

Simulated Normal Data Descriptive Statistics

The UNIVARIATE Procedure Variable: x

Moments						
N	100	Sum Weights	100			
Mean	12.4602097	Sum Observations	1246.02097			
Std Deviation	2.94209405	Variance	8.65591739			
Skewness	0.05925689	Kurtosis	-0.9004135			
Uncorrected SS	16382.6184	Corrected SS	856.935822			
Coeff Variation	23.6119144	Std Error Mean	0.2942094			

Basic Statistical Measures						
Location Variability						
Mean	12.46021	Std Deviation	2.94209			
Median	12.14701	Variance	8.65592			
Mode		Range	12.16349			
		Interquartile Range	4.61327			

Tests for Location: Mu0=12					
Test	;	Statistic	p Val	lue	
Student's t	t	1.564225	Pr > t	0.1210	
Sign	М	1	Pr >= M	0.9204	
Signed Rank	S	408	Pr >= S	0.1617	

Tests for Normality						
Test	Statistic		Statistic		p Va	lue
Shapiro-Wilk	w	0.975156	Pr < W	0.0555		
Kolmogorov-Smirnov	D	0.064617	Pr > D	>0.1500		

Tests for Normality						
Test	Statistic		Statistic p V		p Val	ue
Cramer-von Mises	W-Sq	0.109169	Pr > W-Sq	0.0870		
Anderson-Darling	A-Sq	0.699067	Pr > A-Sq	0.0696		

Trimmed Means								
Percent Trimmed in Tail	Number Trimmed in Tail	Trimmed Mean	Std Error Trimmed Mean	95% Confid	lence Limits	DF	t for H0: Mu0=12.00	Pr > t
5.00	5	12.47336	0.315312	11.84684	13.09988	89	1.501243	0.1368

Winsorized Means								
Percent Winsorized in Tail	Number Winsorized in Tail	Winsorized Mean	Std Error Winsorized Mean	95% Confid	ence Limits	DF	t for H0: Mu0=12.00	Pr > t
5.00	5	12.49291	0.315489	11.86604	13.11978	89	1.562380	0.1217

Quantiles (Definition 5)				
Level	Quantile			
100% Max	18.08612			
99%	17.83915			
95%	17.34416			
90%	16.52297			
75% Q3	14.85285			
50% Median	12.14701			
25% Q1	10.23958			
10%	8.74043			
5%	7.98849			
1%	6.44255			
0% Min	5.92263			

Extreme Observations					
Lowe	Lowest		st		
Value	Obs	Value	Obs		
5.92263	41	17.3490	71		
6.96247	17	17.4432	68		
7.12506	13	17.5190	83		
7.44037	9	17.5922	59		
7.97850	5	18.0861	100		

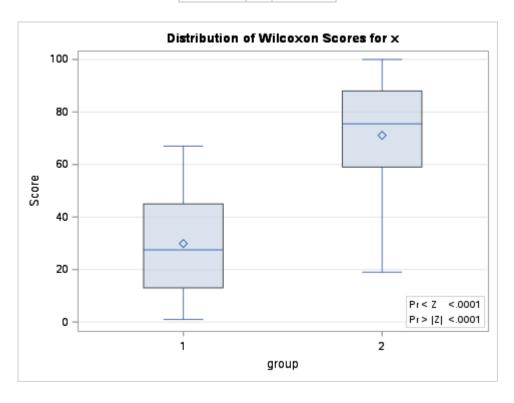
Simulated Normal Data Nonparametric Test of Hypothesis

The NPAR1WAY Procedure

Wilcoxon Scores (Rank Sums) for Variable x Classified by Variable group					
group	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
1	50	1495.0	2525.0	145.057460	29.90
2	50	3555.0	2525.0	145.057460	71.10

Wilcoxon Two-Sample Test						
				t Appro	ximation	
Statistic	Z	Pr < Z	Pr > Z	Pr < Z	Pr > Z	
1495.000	-7.0972	<.0001	<.0001	<.0001	<.0001	
Z includes a continuity correction of 0.5.						

Kruskal-Wallis Test						
Chi-Square	DF	Pr > ChiSq				
50.4190	1	<.0001				

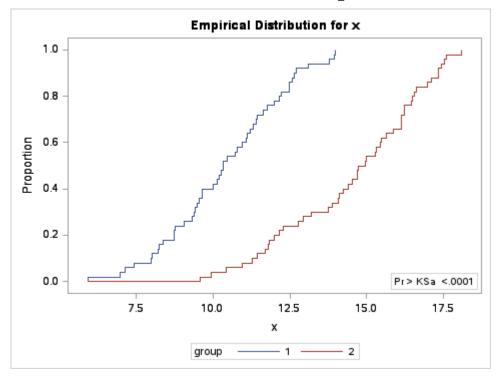


Simulated Normal Data Nonparametric Test of Hypothesis

The NPAR1WAY Procedure

Kolmogorov-Smirnov Test for Variable x Classified by Variable group							
group N Maximum at Maximum							
1	50	0.920	2.404163				
2	50	0.240	-2.404163				
Total	100	0.580					
Maxim	um De	viation Occu	rred at Observation 4				
	/alue c	of x at Maxim	um = 12.706414				

Kolmogorov-Smirnov Two-Sample Test (Asymptotic)					
KS	0.340000	D	0.680000		
KSa	3.400000	Pr > KSa	<.0001		



Cramer-von Mises Test for Variable x Classified by Variable group					
group	N	Summed Deviation from Mean			
1	50	2.61950			
2	50	2.61950			

Cramer-von Mises Statistics (Asymptotic)					
СМ	0.052390	СМа	5.239000		

Kuiper Test for Variable x Classified by Variable group					
group	N	Deviation from Mean			
1	50	0.680			
2	50	0.000			

	Kuiper Two-Sample Test (Asymptotic)					
Г	K	0.680000	Ka	3.400000	Pr > Ka	<.0001

Simulated Normal Data T Test

The TTEST Procedure

Variable: x

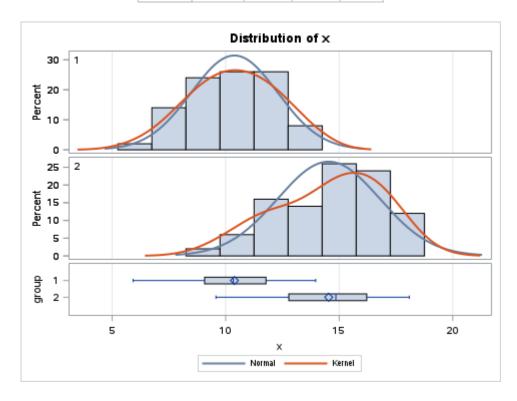
group	Method	N	Mean	Std Dev	Std Err	Minimum	Maximum
1		50	10.3841	1.9045	0.2693	5.9226	13.9623
2		50	14.5363	2.2506	0.3183	9.5706	18.0861
Diff (1-2)	Pooled		-4.1522	2.0848	0.4170		

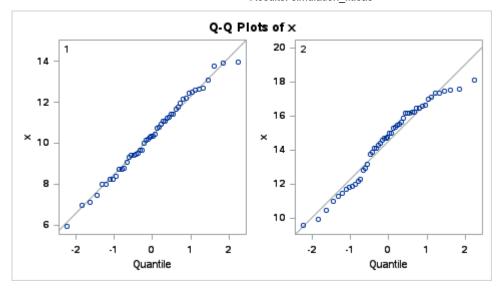
group	Method	N	Mean	Std Dev	Std Err	Minimum	Maximum
Diff (1-2)	Satterthwaite		-4.1522		0.4170		

group	Method	Mean	95% CL Mean		Std Dev	95% CL Std De	
1		10.3841	9.8429	10.9254	1.9045	1.5909	2.3733
2		14.5363	13.8967	15.1759	2.2506	1.8800	2.8045
Diff (1-2)	Pooled	-4.1522	-4.9796	-3.3247	2.0848	1.8293	2.4238
Diff (1-2)	Satterthwaite	-4.1522	-4.9799	-3.3244			

Method	Variances	DF	t Value	Pr > t
Pooled	Equal	98	-9.96	<.0001
Satterthwaite	Unequal	95.389	-9.96	<.0001

Equality of Variances							
Method	Num DF	Den DF	F Value	Pr > F			
Folded F	49	49	1.40	0.2460			





Simulated Normal Data Fit for 2 populations

The UNIVARIATE Procedure Variable: x group = 1

Moments							
N	50	Sum Weights	50				
Mean	10.3841322	Sum Observations	519.206609				
Std Deviation	1.90451203	Variance	3.62716608				
Skewness	-0.1124457	Kurtosis	-0.4842555				
Uncorrected SS	5569.2412	Corrected SS	177.731138				
Coeff Variation	18.3405989	Std Error Mean	0.26933867				

	Basic Statistical Measures				
Loc	Location Variability				
Mean	10.38413	Std Deviation 1.904			
Median	10.33846	Variance	3.62717		
Mode		Range	8.03966		
		Interquartile Range	2.70316		

Tests for Location: Mu0=0						
Test	Statistic p Value					
Student's t	t 38.55418		Pr > t	<.0001		
Sign	М	25	Pr >= M	<.0001		
Signed Rank	S	637.5	Pr >= S	<.0001		

Tests for Normality						
Test	Statistic p Value					
Shapiro-Wilk	W 0.988044		Pr < W	0.8902		
Kolmogorov-Smirnov	D	0.050155	Pr > D	>0.1500		
Cramer-von Mises	W-Sq	0.017453	Pr > W-Sq	>0.2500		
Anderson-Darling	A-Sq	0.133878	Pr > A-Sq	>0.2500		

Quantiles (Definition 5)				
Level	Quantile			
100% Max	13.96229			
99%	13.96229			
95%	13.79606			
90%	12.67266			
75% Q3	11.77567			
50% Median	10.33846			
25% Q1	9.07251			
10%	7.98849			
5%	7.12506			
1%	5.92263			
0% Min	5.92263			

Extreme Observations					
Lowe	st	Highest			
Value	Obs	Value	Obs		
5.92263	41	12.7064	4		
6.96247	17	13.1010	12		
7.12506	13	13.7961	39		
7.44037	9	13.9439	48		
7.97850	5	13.9623	42		

Simulated Normal Data Fit for 2 populations

The UNIVARIATE Procedure

Variable: x

group = 2

Moments					
N	50	Sum Weights	50		
Mean	14.5362872	Sum Observations	726.814361		
Std Deviation	2.25060036	Variance	5.06520199		
Skewness	-0.4772372	Kurtosis	-0.7540461		
Uncorrected SS	10813.3772	Corrected SS	248.194897		
Coeff Variation	15.4826355	Std Error Mean	0.31828296		

Basic Statistical Measures				
Location Variability				
Mean	14.53629	Std Deviation 2.250		
Median	14.85285	Variance	5.06520	
Mode		Range	8.51556	
		Interquartile Range	3.43287	

Tests for Location: Mu0=0						
Test	Statistic p Value			lue		
Student's t	t 45.67096		Pr > t	<.0001		
Sign	М	25	Pr >= M	<.0001		
Signed Rank	S	637.5	Pr >= S	<.0001		

Tests for Normality						
Test	St	lue				
Shapiro-Wilk	W 0.951877		Pr < W	0.0408		
Kolmogorov-Smirnov	D	0.102238	Pr > D	>0.1500		
Cramer-von Mises	W-Sq	0.123198	Pr > W-Sq	0.0536		
Anderson-Darling	A-Sq	0.760834	Pr > A-Sq	0.0457		

Quantiles (Definition 5)			
Level	Quantile		
100% Max	18.08612		
99%	18.08612		
95%	17.51898		
90%	17.34416		
75% Q3	16.21302		
50% Median	14.85285		
25% Q1	12.78015		
10%	11.36041		
5%	10.42575		
1%	9.57056		
0% Min	9.57056		

Extreme Observations					
Lowes	st	Highest			
Value	Obs	Value	Obs		
9.57056	67	17.3490	71		
9.93099	88	17.4432	68		
10.42575	99	17.5190	83		
10.96145	55	17.5922	59		
11.27306	87	18.0861	100		