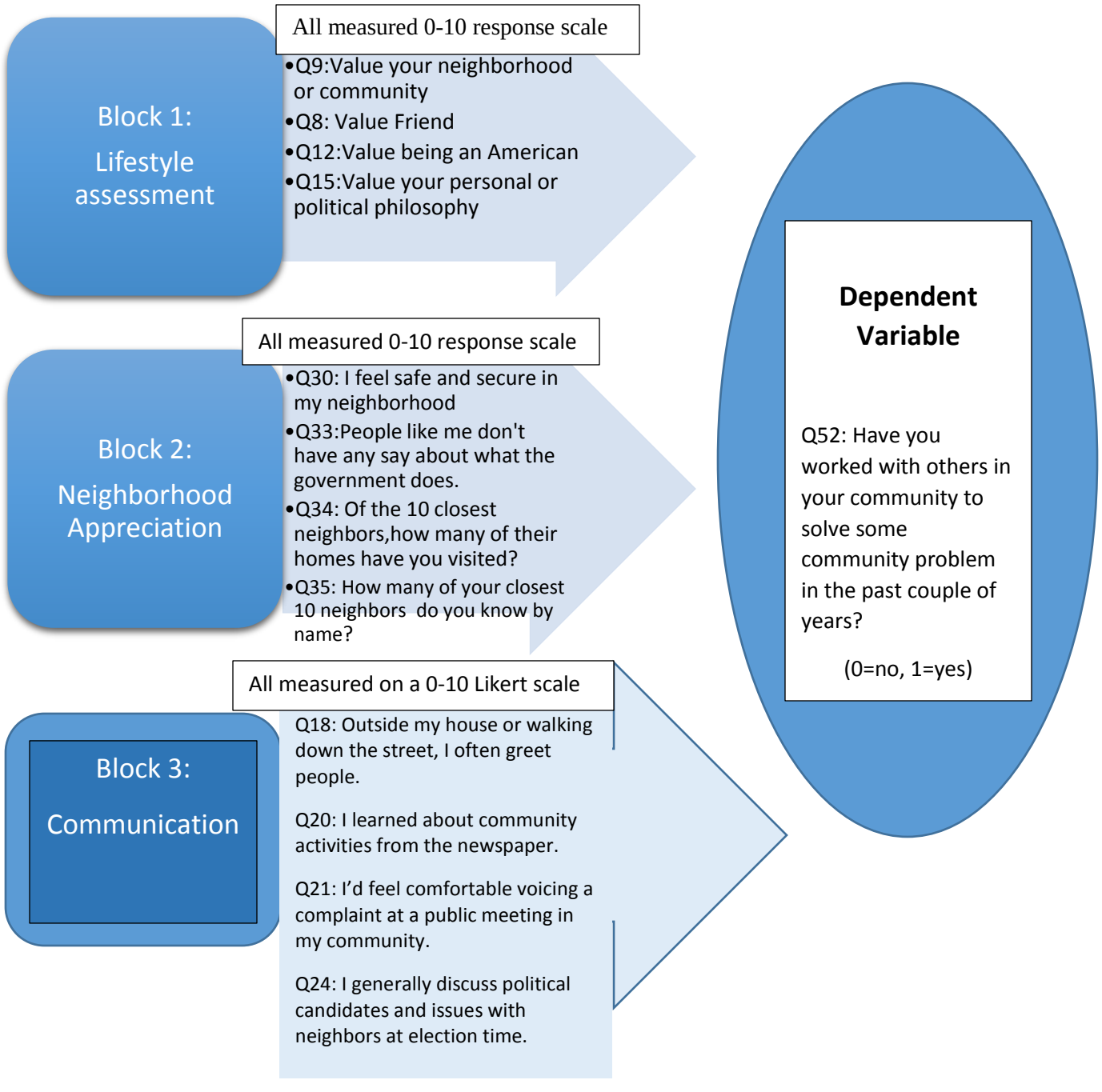
Itza Perez

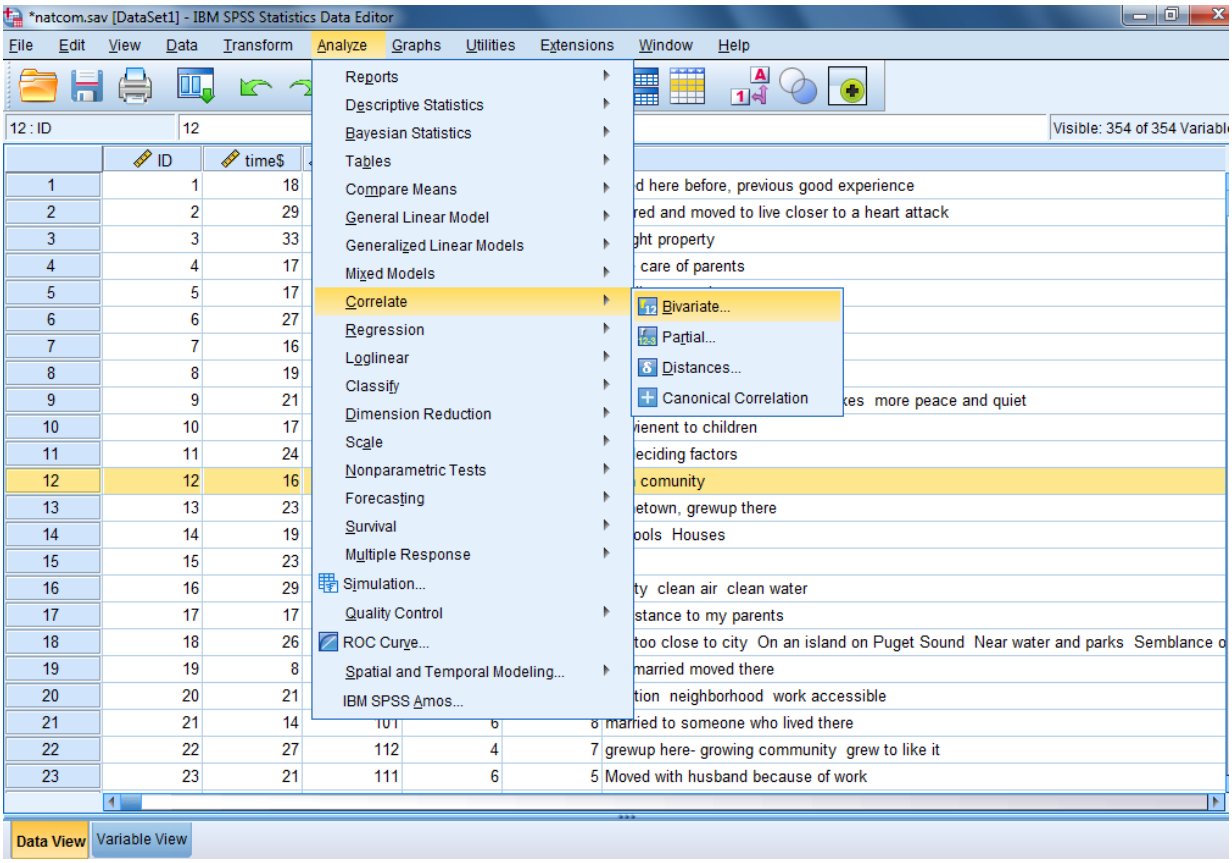
Logistic Regression

I. Model: 2006 National Community Survey (class data set)

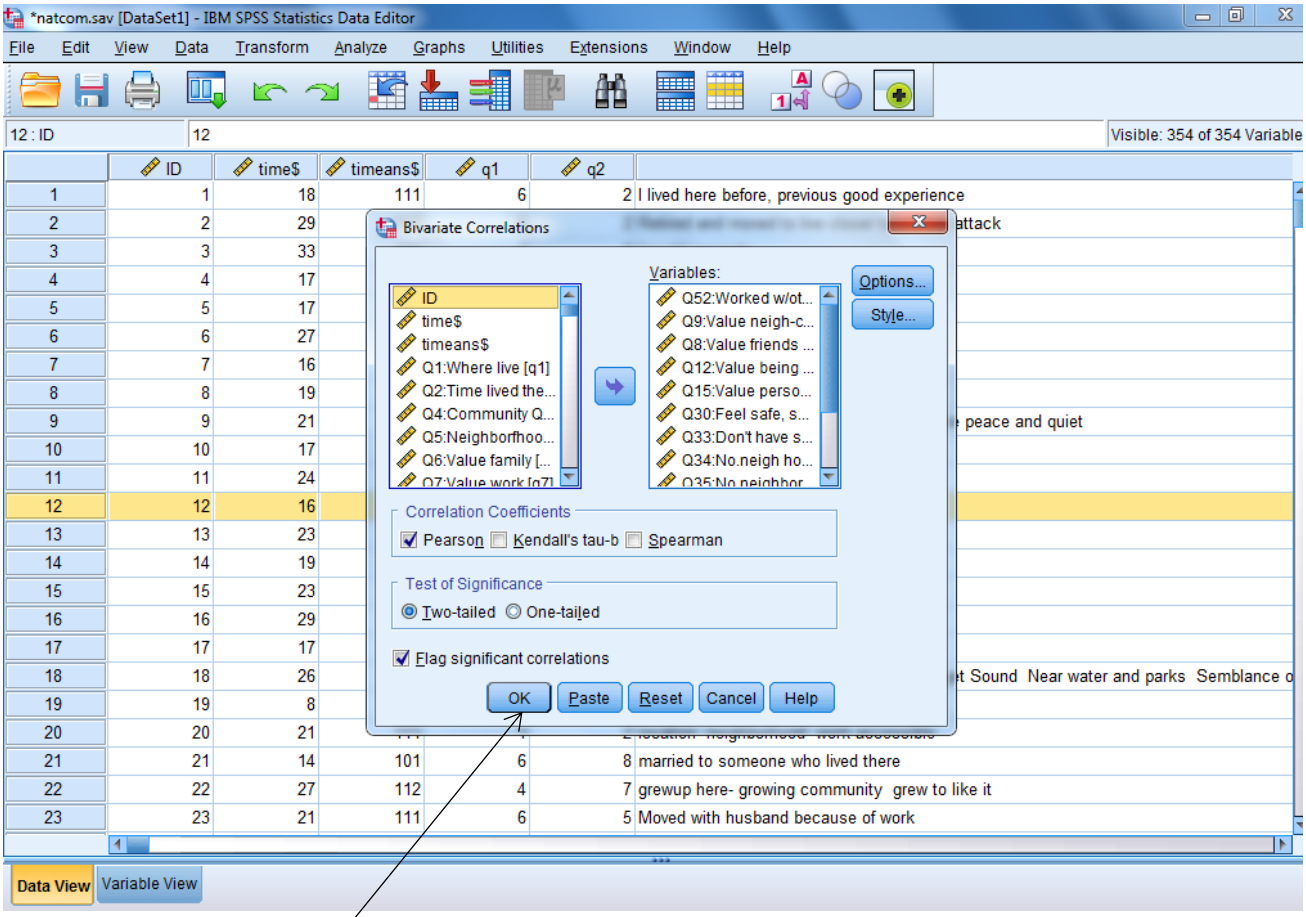


II. Running SPSS

1. First, run a basic Pearson's *r* correlation to look at correlations between each independent variable and the dependent variable. Analyze → Correlate → Bivariate



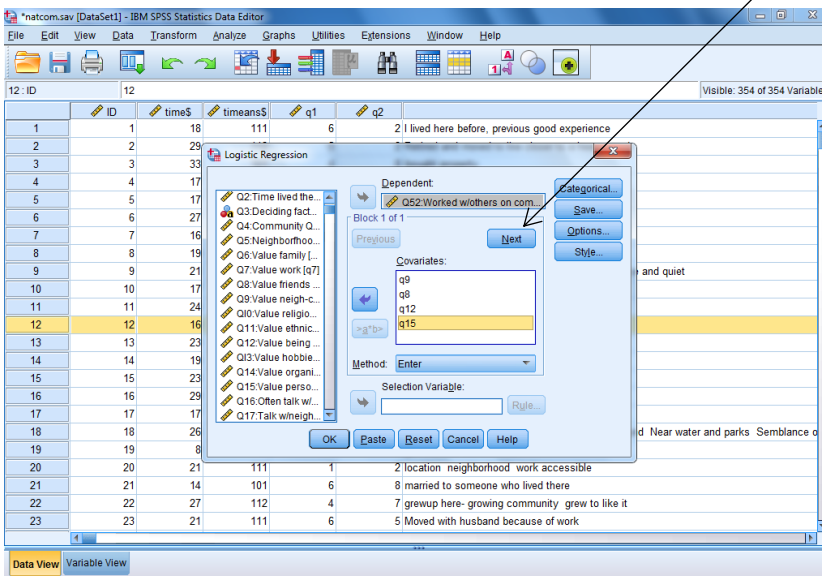
2. Once you have Bivariate correlations tab open start placing all your independent and dependent variables



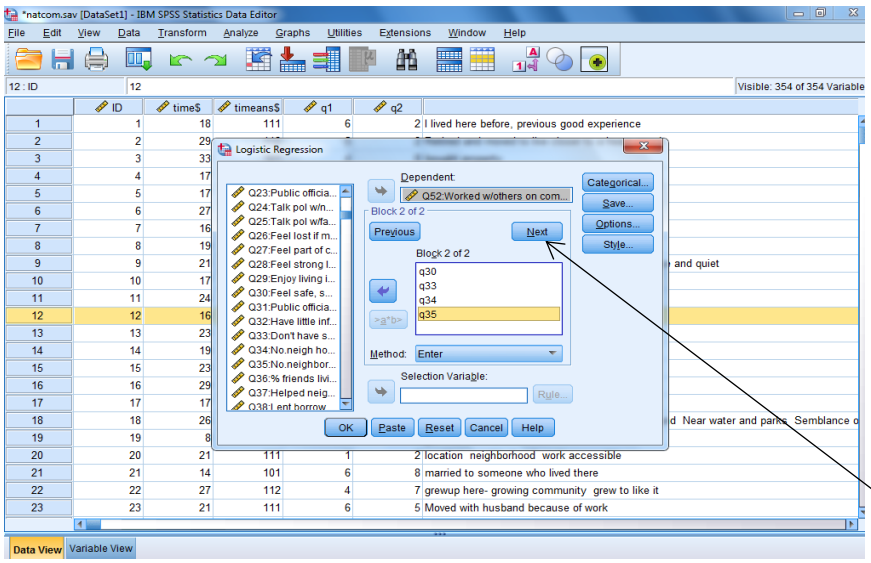
Click ok when done placing variables

Click Next to go to Block 2

Block 1



Block 2



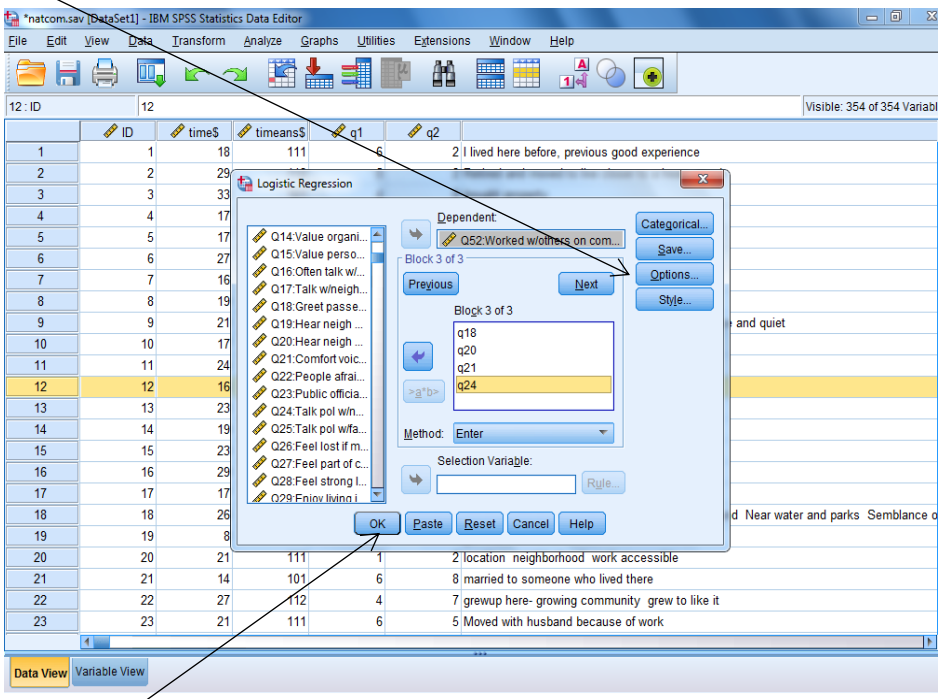
3. Next, run a logistic regression for each block via

Analyze → Regression → Binary Logistic. Select the dependent variable (Q52), then place each independent variable from Block 1 into the "covariates" section. Repeat for each block. Each time this is done, SPSS will automatically view the covariates entered as one block. SPSS also assumes a hierarchical ordering of the blocks, meaning each set of covariates entered as a block will be regressed to the dependent variable in the order the blocks are created. Additionally, within each block there is the option for stepwise or forced entry. I chose forced entry for my blocks, which instructs SPSS to carry all of those blocks' variables into the regression equation regardless of whether or not each individual variable is found to be significant.

Click Next to go to Block 3

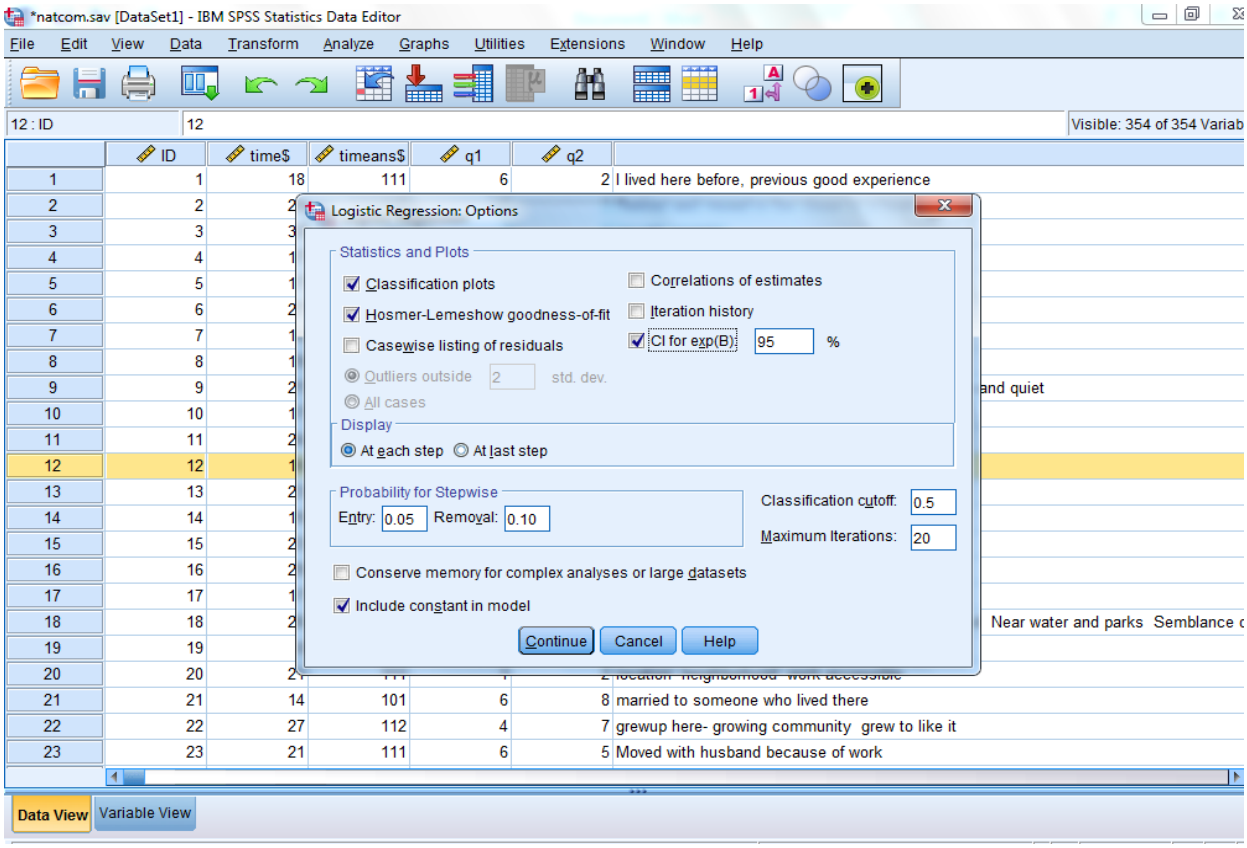
Block 3

Click Options



Click Ok

4. Ensure the following options are selected:



Click Continue

Click OK

IV. Tabling

Table 1: Prediction of working with others to solve community problems via Logistic Regression

	r	Final Exp (B)	Block Chi-Sq	Model Chi-Sq	Model -2LL	Cox & Snell R^2	Nag R^2	Hosmer & Lemeshow Chi-Sq
Block 1: Lifestyle assessment			15.451**	15.451**	553.991	.036	.049	9.888
Q9. Value your neighborhood or community.	-.052	.930						
Q8 Value friend.	-.065	.943						
Q12. Value being an American.	-.127**	.893*						
Q15. Value your personal or political philosophy.	.080[a]	1.116*						
Block 2: Neighborhood appreciation			39.805***	55.256***	514.187	.124	.166	9.308
Q30.I feel safe and secure in my neighborhood.	-.028	.946						
Q33.People like me don't have any say about what the government does.	-.162**	.910**						
Q34. Of the 10 closest neighbors, how many of their homes have you visited?	.264***	1.148**						
Q35.How many of your 10 closest neighbors do you know by name?	.166***	1.025						
Block 3: Communication			4.409	59.665***	509.778	.133	.179	11.762
Q18.Outside my house or walking down the street, I often greet people.	.063	1.052						
Q21.I'd feel comfortable voicing a complaint at a public meeting in my community	129**	1.048						
Q20.I learned about community activities from the newspaper.	.055	1.005						
Q24. I generally discuss political candidates and issues with neighbors at election time.	.098*	1.009						

Table 2: Classification Results(a)

Observed		Predicted		
		Q52. Have you worked with others in your community to solve some community problem in the past couple of years?		
		No	Yes	Percentage Correct
Q52. Have you worked with others in your community to solve some community problem in the past couple of years?	No	193	51	79.1
	Yes	81	94	53.7
Overall Percentage				68.5

a The cut value is .500

Press' Q Calculation Formula: $[N-(nK)]^2 / N(K-1)$

Where:

N=total sample size
n=number of observations correctly classified
K=number of groups

In this model:

N=419
n = 193+ 94 = 287
K = 2

Press' Q = $[419-(287*2)]^2 / 419(2-1)$
= $[419-574]^2 / 419$
= 24,025/ 419

Press' Q = 57.34 df =1

Critical chi-square at 0.001 level of significance = 10.83

Our Press' Q far exceeds the critical value, so it is highly significant ($p < .001$)

V. Write-Up:

To predict the likelihood of someone working with others to solve community problems given a chosen set of variables, I used logistic regression. All data came from the 2006 National Community Study class data set. I grouped the independent variables into blocks so that the model could be run hierarchically. Block 1 contained the variables I named "lifestyle assessment" to characterize the block's variables which each describe a component of social life that someone may have. Blocks 2 and 3 were developed based on the 2006 National Community Study groupings for "Neighborhood Appreciation" and "Communication". Given the fact that these variables were already grouped by the National Community Study researchers, I chose to use the forced entry method for each of these blocks in the logistic regression. Forced entry instructs SPSS to use all variables in the block regardless of the significance of each individual variable. This led to some interesting findings.

As indicated in the first column in Table 1, six variables had significant bivariate correlations (r) with Q52: Worked with others on community problems--Q12: Value being an American, at $r = -.127$, $p < 0.01$ level; Q33: People like me don't have any say about what the government does, at $r = -.162$, $p < .01$; Q34: Of the 10 closest neighbors, how many of their homes have you visited?, at $r = .264$, $p < .001$; Q35: How many of your 10 closest neighbors do you know by name?, at $r = .166$, $p < .001$; Q21: I'd feel comfortable voicing a complaint at a public meeting in my community, at $r = .129$, $p < .01$; and Q24: I generally discuss political candidates and issues with neighbors at election time, $r = .098$, $p < .05$. One variable with near significance at the $0.05 < p < 0.10$ level was: Q15: Value your personal or political philosophy ($r = .080$).

In the logistic regression, Block 1 contributed significantly to the prediction of someone working with others to solve community problems, with a Chi-square for the block of 15.451 ($p < .01$). In Block 1, only Q12: Value being an American and Q15: Value your personal or political philosophy had significant final Exp(B)s (.893 and 1.116), which indicated 10.7% decrease in the odds of a person working with others to solve community problems and a 11.6% higher odds, for each unit increase of Q12 or Q15, when all other independent variables were controlled for.

Block 2 was found to have a significant block Chi-square of 39.805 ($p < .001$). As the model was run hierarchically, the addition of Block 2 increased the model Chi-square to 55.256, which was also significant ($p < .001$). We used the forced entry method, so all variables were included in the equation and two of the four had a significant final Exp(B). The significant final Exp(B)s in Block 2 were for variables that also had a significant correlation, the final Exp(B)s of .910 and 1.148 from Q33and Q34. For Q33: People like me don't have any say about what the government does, indicated for each unit increase in Q33, a 9% decrease in the odds was predicted of someone working with others to solve community problems. For Q34: Of the 10 closest neighbors, how many of their homes have you visited? the results indicated for each unit increase in Q34, a 14.8% increase in the odds was predicted of someone working with others to solve community problems.

Moving to Block 3 we begin to see how a hierarchical model may impact the big picture. Two of the four variables in Block 3 reflected a moderate and significant *r*, Q24: I generally discuss political candidates and issues with neighbors at election time, significant at $p < .05$, and Q21: I'd feel comfortable voicing a complaint at a public meeting in my community, at $p < .01$. One might assume this block to have at least a slightly significant impact on the overall model.

However, as we see in Table 1, the Block 3 Chi-square of 4.409 was not significant. The model Chi-square remained significant, and did increase to 59.665 ($p < .001$), but perhaps not as much of an increase as we may have expected. None of the variables in Block 3 had a significant final Exp(B).

We might suspect this is due to the hierarchical nature of the model, which would not allow for a strong regression of the Block 3 variables if those variables have a great deal of "overlap" with the Block 1 or Block 2 variables. If the model were to be run by switching the order of Blocks 2 and 3, perhaps we would find that block to be significant.

Table 1 also reveals that the Hosmer & Lemeshow goodness-of-fit test (another assessment of how well the model fits the data) was found to be non-significant at Blocks 1, 2 and 3. The -2LL for the full model is 509.778, which, given its high dependence on *n*, is often thought to be better interpreted by Cox & Snell R^2 and Nagelkerke R^2. The Cox & Snell R^2 value of 0.133 with all three blocks in indicated the independent variables in the full model explained approximately 13.3% of the variance in the dependent variable. This is further confirmed by the Nagelkerke R^2 of 0.179 for the full model, estimating 17.9% of the variance of the dependent variable was explained by the independent variables included in the overall model.

As shown in Table 2, the model correctly classified 68.5% of the cases. The Press' Q calculation of 57.34 supports this finding, as it exceeds the critical chi-square of 10.83 at the 0.001 significance level. Therefore, the accuracy of the model's predictions is significantly greater than what could be expected by chance.

LOGISTIC REGRESSION OUTPUT:

```
CORRELATIONS
  /VARIABLES=q9 q8 q12 q15 q30 q33 q34 q35 q20 q21 q18 q24 q52
  /PRINT=TWOTAIL NOSIG
  /MISSING=PAIRWISE.
```

Notes

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Comments		
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	Active Dataset	DataSet1
	File Label	CP05
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	477
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each pair of variables are based on all the cases with valid data for that pair.
Syntax		CORRELATIONS /VARIABLES=q9 q8 q12 q15 q30 q33 q34 q35 q20 q21 q18 q24 q52 /PRINT=TWOTAIL NOSIG /MISSING=PAIRWISE.
Resources	Processor Time	00:00:00.05
	Elapsed Time	00:00:00.06

Correlations

Correlations

		Q9:Value neigh-community	Q8:Value friends	Q12:Value being American	Q15:Value personal-pol.philosophy	Q30:Feel safe, secure in neighborhood	Q33:Don't have say about what gov does	Q34:No.neighhomes visited	Q35:No.neighbors know	Q20:Hear neigh problems community paper	Q21:Comfort voicing complaints public meeting
Q9:Value neigh-community	Pearson Correlation	1	.452**	.372**	.230**	.377**	-.050	.226**	.243**	.293**	.186**
	Sig. (2-tailed)		.000	.000	.000	.000	.286	.000	.000	.000	.000
	N	468	466	466	460	457	454	456	456	450	447
Q8:Value friends	Pearson Correlation	.452**	1	.345**	.212**	.383**	-.037	.101*	.200**	.216**	.128**
	Sig. (2-tailed)	.000		.000	.000	.000	.427	.032	.000	.000	.007
	N	466	466	464	458	455	452	454	454	448	445
Q12:Value being American	Pearson Correlation	.372**	.345**	1	.261**	.258**	.003	.079	.187**	.215**	.036
	Sig. (2-tailed)	.000	.000		.000	.000	.954	.094	.000	.000	.452
	N	466	464	467	459	455	452	454	454	448	445
Q15:Value personal-pol.philosophy	Pearson Correlation	.230**	.212**	.261**	1	.199**	-.040	.116*	.117*	.176**	.248**
	Sig. (2-tailed)	.000	.000	.000		.000	.393	.014	.013	.000	.000
	N	460	458	459	462	452	449	451	451	446	446
Q30:Feel safe, secure in neighborhood	Pearson Correlation	.377**	.383**	.258**	.199**	1	-.104*	.207**	.292**	.246**	.177**
	Sig. (2-tailed)	.000	.000	.000	.000		.027	.000	.000	.000	.000
	N	457	455	455	452	459	455	457	457	449	446
Q33:Don't have say about what gov does	Pearson Correlation	-.050	-.037	.003	-.040	-.104*	1	-.118*	-.073	-.219**	-.090
	Sig. (2-tailed)	.286	.427	.954	.393	.027		.012	.123	.000	.059
	N	454	452	452	449	455	456	454	454	446	443

Q34:No.neigh homes visited	Pearson Correlation	.226**	.101*	.079	.116*	.207**	-.118*	1	.612**	.224**	.242**
	Sig. (2-tailed)	.000	.032	.094	.014	.000	.012		.000	.000	.000
	N	456	454	454	451	457	454	458	456	448	445
Q35:No.neighbors know	Pearson Correlation	.243**	.200**	.187**	.117*	.292**	-.073	.612**	1	.266**	.215**
	Sig. (2-tailed)	.000	.000	.000	.013	.000	.123	.000		.000	.000
	N	456	454	454	451	457	454	456	458	448	445
Q20:Hear neigh problems community paper	Pearson Correlation	.293**	.216**	.215**	.176**	.246**	-.219**	.224**	.266**	1	.242**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000		.000
	N	450	448	448	446	449	446	448	448	452	442
Q21:Comfort voicing complaints public meeting	Pearson Correlation	.186**	.128**	.036	.248**	.177**	-.090	.242**	.215**	.242**	1
	Sig. (2-tailed)	.000	.007	.452	.000	.000	.059	.000	.000	.000	
	N	447	445	445	446	446	443	445	445	442	449
Q18:Greet passersby	Pearson Correlation	.261**	.251**	.183**	.080	.239**	-.051	.250**	.354**	.358**	.211**
	Sig. (2-tailed)	.000	.000	.000	.089	.000	.277	.000	.000	.000	.000
	N	462	460	460	457	457	454	456	456	451	448
Q24:Talk pol w/neighbors election time	Pearson Correlation	.221**	.107*	.074	.229**	.079	-.026	.280**	.285**	.241**	.291**
	Sig. (2-tailed)	.000	.022	.116	.000	.091	.584	.000	.000	.000	.000
	N	458	456	456	453	457	454	456	456	450	447
Q52:Worked w/others on community problems	Pearson Correlation	-.052	-.065	-.127**	.080	-.028	-.162**	.264**	.166**	.055	.129**
	Sig. (2-tailed)	.269	.166	.007	.089	.548	.001	.000	.000	.249	.007
	N	453	451	451	447	453	450	452	453	444	442

Correlations

		Q18:Greet passersby	Q24:Talk pol w/neighbors election time	Q52:Worked w/others on community problems
Q9:Value neigh-community	Pearson Correlation	.261**	.221**	-.052
	Sig. (2-tailed)	.000	.000	.269
	N	462	458	453
Q8:Value friends	Pearson Correlation	.251**	.107*	-.065
	Sig. (2-tailed)	.000	.022	.166
	N	460	456	451

Q12:Value being American	Pearson Correlation	.183**	.074	-.127**
	Sig. (2-tailed)	.000	.116	.007
	N	460	456	451
Q15:Value personal-pol.philosophy	Pearson Correlation	.080	.229**	.080
	Sig. (2-tailed)	.089	.000	.089
	N	457	453	447
Q30:Feel safe, secure in neighborhood	Pearson Correlation	.239**	.079	-.028
	Sig. (2-tailed)	.000	.091	.548
	N	457	457	453
Q33:Don't have say about what gov does	Pearson Correlation	-.051	-.026	-.162**
	Sig. (2-tailed)	.277	.584	.001
	N	454	454	450
Q34:No.neigh homes visited	Pearson Correlation	.250**	.280**	.264**
	Sig. (2-tailed)	.000	.000	.000
	N	456	456	452
Q35:No.neighbors know	Pearson Correlation	.354**	.285**	.166**
	Sig. (2-tailed)	.000	.000	.000
	N	456	456	453
Q20:Hear neigh problems community paper	Pearson Correlation	.358**	.241**	.055
	Sig. (2-tailed)	.000	.000	.249
	N	451	450	444
Q21:Comfort voicing complaints public meeting	Pearson Correlation	.211**	.291**	.129**
	Sig. (2-tailed)	.000	.000	.007
	N	448	447	442
Q18:Greet passersby	Pearson Correlation	1	.243**	.063
	Sig. (2-tailed)		.000	.183
	N	464	457	452
Q24:Talk pol w/neighbors election time	Pearson Correlation	.243**	1	.098*
	Sig. (2-tailed)	.000		.037
	N	457	459	452
Q52:Worked w/others on community problems	Pearson Correlation	.063	.098*	1
	Sig. (2-tailed)	.183	.037	
	N	452	452	454

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

```
LOGISTIC REGRESSION VARIABLES q52
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  /METHOD=ENTER q30 q33 q34 q35
  /METHOD=ENTER q20 q21 q18 q24
  /CLASSPLOT
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  /CRITERIA=PIN(0.05) POUT(0.10) ITERATE(20) CUT(0.5)
```

Logistic Regression

Notes

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	Split File	<none>
	N of Rows in Working Data File	477
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing

Syntax		LOGISTIC REGRESSION VARIABLES q52 /METHOD=ENTER q8 q9 q12 q15 /METHOD=ENTER q30 q33 q34 q35 /METHOD=ENTER q20 q21 q18 q24 /CLASSPLOT /PRINT=GOODFIT CI(95) /CRITERIA=PIN(0.05) POUT(0.10) ITERATE(20) CUT(0.5).
Resources	Processor Time	00:00:00.05
	Elapsed Time	00:00:00.05

Case Processing Summary

Unweighted Cases[a]		N	Percent
Selected Cases	Included in Analysis	419	87.8
	Missing Cases	58	12.2
	Total	477	100.0
Unselected Cases		0	.0
Total		477	100.0

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding

Original Value	Internal Value
0=no	0
1=yes	1

Block 0: Beginning Block

Classification Table[a,b]

Observed			Predicted Q52:Worked w/others on community problems		Percentage Correct
			0=no	1=yes	
Step 0	Q52:Worked w/others on community problems	0=no	244	0	100.0
		1=yes	175	0	.0
	Overall Percentage				58.2

a. Constant is included in the model.

b. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 0	Constant	-.332	.099	11.259	1	.001	.717

Variables not in the Equation

			Score	df	Sig.
Step 0	Variables	Q8:Value friends	1.391	1	.238
		Q9:Value neigh-community	.785	1	.375
		Q12:Value being American	6.912	1	.009
		Q15:Value personal-pol.philosophy	4.265	1	.039
	Overall Statistics		15.130	4	.004

Block 1: Method = Enter

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	15.451	4	.004
	Block	15.451	4	.004
	Model	15.451	4	.004

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	553.991[a]	.036	.049

a. Estimation terminated at iteration number 3 because parameter estimates changed by less than .001.

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	9.888	8	.273

Contingency Table for Hosmer and Lemeshow Test

		Q52:Worked w/others on community problems = 0=no		Q52:Worked w/others on community problems = 1=yes		
		Observed	Expected	Observed	Expected	Total
Step 1	1	32	31.659	11	11.341	43
	2	31	28.725	12	14.275	43
	3	23	26.698	19	15.302	42
	4	30	26.414	13	16.586	43
	5	27	25.026	15	16.974	42
	6	18	24.185	24	17.815	42
	7	29	25.066	16	19.934	45
	8	21	22.517	21	19.483	42
	9	18	20.444	24	21.556	42
	10	15	13.265	20	21.735	35

Classification Table[a]

Observed			Predicted Q52:Worked w/others on community problems 0=no	1=yes	Percentage Correct
Step 1	Q52:Worked w/others on community problems	0=no	218	26	89.3
		1=yes	139	36	20.6
	Overall Percentage				60.6

a. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B) Lower
Step 1[a]	Q8:Value friends	-.038	.055	.484	1	.487	.963	.865
	Q9:Value neigh-community	.001	.054	.000	1	.984	1.001	.900
	Q12:Value being American	-.118	.043	7.477	1	.006	.888	.816
	Q15:Value personal-pol.philosophy	.118	.042	8.056	1	.005	1.125	1.037
	Constant	.144	.468	.094	1	.759	1.154	

Variables in the Equation

		95% C.I.for EXP(B) Upper
Step 1[a]	Q8:Value friends	1.071
	Q9:Value neigh-community	1.114
	Q12:Value being American	.967
	Q15:Value personal-pol.philosophy	1.221
	Constant	

a. Variable(s) entered on step 1: Q8:Value friends, Q9:Value neigh-community, Q12:Value being American, Q15:Value personal-pol.philosophy.

```
            Step number: 1

            Observed Groups and Predicted Probabilities

      80 +                                                                                +
         I                                                                                I
         I                                                                                I
F        I                                                                                I
R     60 +                                                                                +
E        I                                                                                I
Q        I                                                                                I
U        I                                                1                               I
E     40 +                                                1                               +
N        I                                                1                               I
C        I                                              1   0                             I
Y        I                                            1 11  0                             I
      20 +                                 1   11 10 01 10                                +
         I                                 0   01 00101 1011 1   1                        I
         I                     1           0 1100100000100l0 11  1                        I
         I                     0  1  0  0 0100000000000000000100110111 01 11  1           I
Predicted ---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+----------
  Prob:   0       .1        .2        .3        .4        .5        .6        .7        .8        .9         1
  Group:  00000000000000000000000000000000000000000000000000000000011111111111111111111111111111111111111111111111111111

          Predicted Probability is of Membership for 1=yes
          The Cut Value is .50
          Symbols: 0 - 0=no
                   1 - 1=yes
          Each Symbol Represents 5 Cases.
```

Block 2: Method = Enter

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	39.805	4	.000
	Block	39.805	4	.000
	Model	55.256	8	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	514.187[a]	.124	.166

a. Estimation terminated at iteration number 4 because parameter estimates changed by less than .001.

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	9.308	8	.317

Contingency Table for Hosmer and Lemeshow Test

		Q52:Worked w/others on community problems = 0=no		Q52:Worked w/others on community problems = 1=yes		
		Observed	Expected	Observed	Expected	Total
Step 1	1	35	35.882	7	6.118	42
	2	33	32.584	9	9.416	42
	3	33	30.353	9	11.647	42
	4	34	28.364	8	13.636	42
	5	24	25.987	18	16.013	42
	6	20	23.719	22	18.281	42
	7	16	21.279	26	20.721	42
	8	20	19.608	25	25.392	45
	9	18	16.256	25	26.744	43
	10	11	9.970	26	27.030	37

Classification Table[a]

			Predicted		
			Q52:Worked w/others on community problems		
	Observed		0=no	1=yes	Percentage Correct
Step 1	Q52:Worked w/others on community problems	0=no	192	52	78.7
		1=yes	88	87	49.7
	Overall Percentage				66.6

a. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B) Lower
Step 1[a]	Q8:Value friends	-.043	.061	.495	1	.482	.958	.851
	Q9:Value neigh-community	-.055	.061	.819	1	.365	.947	.841
	Q12:Value being American	-.116	.045	6.570	1	.010	.891	.816
	Q15:Value personal-pol.philosophy	.121	.044	7.486	1	.006	1.128	1.035
	Q30:Feel safe, secure in neighborhood	-.050	.053	.882	1	.348	.952	.858
	Q33:Don't have say about what gov does	-.098	.032	9.345	1	.002	.906	.851
	Q34:No.neigh homes visited	.146	.042	11.979	1	.001	1.157	1.065
	Q35:No.neighbors know	.043	.044	.984	1	.321	1.044	.959
	Constant	.424	.555	.583	1	.445	1.528	

Variables in the Equation

		95% C.I.for EXP(B) Upper
Step 1[a]	Q8:Value friends	1.079
	Q9:Value neigh-community	1.066
	Q12:Value being American	.973
	Q15:Value personal-pol.philosophy	1.230
	Q30:Feel safe, secure in neighborhood	1.055
	Q33:Don't have say about what gov does	.965
	Q34:No.neigh homes visited	1.257
	Q35:No.neighbors know	1.138
	Constant	

a. Variable(s) entered on step 1: Q30:Feel safe, secure in neighborhood, Q33:Don't have say about what gov does, Q34:No.neigh homes visited, Q35:No.neighbors know.

```
            Step number: 1

            Observed Groups and Predicted Probabilities

      16 +                                                                                                     +
         I                              1                                                                      I
         I                              0                            1                                         I
F        I                              0                            1                                         I
R     12 +                           1  0         1                  1                                         +
E        I                           1  0         1                  1                                         I
Q        I                     1    10  0         1             1    1 1                                       I
U        I                     0 1  10  0  1      11     11     1    1 1                                       I
E      8 +               0     0 1 1101 0  11   1 11     111    1    111                                       +
N        I               0   1 0 1 110000 1011 11111  111111    1   11111                                      I
C        I               0 0 110 0 010000 00011101011 111111   11   11111                                      I
Y        I              1010 01000 000000 00011100011 1111111 1111 010111    1  1                              I
       4 +         1    1010 00000 00000010001100000010110001111011010101  111  111                            +
         I         10   1000 00000000000000000100000000100001111000010100 1111  011111                         I
         I         00 0 000000000000000000000000000000010000011000001000011000  011101                         I
         I      0 00000000000000000000000000000000000000000001000000000000000011001101100101       1           I
Predicted ---------+---------+---------+---------+---------+---------+---------+---------+---------+----------
  Prob:   0        .1        .2        .3        .4        .5        .6        .7        .8        .9         1
  Group:  0000000000000000000000000000000000000000000000000011111111111111111111111111111111111111111111111111

          Predicted Probability is of Membership for 1=yes
          The Cut Value is .50
          Symbols: 0 - 0=no
                   1 - 1=yes
          Each Symbol Represents 1 Case.
```

Block 3: Method = Enter

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	4.409	4	.354
	Block	4.409	4	.354
	Model	59.665	12	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	509.778[a]	.133	.179

a. Estimation terminated at iteration number 4 because parameter estimates changed by less than .001.

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	11.762	8	.162

Contingency Table for Hosmer and Lemeshow Test

		Q52:Worked w/others on community problems = 0=no		Q52:Worked w/others on community problems = 1=yes		
		Observed	Expected	Observed	Expected	Total
Step 1	1	36	36.212	6	5.788	42
	2	34	33.039	8	8.961	42
	3	26	30.575	16	11.425	42
	4	36	28.320	6	13.680	42
	5	28	26.104	14	15.896	42
	6	23	23.643	19	18.357	42
	7	18	21.098	24	20.902	42
	8	15	18.523	27	23.477	42
	9	16	15.701	26	26.299	42
	10	12	10.787	29	30.213	41

Classification Table[a]

			Predicted		
			Q52:Worked w/others on community problems		Percentage
	Observed		0=no	1=yes	Correct
Step 1	Q52:Worked w/others on community problems	0=no	193	51	79.1
		1=yes	81	94	53.7
	Overall Percentage				68.5

a. The cut value is .500

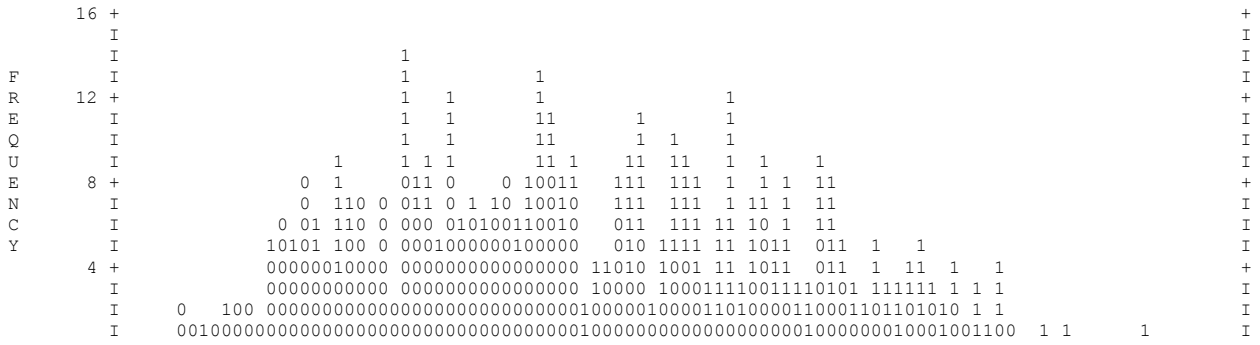
Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B) Lower	Upper
Step 1[a]	Q8:Value friends	-.059	.062	.921	1	.337	.943	.836	1.064
	Q9:Value neigh-community	-.073	.062	1.373	1	.241	.930	.823	1.050
	Q12:Value being American	-.113	.046	6.075	1	.014	.893	.816	.977
	Q15:Value personal-pol.philosophy	.110	.046	5.838	1	.016	1.116	1.021	1.221
	Q30:Feel safe, secure in neighborhood	-.056	.053	1.092	1	.296	.946	.852	1.050
	Q33:Don't have say about what gov does	-.094	.033	8.184	1	.004	.910	.853	.971
	Q34:No.neigh homes visited	.138	.043	10.373	1	.001	1.148	1.056	1.249
	Q35:No.neighbors know	.025	.045	.302	1	.583	1.025	.938	1.120
	Q20:Hear neigh problems community paper	.005	.036	.018	1	.893	1.005	.936	1.078
	Q21:Comfort voicing complaints public meeting	.047	.034	1.854	1	.173	1.048	.980	1.121
	Q18:Greet passersby	.051	.042	1.462	1	.227	1.052	.969	1.143
	Q24:Talk pol w/neighbors election time	.009	.036	.059	1	.808	1.009	.941	1.082
	Constant	.196	.565	.120	1	.729	1.216		

a. Variable(s) entered on step 1: Q20:Hear neigh problems community paper, Q21:Comfort voicing complaints public meeting, Q18:Greet passersby, Q24:Talk pol w/neighbors election time.

Step number: 1

Observed Groups and Predicted Probabilities



Predicted Probability is of Membership for 1=yes
The Cut Value is .50
Symbols: 0 - 0=no
1 - 1=yes
Each Symbol Represents 1 Case.