

**The UNIVARIATE Procedure**  
**Variable: i**

Moments			
<b>N</b>	1000	<b>Sum Weights</b>	1000
<b>Mean</b>	500.5	<b>Sum Observations</b>	500500
<b>Std Deviation</b>	288.819436	<b>Variance</b>	83416.6667
<b>Skewness</b>	0	<b>Kurtosis</b>	-1.2
<b>Uncorrected SS</b>	333833500	<b>Corrected SS</b>	83333250
<b>Coeff Variation</b>	57.706181	<b>Std Error Mean</b>	9.13327251

Basic Statistical Measures			
Location		Variability	
<b>Mean</b>	500.5000	<b>Std Deviation</b>	288.81944
<b>Median</b>	500.5000	<b>Variance</b>	83417
<b>Mode</b>	.	<b>Range</b>	999.00000
		<b>Interquartile Range</b>	500.00000

Tests for Location: $\mu_0=0$				
Test	Statistic		p Value	
<b>Student's t</b>	t	54.79964	<b>Pr &gt;  t </b>	<.0001
<b>Sign</b>	M	500	<b>Pr &gt;=  M </b>	<.0001
<b>Signed Rank</b>	S	250250	<b>Pr &gt;=  S </b>	<.0001

Quantiles (Definition 5)	
Quantile	Estimate
<b>100% Max</b>	1000.0
<b>99%</b>	990.5
<b>95%</b>	950.5
<b>90%</b>	900.5
<b>75% Q3</b>	750.5
<b>50% Median</b>	500.5
<b>25% Q1</b>	250.5
<b>10%</b>	100.5
<b>5%</b>	50.5

*The UNIVARIATE Procedure*  
*Variable: i*

Quantiles (Definition 5)	
Quantile	Estimate
1%	10.5
0% Min	1.0

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
1	1	996	996
2	2	997	997
3	3	998	998
4	4	999	999
5	5	1000	1000

**The UNIVARIATE Procedure**  
Variable: *y*

Moments			
N	1000	Sum Weights	1000
Mean	-0.0185173	Sum Observations	-18.517283
Std Deviation	1.01225684	Variance	1.0246639
Skewness	0.01654448	Kurtosis	-0.0006979
Uncorrected SS	1023.98213	Corrected SS	1023.63924
Coeff Variation	-5466.5516	Std Error Mean	0.03201037

Basic Statistical Measures			
Location		Variability	
Mean	-0.01852	Std Deviation	1.01226
Median	-0.05889	Variance	1.02466
Mode	.	Range	6.24608
		Interquartile Range	1.37638

Tests for Location: $\mu_0=0$				
Test	Statistic		p Value	
Student's t	t	-0.57848	Pr >  t	0.5631
Sign	M	-23	Pr >=  M	0.1547
Signed Rank	S	-6725	Pr >=  S	0.4619

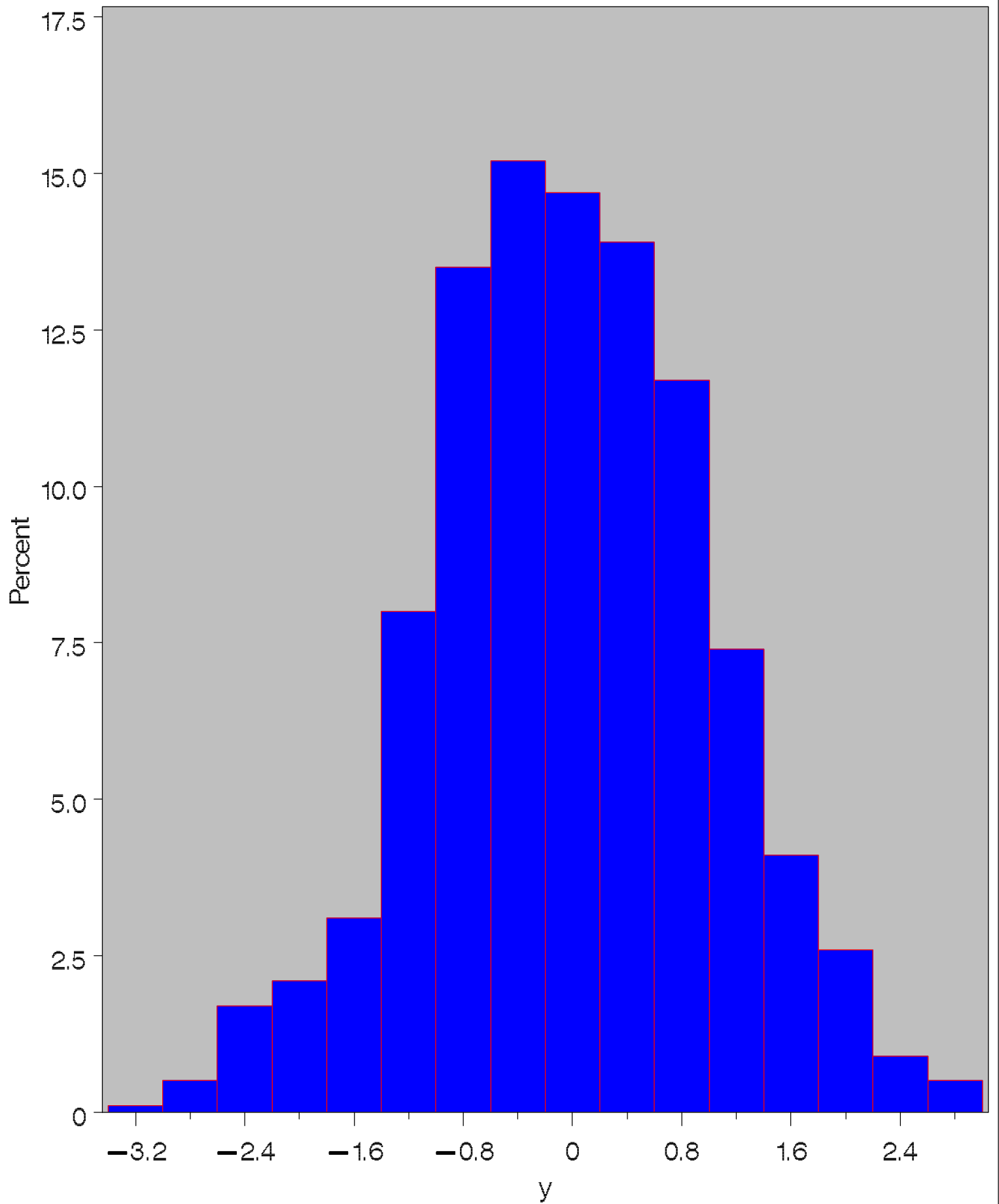
Quantiles (Definition 5)	
Quantile	Estimate
100% Max	2.9653103
99%	2.2950713
95%	1.6926191
90%	1.3263555
75% Q3	0.6631985
50% Median	-0.0588857
25% Q1	-0.7131772
10%	-1.2274825
5%	-1.6937232

*The UNIVARIATE Procedure*  
*Variable: y*

Quantiles (Definition 5)	
Quantile	Estimate
1%	-2.4739341
0% Min	-3.2807675

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
-3.28077	707	2.60680	95
-2.91151	381	2.63094	720
-2.78087	113	2.72993	767
-2.77610	548	2.92015	370
-2.66567	142	2.96531	415

# Scoring systems comparison



**The UNIVARIATE Procedure**  
**Variable: i**

Moments			
N	1000	Sum Weights	1000
Mean	500.5	Sum Observations	500500
Std Deviation	288.819436	Variance	83416.6667
Skewness	0	Kurtosis	-1.2
Uncorrected SS	333833500	Corrected SS	83333250
Coeff Variation	57.706181	Std Error Mean	9.13327251

Basic Statistical Measures			
Location		Variability	
Mean	500.5000	Std Deviation	288.81944
Median	500.5000	Variance	83417
Mode	.	Range	999.00000
		Interquartile Range	500.00000

Tests for Location: $\mu_0=0$				
Test	Statistic		p Value	
Student's t	t	54.79964	Pr >  t	<.0001
Sign	M	500	Pr >=  M	<.0001
Signed Rank	S	250250	Pr >=  S	<.0001

Quantiles (Definition 5)	
Quantile	Estimate
100% Max	1000.0
99%	990.5
95%	950.5
90%	900.5
75% Q3	750.5
50% Median	500.5
25% Q1	250.5
10%	100.5
5%	50.5

*The UNIVARIATE Procedure*  
*Variable: i*

Quantiles (Definition 5)	
Quantile	Estimate
1%	10.5
0% Min	1.0

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
1	1	996	996
2	2	997	997
3	3	998	998
4	4	999	999
5	5	1000	1000

**The UNIVARIATE Procedure**

**Variable: y**

Moments			
<b>N</b>	1000	<b>Sum Weights</b>	1000
<b>Mean</b>	-0.0185173	<b>Sum Observations</b>	-18.517283
<b>Std Deviation</b>	1.01225684	<b>Variance</b>	1.0246639
<b>Skewness</b>	0.01654448	<b>Kurtosis</b>	-0.0006979
<b>Uncorrected SS</b>	1023.98213	<b>Corrected SS</b>	1023.63924
<b>Coeff Variation</b>	-5466.5516	<b>Std Error Mean</b>	0.03201037

Basic Statistical Measures			
Location		Variability	
<b>Mean</b>	-0.01852	<b>Std Deviation</b>	1.01226
<b>Median</b>	-0.05889	<b>Variance</b>	1.02466
<b>Mode</b>	.	<b>Range</b>	6.24608
		<b>Interquartile Range</b>	1.37638

Tests for Location: $\mu_0=0$				
Test	Statistic		p Value	
<b>Student's t</b>	t	-0.57848	<b>Pr &gt;  t </b>	0.5631
<b>Sign</b>	M	-23	<b>Pr &gt;=  M </b>	0.1547
<b>Signed Rank</b>	S	-6725	<b>Pr &gt;=  S </b>	0.4619

Quantiles (Definition 5)	
Quantile	Estimate
<b>100% Max</b>	2.9653103
<b>99%</b>	2.2950713
<b>95%</b>	1.6926191
<b>90%</b>	1.3263555
<b>75% Q3</b>	0.6631985
<b>50% Median</b>	-0.0588857
<b>25% Q1</b>	-0.7131772
<b>10%</b>	-1.2274825
<b>5%</b>	-1.6937232



*The UNIVARIATE Procedure*  
*Variable: y*

Quantiles (Definition 5)	
Quantile	Estimate
1%	-2.4739341
0% Min	-3.2807675

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
-3.28077	707	2.60680	95
-2.91151	381	2.63094	720
-2.78087	113	2.72993	767
-2.77610	548	2.92015	370
-2.66567	142	2.96531	415

**The UNIVARIATE Procedure**  
**Variable: ry (Rank for Variable y)**

Moments			
N	1000	Sum Weights	1000
Mean	500.5	Sum Observations	500500
Std Deviation	288.819436	Variance	83416.6667
Skewness	0	Kurtosis	-1.2
Uncorrected SS	333833500	Corrected SS	83333250
Coeff Variation	57.706181	Std Error Mean	9.13327251

Basic Statistical Measures			
Location		Variability	
Mean	500.5000	Std Deviation	288.81944
Median	500.5000	Variance	83417
Mode	.	Range	999.00000
		Interquartile Range	500.00000

Tests for Location: $\mu_0=0$				
Test	Statistic		p Value	
Student's t	t	54.79964	Pr >  t	<.0001
Sign	M	500	Pr >=  M	<.0001
Signed Rank	S	250250	Pr >=  S	<.0001

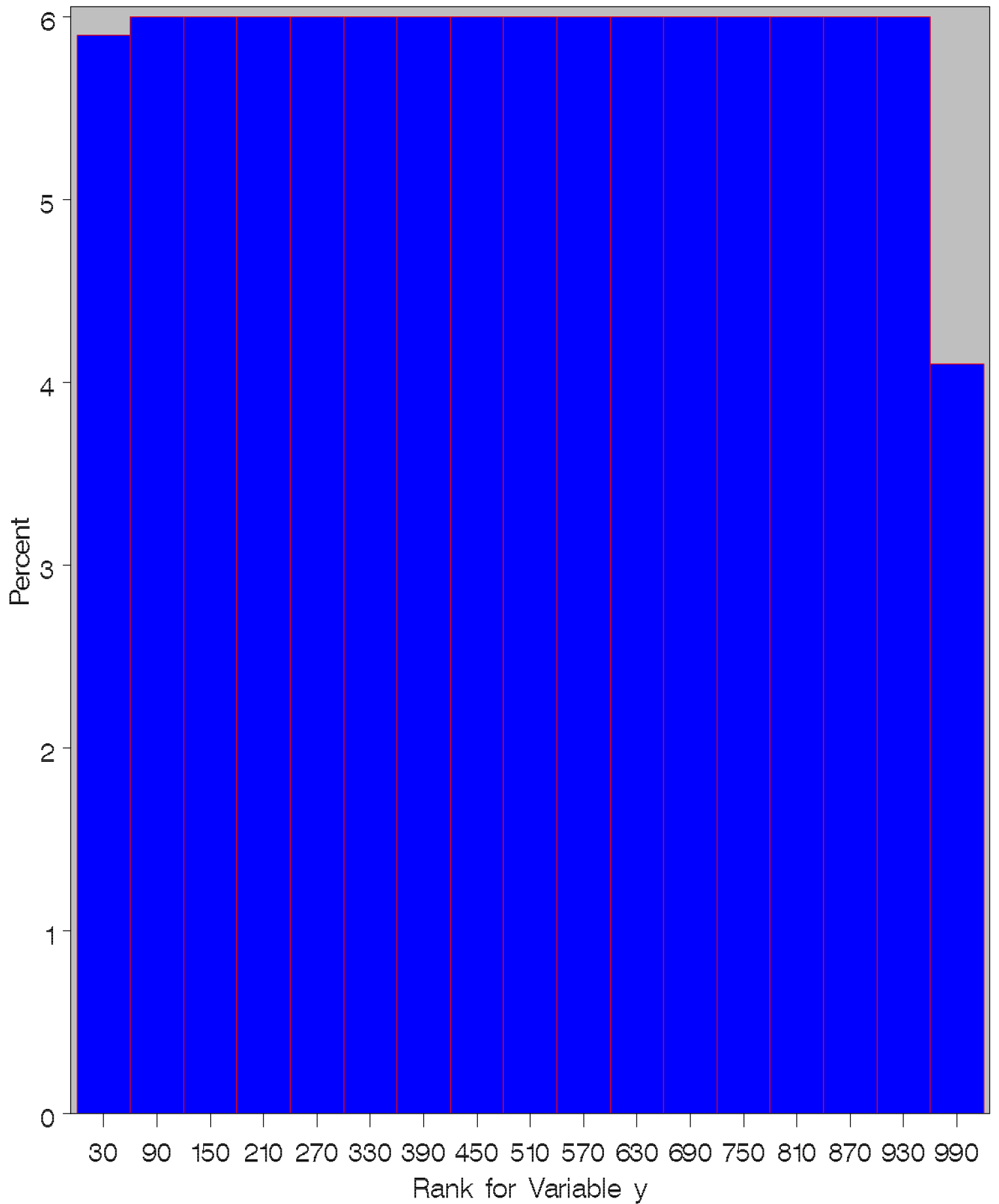
Quantiles (Definition 5)	
Quantile	Estimate
100% Max	1000.0
99%	990.5
95%	950.5
90%	900.5
75% Q3	750.5
50% Median	500.5
25% Q1	250.5
10%	100.5
5%	50.5

***The UNIVARIATE Procedure***  
***Variable: ry (Rank for Variable y)***

Quantiles (Definition 5)	
Quantile	Estimate
1%	10.5
0% Min	1.0

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
1	707	996	95
2	381	997	720
3	113	998	767
4	548	999	370
5	142	1000	415

# Scoring systems comparison



**The UNIVARIATE Procedure**  
**Variable: i**

Moments			
<b>N</b>	1000	<b>Sum Weights</b>	1000
<b>Mean</b>	500.5	<b>Sum Observations</b>	500500
<b>Std Deviation</b>	288.819436	<b>Variance</b>	83416.6667
<b>Skewness</b>	0	<b>Kurtosis</b>	-1.2
<b>Uncorrected SS</b>	333833500	<b>Corrected SS</b>	83333250
<b>Coeff Variation</b>	57.706181	<b>Std Error Mean</b>	9.13327251

Basic Statistical Measures			
Location		Variability	
<b>Mean</b>	500.5000	<b>Std Deviation</b>	288.81944
<b>Median</b>	500.5000	<b>Variance</b>	83417
<b>Mode</b>	.	<b>Range</b>	999.00000
		<b>Interquartile Range</b>	500.00000

Tests for Location: $\mu_0=0$				
Test	Statistic		p Value	
<b>Student's t</b>	t	54.79964	<b>Pr &gt;  t </b>	<.0001
<b>Sign</b>	M	500	<b>Pr &gt;=  M </b>	<.0001
<b>Signed Rank</b>	S	250250	<b>Pr &gt;=  S </b>	<.0001

Quantiles (Definition 5)	
Quantile	Estimate
<b>100% Max</b>	1000.0
<b>99%</b>	990.5
<b>95%</b>	950.5
<b>90%</b>	900.5
<b>75% Q3</b>	750.5
<b>50% Median</b>	500.5
<b>25% Q1</b>	250.5
<b>10%</b>	100.5
<b>5%</b>	50.5

*The UNIVARIATE Procedure*  
*Variable: i*

Quantiles (Definition 5)	
Quantile	Estimate
1%	10.5
0% Min	1.0

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
1	1	996	996
2	2	997	997
3	3	998	998
4	4	999	999
5	5	1000	1000

**The UNIVARIATE Procedure**  
Variable: *y*

Moments			
N	1000	Sum Weights	1000
Mean	-0.0185173	Sum Observations	-18.517283
Std Deviation	1.01225684	Variance	1.0246639
Skewness	0.01654448	Kurtosis	-0.0006979
Uncorrected SS	1023.98213	Corrected SS	1023.63924
Coeff Variation	-5466.5516	Std Error Mean	0.03201037

Basic Statistical Measures			
Location		Variability	
Mean	-0.01852	Std Deviation	1.01226
Median	-0.05889	Variance	1.02466
Mode	.	Range	6.24608
		Interquartile Range	1.37638

Tests for Location: $\mu_0=0$				
Test	Statistic		p Value	
Student's t	t	-0.57848	Pr >  t	0.5631
Sign	M	-23	Pr >=  M	0.1547
Signed Rank	S	-6725	Pr >=  S	0.4619

Quantiles (Definition 5)	
Quantile	Estimate
100% Max	2.9653103
99%	2.2950713
95%	1.6926191
90%	1.3263555
75% Q3	0.6631985
50% Median	-0.0588857
25% Q1	-0.7131772
10%	-1.2274825
5%	-1.6937232

*The UNIVARIATE Procedure*  
*Variable: y*

Quantiles (Definition 5)	
Quantile	Estimate
1%	-2.4739341
0% Min	-3.2807675

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
-3.28077	707	2.60680	95
-2.91151	381	2.63094	720
-2.78087	113	2.72993	767
-2.77610	548	2.92015	370
-2.66567	142	2.96531	415



**The UNIVARIATE Procedure**  
**Variable: vwy (Rank for Variable y)**

Moments			
N	1000	Sum Weights	1000
Mean	0	Sum Observations	0
Std Deviation	0.99449683	Variance	0.98902394
Skewness	0	Kurtosis	-0.0928236
Uncorrected SS	988.03492	Corrected SS	988.03492
Coeff Variation	.	Std Error Mean	0.03144875

Basic Statistical Measures			
Location		Variability	
Mean	0	Std Deviation	0.99450
Median	6.95E-17	Variance	0.98902
Mode	.	Range	6.18106
		Interquartile Range	1.34741

Tests for Location: $\mu_0=0$				
Test	Statistic		p Value	
Student's t	t	0	Pr >  t	1.0000
Sign	M	0	Pr >=  M	1.0000
Signed Rank	S	0	Pr >=  S	1.0000

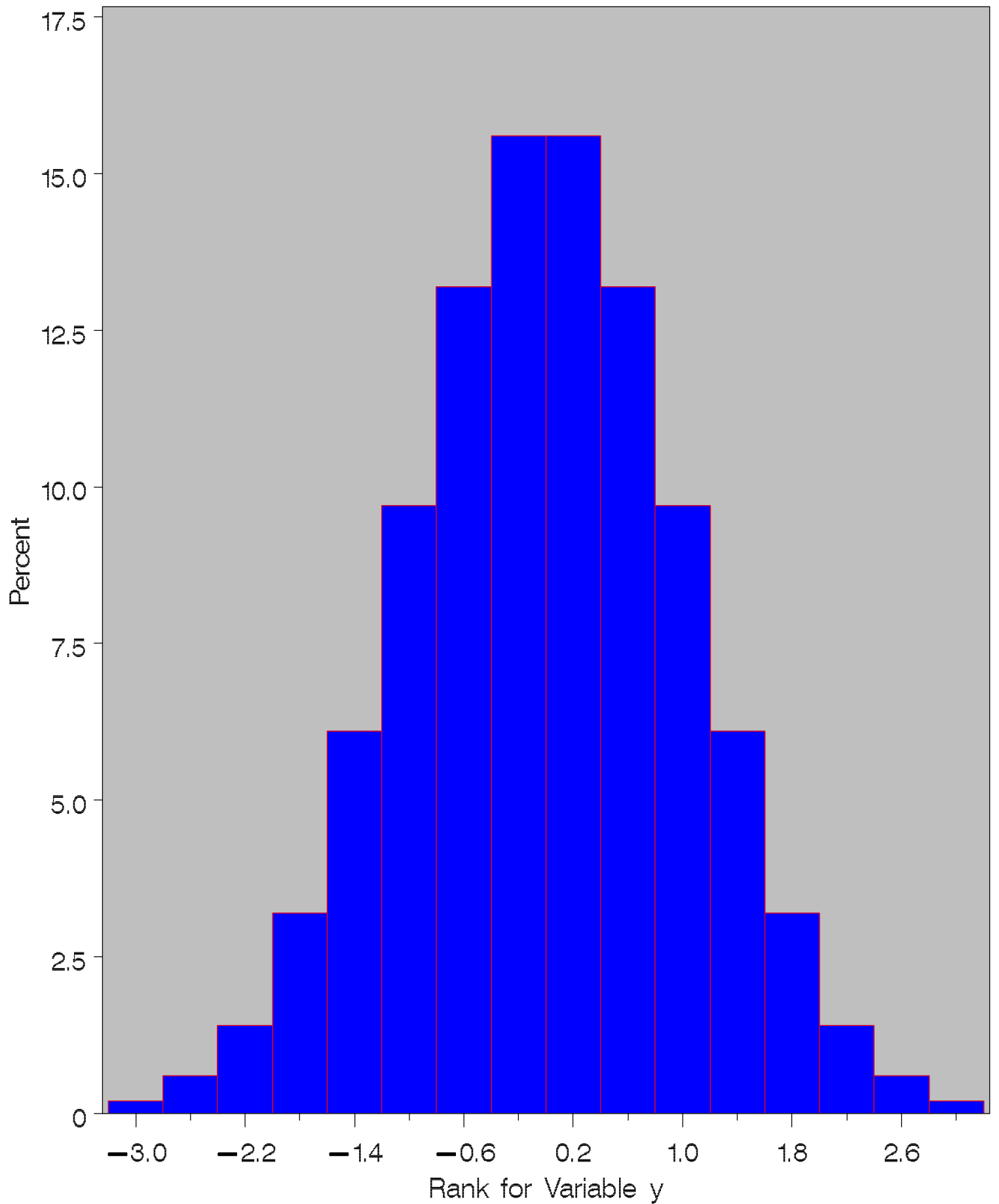
Quantiles (Definition 5)	
Quantile	Estimate
100% Max	3.090529
99%	2.308735
95%	1.640529
90%	1.279283
75% Q3	0.673705
50% Median	0.000000
25% Q1	-0.673705
10%	-1.279283
5%	-1.640529

***The UNIVARIATE Procedure***  
***Variable: vwy (Rank for Variable y)***

<b>Quantiles (Definition 5)</b>	
<b>Quantile</b>	<b>Estimate</b>
<b>1%</b>	-2.308735
<b>0% Min</b>	-3.090529

<b>Extreme Observations</b>			
<b>Lowest</b>		<b>Highest</b>	
<b>Value</b>	<b>Obs</b>	<b>Value</b>	<b>Obs</b>
-3.09053	707	2.57617	95
-2.87848	381	2.65241	720
-2.74811	113	2.74811	767
-2.65241	548	2.87848	370
-2.57617	142	3.09053	415

# Scoring systems comparison



**The UNIVARIATE Procedure**  
**Variable: i**

Moments			
N	1000	Sum Weights	1000
Mean	500.5	Sum Observations	500500
Std Deviation	288.819436	Variance	83416.6667
Skewness	0	Kurtosis	-1.2
Uncorrected SS	333833500	Corrected SS	83333250
Coeff Variation	57.706181	Std Error Mean	9.13327251

Basic Statistical Measures			
Location		Variability	
Mean	500.5000	Std Deviation	288.81944
Median	500.5000	Variance	83417
Mode	.	Range	999.00000
		Interquartile Range	500.00000

Tests for Location: $\mu_0=0$				
Test	Statistic		p Value	
Student's t	t	54.79964	Pr >  t	<.0001
Sign	M	500	Pr >=  M	<.0001
Signed Rank	S	250250	Pr >=  S	<.0001

Quantiles (Definition 5)	
Quantile	Estimate
100% Max	1000.0
99%	990.5
95%	950.5
90%	900.5
75% Q3	750.5
50% Median	500.5
25% Q1	250.5
10%	100.5
5%	50.5

*The UNIVARIATE Procedure*  
*Variable: i*

Quantiles (Definition 5)	
Quantile	Estimate
1%	10.5
0% Min	1.0

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
1	1	996	996
2	2	997	997
3	3	998	998
4	4	999	999
5	5	1000	1000

**The UNIVARIATE Procedure**  
**Variable: y**

Moments			
<b>N</b>	1000	<b>Sum Weights</b>	1000
<b>Mean</b>	-0.0185173	<b>Sum Observations</b>	-18.517283
<b>Std Deviation</b>	1.01225684	<b>Variance</b>	1.0246639
<b>Skewness</b>	0.01654448	<b>Kurtosis</b>	-0.0006979
<b>Uncorrected SS</b>	1023.98213	<b>Corrected SS</b>	1023.63924
<b>Coeff Variation</b>	-5466.5516	<b>Std Error Mean</b>	0.03201037

Basic Statistical Measures			
Location		Variability	
<b>Mean</b>	-0.01852	<b>Std Deviation</b>	1.01226
<b>Median</b>	-0.05889	<b>Variance</b>	1.02466
<b>Mode</b>	.	<b>Range</b>	6.24608
		<b>Interquartile Range</b>	1.37638

Tests for Location: $\mu_0=0$				
Test	Statistic		p Value	
<b>Student's t</b>	t	-0.57848	<b>Pr &gt;  t </b>	0.5631
<b>Sign</b>	M	-23	<b>Pr &gt;=  M </b>	0.1547
<b>Signed Rank</b>	S	-6725	<b>Pr &gt;=  S </b>	0.4619

Quantiles (Definition 5)	
Quantile	Estimate
<b>100% Max</b>	2.9653103
<b>99%</b>	2.2950713
<b>95%</b>	1.6926191
<b>90%</b>	1.3263555
<b>75% Q3</b>	0.6631985
<b>50% Median</b>	-0.0588857
<b>25% Q1</b>	-0.7131772
<b>10%</b>	-1.2274825
<b>5%</b>	-1.6937232

**The UNIVARIATE Procedure**  
**Variable: y**

Quantiles (Definition 5)	
Quantile	Estimate
1%	-2.4739341
0% Min	-3.2807675

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
-3.28077	707	2.60680	95
-2.91151	381	2.63094	720
-2.78087	113	2.72993	767
-2.77610	548	2.92015	370
-2.66567	142	2.96531	415

**The UNIVARIATE Procedure**  
**Variable: savagey (Rank for Variable y)**

Moments			
N	1000	Sum Weights	1000
Mean	0	Sum Observations	0
Std Deviation	0.99674873	Variance	0.99350804
Skewness	1.9397469	Kurtosis	5.24998382
Uncorrected SS	992.514529	Corrected SS	992.514529
Coeff Variation	.	Std Error Mean	0.03151996

Basic Statistical Measures			
Location		Variability	
Mean	0.00000	Std Deviation	0.99675
Median	-0.30635	Variance	0.99351
Mode	.	Range	7.48447
		Interquartile Range	1.09861

Tests for Location: $\mu_0=0$				
Test	Statistic		p Value	
Student's t	t	0	Pr >  t	1.0000
Sign	M	-132	Pr >=  M	<.0001
Signed Rank	S	-46922	Pr >=  S	<.0001

Quantiles (Definition 5)	
Quantile	Estimate
100% Max	6.485471
99%	3.606503
95%	1.996266
90%	1.303093
75% Q3	0.386796
50% Median	-0.306353
25% Q1	-0.711818
10%	-0.894139
5%	-0.948207

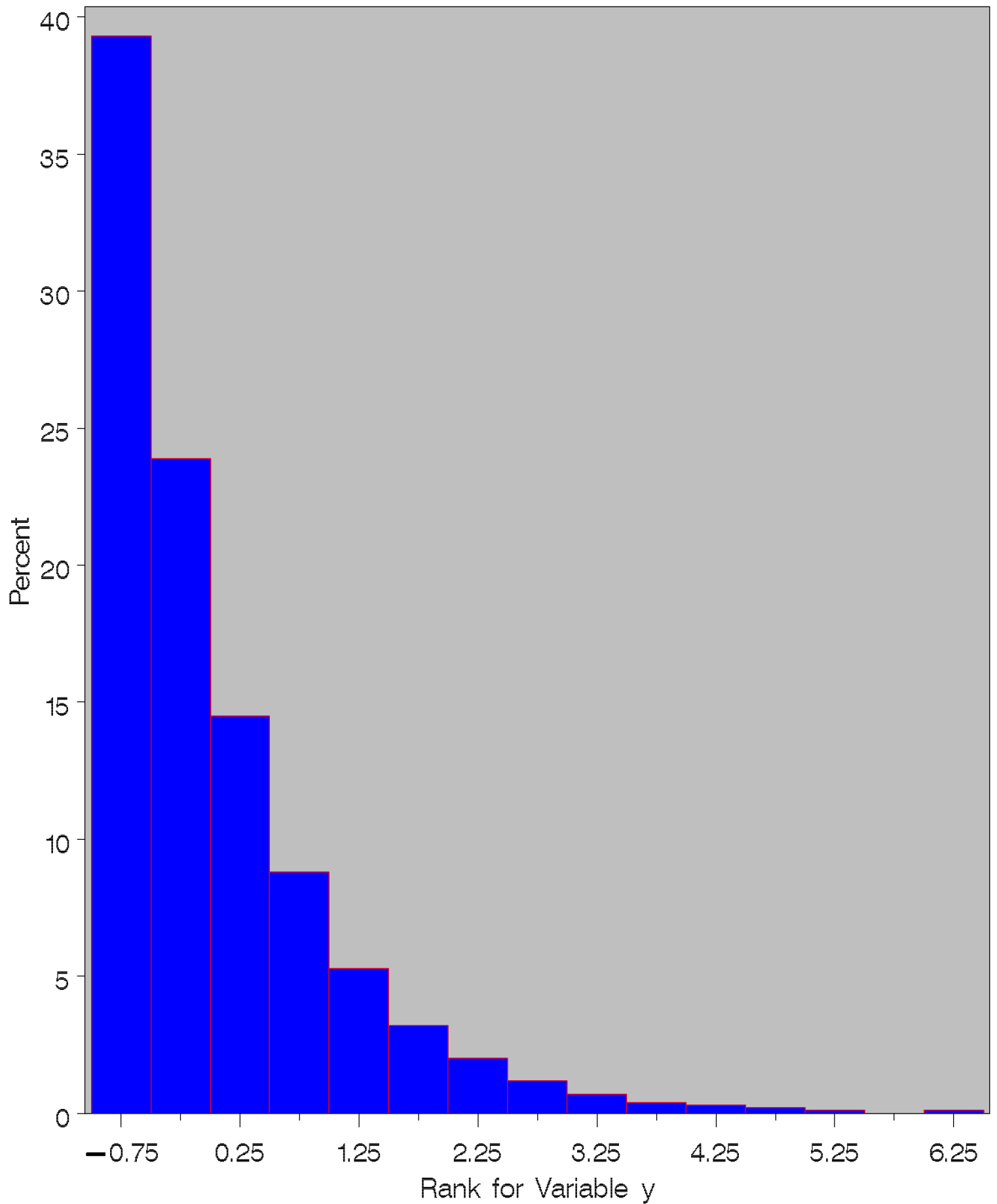


***The UNIVARIATE Procedure***  
***Variable: savagey (Rank for Variable y)***

<b>Quantiles (Definition 5)</b>	
<b>Quantile</b>	<b>Estimate</b>
<b>1%</b>	-0.989450
<b>0% Min</b>	-0.999000

<b>Extreme Observations</b>			
<b>Lowest</b>		<b>Highest</b>	
<b>Value</b>	<b>Obs</b>	<b>Value</b>	<b>Obs</b>
-0.999000	707	4.40214	95
-0.997999	381	4.65214	720
-0.996997	113	4.98547	767
-0.995994	548	5.48547	370
-0.994990	142	6.48547	415

# Scoring systems comparison



Obs	group	y
1	1	0.55
2	1	0.67
3	1	0.63
4	1	0.79
5	1	0.81
6	1	0.85
7	1	0.68
8	2	0.65
9	2	0.59
10	2	0.44
11	2	0.60
12	2	0.47
13	2	0.58
14	2	0.66
15	2	0.52
16	2	0.51

***The NPAR1WAY Procedure***

<b>Wilcoxon Scores (Rank Sums) for Variable y Classified by Variable group</b>					
<b>group</b>	<b>N</b>	<b>Sum of Scores</b>	<b>Expected Under H0</b>	<b>Std Dev Under H0</b>	<b>Mean Score</b>
<b>1</b>	7	84.0	59.50	9.447222	12.000000
<b>2</b>	9	52.0	76.50	9.447222	5.777778

<b>Wilcoxon Two-Sample Test</b>	
<b>Statistic (S)</b>	84.0000
<b>Normal Approximation</b>	
<b>Z</b>	2.5404
<b>One-Sided Pr &gt; Z</b>	0.0055
<b>Two-Sided Pr &gt;  Z </b>	0.0111
<b>t Approximation</b>	
<b>One-Sided Pr &gt; Z</b>	0.0113
<b>Two-Sided Pr &gt;  Z </b>	0.0226
<b>Z includes a continuity correction of 0.5.</b>	

<b>Monte Carlo Estimates for the Exact Test</b>	
<b>One-Sided Pr &gt;= S</b>	
<b>Estimate</b>	0.0040
<b>99% Lower Conf Limit</b>	3.636E-04
<b>99% Upper Conf Limit</b>	0.0076
<b>Two-Sided Pr &gt;=  S - Mean </b>	
<b>Estimate</b>	0.0075
<b>99% Lower Conf Limit</b>	0.0025
<b>99% Upper Conf Limit</b>	0.0125
<b>Number of Samples</b>	2000
<b>Initial Seed</b>	15984001

*The NPAR1WAY Procedure*

Kruskal-Wallis Test	
Chi-Square	6.7255
DF	1
Pr > Chi-Square	0.0095

**The NPAR1WAY Procedure**

Van der Waerden Scores (Normal) for Variable y Classified by Variable group					
group	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
1	7	4.475771	0.0	1.734597	0.639396
2	9	-4.475771	0.0	1.734597	-0.497308

Van der Waerden Two-Sample Test	
Statistic (S)	4.4758
Z	2.5803
One-Sided Pr > Z	0.0049
Two-Sided Pr >  Z	0.0099

Monte Carlo Estimates for the Exact Test	
One-Sided Pr >= S	
Estimate	0.0035
99% Lower Conf Limit	9.762E-05
99% Upper Conf Limit	0.0069
Two-Sided Pr >=  S - Mean	
Estimate	0.0070
99% Lower Conf Limit	0.0022
99% Upper Conf Limit	0.0118
Number of Samples	2000
Initial Seed	1790473675

Van der Waerden One-Way Analysis	
Chi-Square	6.6579
DF	1
Pr > Chi-Square	0.0099

***The NPAR1WAY Procedure***

Savage Scores (Exponential) for Variable y Classified by Variable group					
group	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
1	7	4.635702	0.0	1.820044	0.662243
2	9	-4.635702	0.0	1.820044	-0.515078

Savage Two-Sample Test	
Statistic (S)	4.6357
Z	2.5470
One-Sided Pr > Z	0.0054
Two-Sided Pr >  Z	0.0109

Monte Carlo Estimates for the Exact Test	
One-Sided Pr >= S	
Estimate	0.0025
99% Lower Conf Limit	0.0000
99% Upper Conf Limit	0.0054
Two-Sided Pr >=  S - Mean	
Estimate	0.0030
99% Lower Conf Limit	0.0000
99% Upper Conf Limit	0.0062
Number of Samples	2000
Initial Seed	1333678351

Savage One-Way Analysis	
Chi-Square	6.4874
DF	1
Pr > Chi-Square	0.0109