

The FREQ Procedure

Table of VV2 by VV6

VV2	VV6					Total
Frequency	1	2	3	4	5	
Expected						
Cell Chi-Square						
Percent						
Row Pct						
Col Pct						
1+2	9	26	9	15	6	65
	6.7241	28.017	10.086	16.25	3.9224	
	0.7703	0.1452	0.117	0.0962	1.1004	
	7.76	22.41	7.76	12.93	5.17	56.03
	13.85	40.00	13.85	23.08	9.23	
	75.00	52.00	50.00	51.72	85.71	
4+5	1	20	9	10	1	41
	4.2414	17.672	6.3621	10.25	2.4741	
	2.4772	0.3066	1.0938	0.0061	0.8783	
	0.86	17.24	7.76	8.62	0.86	35.34
	2.44	48.78	21.95	24.39	2.44	
	8.33	40.00	50.00	34.48	14.29	
3	1	1	0	2	0	4
	0.4138	1.7241	0.6207	1	0.2414	
	0.8305	0.3041	0.6207	1	0.2414	
	0.86	0.86	0.00	1.72	0.00	3.45
	25.00	25.00	0.00	50.00	0.00	
	8.33	2.00	0.00	6.90	0.00	
6	1	3	0	2	0	6
	0.6207	2.5862	0.931	1.5	0.3621	
	0.2318	0.0662	0.931	0.1667	0.3621	
	0.86	2.59	0.00	1.72	0.00	5.17
	16.67	50.00	0.00	33.33	0.00	
	8.33	6.00	0.00	6.90	0.00	
Total	12	50	18	29	7	116
	10.34	43.10	15.52	25.00	6.03	100.00

Frequency Missing = 6

## The FREQ Procedure

## Statistics for Table of VV2 by VV6

Statistic	DF	Value	Prob
Chi-Square	12	11.7454	0.4663
Likelihood Ratio Chi-Square	12	14.4505	0.2729
Mantel-Haenszel Chi-Square	1	0.1774	0.6736
Phi Coefficient		0.3182	
Contingency Coefficient		0.3032	
Cramer's V		0.1837	

WARNING: 65% of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Effective Sample Size = 116

Frequency Missing = 6

The FREQ Procedure

Table of VV2 by V15

VV2	V15		Total
Frequency	1	2	
Expected			
Cell Chi-Square			
Percent			
Row Pct			
Col Pct			
1+2	36	31	67
	41.317	25.683	
	0.6842	1.1006	
	30.00	25.83	55.83
	53.73	46.27	
	48.65	67.39	
4+5	31	12	43
	26.517	16.483	
	0.758	1.2194	
	25.83	10.00	35.83
	72.09	27.91	
	41.89	26.09	
3	3	1	4
	2.4667	1.5333	
	0.1153	0.1855	
	2.50	0.83	3.33
	75.00	25.00	
	4.05	2.17	
6	4	2	6
	3.7	2.3	
	0.0243	0.0391	
	3.33	1.67	5.00
	66.67	33.33	
	5.41	4.35	
Total	74	46	120
	61.67	38.33	100.00

Frequency Missing = 2

## The FREQ Procedure

## Statistics for Table of VV2 by V15

Statistic	DF	Value	Prob
Chi-Square	3	4.1265	0.2481
Likelihood Ratio Chi-Square	3	4.1980	0.2409
Mantel-Haenszel Chi-Square	1	1.3511	0.2451
Phi Coefficient		0.1854	
Contingency Coefficient		0.1823	
Cramer's V		0.1854	

WARNING: 50% of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Effective Sample Size = 120

Frequency Missing = 2

The FREQ Procedure

Table of VV2 by VV18

VV2	VV18			Total
Frequency	1	2	3	
Expected				
Cell Chi-Square				
Percent				
Row Pct				
Col Pct				
1+2	22	38	4	64
	23.93	35.061	5.0087	
	0.1557	0.2464	0.2031	
	19.13	33.04	3.48	55.65
	34.38	59.38	6.25	
	51.16	60.32	44.44	
4+5	18	20	4	42
	15.704	23.009	3.287	
	0.3356	0.3934	0.1547	
	15.65	17.39	3.48	36.52
	42.86	47.62	9.52	
	41.86	31.75	44.44	
3	2	1	1	4
	1.4957	2.1913	0.313	
	0.1701	0.6477	1.5075	
	1.74	0.87	0.87	3.48
	50.00	25.00	25.00	
	4.65	1.59	11.11	
6	1	4	0	5
	1.8696	2.7391	0.3913	
	0.4044	0.5804	0.3913	
	0.87	3.48	0.00	4.35
	20.00	80.00	0.00	
	2.33	6.35	0.00	
Total	43	63	9	115
	37.39	54.78	7.83	100.00

Frequency Missing = 7

## The FREQ Procedure

## Statistics for Table of VV2 by VV18

Statistic	DF	Value	Prob
Chi-Square	6	5.1903	0.5196
Likelihood Ratio Chi-Square	6	5.1889	0.5198
Mantel-Haenszel Chi-Square	1	0.0279	0.8673
Phi Coefficient		0.2124	
Contingency Coefficient		0.2078	
Cramer's V		0.1502	

WARNING: 58% of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Effective Sample Size = 115

Frequency Missing = 7

The FREQ Procedure

Table of VV3 by VV5

VV3	VV5			Total
Frequency	1	2	3	
Expected				
Cell Chi-Square				
Percent				
Row Pct				
Col Pct				
-----+-----+-----+-----+-----				
1+2	34	6	12	52
	31.963	4.2936	15.743	
	0.1298	0.6782	0.89	
	31.19	5.50	11.01	47.71
	65.38	11.54	23.08	
	50.75	66.67	36.36	
-----+-----+-----+-----+-----				
Rest	33	3	21	57
	35.037	4.7064	17.257	
	0.1184	0.6187	0.8119	
	30.28	2.75	19.27	52.29
	57.89	5.26	36.84	
	49.25	33.33	63.64	
-----+-----+-----+-----+-----				
Total	67	9	33	109
	61.47	8.26	30.28	100.00

Frequency Missing = 13

Statistics for Table of VV3 by VV5

Statistic	DF	Value	Prob
Chi-Square	2	3.2469	0.1972
Likelihood Ratio Chi-Square	2	3.2908	0.1929
Mantel-Haenszel Chi-Square	1	1.4842	0.2231
Phi Coefficient		0.1726	
Contingency Coefficient		0.1701	
Cramer's V		0.1726	

WARNING: 33% of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Effective Sample Size = 109  
 Frequency Missing = 13

WARNING: 11% of the data are missing.

The FREQ Procedure

Table of VV3 by VV6

VV3	VV6					Total
	1	2	3	4	5	
Frequency						
Expected						
Cell Chi-Square						
Percent						
Row Pct						
Col Pct						
1+2	8	20	7	13	5	53
	5.4359	23.103	8.1538	13.137	3.1709	
	1.2095	0.4167	0.1633	0.0014	1.055	
	6.84	17.09	5.98	11.11	4.27	45.30
	15.09	37.74	13.21	24.53	9.43	
	66.67	39.22	38.89	44.83	71.43	
Rest	4	31	11	16	2	64
	6.5641	27.897	9.8462	15.863	3.8291	
	1.0016	0.345	0.1352	0.0012	0.8737	
	3.42	26.50	9.40	13.68	1.71	54.70
	6.25	48.44	17.19	25.00	3.13	
	33.33	60.78	61.11	55.17	28.57	
Total	12	51	18	29	7	117
	10.26	43.59	15.38	24.79	5.98	100.00

Frequency Missing = 5

Statistics for Table of VV3 by VV6

Statistic	DF	Value	Prob
Chi-Square	4	5.2026	0.2671
Likelihood Ratio Chi-Square	4	5.2503	0.2626
Mantel-Haenszel Chi-Square	1	0.0608	0.8052
Phi Coefficient		0.2109	
Contingency Coefficient		0.2063	
Cramer's V		0.2109	

Effective Sample Size = 117

Frequency Missing = 5



The FREQ Procedure

Table of VV3 by VV8

VV3	VV8				Total
	1	2	3	5	
Frequency					
Expected					
Cell Chi-Square					
Percent					
Row Pct					
Col Pct					
1+2	20	25	5	6	56
	22.78	23.729	3.7966	5.6949	
	0.3392	0.0681	0.3814	0.0163	
	16.95	21.19	4.24	5.08	47.46
	35.71	44.64	8.93	10.71	
	41.67	50.00	62.50	50.00	
Rest	28	25	3	6	62
	25.22	26.271	4.2034	6.3051	
	0.3064	0.0615	0.3445	0.0148	
	23.73	21.19	2.54	5.08	52.54
	45.16	40.32	4.84	9.68	
	58.33	50.00	37.50	50.00	
Total	48	50	8	12	118
	40.68	42.37	6.78	10.17	100.00

Frequency Missing = 4

Statistics for Table of VV3 by VV8

Statistic	DF	Value	Prob
Chi-Square	3	1.5322	0.6749
Likelihood Ratio Chi-Square	3	1.5397	0.6731
Mantel-Haenszel Chi-Square	1	0.5822	0.4454
Phi Coefficient		0.1140	
Contingency Coefficient		0.1132	
Cramer's V		0.1140	

WARNING: 25% of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Effective Sample Size = 118

Frequency Missing = 4

The FREQ Procedure

Table of VV3 by V15

VV3	V15		Total
Frequency	1	2	
Expected			
Cell Chi-Square			
Percent			
Row Pct			
Col Pct			
1+2	26	31	57
	35.331	21.669	
	2.4641	4.0176	
	21.49	25.62	47.11
	45.61	54.39	
	34.67	67.39	
Rest	49	15	64
	39.669	24.331	
	2.1946	3.5782	
	40.50	12.40	52.89
	76.56	23.44	
	65.33	32.61	
Total	75	46	121
	61.98	38.02	100.00

Frequency Missing = 1

(S01-R3.13) : n-Way PROC FREQ of varbs VV3 \* (VV5 VV6 VV8 V15 VV18) from data set AIS

09:04 Wednesday, February 15, 2006

## The FREQ Procedure

## Statistics for Table of VV3 by V15

Statistic	DF	Value	Prob
Chi-Square	1	12.2546	0.0005
Likelihood Ratio Chi-Square	1	12.4463	0.0004
Continuity Adj. Chi-Square	1	10.9764	0.0009
Mantel-Haenszel Chi-Square	1	12.1533	0.0005
Phi Coefficient		-0.3182	
Contingency Coefficient		0.3033	
Cramer's V		-0.3182	

## Fisher's Exact Test

Cell (1,1) Frequency (F)	26
Left-sided Pr <= F	4.290E-04
Right-sided Pr >= F	0.9999
Table Probability (P)	3.288E-04
Two-sided Pr <= P	6.752E-04

Effective Sample Size = 121

Frequency Missing = 1

The FREQ Procedure

Table of VV3 by VV18

VV3	VV18			Total
Frequency	1	2	3	
Expected				
Cell Chi-Square				
Percent				
Row Pct				
Col Pct				
-----+-----+-----+-----+-----				
1+2	12	37	3	52
	19.276	28.69	4.0345	
	2.7463	2.4072	0.2653	
	10.34	31.90	2.59	44.83
	23.08	71.15	5.77	
	27.91	57.81	33.33	
-----+-----+-----+-----+-----				
Rest	31	27	6	64
	23.724	35.31	4.9655	
	2.2314	1.9559	0.2155	
	26.72	23.28	5.17	55.17
	48.44	42.19	9.38	
	72.09	42.19	66.67	
-----+-----+-----+-----+-----				
Total	43	64	9	116
	37.07	55.17	7.76	100.00

Frequency Missing = 6

Statistics for Table of VV3 by VV18

Statistic	DF	Value	Prob
Chi-Square	2	9.8216	0.0074
Likelihood Ratio Chi-Square	2	10.0371	0.0066
Mantel-Haenszel Chi-Square	1	3.7147	0.0539
Phi Coefficient		0.2910	
Contingency Coefficient		0.2794	
Cramer's V		0.2910	

WARNING: 33% of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Effective Sample Size = 116  
 Frequency Missing = 6

The FREQ Procedure

Table of VV4 by VV6

VV4	VV6					Total
Frequency	1	2	3	4	5	
Expected						
Cell Chi-Square						
Percent						
Row Pct						
Col Pct						
1	3	11	6	2	2	24
	2.5714	10.5	3.8571	5.7857	1.2857	
	0.0714	0.0238	1.1905	2.4771	0.3968	
	2.68	9.82	5.36	1.79	1.79	21.43
	12.50	45.83	25.00	8.33	8.33	
	25.00	22.45	33.33	7.41	33.33	
2	1	8	2	5	0	16
	1.7143	7	2.5714	3.8571	0.8571	
	0.2976	0.1429	0.127	0.3386	0.8571	
	0.89	7.14	1.79	4.46	0.00	14.29
	6.25	50.00	12.50	31.25	0.00	
	8.33	16.33	11.11	18.52	0.00	
3	8	30	10	20	4	72
	7.7143	31.5	11.571	17.357	3.8571	
	0.0106	0.0714	0.2134	0.4024	0.0053	
	7.14	26.79	8.93	17.86	3.57	64.29
	11.11	41.67	13.89	27.78	5.56	
	66.67	61.22	55.56	74.07	66.67	
Total	12	49	18	27	6	112
	10.71	43.75	16.07	24.11	5.36	100.00

Frequency Missing = 10

Statistics for Table of VV4 by VV6

Statistic	DF	Value	Prob
Chi-Square	8	6.6260	0.5775
Likelihood Ratio Chi-Square	8	8.1125	0.4226
Mantel-Haenszel Chi-Square	1	0.6127	0.4338
Phi Coefficient		0.2432	
Contingency Coefficient		0.2363	
Cramer's V		0.1720	

WARNING: 53% of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Effective Sample Size = 112  
 Frequency Missing = 10

The FREQ Procedure

Table of VV4 by V15

VV4	V15		Total
Frequency	1	2	
Expected			
Cell Chi-Square			
Percent			
Row Pct			
Col Pct			
-----+-----+-----+-----			
1	11	14	25
	15.086	9.9138	
	1.1068	1.6842	
	9.48	12.07	21.55
	44.00	56.00	
	15.71	30.43	
-----+-----+-----+-----			
2	14	3	17
	10.259	6.7414	
	1.3645	2.0764	
	12.07	2.59	14.66
	82.35	17.65	
	20.00	6.52	
-----+-----+-----+-----			
3	45	29	74
	44.655	29.345	
	0.0027	0.0041	
	38.79	25.00	63.79
	60.81	39.19	
	64.29	63.04	
-----+-----+-----+-----			
Total	70	46	116
	60.34	39.66	100.00

Frequency Missing = 6

Statistics for Table of VV4 by V15

Statistic	DF	Value	Prob
-----+-----+-----+-----			
Chi-Square	2	6.2386	0.0442
Likelihood Ratio Chi-Square	2	6.5693	0.0375
Mantel-Haenszel Chi-Square	1	1.0388	0.3081
Phi Coefficient		0.2319	
Contingency Coefficient		0.2259	
Cramer's V		0.2319	

Effective Sample Size = 116

Frequency Missing = 6

The FREQ Procedure

Table of VV4 by VV18

VV4	VV18			Total
Frequency	1	2	3	
Expected				
Cell Chi-Square				
Percent				
Row Pct				
Col Pct				
-----	-----	-----	-----	-----
1	10	11	3	24
	9.0811	12.973	1.9459	
	0.093	0.3001	0.5709	
	9.01	9.91	2.70	21.62
	41.67	45.83	12.50	
	23.81	18.33	33.33	
-----	-----	-----	-----	-----
2	7	7	2	16
	6.0541	8.6486	1.2973	
	0.1478	0.3143	0.3806	
	6.31	6.31	1.80	14.41
	43.75	43.75	12.50	
	16.67	11.67	22.22	
-----	-----	-----	-----	-----
3	25	42	4	71
	26.865	38.378	5.7568	
	0.1295	0.3418	0.5361	
	22.52	37.84	3.60	63.96
	35.21	59.15	5.63	
	59.52	70.00	44.44	
-----	-----	-----	-----	-----
Total	42	60	9	111
	37.84	54.05	8.11	100.00

Frequency Missing = 11

Statistics for Table of VV4 by VV18

Statistic	DF	Value	Prob
Chi-Square	4	2.8140	0.5894
Likelihood Ratio Chi-Square	4	2.7636	0.5981
Mantel-Haenszel Chi-Square	1	0.0000	0.9959
Phi Coefficient		0.1592	
Contingency Coefficient		0.1572	
Cramer's V		0.1126	

WARNING: 22% of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Effective Sample Size = 111

Frequency Missing = 11

The FREQ Procedure

Table of VV4 by VV19

VV4	VV19		Total
Frequency	1	2	
Expected			
Cell Chi-Square			
Percent			
Row Pct			
Col Pct			
-----+-----+-----+-----			
1	14	9	23
	13.468	9.5315	
	0.021	0.0296	
	12.61	8.11	20.72
	60.87	39.13	
	21.54	19.57	
-----+-----+-----+-----			
2	7	8	15
	8.7838	6.2162	
	0.3622	0.5119	
	6.31	7.21	13.51
	46.67	53.33	
	10.77	17.39	
-----+-----+-----+-----			
3	44	29	73
	42.748	30.252	
	0.0367	0.0518	
	39.64	26.13	65.77
	60.27	39.73	
	67.69	63.04	
-----+-----+-----+-----			
Total	65	46	111
	58.56	41.44	100.00

Frequency Missing = 11

Statistics for Table of VV4 by VV19

Statistic	DF	Value	Prob
Chi-Square	2	1.0133	0.6025
Likelihood Ratio Chi-Square	2	0.9983	0.6070
Mantel-Haenszel Chi-Square	1	0.0289	0.8651
Phi Coefficient		0.0955	
Contingency Coefficient		0.0951	
Cramer's V		0.0955	

Effective Sample Size = 111

Frequency Missing = 11



The FREQ Procedure

Table of VV5 by V15

VV5	V15		Total
Frequency	1	2	
Expected			
Cell Chi-Square			
Percent			
Row Pct			
Col Pct			
1	43	24	67
Expected	41.798	25.202	
Cell Chi-Square	0.0346	0.0573	
Percent	39.45	22.02	61.47
Row Pct	64.18	35.82	
Col Pct	63.24	58.54	
2	8	1	9
Expected	5.6147	3.3853	
Cell Chi-Square	1.0134	1.6807	
Percent	7.34	0.92	8.26
Row Pct	88.89	11.11	
Col Pct	11.76	2.44	
3	17	16	33
Expected	20.587	12.413	
Cell Chi-Square	0.625	1.0366	
Percent	15.60	14.68	30.28
Row Pct	51.52	48.48	
Col Pct	25.00	39.02	
Total	68	41	109
Percent	62.39	37.61	100.00

Frequency Missing = 13

The FREQ Procedure

Statistics for Table of VV5 by V15

Statistic	DF	Value	Prob
Chi-Square	2	4.4476	0.1082
Likelihood Ratio Chi-Square	2	4.9325	0.0849
Mantel-Haenszel Chi-Square	1	1.0833	0.2980
Phi Coefficient		0.2020	
Contingency Coefficient		0.1980	
Cramer's V		0.2020	

Effective Sample Size = 109

Frequency Missing = 13

WARNING: 11% of the data are missing.

Table of VV5 by V17

VV5	V17				Total
	1	2	3	5	
Frequency					
Expected					
Cell Chi-Square					
Percent					
Row Pct					
Col Pct					
1	36	21	3	6	66
	33	22	4.8889	6.1111	
	0.2727	0.0455	0.7298	0.002	
	33.33	19.44	2.78	5.56	61.11
	54.55	31.82	4.55	9.09	
	66.67	58.33	37.50	60.00	
2	4	5	0	0	9
	4.5	3	0.6667	0.8333	
	0.0556	1.3333	0.6667	0.8333	
	3.70	4.63	0.00	0.00	8.33
	44.44	55.56	0.00	0.00	
	7.41	13.89	0.00	0.00	
3	14	10	5	4	33
	16.5	11	2.4444	3.0556	
	0.3788	0.0909	2.6717	0.2919	
	12.96	9.26	4.63	3.70	30.56
	42.42	30.30	15.15	12.12	
	25.93	27.78	62.50	40.00	
Total	54	36	8	10	108
	50.00	33.33	7.41	9.26	100.00

Frequency Missing = 14

The FREQ Procedure

Statistics for Table of VV5 by V17

Statistic	DF	Value	Prob
Chi-Square	6	7.3722	0.2878
Likelihood Ratio Chi-Square	6	8.1308	0.2287
Mantel-Haenszel Chi-Square	1	1.3825	0.2397
Phi Coefficient		0.2613	
Contingency Coefficient		0.2528	
Cramer's V		0.1847	

WARNING: 58% of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Effective Sample Size = 108  
Frequency Missing = 14

WARNING: 11% of the data are missing.

The FREQ Procedure

Table of VV6 by VV8

VV6	VV8				Total
Frequency	1	2	3	5	
Expected					
Cell Chi-Square					
Percent					
Row Pct					
Col Pct					
1	8	3	0	1	12
Expected	4.7368	5.1579	0.8421	1.2632	
Cell Chi-Square	2.248	0.9028	0.8421	0.0548	
Percent	7.02	2.63	0.00	0.88	10.53
Row Pct	66.67	25.00	0.00	8.33	
Col Pct	17.78	6.12	0.00	8.33	
2	19	25	3	4	51
Expected	20.132	21.921	3.5789	5.3684	
Cell Chi-Square	0.0636	0.4325	0.0937	0.3488	
Percent	16.67	21.93	2.63	3.51	44.74
Row Pct	37.25	49.02	5.88	7.84	
Col Pct	42.22	51.02	37.50	33.33	
3	2	7	4	2	15
Expected	5.9211	6.4474	1.0526	1.5789	
Cell Chi-Square	2.5966	0.0474	8.2526	0.1123	
Percent	1.75	6.14	3.51	1.75	13.16
Row Pct	13.33	46.67	26.67	13.33	
Col Pct	4.44	14.29	50.00	16.67	
4	15	9	1	4	29
Expected	11.447	12.465	2.0351	3.0526	
Cell Chi-Square	1.1025	0.9632	0.5265	0.294	
Percent	13.16	7.89	0.88	3.51	25.44
Row Pct	51.72	31.03	3.45	13.79	
Col Pct	33.33	18.37	12.50	33.33	
5	1	5	0	1	7
Expected	2.7632	3.0088	0.4912	0.7368	
Cell Chi-Square	1.1251	1.3178	0.4912	0.094	
Percent	0.88	4.39	0.00	0.88	6.14
Row Pct	14.29	71.43	0.00	14.29	
Col Pct	2.22	10.20	0.00	8.33	
Total	45	49	8	12	114
Percent	39.47	42.98	7.02	10.53	100.00

Frequency Missing = 8

(S01-R3.16) : n-Way PROC FREQ of varbs VV6 \* (VV8 V15 V17 VV18 VV20) from data set AIS

09:04 Wednesday, February 15, 2006

The FREQ Procedure

Statistics for Table of VV6 by VV8

Statistic	DF	Value	Prob
Chi-Square	12	21.9094	0.0385
Likelihood Ratio Chi-Square	12	20.7068	0.0548
Mantel-Haenszel Chi-Square	1	1.1797	0.2774
Phi Coefficient		0.4384	
Contingency Coefficient		0.4015	
Cramer's V		0.2531	

WARNING: 60% of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Effective Sample Size = 114

Frequency Missing = 8

The FREQ Procedure

Table of VV6 by V15

VV6	V15		Total
Frequency	1	2	
Expected			
Cell Chi-Square			
Percent			
Row Pct			
Col Pct			
1	5	7	12
	7.6552	4.3448	
	0.9209	1.6226	
	4.31	6.03	10.34
	41.67	58.33	
	6.76	16.67	
2	35	15	50
	31.897	18.103	
	0.302	0.532	
	30.17	12.93	43.10
	70.00	30.00	
	47.30	35.71	
3	8	10	18
	11.483	6.5172	
	1.0563	1.8612	
	6.90	8.62	15.52
	44.44	55.56	
	10.81	23.81	
4	22	7	29
	18.5	10.5	
	0.6622	1.1667	
	18.97	6.03	25.00
	75.86	24.14	
	29.73	16.67	
5	4	3	7
	4.4655	2.5345	
	0.0485	0.0855	
	3.45	2.59	6.03
	57.14	42.86	
	5.41	7.14	
Total	74	42	116
	63.79	36.21	100.00

Frequency Missing = 6

(S01-R3.16) : n-Way PROC FREQ of varbs VV6 \* (VV8 V15 V17 VV18 VV20) from data set AIS

09:04 Wednesday, February 15, 2006

The FREQ Procedure

Statistics for Table of VV6 by V15

Statistic	DF	Value	Prob
Chi-Square	4	8.2579	0.0826
Likelihood Ratio Chi-Square	4	8.1341	0.0868
Mantel-Haenszel Chi-Square	1	0.6673	0.4140
Phi Coefficient		0.2668	
Contingency Coefficient		0.2578	
Cramer's V		0.2668	

WARNING: 30% of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Effective Sample Size = 116

Frequency Missing = 6

The FREQ Procedure

Table of VV6 by V17

VV6	V17				Total
Frequency	1	2	3	5	
Expected					
Cell Chi-Square					
Percent					
Row Pct					
Col Pct					
1	4	4	1	2	11
	5.4052	3.6034	0.8534	1.1379	
	0.3653	0.0436	0.0252	0.6531	
	3.45	3.45	0.86	1.72	9.48
	36.36	36.36	9.09	18.18	
	7.02	10.53	11.11	16.67	
2	29	10	6	6	51
	25.06	16.707	3.9569	5.2759	
	0.6193	2.6924	1.0549	0.0994	
	25.00	8.62	5.17	5.17	43.97
	56.86	19.61	11.76	11.76	
	50.88	26.32	66.67	50.00	
3	10	5	1	2	18
	8.8448	5.8966	1.3966	1.8621	
	0.1509	0.1363	0.1126	0.0102	
	8.62	4.31	0.86	1.72	15.52
	55.56	27.78	5.56	11.11	
	17.54	13.16	11.11	16.67	
4	13	13	1	2	29
	14.25	9.5	2.25	3	
	0.1096	1.2895	0.6944	0.3333	
	11.21	11.21	0.86	1.72	25.00
	44.83	44.83	3.45	6.90	
	22.81	34.21	11.11	16.67	
5	1	6	0	0	7
	3.4397	2.2931	0.5431	0.7241	
	1.7304	5.9924	0.5431	0.7241	
	0.86	5.17	0.00	0.00	6.03
	14.29	85.71	0.00	0.00	
	1.75	15.79	0.00	0.00	
Total	57	38	9	12	116
	49.14	32.76	7.76	10.34	100.00

Frequency Missing = 6



(S01-R3.16) : n-Way PROC FREQ of varbs VV6 \* (VV8 V15 V17 VV18 VV20) from data set AIS

09:04 Wednesday, February 15, 2006

The FREQ Procedure

Statistics for Table of VV6 by V17

Statistic	DF	Value	Prob
Chi-Square	12	17.3802	0.1358
Likelihood Ratio Chi-Square	12	17.7617	0.1231
Mantel-Haenszel Chi-Square	1	0.6761	0.4109
Phi Coefficient		0.3871	
Contingency Coefficient		0.3610	
Cramer's V		0.2235	

WARNING: 60% of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Effective Sample Size = 116

Frequency Missing = 6

The FREQ Procedure

Table of VV6 by VV18

VV6	VV18			Total
Frequency	1	2	3	
Expected				
Cell Chi-Square				
Percent				
Row Pct				
Col Pct				
1	0	8	3	11
	4.0268	6.1875	0.7857	
	4.0268	0.5309	6.2403	
	0.00	7.14	2.68	9.82
	0.00	72.73	27.27	
	0.00	12.70	37.50	
2	22	23	3	48
	17.571	27	3.4286	
	1.1161	0.5926	0.0536	
	19.64	20.54	2.68	42.86
	45.83	47.92	6.25	
	53.66	36.51	37.50	
3	7	10	1	18
	6.5893	10.125	1.2857	
	0.0256	0.0015	0.0635	
	6.25	8.93	0.89	16.07
	38.89	55.56	5.56	
	17.07	15.87	12.50	
4	10	17	1	28
	10.25	15.75	2	
	0.0061	0.0992	0.5	
	8.93	15.18	0.89	25.00
	35.71	60.71	3.57	
	24.39	26.98	12.50	
5	2	5	0	7
	2.5625	3.9375	0.5	
	0.1235	0.2867	0.5	
	1.79	4.46	0.00	6.25
	28.57	71.43	0.00	
	4.88	7.94	0.00	
Total	41	63	8	112
	36.61	56.25	7.14	100.00

Frequency Missing = 10

(S01-R3.16) : n-Way PROC FREQ of varbs VV6 \* (VV8 V15 V17 VV18 VV20) from data set AIS

09:04 Wednesday, February 15, 2006

The FREQ Procedure

Statistics for Table of VV6 by VV18

Statistic	DF	Value	Prob
Chi-Square	8	14.1664	0.0775
Likelihood Ratio Chi-Square	8	16.0716	0.0414
Mantel-Haenszel Chi-Square	1	1.3642	0.2428
Phi Coefficient		0.3556	
Contingency Coefficient		0.3351	
Cramer's V		0.2515	

WARNING: 53% of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Effective Sample Size = 112

Frequency Missing = 10

The FREQ Procedure

Table of VV6 by VV20

VV6	VV20			Total
Frequency	1	2	3	
Expected				
Cell Chi-Square				
Percent				
Row Pct				
Col Pct				
1	1	5	6	12
	2.7523	3.5229	5.7248	
	1.1156	0.6193	0.0132	
	0.92	4.59	5.50	11.01
	8.33	41.67	50.00	
	4.00	15.63	11.54	
2	10	13	22	45
	10.321	13.211	21.468	
	0.01	0.0034	0.0132	
	9.17	11.93	20.18	41.28
	22.22	28.89	48.89	
	40.00	40.63	42.31	
3	5	4	8	17
	3.8991	4.9908	8.1101	
	0.3108	0.1967	0.0015	
	4.59	3.67	7.34	15.60
	29.41	23.53	47.06	
	20.00	12.50	15.38	
4	8	7	13	28
	6.422	8.2202	13.358	
	0.3877	0.1811	0.0096	
	7.34	6.42	11.93	25.69
	28.57	25.00	46.43	
	32.00	21.88	25.00	
5	1	3	3	7
	1.6055	2.055	3.3394	
	0.2284	0.4345	0.0345	
	0.92	2.75	2.75	6.42
	14.29	42.86	42.86	
	4.00	9.38	5.77	
Total	25	32	52	109
	22.94	29.36	47.71	100.00

Frequency Missing = 13

(S01-R3.16) : n-Way PROC FREQ of varbs VV6 \* (VV8 V15 V17 VV18 VV20) from data set AIS

09:04 Wednesday, February 15, 2006

The FREQ Procedure

Statistics for Table of VV6 by VV20

Statistic	DF	Value	Prob
Chi-Square	8	3.5596	0.8945
Likelihood Ratio Chi-Square	8	3.8042	0.8743
Mantel-Haenszel Chi-Square	1	0.4300	0.5120
Phi Coefficient		0.1807	
Contingency Coefficient		0.1778	
Cramer's V		0.1278	

WARNING: 47% of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Effective Sample Size = 109

Frequency Missing = 13

WARNING: 11% of the data are missing.

The FREQ Procedure

Table of VV7 by VV8

VV7	VV8				Total
Frequency	1	2	3	5	
Expected					
Cell Chi-Square					
Percent					
Row Pct					
Col Pct					
1	21	33	8	5	67
	27.147	28.302	4.6207	6.931	
	1.3917	0.7799	2.4714	0.538	
	18.10	28.45	6.90	4.31	57.76
	31.34	49.25	11.94	7.46	
	44.68	67.35	100.00	41.67	
2	4	4	0	0	8
	3.2414	3.3793	0.5517	0.8276	
	0.1775	0.114	0.5517	0.8276	
	3.45	3.45	0.00	0.00	6.90
	50.00	50.00	0.00	0.00	
	8.51	8.16	0.00	0.00	
3	22	12	0	7	41
	16.612	17.319	2.8276	4.2414	
	1.7475	1.6335	2.8276	1.7942	
	18.97	10.34	0.00	6.03	35.34
	53.66	29.27	0.00	17.07	
	46.81	24.49	0.00	58.33	
Total	47	49	8	12	116
	40.52	42.24	6.90	10.34	100.00

Frequency Missing = 6

Statistics for Table of VV7 by VV8

Statistic	DF	Value	Prob
Chi-Square	6	14.8548	0.0214
Likelihood Ratio Chi-Square	6	18.4710	0.0052
Mantel-Haenszel Chi-Square	1	0.0932	0.7602
Phi Coefficient		0.3579	
Contingency Coefficient		0.3369	
Cramer's V		0.2530	

WARNING: 58% of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Effective Sample Size = 116  
 Frequency Missing = 6

The FREQ Procedure

Table of VV7 by V15

VV7	V15		Total
Frequency	1	2	
Expected			
Cell Chi-Square			
Percent			
Row Pct			
Col Pct			
-----+-----+-----+-----			
1	35	33	68
	43.22	24.78	
	1.5635	2.727	
	29.66	27.97	57.63
	51.47	48.53	
	46.67	76.74	
-----+-----+-----+-----			
2	5	4	9
	5.7203	3.2797	
	0.0907	0.1582	
	4.24	3.39	7.63
	55.56	44.44	
	6.67	9.30	
-----+-----+-----+-----			
3	35	6	41
	26.059	14.941	
	3.0675	5.3502	
	29.66	5.08	34.75
	85.37	14.63	
	46.67	13.95	
-----+-----+-----+-----			
Total	75	43	118
	63.56	36.44	100.00

Frequency Missing = 4

Statistics for Table of VV7 by V15

Statistic	DF	Value	Prob
Chi-Square	2	12.9571	0.0015
Likelihood Ratio Chi-Square	2	14.0832	0.0009
Mantel-Haenszel Chi-Square	1	12.2613	0.0005
Phi Coefficient		0.3314	
Contingency Coefficient		0.3145	
Cramer's V		0.3314	

Effective Sample Size = 118

Frequency Missing = 4

The FREQ Procedure

Table of VV7 by VV18

VV7	VV18			Total
Frequency	1	2	3	
Expected				
Cell Chi-Square				
Percent				
Row Pct				
Col Pct				
-----	-----	-----	-----	-----
1	29	33	4	66
	24.531	36.796	4.6726	
	0.8142	0.3917	0.0968	
	25.66	29.20	3.54	58.41
	43.94	50.00	6.06	
	69.05	52.38	50.00	
-----	-----	-----	-----	-----
2	5	3	1	9
	3.3451	5.0177	0.6372	
	0.8187	0.8113	0.2066	
	4.42	2.65	0.88	7.96
	55.56	33.33	11.11	
	11.90	4.76	12.50	
-----	-----	-----	-----	-----
3	8	27	3	38
	14.124	21.186	2.6903	
	2.6552	1.5956	0.0357	
	7.08	23.89	2.65	33.63
	21.05	71.05	7.89	
	19.05	42.86	37.50	
-----	-----	-----	-----	-----
Total	42	63	8	113
	37.17	55.75	7.08	100.00

Frequency Missing = 9

Statistics for Table of VV7 by VV18

Statistic	DF	Value	Prob
Chi-Square	4	7.4258	0.1150
Likelihood Ratio Chi-Square	4	7.7653	0.1006
Mantel-Haenszel Chi-Square	1	3.8875	0.0486
Phi Coefficient		0.2563	
Contingency Coefficient		0.2483	
Cramer's V		0.1813	

WARNING: 44% of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Effective Sample Size = 113  
 Frequency Missing = 9



The FREQ Procedure

Table of VV8 by V15

VV8	V15		Total
Frequency	1	2	
Expected			
Cell Chi-Square			
Percent			
Row Pct			
Col Pct			
1	30	17	47
	29.726	17.274	
	0.0025	0.0043	
	25.64	14.53	40.17
	63.83	36.17	
	40.54	39.53	
2	35	15	50
	31.624	18.376	
	0.3604	0.6203	
	29.91	12.82	42.74
	70.00	30.00	
	47.30	34.88	
3	3	5	8
	5.0598	2.9402	
	0.8385	1.4431	
	2.56	4.27	6.84
	37.50	62.50	
	4.05	11.63	
5	6	6	12
	7.5897	4.4103	
	0.333	0.573	
	5.13	5.13	10.26
	50.00	50.00	
	8.11	13.95	
Total	74	43	117
	63.25	36.75	100.00

Frequency Missing = 5

The FREQ Procedure

Statistics for Table of VV8 by V15

Statistic	DF	Value	Prob
Chi-Square	3	4.1752	0.2432
Likelihood Ratio Chi-Square	3	4.0641	0.2546
Mantel-Haenszel Chi-Square	1	1.3207	0.2505
Phi Coefficient		0.1889	
Contingency Coefficient		0.1856	
Cramer's V		0.1889	

WARNING: 25% of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Effective Sample Size = 117

Frequency Missing = 5

The FREQ Procedure

Table of V15 by VV18

V15	VV18			Total
Frequency	1	2	3	
Expected				
Cell Chi-Square				
Percent				
Row Pct				
Col Pct				
-----	-----	-----	-----	-----
1	26	42	5	73
	26.661	40.626	5.713	
	0.0164	0.0465	0.089	
	22.61	36.52	4.35	63.48
	35.62	57.53	6.85	
	61.90	65.63	55.56	
-----	-----	-----	-----	-----
2	16	22	4	42
	15.339	23.374	3.287	
	0.0285	0.0808	0.1547	
	13.91	19.13	3.48	36.52
	38.10	52.38	9.52	
	38.10	34.38	44.44	
-----	-----	-----	-----	-----
Total	42	64	9	115
	36.52	55.65	7.83	100.00

Frequency Missing = 7

Statistics for Table of V15 by VV18

Statistic	DF	Value	Prob
Chi-Square	2	0.4158	0.8123
Likelihood Ratio Chi-Square	2	0.4104	0.8145
Mantel-Haenszel Chi-Square	1	0.0003	0.9866
Phi Coefficient		0.0601	
Contingency Coefficient		0.0600	
Cramer's V		0.0601	

Effective Sample Size = 115

Frequency Missing = 7

The FREQ Procedure

Table of VV16 by VV18

VV16	VV18			Total
Frequency	1	2	3	
Expected				
Cell Chi-Square				
Percent				
Row Pct				
Col Pct				
1	32	52	6	90
	33.75	49.821	6.4286	
	0.0907	0.0953	0.0286	
	28.57	46.43	5.36	80.36
	35.56	57.78	6.67	
	76.19	83.87	75.00	
2	10	10	2	22
	8.25	12.179	1.5714	
	0.3712	0.3897	0.1169	
	8.93	8.93	1.79	19.64
	45.45	45.45	9.09	
	23.81	16.13	25.00	
Total	42	62	8	112
	37.50	55.36	7.14	100.00

Frequency Missing = 10

Statistics for Table of VV16 by VV18

Statistic	DF	Value	Prob
Chi-Square	2	1.0924	0.5792
Likelihood Ratio Chi-Square	2	1.0857	0.5811
Mantel-Haenszel Chi-Square	1	0.2763	0.5991
Phi Coefficient		0.0988	
Contingency Coefficient		0.0983	
Cramer's V		0.0988	

Effective Sample Size = 112

Frequency Missing = 10

The FREQ Procedure

Table of VV16 by VV19

VV16	VV19		Total
Frequency	1	2	
Expected			
Cell Chi-Square			
Percent			
Row Pct			
Col Pct			
1	49	40	89
	49.712	39.288	
	0.0102	0.0129	
	44.14	36.04	80.18
	55.06	44.94	
	79.03	81.63	
2	13	9	22
	12.288	9.7117	
	0.0412	0.0522	
	11.71	8.11	19.82
	59.09	40.91	
	20.97	18.37	
Total	62	49	111
	55.86	44.14	100.00

Frequency Missing = 11

## The FREQ Procedure

## Statistics for Table of VV16 by VV19

Statistic	DF	Value	Prob
Chi-Square	1	0.1165	0.7329
Likelihood Ratio Chi-Square	1	0.1170	0.7323
Continuity Adj. Chi-Square	1	0.0103	0.9191
Mantel-Haenszel Chi-Square	1	0.1154	0.7341
Phi Coefficient		-0.0324	
Contingency Coefficient		0.0324	
Cramer's V		-0.0324	

## Fisher's Exact Test

Cell (1,1) Frequency (F)	49
Left-sided Pr <= F	0.4620
Right-sided Pr >= F	0.7177
Table Probability (P)	0.1796
Two-sided Pr <= P	0.8132

Effective Sample Size = 111

Frequency Missing = 11

The FREQ Procedure

Table of V17 by VV20

V17	VV20			Total
Frequency	1	2	3	
Expected				
Cell Chi-Square				
Percent				
Row Pct				
Col Pct				
1	12	18	22	52
	12.18	15.459	24.36	
	0.0027	0.4175	0.2287	
	10.81	16.22	19.82	46.85
	23.08	34.62	42.31	
	46.15	54.55	42.31	
2	10	10	19	39
	9.1351	11.595	18.27	
	0.0819	0.2193	0.0291	
	9.01	9.01	17.12	35.14
	25.64	25.64	48.72	
	38.46	30.30	36.54	
3	2	4	2	8
	1.8739	2.3784	3.7477	
	0.0085	1.1057	0.8151	
	1.80	3.60	1.80	7.21
	25.00	50.00	25.00	
	7.69	12.12	3.85	
5	2	1	9	12
	2.8108	3.5676	5.6216	
	0.2339	1.8479	2.0303	
	1.80	0.90	8.11	10.81
	16.67	8.33	75.00	
	7.69	3.03	17.31	
Total	26	33	52	111
	23.42	29.73	46.85	100.00

Frequency Missing = 11

The FREQ Procedure

Statistics for Table of V17 by VV20

Statistic	DF	Value	Prob
Chi-Square	6	7.0204	0.3190
Likelihood Ratio Chi-Square	6	7.4471	0.2815
Mantel-Haenszel Chi-Square	1	1.5143	0.2185
Phi Coefficient		0.2515	
Contingency Coefficient		0.2439	
Cramer's V		0.1778	

WARNING: 42% of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Effective Sample Size = 111

Frequency Missing = 11



The FREQ Procedure

Table of VV18 by VV19

VV18	VV19		Total
Frequency	1	2	
Expected			
Cell Chi-Square			
Percent			
Row Pct			
Col Pct			
-----	-----	-----	-----
1	29	12	41
	23.062	17.937	
	1.5286	1.9654	
	25.89	10.71	36.61
	70.73	29.27	
	46.03	24.49	
-----	-----	-----	-----
2	30	33	63
	35.438	27.563	
	0.8343	1.0727	
	26.79	29.46	56.25
	47.62	52.38	
	47.62	67.35	
-----	-----	-----	-----
3	4	4	8
	4.5	3.5	
	0.0556	0.0714	
	3.57	3.57	7.14
	50.00	50.00	
	6.35	8.16	
-----	-----	-----	-----
Total	63	49	112
	56.25	43.75	100.00

Frequency Missing = 10

Statistics for Table of VV18 by VV19

Statistic	DF	Value	Prob
Chi-Square	2	5.5280	0.0630
Likelihood Ratio Chi-Square	2	5.6544	0.0592
Mantel-Haenszel Chi-Square	1	4.2492	0.0393
Phi Coefficient		0.2222	
Contingency Coefficient		0.2169	
Cramer's V		0.2222	

WARNING: 33% of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Effective Sample Size = 112  
 Frequency Missing = 10