How can I utilize the test statement in SUDAAN?

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July 1, 2024

SUDAAN is a statistical software package commonly used for analyzing complex survey data. One of its key features is the ability to incorporate test statements, which allow users to specify specific hypotheses to be tested within their data analysis. These test statements can be utilized in various ways, such as conducting t-tests, ANOVA, and chi-square tests, among others. By utilizing test statements in SUDAAN, researchers can effectively evaluate the significance of their survey data and draw meaningful conclusions from their analysis. This feature enhances the accuracy and reliability of statistical findings, making SUDAAN a valuable tool for researchers in various fields.

How do I use the test statement in SUDAAN? | SUDAAN FAQ

You can use the test statement to obtain different types of chi-squared tests. Please see pages 278-279 of the SUDAAN manual for a description of the tests available in the crosstabs procedure. The last two tables in the output show the chi-squared tests that are requested on the test statement. They test the null hypothesis that the variables srsex and racehpra are not related. The nose option is used on the proc crosstabs statement to suppress the display of the standard errors. We have done this to make the output more readable.

```
proc crosstab data=temp1 filetype=sas design = jackknife nose;
weight rakedw0;
jackwgts rakedw1--rakedw80 / adjjack=1;
tables srsex*racehpra;
test chisq llchisq cmh;
subgroup srsex racehpra;
levels 2 3;
run;

Number of observations read : 55428 Weighted count : 23847415
Denominator degrees of freedom : 80
Variance Estimation Method: Replicate Weight Jackknife
by: SRSEX, RACEHPRA.

-------------------------------------------------------------------------------
| | |
| SRSEX | | RACEHPRA
| | | Total | LATINO | PACIFIC | AIAN |
| | | | | ISLANDER | |
-------------------------------------------------------------------------------
```

| | | | | | |

| Total | Sample Size | 10458 | 9458 | 219 | 781 |

| | Weighted Size | 5791064.18 | 5643945.79 | 61972.10 | 85146.30 |

| | Row Percent | 100.00 | 97.46 | 1.07 | 1.47 |

| | Col Percent | 100.00 | 100.00 | 100.00 | 100.00 |

| | Tot Percent | 100.00 | 97.46 | 1.07 | 1.47 |

| | | | | | |

| MALE | Sample Size | 4435 | 3983 | 101 | 351 |

| | Weighted Size | 2911702.72 | 2836612.17 | 30281.84 | 44808.71 |

| | Row Percent | 100.00 | 97.42 | 1.04 | 1.54 |

| | Col Percent | 50.28 | 50.26 | 48.86 | 52.63 |

| | Tot Percent | 50.28 | 48.98 | 0.52 | 0.77 |

| | | | | | |

| FEMALE | Sample Size | 6023 | 5475 | 118 | 430 |

| | Weighted Size | 2879361.46 | 2807333.62 | 31690.25 | 40337.59 |

| | Row Percent | 100.00 | 97.50 | 1.10 | 1.40 |

| | Col Percent | 49.72 | 49.74 | 51.14 | 47.37 |
| | Tot Percent | 49.72 | 48.48 | 0.55 | 0.70 |

| | |
| | | |

	ChiSq	1.02
	P-value ChiSq	0.6019
	Degrees of	
	Freedom ChiSq	2
	LLChiSq	1.03
	P-value LLChiSq	0.5987
	Degrees of	
	Freedom LLChiSq	2

| | |
| | | 1 |

| | | |
| | Cochran-Mantel- | |

	Haenszel Chi-	
	Square	1.0217
	Degrees of	
	Freedom CMH	2
	P-value CMH Test	0.6019

The test statement can be used in proc regress to produce
several kinds of Wald tests. Please see page 481 of the SUDAAN manual
for more details. Note that proc rlogist does not seem to have a
test
statement.

```
proc regress data=temp1 filetype=sas design = jackknife;
weight rakedw0;
jackwgts rakedw1--rakedw80 / adjjack=1;
model ae13 = ae14 srsex;
test waldchi adjwaldf;
subgroup srsex;
levels 2;
```

run;

Number of observations read : 55428 Weighted count: 23847415
Observations used in the analysis : 32538 Weighted count: 13783845
Denominator degrees of freedom : 80

Maximum number of estimable parameters for the model is 3
Weighted mean response is 2.188590

Multiple R-Square for the dependent variable AE13: 0.259603
Variance Estimation Method: Replicate Weight Jackknife
Working Correlations: Independent
Link Function: Identity
Response variable AE13: AE13

Independent P-value
Variables and Beta T-Test
Effects Coeff. SE Beta T-Test B=0 B=0

Intercept 1.61 0.01 116.51 0.0000

AE14 0.32 0.01 24.90 0.0000

SRSEX

MALE 0.52 0.03 19.77 0.0000

FEMALE 0.00 0.00 . .

Contrast Degrees P-value P-value
of Adj Wald Wald
Freedom Adj Wald F F Wald ChiSq ChiSq

OVERALL MODEL 3 9802.58 0.0000 30161.79 0.0000

MODEL MINUS

INTERCEPT 2 522.32 0.0000 1057.86 0.0000

INTERCEPT . . . .

AE14 1 619.78 0.0000 619.78 0.0000

SRSEX 1 390.70 0.0000 390.70 0.0000
