         .         .         .           13         38         3983         13         2         .         .         .           14         40         3991         14         2         .         .         .           15         40         3870         15         3         .         .	3	41	3919	3	2	.2586531	.4361147	.2258598
6 37 4064 6 2 .4454358 .2074483 .166786 7 38 4047 7 4 .4105323 .2364385 .1919639 8 40 4025 8 1 .3408215 .2804236 .2501718 9 41 4064 9 1 .3232263 .239344 .3054812 10 36 3926 10 2 .4014423 .3643469 .1106047 11 45 3934 11 2 12 39 3962 12 3 13 38 3983 13 2 14 40 3991 14 2 15 40 3870 15 3 16 39 4056 16 3 17 40 3980 17 4 18 42 4009 18 2 19 37 4044 19 4 20 44 3951 20 3 21 42 4068 21 3	4	42	4072	4	3	.2935456	.2332505	.3512164
7         38         4047         7         4         .4105323         .2364385         .1919639           8         40         4025         8         1         .3408215         .2804236         .2501718           9         41         4064         9         1         .3232263         .239344         .3054812           10         36         3926         10         2         .4014423         .3643469         .1106047           11         45         3934         11         2         .         .         .           12         39         3962         12         3         .         .         .           13         38         3983         13         2         .         .         .           14         40         3991         14         2         .         .         .           15         40         3870         15         3         .         .         .         .           16         39         4056         16         3         .         .         .         .           17         40         3980         17         4         .         . <td< td=""><td>5</td><td>40</td><td>4130</td><td>5</td><td>3</td><td>.3711109</td><td>.1682706</td><td>.2884656</td></td<>	5	40	4130	5	3	.3711109	.1682706	.2884656
8       40       4025       8       1       .3408215       .2804236       .2501718         9       41       4064       9       1       .3232263       .239344       .3054812         10       36       3926       10       2       .4014423       .3643469       .1106047         11       45       3934       11       2       .       .       .         12       39       3962       12       3       .       .       .         13       38       3983       13       2       .       .       .         14       40       3991       14       2       .       .       .         15       40       3870       15       3       .       .       .         16       39       4056       16       3       .       .       .         17       40       3980       17       4       .       .       .         18       42       4009       18       2       .       .       .         19       37       4044       19       4       .       .       .         20       44	6	37	4064	6	2	.4454358	.2074483	.166786
9 41 4064 9 1 .3232263 .239344 .3054812 10 36 3926 10 2 .4014423 .3643469 .1106047 11 45 3934 11 2 12 39 3962 12 3 13 38 3983 13 2 14 40 3991 14 2 15 40 3870 15 3 16 39 4056 16 3 17 40 3980 17 4 18 42 4009 18 2 19 37 4044 19 4 20 44 3951 20 3 21 42 4068 21 3	7	38	4047	7	4	.4105323	.2364385	.1919639
10       36       3926       10       2       .4014423       .3643469       .1106047         11       45       3934       11       2       .       .       .         12       39       3962       12       3       .       .       .         13       38       3983       13       2       .       .       .       .         14       40       3991       14       2       .       .       .       .       .         15       40       3870       15       3       .	8	40	4025	8	1	.3408215	.2804236	.2501718
11       45       3934       11       2       .       .       .         12       39       3962       12       3       .       .       .         13       38       3983       13       2       .       .       .         14       40       3991       14       2       .       .       .         15       40       3870       15       3       .       .       .         16       39       4056       16       3       .       .       .         17       40       3980       17       4       .       .       .         18       42       4009       18       2       .       .       .         19       37       4044       19       4       .       .       .         20       44       3951       20       3       .       .       .         21       42       4068       21       3       .       .       .         21       42       4068       21       3       .       .       .         23       37       4038       23       1	9	41	4064	9	1	.3232263	.239344	.3054812
12       39       3962       12       3       .       .       .       .         13       38       3983       13       2       .       .       .       .         14       40       3991       14       2       .       .       .       .         15       40       3870       15       3       .       .       .       .         16       39       4056       16       3       .       .       .       .       .         17       40       3980       17       4       .       <	10	36	3926	10	2	.4014423	.3643469	.1106047
13       38       3983       13       2       .        .       .       .       .       .       .       .       .       .       .       .       .       .       .       .        .	11	45	3934	11	2			
14       40       3991       14       2       .       .       .       .         15       40       3870       15       3       .       .       .       .         16       39       4056       16       3       .       .       .       .         17       40       3980       17       4       .       .       .       .       .         18       42       4009       18       2       . <td>12</td> <td>39</td> <td>3962</td> <td>12</td> <td>3</td> <td></td> <td></td> <td></td>	12	39	3962	12	3			
15       40       3870       15       3       .        .       .       .       .       .       .       .       .       .       .       .       .       .       .       .        .	13	38	3983	13	2			
16       39       4056       16       3       .       .       .         17       40       3980       17       4       .       .       .         18       42       4009       18       2       .       .       .         19       37       4044       19       4       .       .       .         20       44       3951       20       3       .       .       .         21       42       4068       21       3       .       .       .         22       37       4039       22       1       .       .       .         23       37       4038       23       1       .       .       .         24       40       4022       24       1       .       .       .         25       40       4045       25       1       .       .       .         26       39       4065       26       2       .       .       .         27       41       3995       27       2       .       .       .	14	40	3991	14	2			
17       40       3980       17       4       . </td <td>15</td> <td>40</td> <td>3870</td> <td>15</td> <td>3</td> <td></td> <td></td> <td></td>	15	40	3870	15	3			
18     42     4009     18     2     .     .     .       19     37     4044     19     4     .     .     .       20     44     3951     20     3     .     .     .       21     42     4068     21     3     .     .     .       22     37     4039     22     1     .     .     .       23     37     4038     23     1     .     .     .       24     40     4022     24     1     .     .     .       25     40     4045     25     1     .     .     .       26     39     4065     26     2     .     .     .       27     41     3995     27     2     .     .     .	16	39	4056	16	3			
19       37       4044       19       4       . </td <td>17</td> <td>40</td> <td>3980</td> <td>17</td> <td>4</td> <td></td> <td></td> <td></td>	17	40	3980	17	4			
20     44     3951     20     3     .     .     .       21     42     4068     21     3     .     .     .       22     37     4039     22     1     .     .     .       23     37     4038     23     1     .     .     .       24     40     4022     24     1     .     .     .       25     40     4045     25     1     .     .     .       26     39     4065     26     2     .     .     .       27     41     3995     27     2     .     .     .	18	42	4009	18	2			
21     42     4068     21     3     .     .     .       22     37     4039     22     1     .     .     .       23     37     4038     23     1     .     .     .       24     40     4022     24     1     .     .     .       25     40     4045     25     1     .     .     .       26     39     4065     26     2     .     .     .       27     41     3995     27     2     .     .     .	19	37	4044	19	4			
22     37     4039     22     1     .     .     .       23     37     4038     23     1     .     .     .       24     40     4022     24     1     .     .     .       25     40     4045     25     1     .     .     .       26     39     4065     26     2     .     .     .       27     41     3995     27     2     .     .     .	20	44	3951	20	3			
23     37     4038     23     1     .     .     .       24     40     4022     24     1     .     .     .       25     40     4045     25     1     .     .     .       26     39     4065     26     2     .     .     .       27     41     3995     27     2     .     .     .	21	42	4068	21	3			
24     40     4022     24     1     .     .     .       25     40     4045     25     1     .     .     .       26     39     4065     26     2     .     .     .       27     41     3995     27     2     .     .     .	22	37	4039	22	1			
25     40     4045     25     1     .     .     .       26     39     4065     26     2     .     .     .       27     41     3995     27     2     .     .     .	23	37	4038	23	1			
26 39 4065 26 2	24	40	4022	24	1			
27 41 3995 27 2	25	40	4045	25	1			
20 42 4024 20 4	26	39	4065	26	2			
28 43 4031 28 4	27	41	3995	27	2			
	28	43	4031	28	4			

29	40	3993	29	2		
30	43	3951	30	3		
31	39	4011	31	3		
32	41	4006	32	3		
33	40	4008	33	3		
34	39	4002	34	2		
35	40	3911	35	2		
36	36	4040	36	1		
37	41	4040	37	1		
38	39	4059	38	1		
39	38	3964	39	1		
40	39	3923	40	1		
41	41	3946	41	1		
42	42	3934	42	2		
43	41	4000	43	2		
44	42	3994	44	4		
45	38	4018	45	4		
46	39	4032	46	3		
47	40	4014	47	3		
48	40	4008	48	3		
49	41	3977	49	2		
50	39	4036	50	4		
51	39	3937	51	2		
52	39	3933	52	1		
53	41	4007	53	1		
54	39	3930	54	1		
55	42	4015	55	1		

57       38       3949       57       1       .        .       .       .       .       .       .       .       .       .       .       .       .       .       .       .        .	5.6	40	4003	5.6	4			
58       39       4082       58       1       .        .       .       .       .       .       .       .       .       .       .       .       .       .       .       .        .	56			56	1			
59       39       4049       59       1       .        .       .       .       .       .       .       .       .       .       .       .       .       .       .       .        .						•	•	•
60       41       4082       60       2       .        .       .       .       .       .       .       .       .       .       .       .       .       .       .       .        .		39	4082		1			
61       43       3926       61       3       .       .       .         62       37       3994       62       3       .       .       .         63       42       3955       63       3       .       .       .         64       39       3998       64       2       .       .       .         65       39       3950       65       2       .       .       .       .         66       41       4048       66       2       .       <	59	39	4049	59	1			
62       37       3994       62       3       .       .       .       .         63       42       3955       63       3       .       .       .       .         64       39       3998       64       2       .       .       .       .         65       39       3990       65       2       .       .       .       .       .         66       41       4048       66       2       .        . <td>60</td> <td>41</td> <td>4082</td> <td>60</td> <td>2</td> <td></td> <td></td> <td></td>	60	41	4082	60	2			
63       42       3955       63       3       .        .       .       .       .       .       .       .       .       .       .       .       .       .       .       .        .	61	43	3926	61	3			
64       39       3998       64       2       .       .       .       .         65       39       3950       65       2       .       .       .       .         66       41       4048       66       2       .       .       .       .         67       36       3902       67       4       .       .       .       .         68       39       3990       68       4       .       .       .       .       .         69       38       4071       69       1       .       .       .       .       .         70       43       4063       70       1       .       .       .       .       .         71       38       3987       71       1       .       .       .       .       .         72       42       4011       72       1       .       .       .       .       .         73       41       4011       73       1       .       .       .       .       .         75       40       3908       75       2       .       .       .	62	37	3994	62	3			
65       39       3950       65       2       .        .<	63	42	3955	63	3			
66       41       4048       66       2       .       .       .       .         67       36       3902       67       4       .       .       .         68       39       3990       68       4       .       .       .         69       38       4071       69       1       .       .       .         70       43       4063       70       1       .       .       .         71       38       3987       71       1       .       .       .         72       42       4011       72       1       .       .       .         73       41       4011       73       1       .       .       .         74       42       3994       74       2       .       .       .         75       40       3908       75       2       .       .       .         76       41       4067       76       4       .       .       .         77       37       3993       77       2       .       .       .         79       38       4039       79	64	39	3998	64	2			
67       36       3902       67       4       .        .<	65	39	3950	65	2			
68       39       3990       68       4       . </td <td>66</td> <td>41</td> <td>4048</td> <td>66</td> <td>2</td> <td></td> <td></td> <td></td>	66	41	4048	66	2			
69       38       4071       69       1       . </td <td>67</td> <td>36</td> <td>3902</td> <td>67</td> <td>4</td> <td></td> <td></td> <td></td>	67	36	3902	67	4			
70       43       4063       70       1       .       .       .         71       38       3987       71       1       .       .       .         72       42       4011       72       1       .       .       .         73       41       4011       73       1       .       .       .         74       42       3994       74       2       .       .       .         75       40       3908       75       2       .       .       .         76       41       4067       76       4       .       .       .         77       37       3993       77       2       .       .       .         78       40       4049       78       3       .       .       .         79       38       4039       79       3       .       .       .         80       37       4043       80       3       .       .       .         81       38       4059       81       3       .       .       .       .	68	39	3990	68	4			
71       38       3987       71       1       . </td <td>69</td> <td>38</td> <td>4071</td> <td>69</td> <td>1</td> <td></td> <td></td> <td></td>	69	38	4071	69	1			
72       42       4011       72       1       .       .       .         73       41       4011       73       1       .       .       .         74       42       3994       74       2       .       .       .         75       40       3908       75       2       .       .       .         76       41       4067       76       4       .       .       .         77       37       3993       77       2       .       .       .         78       40       4049       78       3       .       .       .         79       38       4039       79       3       .       .       .         80       37       4043       80       3       .       .       .         81       38       4059       81       3       .       .       .       .	70	43	4063	70	1			
73       41       4011       73       1       .       .       .         74       42       3994       74       2       .       .       .         75       40       3908       75       2       .       .       .         76       41       4067       76       4       .       .       .         77       37       3993       77       2       .       .       .         78       40       4049       78       3       .       .       .         79       38       4039       79       3       .       .       .         80       37       4043       80       3       .       .       .         81       38       4059       81       3       .       .       .       .	71	38	3987	71	1			
74       42       3994       74       2       .       .       .         75       40       3908       75       2       .       .       .         76       41       4067       76       4       .       .       .         77       37       3993       77       2       .       .       .         78       40       4049       78       3       .       .       .         79       38       4039       79       3       .       .       .         80       37       4043       80       3       .       .       .         81       38       4059       81       3       .       .       .       .	72	42	4011	72	1			
75       40       3908       75       2       .       .       .       .         76       41       4067       76       4       .       .       .       .         77       37       3993       77       2       .       .       .       .         78       40       4049       78       3       .       .       .       .         79       38       4039       79       3       .       .       .       .         80       37       4043       80       3       .       .       .       .         81       38       4059       81       3       .       .       .       .	73	41	4011	73	1			
76       41       4067       76       4       .       .       .       .         77       37       3993       77       2       .       .       .       .         78       40       4049       78       3       .       .       .       .         79       38       4039       79       3       .       .       .       .         80       37       4043       80       3       .       .       .       .         81       38       4059       81       3       .       .       .       .       .	74	42	3994	74	2			
77     37     3993     77     2     .     .     .       78     40     4049     78     3     .     .     .       79     38     4039     79     3     .     .     .       80     37     4043     80     3     .     .     .       81     38     4059     81     3     .     .     .	75	40	3908	75	2			
78     40     4049     78     3     .     .     .       79     38     4039     79     3     .     .     .       80     37     4043     80     3     .     .     .       81     38     4059     81     3     .     .     .	76	41	4067	76	4			
79     38     4039     79     3     .     .     .       80     37     4043     80     3     .     .     .       81     38     4059     81     3     .     .     .     .	77	37	3993	77	2			
80     37     4043     80     3     .     .     .       81     38     4059     81     3     .     .     .	78	40	4049	78	3			
81 38 4059 81 3	79	38	4039	79	3			
81 38 4059 81 3	80	37	4043	80	3			
	81	38	4059	81	3			
			3995					

83	37	3933	83	1		
84	38	3979	84	1		
85	39	3883	85	1		
86	43	4017	86	1		
87	39	4026	87	2		
88	39	4032	88	2		
89	39	3961	89	2		
90	42	3988	90	1		
91	39	3966	91	2		
92	40	3971	92	4		
93	40	4025	93	1		
94	37	4031	94	2		
95	46	4054	95	3		
96	41	3924	96	3		
97	41	3953	97	3		
98	42	4036	98	2		
99	40	3996	99	1		
100	42	4029	100	4		

## Code

the codes are as follows: mlogit choice age income predict c1 c2 c3 c4 in 1/10 or asclogit choice case(id) age income predict c5 c6 c7 c8 in 1/10