STAT455-HW03 Problem 3.15(a)(b) Woolf CI and Exact Cornfield

The FREQ Procedure

Frequency Percent Row Pct Col Pct

Table of Group by Normal			
	Normal		
Group	Yes	No	Total
Treatmen	7 23.33 46.67 100.00	8 26.67 53.33 34.78	15 50.00
Control	0 0.00 0.00 0.00	15 50.00 100.00 65.22	15 50.00
Total	7 23.33	23 76.67	30 100.00

Statistics for Table of Group by Normal

Statistic	DF	Value	Prob
Chi-Square	1	9.1304	0.0025
Likelihood Ratio Chi-Square	1	11.8687	0.0006
Continuity Adj. Chi-Square	1	6.7081	0.0096
Mantel-Haenszel Chi-Square	1	8.8261	0.0030
Phi Coefficient		0.5517	
Contingency Coefficient		0.4830	
Cramer's V		0.5517	
WARNING: 50% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Fisher's Exact Test	
Cell (1,1) Frequency (F)	7
Left-sided Pr <= F	1.0000
Right-sided Pr >= F	0.0032
Table Probability (P)	0.0032
Two-sided Pr <= P	0.0063

Odds Ratio and Relative Risks			
Statistic	Value	95% Confidence Limits	
Relative Risk (Column 2)	0.5333	0.3322	0.8562
One or more statistics not computed -- zero cell.			

Odds Ratio	
Odds Ratio	Infty
Asymptotic Conf Limits	
95% Lower Conf Limit	.
95% Upper Conf Limit	.
Exact Conf Limits	
95% Lower Conf Limit	2.6460
95% Upper Conf Limit	Infty

Sample Size = 30

STAT455-HW04 Problem 3.3

The FREQ Procedure

Frequency Expected Cell Chi-Square

Table of shot_one by shot_two			
	shot_two		
shot_one	0	1	Total
0	251 252.12 0.0049	34 32.885 0.0378	285
1	48 46.885 0.0265	5 6.1154 0.2034	53
Total	299	39	338

Statistics for Table of shot_one by shot_two

Statistic	DF	Value	Prob
Chi-Square	1	0.2727	0.6015
Likelihood Ratio Chi-Square	1	0.2858	0.5930
Continuity Adj. Chi-Square	1	0.0830	0.7732
Mantel-Haenszel Chi-Square	1	0.2719	0.6020
Phi Coefficient		-0.0284	
Contingency Coefficient		0.0284	
Cramer's V		-0.0284	

Fisher's Exact Test	
Cell (1,1) Frequency (F)	251
Left-sided Pr <= F	0.4020
Right-sided Pr >= F	0.7695
Table Probability (P)	0.1715
Two-sided Pr <= P	0.8149

Sample Size = 338

STAT455-HW04 Problem 3.9(a)

The GENMOD Procedure

Model Information	
Data Set	WORK.TREATMENT
Distribution	Poisson
Link Function	Log
Dependent Variable	count

Number of Observations Read	10
Number of Observations Used	10

Class Level Information		
Class	Levels	Values

Class Level Information		
Class	Levels	Values
diag	5	1 2 3 4 5
drug	2	1 2

Criteria For Assessing Goodness Of Fit			
Criterion	DF	Value	Value/DF
Deviance	4	96.5369	24.1342
Scaled Deviance	4	96.5369	24.1342
Pearson Chi-Square	4	84.1885	21.0471
Scaled Pearson X2	4	84.1885	21.0471
Log Likelihood		739.9751	
Full Log Likelihood		-69.6735	
AIC (smaller is better)		151.3470	
AICC (smaller is better)		179.3470	
BIC (smaller is better)		153.1625	

Algorithm converged.

Analysis Of Maximum Likelihood Parameter Estimates							
Parameter		DF	Estimate	Standard Error	Wald 95% Confidence Limits		Wald Chi-Square	Pr > ChiSq
Intercept		1	1.4878	0.2897	0.9200	2.0557	26.37	<.0001
diag	1	1	2.1624	0.2929	1.5884	2.7365	54.52	<.0001
diag	2	1	0.0741	0.3852	-0.6808	0.8290	0.04	0.8474
diag	3	1	1.0460	0.3224	0.4141	1.6779	10.52	0.0012
diag	4	1	2.0302	0.2950	1.4520	2.6084	47.36	<.0001
diag	5	0	0.0000	0.0000	0.0000	0.0000	.	.
drug	1	1	0.6607	0.1270	0.4118	0.9097	27.06	<.0001
drug	2	0	0.0000	0.0000	0.0000	0.0000	.	.
Scale		0	1.0000	0.0000	1.0000	1.0000		

Note: The scale parameter was held fixed.

STAT455-HW03 Problem 3.12

The FREQ Procedure

Frequency Percent Row Pct Col Pct

Table of school by attitude				
	attitude			
school	1	2	3	Total
1	209 14.67 38.21 55.59	101 7.09 18.46 40.73	237 16.63 43.33 29.59	547 38.39
2	151 10.60 21.48 40.16	126 8.84 17.92 50.81	426 29.89 60.60 53.18	703 49.33
3	16 1.12 9.14 4.26	21 1.47 12.00 8.47	138 9.68 78.86 17.23	175 12.28
Total	376 26.39	248 17.40	801 56.21	1425 100.00

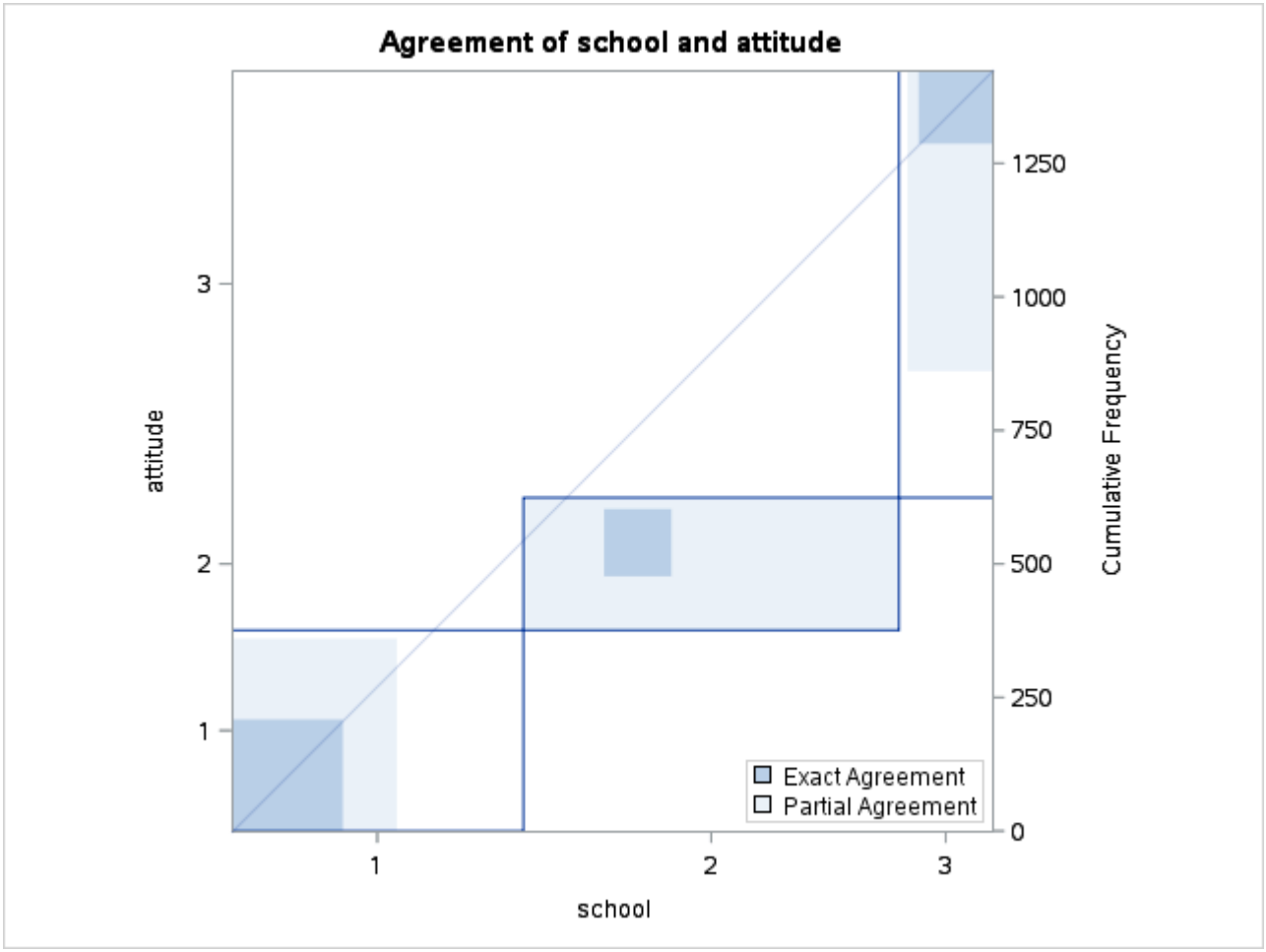
Statistics for Table of school by attitude

Statistic	Value	ASE	95% Confidence Limits	
Gamma	0.3873	0.0366	0.3156	0.4591
Kendall's Tau-b	0.2305	0.0228	0.1858	0.2753
Stuart's Tau-c	0.2037	0.0204	0.1637	0.2438
Somers' D C|R	0.2286	0.0226	0.1842	0.2729
Somers' D R|C	0.2325	0.0232	0.1870	0.2780
Pearson Correlation	0.2530	0.0240	0.2060	0.3000
Spearman Correlation	0.2507	0.0248	0.2021	0.2993
Lambda Asymmetric C|R	0.0000	0.0000	0.0000	0.0000
Lambda Asymmetric R|C	0.0803	0.0252	0.0309	0.1297
Lambda Symmetric	0.0431	0.0137	0.0162	0.0700
Uncertainty Coefficient C|R	0.0346	0.0068	0.0213	0.0478
Uncertainty Coefficient R|C	0.0348	0.0068	0.0216	0.0480
Uncertainty Coefficient Symmetric	0.0347	0.0067	0.0215	0.0479

Test of Symmetry	
Statistic (S)	569.9144
DF	3
Pr > S	<.0001

Kappa Statistics				
Statistic	Value	ASE	95% Confidence Limits	
Simple Kappa	0.1018	0.0142	0.0739	0.1297
Weighted Kappa	0.1476	0.0155	0.1171	0.1780

Sample Size = 1425


Agreement of school and attitude
attitude
3
2
1
school
1
2
3
Cumulative Frequency
1250
1000
750
500
250
0
Exact Agreement
Partial Agreement