### The MEANS Procedure

Variable	N	Mean	Median	Minimum	Maximum	Std Dev	Lower Quartile	Upper Quartile
GPA	5	3.06	3.30	2.00	3.70	0.68	2.80	3.50
CSCORE	5	578.00	580.00	490.00	650.00	69.07	530.00	640.00

# Cody Smith Problem 1 (c)

ID	GPA	CSCORE	INDEX
2	2.0	490	4.94
4	2.8	530	5.98
3	3.3	580	6.78
5	3.5	640	7.34
1	3.7	650	7.60

#### The MEANS Procedure

Variable	N	Mean	Median	Minimum	Maximum	Std Dev	Lower Quartile	Upper Quartile
SALARY	4	29775	28750	26500	35100	3755	27250	32300
AGE	4	36	36	31	40	4	33	39

ss	SALARY	TAX
12437652	35100	10530
18451357	26500	7950
123874414	28000	8400
646239182	29500	8850

## Cody Smith Problem 4 (a-b)

ID	IQ	MATH	SCIENCE	OVERALL	GROUP
2	102	490	501	0.72867	2
4	115	510	510	0.75667	2
1	128	550	590	0.84533	2
3	140	670	690	1.00000	2

Friday, January 11, 2019 10:19:35 PM **6** 

## Cody Smith Problem 4 (c) GROUP FREQ REPORT

## The FREQ Procedure

GROUP	Frequency	Percent	Cumulative Frequency	Cumulative Percent
2	4	100.00	4	100.00

ID	RACE	SBP	DBP
3	W	120	70
5	В	124	86
1	W	130	80
2	В	140	90
4	W	150	90

ID	GENDER	RACE	HR	SBP	DBP	N_PROC	AVE_BP
1	М	w	80	130	80	10	63.333
2	F	w	88	110	72	5	59.333
3	М	В	50	100	100	2	100.000
4	F	В		108	68	1	54.667
5	М	w	68	122	82	4	68.667
6	F	В	101		74	4	
7	F	w	78	104	66	3	53.333
8	М	w	48	112	70	6	56.000
9	F	В	77	190	110	9	83.333
10	F	В	66	164	106	10	86.667

#### The MEANS Procedure

Variable	N	Mean	Std Dev	Lower 95% CL for Mean	Upper 95% CL for Mean	Median	Minimum	Maximum	Lower Quartile	Upper Quartile
SBP	9	127	31	103	150	112	100	190	108	130
DBP	10	83	16	71	95	77	66	110	70	100
AVE_BP	9	69	17	57	82	63	53	100	56	83

#### The UNIVARIATE Procedure Variable: REACT

Moments								
N	10	Sum Weights	10					
Mean	7.91	Sum Observations	79.1					
Std Deviation	4.87589308	Variance	23.7743333					
Skewness	1.74686564	Kurtosis	1.6177214					
Uncorrected SS	839.65	Corrected SS	213.969					
Coeff Variation	61.6421376	Std Error Mean	1.54189278					

	Basic Statistical Measures				
Location Variability					
Mean	7.910000	Std Deviation	4.87589		
Median	5.700000	Variance	23.77433		
Mode		Range 13.40000			
		Interquartile Range	1.90000		

Tests for Location: Mu0=0					
Test	St	atistic	p Val	lue	
Student's t	t	5.130058	Pr >  t	0.0006	
Sign	М	5	Pr >=  M	0.0020	
Signed Rank	S	27.5	Pr >=  S	0.0020	

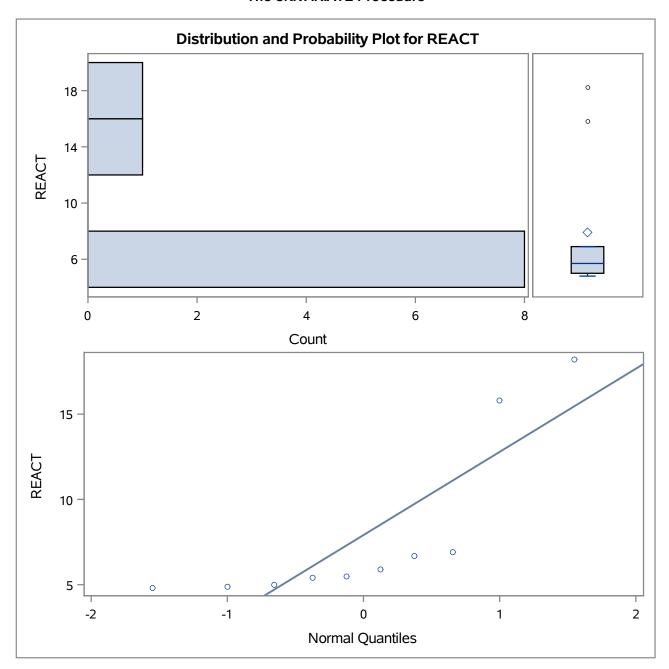
Tests for Normality					
Test	St	atistic	p Val	Value	
Shapiro-Wilk	w	0.656993	Pr < W	0.0003	
Kolmogorov-Smirnov	D	0.38205	Pr > D	<0.0100	
Cramer-von Mises	W-Sq	0.315825	Pr > W-Sq	<0.0050	
Anderson-Darling	A-Sq	<b>A-Sq</b> 1.628355 <b>Pr &gt; A-Sq</b> <0.0			

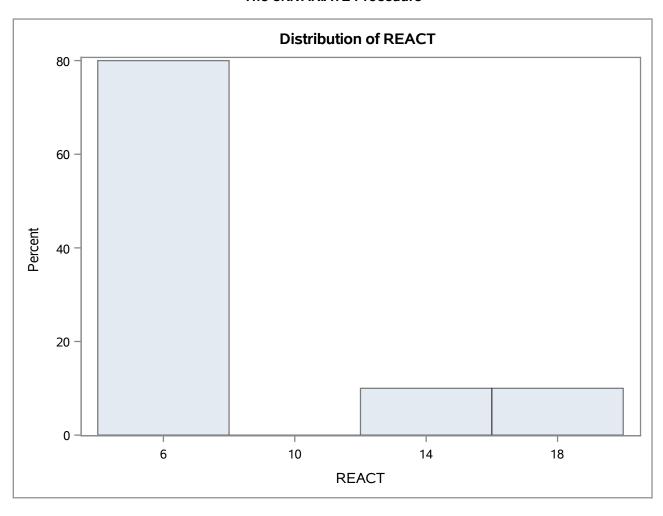
Quantiles (Definition 5)		
Level	Quantile	
100% Max	18.20	
99%	18.20	
95%	18.20	
90%	17.00	
75% Q3	6.90	
50% Median	5.70	
25% Q1	5.00	

#### The UNIVARIATE Procedure Variable: REACT

Quantiles (Definition 5)		
Level Quantile		
10%	4.85	
5%	4.80	
1%	4.80	
0% Min	4.80	

Extreme Observations				
EXU	erne Oi	Servauc	)IIS	
Low	est	Highest		
Value	Obs	Value	Obs	
4.8	3	5.9	2	
4.9	6	6.7	8	
5.0	7	6.9	4	
5.4	1	15.8	5	
5.5	10	18.2	9	





#### The UNIVARIATE Procedure Variable: LIVER\_WT

Moments				
N	10 Sum Weights		10	
Mean	11.3	Sum Observations	113	
Std Deviation	1.26403235	Variance	1.59777778	
Skewness	0.61974656	Kurtosis	0.01693006	
Uncorrected SS	1291.28	Corrected SS	14.38	
Coeff Variation	11.186127	Std Error Mean	0.39972213	

	Basic Statistical Measures				
Location Variability					
Mean	11.30000	Std Deviation	1.26403		
Median	11.35000	Variance	1.59778		
Mode		. Range 4.00000			
		Interquartile Range	1.80000		

Tests for Location: Mu0=0					
Test	St	atistic	p Val	lue	
Student's t	t	28.26964	Pr >  t	<.0001	
Sign	М	5	Pr >=  M	0.0020	
Signed Rank	s	27.5	Pr >=  S	0.0020	

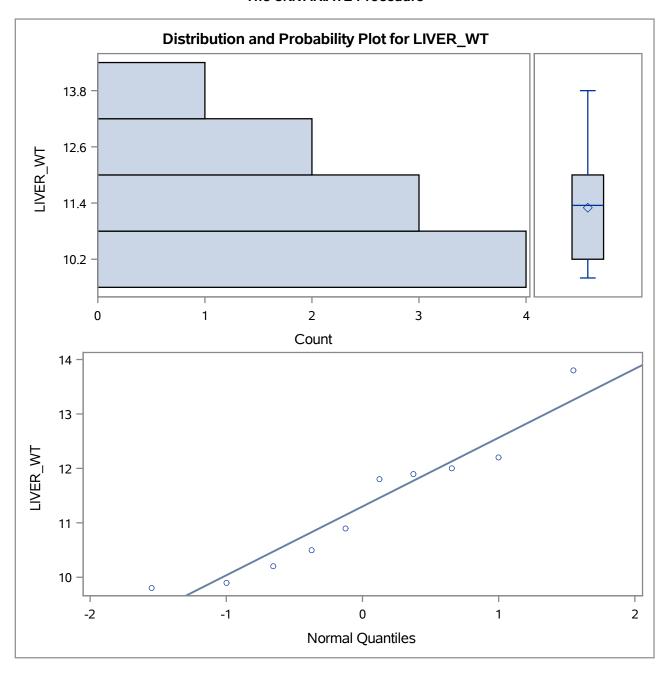
Tests for Normality				
Test	Statistic p Value			
Shapiro-Wilk	<b>W</b> 0.924078		Pr < W	0.3922
Kolmogorov-Smirnov	D	0.153785	Pr > D	>0.1500
Cramer-von Mises	W-Sq	0.051401	Pr > W-Sq	>0.2500
Anderson-Darling	A-Sq	0.341284	Pr > A-Sq	>0.2500

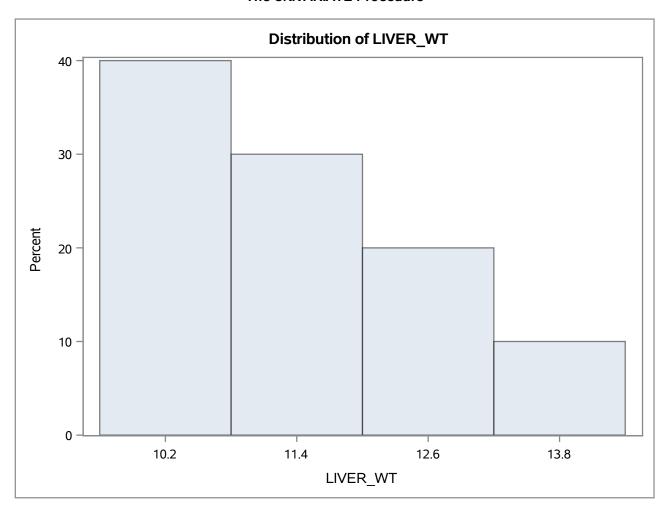
Quantiles (Definition 5)		
Level	Quantile	
100% Max	13.80	
99%	13.80	
95%	13.80	
90%	13.00	
75% Q3	12.00	
50% Median	11.35	
25% Q1	10.20	

#### The UNIVARIATE Procedure Variable: LIVER\_WT

Quantiles (Definition 5)		
Level Quantile		
10%	9.85	
5%	9.80	
1%	9.80	
0% Min	9.80	

Extreme Observations					
Low	est	High	est		
Value	Obs	Value	Obs		
9.8	2	11.8	4		
9.9	10	11.9	9		
10.2	1	12.0	7		
10.5	8	12.2	3		
10.9	5	13.8	6		





#### The UNIVARIATE Procedure Variable: SPLEEN

Moments					
N	10	Sum Weights	10		
Mean	8.16	Sum Observations	81.6		
Std Deviation	0.95939796	Variance	0.92044444		
Skewness	-0.5557112	Kurtosis	-1.3710424		
Uncorrected SS	674.14	Corrected SS	8.284		
Coeff Variation	11.7573279	Std Error Mean	0.30338827		

	Basic Statistical Measures					
Location Variability						
Mean	8.160000	Std Deviation	0.95940			
Median	8.400000	Variance	0.92044			
Mode	9.100000	Range	2.50000			
		Interquartile Range	1.70000			

Tests for Location: Mu0=0						
Test	Statistic p Value					
Student's t	t	26.89623	Pr >  t	<.0001		
Sign	<b>M</b> 5		Pr >=  M	0.0020		
Signed Rank	s	27.5	Pr >=  S	0.0020		

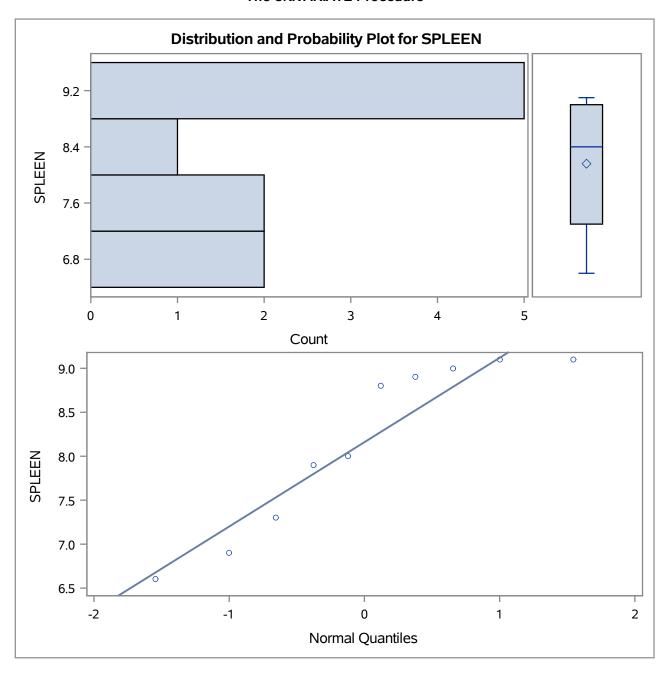
Tests for Normality						
Test	Statistic p Value					
Shapiro-Wilk	w	0.0880				
Kolmogorov-Smirnov	D	0.247641	Pr > D	0.0814		
Cramer-von Mises	W-Sq	0.090272	Pr > W-Sq	0.1354		
Anderson-Darling	A-Sq	0.559109	Pr > A-Sq	0.1124		

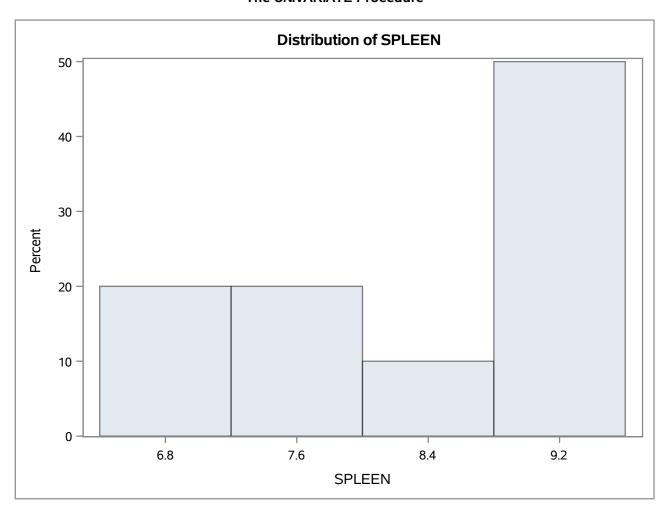
Quantiles (Definition 5)				
Level	Quantile			
100% Max	9.10			
99%	9.10			
95%	9.10			
90%	9.10			
75% Q3	9.00			
50% Median	8.40			
25% Q1	7.30			

#### The UNIVARIATE Procedure Variable: SPLEEN

Quantiles (Definition 5)				
Level Quantile				
10%	6.75			
5%	6.60			
1%	6.60			
0% Min	6.60			

Extreme Observations					
Lowest Highest					
Value	Obs	Value	Obs		
6.6	6	8.8	4		
6.9	9	8.9	1		
7.3	2	9.0	5		
7.9	7	9.1	3		
8.0	8	9.1	10		





#### The UNIVARIATE Procedure Variable: REACT

Moments					
N	5	5 Sum Weights			
Mean	7.76	Sum Observations	38.8		
Std Deviation	4.55993421	Variance	20.793		
Skewness	2.08111585	Kurtosis	4.42873197		
Uncorrected SS	384.26	Corrected SS	83.172		
Coeff Variation	58.7620388	Std Error Mean	2.03926457		

Basic Statistical Measures					
Location Variability					
Mean	7.760000	Std Deviation	4.55993		
Median	5.900000	Variance	20.79300		
Mode		Range	11.00000		
		Interquartile Range	1.50000		

Tests for Location: Mu0=0						
Test	Statistic p Value					
Student's t	t 3.805293		Pr >  t	0.0190		
Sign	М	2.5	Pr >=  M	0.0625		
Signed Rank	S	7.5	Pr >=  S	0.0625		

Tests for Normality						
Test	Statistic p Value					
Shapiro-Wilk	W 0.707883 Pr < W 0					
Kolmogorov-Smirnov	D	0.374797	Pr > D	0.0209		
Cramer-von Mises	W-Sq	0.145986	Pr > W-Sq	0.0187		
Anderson-Darling	A-Sq	0.772171	Pr > A-Sq	0.0172		

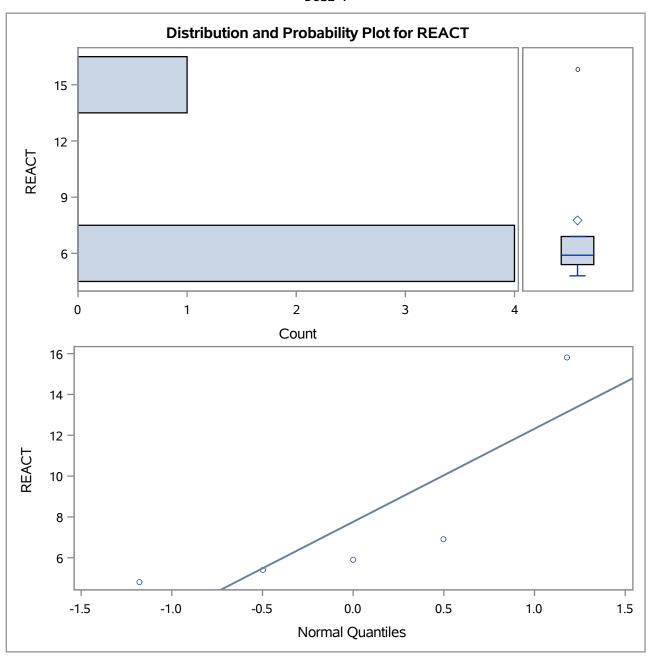
Quantiles (Definition 5)		
Level	Quantile	
100% Max	15.8	
99%	15.8	
95%	15.8	
90%	15.8	
75% Q3	6.9	
50% Median	5.9	

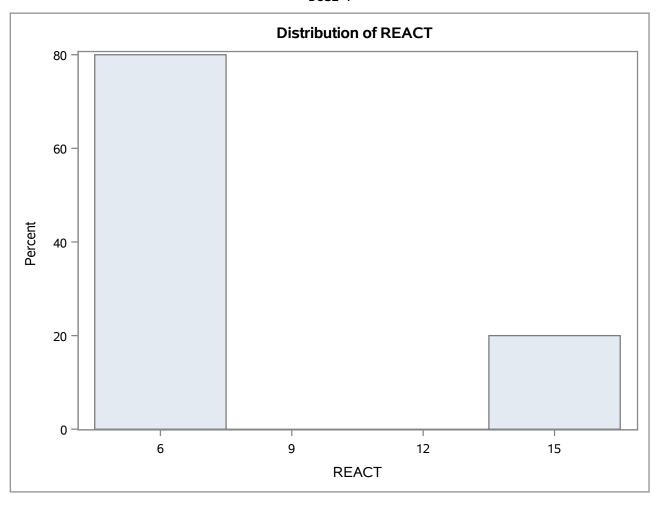
#### The UNIVARIATE Procedure Variable: REACT

DOSE=1

Quantiles (Definition 5)		
Level	Quantile	
25% Q1	5.4	
10%	4.8	
5%	4.8	
1%	4.8	
0% Min	4.8	

Extreme Observations				
Low	Lowest Highest			
Value	Obs	Value	Obs	
4.8	3	4.8	3	
5.4	1	5.4	1	
5.9	2	5.9	2	
6.9	4	6.9	4	
15.8	5	15.8	5	





#### The UNIVARIATE Procedure Variable: LIVER\_WT

Moments			
N	5	Sum Weights	5
Mean	10.98	Sum Observations	54.9
Std Deviation	1.02078401	Variance	1.042
Skewness	0.09758786	Kurtosis	-2.270825
Uncorrected SS	606.97	Corrected SS	4.168
Coeff Variation	9.29675785	Std Error Mean	0.45650849

Basic Statistical Measures				
Location Variability				
Mean	10.98000	Std Deviation	1.02078	
Median	10.90000	Variance	1.04200	
Mode		Range	2.40000	
		Interquartile Range	1.60000	

Tests for Location: Mu0=0					
Test	Statistic p Value				
Student's t	t 24.05213		Pr >  t	<.0001	
Sign	М	2.5	Pr >=  M	0.0625	
Signed Rank	S	7.5	Pr >=  S	0.0625	

Tests for Normality				
Test	Statistic p Value			
Shapiro-Wilk	w	0.94184	Pr < W	0.6790
Kolmogorov-Smirnov	D	0.189101	Pr > D	>0.1500
Cramer-von Mises	W-Sq	0.032428	Pr > W-Sq	>0.2500
Anderson-Darling	A-Sq	0.218264	Pr > A-Sq	>0.2500

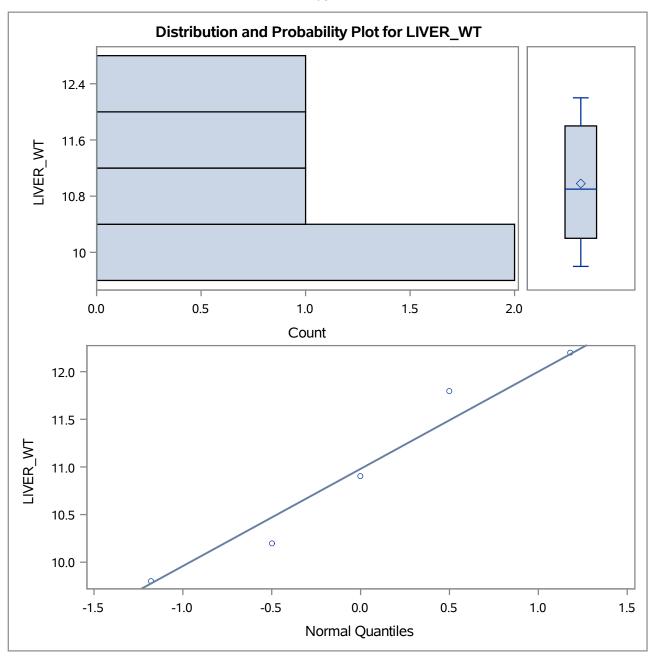
Quantiles (Definition 5)		
Level	Quantile	
100% Max	12.2	
99%	12.2	
95%	12.2	
90%	12.2	
75% Q3	11.8	
50% Median	10.9	

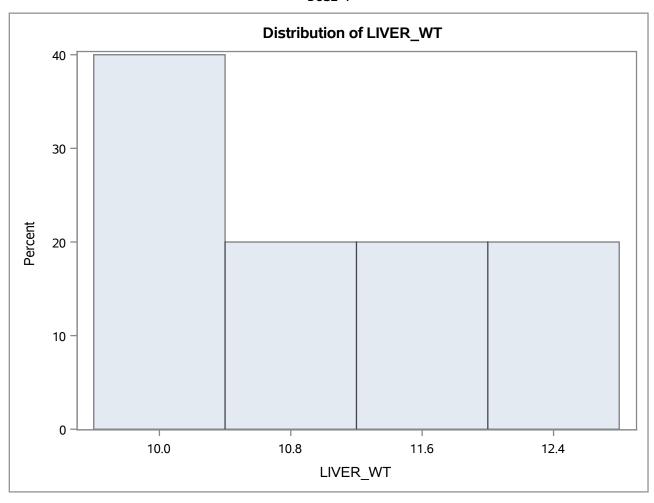
#### The UNIVARIATE Procedure Variable: LIVER\_WT

DOSE=1

Quantiles (Definition 5)		
Level	Quantile	
25% Q1	10.2	
10%	9.8	
5%	9.8	
1%	9.8	
0% Min	9.8	

Extreme Observations				
EXU	enie Oi	JSEI VALIC	) I IS	
Low	est	Highest		
Value	Obs	Value	Obs	
9.8	2	9.8	2	
10.2	1	10.2	1	
10.9	5	10.9	5	
11.8	4	11.8	4	
12.2	3	12.2	3	





#### The UNIVARIATE Procedure Variable: SPLEEN

Moments			
N	5	Sum Weights	5
Mean	8.62	Sum Observations	43.1
Std Deviation	0.74632433	Variance	0.557
Skewness	-2.1116055	Kurtosis	4.55882211
Uncorrected SS	373.75	Corrected SS	2.228
Coeff Variation	8.65805483	Std Error Mean	0.33376639

Basic Statistical Measures				
Location Variability				
Mean	8.620000	Std Deviation	0.74632	
Median	8.900000	Variance	0.55700	
Mode		Range	1.80000	
		Interquartile Range	0.20000	

Tests for Location: Mu0=0					
Test	Statistic p Value				
Student's t	t 25.82645		Pr >  t	<.0001	
Sign	М	2.5	Pr >=  M	0.0625	
Signed Rank	S	7.5	Pr >=  S	0.0625	

Tests for Normality					
Test	Statistic p Value			ıe	
Shapiro-Wilk	w	0.695281	Pr < W	0.0085	
Kolmogorov-Smirnov	D	0.395293	Pr > D	0.0109	
Cramer-von Mises	W-Sq	0.154683	Pr > W-Sq	0.0139	
Anderson-Darling	A-Sq	0.0130			

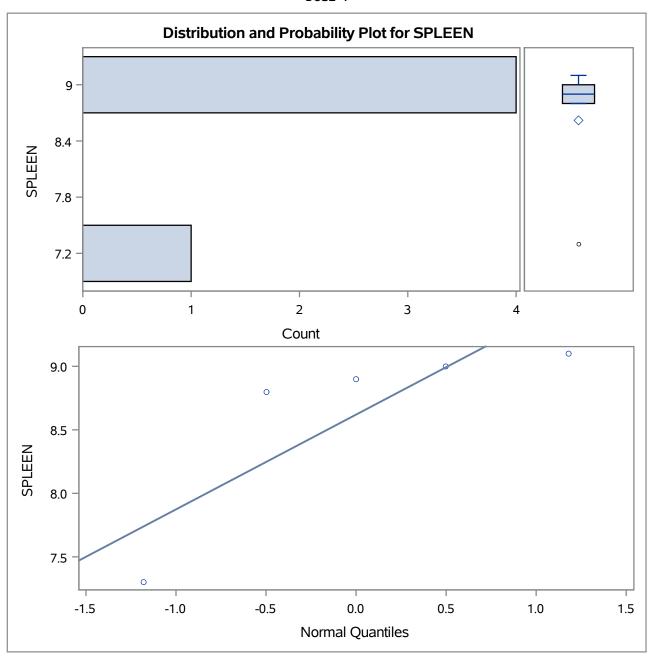
Quantiles (Definition 5)	
Level	Quantile
100% Max	9.1
99%	9.1
95%	9.1
90%	9.1
75% Q3	9.0
50% Median	8.9

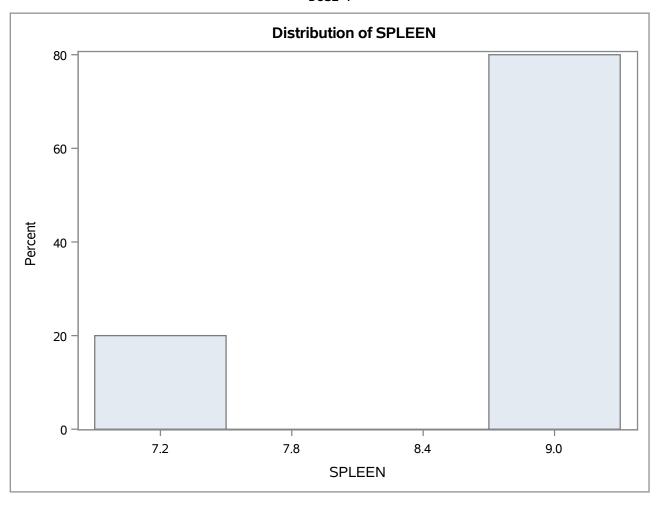
#### The UNIVARIATE Procedure Variable: SPLEEN

DOSE=1

Quantiles (Definition 5)		
Level	Quantile	
25% Q1	8.8	
10%	7.3	
5%	7.3	
1%	7.3	
0% Min	7.3	

Extreme Observations				
Lowest Highest				
Value	Obs	Value	Obs	
7.3	2	7.3	2	
8.8	4	8.8	4	
8.9	1	8.9	1	
9.0	5	9.0	5	
9.1	3	9.1	3	





#### The UNIVARIATE Procedure Variable: REACT

Moments				
N	5	Sum Weights	5	
Mean	8.06	Sum Observations	40.3	
Std Deviation	5.71340529	Variance	32.643	
Skewness	2.15164673	Kurtosis	4.67593424	
Uncorrected SS	455.39	Corrected SS	130.572	
Coeff Variation	70.8859217	Std Error Mean	2.55511252	

	Basic Statistical Measures					
Loc	Location Variability					
Mean	8.060000	Std Deviation	5.71341			
Median	5.500000	Variance	32.64300			
Mode		Range	13.30000			
		Interquartile Range	1.70000			

Tests for Location: Mu0=0					
Test	Statistic p Value				
Student's t	t 3.15446		Pr >  t	0.0344	
Sign	М	2.5	Pr >=  M	0.0625	
Signed Rank	S	7.5	Pr >=  S	0.0625	

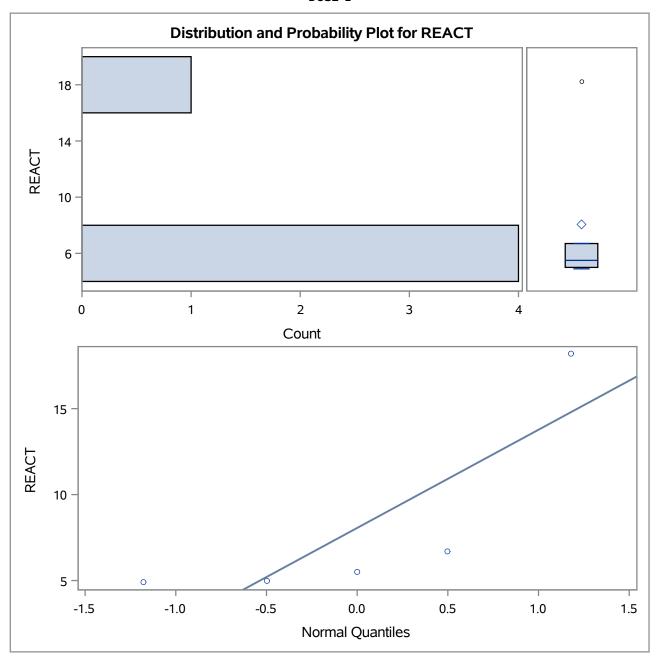
Tests for Normality					
Test	Statistic p Value			ıe	
Shapiro-Wilk	w	0.655292	Pr < W	0.0031	
Kolmogorov-Smirnov	D	0.394074	Pr > D	0.0115	
Cramer-von Mises	W-Sq	0.173059	Pr > W-Sq	0.0073	
Anderson-Darling	A-Sq	0.0068			

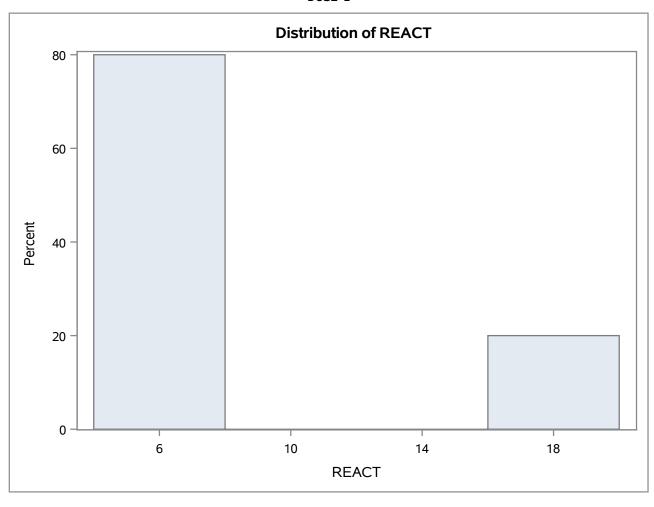
Quantiles (Definition 5)		
Level	Quantile	
100% Max	18.2	
99%	18.2	
95%	18.2	
90%	18.2	
75% Q3	6.7	
50% Median	5.5	

#### The UNIVARIATE Procedure Variable: REACT

Quantiles (Definition 5)		
Level	Quantile	
25% Q1	5.0	
10%	4.9	
5%	4.9	
1%	4.9	
0% Min	4.9	

Extreme Observations				
Lowest Highest				
Value	Obs	Value	Obs	
4.9	6	4.9	6	
5.0	7	5.0	7	
5.5	10	5.5	10	
6.7	8	6.7	8	
18.2	9	18.2	9	





#### The UNIVARIATE Procedure Variable: LIVER\_WT

Moments				
N	5	Sum Weights	5	
Mean	11.62	Sum Observations	58.1	
Std Deviation	1.5155857	Variance	2.297	
Skewness	0.47200754	Kurtosis	-0.1965862	
Uncorrected SS	684.31	Corrected SS	9.188	
Coeff Variation	13.0429062	Std Error Mean	0.67779053	

	Basic Statistical Measures				
Location Variability					
Mean	11.62000	Std Deviation	1.51559		
Median	11.90000	Variance	2.29700		
Mode		Range	3.90000		
		Interquartile Range	1.50000		

Tests for Location: Mu0=0					
Test	Statistic p Value			lue	
Student's t	t 17.14394		Pr >  t	<.0001	
Sign	М	2.5	Pr >=  M	0.0625	
Signed Rank	S	7.5	Pr >=  S	0.0625	

Tests for Normality				
Test	Statistic p Value			ue
Shapiro-Wilk	w	W 0.949815 <b>Pr &lt;</b>		0.7359
Kolmogorov-Smirnov	D	0.201012	Pr > D	>0.1500
Cramer-von Mises	W-Sq	0.03856	Pr > W-Sq	>0.2500
Anderson-Darling	A-Sq	0.237599	Pr > A-Sq	>0.2500

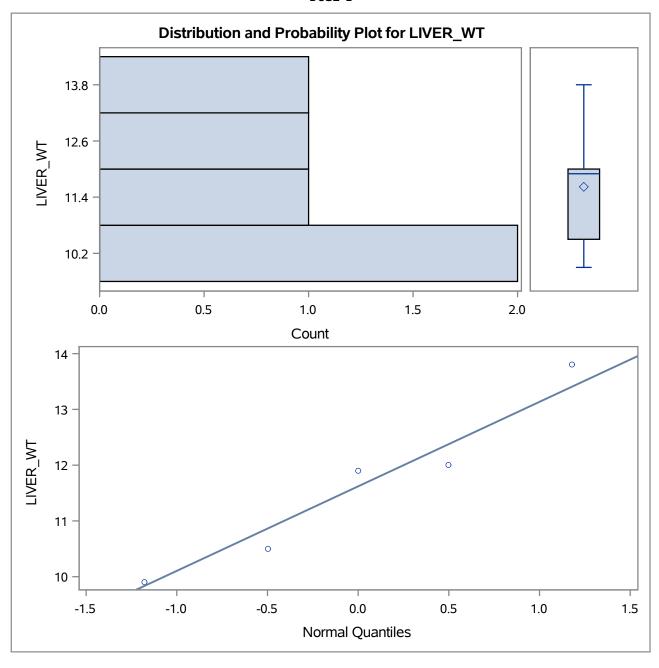
Quantiles (Definition 5)		
Level	Quantile	
100% Max	13.8	
99%	13.8	
95%	13.8	
90%	13.8	
75% Q3	12.0	
50% Median	11.9	

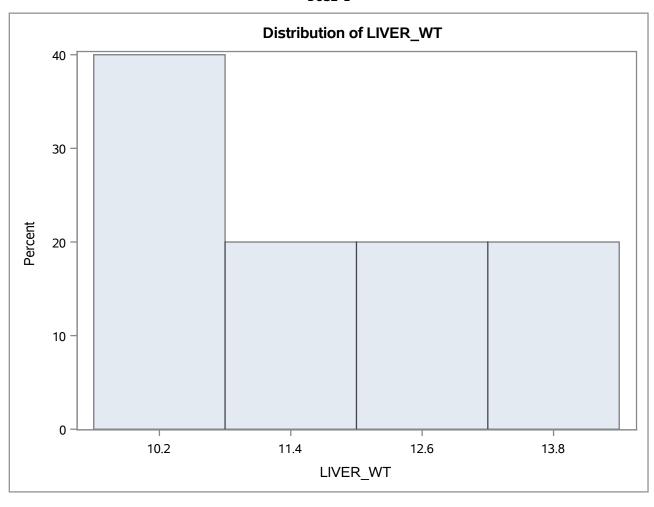
#### The UNIVARIATE Procedure Variable: LIVER\_WT

DOSE=2

Quantiles (Definition 5)		
Level Quantile		
25% Q1	10.5	
10%	9.9	
5%	9.9	
1%	9.9	
0% Min	9.9	

Extr	Extreme Observations				
Low	Lowest		est		
Value	Obs	Value	Obs		
9.9	10	9.9	10		
10.5	8	10.5	8		
11.9	9	11.9	9		
12.0	7	12.0	7		
13.8	6	13.8	6		





#### The UNIVARIATE Procedure Variable: SPLEEN

Moments				
N	5	Sum Weights	5	
Mean	7.7	Sum Observations	38.5	
Std Deviation	0.99247166	Variance	0.985	
Skewness	0.39894246	Kurtosis	-0.6241336	
Uncorrected SS	300.39	Corrected SS	3.94	
Coeff Variation	12.8892424	Std Error Mean	0.44384682	

Basic Statistical Measures				
Location Variability				
Mean	7.700000	Std Deviation	0.99247	
Median	7.900000	Variance	0.98500	
Mode		Range	2.50000	
		Interquartile Range	1.10000	

Tests for Location: Mu0=0					
Test	Statistic p Val			lue	
Student's t	t 17.34833		Pr >  t	<.0001	
Sign	М	2.5	Pr >=  M	0.0625	
Signed Rank	S	7.5	Pr >=  S	0.0625	

Tests for Normality				
Test	Statistic p Value		ue	
Shapiro-Wilk	w	0.942561	Pr < W	0.6841
Kolmogorov-Smirnov	D	0.189898	Pr > D	>0.1500
Cramer-von Mises	W-Sq	0.039302	Pr > W-Sq	>0.2500
Anderson-Darling	A-Sq	0.245613	Pr > A-Sq	>0.2500

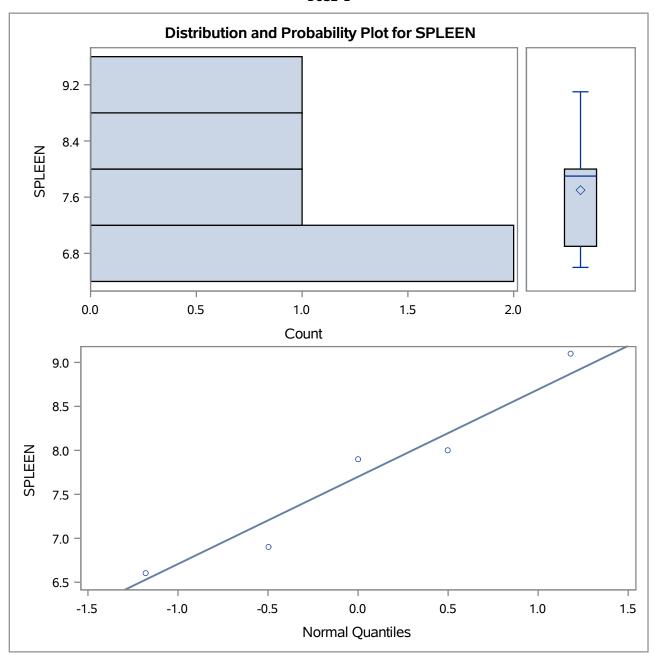
Quantiles (Definition 5)		
Quantile		
9.1		
9.1		
9.1		
9.1		
8.0		
7.9		

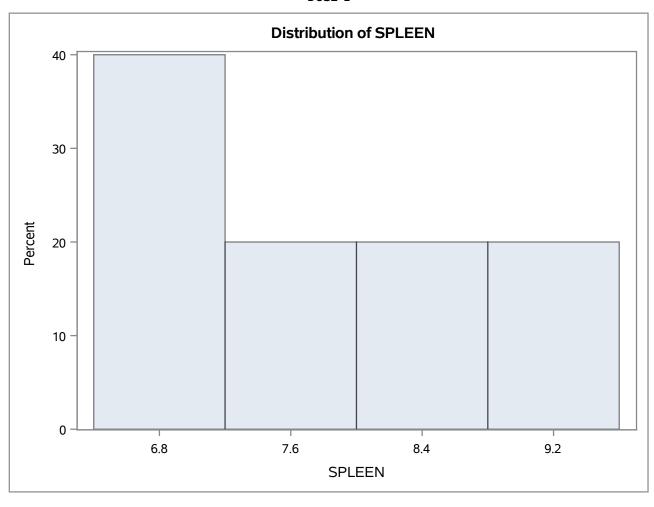
#### The UNIVARIATE Procedure Variable: SPLEEN

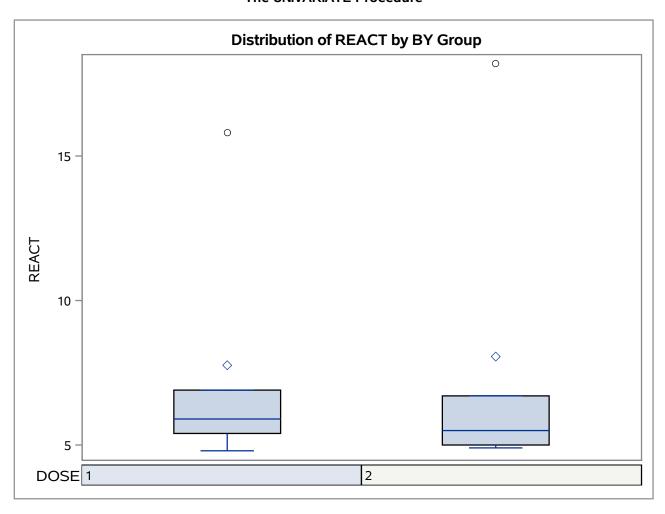
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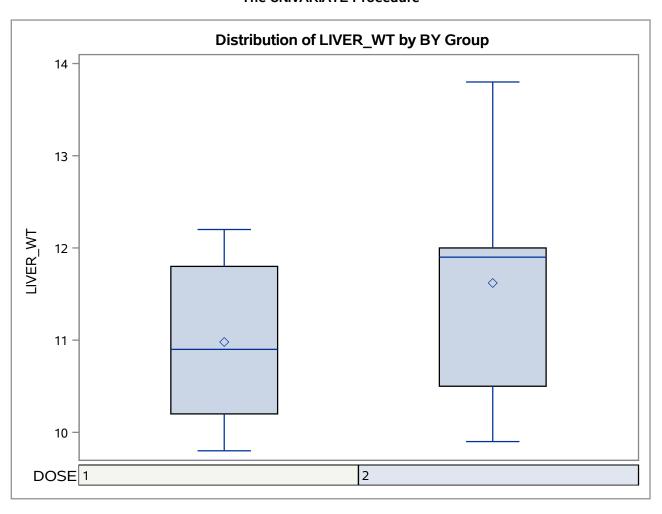
Quantiles (Definition 5)				
Level	Quantile			
25% Q1	6.9			
10%	6.6			
5%	6.6			
1%	6.6			
0% Min	6.6			

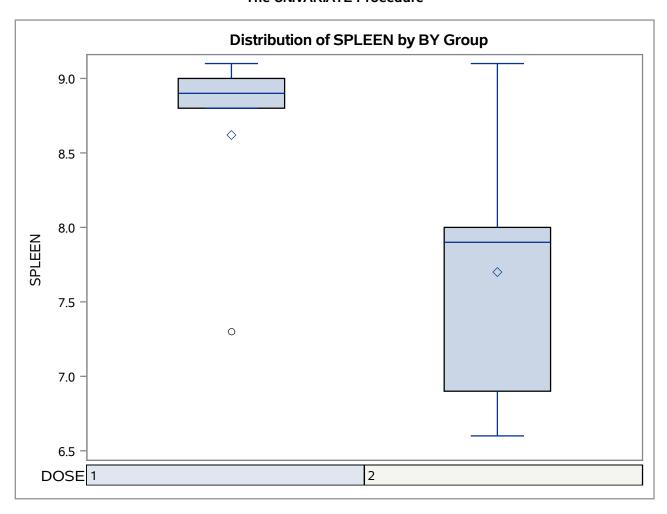
Extreme Observations					
Low	est	Highest			
Value	Value Obs		Obs		
6.6	6	6.6	6		
6.9	9	6.9	9		
7.9	7	7.9	7		
8.0	8	8.0	8		
9.1	10	9.1	10		











# Friday, January 11, 2019 10:19:35 PM **49 Night Workload November 2018 Mean Standard Deviation Median**

#### **The MEANS Procedure**

	Analysis Variable : NumCalls						
						Upper Quartile	
30	67	13	69	37	95	58	75

### Night More Descriptive Stat Workload November 2018

#### The UNIVARIATE Procedure Variable: NumCalls

Moments					
N	30	Sum Weights	30		
Mean	67.0666667	Sum Observations	2012		
Std Deviation	13.2507211	Variance	175.581609		
Skewness	-0.1698253	Kurtosis	0.18195265		
Uncorrected SS	140030	Corrected SS	5091.86667		
Coeff Variation	19.7575364	Std Error Mean	2.41923961		

Basic Statistical Measures					
Loc	ation	Variability			
Mean	67.06667	Std Deviation	13.25072		
Median	an 68.50000	Variance	175.58161		
Mode	70.00000	Range	58.00000		
		Interquartile Range	17.00000		

Tests for Location: Mu0=0					
Test	St	atistic	p Val	lue	
Student's t	t	27.72221	Pr >  t	<.0001	
Sign	м	15	Pr >=  M	<.0001	
Signed Rank	s	232.5	Pr >=  S	<.0001	

Tests for Normality				
Test	Statistic p Value		ue	
Shapiro-Wilk	w	0.982759	Pr < W	0.8932
Kolmogorov-Smirnov	D	0.104696	Pr > D	>0.1500
Cramer-von Mises	W-Sq	0.054712	Pr > W-Sq	>0.2500
Anderson-Darling	A-Sq	0.286827	Pr > A-Sq	>0.2500

Quantiles (Definition 5)				
Level	Quantile			
100% Max	95.0			
99%	95.0			
95%	90.0			
90%	84.0			
75% Q3	75.0			
50% Median	68.5			

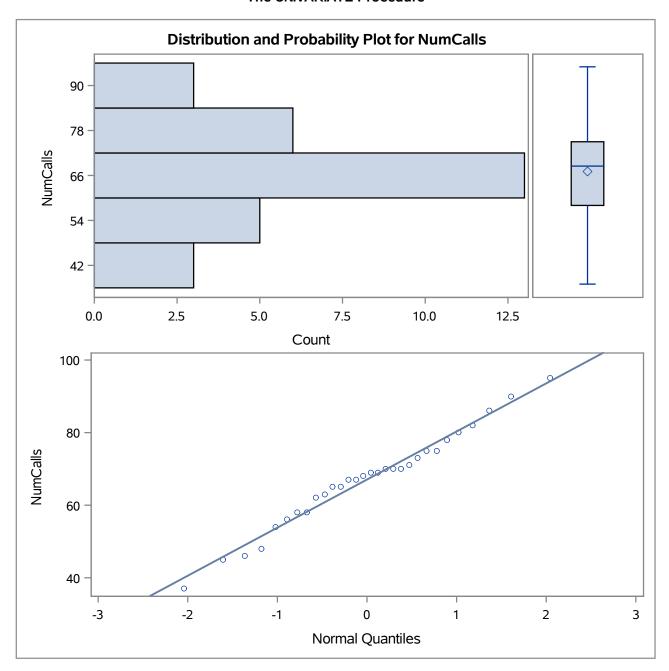
### Night More Descriptive Stat Workload November 2018

# The UNIVARIATE Procedure Variable: NumCalls

Quantiles (	Definition 5)			
Level Quantil				
25% Q1	58.0			
10%	47.0			
5%	45.0			
1%	37.0			
0% Min	37.0			

Extreme Observations					
Low	est	High	est		
Value	Obs	Value	Obs		
37	17	80	10		
45	22	82	13		
46	18	86	3		
48	4	90	5		
54	29	95	9		

### Night More Descriptive Stat Workload November 2018



#### The MEANS Procedure

Analysis Variable : Nov2018					
Mean	Median	Std Dev	Minimum	Maximum	
3.73	3.70	0.82	2.40	6.30	

## The UNIVARIATE Procedure Variable: Nov2018

Moments				
N	51	Sum Weights	51	
Mean	3.73333333	Sum Observations	190.4	
Std Deviation	0.82332659	Variance	0.67786667	
Skewness	0.69836289	Kurtosis	0.83988223	
Uncorrected SS	744.72	Corrected SS	33.8933333	
Coeff Variation	22.0533907	Std Error Mean	0.11528878	

Basic Statistical Measures						
Loc	Location Variability					
Mean	3.733333	Std Deviation	0.82333			
Median	3.700000	Variance	0.67787			
Mode	2.800000	Range	3.90000			
		Interquartile Range	1.00000			

Note: The mode displayed is the smallest of 3 modes with a count of 4.

Tests for Location: Mu0=0						
Test	Statistic p Value					
Student's t	t	32.38245	Pr >  t	<.0001		
Sign	М	25.5	Pr >=  M	<.0001		
Signed Rank	s	663	Pr >=  S	<.0001		

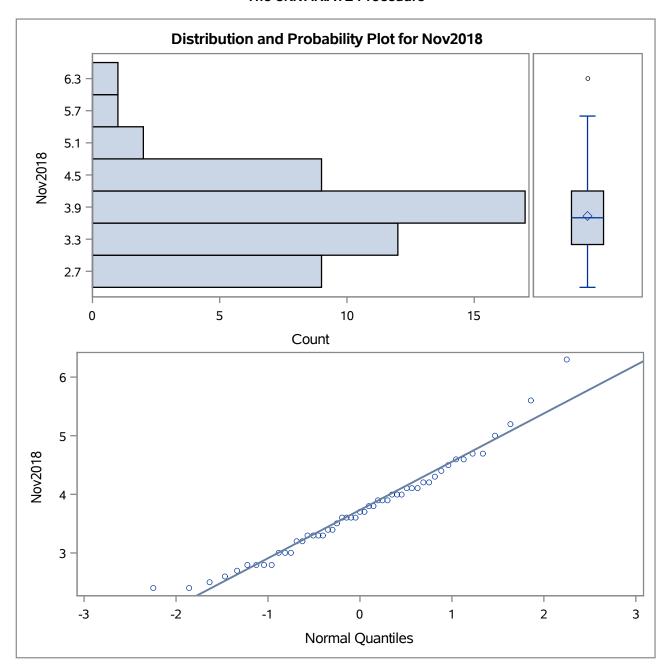
Tests for Normality						
Test	Statistic p Value					
Shapiro-Wilk	w	0.965275	Pr < W	0.1399		
Kolmogorov-Smirnov	D	0.073132	Pr > D	>0.1500		
Cramer-von Mises	W-Sq	0.04042	Pr > W-Sq	>0.2500		
Anderson-Darling	A-Sq	0.334108	Pr > A-Sq	>0.2500		

Quantiles (Definition 5)				
Level Quantile				
100% Max	6.3			
99%	6.3			
95%	5.2			
90%	4.7			
75% Q3	4.2			
50% Median	3.7			

## The UNIVARIATE Procedure Variable: Nov2018

Quantiles (Definition 5)				
Level	Quantile			
25% Q1	3.2			
10%	2.8			
5%	2.5			
1%	2.4			
0% Min	2.4			

Extreme Observations						
Low	est	High	est			
Value	Obs	Value	Obs			
2.4	2	4.7	47			
2.4	1	5.0	48			
2.5	3	5.2	49			
2.6	4	5.6	50			
2.7	5	6.3	51			



State	Nov2018
Delaware	3.8
Rhode Island	3.8
Michigan	3.9
New York	3.9
Oregon	3.9
Alabama	4
Maryland	4
New Jersey	4
California	4.1
Connecticut	4.1
Wyoming	4.1
Illinois	4.2
Pennsylvania	4.2
Washington	4.3
Nevada	4.4
Kentucky	4.5
New Mexico	4.6
Ohio	4.6
Arizona	4.7
Mississippi	4.7
Louisiana	5
West Virginia	5.2
District of Co	5.6
Alaska	6.3

State	Nov2018
Hawaii	2.4
Iowa	2.4
New Hampshire	2.5
Idaho	2.6
Vermont	2.7
Minnesota	2.8
Nebraska	2.8
North Dakota	2.8
Virginia	2.8
Missouri	3
South Dakota	3
Wisconsin	3
Kansas	3.2
Utah	3.2
Colorado	3.3
Florida	3.3
Oklahoma	3.3
South Carolina	3.3
Maine	3.4
Massachusetts	3.4
Georgia	3.5
Arkansas	3.6
Indiana	3.6
North Carolina	3.6
Tennessee	3.6
Montana	3.7
Texas	3.7

#### The MEANS Procedure

#### Class=Compact Car

	Analysis Variable : CombinedMPG							
Mean	Std Dev	Minimum	Lower Quartile	Median	Upper Quartile	Maximum		
26.372	5.260	14.000	23.000	27.000	29.000	50.000		

#### Class=Large Cars

	Analysis Variable : CombinedMPG							
Mean	Std Dev	Minimum	Lower Quartile	Median	Upper Quartile	Maximum		
21.194	4.254	14.000	18.000	21.000	23.000	40.000		

#### Class=Midsize Car

	Analysis Variable : CombinedMPG							
Mean	Std Dev	Minimum	Lower Quartile	Median	Upper Quartile	Maximum		
26.364	6.727	13.000	22.000	26.000	30.000	56.000		

#### Class=Minicompact

Analysis Variable : CombinedMPG							
Mean	Std Dev	Minimum	Lower Quartile	Median	Upper Quartile	Maximum	
22.868	4.067	15.000	21.000	22.000	25.000	34.000	

#### Class=Pick-up Tru

	Analysis Variable : CombinedMPG						
Mean	Std Dev	Minimum	Lower Quartile	Median	Upper Quartile	Maximum	
18.940	2.476	13.000	17.000	19.000	21.000	25.000	

### Class=SUV

Analysis Variable : CombinedMPG							
Mean	Std Dev	Minimum	Lower Quartile	Median	Upper Quartile	Maximum	
21.835	4.063	12.000	18.000	22.000	25.000	33.000	

#### The MEANS Procedure

#### Class=Special Pur

	Analysis Variable : CombinedMPG						
Mean	Std Dev	Minimum	Lower Quartile	Median	Upper Quartile	Maximum	
20.686	2.795	16.000	18.000	21.000	23.000	25.000	

#### Class=Station Wag

	Analysis Variable : CombinedMPG							
Mean	Std Dev	Minimum	Lower Quartile	Median	Upper Quartile	Maximum		
27.477	4.628	18.000	24.500	28.000	30.000	42.000		

#### Class=Subcompact

Analysis Variable : CombinedMPG							
Mean	Std Dev	Minimum	Lower Quartile	Median	Upper Quartile	Maximum	
23.695	5.036	15.000	20.000	24.000	27.000	37.000	

#### Class=Two Seaters

Analysis Variable : CombinedMPG						
Mean	Std Dev	Minimum	Lower Quartile	Median	Upper Quartile	Maximum
20.341	5.397	12.000	17.000	19.000	23.000	37.000

#### Class=Vans, Passe

Analysis Variable : CombinedMPG						
Mean	Std Dev	Minimum	Lower Quartile	Median	Upper Quartile	Maximum
13.667	1.862	12.000	12.000	13.000	16.000	16.000

## The UNIVARIATE Procedure Variable: CombinedMPG

	Moments					
N	199	Sum Weights	199			
Mean	26.3718593	Sum Observations	5248			
Std Deviation	5.26014288	Variance	27.6691031			
Skewness	0.45597674	Kurtosis	2.04525974			
Uncorrected SS	143878	Corrected SS	5478.48241			
Coeff Variation	19.9460448	Std Error Mean	0.37288164			

	Basic Statistical Measures					
Location		Variability				
Mean	26.37186	Std Deviation	5.26014			
Median	27.00000	Variance	27.66910			
Mode	27.00000	Range	36.00000			
		Interquartile Range	6.00000			

Tests for Location: Mu0=0						
Test	Statistic		Statistic		p Val	lue
Student's t	t	70.72448	Pr >  t	<.0001		
Sign	М	99.5	Pr >=  M	<.0001		
Signed Rank	S	9950	Pr >=  S	<.0001		

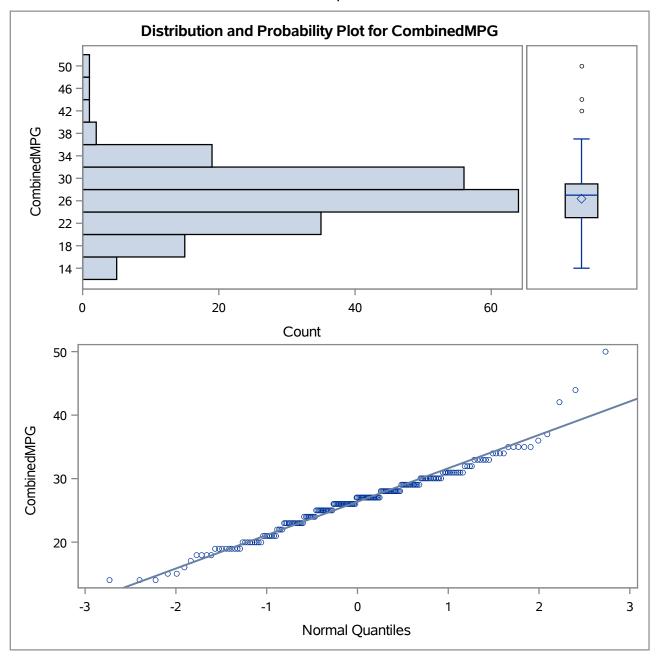
Tests for Normality					
Test	Statistic		Statistic p Value		ue
Shapiro-Wilk	w	0.96797	Pr < W	0.0002	
Kolmogorov-Smirnov	D	0.079861	Pr > D	<0.0100	
Cramer-von Mises	W-Sq	0.194415	Pr > W-Sq	0.0063	
Anderson-Darling	A-Sq	1.157246	Pr > A-Sq	<0.0050	

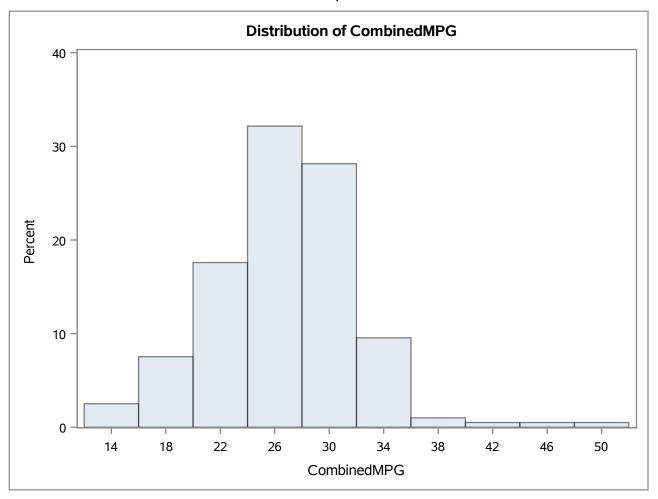
Quantiles (Definition 5)				
Level	Quantile			
100% Max	50			
99%	44			
95%	35			
90%	33			
75% Q3	29			
50% Median	27			

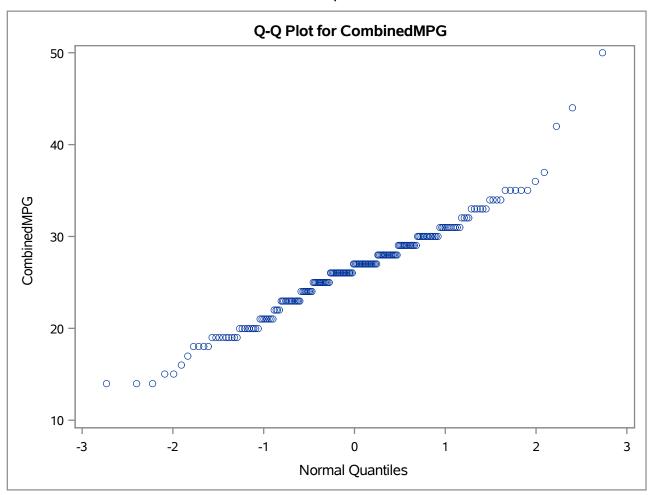
## The UNIVARIATE Procedure Variable: CombinedMPG

Quantiles (Definition 5)		
Level Quantile		
25% Q1	23	
10%	19	
5%	18	
1%	14	
0% Min	14	

Extreme Observations				
Low	est	High	est	
Value	Obs	Value	Obs	
14	3	36	195	
14	2	37	196	
14	1	42	197	
15	5	44	198	
15	4	50	199	







## The UNIVARIATE Procedure Variable: CombinedMPG

Moments				
N	98	98		
Mean	21.1938776	Sum Observations	2077	
Std Deviation	4.25394459	Variance	18.0960446	
Skewness	s 1.33777596 Kurtosis		3.4007825	
Uncorrected SS	Corrected SS	1755.31633		
Coeff Variation	20.0715729	Std Error Mean	0.4297133	

	Basic Statistical Measures				
Location Variability					
Mean	21.19388	Std Deviation	4.25394		
Median	21.00000	Variance	18.09604		
Mode	18.00000	Range	26.00000		
		Interquartile Range	5.00000		

Tests for Location: Mu0=0				
Test	Statistic p Value			
Student's t	t 49.32097		Pr >  t	<.0001
Sign	М	49	Pr >=  M	<.0001
Signed Rank	S	2425.5	Pr >=  S	<.0001

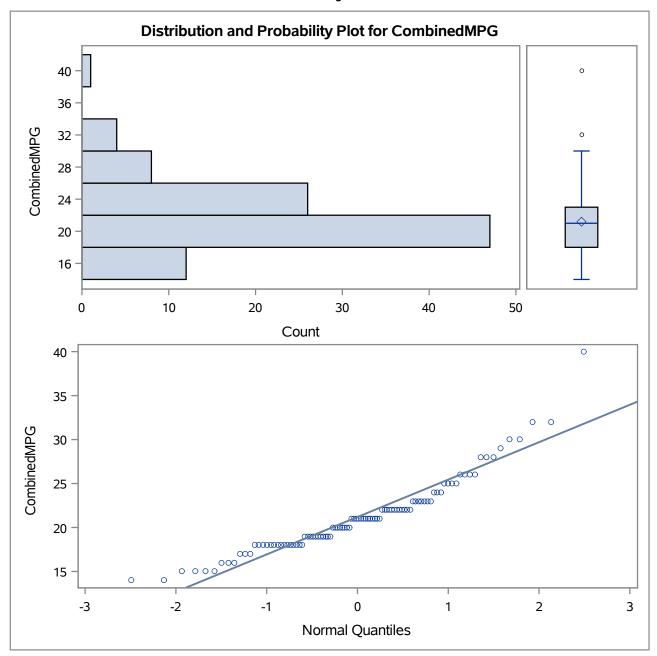
Tests for Normality				
Test	Statistic p Value			ue
Shapiro-Wilk	w	0.913428	Pr < W	<0.0001
Kolmogorov-Smirnov	D	0.14934	Pr > D	<0.0100
Cramer-von Mises	W-Sq	0.353699	Pr > W-Sq	<0.0050
Anderson-Darling	A-Sq	2.03771	Pr > A-Sq	<0.0050

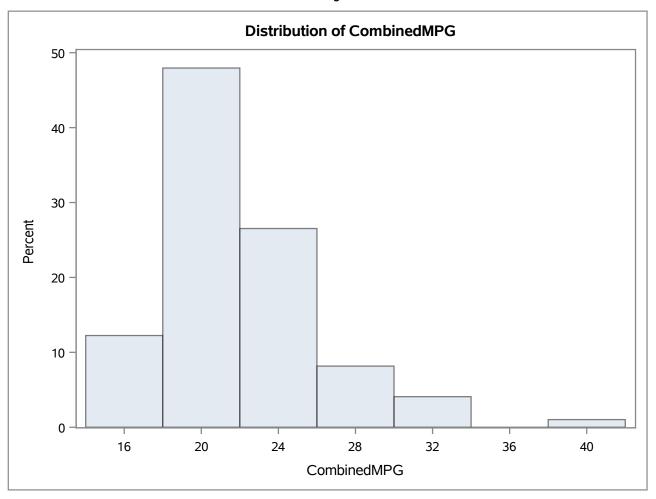
Quantiles (Definition 5)			
Level Quantile			
100% Max	40		
99%	40		
95%	30		
90%	26		
75% Q3	23		
50% Median	21		

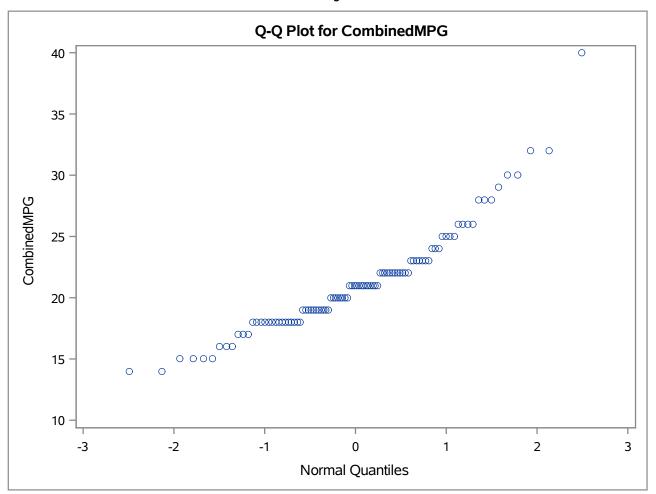
## The UNIVARIATE Procedure Variable: CombinedMPG

Quantiles (Definition 5)		
Level Quantile		
25% Q1	18	
10%	17	
5%	15	
1%	14	
0% Min	14	

<b>Extreme Observations</b>				
Low	High	est		
Value	Obs	Value	Obs	
14	201	30	293	
14	200	30	294	
15	205	32	295	
15	204	32	296	
15	203	40	297	







## The UNIVARIATE Procedure Variable: CombinedMPG

#### Class=Midsize Car

Moments				
N	198	Sum Weights	198	
Mean	26.3636364	Sum Observations	5220	
Std Deviation	6.72740368	Variance	45.2579603	
Skewness	0.92124029 <b>Kurtosis</b>		2.26765288	
Uncorrected SS	ncorrected SS 146534		8915.81818	
Coeff Variation	25.5177381	Std Error Mean	0.47809576	

	Basic Statistical Measures				
Location Variability					
Mean	26.36364	Std Deviation	6.72740		
Median	26.00000	Variance	45.25796		
Mode	31.00000	Range	43.00000		
		Interquartile Range	8.00000		

Tests for Location: Mu0=0				
Test	Statistic p Value			
Student's t	t 55.143		Pr >  t	<.0001
Sign	<b>M</b> 99		Pr >=  M	<.0001
Signed Rank	S	9850.5	Pr >=  S	<.0001

Tests for Normality						
Test	Statistic		p Value			
Shapiro-Wilk	w	0.950796	Pr < W	<0.0001		
Kolmogorov-Smirnov	D	0.089954	Pr > D	<0.0100		
Cramer-von Mises	W-Sq	0.200934	Pr > W-Sq	<0.0050		
Anderson-Darling	A-Sq	1.595394	Pr > A-Sq	<0.0050		

Quantiles (Definition 5)			
Level	Quantile		
100% Max	56		
99%	52		
95%	40		
90%	33		
75% Q3	30		
50% Median	26		

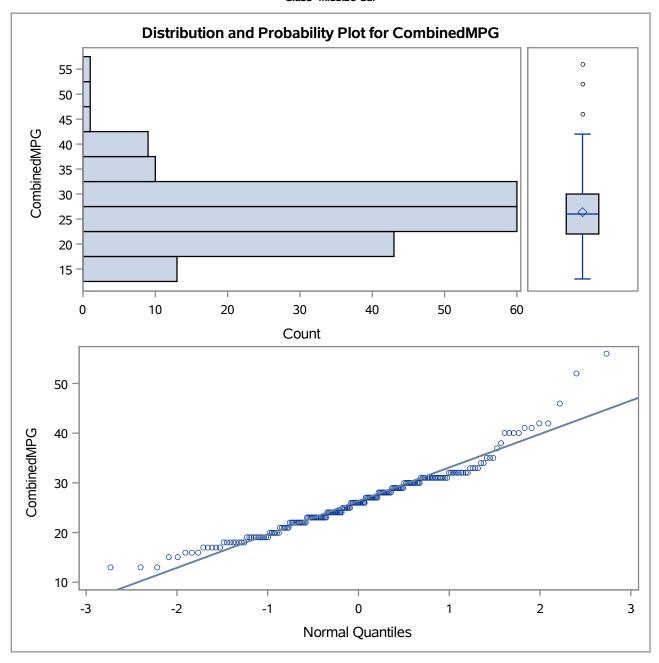
## The UNIVARIATE Procedure Variable: CombinedMPG

#### Class=Midsize Car

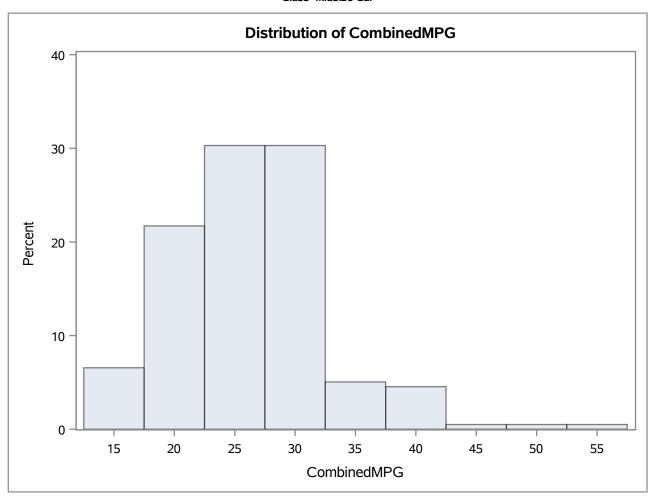
Quantiles (Definition 5)			
Level	Quantile		
25% Q1	22		
10%	18		
5%	17		
1%	13		
0% Min	13		

Extreme Observations					
Lowest		Highest			
Value	Obs	Value	Obs		
13	300	42	491		
13	299	42	492		
13	298	46	493		
15	302	52	494		
15	301	56	495		

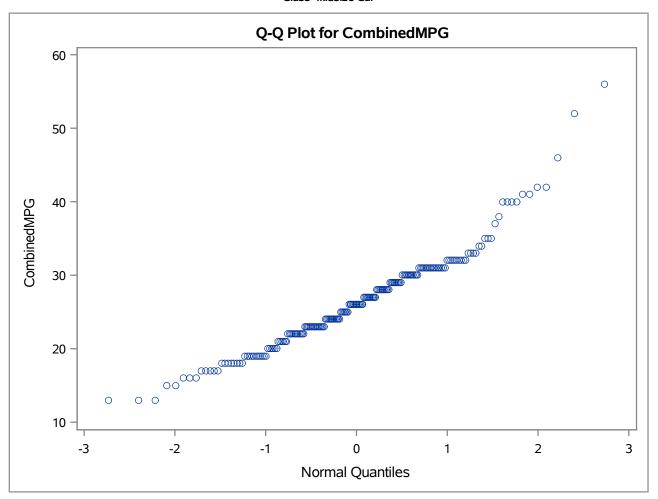
Class=Midsize Car



Class=Midsize Car



Class=Midsize Car



Moments				
N	53	Sum Weights	53	
Mean	22.8679245	Sum Observations	1212	
Std Deviation	4.06692918	Variance	16.5399129	
Skewness	0.81046085	Kurtosis	0.38749563	
Uncorrected SS	28576	Corrected SS	860.075472	
Coeff Variation	17.7844263	Std Error Mean	0.55863569	

Basic Statistical Measures			
Location Variability			
Mean	22.86792	Std Deviation	4.06693
Median	22.00000	Variance	16.53991
Mode	21.00000	Range	19.00000
		Interquartile Range	4.00000

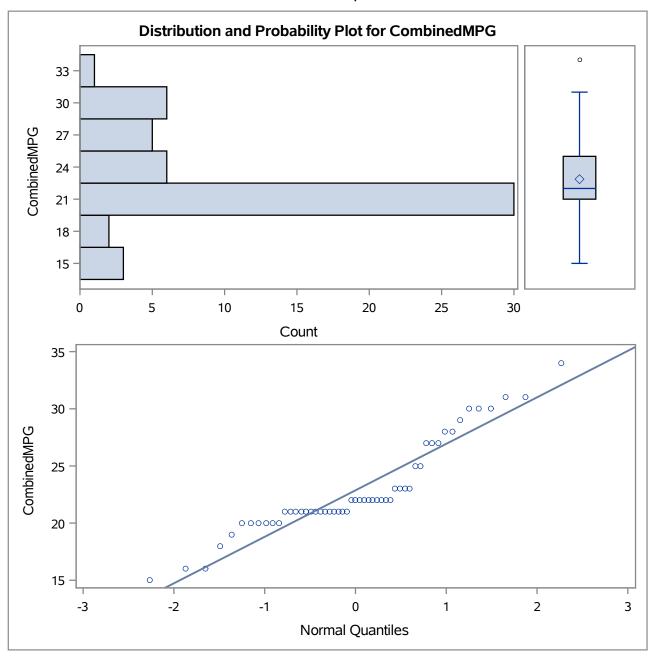
Tests for Location: Mu0=0				
Test	Statistic		p Val	lue
Student's t	t	40.93531	Pr >  t	<.0001
Sign	М	26.5	Pr >=  M	<.0001
Signed Rank	S	715.5	Pr >=  S	<.0001

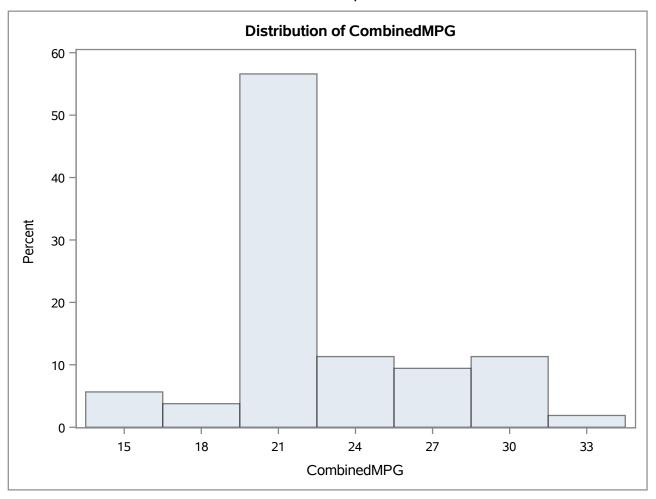
Tests for Normality				
Test	Statistic p Val		ue	
Shapiro-Wilk	w	0.894435	Pr < W	0.0002
Kolmogorov-Smirnov	D	0.244874	Pr > D	<0.0100
Cramer-von Mises	W-Sq	0.573863	Pr > W-Sq	<0.0050
Anderson-Darling	A-Sq	2.789375	Pr > A-Sq	<0.0050

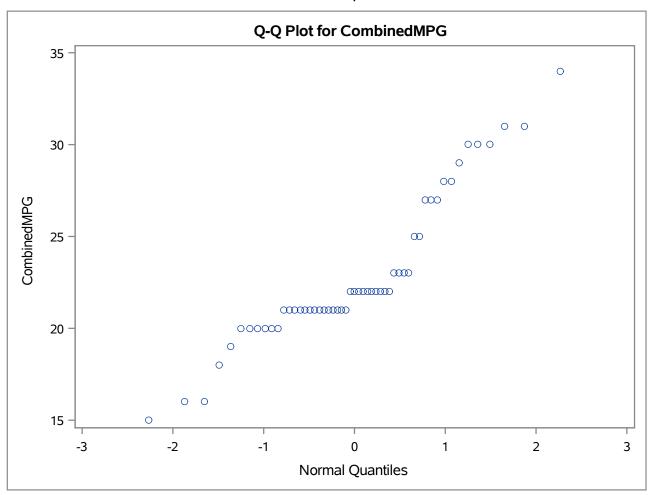
Quantiles (Definition 5)		
Level	Quantile	
100% Max	34	
99%	34	
95%	31	
90%	30	
75% Q3	25	
50% Median	22	

Quantiles (Definition 5)	
Level	Quantile
25% Q1	21
10%	20
5%	16
1%	15
0% Min	15

Extr	eme Ol	oservatio	ons
Low	est	High	est
Value	Obs	Value	Obs
15	496	30	544
16	498	30	545
16	497	31	546
18	499	31	547
19	500	34	548







Moments			
N	83	Sum Weights	83
Mean	18.939759	Sum Observations	1572
Std Deviation	2.47597922	Variance	6.13047311
Skewness	0.08057048	Kurtosis	0.06673733
Uncorrected SS	30276	Corrected SS	502.698795
Coeff Variation	13.0729183	Std Error Mean	0.27177403

Basic Statistical Measures			
Location Variability			
Mean	18.93976	Std Deviation	2.47598
Median	19.00000	Variance	6.13047
Mode	18.00000	Range	12.00000
		Interquartile Range	4.00000

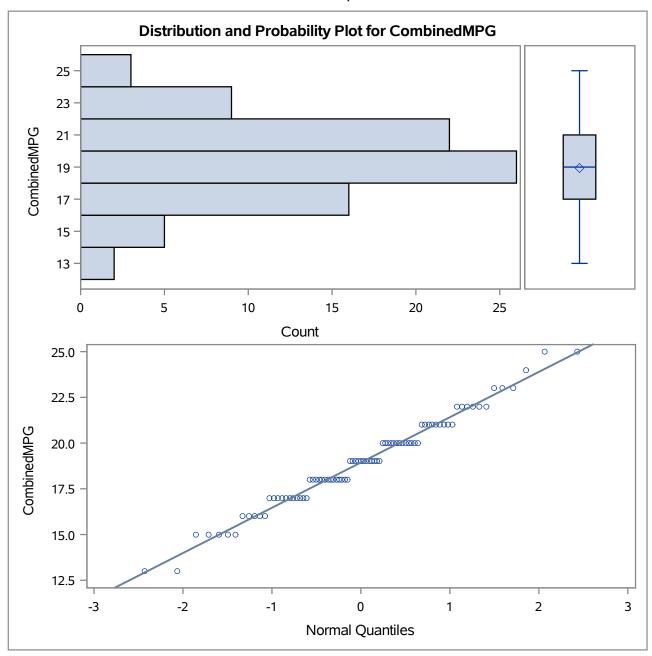
Tests for Location: Mu0=0				
Test	Statistic		p Val	lue
Student's t	t	69.68936	Pr >  t	<.0001
Sign	М	41.5	Pr >=  M	<.0001
Signed Rank	S	1743	Pr >=  S	<.0001

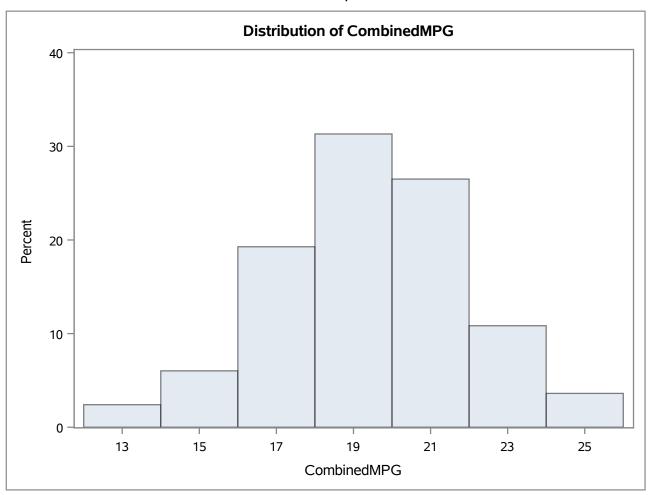
Tests for Normality				
Test	Statistic p Value		ıe	
Shapiro-Wilk	w	0.981448	Pr < W	0.2752
Kolmogorov-Smirnov	D	0.093644	Pr > D	0.0724
Cramer-von Mises	W-Sq	0.114706	Pr > W-Sq	0.0741
Anderson-Darling	A-Sq	0.626906	Pr > A-Sq	0.0993

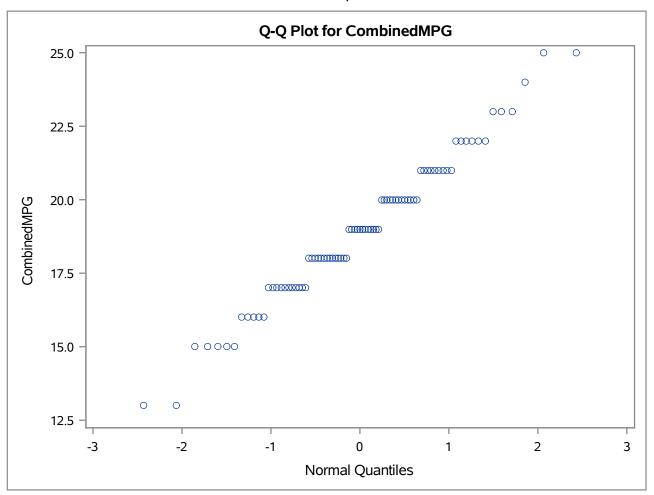
Quantiles (Definition 5)		
Level	Quantile	
100% Max	25	
99%	25	
95%	23	
90%	22	
75% Q3	21	
50% Median	19	

Quantiles (Definition 5)		
Level Quantile		
25% Q1	17	
10%	16	
5%	15	
1%	13	
0% Min	13	

Extreme Observations				
LAU	enie Oi	JSCI VALIC	)IIS	
Low	est	High	est	
Value	Obs	Value	Obs	
13	550	23	627	
13	549	23	628	
15	555	24	629	
15	554	25	630	
15	553	25	631	







Class=SUV

Moments				
N	315	315		
Mean	21.8349206	Sum Observations	6878	
Std Deviation	4.06296614	Variance	16.5076939	
Skewness	0.19680672	Kurtosis	-0.4192727	
Uncorrected SS	155364	Corrected SS	5183.41587	
Coeff Variation	18.6076524	Std Error Mean	0.22892221	

Basic Statistical Measures				
Location Variability				
Mean 21.83492 Std Deviation 4.0629				
Median	22.00000	Variance	16.50769	
Mode 18.00000 Range		21.00000		
	Interquartile Range			

Note: The mode displayed is the smallest of 2 modes with a count of 33.

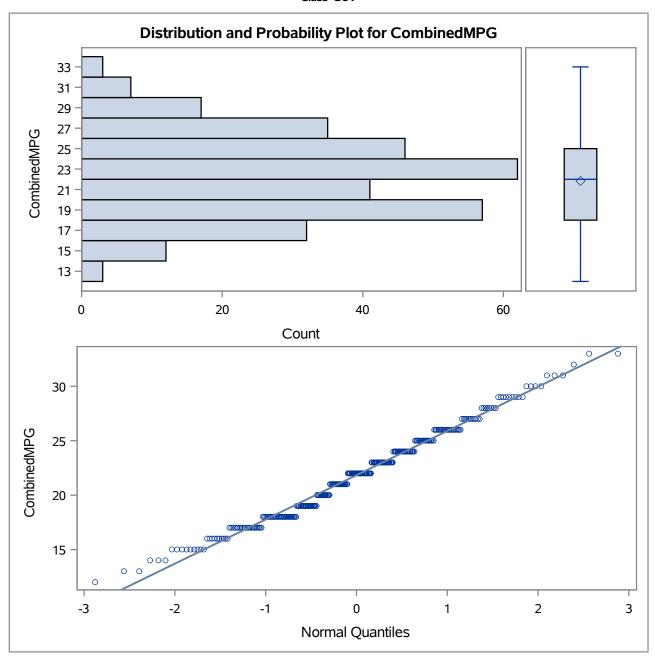
Tests for Location: Mu0=0				
Test	Statistic p Value			
Student's t	t	95.3814	Pr >  t	<.0001
Sign	М	157.5	Pr >=  M	<.0001
Signed Rank	S	24885	Pr >=  S	<.0001

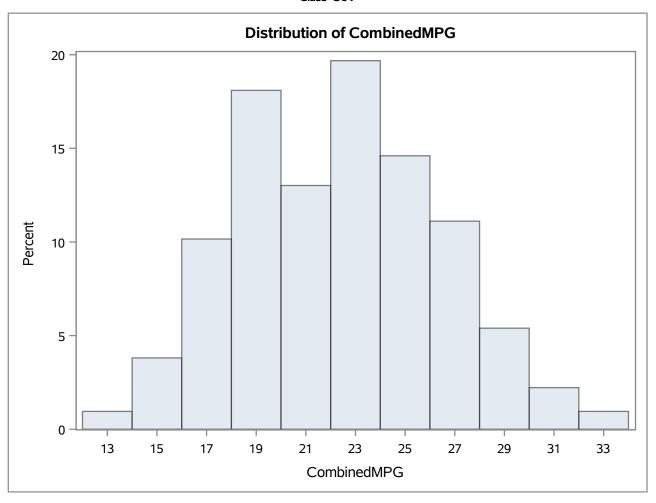
Tests for Normality				
Test	Statistic p Value			
Shapiro-Wilk	w	0.985941	Pr < W	0.0036
Kolmogorov-Smirnov	D	0.087491	Pr > D	<0.0100
Cramer-von Mises	W-Sq	0.265767	Pr > W-Sq	<0.0050
Anderson-Darling	A-Sq	1.594094	Pr > A-Sq	<0.0050

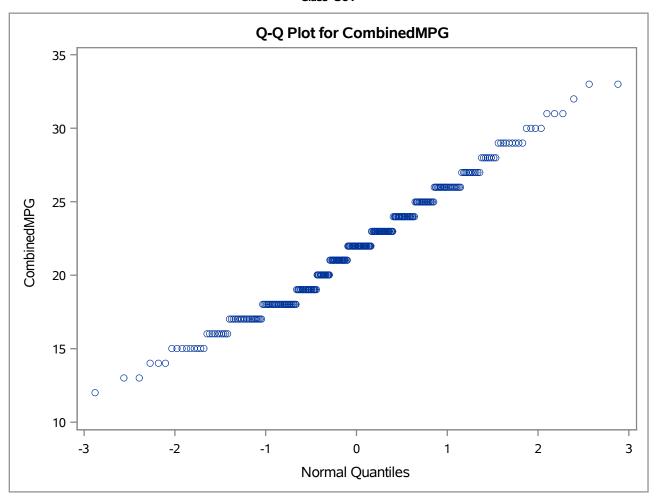
Quantiles (Definition 5)			
Level Quantile			
100% Max	33		
99%	31		
95%	29		
90%	27		
75% Q3	25		

Quantiles (Definition 5)			
Level Quantile			
50% Median	22		
25% Q1	18		
10%	17		
5%	16		
1%	14		
0% Min	12		

Extreme Observations				
Lowest		Highest		
Value	Obs	Value	Obs	
12	632	31	942	
13	634	31	943	
13	633	32	944	
14	637	33	945	
14	636	33	946	







Moments				
N	35	35 Sum Weights		
Mean	20.6857143	Sum Observations	724	
Std Deviation	2.79465276	Variance	7.81008403	
Skewness	-0.1279766	Kurtosis	-1.0548557	
Uncorrected SS	15242	Corrected SS	265.542857	
Coeff Variation	13.5100617	Std Error Mean	0.47238253	

	Basic Statistical Measures				
Location Variability					
Mean	20.68571	Std Deviation	2.79465		
Median	21.00000	Variance	7.81008		
Mode	22.00000	Range	9.00000		
		Interquartile Range	5.00000		

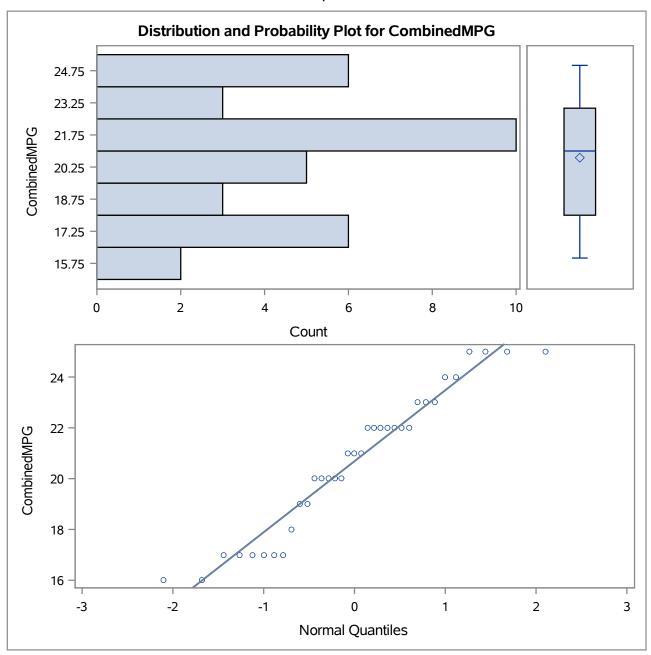
Tests for Location: Mu0=0				
Test	Statistic p Value			
Student's t	t 43.79018		Pr >  t	<.0001
Sign	М	17.5	Pr >=  M	<.0001
Signed Rank	S	315	Pr >=  S	<.0001

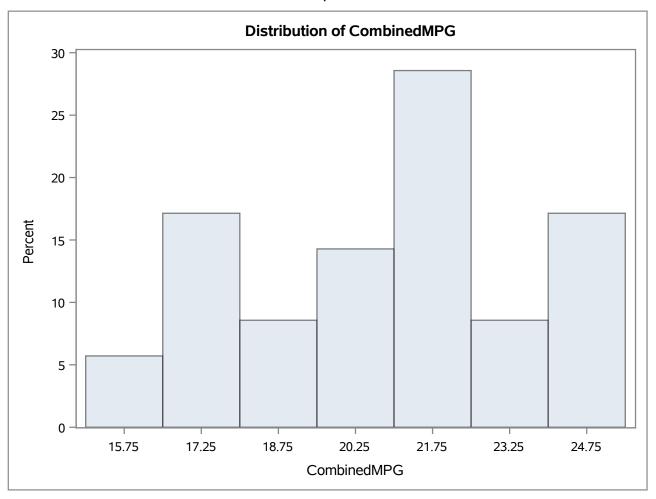
Tests for Normality				
Test	Statistic p Value			ıe
Shapiro-Wilk	w	0.934619	Pr < W	0.0385
Kolmogorov-Smirnov	D	0.138067	Pr > D	0.0893
Cramer-von Mises	W-Sq	0.09667	Pr > W-Sq	0.1229
Anderson-Darling	A-Sq	0.699352	Pr > A-Sq	0.0650

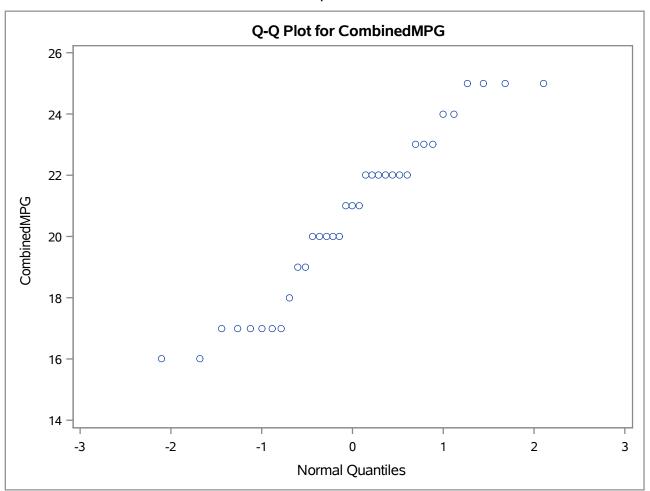
Quantiles (Definition 5)		
Quantile		
25		
25		
25		
25		
23		
21		

Quantiles (Definition 5)		
Level Quantile		
25% Q1	18	
<b>10</b> % 17		
5%	16	
<b>1</b> % 16		
<b>0% Min</b> 16		

<b>Extreme Observations</b>				
Low	est	High	est	
Value Obs		Value	Obs	
16	948	24	977	
16	947	25	978	
17	954	25	979	
17	953	25	980	
17	952	25	981	







Moments				
N	44	Sum Weights	44	
Mean	27.4772727	Sum Observations	1209	
Std Deviation	4.62796674	Variance	21.4180761	
Skewness	0.51309758	Kurtosis	1.25787732	
Uncorrected SS	34141	Corrected SS	920.977273	
Coeff Variation	16.8428897	Std Error Mean	0.69769224	

	Basic Statistical Measures				
Location Variability					
Mean	27.47727	Std Deviation	4.62797		
Median	28.00000	Variance	21.41808		
Mode	28.00000	Range	24.00000		
		Interquartile Range	5.50000		

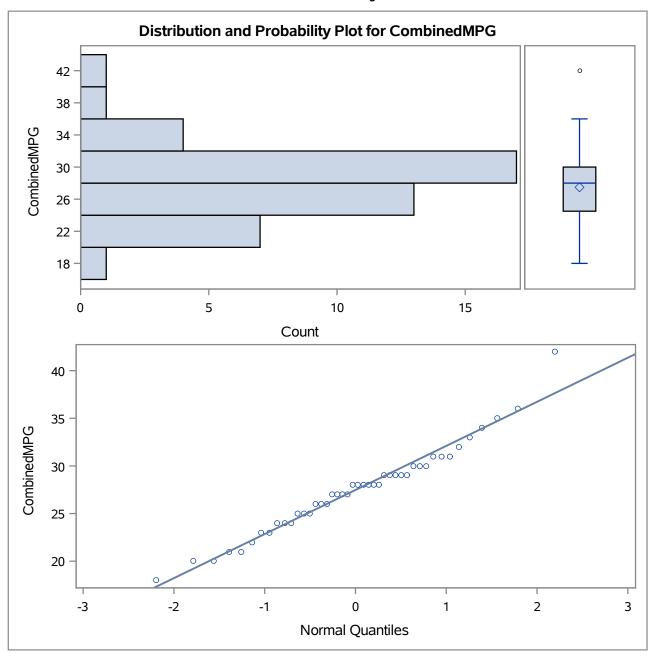
Tests for Location: Mu0=0					
Test	Statistic p Value				
Student's t	t 39.38309		Pr >  t	<.0001	
Sign	M 22		Pr >=  M	<.0001	
Signed Rank	s	495	Pr >=  S	<.0001	

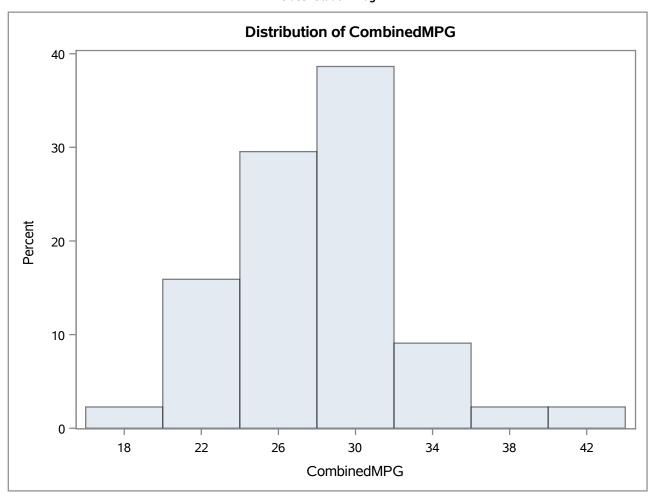
Tests for Normality					
Test	Statistic p Value				
Shapiro-Wilk	w	0.972265	Pr < W	0.3629	
Kolmogorov-Smirnov	D	0.09834	Pr > D	>0.1500	
Cramer-von Mises	W-Sq	0.05808	Pr > W-Sq	>0.2500	
Anderson-Darling	A-Sq	0.352625	Pr > A-Sq	>0.2500	

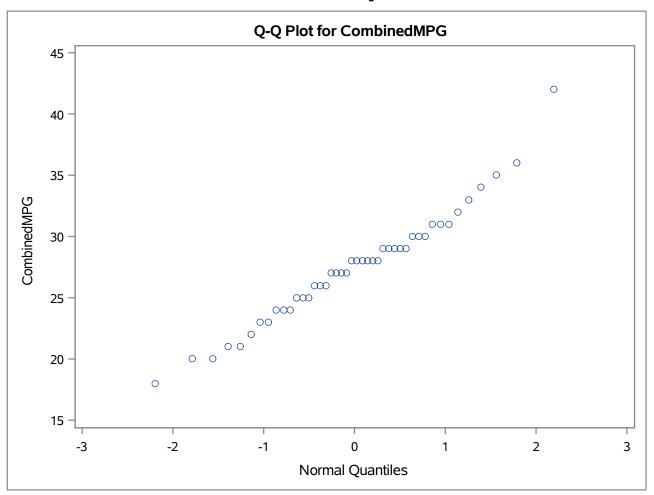
Quantiles (Definition 5)		
Level	Quantile	
100% Max	42.0	
99%	42.0	
95%	35.0	
90%	33.0	
75% Q3	30.0	
50% Median	28.0	

Quantiles (Definition 5)		
Level Quantile		
25% Q1	24.5	
<b>10</b> % 21		
5%	20.0	
1%	18.0	
<b>0% Min</b> 18.0		

<b>Extreme Observations</b>				
Low	est	Highest		
Value	alue Obs Value		Obs	
18	982	33	1021	
20	984	34	1022	
20	983	35	1023	
21	986	36	1024	
21	985	42	1025	







Moments				
N	95	Sum Weights	95	
Mean	23.6947368	Sum Observations	2251	
Std Deviation	5.03619597	Variance	25.3632699	
Skewness	0.44639835	Kurtosis	-0.0388161	
Uncorrected SS	55721	Corrected SS	2384.14737	
Coeff Variation	21.2544921	Std Error Mean	0.5167028	

	Basic Statistical Measures				
Location Variability					
Mean	23.69474	Std Deviation	5.03620		
Median	24.00000	Variance	25.36327		
Mode	26.00000	Range	22.00000		
		Interquartile Range	7.00000		

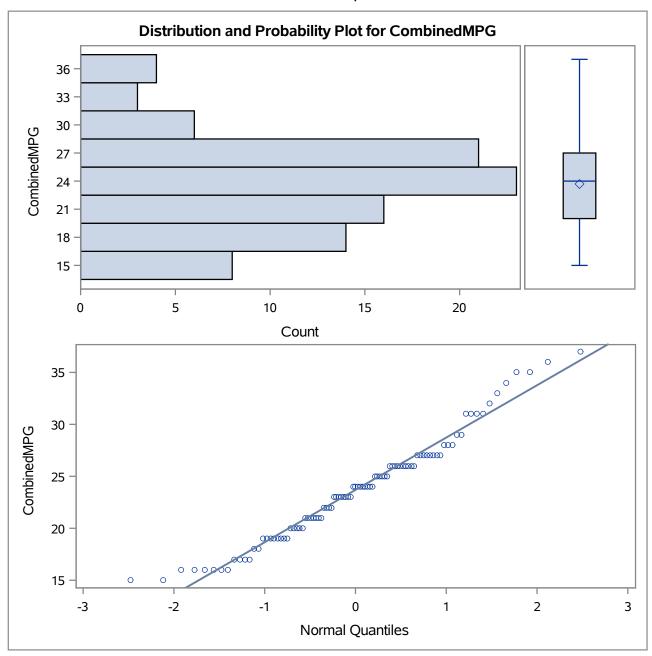
Tests for Location: Mu0=0					
Test	Statistic p V			lue	
Student's t	t 45.85757		Pr >  t	<.0001	
Sign	М	47.5	Pr >=  M	<.0001	
Signed Rank	S	2280	Pr >=  S	<.0001	

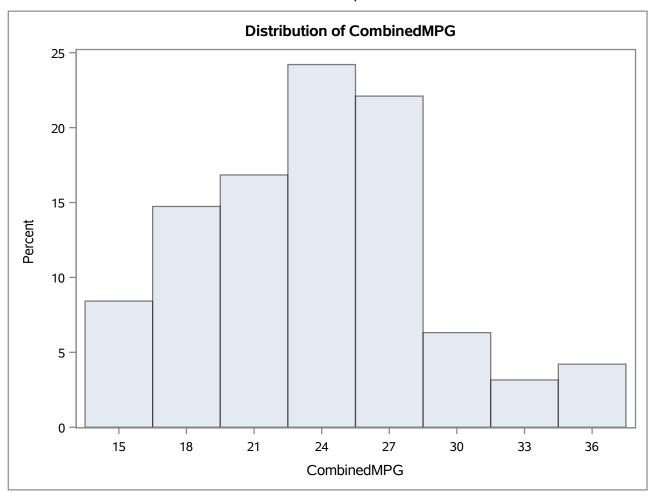
Tests for Normality				
Test	Statistic		p Value	
Shapiro-Wilk	w	0.969128	Pr < W	0.0241
Kolmogorov-Smirnov	D	0.087394	Pr > D	0.0740
Cramer-von Mises	W-Sq	0.085686	Pr > W-Sq	0.1786
Anderson-Darling	A-Sq	0.675235	Pr > A-Sq	0.0794

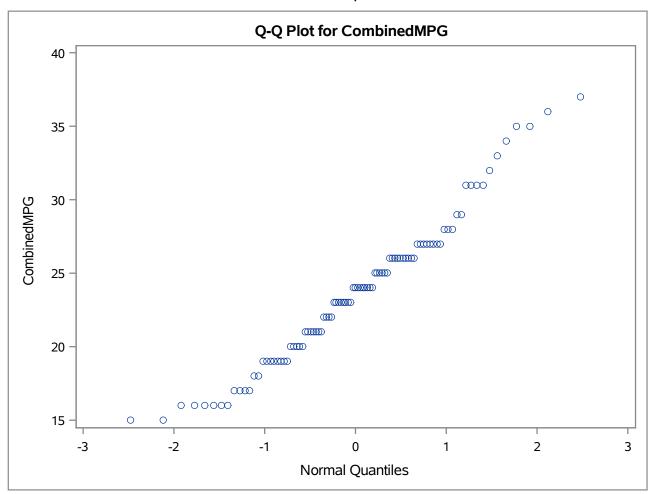
Quantiles (Definition 5)		
Level	Quantile	
100% Max	37	
99%	37	
95%	34	
90%	31	
75% Q3	27	
50% Median	24	

Quantiles (Definition 5)	
Level	Quantile
25% Q1	20
10%	17
5%	16
<b>1</b> % 15	
0% Min	15

Extreme Observations					
Lowest		High	est		
Value	Obs	Value	Obs		
15	1027	34	1116		
15	1026	35	1117		
16	1033	35	1118		
16	1032	36	1119		
16	1031	37	1120		







	Moments				
N	85	Sum Weights	85		
Mean	20.3411765	Sum Observations	1729		
Std Deviation	5.39742651	Variance	29.1322129		
Skewness	0.98570581	Kurtosis	1.21986435		
Uncorrected SS	37617	Corrected SS	2447.10588		
Coeff Variation	26.5344854	Std Error Mean	0.5854331		

	Basic Statistical Measures				
Location Variability					
Mean	20.34118	Std Deviation	5.39743		
Median	19.00000	Variance	29.13221		
Mode	18.00000	Range	25.00000		
		Interquartile Range	6.00000		

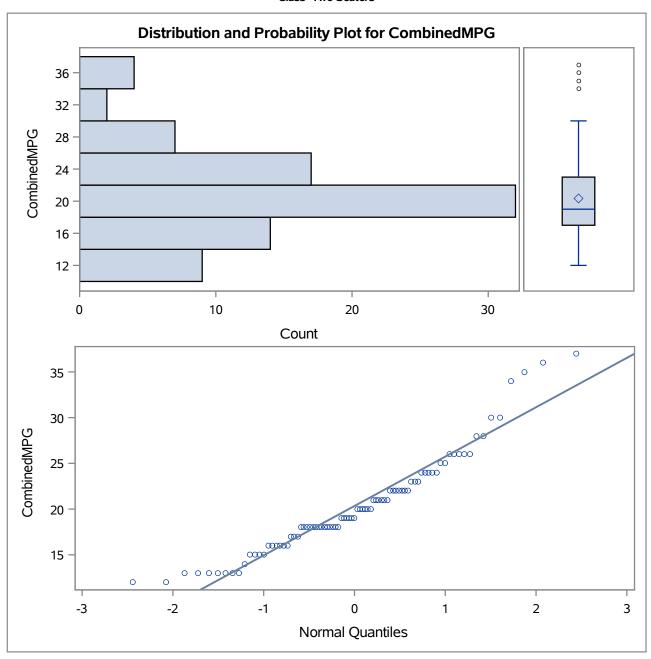
Tests for Location: Mu0=0					
Test	St	atistic	p Val	lue	
Student's t	t 34.74552		Pr >  t	<.0001	
Sign	М	42.5	Pr >=  M	<.0001	
Signed Rank	s	1827.5	Pr >=  S	<.0001	

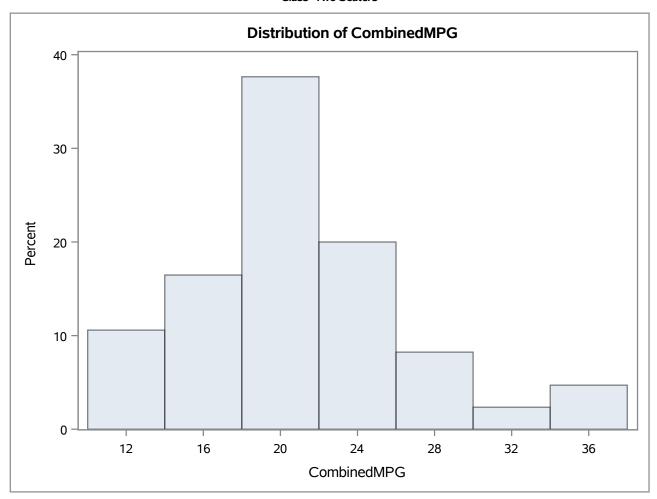
Tests for Normality					
Test	Statistic		Statistic p Value		ue
Shapiro-Wilk	w	0.931749	Pr < W	0.0002	
Kolmogorov-Smirnov	D	0.108706	Pr > D	0.0145	
Cramer-von Mises	W-Sq	0.209359	Pr > W-Sq	<0.0050	
Anderson-Darling	A-Sq	1.387904	Pr > A-Sq	<0.0050	

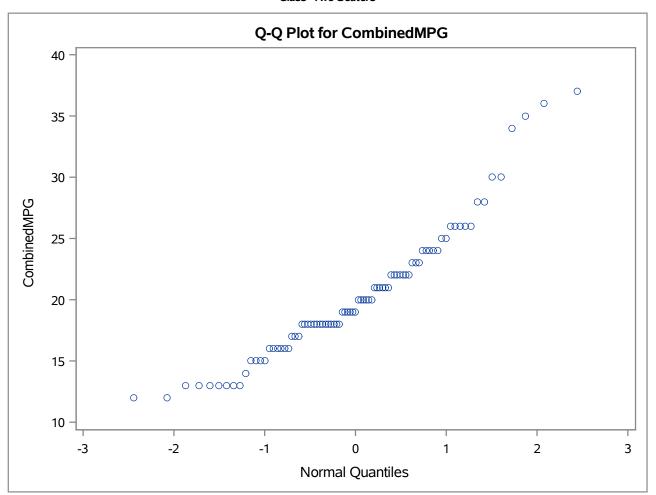
Quantiles (Definition 5)		
Level	Quantile	
100% Max	37	
99%	37	
95%	30	
90%	26	
75% Q3	23	
50% Median	19	

Quantiles (Definition 5)	
Level Quantile	
25% Q1	17
10%	13
5%	13
1%	12
0% Min	12

Extreme Observations			
Lowest		Highest	
Value	Obs	Value Obs	
12	1122	30	1201
12	1121	34	1202
13	1129	35	1203
13	1128	36	1204
13	1127	37	1205







Class=Vans, Passe

Moments				
N	6	Sum Weights	6	
Mean	13.6666667	Sum Observations	82	
Std Deviation	1.86189867	Variance	3.46666667	
Skewness	0.72300059	Kurtosis	-1.875	
Uncorrected SS	1138	Corrected SS	17.3333333	
Coeff Variation	13.6236488	Std Error Mean	0.76011695	

Basic Statistical Measures				
Loc	ation	Variability		
Mean	13.66667	Std Deviation	1.86190	
Median	13.00000	Variance	3.46667	
Mode	12.00000	Range	4.00000	
		Interquartile Range	4.00000	

Note: The mode displayed is the smallest of 3 modes with a count of 2.

Tests for Location: Mu0=0				
Test	Statistic		p Val	lue
Student's t	t	17.97969 <b>Pr &gt;  t </b>		<.0001
Sign	М	3	Pr >=  M	0.0313
Signed Rank	S	10.5	Pr >=  S	0.0313

Tests for Normality				
Test	Statistic		p Value	
Shapiro-Wilk	w	0.787561	Pr < W	0.0453
Kolmogorov-Smirnov	D	0.306517	Pr > D	0.0769
Cramer-von Mises	W-Sq	0.102959	Pr > W-Sq	0.0829
Anderson-Darling	A-Sq	0.614638	Pr > A-Sq	0.0591

Quantiles (Definition 5)			
Level Quantil			
100% Max	16		
99%	16		
95%	16		
90%	16		
75% Q3	16		

Quantiles (Definition 5)		
Level Quantile		
50% Median	13	
25% Q1	12	
10%	12	
5%	12	
1%	12	
<b>0% Min</b> 12		

Extreme Observations			
Lowest		Highest	
Value Obs		Value	Obs
12	1207	12	1207
12	1206	13	1208
13	1209	13	1209
13	1208	16	1210
16	1211	16	1211

