

Appendix C

Table C1  
Balancing of Covariates After Matching with a Subset of Covariates for Treatment Group 1  
(Unemployed and Retired)

	Nearest Neighbor with replacement				Nearest 5 Neighbors with replacement			
	Mean Treated	Mean Control	%bias	P value	Mean Treated	Mean Control	%bias	P value
Age	5.14	5.16	-2.50	0.83	5.14	5.16	-2.50	0.83
Age square	27.08	27.24	-2.20	0.85	27.08	27.22	-2.00	0.87
Gender	1.35	1.35	1.40	0.91	1.35	1.34	2.90	0.81
Education	3.27	3.37	-9.40	0.42	3.27	3.43	-14.90	0.20
Age*Education	16.55	17.12	-10.10	0.38	16.55	17.60	-18.40	0.13
Education*Gender	4.31	4.47	-7.50	0.53	4.31	4.54	-10.80	0.37
No of Children in Household	0.31	0.34	-2.60	0.76	0.31	0.29	2.50	0.76
Rural	0.10	0.11	-2.00	0.85	0.10	0.09	4.20	0.68
Small Town	0.22	0.20	3.20	0.78	0.22	0.20	3.80	0.74
Micropolitan	0.15	0.13	5.60	0.62	0.15	0.12	7.40	0.52
	Radius Matching ( caliper =0.5*SD)				Kernel Matching ( bandwidth =0.06)			
	Mean Treated	Mean Control	%bias	P value	Mean Treated	Mean Control	%bias	P value
Age	5.14	5.09	7.00	0.56	5.14	5.11	4.20	0.72
Age square	27.08	26.60	6.50	0.60	27.08	26.78	4.00	0.74
Gender	1.35	1.33	4.40	0.71	1.35	1.35	0.30	0.98
Education	3.27	3.33	-5.70	0.63	3.27	3.40	-12.50	0.29
Age*Education	16.55	16.67	-2.10	0.87	16.55	17.11	-9.90	0.42
Education*Gender	4.31	4.37	-2.60	0.84	4.31	4.51	-9.10	0.46
No of Children in Household	0.31	0.41	-9.90	0.27	0.31	0.36	-4.60	0.60
Rural	0.10	0.12	-3.70	0.74	0.10	0.10	2.80	0.78
Small Town	0.22	0.21	2.50	0.82	0.22	0.22	0.10	1.00
Micropolitan	0.15	0.14	2.10	0.86	0.15	0.15	0.50	0.97

Note: For each matching algorithm, the balancing of covariates is assessed based on two criterions: (a) the difference between mean of treated and matched control group, and (b) standardized mean difference of the covariates between the treatment and control group. The standardized difference of means is calculated as

$$\frac{Mean_{treated} - Mean_{control}}{\sqrt{\frac{1}{2} * (Variance_{treated} + Variance_{control})}}$$
. A standardized difference of means of 25 is considered large (Rosenbaum and Rubin 1983; Imbens and Woolridge 2009).

Table C2

Balancing of Covariates After Matching with a Subset of Covariates for Treatment Group 2

(Unemployed)

	Nearest Neighbor with replacement				Nearest 5 Neighbors with replacement			
	Mean Treated	Mean Control	%bias	P value	Mean Treated	Mean Control	%bias	P value
Age	4.73	4.84	-14.20	0.45	4.73	4.88	-19.70	0.29
Age square	23.02	24.07	-14.20	0.46	23.02	24.48	-19.90	0.30
Gender	1.42	1.40	3.50	0.86	1.42	1.34	16.20	0.39
Education	3.21	3.10	11.10	0.53	3.21	3.20	1.10	0.95
Age*Education	14.84	14.87	-0.60	0.97	14.84	15.56	-13.40	0.46
Education*Gender	4.47	4.27	9.00	0.62	4.47	4.29	8.30	0.66
No of Children in Household	0.50	0.50	0.00	1.00	0.50	0.40	9.20	0.52
Rural	0.10	0.13	-9.80	0.57	0.10	0.09	1.80	0.91
Small Town	0.29	0.27	3.70	0.84	0.29	0.28	2.90	0.88
Micropolitan	0.18	0.15	8.90	0.63	0.18	0.12	16.70	0.35
	Radius Matching ( caliper =0.5*SD)				Kernel Matching ( bandwidth =0.06)			
	Mean Treated	Mean Control	%bias	P value	Mean Treated	Mean Control	%bias	P value
Age	4.73	4.72	1.00	0.96	4.73	4.67	6.50	0.73
Age square	23.02	22.94	1.00	0.96	23.02	22.53	6.70	0.73
Gender	1.42	1.40	4.40	0.82	1.42	1.38	8.60	0.65
Education	3.21	3.22	-1.40	0.94	3.21	3.25	-3.70	0.84
Age*Education	14.84	14.92	-1.40	0.94	14.84	14.91	-1.40	0.94
Education*Gender	4.47	4.38	4.00	0.83	4.47	4.36	5.10	0.79
No of Children in Household	0.50	0.54	-4.10	0.79	0.50	0.59	-9.00	0.57
Rural	0.10	0.10	-2.00	0.90	0.10	0.11	-4.10	0.81
Small Town	0.29	0.27	3.80	0.84	0.29	0.27	4.40	0.82
Micropolitan	0.18	0.17	2.50	0.90	0.18	0.16	5.10	0.78

Note: For each matching algorithm, the balancing of covariates is assessed based on two criteria: (a) the difference between mean of treated and matched control group, and (b) standardized mean difference of the covariates between the treatment and control group. The standardized difference of means is calculated as

$$\frac{Mean_{Treated} - Mean_{Control}}{\sqrt{\frac{1}{2} * (Variance_{Treated} + Variance_{Control})}}$$

. A standardized difference of means of 25 is considered large (Rosenbaum and Rubin 1983; Imbens and Woolridge 2009).

Table C3

Balancing of Covariates After Matching with a Subset of Covariates for Treatment Group 3

(Retired)

	Nearest Neighbor with replacement				Nearest 5 Neighbors with replacement			
	Mean Treated	Mean Control	%bias	P value	Mean Treated	Mean Control	%bias	P value
Age	5.42	5.42	0.00	1.00	5.42	5.42	-0.10	0.99
Age square	29.78	29.78	0.00	1.00	29.78	29.78	0.00	1.00
Gender	1.30	1.26	9.90	0.51	1.30	1.24	12.50	0.40
Education	3.34	3.49	-13.50	0.39	3.34	3.50	-14.60	0.36
Age*Education	17.84	18.73	-15.40	0.31	17.84	18.73	-15.30	0.35
Education*Gender	4.23	4.30	-3.20	0.83	4.23	4.29	-2.90	0.85
No of Children in Household	0.19	0.19	0.00	1.00	0.19	0.17	1.50	0.88
Rural	0.11	0.13	-6.60	0.65	0.11	0.14	-9.00	0.54
Small Town	0.16	0.11	11.50	0.38	0.16	0.12	8.00	0.55
Micropolitan	0.13	0.11	6.60	0.65	0.13	0.11	5.50	0.71
	Radius Matching ( caliper =0.5*SD)				Kernel Matching ( bandwidth =0.06)			
	Mean Treated	Mean Control	%bias	P value	Mean Treated	Mean Control	%bias	P value
Age	5.42	5.37	7.10	0.61	5.42	5.41	1.50	0.91
Age square	29.78	29.33	6.70	0.65	29.78	29.69	1.40	0.92
Gender	1.30	1.27	7.10	0.64	1.30	1.26	8.00	0.60
Education	3.34	3.44	-8.80	0.57	3.34	3.45	-9.80	0.53
Age*Education	17.84	18.22	-6.50	0.69	17.84	18.50	-11.40	0.48
Education*Gender	4.23	4.26	-1.50	0.92	4.23	4.30	-3.00	0.85
No of Children in Household	0.19	0.26	-7.00	0.48	0.19	0.22	-3.10	0.75
Rural	0.11	0.11	0.10	1.00	0.11	0.12	-1.40	0.92
Small Town	0.16	0.18	-6.50	0.65	0.16	0.16	-0.50	0.97
Micropolitan	0.13	0.14	-1.40	0.93	0.13	0.14	-1.30	0.93

Note: For each matching algorithm, the balancing of covariates is assessed based on two criterions: (a) the difference between mean of treated and matched control group, and (b) standardized mean difference of the covariates between the treatment and control group. The standardized difference of means is calculated as  $\frac{Mean_{treated} - Mean_{control}}{\sqrt{\frac{1}{2} * (Variance_{treated} + Variance_{control})}}$ . A standardized difference of means of 25 is considered large (Rosenbaum and Rubin 1983; Imbens and Woolridge 2009).