Multiple Regression--FORCED-ENTRY HIERARCHICAL MODEL

I. The Model

National community study 2006

National RDD survey conducted by CATI, communication Research Center at Cleveland State University

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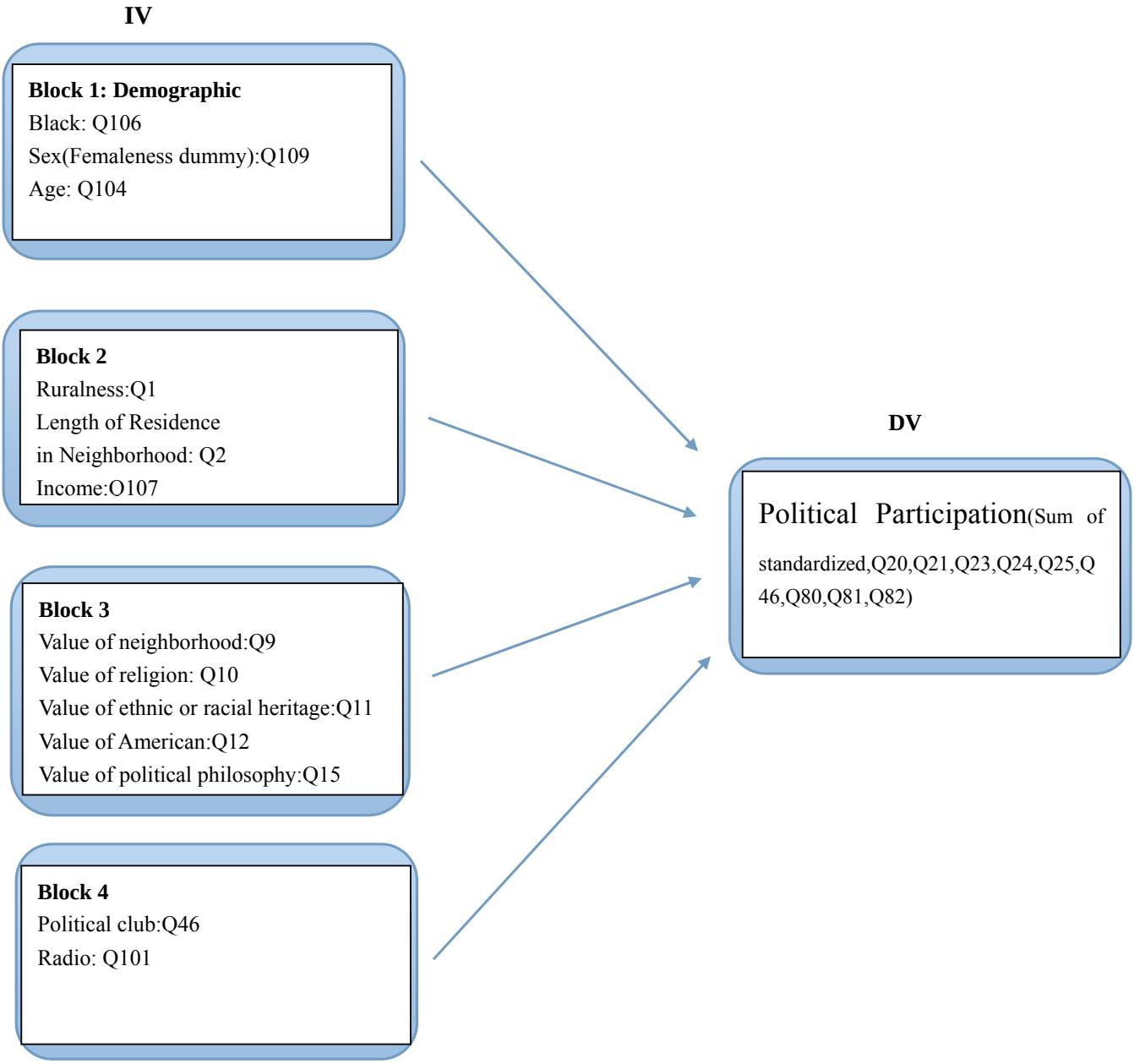
Date: March 4, 2014

I. MODEL



DV

Political Participation

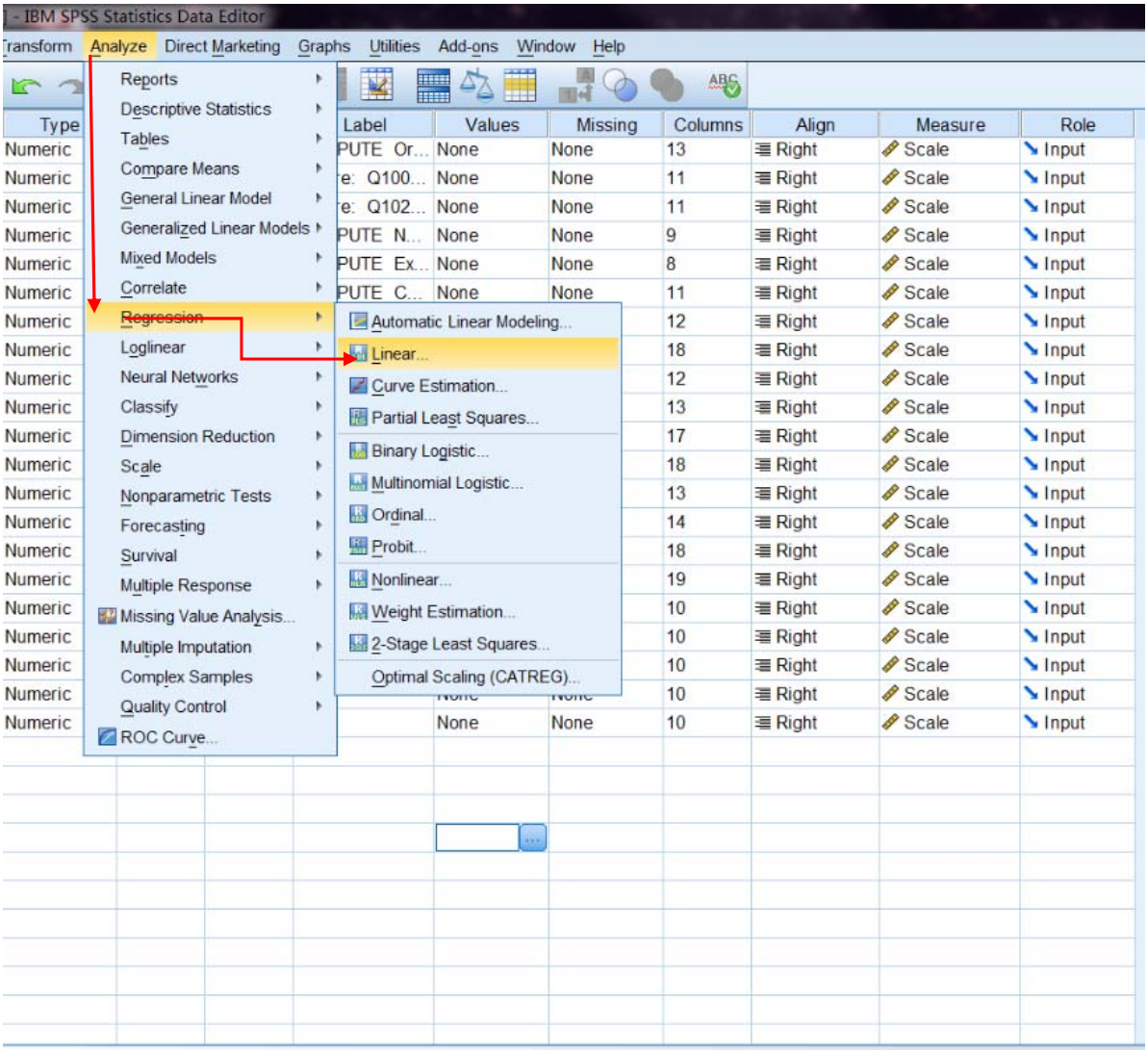
Q20: I learn about community activities and problems from the community newspaper
Q21. I'd feel comfortable voicing a complaint at a public meeting in my community
Q23. Public officials in my community seem receptive to views of residents
Q24. I generally discuss political candidates and issues with neighbors at election time.
Q25. I generally discuss political candidates and issues with family and friends at election time.
Q31. Public officials in this community don't care much what people like me think
Q80. How many days in the past week did you engage in political discussion with friends and family, never, once, a couple times, almost every day, or several times a day?
Q81. How often do you discuss politics with people whose political views are different from yours--almost never, seldom, sometimes, or frequently?
Q82. About how many people do you discuss politics with on a regular basis, none, one, two or three, five to ten, or more than that?
PP = ZQ20+ZQ21+ZQ23+ZQ24+ZQ25+ZQ31+ZQ80+ZQ81+ZQ82

IVs

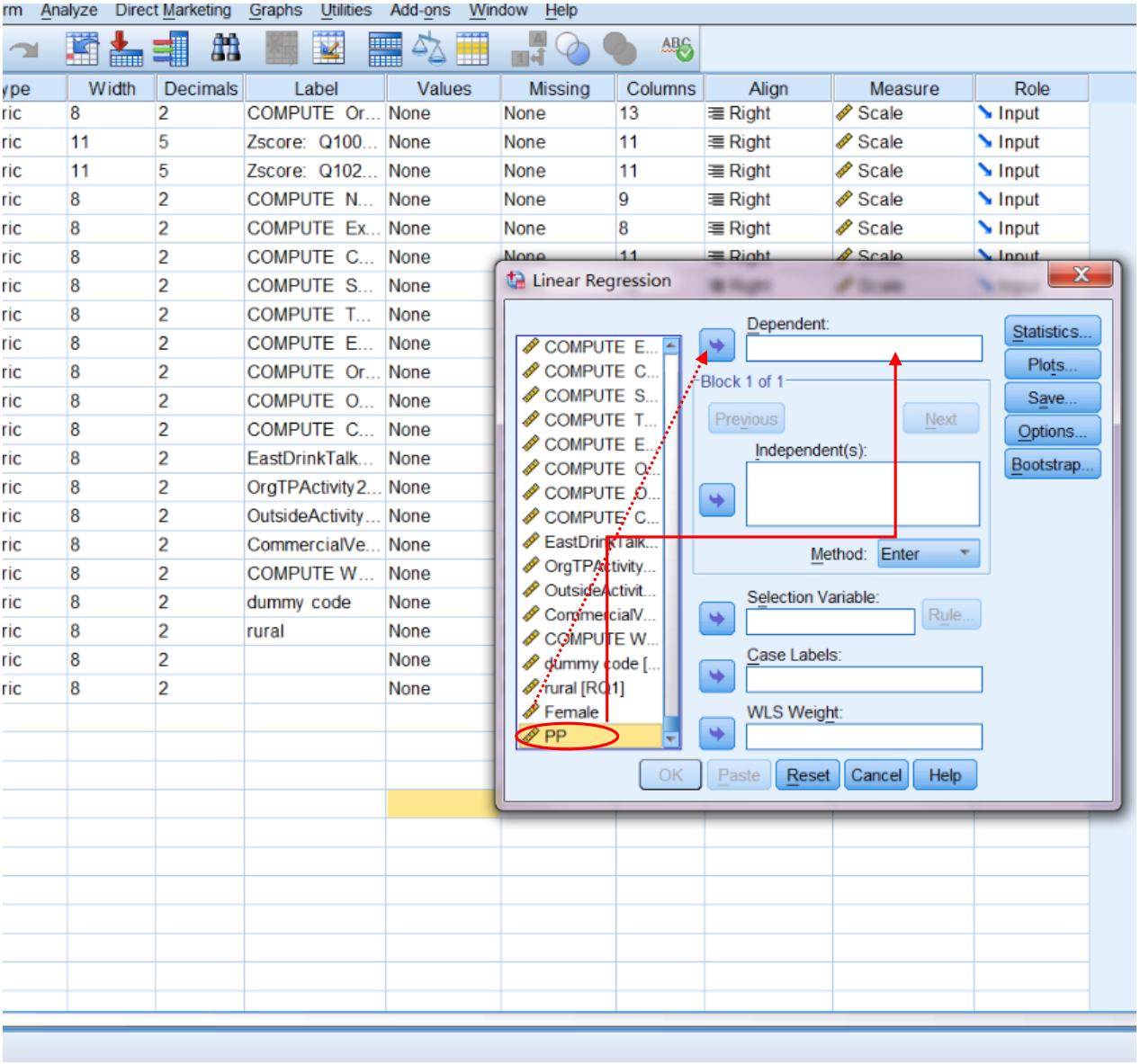
Q1: Geographic Description: "Which of the following best describes where you live? (1-6 measure of ruralness; 1=central city, 6=in the country)
Q2: How long have you lived in your neighborhood or community?
Q9: Value of neighborhood or community
Q10: Value of your religion
Q11: Value of your ethnic or racial heritage
Q12: Value of being an American
Q15: Value of your personal or political philosophy
Q46. How many political clubs or organizations?
Q101. How many hours did you listen to the radio yesterday?
Q104. Age
Q105. Education completed
Q106. Ethnic or racial background (Black)
Q107. Annual household income
Q109."And, just for the record, are you male or female?" (Female)

II.RUNNING SPSS

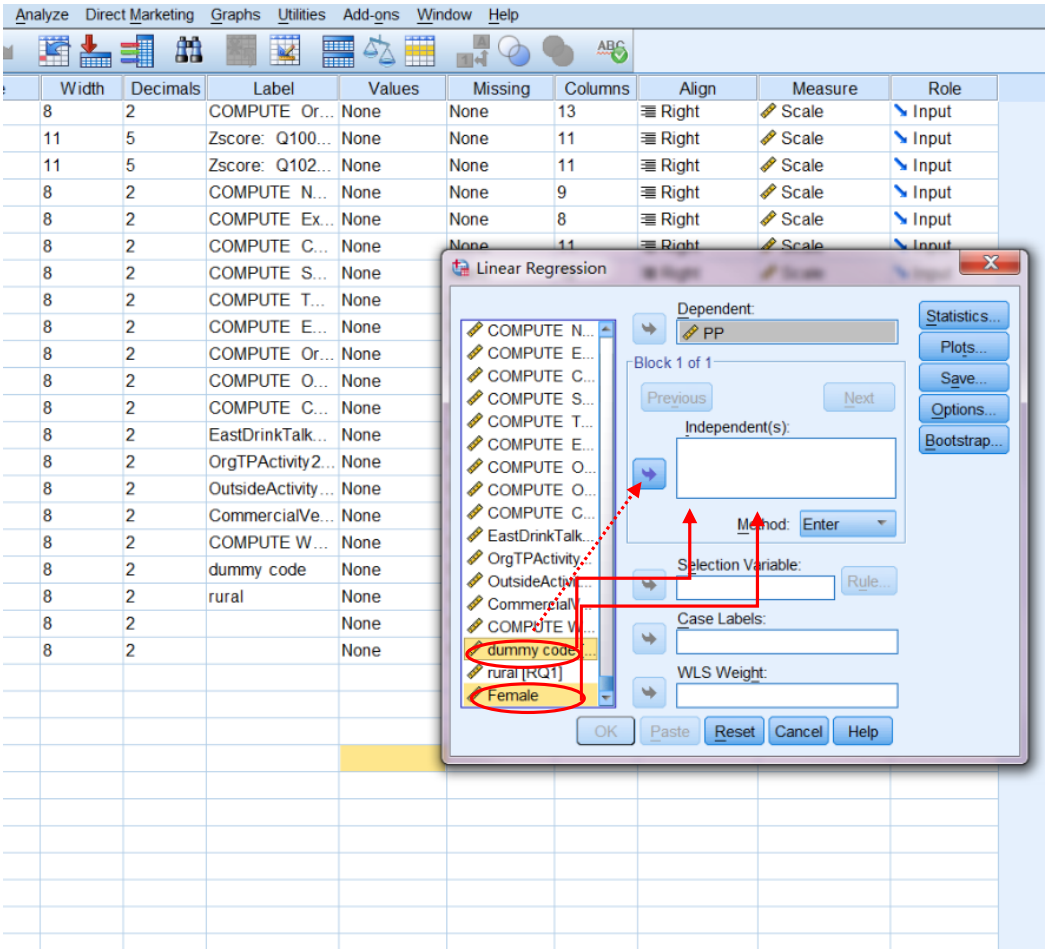
1) Analysis -> Regression -> Linear



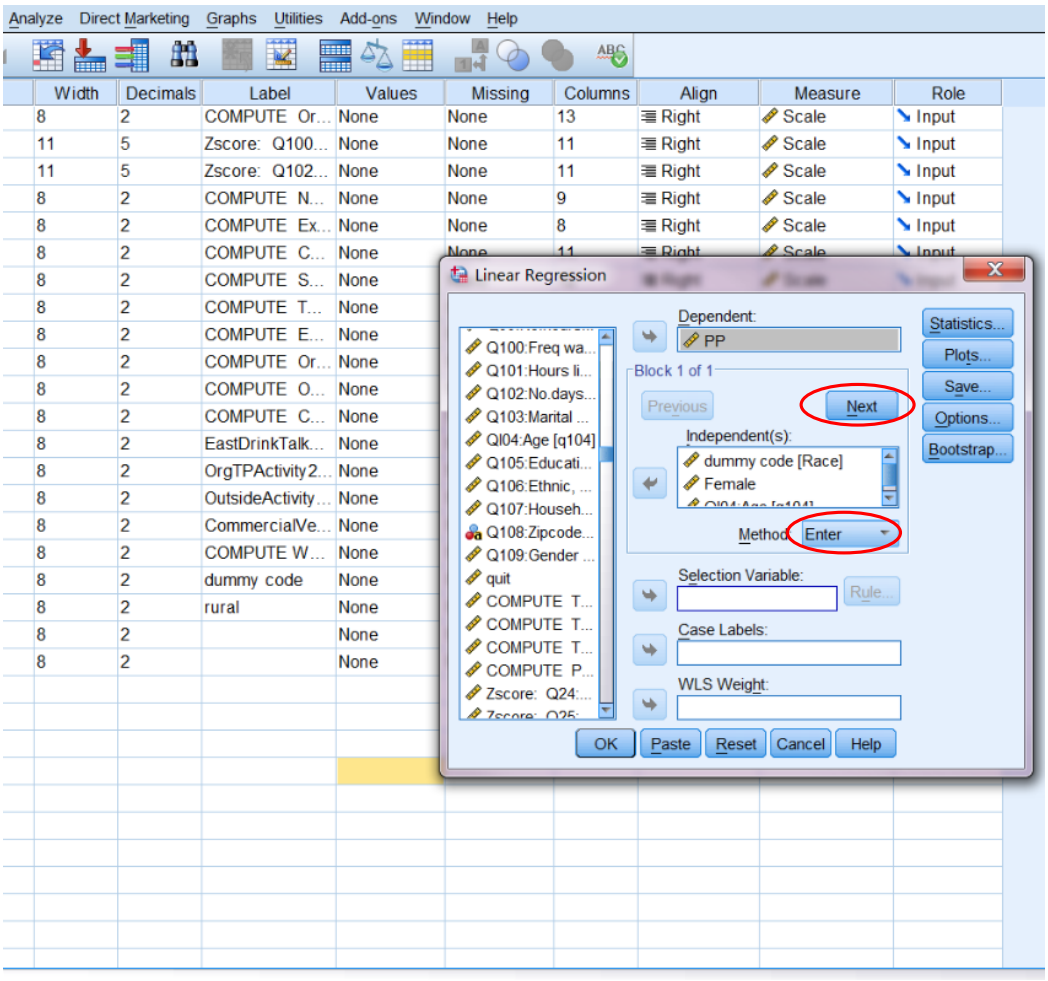
2) Select dependent variable
Click variable name->arrow



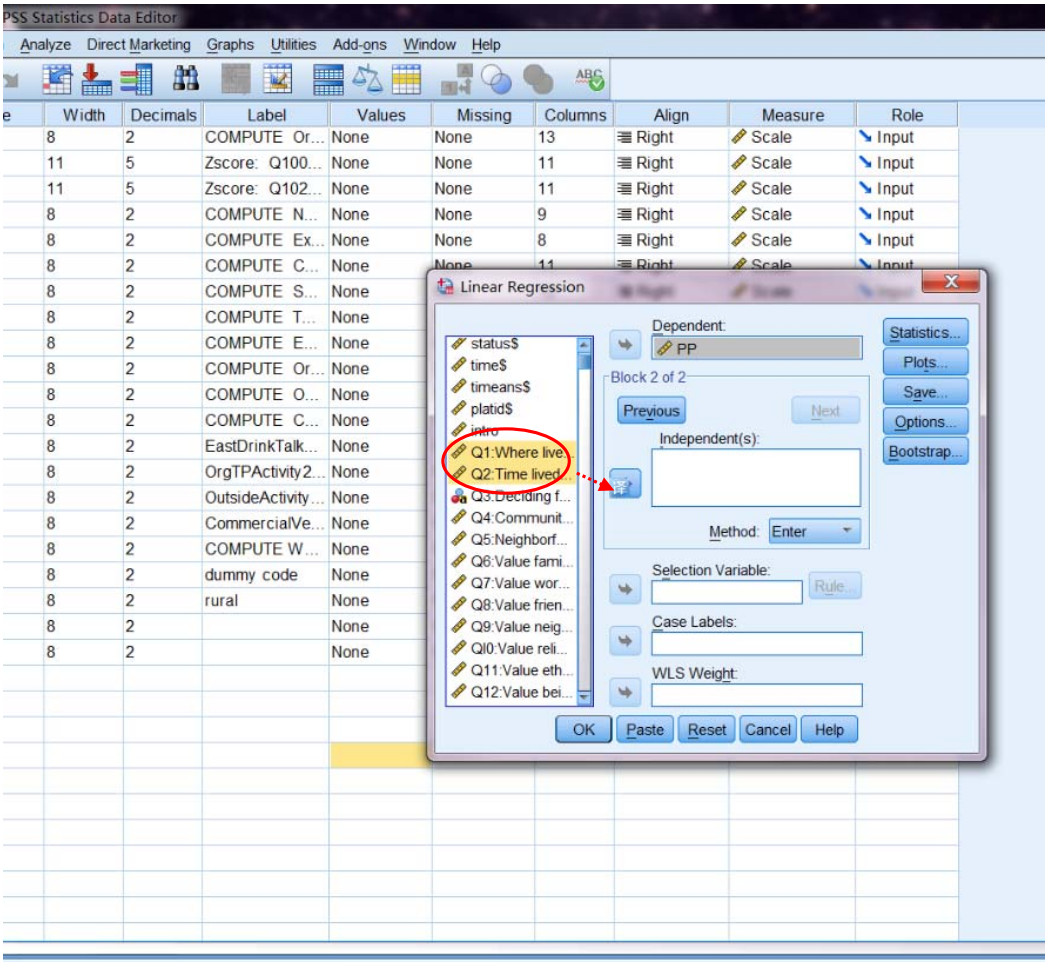
3) Select independent variables for block1
Click independent variable name->arrow



4) Move to the next block
Click next



5) Select independent variables for block2
Click variable name->arrow
[NOTE: Screenshots for blocks 3 and 4 are not shown]

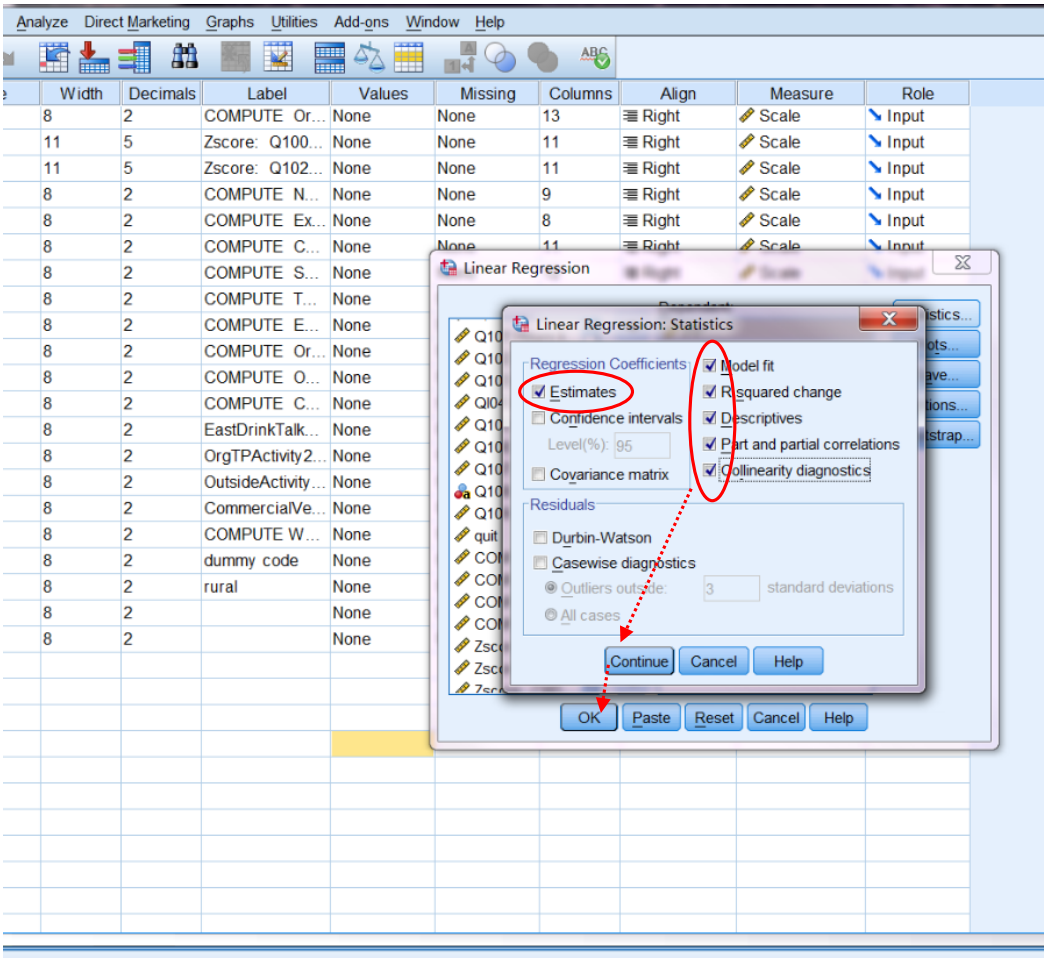


6) Statistics setting

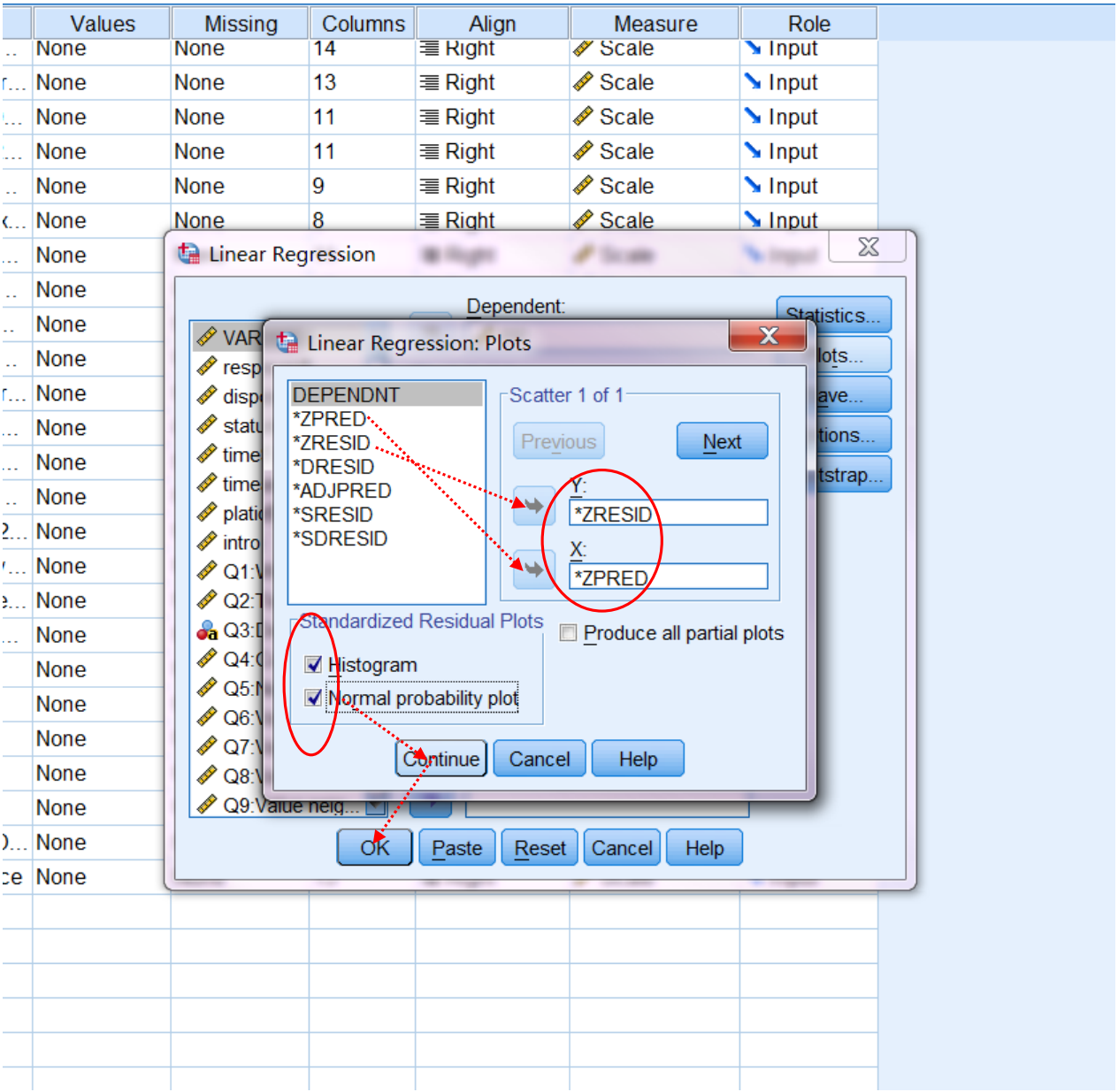
6.a Click statistics

6.b Click Estimates, Model fit, R square change, Descriptive, Part and partial

correlations, Collinearity diagnostics.



7) Plots setting
7.a Click Plots
7.b Click *ZERSID to Y and *ZPRED to X
7.c Check Histogram and Normal probability plot



III. SPSS Output

1.Syntax

```
REGRESSION
  /DESCRIPTIVES MEAN STDDEV CORR SIG N
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE ZPP
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT PP
  /METHOD=ENTER q104 Race Female
  /METHOD=ENTER q2 q107 RQ1
  /METHOD=ENTER q9 q10 q11 q12 q15
  /METHOD=ENTER q46 q101
  /SCATTERPLOT=(*ZRESID ,*ZPRED)
  /RESIDUALS HISTOGRAM(ZRESID) NORMPROB(ZRESID)
  /SAVE MAHAL COOK.
```

2.Regression

Descriptive Statistics

	Mean	Std. Deviation	N
PP	39.6538	11.56786	312
dummy code	.1346	.34186	312
Female	.5160	.50055	312
QI04:Age	4.33	1.605	312
Q1:Where live	3.56	1.815	312
Q2:Time lived there	3.90	1.913	312
Q107:Household income	4.79	2.217	312
Q9:Value neigh-community	7.29	2.084	312
QI0:Value religion	7.43	3.310	312
Q11:Value ethnic-racial heritage	6.04	3.429	312
Q12:Value being American	8.33	2.578	312
Q15:Value personal-pol. philosophy	6.88	2.598	312
Q46:Belong pol. clubs, orgs	.15	.358	312
Q101:Hours listened to radio yesterday	2.04	2.713	312

Correlations

		PP	dummy code	Female	QI04:Age	Q1:Where live	Q2:Time lived there	Q107: Household income	Q9:Value neigh-community	QI0:Value religion	Q11:Value ethnic-racial heritage	Q12:Value being American	Q15:Value personal-pol. philosophy	Q46:Belong pol. clubs, orgs	Q101:Hours listened to radio yesterday
Pearson Correlation	PP	1.000	-.057	-.082	.245	.015	.163	.221	.261	-.033	.022	.052	.379	.217	.128
	dummy code	-.057	1.000	.006	-.263	-.152	-.107	-.205	-.015	.134	.319	-.062	.018	.018	.043
	Female	-.082	.006	1.000	-.025	-.056	-.044	-.078	.068	.164	.172	.149	-.085	-.148	-.004
	QI04:Age	.245	-.263	-.025	1.000	.171	.376	.003	.105	.085	.063	.212	.209	.001	-.094
	Q1:Where live	.015	-.152	-.056	.171	1.000	.152	-.047	.080	.009	-.036	.011	.051	-.095	.058
	Q2:Time lived there	.163	-.107	-.044	.376	.152	1.000	-.081	.236	.133	.188	.241	.079	.008	.069
	Q107:Household income	.221	-.205	-.078	.003	-.047	-.081	1.000	-.005	-.106	-.180	-.049	.074	.067	-.052
	Q9:Value neigh-community	.261	-.015	.068	.185	.080	.236	-.005	1.000	.254	.259	.281	.139	.023	.047
	QI0:Value religion	-.033	.134	.164	.085	.009	Double-click to activate	-.106	.254	1.000	.469	.373	.097	-.073	-.075
	Q11:Value ethnic-racial heritage	.022	.319	.172	.063	-.036		-.180	.259	.469	1.000	.339	.175	-.041	.054
	Q12:Value being American	.052	-.062	.149	.212	.011	.241	-.049	.281	.373	.339	1.000	.166	-.099	.019
	Q15:Value personal-pol. philosophy	.379	.018	-.085	.209	.051	.079	.074	.139	.097	.175	.166	1.000	.115	.059
	Q46:Belong pol. clubs, orgs	.217	.018	-.148	.081	-.095	.008	.067	.023	-.073	-.041	-.099	.115	1.000	.021
	Q101:Hours listened to radio yesterday	.128	.043	-.004	-.094	.058	.069	-.052	.047	-.075	.054	.019	.059	.021	1.000
Sig. (1-tailed)	PP		.157	.075	.000	.398	.002	.000	.000	.279	.347	.180	.000	.000	.012
	dummy code	.157		.457	.000	.003	.029	.000	.398	.009	.000	.139	.379	.378	.222
	Female	.075	.457		.332	.163	.221	.084	.116	.002	.001	.004	.067	.004	.472
	QI04:Age	.000	.000	.332		.001	.000	.480	.001	.066	.133	.000	.000	.077	.050
	Q1:Where live	.398	.003	.163	.001		.004	.206	.079	.437	.263	.421	.184	.047	.153
	Q2:Time lived there	.002	.029	.221	.000	.004		.076	.000	.009	.000	.000	.083	.445	.113
	Q107:Household income	.000	.000	.084	.480	.206	.076		.464	.030	.001	.192	.096	.118	.181
	Q9:Value neigh-community	.000	.398	.116	.001	.079	.000	.464		.000	.000	.000	.007	.344	.204
	QI0:Value religion	.279	.009	.002	.066	.437	.009	.030	.000		.000	.000	.044	.098	.093
	Q11:Value ethnic-racial heritage	.347	.000	.001	.133	.263	.000	.001	.000	.000		.000	.001	.233	.170
	Q12:Value being American	.180	.139	.004	.000	.421	.000	.192	.000	.000	.000		.002	.040	.369
	Q15:Value personal-pol. philosophy	.000	.379	.067	.000	.184	.003	.096	.007	.044	.001	.002		.021	.140
	Q46:Belong pol. clubs, orgs	.000	.378	.004	.077	.047	.445	.118	.344	.098	.233	.040	.021		.356
	Q101:Hours listened to radio yesterday	.012	.222	.472	.050	.153	.113	.181	.204	.093	.170	.369	.140	.356	
N	PP	312	312	312	312	312	312	312	312	312	312	312	312	312	312
	dummy code	312	312	312	312	312	312	312	312	312	312	312	312	312	312
	Female	312	312	312	312	312	312	312	312	312	312	312	312	312	312
	QI04:Age	312	312	312	312	312	312	312	312	312	312	312	312	312	312
	Q1:Where live	312	312	312	312	312	312	312	312	312	312	312	312	312	312
	Q2:Time lived there	312	312	312	312	312	312	312	312	312	312	312	312	312	312
	Q107:Household income	312	312	312	312	312	312	312	312	312	312	312	312	312	312
	Q9:Value neigh-community	312	312	312	312	312	312	312	312	312	312	312	312	312	312
	QI0:Value religion	312	312	312	312	312	312	312	312	312	312	312	312	312	312
	Q11:Value ethnic-racial heritage	312	312	312	312	312	312	312	312	312	312	312	312	312	312
	Q12:Value being American	312	312	312	312	312	312	312	312	312	312	312	312	312	312
	Q15:Value personal-pol. philosophy	312	312	312	312	312	312	312	312	312	312	312	312	312	312
	Q46:Belong pol. clubs, orgs	312	312	312	312	312	312	312	312	312	312	312	312	312	312
	Q101:Hours listened to radio yesterday	312	312	312	312	312	312	312	312	312	312	312	312	312	312

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	QI04:Age, Female, dummy code	.	Enter
2	Q1:Where live, Q107: Household income, Q2: Time lived there	.	Enter
3	Q15:Value personal-pol. philosophy, QI0:Value religion, Q9: Value neigh-community, Q12:Value being American, Q11:Value ethnic-racial heritage	.	Enter
4	Q101:Hours listened to radio yesterday, Q46:Belong pol. clubs, orgs	.	Enter

a. All requested variables entered.
b. Dependent Variable: PP

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.257[a]	.066	.057	11.23494	.066	7.235	3	308	.000
2	.353[b]	.125	.107	10.92894	.059	6.830	3	305	.000
3	.519[c]	.270	.243	10.06617	.145	11.905	5	300	.000
4	.547[d]	.300	.269	9.89075	.030	6.368	2	298	.002

a. Predictors: (Constant), QI04:Age, Female, dummy code
b. Predictors: (Constant), QI04:Age, Female, dummy code, Q1:Where live, Q107:Household income, Q2:Time lived there
c. Predictors: (Constant), QI04:Age, Female, dummy code, Q1:Where live, Q107:Household income, Q2:Time lived there, Q15:Value personal-pol.philosophy, QI0:Value religion, Q9:Value neigh-community, Q12:Value being American, Q11:Value ethnic-racial heritage
d. Predictors: (Constant), QI04:Age, Female, dummy code, Q1:Where live, Q107:Household income, Q2:Time lived there, Q15:Value personal-pol.philosophy, QI0:Value religion, Q9:Value neigh-community, Q12:Value being American, Q11:Value ethnic-racial heritage, Q101:Hours listened to radio yesterday, Q46:Belong pol. clubs,orgs

ANOVA[e]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2739.642	3	913.214	7.235	.000[a]
	Residual	38876.973	308	126.224		
	Total	41616.615	311			
2	Regression	5186.877	6	864.480	7.238	.000[b]
	Residual	36429.738	305	119.442		
	Total	41616.615	311			
3	Regression	11218.278	11	1019.843	10.065	.000[c]
	Residual	30398.337	300	101.328		
	Total	41616.615	311			
4	Regression	12464.209	13	958.785	9.801	.000[d]
	Residual	29152.407	298	97.827		
	Total	41616.615	311			

a. Predictors: (Constant), QI04:Age, Female, dummy code
b. Predictors: (Constant), QI04:Age, Female, dummy code, Q1:Where live, Q107: Household income, Q2:Time lived there
c. Predictors: (Constant), QI04:Age, Female, dummy code, Q1:Where live, Q107: Household income, Q2:Time lived there, Q15:Value personal-pol.philosophy, QI0: Value religion, Q9:Value neigh-community, Q12:Value being American, Q11:Value ethnic-racial heritage
d. Predictors: (Constant), QI04:Age, Female, dummy code, Q1:Where live, Q107: Household income, Q2:Time lived there, Q15:Value personal-pol.philosophy, QI0: Value religion, Q9:Value neigh-community, Q12:Value being American, Q11:Value ethnic-racial heritage, Q101:Hours listened to radio yesterday, Q46:Belong pol. clubs, orgs
e. Dependent Variable: PP

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	32.871	2.093		15.708	.000					
	Black	.258	1.932	.008	.134	.894	-.057	.008	.007	.931	1.074
	Female	-1.752	1.273	-.076	-1.376	.170	-.082	-.078	-.076	.999	1.001
	QI04:Age	1.767	.412	.245	4.294	.000	.245	.238	.236	.930	1.075
2	(Constant)	25.231	2.944		8.572	.000					
	Black	1.954	1.939	.058	1.008	.314	-.057	.058	.054	.874	1.144
	Female	-1.269	1.246	-.055	-1.018	.309	-.082	-.058	-.055	.988	1.012
	QI04:Age	1.601	.431	.222	3.711	.000	.245	.208	.199	.801	1.248
	Q1:Where live	-.144	.352	-.023	-.409	.683	.015	-.023	-.022	.943	1.061
	Q2:Time lived there	.641	.353	.106	1.817	.070	.163	.103	.097	.843	1.187
	Q107:Household income	1.229	.289	.236	4.252	.000	.221	.237	.228	.936	1.069
3	(Constant)	15.625	3.413		4.578	.000					
	Black	1.310	1.914	.039	.684	.494	-.057	.039	.034	.761	1.315
	Female	-.496	1.187	-.021	-.418	.676	-.082	-.024	-.021	.923	1.084
	QI04:Age	1.019	.409	.141	2.490	.013	.245	.142	.123	.755	1.324
	Q1:Where live	-.275	.325	-.043	-.848	.397	.015	-.049	-.042	.937	1.068
	Q2:Time lived there	.539	.337	.089	1.597	.111	.163	.092	.079	.782	1.278
	Q107:Household income	.999	.269	.191	3.712	.000	.221	.210	.183	.915	1.093
	Q9:Value neigh-community	1.235	.298	.222	4.138	.000	.261	.232	.204	.843	1.187
	QI0:Value religion	-.316	.204	-.090	-1.549	.122	-.033	-.089	-.076	.714	1.401
	Q11:Value ethnic-racial heritage	-.106	.211	-.032	-.504	.614	.022	-.029	-.025	.621	1.610
	Q12:Value being American	-.247	.257	-.055	-.961	.337	.052	-.055	-.047	.742	1.347
	Q15:Value personal-pol. philosophy	1.428	.232	.321	6.144	.000	.379	.334	.303	.894	1.119
4	(Constant)	14.108	3.384		4.169	.000					
	Black	1.095	1.882	.032	.582	.561	-.057	.034	.028	.760	1.316
	Female	-.148	1.175	-.006	-.126	.900	-.082	-.007	-.006	.910	1.099
	QI04:Age	1.052	.408	.146	2.577	.010	.245	.148	.125	.773	1.364
	Q1:Where live	-.221	.322	-.035	-.685	.494	.015	-.040	-.033	.919	1.088
	Q2:Time lived there	.467	.333	.077	1.404	.161	.163	.081	.068	.776	1.289
	Q107:Household income	.997	.265	.191	3.763	.000	.221	.213	.182	.912	1.096
	Q9:Value neigh-community	1.167	.294	.210	3.970	.000	.261	.224	.192	.839	1.192
	QI0:Value religion	-.240	.202	-.069	-1.189	.235	-.033	-.069	-.058	.702	1.424
	Q11:Value ethnic-racial	-.126	.208	-.037	-.608	.544	.022	-.035	-.029	.619	1.615
	Q12:Value being American	-.196	.254	-.044	-.772	.441	.052	-.045	-.037	.734	1.362
	Q15:Value personal-pol. philosophy	1.328	.230	.298	5.770	.000	.379	.317	.280	.880	1.136
	Q46:Belong pol. clubs, orgs	4.328	1.623	.134	2.667	.008	.217	.153	.129	.931	1.074
	Q101:Hours listened to radio yesterday	.486	.212	.114	2.288	.023	.128	.131	.111	.949	1.054

a. Dependent Variable: PP

.760	.910	.773	.919	.776	.912	.839	.702	.619	.734	.880	.931	.949

Excluded Variables[d]

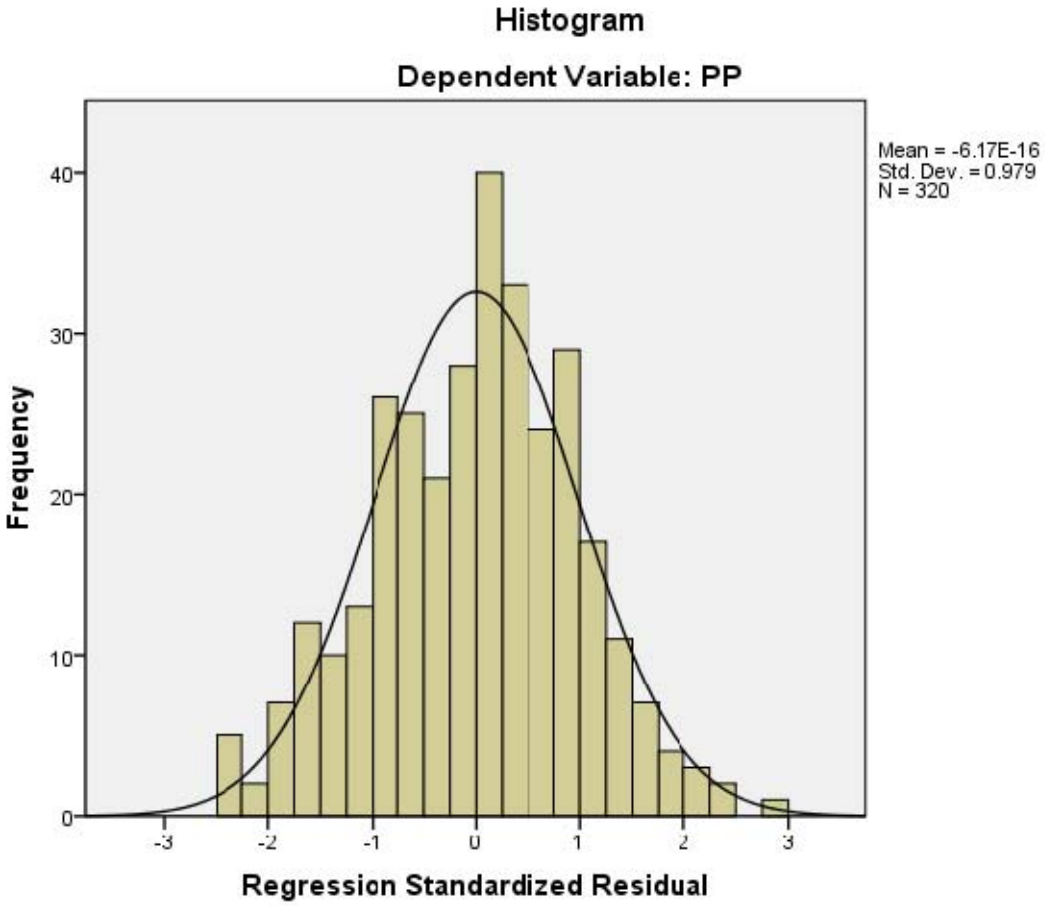
Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics		
						Tolerance	VIF	Minimum Tolerance
1	Q1:Where live	-.032[a]	-.559	.576	-.032	.956	1.046	.913
	Q2:Time lived there	.080[a]	1.345	.180	.077	.857	1.167	.808
	Q107:Household income	.228[a]	4.129	.000	.229	.949	1.054	.889
	Q9:Value neigh-community	.230[a]	4.209	.000	.234	.959	1.042	.897
	QI0:Value religion	-.046[a]	-.803	.423	-.046	.939	1.065	.906
	Q11:Value ethnic-racial heritage	.021[a]	.345	.730	.020	.845	1.184	.814
	Q12:Value being American	.013[a]	.220	.826	.013	.931	1.074	.889
	Q15:Value personal-pol. philosophy	.340[a]	6.383	.000	.342	.944	1.059	.885
	Q46:Belong pol. clubs, orgs	.191[a]	3.479	.001	.195	.970	1.030	.923
	Q101:Hours listened to radio yesterday	.152[a]	2.769	.006	.156	.991	1.009	.924
2	Q9:Value neigh-community	.219[b]	4.035	.000	.225	.924	1.083	.791
	QI0:Value religion	-.043[b]	-.775	.439	-.044	.923	1.084	.796
	Q11:Value ethnic-racial heritage	.026[b]	.438	.661	.025	.803	1.245	.775
	Q12:Value being American	.003[b]	.057	.954	.003	.897	1.115	.786
	Q15:Value personal-pol. philosophy	.323[b]	6.183	.000	.334	.936	1.068	.767
	Q46:Belong pol. clubs, orgs	.179[b]	3.315	.001	.187	.954	1.048	.793
	Q101:Hours listened to radio yesterday	.156[b]	2.914	.004	.165	.973	1.028	.788
3	Q46:Belong pol. clubs, orgs	.138[c]	2.719	.007	.155	.932	1.073	.621
	Q101:Hours listened to radio yesterday	.118[c]	2.347	.020	.135	.949	1.053	.619

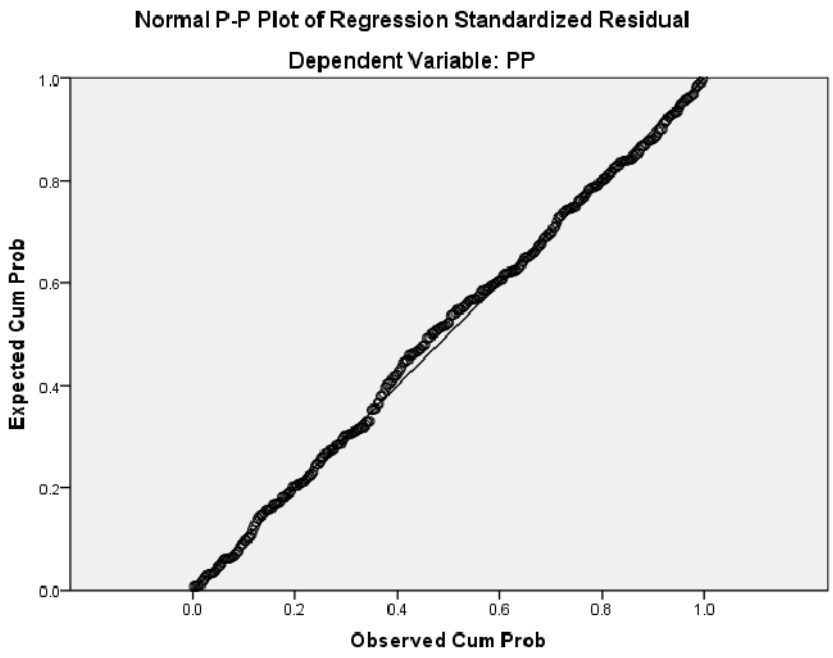
a. Predictors in the Model: (Constant), QI04:Age, Female, dummy code
b. Predictors in the Model: (Constant), QI04:Age, Female, dummy code, Q1:Where live, Q107:Household income, Q2:Time lived there
c. Predictors in the Model: (Constant), QI04:Age, Female, dummy code, Q1:Where live, Q107:Household income, Q2:Time lived there, Q15:Value personal-pol.philosophy, QI0:Value religion, Q9:Value neigh-community, Q12:Value being American, Q11: Value ethnic-racial heritage
d. Dependent Variable: PP

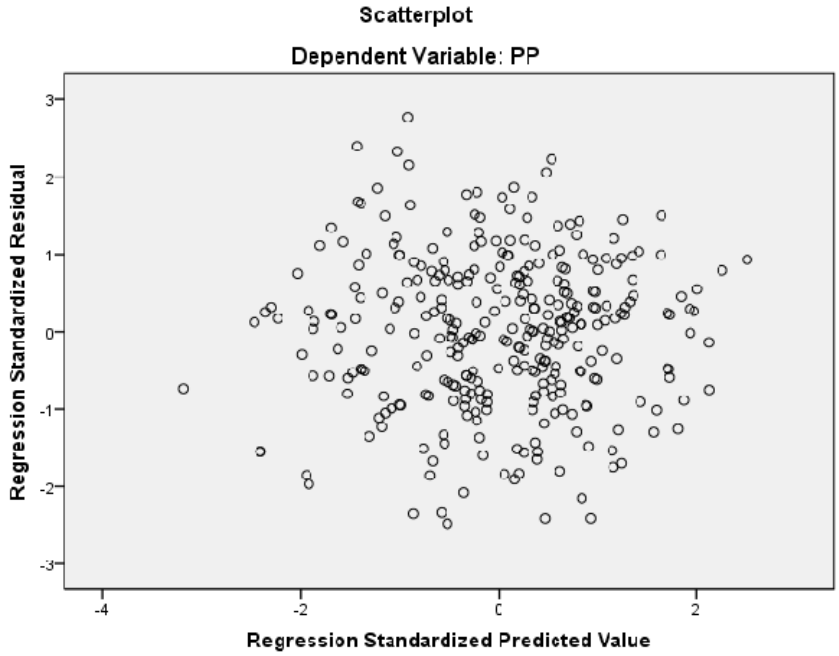
Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions													
				(Constant)	dummy code	Female	QI04:Age	Q1:Where live	Q2:Time lived there	Q107: Household income	Q9:Value neigh-community	QI0:Value religion	Q11:Value ethnic-racial heritage	Q12:Value being American	Q15:Value personal-pol. philosophy	Q46:Belong pol. clubs, orgs	Q101:Hours listened to radio yesterday
1	1	2.712	1.000	.01	.02	.05	.01										
	2	.850	1.787	.00	.86	.02	.01										
	3	.385	2.654	.02	.00	.89	.06										
	4	.053	7.163	.96	.11	.05	.92										
2	1	5.126	1.000	.00	.00	.01	.00	.01	.01	.01							
	2	.894	2.394	.00	.81	.00	.00	.00	.00	.00							
	3	.467	3.312	.00	.01	.89	.00	.02	.01	.01							
	4	.213	4.900	.00	.00	.00	.01	.11	.14	.52							
	5	.175	5.408	.00	.00	.00	.03	.70	.30	.00							
	6	.090	7.562	.01	.00	.01	.67	.05	.51	.10							
	7	.035	12.146	.99	.17	.08	.29	.12	.03	.36							
3	1	9.544	1.000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
	2	.923	3.215	.00	.64	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00		
	3	.479	4.465	.00	.01	.82	.00	.01	.01	.01	.00	.00	.00	.00	.01		
	4	.242	6.279	.00	.10	.04	.00	.02	.06	.29	.00	.04	.16	.00	.01		
	5	.206	6.013	.00	.05	.04	.00	.57		.13	.00	.03	.05	.00	.01		
	6	.158	7.775	.00	.06	.03	.04	.24		.00	.00	.09	.08	.00	.00		
	7	.117	9.023	.00	.00	.01	.06	.03		.22	.00	.09	.00	.00	.54		
	8	.104	9.578	.00	.02	.01	.02	.04	.02	.10	.01	.43	.62	.03	.00		
	9	.076	11.171	.00	.01	.01	.66	.00	.27	.00	.00	.05	.05	.00	.34		
	10	.070	11.642	.01	.01	.02	.15	.01	.03	.07	.37	.24	.00	.21	.05		
	11	.056	13.030	.00	.01	.00	.00	.01	.00	.00	.46	.03	.00	.65	.00		
	12	.024	20.054	.98	.08	.02	.05	.08	.00	.19	.16	.00	.01	.10	.04		
4	1	10.078	1.000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	2	.925	3.301	.00	.63	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00
	3	.884	3.376	.00	.00	.04	.00	.00	.00	.00	.00	.00	.00	.00	.00	.80	.00
	4	.627	4.008	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.90
	5	.448	4.743	.00	.01	.79	.00	.02	.01	.00	.00	.00	.00	.00	.00	.10	.02
	6	.240	6.484	.00	.11	.03	.00	.03	.06	.28	.00	.04	.17	.00	.01	.01	.00
	7	.201	7.074	.00	.05	.05	.01	.51	.04	.16	.00	.02	.05	.01	.01	.02	.01
	8	.156	8.034	.00	.07	.02	.04	.26	.47	.01	.00	.08	.08	.00	.00	.01	.00
	9	.115	9.348	.00	.00	.00	.07	.04	.09	.20	.00	.08	.01	.00	.55	.02	.00
	10	.103	9.900	.00	.02	.01	.01	.04	.02	.09	.01	.43	.63	.03	.01	.00	.01
	11	.075	11.554	.00	.01	.02	.51	.01	.30	.00	.03	.09	.04	.02	.38	.00	.01
	12	.069	12.126	.01	.01	.01	.31	.00	.00	.06	.36	.22	.00	.17	.01	.00	.03
	13	.056	13.469	.00	.01	.00	.00	.01	.00	.00	.45	.03	.00	.66	.01	.01	.00
	14	.023	20.737	.99	.08	.02	.05	.07	.00	.19	.14	.01	.01	.10	.03	.00	.01

a. Dependent Variable: PP


Histogram
Dependent Variable: PP
Mean = -6.17E-16
Std. Dev. = 0.979
N = 320
Frequency
0
10
20
30
40
-3
-2
-1
0
1
2
3
Regression Standardized Residual


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: PP
Expected Cum Prob
Observed Cum Prob
0.0
0.2
0.4
0.6
0.8
1.0


Scatterplot
Dependent Variable: PP
Regression Standardized Residual
Regression Standardized Predicted Value
3
2
1
0
-1
-2
-3
-4
-2
0
2

IV. Tabling

Table 1
Hierarchical Multiple Regression Predicting Political Participation

Block#	Predictor Variable	r	Final Beta	R^2 Change
1	Black: Q106	-.057	.032	.066**
	Sex(Femaleness dummy):Q109	-.082	-.006	
	Age: Q104	.245**	.146**	
2	Ruralness:Q1	.015	-.035	.059**
	Length of Residence in Neighborhood: Q2	.163	.077	
	Income:Q107	.221**	.191**	
3	Value of neighborhood:Q9	.261**	.210**	.145**
	Value of religion: Q10	-.033	-.069	
	Value of ethnic or racial heritage:Q11	.022	-.037	
	Value of American:Q12	.052	-.044	
	Value of political philosophy:Q15	.379**	.298**	
4	Political club:Q46	.217**	.134**	.030**
	Radio: Q101	.128	.114*	

Total equation: ,

R^2 =. 300 Adjusted R^2 =.269

F (13,298)=9.801 , p<.001

Note: *p <.05. **p < .01

V. The Writeup

Write up of results

In the prediction of political participation, a four-block hierarchical multiple regression analysis was conducted. Multicollinearity tests using condition index and regression coefficient variance-decomposition matrix, tolerances and VIFs indicated that the analysis has no multicollinearity problem (all tolerances ≥ .60, VIFs ≤ 1.62), and the analysis result indicates that 14 predictors explain 30.0% of the total variance of political participation ($F_{(13,298)} = 9.08$, $p < .001$).

First, block 1 including Black, sex (female) and age, explains 6.6 % of total variance of political participation ($F_{(3, 308)} = 7.24$, $p < .001$). Age is a significantly positive ($\beta = .146$, $p \leq .001$) unique predictor of political participation. As a result, compared younger people, the older people show higher political participation, when controlling for all of the other 13 independent variables.

Second, block 2 including ruralness, length of residence in neighborhood and income, explains an additional 5.9% of total variance of the political participation ($F_{(3, 305)} = 6.83$, $p < .001$). Household income ($\beta = .19$, $p < 001$) is significant positive unique predictors of political participation. As a result, as household income increases, political participation increases, when all other predictors are controlled for.

Third, the third block, including value of neighborhood, value of religion, value of ethnic or racial heritage, value of American, value of political philosophy, explains an additional 14.5% of total variance of the political participation ($F_{(5, 300)} = 11.91$, $p < .001$). Value of neighborhood ($\beta = .21$, $p < .001$) and value of political philosophy ($\beta = .30$, $p < .001$) are significant positive unique predictors of political participation. As a result, as value of neighborhood and value of political philosophy increase, political participation increases, when all other predictors are controlled for.

Fourth, the media use block, including political club membership and radio listening, explains an additional 3% of total variance of the political participation ($F_{(2, 298)} = 6.368$, $p < .005$). Both Political club and Radio have significant unique contributions to Political participation ($\beta = .134$, $p = .008$, and $\beta = .114$, $p = .023$, respectively). As a result, as the frequency went to a political club increase, political participation increases, when all other predictors are controlled for. And, higher radio listening is associated with greater political participation, controlling for all other predictors.

Overall, this analysis found that four separate blocks of predictor variables—block 1 demographics, block 2 including ruralness, length of residence in neighborhood and income, values, and selected behaviors—all contributed a significant amount of variance to the prediction of political participation, as indicated by significant R2s for the total equation and for each block.

Also, the beta coefficients indicate that when controlling for the impact of all other variables in the final equation, there are six independent variables maintained significant unique contributions toward political participation. This is indicated by the five significant ($p < .05$) final betas: .146 for Age, .191 for Length of Residence in Neighborhood, .210 for value of neighborhood, .298 for Value of American, .134 for Political club, and .114 for Radio.