Rachel Campbell & Matthew Egizii
COM 631

Logistic Regression

Goal:

Predict the probability of a person being a part of a charity or volunteer organization.

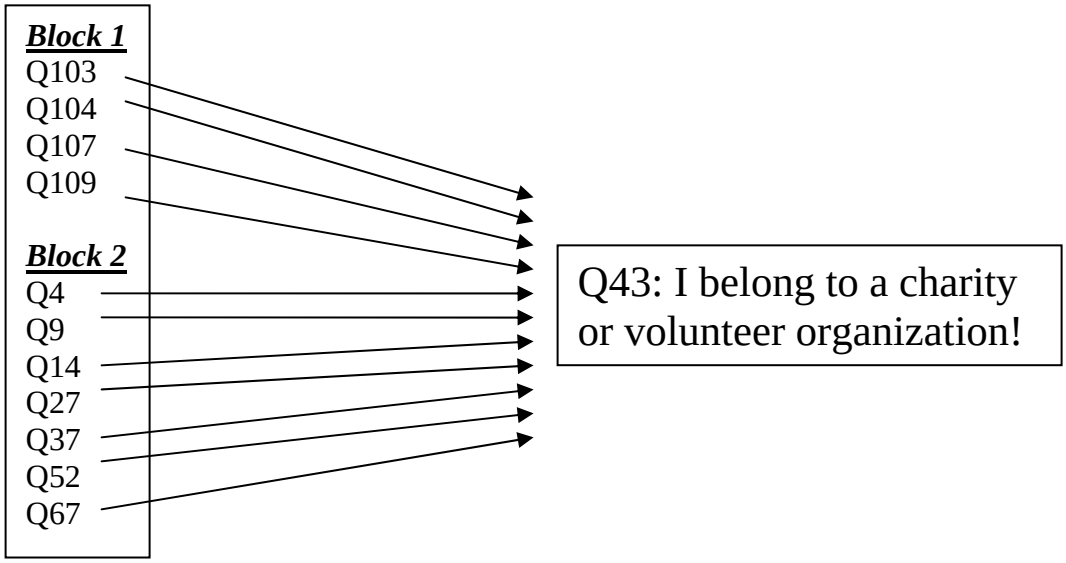
Dependent Variable

Q43: I belong to a charity or volunteer organization. Y (Recoded as 1)/ N (Recoded as 0)

Independent Variables

Block 1 (controls)
Q103: Marital Status (Recoded to the variable Married)
Q104: Age
Q107: Income
Q109: Gender (Recoded to the variable Female)

Block 2
Q4: Community quality of life (Likert 0-10)
Q9: How much do you value your neighborhood or community? (Likert 0-10)
Q14: How much do you value belonging to organizations? (Likert 0-10)
Q27: I feel a part of the community (Likert 0-10)
Q37: Have you ever helped a neighbor around the house? (Yes/No)
Q52: Have you worked with others in the community to solve problems? (Yes/No)
Q67: How often do you visit the websites of non-profit organizations? (0-5)



Click **ANALYZE**

➔ **REGRESSION**

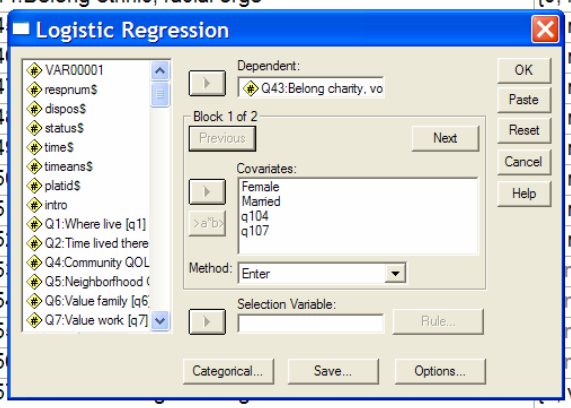
➔**BINARY LOGISTIC**

DEPENDENT: INSERT DV

COVARIATES: BLOCK 1 (Insert control IVs)

METHOD: ENTER

ıмeric	1	0	Q41:Belong civic groups	{0, no}...	2 - 9
ıмeric	1	0	Q42:Belong religious orgs	{0, no}...	2 - 9
ıмeric	1	0	Q43:Belong charity, volunteer orgs	{0, no}...	2 - 9
ıмeric	1	0	Q44:Belong ethnic, racial orgs	{0, no}...	2 - 9
ıмeric	1	0	Q4	no}...	2 - 9
ıмeric	1	0	Q4	no}...	2 - 9
ıмeric	1	0	Q4	no}...	2 - 9
ıмeric	1	0	Q4	no}...	2 - 9
ıмeric	1	0	Q4	no}...	2 - 9
ıмeric	1	0	Q5	no}...	2 - 9
ıмeric	1	0	Q5	no}...	2 - 9
ıмeric	1	0	Q5	no}...	2 - 9
ring	255	0	Q5	ne	None
ring	255	0	Q5	ne	None
ring	255	0	Q5	ne	None
ring	255	0	Q5	ne	None
ıмeric	1	0	Q5	very unco	5 - 9
ıмeric	1	0	Q58:Comfort talk personal matters w/neighbors	{1, very unco	5 - 9
ıмeric	1	0	Q59:Comforft talk personal matters w/coworkers	{1, very unco	5 - 9
ıмeric	1	0	Q60:Freq read community newspaper	{0, is no com	6 - 9
ıмeric	1	0	Q61:Freq go on Internet at home, work	{0, never bee	6 - 9
ıмeric	1	0	Q62:Freq visit metro, community website	{0, never bee	6 - 9
ıмeric	1	0	Q63:Freq visit neigh website	{0, never bee	6 - 9
ıмeric	1	0	Q64:Freq visit media websites	{0, never bee	6 - 9
ıмeric	1	0	Q65:Freq visit business websites	{0, never bee	6 - 9

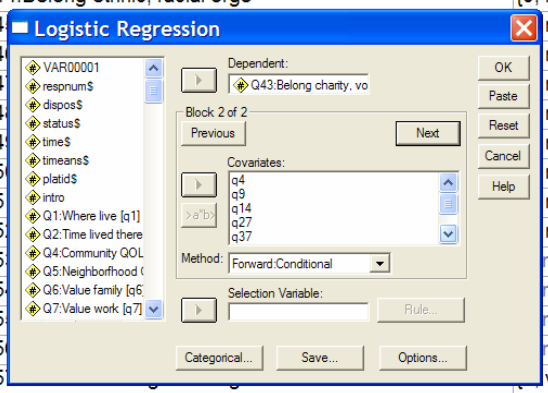


➔ NEXT

➔ BLOCK 2 (Insert IVs)

METHOD: Stepwise (Some SPSS versions may refer to this as Forward: Conditional)

ıмeric	1	0	Q41:Belong civic groups	{0, no}...	2 - 9
ıмeric	1	0	Q42:Belong religious orgs	{0, no}...	2 - 9
ıмeric	1	0	Q43:Belong charity, volunteer orgs	{0, no}...	2 - 9
ıмeric	1	0	Q44:Belong ethnic, racial orgs	{0, no}...	2 - 9
ıмeric	1	0	Q4	no}...	2 - 9
ıмeric	1	0	Q4	no}...	2 - 9
ıмeric	1	0	Q4	no}...	2 - 9
ıмeric	1	0	Q4	no}...	2 - 9
ıмeric	1	0	Q4	no}...	2 - 9
ıмeric	1	0	Q5	no}...	2 - 9
ıмeric	1	0	Q5	no}...	2 - 9
ıмeric	1	0	Q5	no}...	2 - 9
ring	255	0	Q5	ne	None
ring	255	0	Q5	ne	None
ring	255	0	Q5	ne	None
ring	255	0	Q5	ne	None
ıмeric	1	0	Q5	very unco	5 - 9
ıмeric	1	0	Q58:Comfort talk personal matters w/neighbors	{1, very unco	5 - 9
ıмeric	1	0	Q59:Comforft talk personal matters w/coworkers	{1, very unco	5 - 9
ıмeric	1	0	Q60:Freq read community newspaper	{0, is no com	6 - 9
ıмeric	1	0	Q61:Freq go on Internet at home, work	{0, never bee	6 - 9
ıмeric	1	0	Q62:Freq visit metro, community website	{0, never bee	6 - 9
ıмeric	1	0	Q63:Freq visit neigh website	{0, never bee	6 - 9
ıмeric	1	0	Q64:Freq visit media websites	{0, never bee	6 - 9
ıмeric	1	0	Q65:Freq visit business websites	{0, never bee	6 - 9



Click **OPTION** ➔ select **Classification Plots; Hosmer-Lemeshow goodness-of-fit; CI for exp(B)** ➔ Click **CONTINUE**

ıмeric	1	0	Q41:Belong civic groups	{0, no}...	2 - 9
ıмeric	1	0	Q42:Belong religious orgs	{0, no}...	2 - 9
ıмeric	1	0	Q43:Belong charity, volunteer orgs	{0, no}...	2 - 9
ıмeric	1	0	Q44:Belong ethnic, racial orgs	{0, no}...	2 - 9
ıмeric	1	0	Q4	no}...	2 - 9
ıмeric	1	0	Q4	no}...	2 - 9
ıмeric	1	0	Q4	no}...	2 - 9
ıмeric	1	0	Q4	no}...	2 - 9
ıмeric	1	0	Q4	no}...	2 - 9
ıмeric	1	0	Q5	no}...	2 - 9
ıмeric	1	0	Q5	no}...	2 - 9
ıмeric	1	0	Q5	no}...	2 - 9
ring	255	0	Q5	ne	None
ring	255	0	Q5	ne	None
ring	255	0	Q5	ne	None
ring	255	0	Q5	ne	None
ıмeric	1	0	Q5	very unco	5 - 9
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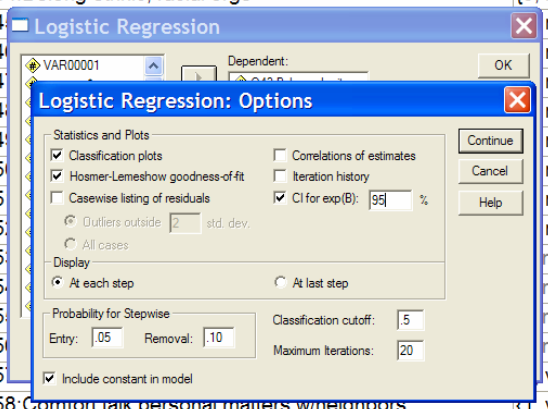
ıмeric	1	0	Q59:Comforft talk personal matters w/coworkers	{1, very unco	5 - 9
ıмeric	1	0	Q60:Freq read community newspaper	{0, is no com	6 - 9
ıмeric	1	0	Q61:Freq go on Internet at home, work	{0, never bee	6 - 9
ıмeric	1	0	Q62:Freq visit metro, community website	{0, never bee	6 - 9
ıмeric	1	0	Q63:Freq visit neigh website	{0, never bee	6 - 9
ıмeric	1	0	Q64:Freq visit media websites	{0, never bee	6 - 9
ıмeric	1	0	Q65:Freq visit business websites	{0, never bee	6 - 9



Then Click **OK**

```
LOGISTIC REGRESSION  q43
  /METHOD = ENTER Female Married q104 q107  /METHOD = FSTEP(COND) q4 q9 q14 q27
   q37 q52 q67
  /CLASSPLOT
  /PRINT = GOODFIT CORR CI(95)
  /CRITERIA = PIN(.05) POUT(.10) ITERATE(20) CUT(.5) .
```

Logistic Regression

Case Processing Summary

Unweighted Cases[a]		N	Percent
Selected Cases	Included in Analysis	310	64.3
	Missing Cases	172	35.7
	Total	482	100.0
Unselected Cases		0	.0
Total		482	100.0

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

Dependent Variable Encoding

Original Value	Internal Value
no	0
yes	1

Block 0: Beginning Block

Classification Table[a,b]

			Predicted		
			Q43:Belong charity, volunteer orgs		Percentage Correct
	Observed		no	yes	
Step 0	Q43:Belong charity, volunteer orgs	no	174	0	100.0
		yes	136	0	.0
	Overall Percentage				56.1

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	-.246	.114	4.635	1	.031	.782

Variables not in the Equation

			Score	df	Sig.
Step 0	Variables	Female	.017	1	.898
		Married	1.530	1	.216
		q104	.632	1	.427
		q107	8.200	1	.004
	Overall Statistics		8.877	4	.064

Block 1: Method = Enter

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	8.992	4	.061
	Block	8.992	4	.061
	Model	8.992	4	.061

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	416.089[a]	.029	.038

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	11.172	8	.192

Contingency Table for Hosmer and Lemeshow Test

		Q43:Belong charity, volunteer orgs = no		Q43:Belong charity, volunteer orgs = yes		
		Observed	Expected	Observed	Expected	Total
Step 1	1	23	21.677	8	9.323	31
	2	22	20.513	9	10.487	31
	3	15	19.076	15	10.924	30
	4	23	19.217	9	12.783	32
	5	19	18.125	13	13.875	32
	6	11	16.171	19	13.829	30
	7	19	16.030	12	14.970	31
	8	13	15.842	19	16.158	32
	9	17	15.039	15	16.961	32
	10	12	12.309	17	16.691	29

Classification Table[a]

			Predicted		
			Q43:Belong charity, volunteer orgs		Percentage Correct
	Observed		no	yes	
Step 1	Q43:Belong charity, volunteer orgs	no	134	40	77.0
		yes	91	45	33.1
	Overall Percentage				57.7

a. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1[a]	Female	.024	.234	.011	1	.917	1.025
	Married	-.085	.273	.098	1	.755	.918
	q104	.060	.075	.646	1	.422	1.062
	q107	.163	.062	6.772	1	.009	1.176
	Constant	-1.253	.460	7.434	1	.006	.286

Variables in the Equation

		95.0% C.I.for EXP(B)	
		Lower	Upper
Step 1[a]	Female	.648	1.620
	Married	.537	1.569
	q104	.917	1.229
	q107	1.041	1.330
	Constant		

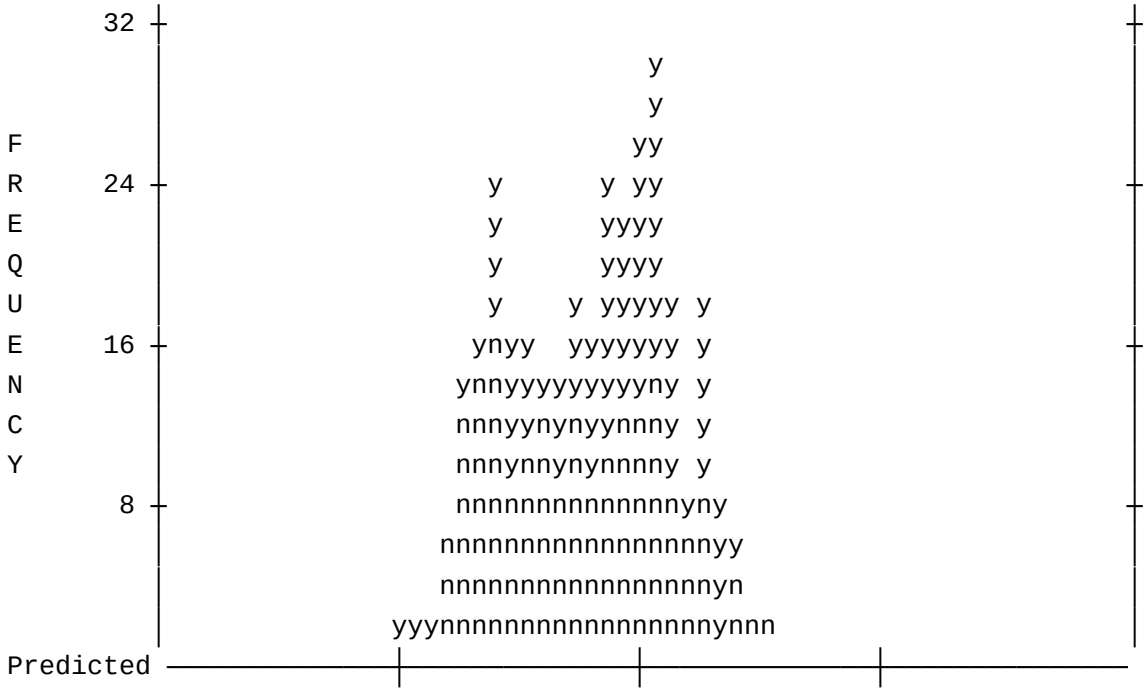
a. Variable(s) entered on step 1: Female, Married, q104, q107.

Correlation Matrix

		Constant	Female	Married	q104	q107
Step 1	Constant	1.000	-.339	.078	-.727	-.552
	Female	-.339	1.000	-.060	.075	.082
	Married	.078	-.060	1.000	-.105	-.504
	q104	-.727	.075	-.105	1.000	.060
	q107	-.552	.082	-.504	.060	1.000

Step number: 1

Observed Groups and Predicted Probabilities



```
Prob:   0           .25           .5            .75            1
Group:  nnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnyyyyyyyyyyyyyyyyyyyyyyyyyyyyyyy

        Predicted Probability is of Membership for yes
        The Cut Value is .50
        Symbols: n - no
                 y - yes
        Each Symbol Represents 2 Cases.
```

Block 2: Method = Forward Stepwise (Conditional)

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	30.288	1	.000
	Block	30.288	1	.000
	Model	39.280	5	.000
Step 2	Step	19.932	1	.000
	Block	50.219	2	.000
	Model	59.211	6	.000
Step 3	Step	13.126	1	.000
	Block	63.346	3	.000
	Model	72.338	7	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	385.802[a]	.119	.159
2	365.870[a]	.174	.233
3	352.744[a]	.208	.279

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	11.939	8	.154
2	13.036	8	.111
3	12.365	8	.136

Contingency Table for Hosmer and Lemeshow Test

		Q43:Belong charity, volunteer orgs = no		Q43:Belong charity, volunteer orgs = yes		
		Observed	Expected	Observed	Expected	Total
Step 1	1	25	27.522	7	4.478	32
	2	24	24.213	7	6.787	31
	3	27	22.033	5	9.967	32
	4	19	19.314	12	11.686	31
	5	15	17.805	17	14.195	32
	6	18	15.681	13	15.319	31
	7	18	14.252	13	16.748	31
	8	12	13.103	19	17.897	31
	9	7	11.625	24	19.375	31
	10	9	8.451	19	19.549	28
Step 2	1	27	27.646	4	3.354	31
	2	21	24.920	10	6.080	31
	3	25	22.833	6	8.167	31
	4	23	20.872	8	10.128	31
	5	18	18.539	13	12.461	31
	6	23	16.641	8	14.359	31
	7	10	14.211	21	16.789	31
	8	10	11.796	21	19.204	31
	9	9	9.627	22	21.373	31
	10	8	6.916	23	24.084	31
Step 3	1	28	28.099	3	2.901	31
	2	25	25.460	6	5.540	31
	3	21	23.459	10	7.541	31
	4	25	21.474	6	9.526	31
	5	22	18.992	9	12.008	31
	6	13	16.517	18	14.483	31
	7	17	14.095	14	16.905	31
	8	6	11.715	25	19.285	31
	9	10	9.063	21	21.937	31
	10	7	5.125	24	25.875	31

Classification Table[a]

			Predicted		
			Q43:Belong charity, volunteer orgs		Percentage Correct
	Observed		no	yes	
Step 1	Q43:Belong charity, volunteer orgs	no	119	55	68.4
		yes	58	78	57.4
	Overall Percentage				63.5
Step 2	Q43:Belong charity, volunteer orgs	no	138	36	79.3
		yes	49	87	64.0
	Overall Percentage				72.6
Step 3	Q43:Belong charity, volunteer orgs	no	132	42	75.9
		yes	51	85	62.5
	Overall Percentage				70.0

a. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1[a]	Female	-.178	.249	.511	1	.475	.837
	Married	-.157	.291	.290	1	.590	.855
	q104	-.008	.079	.010	1	.919	.992
	q107	.166	.067	6.247	1	.012	1.181
	q14	.215	.042	26.730	1	.000	1.240
	Constant	-2.016	.514	15.370	1	.000	.133
Step 2[b]	Female	-.084	.259	.105	1	.745	.919
	Married	-.363	.306	1.403	1	.236	.696
	q104	.014	.082	.028	1	.866	1.014
	q107	.155	.068	5.122	1	.024	1.167
	q14	.211	.043	24.106	1	.000	1.235
	q52	1.145	.261	19.212	1	.000	3.143
	Constant	-2.459	.538	20.852	1	.000	.086
Step 3[c]	Female	-.037	.265	.019	1	.890	.964
	Married	-.252	.314	.645	1	.422	.777
	q104	.060	.084	.510	1	.475	1.062
	q107	.089	.073	1.511	1	.219	1.093
	q14	.200	.044	20.642	1	.000	1.221
	q52	1.112	.267	17.356	1	.000	3.040
	q67	.392	.113	11.991	1	.001	1.480
	Constant	-2.916	.573	25.904	1	.000	.054

Variables in the Equation

		95.0% C.I.for EXP(B)	
		Lower	Upper
Step 1[a]	Female	.514	1.363
	Married	.484	1.511
	q104	.849	1.159
	q107	1.037	1.346
	q14	1.143	1.345
	Constant		
Step 2[b]	Female	.553	1.528
	Married	.382	1.268
	q104	.863	1.191
	q107	1.021	1.335
	q14	1.135	1.344
	q52	1.883	5.244
	Constant		
Step 3[c]	Female	.573	1.622
	Married	.419	1.439
	q104	.900	1.253
	q107	.948	1.261
	q14	1.120	1.331
	q52	1.802	5.129
	q67	1.185	1.848
	Constant		

a. Variable(s) entered on step 1: q14.

b. Variable(s) entered on step 2: q52.

c. Variable(s) entered on step 3: q67.

Correlation Matrix

		Constant	Female	Married	q104	q107	q14
Step 1	Constant	1.000	-.257	.098	-.614	-.540	-.344
	Female	-.257	1.000	-.055	.103	.064	-.165
	Married	.098	-.055	1.000	-.092	-.516	-.056
	q104	-.614	.103	-.092	1.000	.035	-.157
	q107	-.540	.064	-.516	.035	1.000	.073
	q14	-.344	-.165	-.056	-.157	.073	1.000
Step 2	Constant	1.000	-.271	.133	-.615	-.506	-.331
	Female	-.271	1.000	-.068	.106	.075	-.174
	Married	.133	-.068	1.000	-.089	-.514	-.069
	q104	-.615	.106	-.089	1.000	.022	-.153
	q107	-.506	.075	-.514	.022	1.000	.048
	q14	-.331	-.174	-.069	-.153	.048	1.000
	q52	-.243	.081	-.176	.064	-.001	.057
Step 3	Constant	1.000	-.276	.098	-.620	-.409	-.321
	Female	-.276	1.000	-.055	.110	.057	-.172
	Married	.098	-.055	1.000	-.069	-.522	-.065
	q104	-.620	.110	-.069	1.000	-.028	-.154
	q107	-.409	.057	-.522	-.028	1.000	.061
	q14	-.321	-.172	-.065	-.154	.061	1.000
	q52	-.237	.087	-.166	.064	-.009	.053
	q67	-.284	.061	.093	.174	-.227	-.024

Correlation Matrix

		q52	q67
Step 1	Constant		
	Female		
	Married		
	q104		
	q107		
	q14		
Step 2	Constant	-.243	
	Female	.081	
	Married	-.176	
	q104	.064	
	q107	-.001	
	q14	.057	
	q52	1.000	
Step 3	Constant	-.237	-.284
	Female	.087	.061
	Married	-.166	.093
	q104	.064	.174
	q107	-.009	-.227
	q14	.053	-.024
	q52	1.000	.012
	q67	.012	1.000

Model if Term Removed[a]

Variable		Model Log Likelihood	Change in -2 Log Likelihood	df	Sig. of the Change
Step 1	q14	-208.194	30.587	1	.000
Step 2	q14	-196.675	27.479	1	.000
	q52	-192.978	20.086	1	.000
Step 3	q14	-187.967	23.189	1	.000
	q52	-185.421	18.098	1	.000
	q67	-182.981	13.218	1	.000

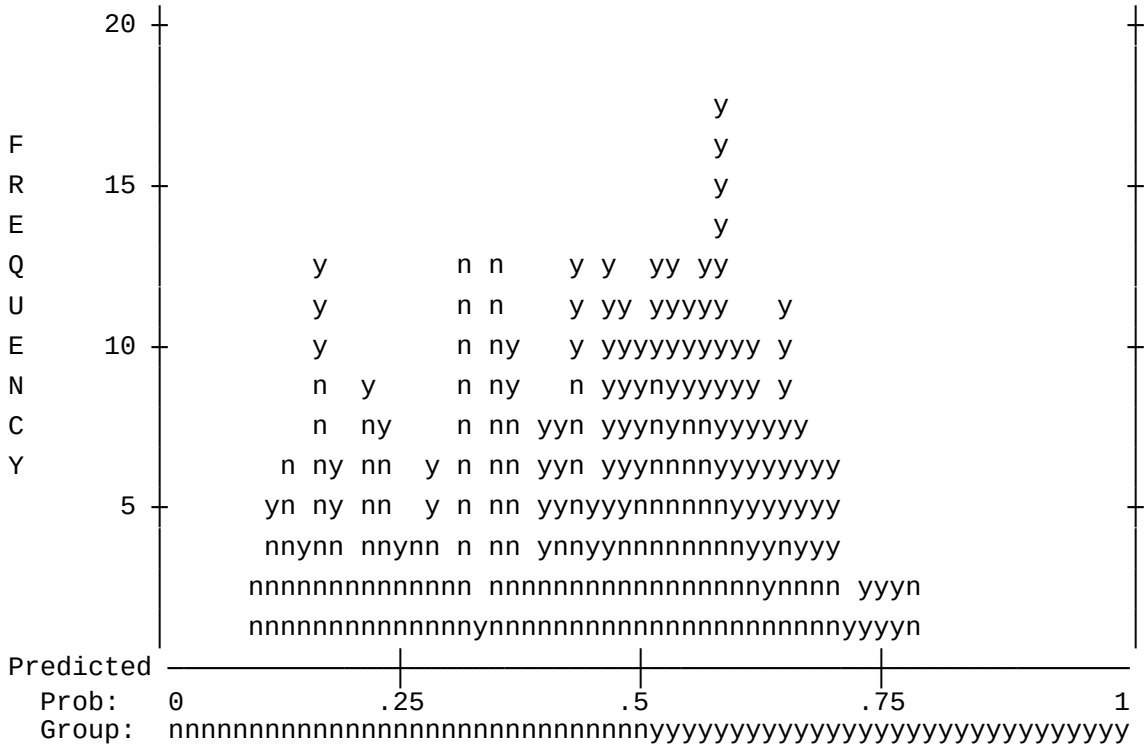
a. Based on conditional parameter estimates

Variables not in the Equation

			Score	df	Sig.
Step 1	Variables	q4	6.107	1	.013
		q9	3.936	1	.047
		q27	2.198	1	.138
		q37	3.618	1	.057
		q52	19.934	1	.000
		q67	14.667	1	.000
	Overall Statistics		39.302	6	.000
Step 2	Variables	q4	4.542	1	.033
		q9	3.106	1	.078
		q27	.216	1	.642
		q37	1.566	1	.211
		q67	12.825	1	.000
	Overall Statistics		20.082	5	.001
Step 3	Variables	q4	3.373	1	.066
		q9	2.090	1	.148
		q27	.321	1	.571
		q37	1.678	1	.195
	Overall Statistics		7.735	4	.102

Step number: 1

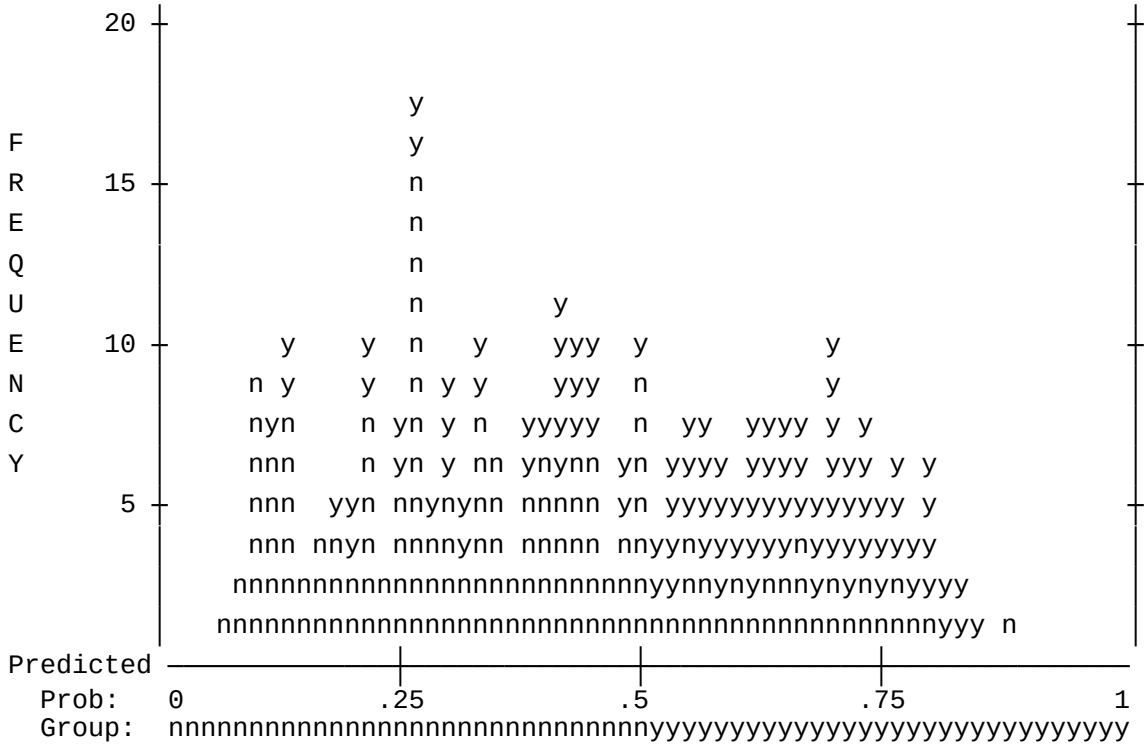
Observed Groups and Predicted Probabilities



Predicted Probability is of Membership for yes
The Cut Value is .50
Symbols: n - no
y - yes
Each Symbol Represents 1.25 Cases.

Step number: 2

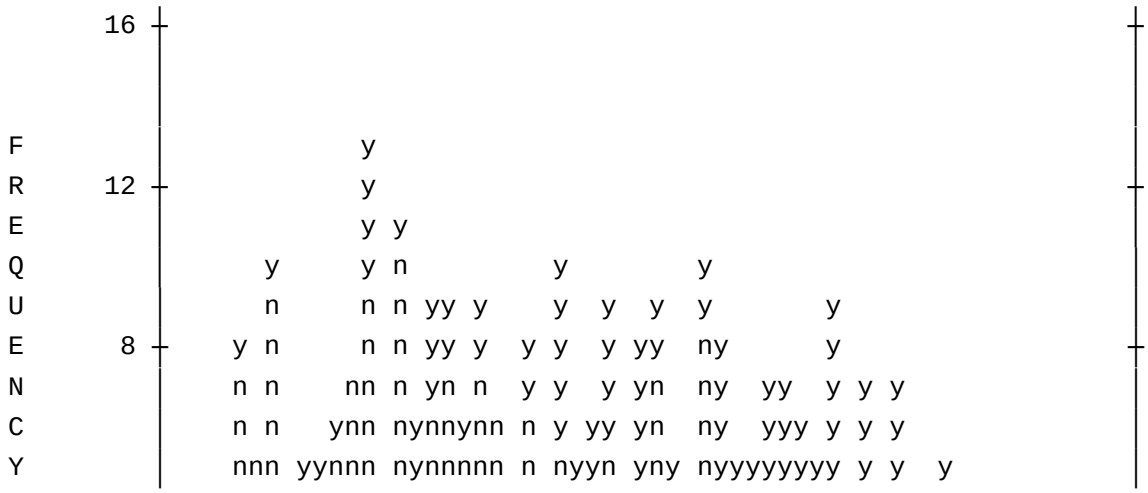
Observed Groups and Predicted Probabilities

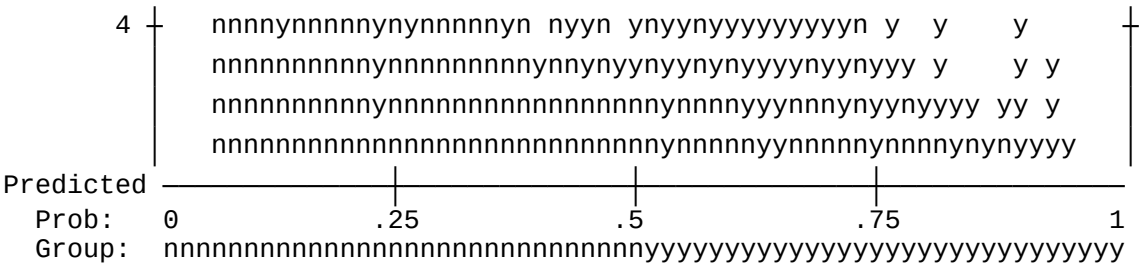


Predicted Probability is of Membership for yes
The Cut Value is .50
Symbols: n - no
y - yes
Each Symbol Represents 1.25 Cases.

Step number: 3

Observed Groups and Predicted Probabilities





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

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CORRELATIONS
  /VARIABLES=q4 q9 q14 q27 q37 q52 q67 q104 q107 Married Female q43
  /PRINT=TWOTAIL NOSIG
  /MISSING=PAIRWISE .
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Correlations

Table 1: Prediction of Charity/Volunteer Organization Membership via Logistic Regression

	r	Exp(B) in	Final Exp(B)	Step or Block Chi-Sq	Model -2LL	Cox & Snell $\mathbf{R^2}$	Nag. $\mathbf{R^2}$	Hosmer & Lemeshow Chi-sq
Block 1				8.992	416.089	.029	.038	11.172
Female	-.063	1.025	.964					
Married	.141**	.918	.777					
Age	.042	1.062	1.062					
Income	.144**	1.176**	1.093					
Block 2				63.346**	352.744**	.208	.279	12.365
Step 1				30.288**				
Value orgs	.326**	1.240**	1.221**					
Step 2				19.932**				
Worked w/others	.320**	3.143**	3.040**					
Step 3				13.126**				
Visit non-profit sites	.269**	1.480**	1.480**					

** p<.01

Table 2: Classification Results

			Final Predicted Group (Block 1 & 2)		
			Q43: Belong charity, volunteer orgs		Percentage Correct
			No	Yes	
Step 3: Actual Group	Q43: Belong charity, volunteer orgs	No	**132**	42	75.9
		Yes	51	**85**	62.5
Overall Percentage					70.0

Press' Q calculation

$[N-(nK)]^2/N(K-1)$

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

N = 310
n = 217
K = 2

([310-(217*2)]^2)/(310(2-1))

([310-434]^2)/(310(1))

(-124)^2/310

15376/310

Press' Q = 49.6
df = 1

$\text{Chi-sq}_{\text{crit}(p = .001)} = 10.83$

Critical value of chi-sq at df =1, taken from a standard chi-sq table.

The Press' Q is highly significant because it exceeds the critical value for Chi-sq by a large amount.

A logistic regression was applied to predict the probability of someone participating in a charity or volunteer organization from variables dealing with community participation, values regarding neighborhood and community, as well as gender, age, income, and marital status. These included perceived quality of a person's community, how much he or she values organizations, how much a person feels a part of the community, how often he or she has helped a neighbor around the house, how often he or she has worked with others in the community to solve a problem, and how often he or she has visited non-profit websites. The dependent variable was recoded into a dummy with 1 being belonging to a charity or volunteer organization and 0 not belonging.

Table 1 shows the main logistic regression findings. For Block 1, entered first as a control block, gender, age, marital status, and income were non-significant. However, income would have been significant at the level of $p<.01$, but was not significant due to the overlap with the other variables. The block overall was not significant (chi-sq. = 8.992). The -2LL value was 416.089, which is rather high. The R^2 approximations were .029 and .038, indicating that the, "variance explained," in the dependent variable was no more than 4%.

In Block 2, a stepwise method was used. Seven variables were offered, with only three found to be significant. Through the stepwise method, only these three significant variables were entered into the equation, one at a time. The three significant variables were (1) how much a person values organizations, (2) how often a person has worked

with others in the community to solve problems, and (3) how often a person visits non-profit websites. They were found to be significant at the level of $p<.01$ in improving model estimation fit. This Block 2 was significant (chi-sq. = 63.346). After the three variables entered, the -2LL value for the 2 block model was 352.744, which is much lower than for Block 1 alone. The Cox & Snell R^2 was .208, and the Nagelkerke R^2 was .279, which accounts for approximately 24% of the variance in being a member of an organization. Our classification table (Table 2) indicates that 70% of the cases were correctly predicted by the seven variables, and the Hosmer and Lemeshow test was not significant.

The Exp(B) for how much a person values organizations (Q14) was 1.221 (see Table 1), which is positive and significant at the level of $p<.01$. This means that for each unit increase on this scale item there would be expected a 22.1% increase in the odds of being a member of a charity or volunteer organization when all other variables in the model are controlled for. The Exp(B) for how often a person has worked with others in the community to solve problems (Q52) was 3.040, which is positive and significant at the level of $p<.01$. This means that if a respondent chose "Yes" for this item, then he or she would have a 204% greater odds of membership. The Exp(B) is so large because it was a binary response where one answer (Yes) meant an absolute level of volunteerism, which would thus predict that the respondent was a part of a charity or volunteer organization. The Exp(B) for how often a person visits non-profit websites (Q67) was 1.480, which is positive and significant at the level of $p<.01$. This means that for each

unit increase on this scale item there was an expected 48% increase in the odds of membership when all other variables in the model are controlled for.

Press' Q was calculated using the total number of included cases after the 3rd step of Block 2 (N = 310), the number of selection groups (K = 2), and the total number of correctly predicted cases (n = 217), and was found to be 49.6 (df = 1). The chi-square critical value for df = 1 is 10.83, indicating a, "Hit rate," for the model of significantly greater than chance.

Overall, the model suggests that if people value belonging to an organization, if they have worked with others in their communities to solve problems, and if they visit non-profit websites, then they are more likely to be a member of a charity or non-profit organization. Factors such as age, gender, income, and martial status were not shown to contribute significantly to improving model estimation fit, and as such they were treated as controls in the stepwise block (Block 2). Thus, the significant findings hold even when controlling for demographics.