

The UNIVARIATE Procedure
Variable: expenses
Fam_size_exp = LFS

Moments			
N	151	Sum Weights	151
Mean	8999.28325	Sum Observations	1358891.77
Std Deviation	3731.8463	Variance	13926676.8
Skewness	0.57871514	Kurtosis	-0.4809529
Uncorrected SS	1.43181E10	Corrected SS	2089001520
Coeff Variation	41.4682614	Std Error Mean	303.693345

The UNIVARIATE Procedure
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Basic Statistical Measures			
Location		Variability	
Mean	8999.283	Std Deviation	3732
Median	8538.290	Variance	13926677
Mode	.	Range	14816
		Interquartile Range	5464

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	29.6328	Pr > t	<.0001
Sign	M	75.5	Pr >= M	<.0001
Signed Rank	S	5738	Pr >= S	<.0001

The UNIVARIATE Procedure
Variable: expenses
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Quantiles (Definition 5)	
Level	Quantile
100% Max	18259.22
99%	18223.45
95%	16085.13
90%	14394.40
75% Q3	11436.74
50% Median	8538.29
25% Q1	5972.38
10%	4618.08
5%	4234.93

The UNIVARIATE Procedure
Variable: expenses
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Quantiles (Definition 5)	
Level	Quantile
1%	3481.87
0% Min	3443.06

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
3443.06	906	17128.4	914
3481.87	936	17663.1	1031
3591.48	895	17942.1	1030

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Variable: expenses
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Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
3597.60	909	18223.5	1032
3861.21	924	18259.2	1029

The UNIVARIATE Procedure
Variable: expenses
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Moments			
N	424	Sum Weights	424
Mean	7532.11031	Sum Observations	3193614.77
Std Deviation	3668.21268	Variance	13455784.3
Skewness	0.68371205	Kurtosis	0.04757761
Uncorrected SS	2.97465E10	Corrected SS	5691796741
Coeff Variation	48.7009952	Std Error Mean	178.144156

The UNIVARIATE Procedure
Variable: expenses
Fam_size_exp = NFS

Basic Statistical Measures			
Location		Variability	
Mean	7532.110	Std Deviation	3668
Median	7139.380	Variance	13455784
Mode	.	Range	16617
		Interquartile Range	5120

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	42.28098	Pr > t	<.0001
Sign	M	212	Pr >= M	<.0001
Signed Rank	S	45050	Pr >= S	<.0001

The UNIVARIATE Procedure
Variable: expenses
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Quantiles (Definition 5)	
Level	Quantile
100% Max	18328.24
99%	17560.38
95%	14426.07
90%	12347.17
75% Q3	9789.62
50% Median	7139.38
25% Q1	4669.13
10%	3227.12
5%	2597.78

The UNIVARIATE Procedure
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Quantiles (Definition 5)	
Level	Quantile
1%	1727.54
0% Min	1711.03

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
1711.03	511	17560.4	875
1719.44	623	17626.2	777
1720.35	469	18157.9	642

The UNIVARIATE Procedure
Variable: expenses
Fam_size_exp = NFS

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
1725.55	659	18218.2	728
1727.54	563	18328.2	876

The UNIVARIATE Procedure
Variable: expenses
Fam_size_exp = SFS_AA

Moments			
N	210	Sum Weights	210
Mean	12141.2426	Sum Observations	2549660.94
Std Deviation	2452.89468	Variance	6016692.29
Skewness	0.4175916	Kurtosis	-0.099228
Uncorrected SS	3.22135E10	Corrected SS	1257488690
Coeff Variation	20.2029954	Std Error Mean	169.265814

The UNIVARIATE Procedure
Variable: expenses
Fam_size_exp = SFS_AA

Basic Statistical Measures			
Location		Variability	
Mean	12141.24	Std Deviation	2453
Median	11986.94	Variance	6016692
Mode	.	Range	10579
		Interquartile Range	3036

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	71.72885	Pr > t	<.0001
Sign	M	105	Pr >= M	<.0001
Signed Rank	S	11077.5	Pr >= S	<.0001

The UNIVARIATE Procedure
Variable: expenses
Fam_size_exp = SFS_AA

Quantiles (Definition 5)	
Level	Quantile
100% Max	18310.74
99%	18033.97
95%	17081.08
90%	15668.09
75% Q3	13470.86
50% Median	11986.94
25% Q1	10435.07
10%	8812.90
5%	8280.62

The UNIVARIATE Procedure
Variable: expenses
Fam_size_exp = SFS_AA

Quantiles (Definition 5)	
Level	Quantile
1%	7804.16
0% Min	7731.86

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
7731.86	370	17904.5	440
7789.64	333	17929.3	357
7804.16	271	18034.0	453

The UNIVARIATE Procedure
Variable: expenses
Fam_size_exp = SFS_AA

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
7935.29	430	18246.5	442
8026.67	428	18310.7	441

The UNIVARIATE Procedure
Variable: expenses
Fam_size_exp = SFS_BA

Moments			
N	248	Sum Weights	248
Mean	3063.9169	Sum Observations	759851.39
Std Deviation	1677.27334	Variance	2813245.85
Skewness	1.1076734	Kurtosis	0.23939037
Uncorrected SS	3022993237	Corrected SS	694871725
Coeff Variation	54.7427817	Std Error Mean	106.506964

The UNIVARIATE Procedure
Variable: expenses
Fam_size_exp = SFS_BA

Basic Statistical Measures			
Location		Variability	
Mean	3063.917	Std Deviation	1677
Median	2458.610	Variance	2813246
Mode	1639.560	Range	6405
		Interquartile Range	2185

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	28.76729	Pr > t 	<.0001
Sign	M	124	Pr >= M 	<.0001
Signed Rank	S	15438	Pr >= S 	<.0001

The UNIVARIATE Procedure
Variable: expenses
Fam_size_exp = SFS_BA

Quantiles (Definition 5)	
Level	Quantile
100% Max	7526.71
99%	7421.19
95%	6837.37
90%	5757.41
75% Q3	3939.39
50% Median	2458.61
25% Q1	1754.06
10%	1607.51
5%	1242.82

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Quantiles (Definition 5)	
Level	Quantile
1%	1135.94
0% Min	1121.87

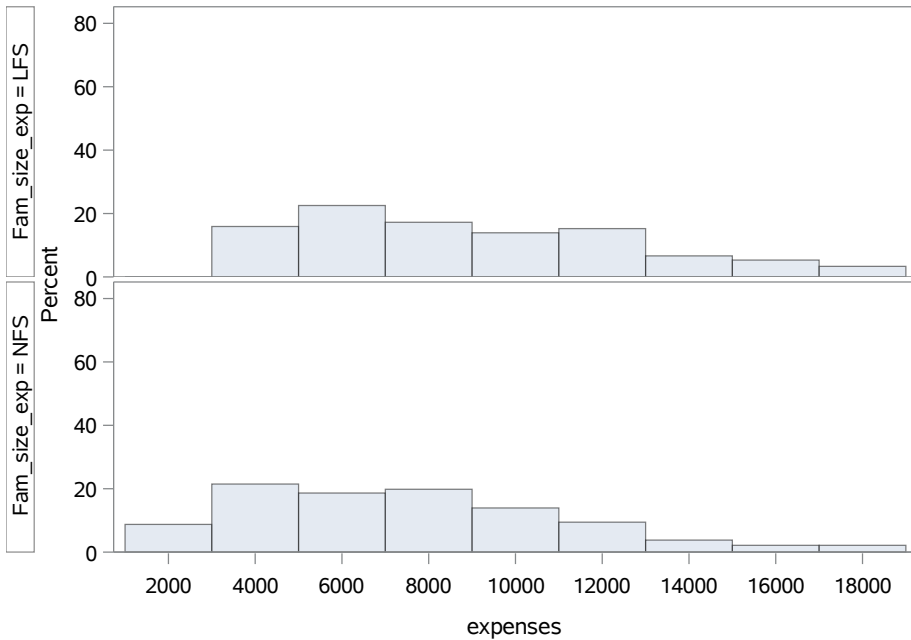
Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
1121.87	27	7348.14	163
1131.51	36	7419.48	229
1135.94	5	7421.19	218

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Variable: expenses
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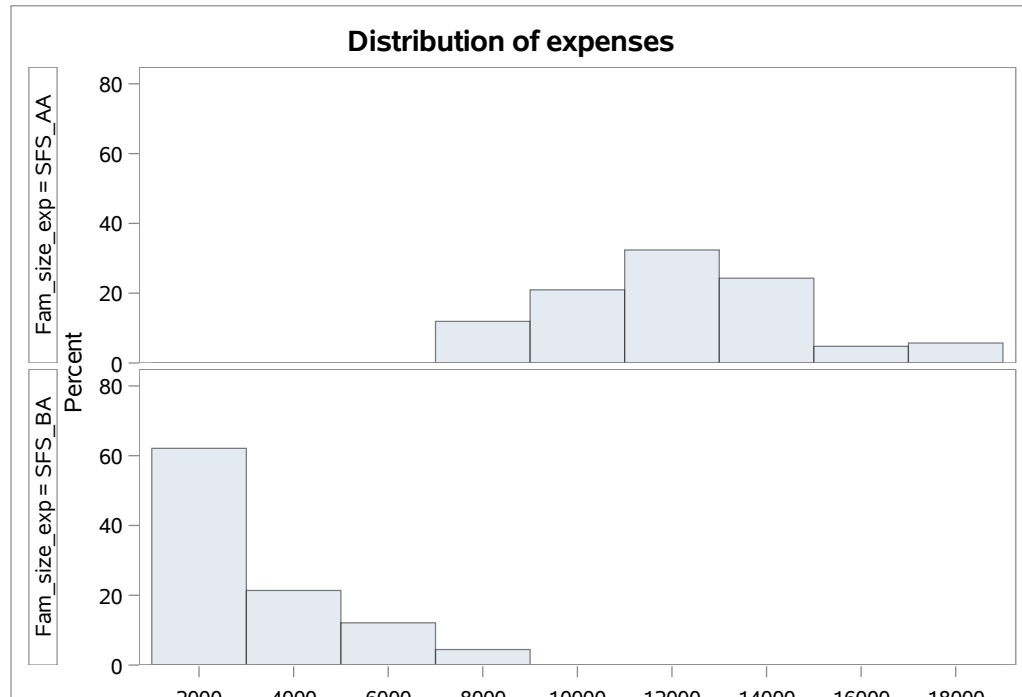
Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
1136.40	54	7448.40	41
1137.01	114	7526.71	86

The UNIVARIATE Procedure

Distribution of expenses



The UNIVARIATE Procedure



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Location		Variability	
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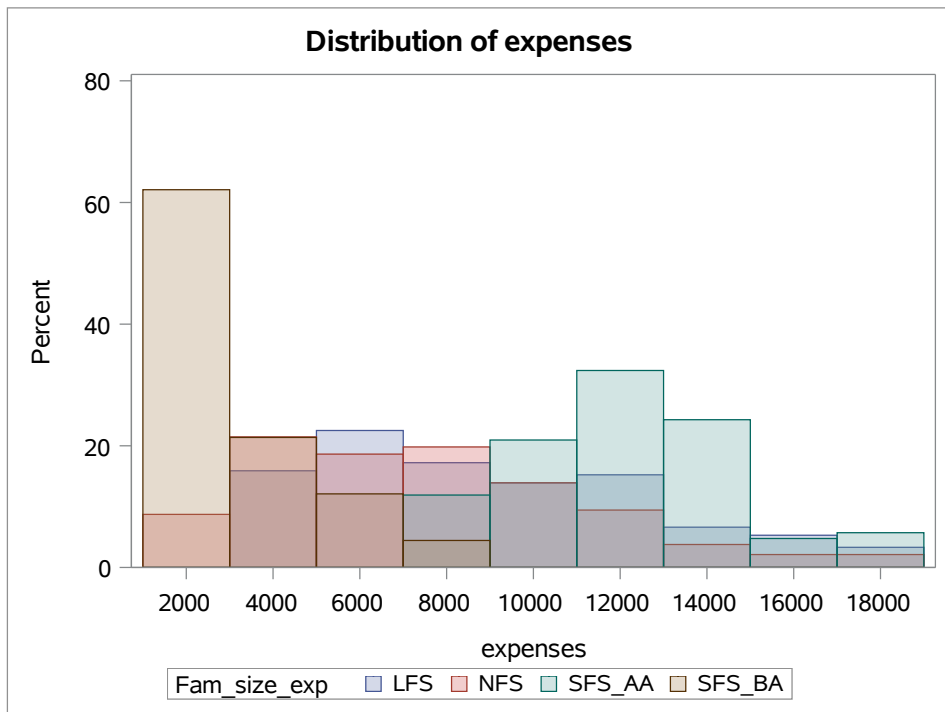
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Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
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1137.01	114	7526.71	86

The UNIVARIATE Procedure



Anova using PROC ANOVA (Family_size-Expense)

The ANOVA Procedure

Class Level Information		
Class	Levels	Values
Fam_size_exp	4	LFS NFS SFS_AA SFS_BA

Number of Observations Read	1035
Number of Observations Used	1033

Anova using PROC ANOVA (Family_size-Expense)

The ANOVA Procedure

Dependent Variable: expenses

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	9731155455	3243718485	342.93	<.0001
Error	1029	9733158676	9458852		
Corrected Total	1032	19464314131			

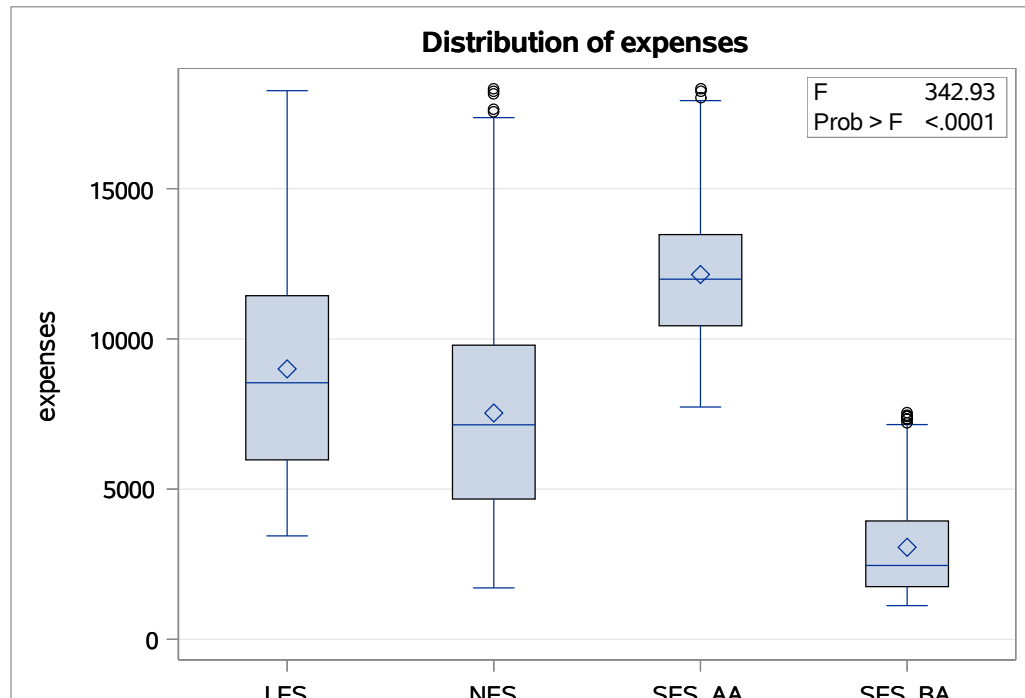
R-Square	Coeff Var	Root MSE	expenses Mean
0.499949	40.40968	3075.525	7610.860

Source	DF	Anova SS	Mean Square	F Value	Pr > F
Fam_size_exp	3	9731155455	3243718485	342.93	<.0001

Anova using PROC ANOVA (Family_size-Expense)

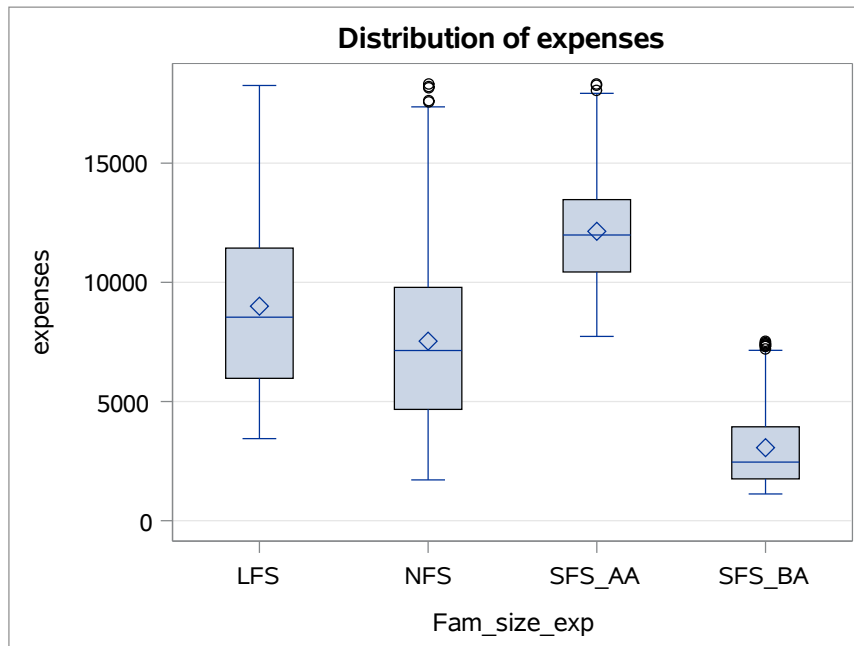
The ANOVA Procedure

Dependent Variable: expenses



Anova using PROC ANOVA (Family_size-Expense)

The ANOVA Procedure



Anova using PROC ANOVA (Family_size-Expense)

The ANOVA Procedure

Scheffe's Test for expenses

Note: This test controls the Type I experimentwise error rate, but it generally has a higher Type II error rate than Tukey's for all pairwise comparisons.

Alpha	0.05
Error Degrees of Freedom	1029
Error Mean Square	9458852
Critical Value of F	2.61355

Anova using PROC ANOVA (Family_size-Expense)

The ANOVA Procedure

Scheffe's Test for expenses

Comparisons significant at the 0.05 level are indicated by ***.				
Fam_size_exp Comparison	Difference Between Means	Simultaneous 95% Confidence Limits		
SFS_AA - LFS	3142.0	2223.1	4060.8	***
SFS_AA - NFS	4609.1	3882.4	5335.8	***
SFS_AA - SFS_BA	9077.3	8269.7	9884.9	***
LFS - SFS_AA	-3142.0	-4060.8	-2223.1	***
LFS - NFS	1467.2	651.0	2283.3	***
LFS - SFS_BA	5935.4	5046.4	6824.3	***
NFS - SFS_AA	-4609.1	-5335.8	-3882.4	***

Anova using PROC ANOVA (Family_size-Expense)

The ANOVA Procedure

Scheffe's Test for expenses

Comparisons significant at the 0.05 level are indicated by ***.				
Fam_size_exp Comparison	Difference Between Means	Simultaneous 95% Confidence Limits		
NFS - LFS	-1467.2	-2283.3	-651.0	***
NFS - SFS_BA	4468.2	3779.7	5156.6	***
SFS_BA - SFS_AA	-9077.3	-9884.9	-8269.7	***
SFS_BA - LFS	-5935.4	-6824.3	-5046.4	***
SFS_BA - NFS	-4468.2	-5156.6	-3779.7	***

Kruskal-Wallis (Family_size-Expense)

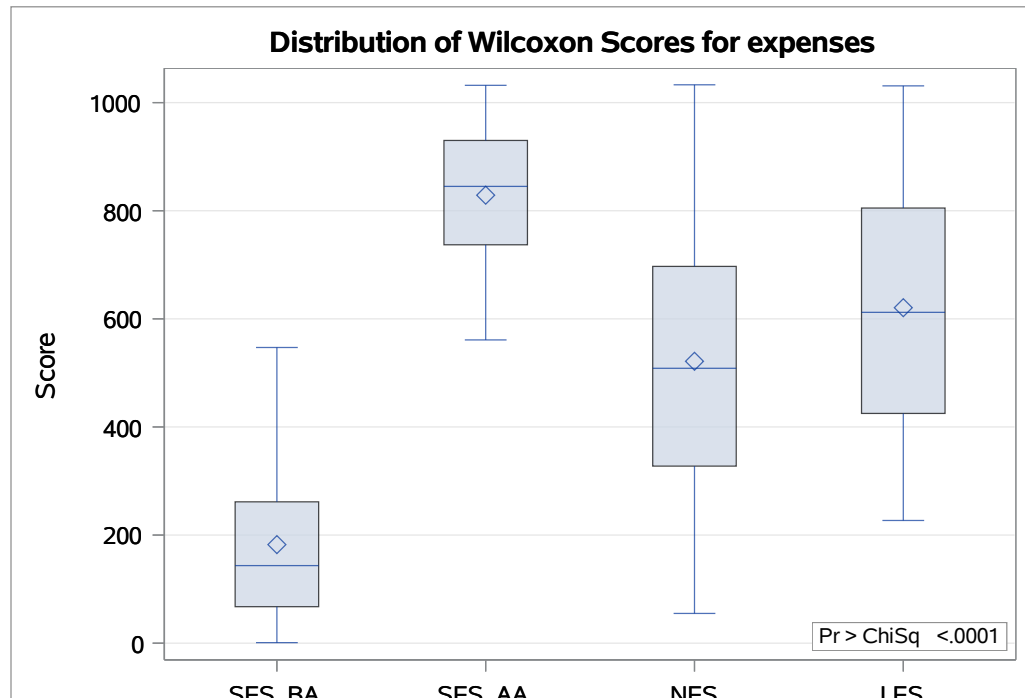
The NPAR1WAY Procedure

Wilcoxon Scores (Rank Sums) for Variable expenses Classified by Variable Fam_size_exp					
Fam_size_exp	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
SFS_BA	248	45214.0	128216.0	4095.72052	182.314516
SFS_AA	210	174034.0	108570.0	3859.03938	828.733333
NFS	424	221102.0	219208.0	4716.94943	521.466981
LFS	151	93711.0	78067.0	3387.60224	620.602649
Average scores were used for ties.					

Kruskal-Wallis Test		
Chi-Square	DF	Pr > ChiSq
559.6675	3	<.0001

Kruskal-Wallis (Family_size-Expense)

The NPAR1WAY Procedure



Kruskal-Wallis (Family_size-Expense)

The NPAR1WAY Procedure

Pairwise Two-Sided Multiple Comparison Analysis			
Dwass, Steel, Critchlow-Fligner Method			
Variable: expenses			
Fam_size_exp	Wilcoxon Z	DSCF Value	Pr > DSCF
SFS_BA vs. SFS_AA	-18.4497	26.0918	<.0001
SFS_BA vs. NFS	-16.5976	23.4725	<.0001
SFS_BA vs. LFS	-14.9079	21.0830	<.0001
SFS_AA vs. NFS	14.3626	20.3117	<.0001
SFS_AA vs. LFS	8.4331	11.9262	<.0001
NFS vs. LFS	-4.1277	5.8374	0.0002