The FREQ Procedure

state				
state	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	35	1.60	35	1.60
3	37	1.69	72	3.28
4	16	0.73	88	4.01
5	202	9.21	290	13.22
6	25	1.14	315	14.36
7	30	1.37	345	15.73
8	7	0.32	352	16.05
9	4	0.18	356	16.23
10	133	6.06	489	22.30
11	53	2.42	542	24.72
13	4	0.18	546	24.90
14	95	4.33	641	29.23
15	39	1.78	680	31.01
16	23	1.05	703	32.06
17	27	1.23	730	33.29
18	34	1.55	764	34.84
19	38	1.73	802	36.57
20	14	0.64	816	37.21
21	34	1.55	850	38.76
22	56	2.55	906	41.31
23	88	4.01	994	45.33
24	51	2.33	1045	47.65
25	29	1.32	1074	48.97
26	42	1.92	1116	50.89
27	5	0.23	1121	51.12
28	18	0.82	1139	51.94
29	4	0.18	1143	52.12
30	3	0.14	1146	52.26
31	73	3.33	1219	55.59
32	24	1.09	1243	56.68
33	177	8.07	1420	64.75
34	49	2.23	1469	66.99
35	7	0.32	1476	67.31
36	106	4.83	1582	72.14
37	19	0.87	1601	73.01

The FREQ Procedure

state				
state	**Frequency**	**Percent**	**Cumulative Frequency**	**Cumulative Percent**
38	21	0.96	1622	73.96
39	105	4.79	1727	78.75
40	14	0.64	1741	79.39
41	33	1.50	1774	80.89
42	6	0.27	1780	81.17
43	54	2.46	1834	83.63
44	136	6.20	1970	89.83
45	12	0.55	1982	90.38
46	2	0.09	1984	90.47
47	62	2.83	2046	93.30
48	57	2.60	2103	95.90
49	29	1.32	2132	97.22
50	59	2.69	2191	99.91
51	2	0.09	2193	100.00

The LOGISTIC Procedure

Model Information		
Data Set	WORK.USPOLLCOMPLETE	
Response Variable	y	y
Number of Response Levels	2	
Model	binary logit	
Optimization Technique	Fisher's scoring	

Number of Observations Read	2193
Number of Observations Used	2015

Response Profile		
Ordered Value	**y**	**Total Frequency**
1	0	891
2	1	1124

Probability modeled is y=1.

Note: 178 observations were deleted due to missing values for the response or explanatory variables.

The LOGISTIC Procedure

Class Level Information																															
Class	**Value**	**Design Variables**																													
state	**1**	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	10	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	13	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	14	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	16	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

The LOGISTIC Procedure

Class Level Information																		
Design Variables																		
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0

The LOGISTIC Procedure

Class Level Information																															
Class	**Value**	**Design Variables**																													
	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	51	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1

The LOGISTIC Procedure

Class Level Information																		
Design Variables																		
0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1

Model Convergence Status
Convergence criterion (GCONV=1E-8) satisfied.

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	2768.380	2664.447
SC	2773.989	2950.474
-2 Log L	2766.380	2562.447

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	203.9331	50	<.0001
Score	187.9486	50	<.0001
Wald	148.6662	50	<.0001

The LOGISTIC Procedure

Type 3 Analysis of Effects			
Effect	DF	Wald Chi-Square	Pr > ChiSq
black	1	70.3739	<.0001
female	1	0.8355	0.3607
state	48	95.3592	<.0001

Analysis of Maximum Likelihood Estimates						
Parameter		DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept		1	0.9531	29.8731	0.0010	0.9745
black		1	-1.8056	0.2152	70.3739	<.0001
female		1	-0.0886	0.0969	0.8355	0.3607
state	1	1	0.6051	29.8762	0.0004	0.9838
state	3	1	-0.0741	29.8754	0.0000	0.9980
state	4	1	-0.9014	29.8784	0.0009	0.9759
state	5	1	-0.6677	29.8734	0.0005	0.9822
state	6	1	-0.5915	29.8757	0.0004	0.9842
state	7	1	-0.3535	29.8757	0.0001	0.9906
state	8	1	-1.6548	29.8848	0.0031	0.9558
state	9	1	-13.2854	695.1	0.0004	0.9848
state	10	1	-0.3771	29.8736	0.0002	0.9899
state	11	1	-0.1383	29.8746	0.0000	0.9963
state	13	1	-1.9856	29.8945	0.0044	0.9470
state	14	1	-0.9213	29.8739	0.0010	0.9754
state	15	1	-0.2326	29.8752	0.0001	0.9938
state	16	1	-1.5103	29.8766	0.0026	0.9597
state	17	1	0.1595	29.8762	0.0000	0.9957
state	18	1	-0.2495	29.8754	0.0001	0.9933
state	19	1	-0.2247	29.8755	0.0001	0.9940
state	20	1	-1.0596	29.8780	0.0013	0.9717
state	21	1	-1.6059	29.8760	0.0029	0.9571
state	22	1	-1.2335	29.8744	0.0017	0.9671
state	23	1	-0.7306	29.8739	0.0006	0.9805
state	24	1	-1.2584	29.8747	0.0018	0.9664
state	25	1	0.3254	29.8762	0.0001	0.9913
state	26	1	-0.6796	29.8749	0.0005	0.9819
state	27	1	-1.3056	29.8864	0.0019	0.9652

The LOGISTIC Procedure

Analysis of Maximum Likelihood Estimates						
Parameter		DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
state	28	1	-0.5389	29.8770	0.0003	0.9856
state	29	1	0.1903	29.8945	0.0000	0.9949
state	30	1	-0.2301	29.8972	0.0001	0.9939
state	31	1	-0.4648	29.8741	0.0002	0.9876
state	32	1	-0.9669	29.8759	0.0010	0.9742
state	33	1	-1.0414	29.8735	0.0012	0.9722
state	34	1	0.0931	29.8749	0.0000	0.9975
state	35	1	-0.6654	29.8825	0.0005	0.9822
state	36	1	-0.1496	29.8738	0.0000	0.9960
state	37	1	-0.2513	29.8771	0.0001	0.9933
state	38	1	-1.5924	29.8771	0.0028	0.9575
state	39	1	-0.7391	29.8737	0.0006	0.9803
state	40	1	-1.2454	29.8786	0.0017	0.9668
state	41	1	0.2018	29.8758	0.0000	0.9946
state	42	1	-0.8940	29.8838	0.0009	0.9761
state	43	1	0.6240	29.8753	0.0004	0.9833
state	44	1	-0.3663	29.8736	0.0002	0.9902
state	45	1	13.3109	363.2	0.0013	0.9708
state	46	1	13.2701	849.6	0.0002	0.9875
state	47	1	0.2002	29.8745	0.0000	0.9947
state	48	1	-0.5771	29.8743	0.0004	0.9846
state	49	1	-0.5558	29.8755	0.0003	0.9852
state	50	1	-0.9310	29.8743	0.0010	0.9751

Odds Ratio Estimates			
Effect	Point Estimate	95% Wald Confidence Limits	
black	0.164	0.108	0.251
female	0.915	0.757	1.107
state 1 vs 51	<0.001	<0.001	>999.999
state 3 vs 51	<0.001	<0.001	>999.999
state 4 vs 51	<0.001	<0.001	>999.999
state 5 vs 51	<0.001	<0.001	>999.999
state 6 vs 51	<0.001	<0.001	>999.999
state 7 vs 51	<0.001	<0.001	>999.999

The LOGISTIC Procedure

Odds Ratio Estimates			
Effect	Point Estimate	95% Wald Confidence Limits	
state 8 vs 51	<0.001	<0.001	>999.999
state 9 vs 51	<0.001	<0.001	>999.999
state 10 vs 51	<0.001	<0.001	>999.999
state 11 vs 51	<0.001	<0.001	>999.999
state 13 vs 51	<0.001	<0.001	>999.999
state 14 vs 51	<0.001	<0.001	>999.999
state 15 vs 51	<0.001	<0.001	>999.999
state 16 vs 51	<0.001	<0.001	>999.999
state 17 vs 51	<0.001	<0.001	>999.999
state 18 vs 51	<0.001	<0.001	>999.999
state 19 vs 51	<0.001	<0.001	>999.999
state 20 vs 51	<0.001	<0.001	>999.999
state 21 vs 51	<0.001	<0.001	>999.999
state 22 vs 51	<0.001	<0.001	>999.999
state 23 vs 51	<0.001	<0.001	>999.999
state 24 vs 51	<0.001	<0.001	>999.999
state 25 vs 51	<0.001	<0.001	>999.999
state 26 vs 51	<0.001	<0.001	>999.999
state 27 vs 51	<0.001	<0.001	>999.999
state 28 vs 51	<0.001	<0.001	>999.999
state 29 vs 51	<0.001	<0.001	>999.999
state 30 vs 51	<0.001	<0.001	>999.999
state 31 vs 51	<0.001	<0.001	>999.999
state 32 vs 51	<0.001	<0.001	>999.999
state 33 vs 51	<0.001	<0.001	>999.999
state 34 vs 51	<0.001	<0.001	>999.999
state 35 vs 51	<0.001	<0.001	>999.999
state 36 vs 51	<0.001	<0.001	>999.999
state 37 vs 51	<0.001	<0.001	>999.999
state 38 vs 51	<0.001	<0.001	>999.999
state 39 vs 51	<0.001	<0.001	>999.999
state 40 vs 51	<0.001	<0.001	>999.999
state 41 vs 51	<0.001	<0.001	>999.999
state 42 vs 51	<0.001	<0.001	>999.999
state 43 vs 51	<0.001	<0.001	>999.999

The LOGISTIC Procedure

Odds Ratio Estimates			
Effect	**Point Estimate**	**95% Wald Confidence Limits**	
state 44 vs 51	<0.001	<0.001	>999.999
state 45 vs 51	1.042	<0.001	>999.999
state 46 vs 51	1.000	<0.001	>999.999
state 47 vs 51	<0.001	<0.001	>999.999
state 48 vs 51	<0.001	<0.001	>999.999
state 49 vs 51	<0.001	<0.001	>999.999
state 50 vs 51	<0.001	<0.001	>999.999

Association of Predicted Probabilities and Observed Responses			
Percent Concordant	65.7	**Somers' D**	0.332
Percent Discordant	32.5	**Gamma**	0.338
Percent Tied	1.8	**Tau-a**	0.164
Pairs	1001484	**c**	0.666

modello logistico con intercetta casuale per stato

The GLIMMIX Procedure

Model Information	
Data Set	WORK.USPOLLCOMPLETE
Response Variable	y
Response Distribution	Binary
Link Function	Logit
Variance Function	Default
Variance Matrix Blocked By	state
Estimation Technique	Residual PL
Degrees of Freedom Method	Containment

Class Level Information		
Class	**Levels**	**Values**
state	49	1 3 4 5 6 7 8 9 10 11 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51

Number of Observations Read	2193
Number of Observations Used	2015

Response Profile		
Ordered Value	**y**	**Total Frequency**
1	0	891
2	1	1124
The GLIMMIX procedure is modeling the probability that y='1'.		

Dimensions	
G-side Cov. Parameters	1
Columns in X	3
Columns in Z per Subject	1
Subjects (Blocks in V)	49
Max Obs per Subject	190

Optimization Information	
Optimization Technique	Newton-Raphson with Ridging
Parameters in Optimization	1
Lower Boundaries	1
Upper Boundaries	0

modello logistico con intercetta casuale per stato

The GLIMMIX Procedure

Optimization Information	
Fixed Effects	Profiled
Starting From	Data

Iteration History					
Iteration	**Restarts**	**Subiterations**	**Objective Function**	**Change**	**Max Gradient**
0	**0**	**4**	8767.5109803	0.23480316	1.415E-6
1	**0**	**2**	8691.3379094	0.00815162	5.422E-7
2	**0**	**1**	8692.0492113	0.00011107	1.035E-6
3	**0**	**1**	8692.0555395	0.00000178	2.66E-10
4	**0**	**0**	8692.0556384	0.00000000	1.96E-6

Convergence criterion (PCONV=1.11022E-8) satisfied.

Fit Statistics	
-2 Res Log Pseudo-Likelihood	8692.06
Generalized Chi-Square	1982.94
Gener. Chi-Square / DF	0.99

Covariance Parameter Estimates			
Cov Parm	**Subject**	**Estimate**	**Standard Error**
Intercept	state	0.1720	0.07002

Solutions for Fixed Effects					
Effect	**Estimate**	**Standard Error**	**DF**	**t Value**	**Pr > |t|**
Intercept	0.4386	0.1012	48	4.33	<.0001
black	-1.7219	0.2072	1964	-8.31	<.0001
female	-0.09588	0.09458	1964	-1.01	0.3108

Type III Tests of Fixed Effects				
Effect	**Num DF**	**Den DF**	**F Value**	**Pr > F**
black	1	1964	69.10	<.0001
female	1	1964	1.03	0.3108

modello logistico con intercetta casuale per stato

The GLIMMIX Procedure

Solution for Random Effects						
Effect	**Subject**	**Estimate**	**Std Err Pred**	**DF**	**t Value**	**Pr > |t|**
Intercept	state 1	0.5506	0.2904	1964	1.90	0.0581
Intercept	state 3	0.2461	0.2785	1964	0.88	0.3770
Intercept	state 4	-0.1297	0.3389	1964	-0.38	0.7020
Intercept	state 5	-0.1342	0.1577	1964	-0.85	0.3951
Intercept	state 6	-0.03777	0.2942	1964	-0.13	0.8979
Intercept	state 7	0.08352	0.2927	1964	0.29	0.7755
Intercept	state 8	-0.2393	0.3670	1964	-0.65	0.5144
Intercept	state 9	-0.09603	0.3997	1964	-0.24	0.8102
Intercept	state 10	0.1143	0.1831	1964	0.62	0.5324
Intercept	state 11	0.2385	0.2514	1964	0.95	0.3428
Intercept	state 13	-0.2005	0.3835	1964	-0.52	0.6012
Intercept	state 14	-0.3153	0.2064	1964	-1.53	0.1268
Intercept	state 15	0.1626	0.2748	1964	0.59	0.5542
Intercept	state 16	-0.4491	0.3068	1964	-1.46	0.1433
Intercept	state 17	0.3330	0.2944	1964	1.13	0.2582
Intercept	state 18	0.1461	0.2814	1964	0.52	0.6035
Intercept	state 19	0.1473	0.2846	1964	0.52	0.6048
Intercept	state 20	-0.1936	0.3341	1964	-0.58	0.5623
Intercept	state 21	-0.5601	0.2888	1964	-1.94	0.0526
Intercept	state 22	-0.4864	0.2410	1964	-2.02	0.0437
Intercept	state 23	-0.1672	0.2083	1964	-0.80	0.4222
Intercept	state 24	-0.4719	0.2546	1964	-1.85	0.0639
Intercept	state 25	0.4064	0.2945	1964	1.38	0.1678
Intercept	state 26	-0.09976	0.2673	1964	-0.37	0.7090
Intercept	state 27	-0.1379	0.3770	1964	-0.37	0.7145
Intercept	state 28	-0.00814	0.3194	1964	-0.03	0.9797
Intercept	state 29	0.09078	0.3848	1964	0.24	0.8135
Intercept	state 30	0.03051	0.3914	1964	0.08	0.9379
Intercept	state 31	0.03719	0.2239	1964	0.17	0.8681
Intercept	state 32	-0.2218	0.2976	1964	-0.75	0.4563
Intercept	state 33	-0.4576	0.1675	1964	-2.73	0.0063
Intercept	state 34	0.3683	0.2608	1964	1.41	0.1580
Intercept	state 35	-0.03410	0.3660	1964	-0.09	0.9258
Intercept	state 36	0.2900	0.1996	1964	1.45	0.1464

modello logistico con intercetta casuale per stato

The GLIMMIX Procedure

Solution for Random Effects						
Effect	Subject	Estimate	Std Err Pred	DF	t Value	Pr > |t|
Intercept	state 37	0.1066	0.3192	1964	0.33	0.7384
Intercept	state 38	-0.4566	0.3137	1964	-1.46	0.1456
Intercept	state 39	-0.1770	0.1970	1964	-0.90	0.3691
Intercept	state 40	-0.2463	0.3384	1964	-0.73	0.4668
Intercept	state 41	0.3616	0.2893	1964	1.25	0.2116
Intercept	state 42	-0.07634	0.3710	1964	-0.21	0.8370
Intercept	state 43	0.6546	0.2660	1964	2.46	0.0140
Intercept	state 44	0.1215	0.1826	1964	0.67	0.5061
Intercept	state 45	0.5353	0.3533	1964	1.51	0.1300
Intercept	state 46	0.1248	0.3992	1964	0.31	0.7547
Intercept	state 47	0.4725	0.2431	1964	1.94	0.0521
Intercept	state 48	-0.04125	0.2378	1964	-0.17	0.8623
Intercept	state 49	-0.02092	0.2862	1964	-0.07	0.9418
Intercept	state 50	-0.2879	0.2366	1964	-1.22	0.2237
Intercept	state 51	0.1248	0.3992	1964	0.31	0.7547

modello (non nidificato) a più intercette casuali

The GLIMMIX Procedure

Model Information	
Data Set	WORK.USPOLLCOMPLETE
Response Variable	y
Response Distribution	Binary
Link Function	Logit
Variance Function	Default
Variance Matrix	Not blocked
Estimation Technique	Residual PL
Degrees of Freedom Method	Containment

Class Level Information		
Class	**Levels**	**Values**
state	49	1 3 4 5 6 7 8 9 10 11 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51
region_full	5	1 2 3 4 5
age	4	1 2 3 4
edu	4	1 2 3 4

Number of Observations Read	2193
Number of Observations Used	2015

Response Profile		
Ordered Value	**y**	**Total Frequency**
1	0	891
2	1	1124
The GLIMMIX procedure is modeling the probability that y='1'.		

Dimensions	
G-side Cov. Parameters	4
Columns in X	5
Columns in Z	62
Subjects (Blocks in V)	1
Max Obs per Subject	2015

modello (non nidificato) a più intercette casuali

The GLIMMIX Procedure

Optimization Information	
Optimization Technique	Newton-Raphson with Ridging
Parameters in Optimization	4
Lower Boundaries	4
Upper Boundaries	0
Fixed Effects	Profiled
Starting From	Data

Iteration History					
Iteration	**Restarts**	**Subiterations**	**Objective Function**	**Change**	**Max Gradient**
0	**0**	**4**	8782.9381902	0.57766666	6.833E-6
1	**0**	**2**	8712.9318656	0.02815791	0.00003
2	**0**	**1**	8713.848549	0.00024549	4.009E-6
3	**0**	**1**	8713.8542284	0.00000431	1.236E-9
4	**0**	**0**	8713.854296	0.00000000	5.045E-6

Convergence criterion (PCONV=1.11022E-8) satisfied.

Fit Statistics	
-2 Res Log Pseudo-Likelihood	8713.85
Generalized Chi-Square	1990.90
Gener. Chi-Square / DF	0.99

Covariance Parameter Estimates			
Cov Parm	**Subject**	**Estimate**	**Standard Error**
Intercept	state	0.04262	0.03196
Intercept	region_full	0.1255	0.1139
Intercept	age	0.01169	0.01650
Intercept	edu	0.02524	0.03271

Solutions for Fixed Effects					
Effect	**Estimate**	**Standard Error**	**DF**	**t Value**	**Pr > |t|**
Intercept	-2.1733	0.8237	0	-2.64	.
black	-1.6407	0.3242	1956	-5.06	<.0001
female	-0.08726	0.09775	1956	-0.89	0.3721

modello (non nidificato) a più intercette casuali

The GLIMMIX Procedure

Solutions for Fixed Effects					
Effect	Estimate	Standard Error	DF	t Value	Pr > |t|
blackfem	-0.1696	0.4183	1956	-0.41	0.6852
v_prev_full	4.6759	1.4540	1956	3.22	0.0013

Type III Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
black	1	1956	25.61	<.0001
female	1	1956	0.80	0.3721
blackfem	1	1956	0.16	0.6852
v_prev_full	1	1956	10.34	0.0013

Solution for Random Effects						
Effect	Subject	Estimate	Std Err Pred	DF	t Value	Pr > |t|
Intercept	state 1	0.1626	0.1843	1956	0.88	0.3777
Intercept	state 3	0.04515	0.1846	1956	0.24	0.8068
Intercept	state 4	-0.06226	0.1956	1956	-0.32	0.7503
Intercept	state 5	0.01267	0.1514	1956	0.08	0.9333
Intercept	state 6	-0.04305	0.1871	1956	-0.23	0.8180
Intercept	state 7	0.05706	0.1856	1956	0.31	0.7586
Intercept	state 8	-0.05431	0.1999	1956	-0.27	0.7859
Intercept	state 9	-0.00417	0.2060	1956	-0.02	0.9839
Intercept	state 10	-0.2326	0.1537	1956	-1.51	0.1303
Intercept	state 11	0.1140	0.1782	1956	0.64	0.5223
Intercept	state 13	-0.06874	0.2027	1956	-0.34	0.7346
Intercept	state 14	-0.07601	0.1601	1956	-0.47	0.6350
Intercept	state 15	0.07112	0.1811	1956	0.39	0.6946
Intercept	state 16	-0.1232	0.1886	1956	-0.65	0.5136
Intercept	state 17	0.1068	0.1863	1956	0.57	0.5666
Intercept	state 18	-0.01262	0.1834	1956	-0.07	0.9451
Intercept	state 19	-0.03278	0.1837	1956	-0.18	0.8584
Intercept	state 20	-0.03696	0.1941	1956	-0.19	0.8490
Intercept	state 21	-0.1340	0.1849	1956	-0.72	0.4689
Intercept	state 22	-0.06095	0.1735	1956	-0.35	0.7254
Intercept	state 23	-0.04958	0.1606	1956	-0.31	0.7576

modello (non nidificato) a più intercette casuali

The GLIMMIX Procedure

Solution for Random Effects						
Effect	Subject	Estimate	Std Err Pred	DF	t Value	Pr > |t|
Intercept	state 24	-0.07135	0.1789	1956	-0.40	0.6900
Intercept	state 25	0.08029	0.1863	1956	0.43	0.6665
Intercept	state 26	0.02227	0.1790	1956	0.12	0.9010
Intercept	state 27	-0.03784	0.2014	1956	-0.19	0.8510
Intercept	state 28	-0.06693	0.1942	1956	-0.34	0.7304
Intercept	state 29	0.01457	0.2027	1956	0.07	0.9427
Intercept	state 30	0.003654	0.2036	1956	0.02	0.9857
Intercept	state 31	0.07322	0.1681	1956	0.44	0.6632
Intercept	state 32	-0.06139	0.1872	1956	-0.33	0.7430
Intercept	state 33	-0.09196	0.1470	1956	-0.63	0.5317
Intercept	state 34	0.08031	0.1772	1956	0.45	0.6504
Intercept	state 35	-0.02380	0.2001	1956	-0.12	0.9053
Intercept	state 36	0.2480	0.1562	1956	1.59	0.1125
Intercept	state 37	-0.06909	0.1938	1956	-0.36	0.7215
Intercept	state 38	-0.1098	0.1907	1956	-0.58	0.5650
Intercept	state 39	0.05386	0.1574	1956	0.34	0.7322
Intercept	state 40	-0.01635	0.1953	1956	-0.08	0.9333
Intercept	state 41	0.07280	0.1846	1956	0.39	0.6934
Intercept	state 42	-0.02401	0.2005	1956	-0.12	0.9047
Intercept	state 43	0.2271	0.1774	1956	1.28	0.2007
Intercept	state 44	-0.2046	0.1521	1956	-1.35	0.1788
Intercept	state 45	0.1131	0.1992	1956	0.57	0.5702
Intercept	state 46	0.03817	0.2043	1956	0.19	0.8518
Intercept	state 47	0.04678	0.1736	1956	0.27	0.7876
Intercept	state 48	0.04155	0.1731	1956	0.24	0.8104
Intercept	state 49	0.1119	0.1840	1956	0.61	0.5431
Intercept	state 50	-0.05398	0.1707	1956	-0.32	0.7518
Intercept	state 51	0.02539	0.2047	1956	0.12	0.9013
Intercept	region_full 1	-0.1668	0.2064	1956	-0.81	0.4191
Intercept	region_full 2	-0.1200	0.2017	1956	-0.60	0.5517
Intercept	region_full 3	0.5006	0.2010	1956	2.49	0.0128
Intercept	region_full 4	-0.2014	0.2151	1956	-0.94	0.3493
Intercept	region_full 5	-0.01228	0.3523	1956	-0.03	0.9722
Intercept	age 1	0.08933	0.08252	1956	1.08	0.2791

modello (non nidificato) a più intercette casuali

The GLIMMIX Procedure

Solution for Random Effects						
Effect	**Subject**	**Estimate**	**Std Err Pred**	**DF**	**t Value**	**Pr > |t|**
Intercept	age 2	-0.08420	0.07910	1956	-1.06	0.2872
Intercept	age 3	0.04275	0.08250	1956	0.52	0.6044
Intercept	age 4	-0.04787	0.08780	1956	-0.55	0.5856
Intercept	edu 1	-0.1547	0.1188	1956	-1.30	0.1927
Intercept	edu 2	-0.02730	0.1027	1956	-0.27	0.7904
Intercept	edu 3	0.1691	0.1078	1956	1.57	0.1168
Intercept	edu 4	0.01290	0.1059	1956	0.12	0.9031

modello (non nidificato) a più intercette casuali

Obs	female	black	age	edu	state	N	age_edu	region	prev_v	blackfem	ranage	ranedu
1	0	0	1	1	1	66177	1	3	0.51733	0	0.08933	-0.1547
2	0	1	1	1	1	32465	1	3	0.51733	0	0.08933	-0.1547
3	1	0	1	1	1	59778	1	3	0.51733	0	0.08933	-0.1547
4	1	1	1	1	1	27416	1	3	0.51733	1	0.08933	-0.1547
5	0	0	2	1	1	83032	2	3	0.51733	0	-0.08420	-0.1547
6	0	1	2	1	1	30201	2	3	0.51733	0	-0.08420	-0.1547
7	1	0	2	1	1	50956	2	3	0.51733	0	-0.08420	-0.1547
8	1	1	2	1	1	30975	2	3	0.51733	1	-0.08420	-0.1547
9	0	0	3	1	1	91537	3	3	0.51733	0	0.04275	-0.1547
10	0	1	3	1	1	36066	3	3	0.51733	0	0.04275	-0.1547
11	1	0	3	1	1	105241	3	3	0.51733	0	0.04275	-0.1547
12	1	1	3	1	1	45635	3	3	0.51733	1	0.04275	-0.1547
13	0	0	4	1	1	89976	4	3	0.51733	0	-0.04787	-0.1547
14	0	1	4	1	1	34121	4	3	0.51733	0	-0.04787	-0.1547
15	1	0	4	1	1	142172	4	3	0.51733	0	-0.04787	-0.1547
16	1	1	4	1	1	55007	4	3	0.51733	1	-0.04787	-0.1547
17	0	0	1	2	1	80972	2	3	0.51733	0	0.08933	-0.0273

Obs	fixed	random	pred	npred
1	0.24570	0.59783	0.69921	46271.48
2	-1.39500	0.59783	0.31063	10084.63
3	0.15844	0.59783	0.68054	40681.51
4	-1.65186	0.59783	0.25845	7085.71
5	0.24570	0.42430	0.66150	54925.91
6	-1.39500	0.42430	0.27474	8297.45
7	0.15844	0.42430	0.64170	32698.33
8	-1.65186	0.42430	0.22661	7019.20
9	0.24570	0.55125	0.68932	63098.42
10	-1.39500	0.55125	0.30075	10846.68
11	0.15844	0.55125	0.67033	70546.45
12	-1.65186	0.55125	0.24963	11391.66
13	0.24570	0.46063	0.66959	60246.98
14	-1.39500	0.46063	0.28204	9623.44
15	0.15844	0.46063	0.65001	92412.76
16	-1.65186	0.46063	0.23304	12818.77
17	0.24570	0.72523	0.72530	58729.36

modello (non nidificato) a più intercette casuali

Obs	female	black	age	edu	state	N	age_edu	region	prev_v	blackfem	ranage	ranedu
18	0	1	1	2	1	32806	2	3	0.51733	0	0.08933	-0.0273
19	1	0	1	2	1	89510	2	3	0.51733	0	0.08933	-0.0273
20	1	1	1	2	1	34281	2	3	0.51733	1	0.08933	-0.0273
21	0	0	2	2	1	132999	4	3	0.51733	0	-0.08420	-0.0273
22	0	1	2	2	1	32877	4	3	0.51733	0	-0.08420	-0.0273
23	1	0	2	2	1	108409	4	3	0.51733	0	-0.08420	-0.0273
24	1	1	2	2	1	37402	4	3	0.51733	1	-0.08420	-0.0273
25	0	0	3	2	1	89608	6	3	0.51733	0	0.04275	-0.0273
26	0	1	3	2	1	14505	6	3	0.51733	0	0.04275	-0.0273
27	1	0	3	2	1	126165	6	3	0.51733	0	0.04275	-0.0273
28	1	1	3	2	1	21399	6	3	0.51733	1	0.04275	-0.0273
29	0	0	4	2	1	33864	8	3	0.51733	0	-0.04787	-0.0273
30	0	1	4	2	1	3513	8	3	0.51733	0	-0.04787	-0.0273
31	1	0	4	2	1	62985	8	3	0.51733	0	-0.04787	-0.0273
32	1	1	4	2	1	6289	8	3	0.51733	1	-0.04787	-0.0273
33	0	0	1	3	1	95846	3	3	0.51733	0	0.08933	0.1691
34	0	1	1	3	1	23509	3	3	0.51733	0	0.08933	0.1691

Obs	fixed	random	pred	npred
18	-1.39500	0.72523	0.33855	11106.41
19	0.15844	0.72523	0.70758	63335.66
20	-1.65186	0.72523	0.28361	9722.39
21	0.24570	0.55170	0.68942	91691.88
22	-1.39500	0.55170	0.30084	9890.72
23	0.15844	0.55170	0.67043	72680.85
24	-1.65186	0.55170	0.24971	9339.64
25	0.24570	0.67865	0.71593	64152.82
26	-1.39500	0.67865	0.32820	4760.50
27	0.15844	0.67865	0.69785	88044.47
28	-1.65186	0.67865	0.27424	5868.48
29	0.24570	0.58803	0.69714	23608.04
30	-1.39500	0.58803	0.30854	1083.89
31	0.15844	0.58803	0.67841	42729.58
32	-1.65186	0.58803	0.25658	1613.62
33	0.24570	0.92163	0.76266	73098.09
34	-1.39500	0.92163	0.38382	9023.19

modello (non nidificato) a più intercette casuali

Obs	female	black	age	edu	state	N	age_edu	region	prev_v	blackfem	ranage	ranedu
35	1	0	1	3	1	116447	3	3	0.51733	0	0.08933	0.1691
36	1	1	1	3	1	40218	3	3	0.51733	1	0.08933	0.1691
37	0	0	2	3	1	122598	6	3	0.51733	0	-0.08420	0.1691
38	0	1	2	3	1	25352	6	3	0.51733	0	-0.08420	0.1691
39	1	0	2	3	1	90055	6	3	0.51733	0	-0.08420	0.1691
40	1	1	2	3	1	35818	6	3	0.51733	1	-0.08420	0.1691
41	0	0	3	3	1	63077	9	3	0.51733	0	0.04275	0.1691
42	0	1	3	3	1	7775	9	3	0.51733	0	0.04275	0.1691
43	1	0	3	3	1	62275	9	3	0.51733	0	0.04275	0.1691
44	1	1	3	3	1	10635	9	3	0.51733	1	0.04275	0.1691
45	0	0	4	3	1	20503	12	3	0.51733	0	-0.04787	0.1691
46	0	1	4	3	1	1565	12	3	0.51733	0	-0.04787	0.1691
47	1	0	4	3	1	28492	12	3	0.51733	0	-0.04787	0.1691
48	1	1	4	3	1	2688	12	3	0.51733	1	-0.04787	0.1691
49	0	0	1	4	1	35325	4	3	0.51733	0	0.08933	0.0129
50	0	1	1	4	1	3598	4	3	0.51733	0	0.08933	0.0129
51	1	0	1	4	1	43462	4	3	0.51733	0	0.08933	0.0129

Obs	fixed	random	pred	npred
35	0.15844	0.92163	0.74651	86928.50
36	-1.65186	0.92163	0.32514	13076.64
37	0.24570	0.74810	0.72984	89476.63
38	-1.39500	0.74810	0.34369	8713.18
39	0.15844	0.74810	0.71229	64145.40
40	-1.65186	0.74810	0.28828	10325.55
41	0.24570	0.87505	0.75413	47568.11
42	-1.39500	0.87505	0.37286	2899.02
43	0.15844	0.87505	0.73759	45933.53
44	-1.65186	0.87505	0.31501	3350.11
45	0.24570	0.78443	0.73694	15109.50
46	-1.39500	0.78443	0.35193	550.77
47	0.15844	0.78443	0.71968	20505.09
48	-1.65186	0.78443	0.29579	795.08
49	0.24570	0.76543	0.73324	25901.74
50	-1.39500	0.76543	0.34761	1250.69
51	0.15844	0.76543	0.71583	31111.39

modello (non nidificato) a più intercette casuali

Obs	female	black	age	edu	state	N	age_edu	region	prev_v	blackfem	ranage	ranedu
52	1	1	1	4	1	6521	4	3	0.51733	1	0.08933	0.0129
53	0	0	2	4	1	107787	8	3	0.51733	0	-0.08420	0.0129
54	0	1	2	4	1	10022	8	3	0.51733	0	-0.08420	0.0129
55	1	0	2	4	1	66394	8	3	0.51733	0	-0.08420	0.0129
56	1	1	2	4	1	16536	8	3	0.51733	1	-0.08420	0.0129
57	0	0	3	4	1	62244	12	3	0.51733	0	0.04275	0.0129
58	0	1	3	4	1	4863	12	3	0.51733	0	0.04275	0.0129
59	1	0	3	4	1	36741	12	3	0.51733	0	0.04275	0.0129
60	1	1	3	4	1	7832	12	3	0.51733	1	0.04275	0.0129
61	0	0	4	4	1	18575	16	3	0.51733	0	-0.04787	0.0129
62	0	1	4	4	1	1630	16	3	0.51733	0	-0.04787	0.0129
63	1	0	4	4	1	17754	16	3	0.51733	0	-0.04787	0.0129
64	1	1	4	4	1	3472	16	3	0.51733	1	-0.04787	0.0129
						3077948						

Obs	fixed	random	pred	npred
52	-1.65186	0.76543	0.29185	1903.13
53	0.24570	0.59190	0.69796	75230.94
54	-1.39500	0.59190	0.30936	3100.43
55	0.15844	0.59190	0.67925	45098.29
56	-1.65186	0.59190	0.25732	4254.99
57	0.24570	0.71885	0.72403	45066.63
58	-1.39500	0.71885	0.33712	1639.42
59	0.15844	0.71885	0.70626	25948.70
60	-1.65186	0.71885	0.28231	2211.09
61	0.24570	0.62823	0.70556	13105.82
62	-1.39500	0.62823	0.31718	517.00
63	0.15844	0.62823	0.68712	12199.05
64	-1.65186	0.62823	0.26432	917.72
				1877363.12