Descriptive Statistics by School

The MEANS Procedure

Analysis Variable : amount							
school	N Obs	N	Mean	Std Dev	Std Error	t Value	Pr > |t|
SEATTLE	14	14	27.0000000	36.7193095	9.8136483	2.75	0.0165
SMU	16	16	141.6250000	304.2678371	76.0669593	1.86	0.0823

Normality Tests and Plots

The UNIVARIATE Procedure

Variable: amount

school = SEATTLE

Moments			
N	14	Sum Weights	14
Mean	27	Sum Observations	378
Std Deviation	36.7193095	Variance	1348.30769
Skewness	1.5622031	Kurtosis	1.47889388
Uncorrected SS	27734	Corrected SS	17528
Coeff Variation	135.997443	Std Error Mean	9.81364827

Basic Statistical Measures			
Location		Variability	
Mean	27.00000	Std Deviation	36.71931
Median	10.00000	Variance	1348
Mode	0.00000	Range	110.00000
		Interquartile Range	40.00000

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	2.75127	Pr > |t|	0.0165
Sign	M	5	Pr >= |M|	0.0020
Signed Rank	S	27.5	Pr >= |S|	0.0020

Tests for Normality				
Test	Statistic		p Value	
Shapiro-Wilk	W	0.753077	Pr < W	0.0014
Kolmogorov-Smirnov	D	0.249736	Pr > D	0.0187
Cramer-von Mises	W-Sq	0.229244	Pr > W-Sq	<0.0050
Anderson-Darling	A-Sq	1.370542	Pr > A-Sq	<0.0050

Quantiles (Definition 5)	
Level	Quantile
100% Max	110
99%	110
95%	110
90%	100
75% Q3	40
50% Median	10
25% Q1	0
10%	0
5%	0

Normality Tests and Plots

The UNIVARIATE Procedure

Variable: amount

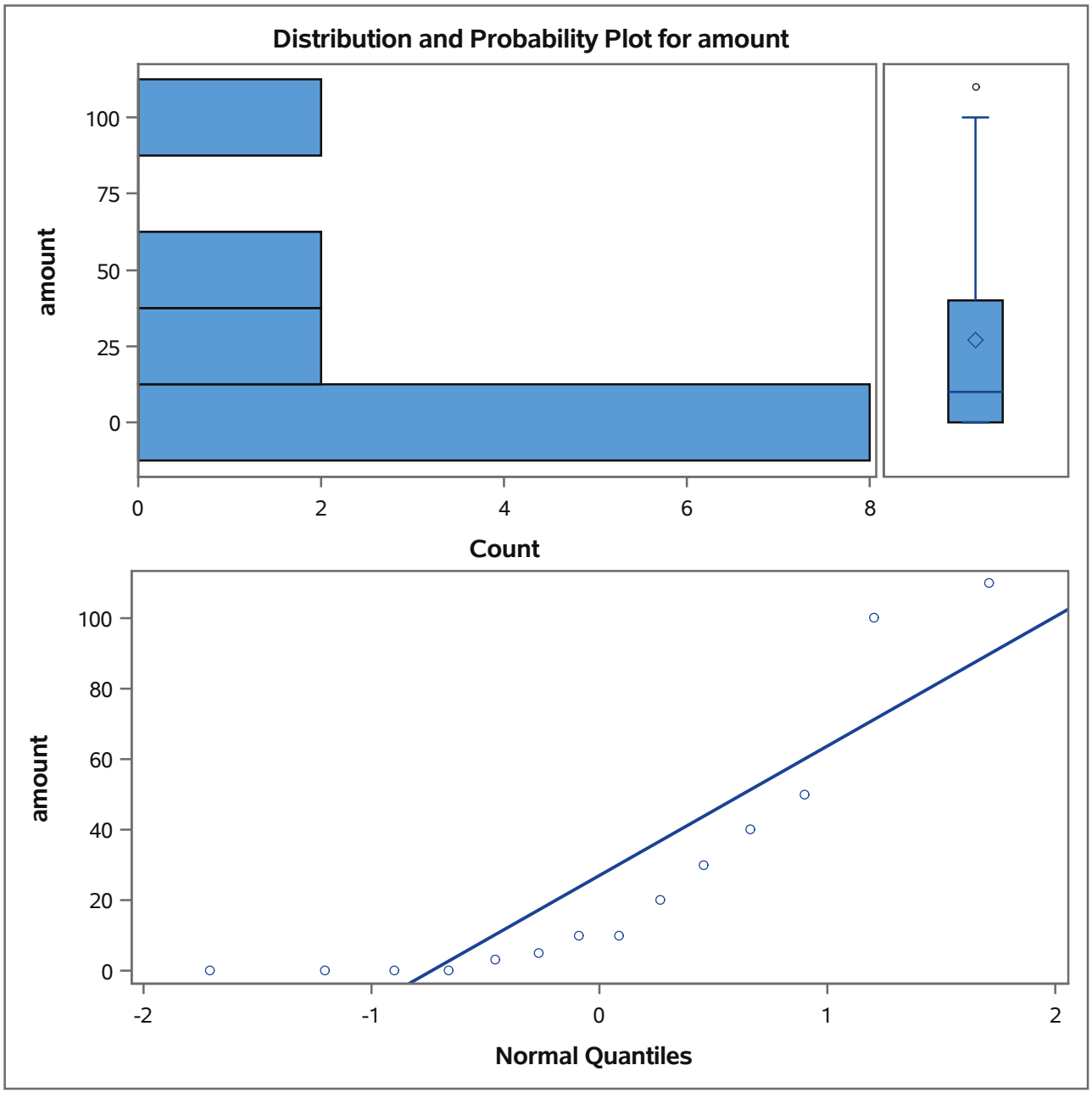
school = SEATTLE

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

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
0	30	30	21
0	26	40	27
0	23	50	22
0	20	100	24
3	29	110	25

Normality Tests and Plots

The UNIVARIATE Procedure



Normality Tests and Plots

The UNIVARIATE Procedure

Variable: amount

school = SMU

Moments			
N	16	Sum Weights	16
Mean	141.625	Sum Observations	2266
Std Deviation	304.267837	Variance	92578.9167
Skewness	3.20460293	Kurtosis	10.9691183
Uncorrected SS	1709606	Corrected SS	1388683.75
Coeff Variation	214.840485	Std Error Mean	76.0669593

Basic Statistical Measures			
Location		Variability	
Mean	141.6250	Std Deviation	304.26784
Median	32.0000	Variance	92579
Mode	0.0000	Range	1200
		Interquartile Range	69.50000

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	1.861846	Pr > |t|	0.0823
Sign	M	6	Pr >= |M|	0.0005
Signed Rank	S	39	Pr >= |S|	0.0005

Tests for Normality				
Test	Statistic		p Value	
Shapiro-Wilk	W	0.511885	Pr < W	<0.0001
Kolmogorov-Smirnov	D	0.381157	Pr > D	<0.0100
Cramer-von Mises	W-Sq	0.606316	Pr > W-Sq	<0.0050
Anderson-Darling	A-Sq	3.14562	Pr > A-Sq	<0.0050

Quantiles (Definition 5)	
Level	Quantile
100% Max	1200.0
99%	1200.0
95%	1200.0
90%	400.0
75% Q3	74.5
50% Median	32.0
25% Q1	5.0
10%	0.0
5%	0.0

Normality Tests and Plots

The UNIVARIATE Procedure

Variable: amount

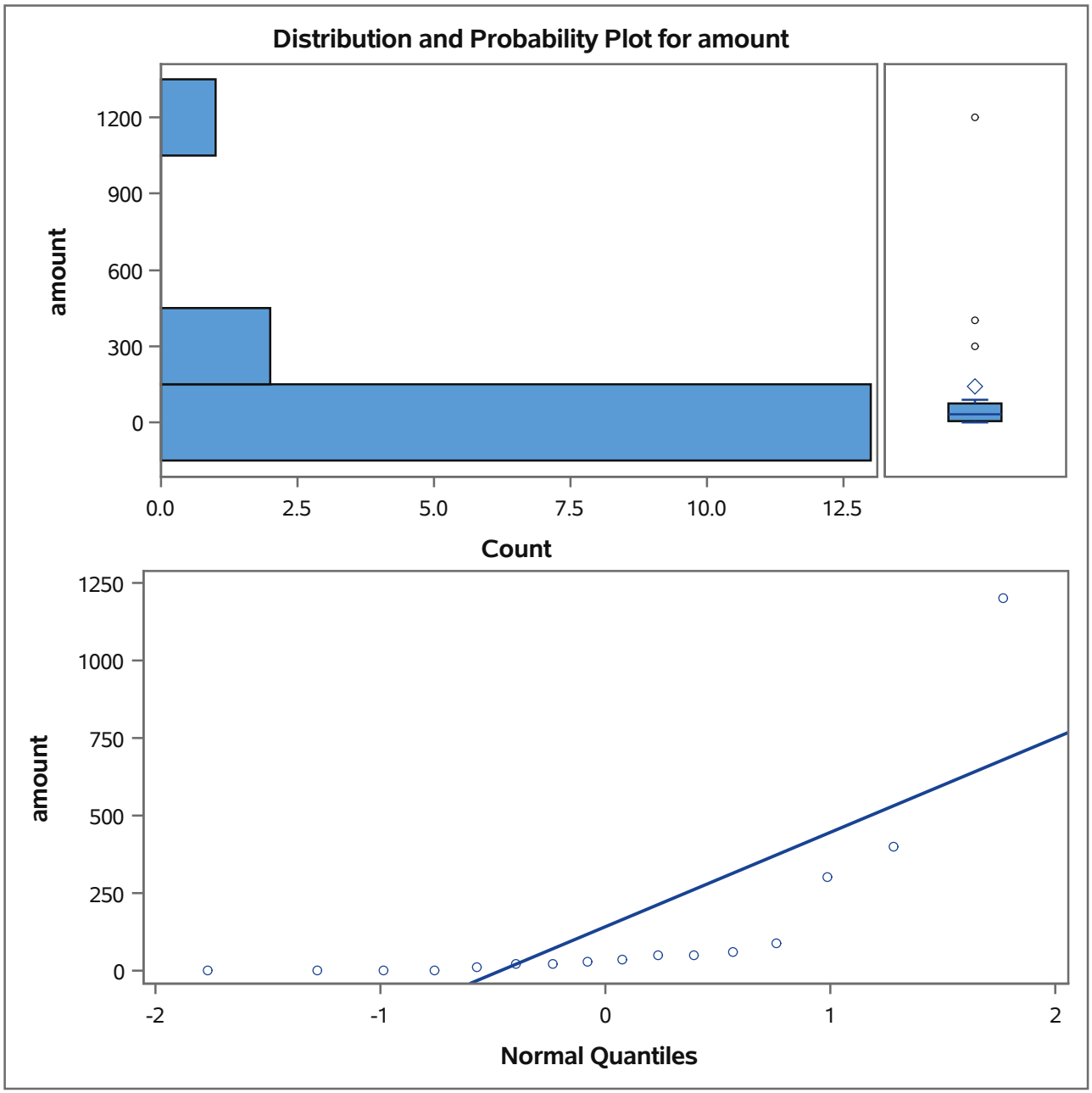
school = SMU

Quantiles (Definition 5)	
Level	Quantile
1%	0.0
0% Min	0.0

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
0	16	60	5
0	11	89	10
0	8	300	12
0	7	400	13
10	15	1200	2

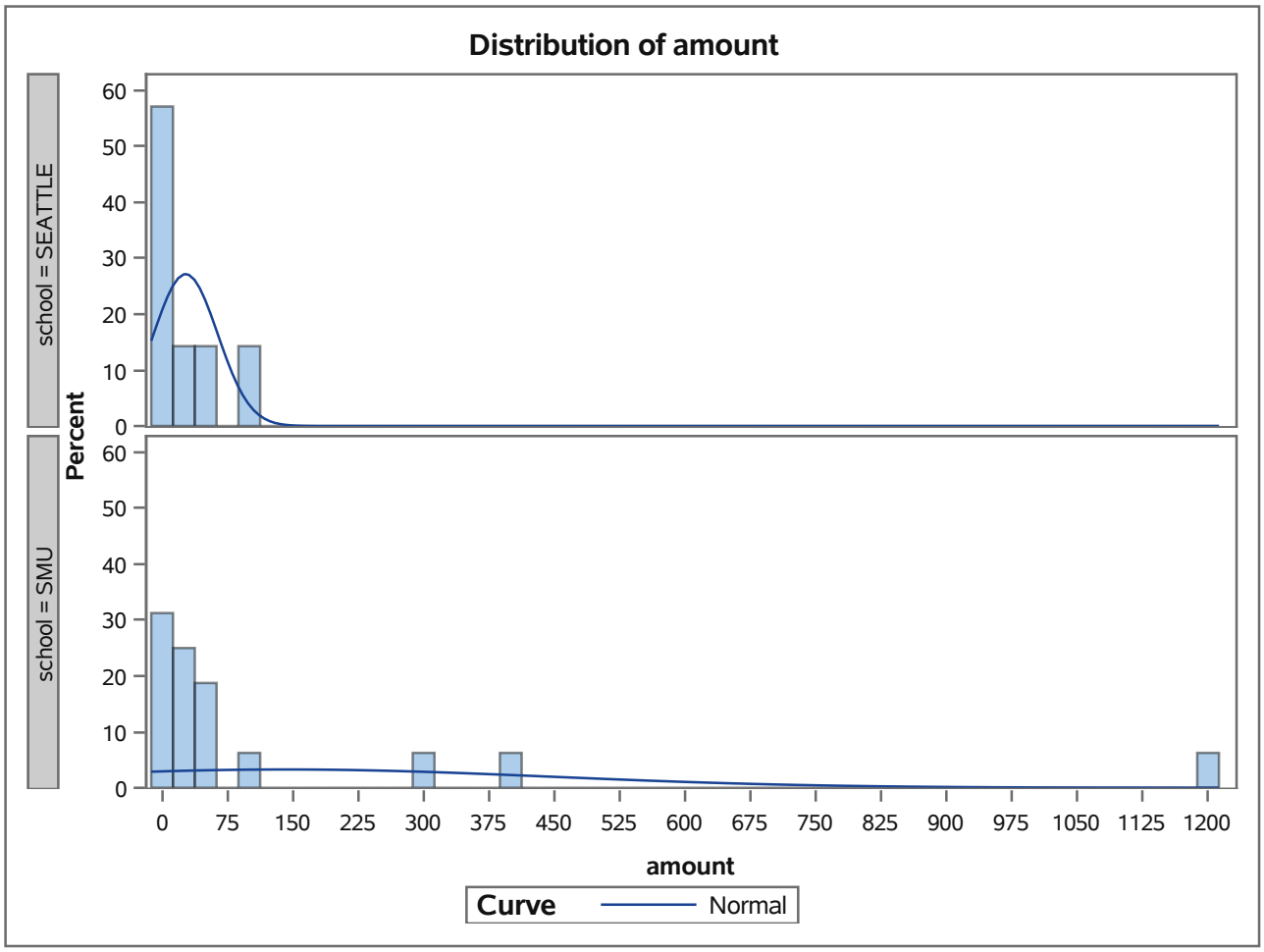
Normality Tests and Plots

The UNIVARIATE Procedure



Normality Tests and Plots

The UNIVARIATE Procedure



Normality Tests and Plots

The UNIVARIATE Procedure

school = SEATTLE

Fitted Normal Distribution for amount

Parameters for Normal Distribution		
Parameter	**Symbol**	**Estimate**
Mean	Mu	27
Std Dev	Sigma	36.71931

Goodness-of-Fit Tests for Normal Distribution				
Test	**Statistic**		**p Value**	
Kolmogorov-Smirnov	**D**	0.24973623	**Pr > D**	0.019
Cramer-von Mises	**W-Sq**	0.22924425	**Pr > W-Sq**	<0.005
Anderson-Darling	**A-Sq**	1.37054244	**Pr > A-Sq**	<0.005

Quantiles for Normal Distribution		
	Quantile	
Percent	**Observed**	**Estimated**
1.0	0.000	-58.42189
5.0	0.000	-33.39789
10.0	0.000	-20.05769
25.0	0.000	2.23320
50.0	10.000	27.00000
75.0	40.000	51.76680
90.0	100.000	74.05769
95.0	110.000	87.39789
99.0	110.000	112.42189

Normality Tests and Plots

The UNIVARIATE Procedure

school = SMU

Fitted Normal Distribution for amount

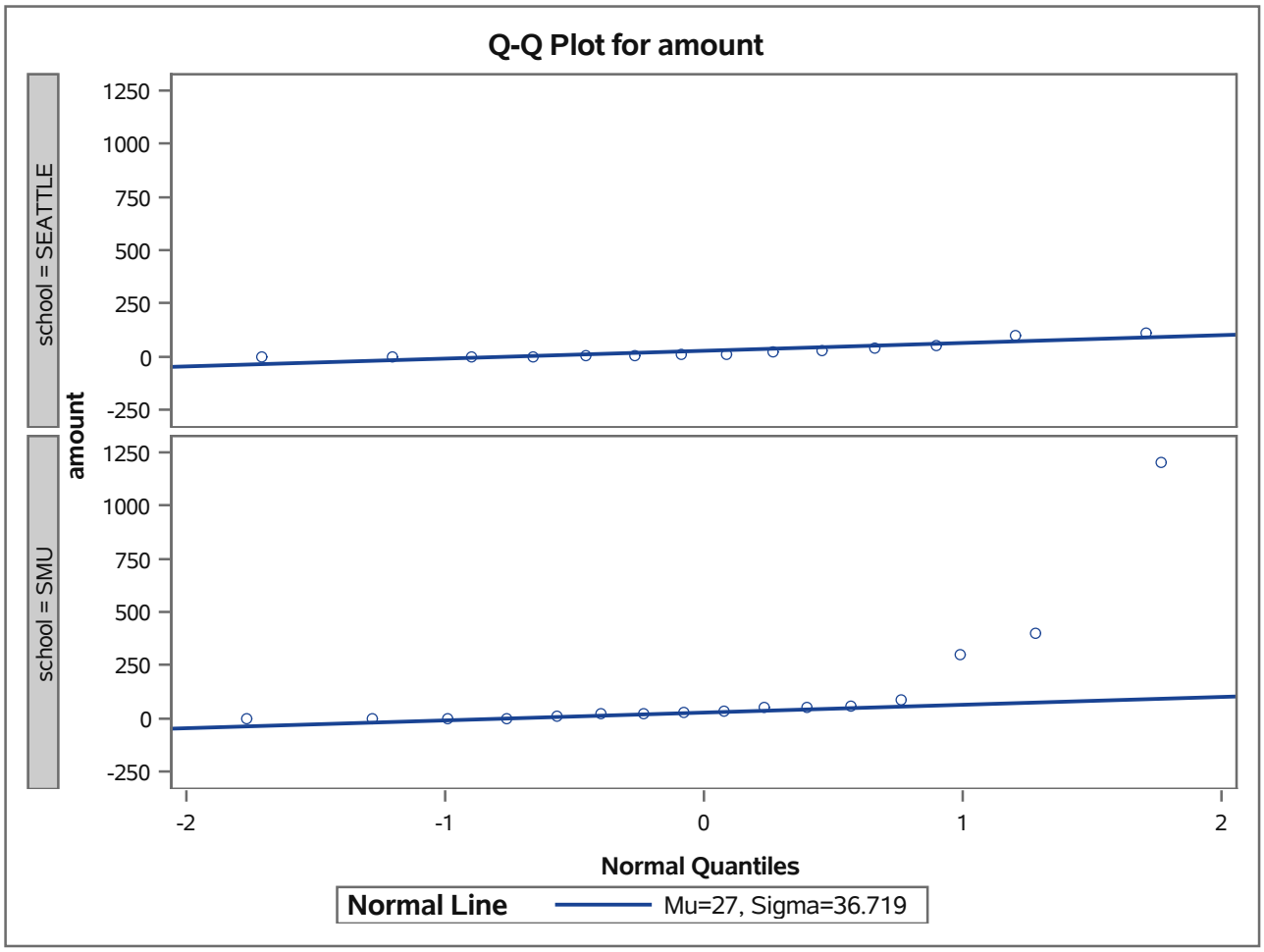
Parameters for Normal Distribution		
Parameter	**Symbol**	**Estimate**
Mean	Mu	141.625
Std Dev	Sigma	304.2678

Goodness-of-Fit Tests for Normal Distribution				
Test	**Statistic**		**p Value**	
Kolmogorov-Smirnov	**D**	0.38115706	**Pr > D**	<0.010
Cramer-von Mises	**W-Sq**	0.60631554	**Pr > W-Sq**	<0.005
Anderson-Darling	**A-Sq**	3.14561969	**Pr > A-Sq**	<0.005

Quantiles for Normal Distribution		
	Quantile	
Percent	**Observed**	**Estimated**
1.0	0.00	-566.2078
5.0	0.00	-358.8511
10.0	0.00	-248.3099
25.0	5.00	-63.6005
50.0	32.00	141.6250
75.0	74.50	346.8505
90.0	400.00	531.5599
95.0	1200.00	642.1011
99.0	1200.00	849.4578

Normality Tests and Plots

The UNIVARIATE Procedure



Levene's Test for Homogeneity of Variance

The GLM Procedure

Class Level Information		
Class	**Levels**	**Values**
school	2	SEATTLE SMU

Number of Observations Read	30
Number of Observations Used	30

Levene's Test for Homogeneity of Variance

The GLM Procedure

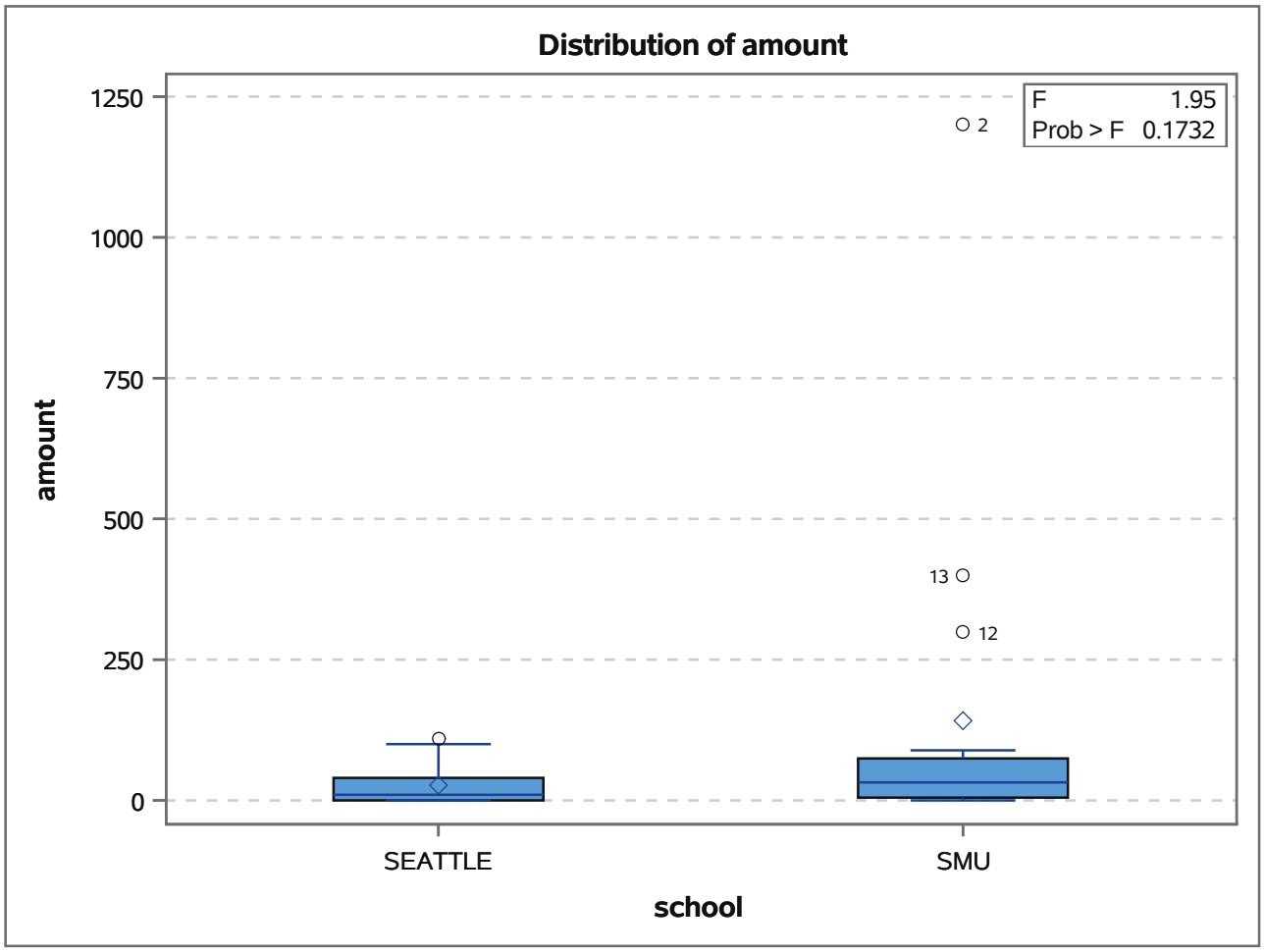
Dependent Variable: amount

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	98103.717	98103.717	1.95	0.1732
Error	28	1406211.750	50221.848		
Corrected Total	29	1504315.467			

R-Square	Coeff Var	Root MSE	amount Mean
0.065215	254.2765	224.1023	88.13333

Source	DF	Type I SS	Mean Square	F Value	Pr > F
school	1	98103.71667	98103.71667	1.95	0.1732

Source	DF	Type III SS	Mean Square	F Value	Pr > F
school	1	98103.71667	98103.71667	1.95	0.1732



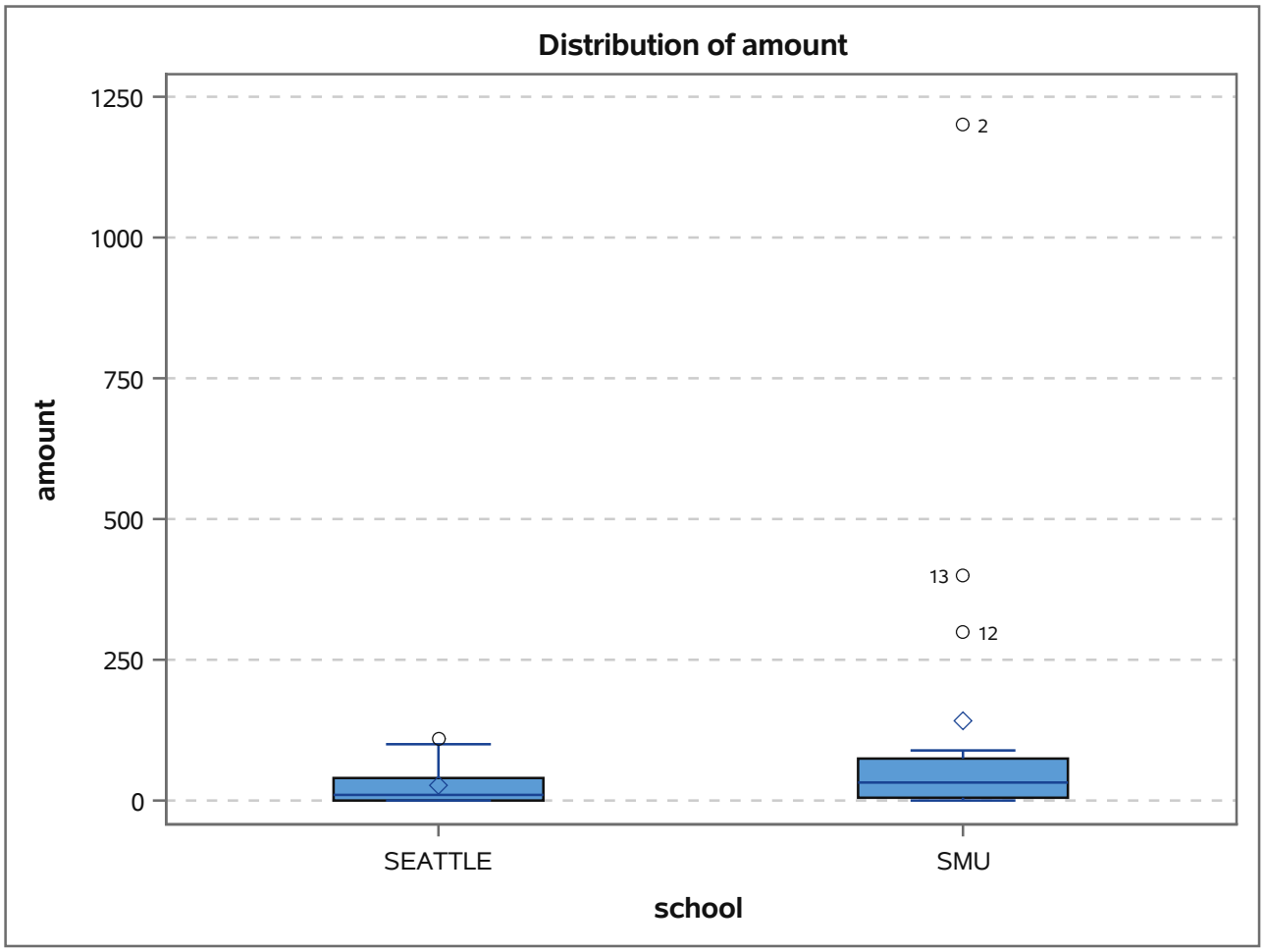
Levene's Test for Homogeneity of Variance

The GLM Procedure

Levene's Test for Homogeneity of amount Variance ANOVA of Squared Deviations from Group Means					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
school	1	5.464E10	5.464E10	1.34	0.2569
Error	28	1.142E12	4.079E10		

Levene's Test for Homogeneity of Variance

The GLM Procedure



Level of school	N	amount	
		Mean	Std Dev
SEATTLE	14	27.000000	36.719310
SMU	16	141.625000	304.267837

Two-Sample t-Test Results

The TTEST Procedure

Variable: amount

school	Method	N	Mean	Std Dev	Std Err	Minimum	Maximum
SEATTLE		14	27.0000	36.7193	9.8136	0	110.0
SMU		16	141.6	304.3	76.0670	0	1200.0
Diff (1-2)	Pooled		-114.6	224.1	82.0131		
Diff (1-2)	Satterthwaite		-114.6		76.6974		

school	Method	Mean	95% CL Mean		Std Dev	95% CL Std Dev	
SEATTLE		27.0000	5.7989	48.2011	36.7193	26.6198	59.1564
SMU		141.6	-20.5079	303.8	304.3	224.8	470.9
Diff (1-2)	Pooled	-114.6	-282.6	53.3711	224.1	177.8	303.1
Diff (1-2)	Satterthwaite	-114.6	-277.6	48.3948			

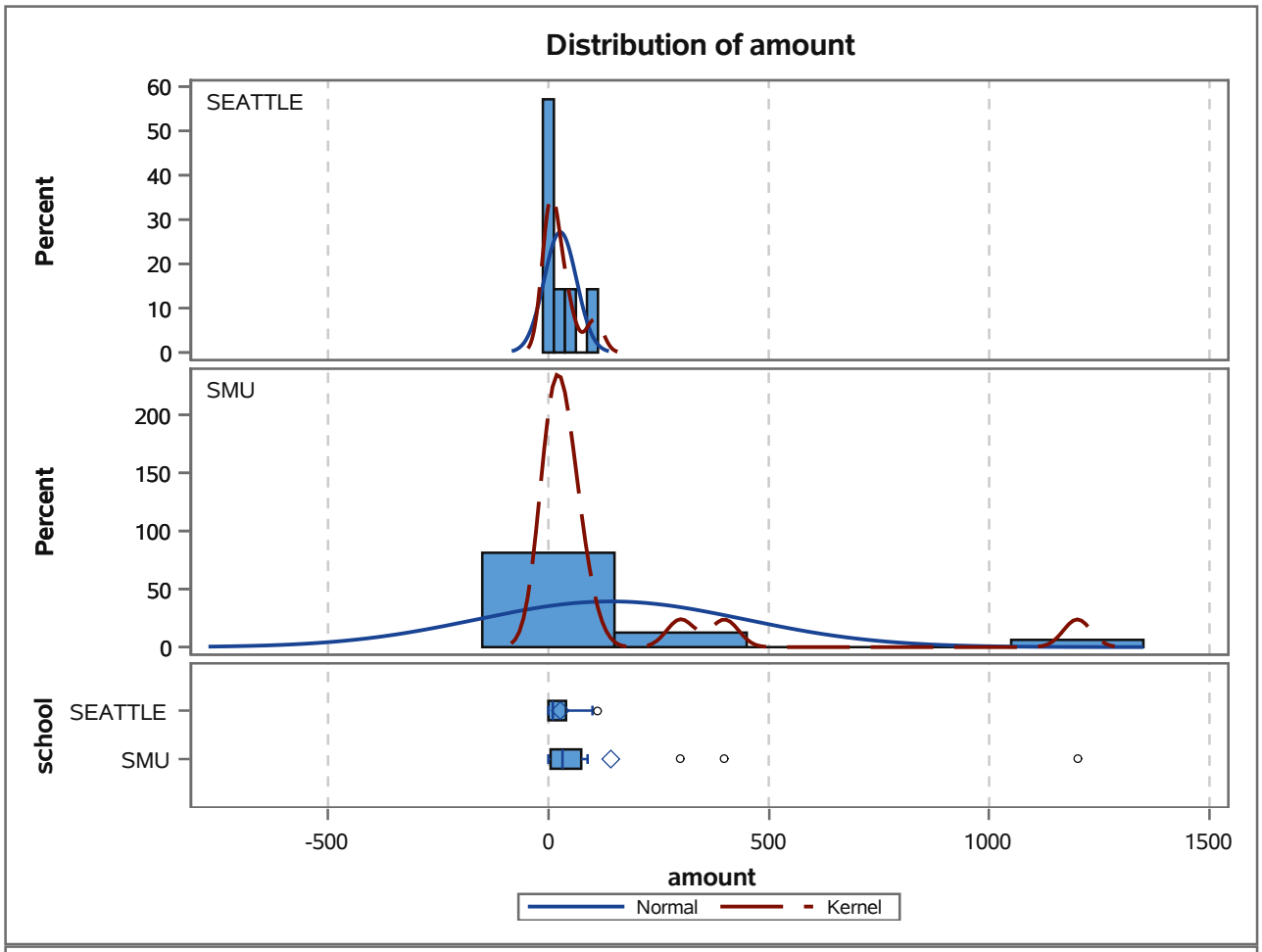
Method	Variances	DF	t Value	Pr > |t|
Pooled	Equal	28	-1.40	0.1732
Satterthwaite	Unequal	15.499	-1.49	0.1551

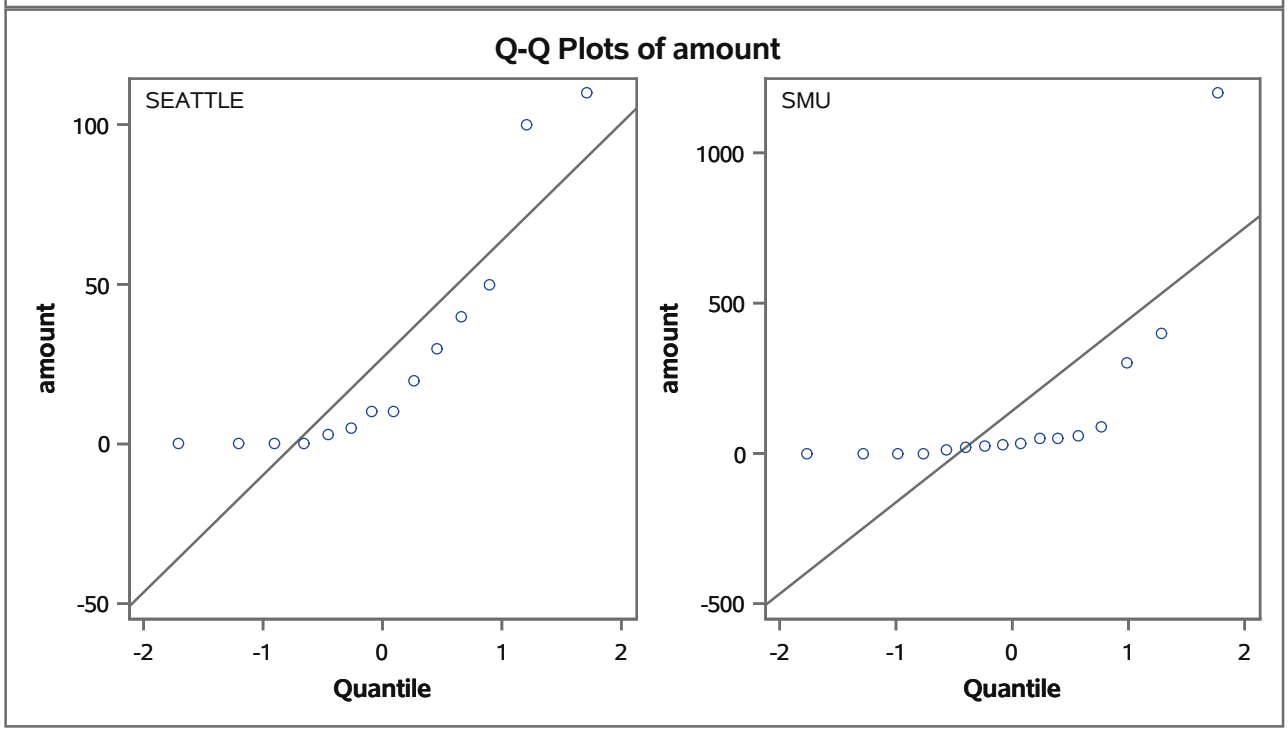
Equality of Variances				
Method	Num DF	Den DF	F Value	Pr > F
Folded F	15	13	68.66	<.0001

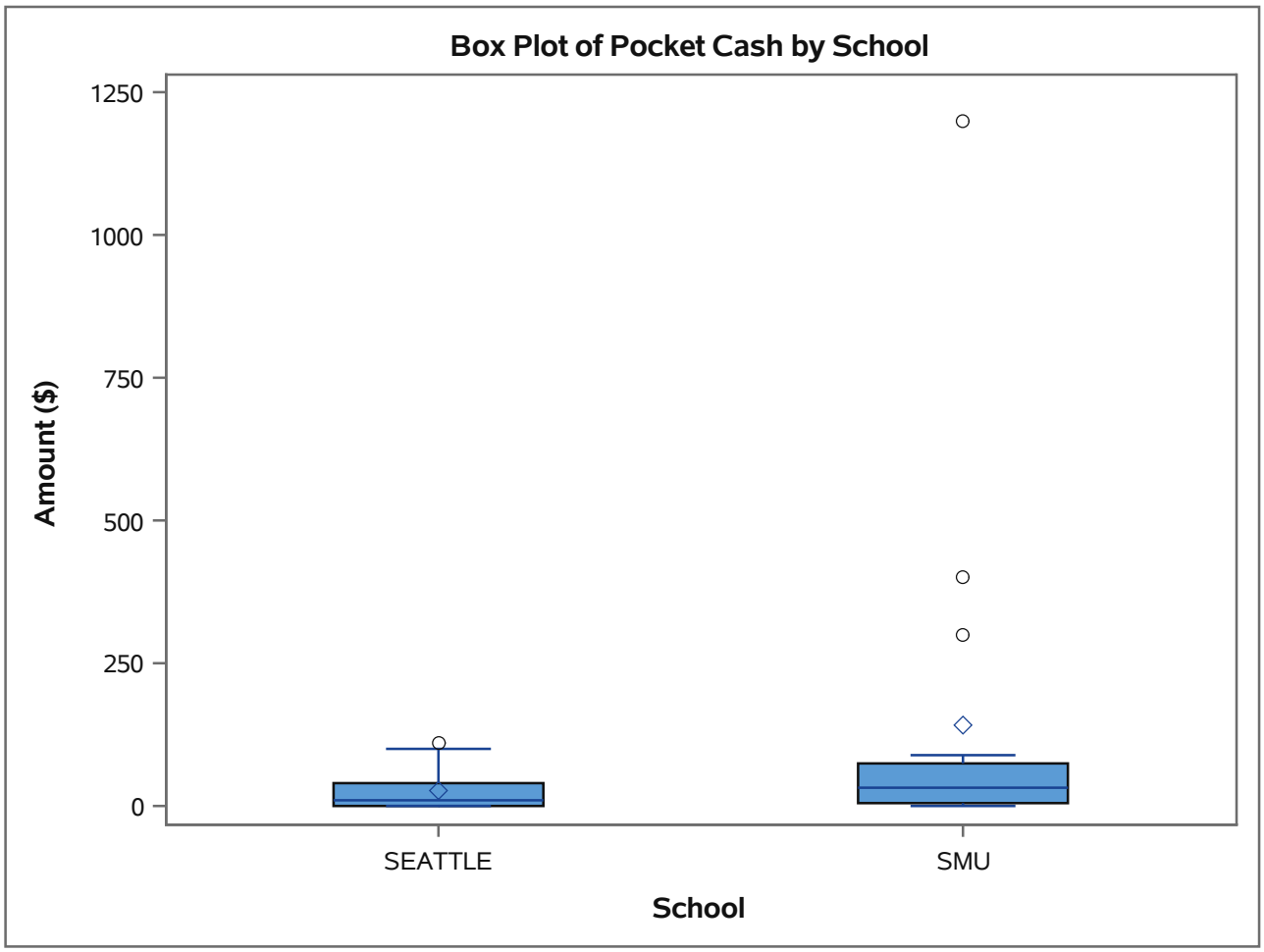
Two-Sample t-Test Results

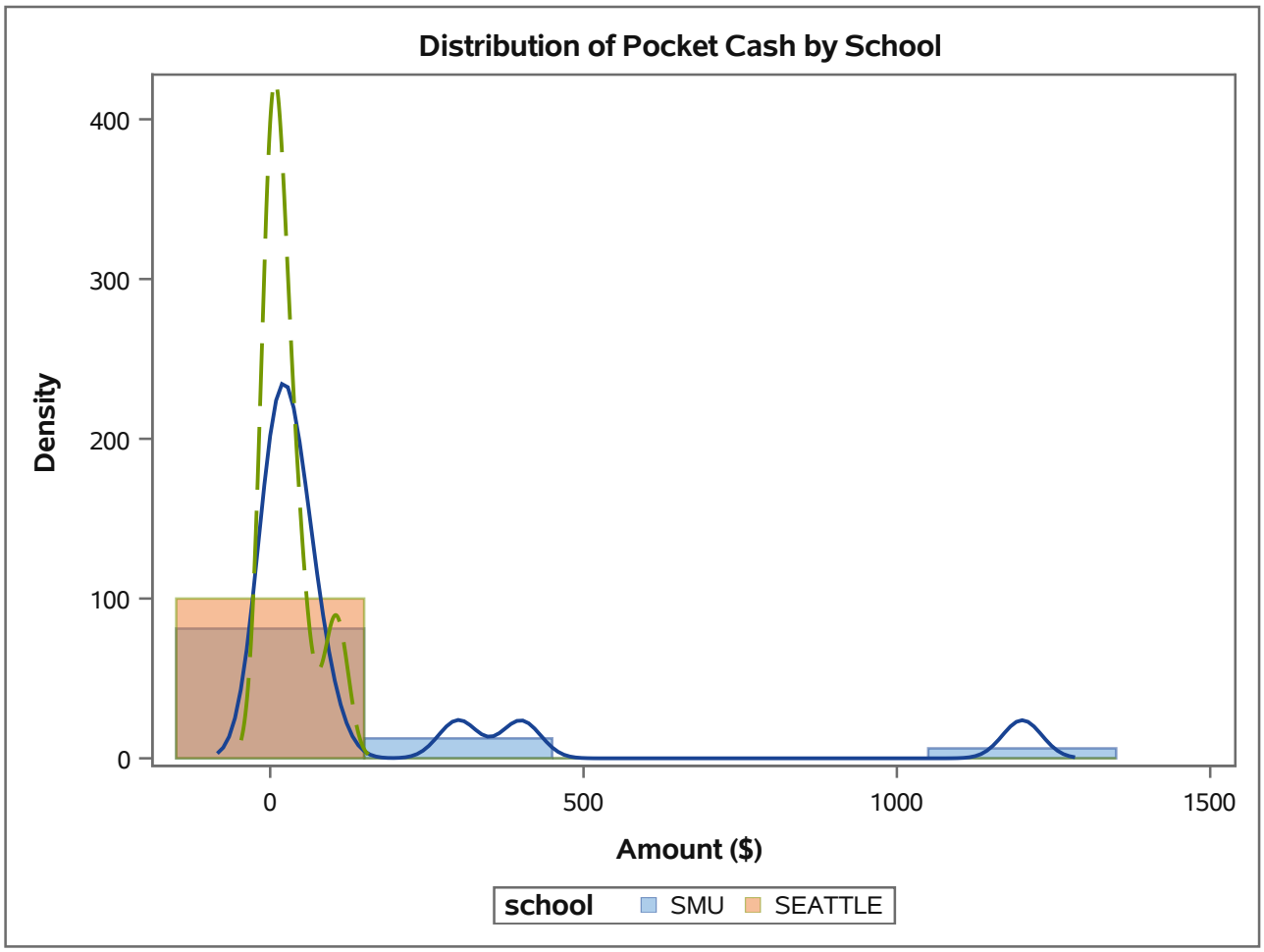
The TTEST Procedure

Variable: amount






Box Plot of Pocket Cash by School
Amount ($)
1250
1000
750
500
250
0
SEATTLE
SMU
School


Distribution of Pocket Cash by School
Density
400
300
200
100
0
0
500
1000
1500
Amount ($)
school
SMU
SEATTLE

Distribution of Pocket Cash by School

Effect Size Analysis

Cohen's d
0