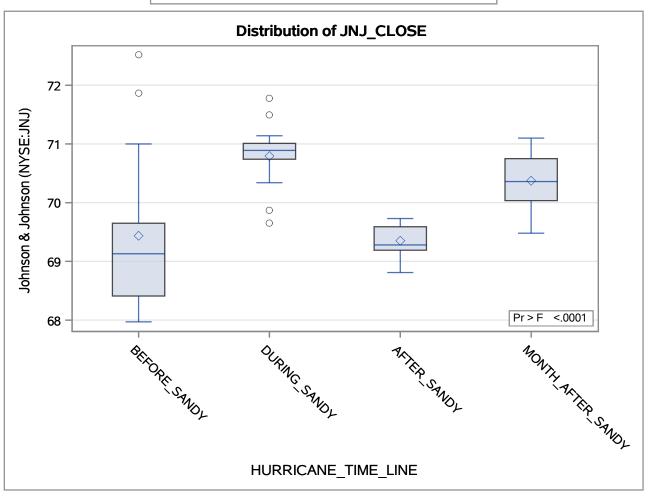
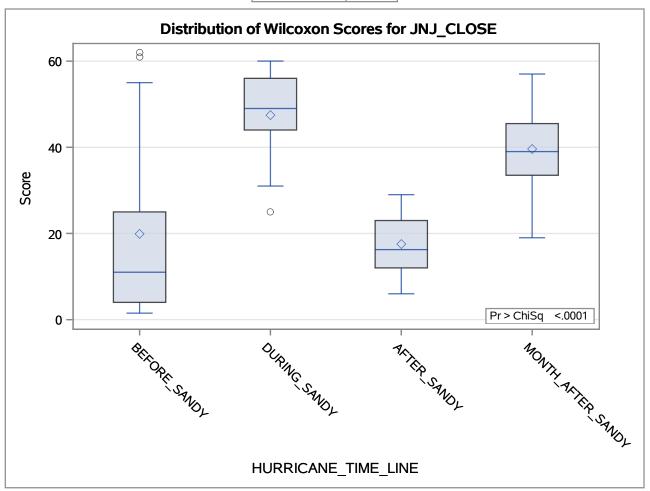
Analysis of Variance for Variable JNJ_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE	N	Mean			
BEFORE_SANDY	15	69.436667			
DURING_SANDY	13	70.794615			
AFTER_SANDY	14	69.352143			
MONTH_AFTER_SANDY	20	70.374000			

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F		
Among	3	21.640771	7.213590	11.8864	<.0001		
Within	58	35.198972	0.606879				
	Average scores were used for ties.						



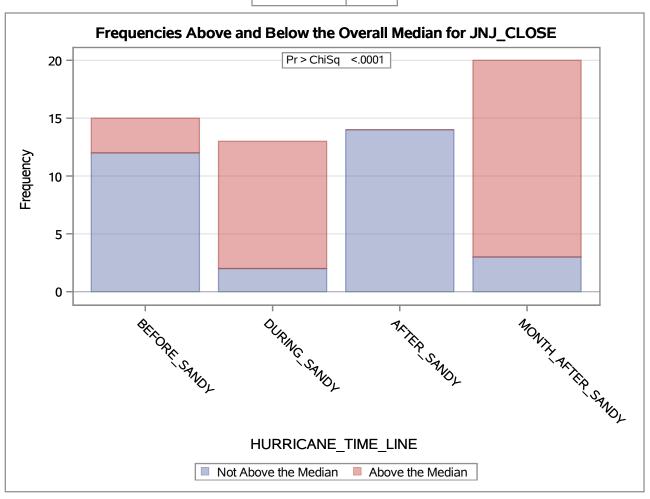
Wilcoxon Scores (Rank Sums) for Variable JNJ_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N Scores Under H0 Score Std Dev Score						
BEFORE_SANDY	15	298.50	472.50	60.831771	19.900000	
DURING_SANDY	13	617.00	409.50	57.823665	47.461538	
AFTER_SANDY	14	245.50	441.00	59.390986	17.535714	
MONTH_AFTER_SANDY	20	792.00	630.00	66.401141	39.600000	
Average scores were used for ties.						

Kruskal-Wallis Test				
Chi-Square	28.8004			
DF	3			
Pr > Chi-Square	<.0001			



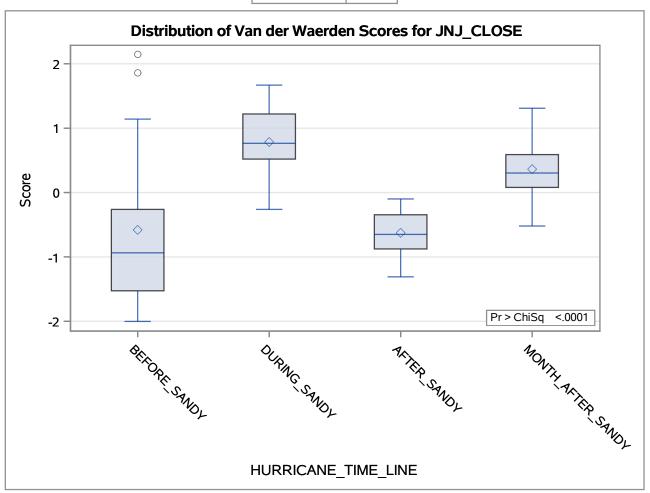
Median Scores (Number of Points Above Median) for Variable JNJ_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N Sum of Scores Expected Under H0 Score Mean Score						
BEFORE_SANDY	15	3.0	7.50	1.699807	0.200000	
DURING_SANDY	13	11.0	6.50	1.615752	0.846154	
<b>AFTER_SANDY</b> 14 0.0 7.00 1.659548 0.000000						
MONTH_AFTER_SANDY	20	17.0	10.00	1.855431	0.850000	
Average scores were used for ties.						

Median One-Way Analysis				
Chi-Square	34.8593			
DF	3			
Pr > Chi-Square	<.0001			



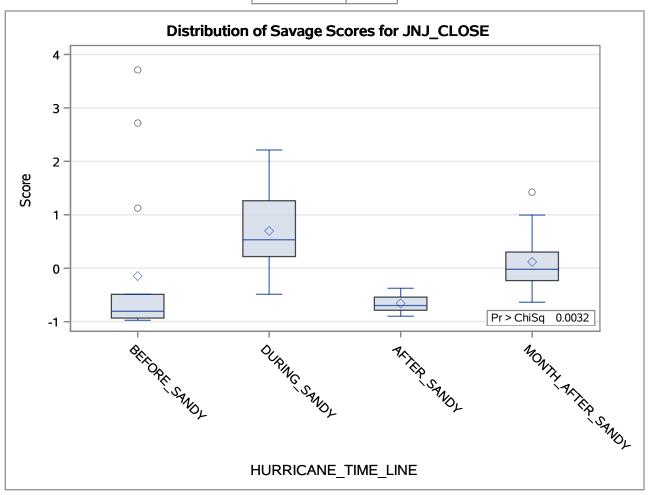
Van der Waerden Scores (Normal) for Variable JNJ_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE N Sum of Scores Expected Under H0 Score					
BEFORE_SANDY	15	-8.706265	0.0	3.204346	-0.580418
DURING_SANDY	13	10.200199	0.0	3.045892	0.784631
<b>AFTER_SANDY</b> 14 -8.763529 0.0 3.128452 -0.625966					
MONTH_AFTER_SANDY	20	7.269595	0.0	3.497716	0.363480
Average scores were used for ties.					

Van der Waerden One-Way Analysis				
Chi-Square	23.4607			
DF	3			
Pr > Chi-Square	<.0001			



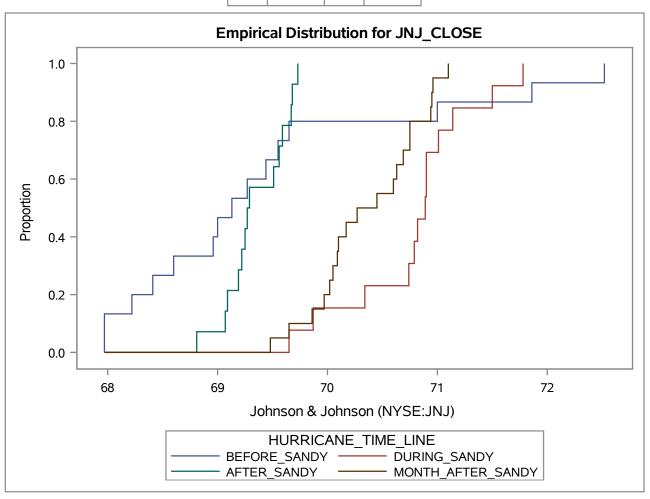
Savage Scores (Exponential) for Variable JNJ_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE N Sum of Expected Under H0 Scores Under H0 Score					
BEFORE_SANDY	15	-2.213759	0.0	3.267666	-0.147584
DURING_SANDY	13	9.063434	0.0	3.106081	0.697187
<b>AFTER_SANDY</b> 14 -9.205025 0.0 3.190272 -0.657502					
MONTH_AFTER_SANDY	20	2.355350	0.0	3.566833	0.117768
Average scores were used for ties.					

Savage One-Way Analysis				
Chi-Square	13.8179			
DF	3			
Pr > Chi-Square	0.0032			



Kolmogorov-Smirnov Test for Variable JNJ_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE	N	EDF at Maximum	Deviation from Mean at Maximum			
BEFORE_SANDY	15	0.800000	1.286830			
DURING_SANDY	13	0.076923	-1.409117			
AFTER_SANDY	14	1.000000	1.991527			
MONTH_AFTER_SANDY	20	0.100000	-1.644592			
<b>Total</b> 62 0.467742						
Maximum Deviation Occurred at Observation 42						
Value of JNJ_CLOSE at Maximum = 69.730						

Kolmogorov-Smirnov Statistics (Asymptotic)			
KS	0.407835	KSa	3.211294

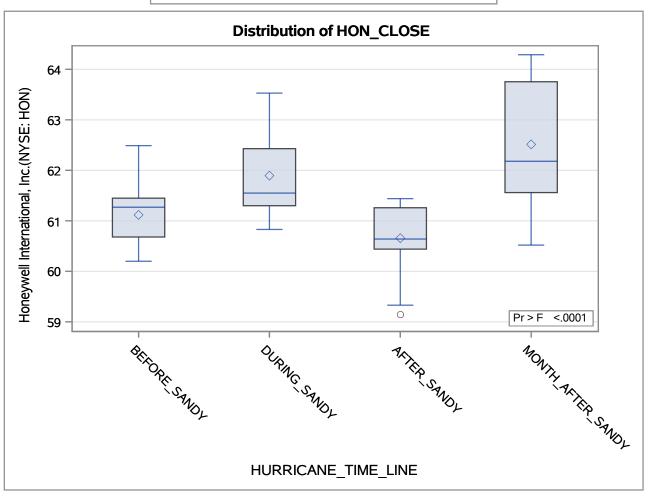


Cramer-von Mises Test for Variable JNJ_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE	N	Summed Deviation from Mean			
BEFORE_SANDY	15	0.904694			
DURING_SANDY	13	1.122071			
AFTER_SANDY	14	1.129029			
MONTH_AFTER_SANDY	20	0.745789			

Cramer-von Mises Statistics (Asymptotic)				
СМ	0.062929	СМа	3.901582	

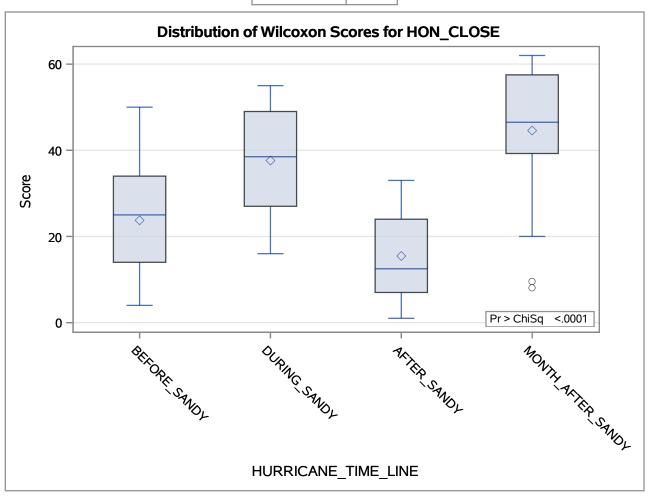
Analysis of Variance for Variable HON_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE	N	Mean			
BEFORE_SANDY	15	61.118000			
DURING_SANDY	13	61.896154			
AFTER_SANDY	14	60.657857			
MONTH_AFTER_SANDY	20	62.515000			

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F		
Among	3	33.748144	11.249381	12.9476	<.0001		
Within	58	50.392683	0.868839				
Average scores were used for ties.							



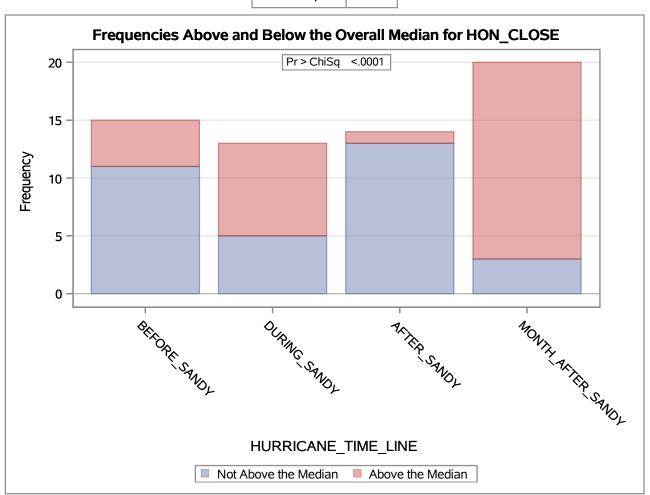
Wilcoxon Scores (Rank Sums) for Variable HON_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
BEFORE_SANDY	15	356.00	472.50	60.831771	23.733333
DURING_SANDY	13	489.00	409.50	57.823665	37.615385
AFTER_SANDY	14	216.50	441.00	59.390986	15.464286
MONTH_AFTER_SANDY	20	891.50	630.00	66.401141	44.575000
Average scores were used for ties.					

Kruskal-Wallis Test				
Chi-Square	25.8427			
DF	3			
Pr > Chi-Square	<.0001			



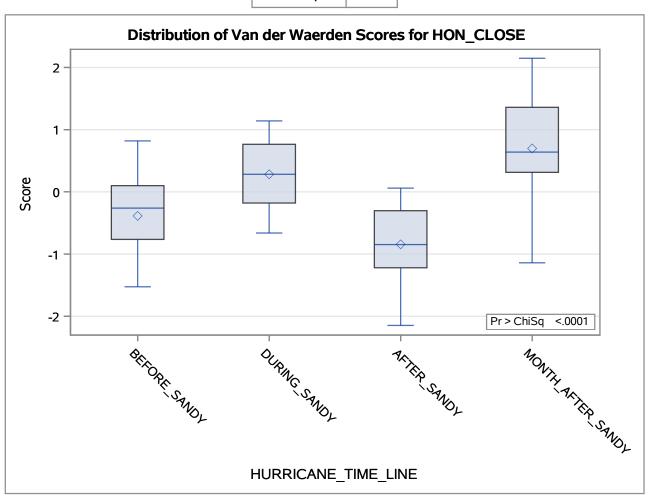
Median Scores (Number of Points Above Median) for Variable HON_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
BEFORE_SANDY	15	4.50	7.50	1.672166	0.300000
DURING_SANDY	13	8.50	6.50	1.589478	0.653846
AFTER_SANDY	14	1.00	7.00	1.632561	0.071429
MONTH_AFTER_SANDY	20	17.00	10.00	1.825259	0.850000
Average scores were used for ties.					

Median One-Way Analysis				
Chi-Square	24.1118			
DF	3			
Pr > Chi-Square	<.0001			



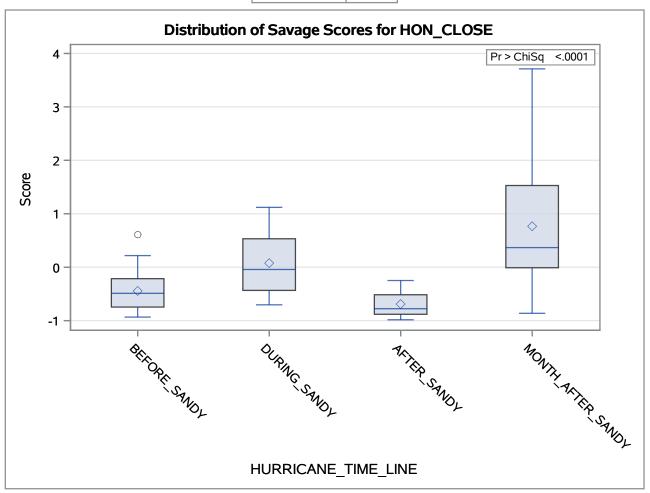
Van der Waerden Scores (Normal) for Variable HON_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
BEFORE_SANDY	15	-5.803984	0.0	3.205554	-0.386932
DURING_SANDY	13	3.665471	0.0	3.047041	0.281959
AFTER_SANDY	14	-11.815424	0.0	3.129631	-0.843959
MONTH_AFTER_SANDY	20	13.953937	0.0	3.499034	0.697697
Average scores were used for ties.					

Van der Waerden One-Way Analysis			
Chi-Square	25.4370		
DF	3		
Pr > Chi-Square	<.0001		



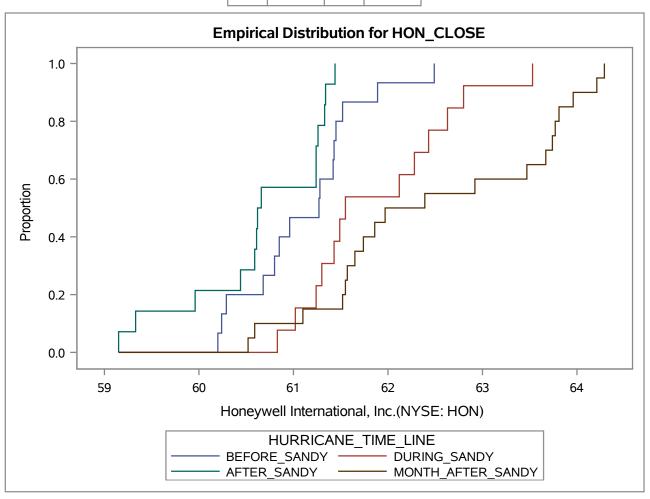
Savage Scores (Exponential) for Variable HON_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
BEFORE_SANDY	15	-6.671714	0.0	3.267765	-0.444781
DURING_SANDY	13	0.990808	0.0	3.106175	0.076216
AFTER_SANDY	14	-9.657395	0.0	3.190369	-0.689814
MONTH_AFTER_SANDY	20	15.338301	0.0	3.566940	0.766915
Average scores were used for ties.					

Savage One-Way Analysis				
Chi-Square	22.8605			
DF	3			
Pr > Chi-Square	<.0001			



Kolmogorov-Smirnov Test for Variable HON_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N Maximum at Maximum						
BEFORE_SANDY	15	0.800000	0.974493			
DURING_SANDY	13	0.384615	-0.590487			
AFTER_SANDY	14	1.000000	1.689781			
MONTH_AFTER_SANDY	20	0.150000	-1.781641			
<b>Total</b> 62 0.548387						
Maximum Deviation Occurred at Observation 2						
Value of HON_CLOSE at Maximum = 61.450						

Kolmogorov-Smirnov Statistics (Asymptotic)			
KS	0.343791	KSa	2.707012



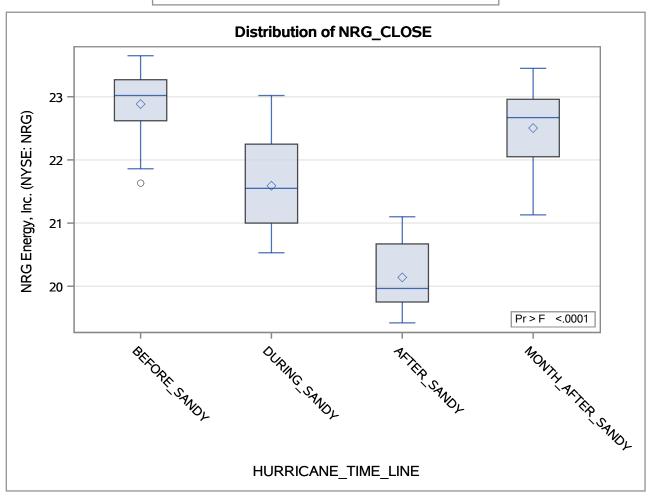
# Saturday, February 16, 2019 08:14:10 PM 14 NONPARAMETRIC TEST OF STOCK PRICE BEFORE, DURING AND AFTER HURRICANE SANDY

Cramer-von Mises Test for Variable HON_CLOSE Classified by Variable HURRICANE_TIME_LINE				
HURRICANE_TIME_LINE	N	Summed Deviation from Mean		
BEFORE_SANDY	15	0.331514		
DURING_SANDY	13	0.230718		
AFTER_SANDY	14	1.167903		
MONTH_AFTER_SANDY	20	1.145094		

Cramer-von Mises Statistics (Asymptotic)			
СМ	0.046375	СМа	2.875229

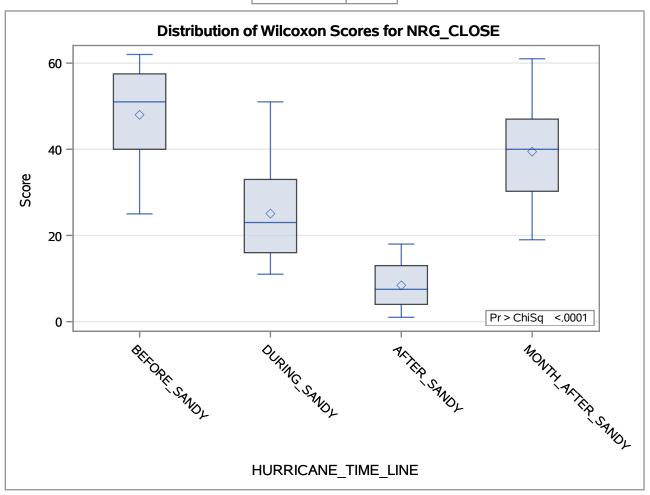
Analysis of Variance for Variable NRG_CLOSE Classified by Variable HURRICANE_TIME_LINE				
HURRICANE_TIME_LINE	N	Mean		
BEFORE_SANDY	15	22.884667		
<b>DURING_SANDY</b> 13 21.590769				
AFTER_SANDY 14 20.140000				
MONTH_AFTER_SANDY	20	22.504500		

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F	
Among	3	66.409181	22.136394	53.9205	<.0001	
Within	58	23.811161	0.410537			
Average scores were used for ties.						



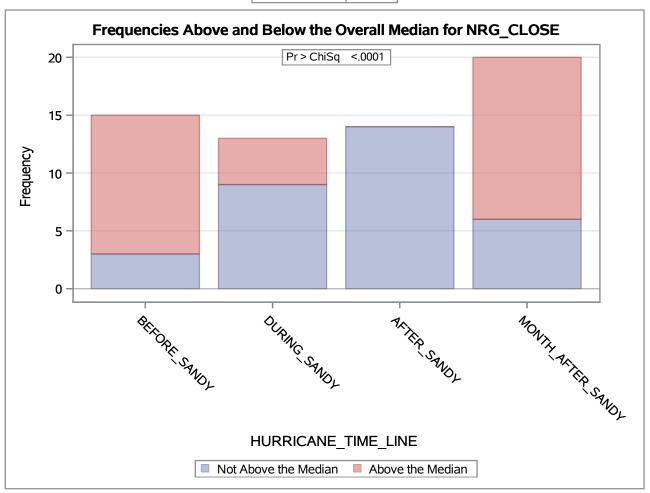
Wilcoxon Scores (Rank Sums) for Variable NRG_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N Sum of Scores Under H0 Score Std Dev Under H0 Score						
BEFORE_SANDY	15	720.0	472.50	60.831771	48.000000	
DURING_SANDY	13	326.0	409.50	57.823665	25.076923	
<b>AFTER_SANDY</b> 14 118.0 441.00 59.390986 8.428571						
MONTH_AFTER_SANDY 20 789.0 630.00 66.401141 39.450000						
Average scores were used for ties.						

Kruskal-Wallis Test				
Chi-Square 40.9797				
DF	3			
Pr > Chi-Square	<.0001			



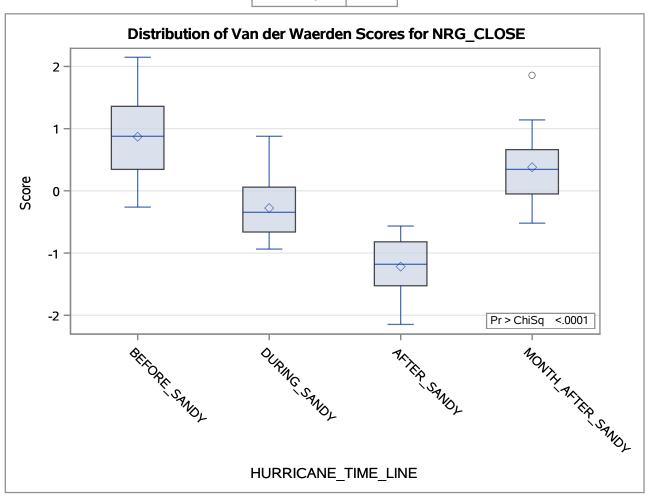
Median Scores (Number of Points Above Median) for Variable NRG_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N Scores Under H0 Std Dev Score						
BEFORE_SANDY	15	12.50	7.50	1.672166	0.833333	
DURING_SANDY	13	4.00	6.50	1.589478	0.307692	
<b>AFTER_SANDY</b> 14 0.00 7.00 1.632561 0.000000						
MONTH_AFTER_SANDY 20 14.50 10.00 1.825259 0.725000						
Average scores were used for ties.						

Median One-Way Analysis				
Chi-Square 27.0837				
DF	3			
Pr > Chi-Square	<.0001			



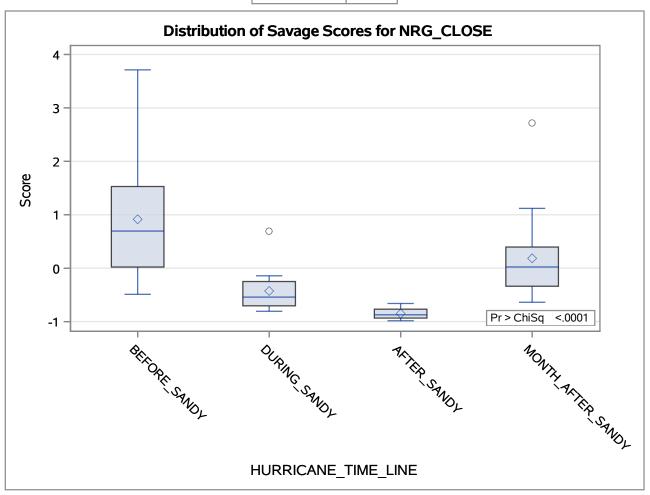
Van der Waerden Scores (Normal) for Variable NRG_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score	
BEFORE_SANDY	15	13.053384	0.0	3.205337	0.870226	
DURING_SANDY	13	-3.592419	0.0	3.046834	-0.276340	
<b>AFTER_SANDY</b> 14 -17.055850 0.0 3.129419 -1.218275						
MONTH_AFTER_SANDY	20	7.594885	0.0	3.498797	0.379744	
Average scores were used for ties.						

Van der Waerden One-Way Analysis				
<b>Chi-Square</b> 39.8596				
DF 3				
Pr > Chi-Square	<.0001			



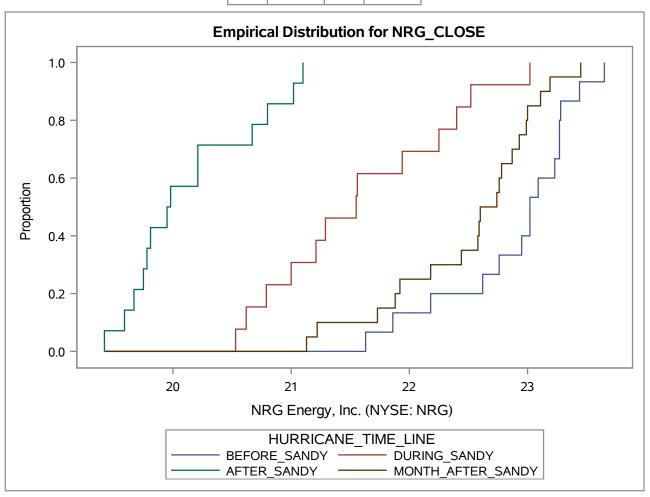
Savage Scores (Exponential) for Variable NRG_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE N Sum of Scores Expected Under H0 Score Mean Score					
BEFORE_SANDY	15	13.730955	0.0	3.266806	0.915397
DURING_SANDY	13	-5.538218	0.0	3.105264	-0.426017
AFTER_SANDY	14	-11.901416	0.0	3.189432	-0.850101
MONTH_AFTER_SANDY	20	3.708679	0.0	3.565894	0.185434
Average scores were used for ties.					

Savage One-Way Analysis			
Chi-Square	27.4192		
DF	3		
Pr > Chi-Square	<.0001		



Kolmogorov-Smirnov Test for Variable NRG_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE N EDF at Maximum at Maximum					
BEFORE_SANDY	15	0.000000	-1.124415		
DURING_SANDY	13	0.307692	0.062627		
AFTER_SANDY	14	1.000000	2.655370		
MONTH_AFTER_SANDY	20	0.000000	-1.298362		
<b>Total</b> 62 0.290323					
Maximum Deviation Occurred at Observation 42					
Value of NRG_CLOSE at Maximum = 21.10					

Kolmogorov-Smirnov Statistics (Asymptotic)			tatistics
KS	0.401709	KSa	3.163062

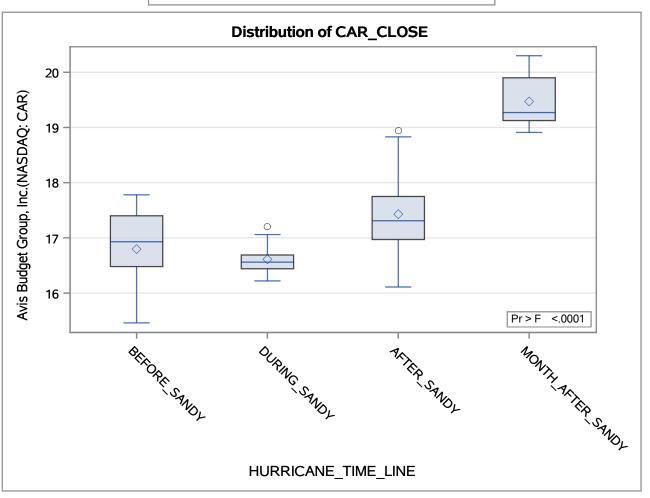


Cramer-von Mises Test for Variable NRG_CLOSE Classified by Variable HURRICANE_TIME_LINE			
HURRICANE_TIME_LINE N Summed Deviatio from Mea			
BEFORE_SANDY	15	1.260943	
DURING_SANDY	13	0.357960	
AFTER_SANDY	14	2.529248	
MONTH_AFTER_SANDY	20	0.593861	

Cramer-von Mises Statistics (Asymptotic)			
СМ	0.076484	СМа	4.742012

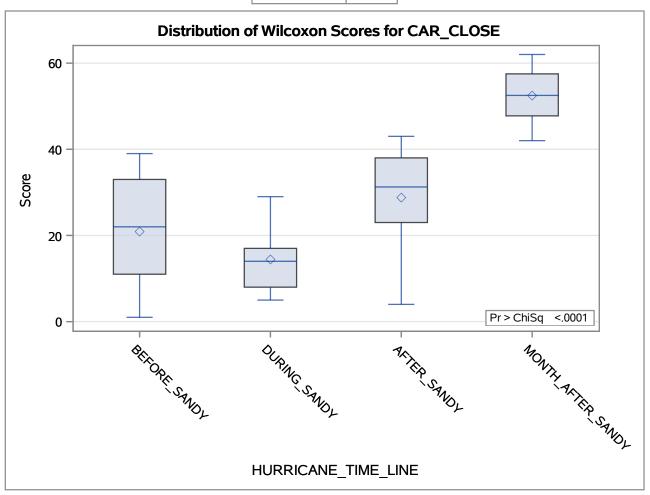
Analysis of Variance for Variable CAR_CLOSE Classified by Variable HURRICANE_TIME_LINE				
HURRICANE_TIME_LINE	N	Mean		
BEFORE_SANDY	15	16.796333		
DURING_SANDY	13	16.610769		
<b>AFTER_SANDY</b> 14 17.42999				
MONTH_AFTER_SANDY	20	19.471760		

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Among	3	91.226040	30.408680	83.6755	<.0001
Within	58	21.077885	0.363412		
Average scores were used for ties.					



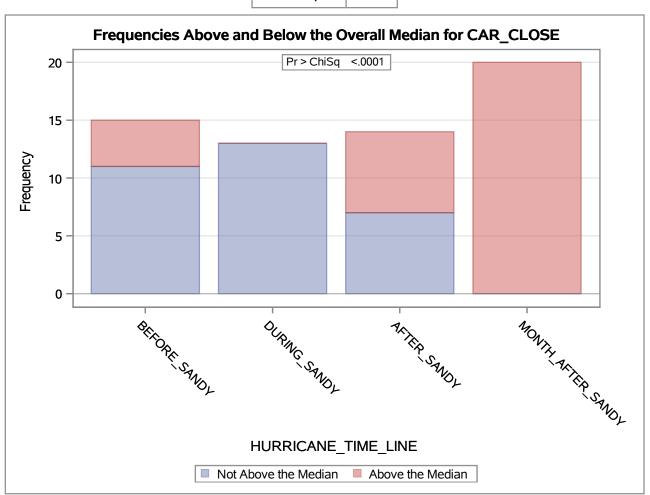
Wilcoxon Scores (Rank Sums) for Variable CAR_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE N Sum of Scores Under H0 Std Dev Under H0 Score					
BEFORE_SANDY	15	313.50	472.50	60.834069	20.900000
DURING_SANDY	13	187.50	409.50	57.825850	14.423077
<b>AFTER_SANDY</b> 14 403.00 441.00 59.393230 28.785714					
MONTH_AFTER_SANDY	20	1049.00	630.00	66.403650	52.450000
Average scores were used for ties.					

Kruskal-Wallis Test				
Chi-Square	44.1151			
DF	3			
Pr > Chi-Square	<.0001			



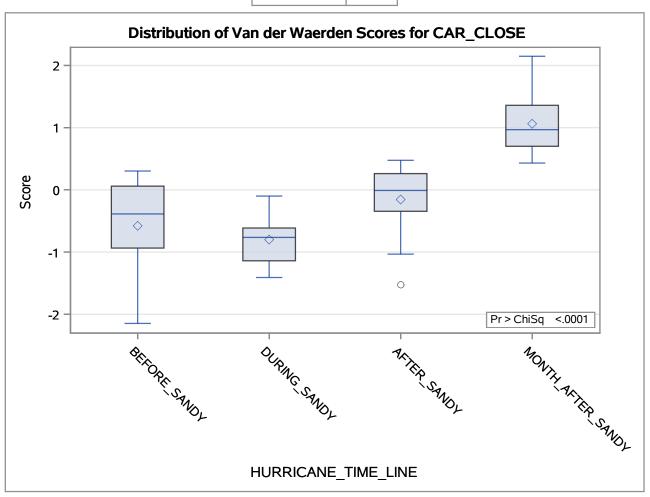
Median Scores (Number of Points Above Median) for Variable CAR_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE N Sum of Scores Expected Under H0 Score Mean Score					
BEFORE_SANDY	15	4.0	7.50	1.699807	0.266667
DURING_SANDY	13	0.0	6.50	1.615752	0.000000
<b>AFTER_SANDY</b> 14 7.0 7.00 1.659548 0.500000					
MONTH_AFTER_SANDY	20	20.0	10.00	1.855431	1.000000
Average scores were used for ties.					

Median One-Way Analysis			
Chi-Square	35.6817		
DF	3		
Pr > Chi-Square	<.0001		



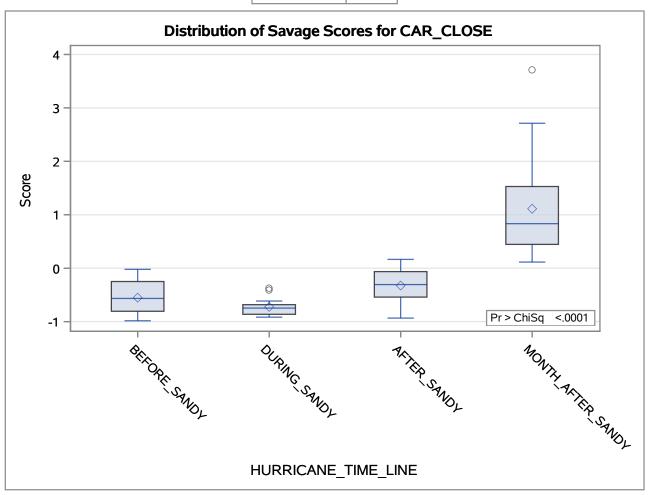
Van der Waerden Scores (Normal) for Variable CAR_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N Sum of Scores Std Dev Under H0 Score						
BEFORE_SANDY	15	-8.674795	0.0	3.205599	-0.578320	
DURING_SANDY	13	-10.399373	0.0	3.047084	-0.799952	
AFTER_SANDY	14	-2.171286	0.0	3.129676	-0.155092	
MONTH_AFTER_SANDY	20	21.245454	0.0	3.499084	1.062273	
Average scores were used for ties.						

Van der Waerden One-Way Analysis			
Chi-Square	40.1032		
DF	3		
Pr > Chi-Square	<.0001		



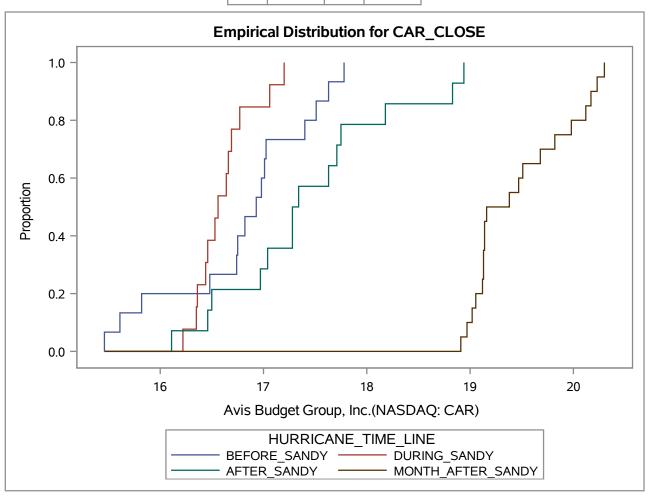
Savage Scores (Exponential) for Variable CAR_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N Sum of Scores Std Dev Under H0 Score						
BEFORE_SANDY	15	-8.276561	0.0	3.267655	-0.551771	
DURING_SANDY	13	-9.417248	0.0	3.106071	-0.724404	
AFTER_SANDY	14	-4.549256	0.0	3.190261	-0.324947	
MONTH_AFTER_SANDY	20	22.243065	0.0	3.566821	1.112153	
Average scores were used for ties.						

Savage One-Way Analysis			
Chi-Square	40.0467		
DF	3		
Pr > Chi-Square	<.0001		



Kolmogorov-Smirnov Test for Variable CAR_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N Maximum at Maximum						
BEFORE_SANDY	15	1.000000	1.311817			
DURING_SANDY	13	1.000000	1.221235			
AFTER_SANDY	14	0.928571	1.000074			
MONTH_AFTER_SANDY	20	0.000000	-2.957380			
<b>Total</b> 62 0.661290						
Maximum Deviation Occurred at Observation 41						
Value of CAR_CLOSE at Maximum = 18.830						

Kolr	Kolmogorov-Smirnov Statistics (Asymptotic)			
KS	0.457174	KSa	3.599795	

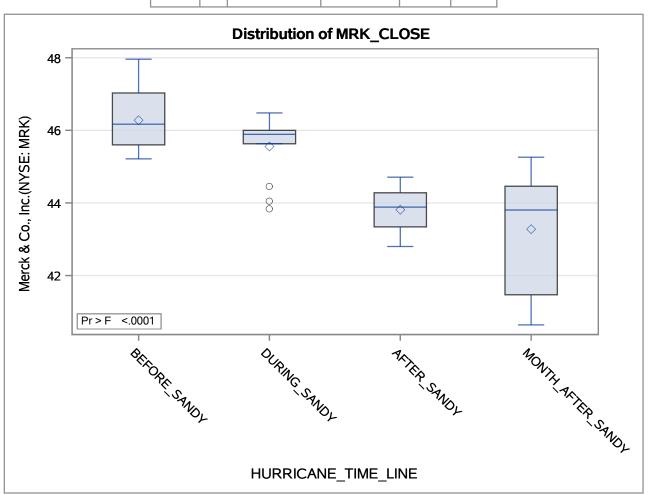


Cramer-von Mises Test for Variable CAR_CLOSE Classified by Variable HURRICANE_TIME_LINE				
HURRICANE_TIME_LINE	N	Summed Deviation from Mean		
BEFORE_SANDY	15	0.619928		
DURING_SANDY	13	1.385732		
AFTER_SANDY	14	0.236199		
MONTH_AFTER_SANDY	20	3.034256		

Cramer-von Mises Statistics (Asymptotic)				
СМ	0.085099	СМа	5.276115	

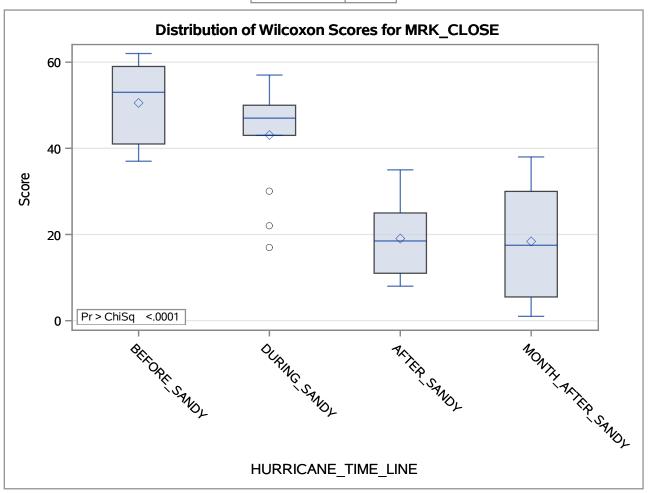
Analysis of Variance for Variable MRK_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE	N	Mean			
BEFORE_SANDY	15	46.279000			
DURING_SANDY	13	45.554862			
AFTER_SANDY	14	43.812857			
MONTH_AFTER_SANDY	20	43.277020			

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Among	3	97.818111	32.606037	27.4756	<.0001
Within	58	68.830068	1.186725		



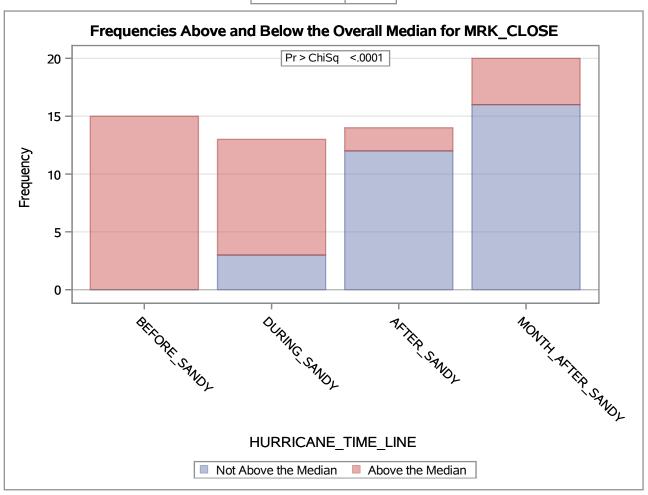
Wilcoxon Scores (Rank Sums) for Variable MRK_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score	
BEFORE_SANDY	15	758.0	472.50	60.837899	50.533333	
DURING_SANDY	13	560.0	409.50	57.829491	43.076923	
AFTER_SANDY	14	267.0	441.00	59.396970	19.071429	
MONTH_AFTER_SANDY	20	368.0	630.00	66.407831	18.400000	

Kruskal-Wallis Test			
Chi-Square	39.2354		
DF	3		
Pr > Chi-Square	<.0001		



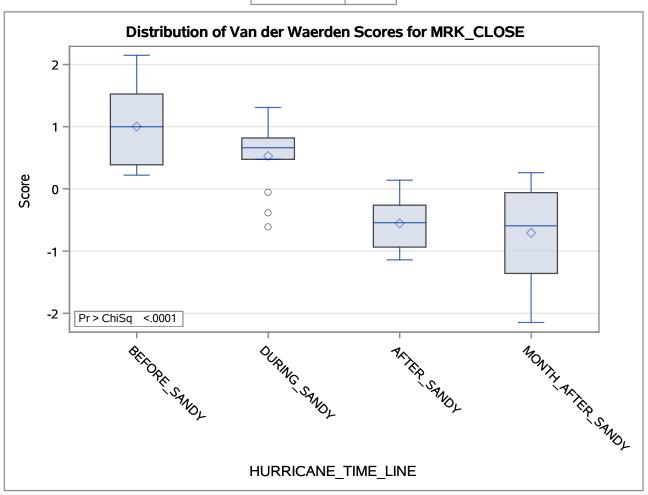
Median Scores (Number of Points Above Median) for Variable MRK_CLOSE Classified by Variable HURRICANE_TIME_LINE						
Sum of Expected Std Dev Mear HURRICANE_TIME_LINE N Scores Under H0 Under H0 Score						
BEFORE_SANDY	15	15.0	7.50	1.699807	1.000000	
DURING_SANDY	13	10.0	6.50	1.615752	0.769231	
AFTER_SANDY	14	2.0	7.00	1.659548	0.142857	
MONTH_AFTER_SANDY	20	4.0	10.00	1.855431	0.200000	

Median One-Way Analysis			
Chi-Square	32.5780		
DF	3		
Pr > Chi-Square	<.0001		



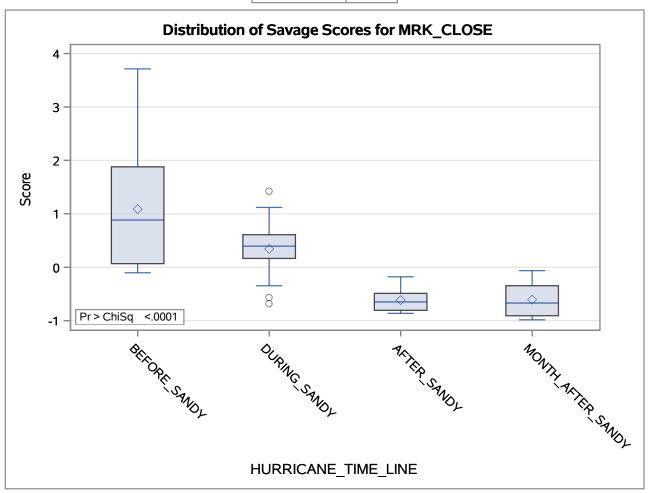
Van der Waerden Scores (Normal) for Variable MRK_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N Sum of Scores Std Dev Under H0 Score						
BEFORE_SANDY	15	15.023862	0.0	3.205800	1.001591	
DURING_SANDY	13	6.891898	0.0	3.047275	0.530146	
AFTER_SANDY	14	-7.769549	0.0	3.129871	-0.554968	
MONTH_AFTER_SANDY	20	-14.146212	0.0	3.499303	-0.707311	

Van der Waerden One-Way Analysis			
Chi-Square 36.5334			
DF	3		
Pr > Chi-Square	<.0001		



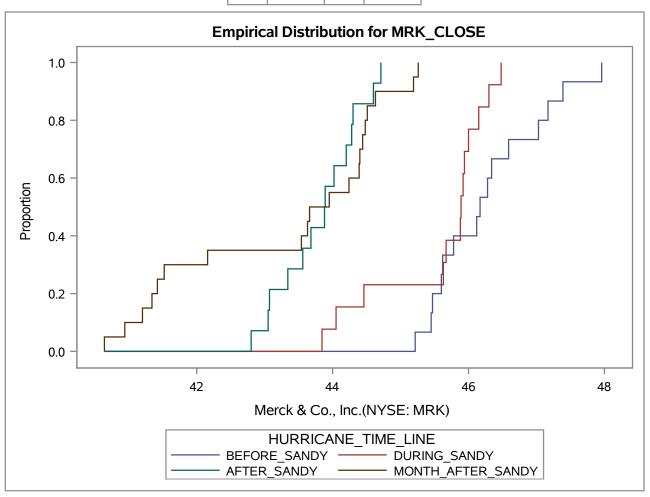
Savage Scores (Exponential) for Variable MRK_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N Scores Under H0 Std Dev Mean Score						
BEFORE_SANDY	15	16.328810	0.0	3.267865	1.088587	
DURING_SANDY	13	4.447250	0.0	3.106271	0.342096	
AFTER_SANDY	14	-8.620048	0.0	3.190467	-0.615718	
MONTH_AFTER_SANDY	20	-12.156012	0.0	3.567050	-0.607801	

Savage One-Way Analysis			
Chi-Square	34.0659		
DF	3		
Pr > Chi-Square	<.0001		



Kolmogorov-Smirnov Test for Variable MRK_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N Maximum at Maximum						
BEFORE_SANDY	15	0.000000	-2.248829			
DURING_SANDY	13	0.230769	-1.261496			
AFTER_SANDY	14	1.000000	1.569082			
MONTH_AFTER_SANDY	20	0.950000	1.651805			
<b>Total</b> 62 0.580645						
Maximum Deviation Occurred at Observation 49						
Value of MRK_CLOSE at Maximum = 45.190						

Kolr	Kolmogorov-Smirnov Statistics (Asymptotic)			
KS	0.436982	KSa	3.440797	

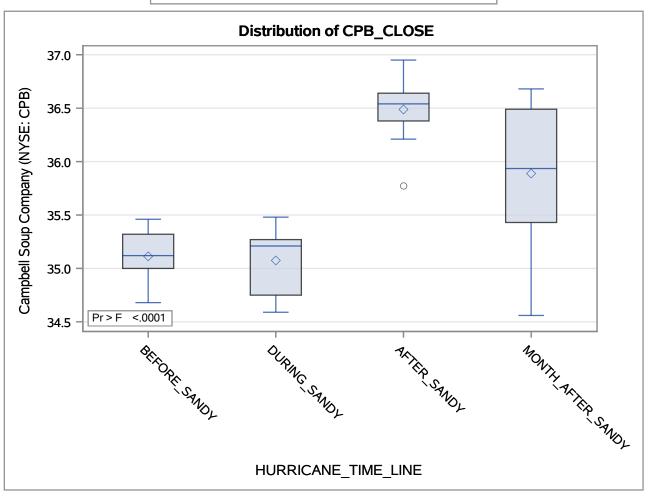


Cramer-von Mises Test for Variable MRK_CLOSE Classified by Variable HURRICANE_TIME_LINE				
HURRICANE_TIME_LINE Summed Deviation from Mean				
BEFORE_SANDY	15	1.769589		
DURING_SANDY	13	0.710528		
AFTER_SANDY	14	0.917645		
MONTH_AFTER_SANDY	20	1.070760		

Cı	Cramer-von Mises Statistics (Asymptotic)				
СМ	0.072073	СМа	4.468522		

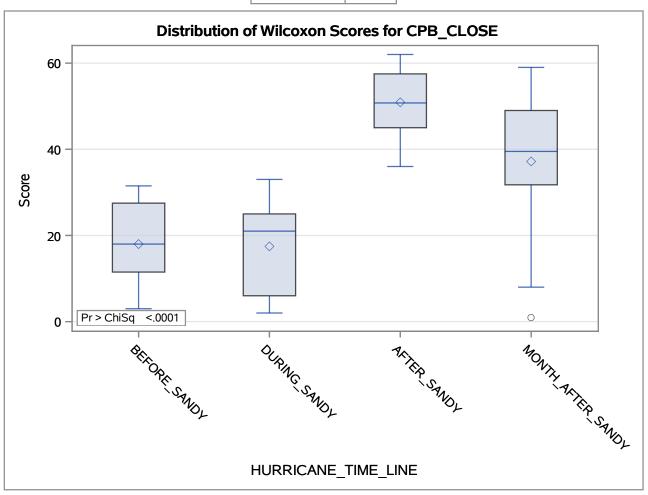
Analysis of Variance for Variable CPB_CLOSE Classified by Variable HURRICANE_TIME_LINE				
HURRICANE_TIME_LINE N Mean				
BEFORE_SANDY	15	35.113333		
DURING_SANDY	13	35.074615		
AFTER_SANDY	14	36.487857		
MONTH_AFTER_SANDY	20	35.888000		

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Among	3	19.570123	6.523374	33.3741	<.0001
Within	58	11.336812	0.195462		
Average scores were used for ties.					



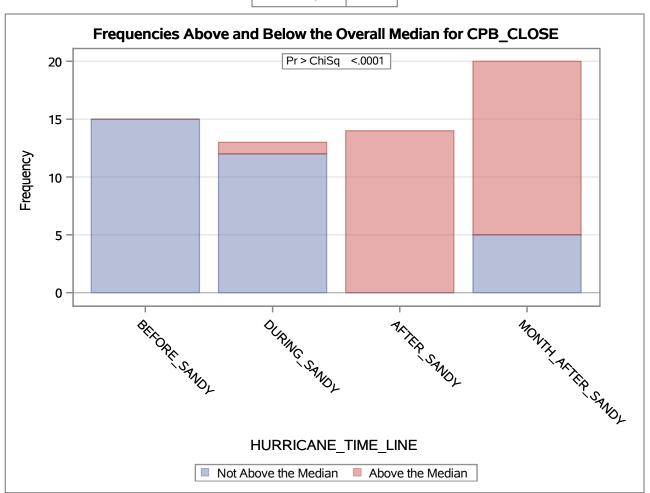
Wilcoxon Scores (Rank Sums) for Variable CPB_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE N Scores Under H0 Std Dev Score					
BEFORE_SANDY	15	270.00	472.50	60.829473	18.000000
DURING_SANDY	13	227.00	409.50	57.821481	17.461538
<b>AFTER_SANDY</b> 14 712.50 441.00 59.388743 50.892857					
MONTH_AFTER_SANDY	20	743.50	630.00	66.398633	37.175000
Average scores were used for ties.					

Kruskal-Wallis Test			
Chi-Square 34.433			
DF	3		
Pr > Chi-Square	<.0001		



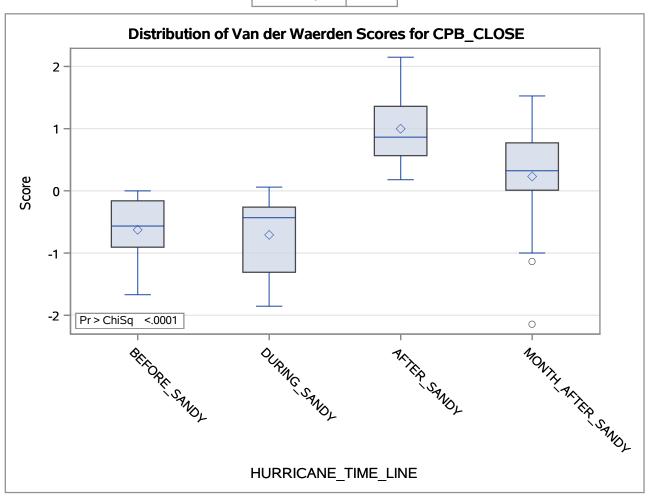
Median Scores (Number of Points Above Median) for Variable CPB_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE N Scores Under H0 Std Dev Score					
BEFORE_SANDY	15	0.50	7.50	1.672166	0.033333
DURING_SANDY	13	1.50	6.50	1.589478	0.115385
AFTER_SANDY 14 14.00 7.00 1.632561 1.000000					
MONTH_AFTER_SANDY	20	15.00	10.00	1.825259	0.750000
Average scores were used for ties.					

Median One-Way Analysis			
Chi-Square	40.4216		
DF	3		
Pr > Chi-Square	<.0001		



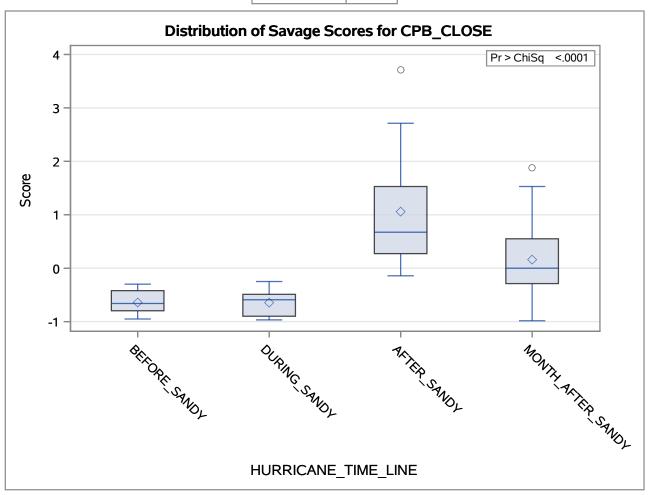
Van der Waerden Scores (Normal) for Variable CPB_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE N Scores Expected Under H0 Scores  Std Dev Mean Scores					
BEFORE_SANDY	15	-9.395606	0.0	3.205260	-0.626374
DURING_SANDY	13	-9.206586	0.0	3.046761	-0.708199
AFTER_SANDY	14	13.974698	0.0	3.129344	0.998193
MONTH_AFTER_SANDY	20	4.627494	0.0	3.498713	0.231375
Average scores were used for ties.					

Van der Waerden One-Way Analysis			
Chi-Square 30.3545			
DF	3		
Pr > Chi-Square	<.0001		



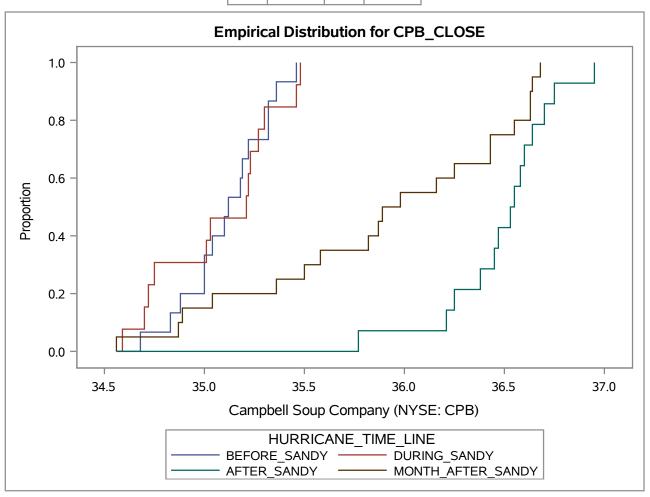
Savage Scores (Exponential) for Variable CPB_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE N Scores Under H0 Std Dev Mean					
BEFORE_SANDY	15	-9.633391	0.0	3.266730	-0.642226
DURING_SANDY	13	-8.389296	0.0	3.105192	-0.645330
AFTER_SANDY	14	14.820876	0.0	3.189358	1.058634
MONTH_AFTER_SANDY	20	3.201811	0.0	3.565811	0.160091
Average scores were used for ties.					

Savage One-Way Analysis			
Chi-Square	29.6254		
DF	3		
Pr > Chi-Square	<.0001		



Kolmogorov-Smirnov Test for Variable CPB_CLOSE Classified by Variable HURRICANE_TIME_LINE				
HURRICANE_TIME_LINE	N	EDF at Maximum	Deviation from Mean at Maximum	
BEFORE_SANDY	15	1.000000	1.811557	
DURING_SANDY	13	1.000000	1.686468	
AFTER_SANDY	14	0.000000	-1.991527	
MONTH_AFTER_SANDY	20	0.250000	-1.262296	
Total 62 0.532258				
Maximum Deviation Occurred at Observation 28				
Value of CPB_CLOSE at Maximum = 35.480				

Kolmogorov-Smirnov Statistics (Asymptotic)			
KS	0.434138	KSa	3.418404

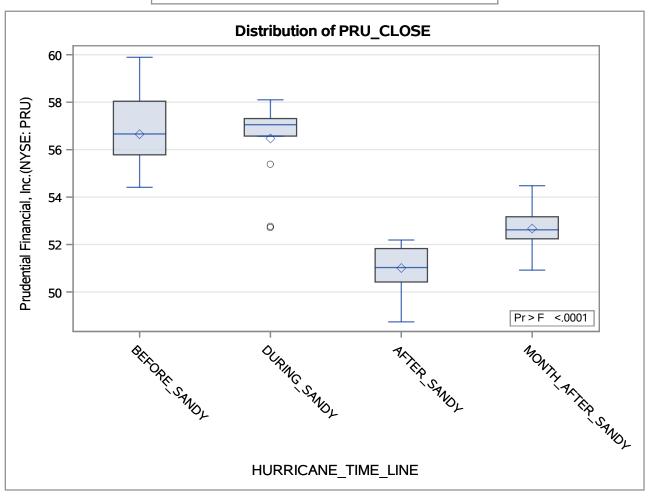


Cramer-von Mises Test for Variable CPB_CLOSE Classified by Variable HURRICANE_TIME_LINE				
HURRICANE_TIME_LINE Summed Deviation from Mean				
BEFORE_SANDY	15	1.094924		
DURING_SANDY	13	0.874135		
AFTER_SANDY	14	1.796001		
MONTH_AFTER_SANDY	20	0.331042		

Cı	Cramer-von Mises Statistics (Asymptotic)			
СМ	0.066066	СМа	4.096102	

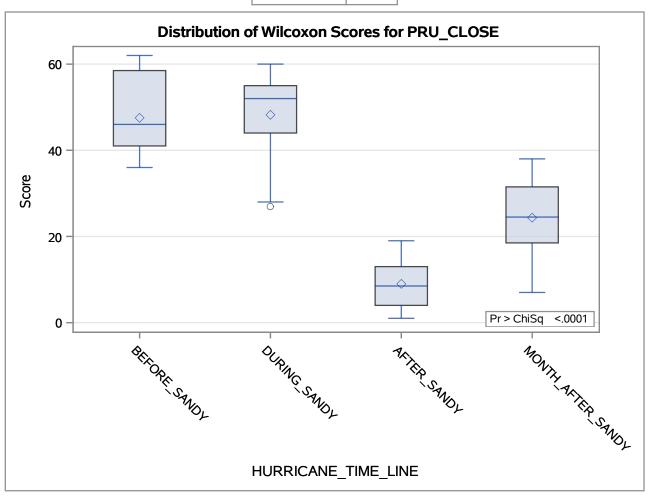
Analysis of Variance for Variable PRU_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE	N	Mean			
BEFORE_SANDY	15	56.648000			
DURING_SANDY	13	56.470000			
AFTER_SANDY	14	51.009286			
MONTH_AFTER_SANDY	20	52.671500			

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F	
Among	3	344.824356	114.941452	67.8089	<.0001	
Within	58	98.314588	1.695079			
Average scores were used for ties.						



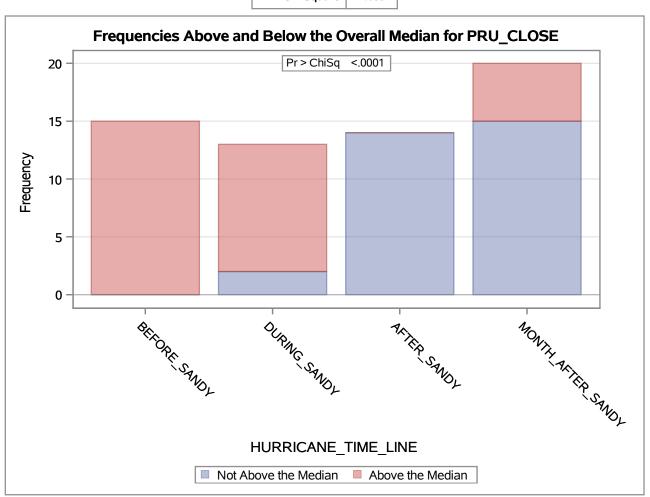
Wilcoxon Scores (Rank Sums) for Variable PRU_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N Sum of Scores Under H0 Std Dev Under H0 Score						
BEFORE_SANDY	15	713.0	472.50	60.832537	47.533333	
DURING_SANDY	13	627.0	409.50	57.824394	48.230769	
AFTER_SANDY	14	126.0	441.00	59.391734	9.000000	
MONTH_AFTER_SANDY	20	487.0	630.00	66.401978	24.350000	
Average scores were used for ties.						

Kruskal-Wallis Test				
Chi-Square	47.9498			
DF	3			
Pr > Chi-Square	<.0001			



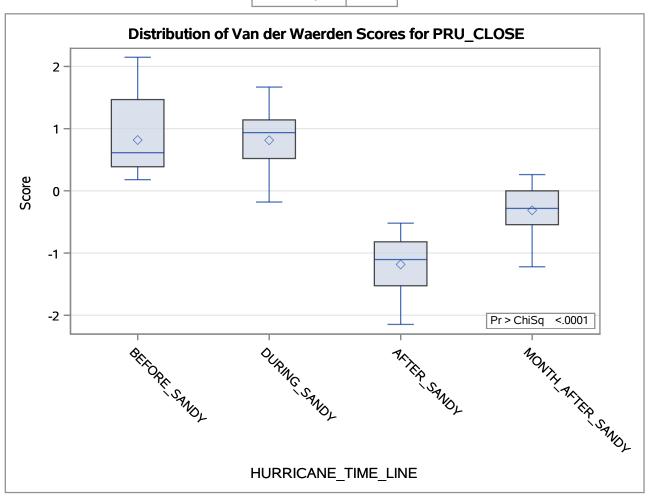
Median Scores (Number of Points Above Median) for Variable PRU_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N Sum of Scores Under H0 Std Dev Under H0 Score						
BEFORE_SANDY	15	15.0	7.50	1.699807	1.000000	
DURING_SANDY	13	11.0	6.50	1.615752	0.846154	
<b>AFTER_SANDY</b> 14 0.0 7.00 1.659548 0.000000						
MONTH_AFTER_SANDY	20	5.0	10.00	1.855431	0.250000	
Average scores were used for ties.						

Median One-Way Analysis				
Chi-Square	39.5819			
DF	3			
Pr > Chi-Square	<.0001			



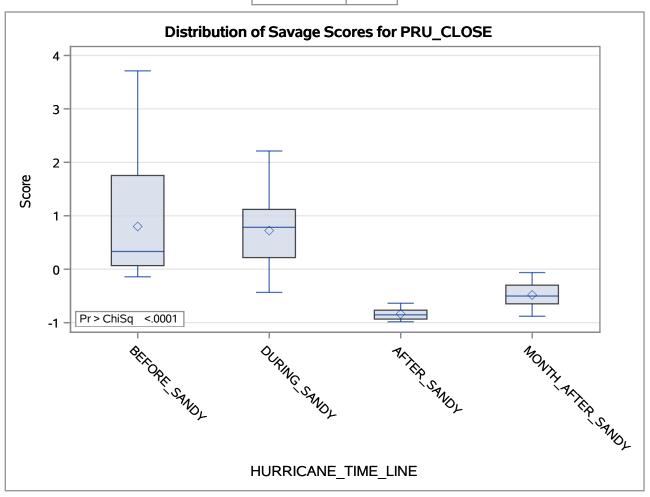
Van der Waerden Scores (Normal) for Variable PRU_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N Sum of Scores Under H0 Std Dev Under H0 Score						
BEFORE_SANDY	15	12.253689	0.0	3.205448	0.816913	
DURING_SANDY	13	10.582687	0.0	3.046940	0.814053	
AFTER_SANDY	14	-16.567511	0.0	3.129528	-1.183394	
MONTH_AFTER_SANDY	20	-6.268865	0.0	3.498918	-0.313443	
Average scores were used for ties.						

Van der Waerden One-Way Analysis			
Chi-Square	44.4838		
DF	3		
Pr > Chi-Square	<.0001		



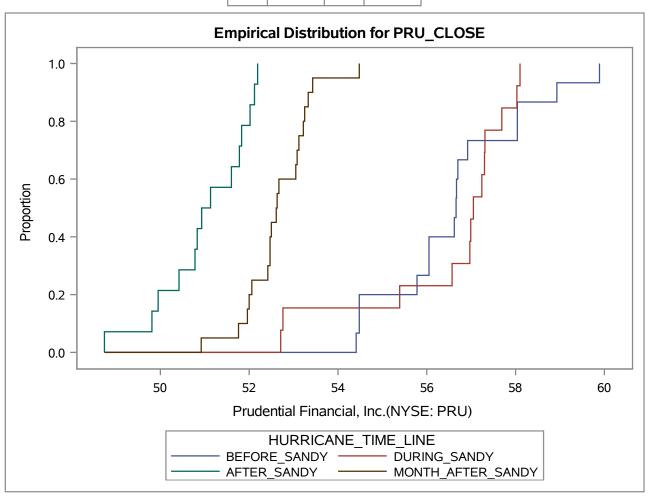
Savage Scores (Exponential) for Variable PRU_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N Sum of Scores Expected Under H0 Under H0 Score						
BEFORE_SANDY	15	12.002957	0.0	3.266835	0.800197	
DURING_SANDY	13	9.385123	0.0	3.105291	0.721933	
<b>AFTER_SANDY</b> 14 -11.740783 0.0 3.189460 -0.838627						
MONTH_AFTER_SANDY 20 -9.647296 0.0 3.565925 -0.482365						
Average scores were used for ties.						

Savage One-Way Analysis				
Chi-Square	32.9017			
DF	3			
Pr > Chi-Square	<.0001			



Kolmogorov-Smirnov Test for Variable PRU_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N EDF at Maximum at Maximum						
BEFORE_SANDY	15	0.000000	-2.186362			
DURING_SANDY	13	0.153846	-1.480692			
AFTER_SANDY	14	1.000000	1.629431			
MONTH_AFTER_SANDY	20	0.950000	1.723936			
<b>Total</b> 62 0.564516						
Maximum Deviation Occurred at Observation 57						
Value of PRU_CLOSE at Maximum = 53.430						

Kolmogorov-Smirnov Statistics (Asymptotic)				
KS	0.450799	KSa	3.549595	



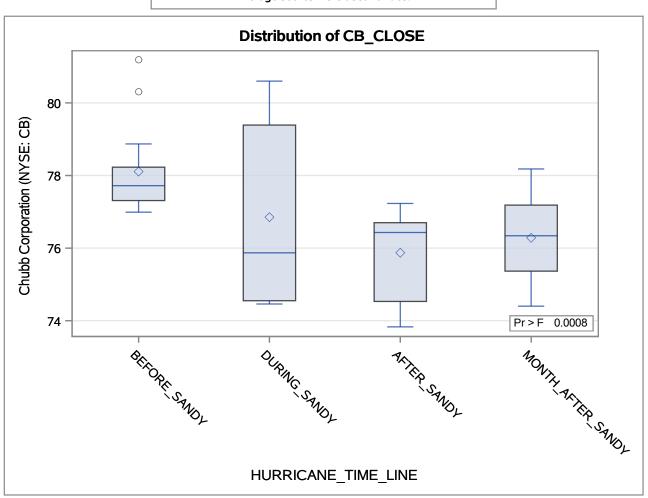
# Saturday, February 16, 2019 08:14:10 PM 49 NONPARAMETRIC TEST OF STOCK PRICE BEFORE, DURING AND AFTER HURRICANE SANDY

Cramer-von Mises Test for Variable PRU_CLOSE Classified by Variable HURRICANE_TIME_LINE				
HURRICANE_TIME_LINE	N	Summed Deviation from Mean		
BEFORE_SANDY	15	1.367268		
DURING_SANDY	13	1.278767		
AFTER_SANDY	14	2.377889		
MONTH_AFTER_SANDY	20	0.756765		

Cramer-von Mises Statistics (Asymptotic)				
СМ	0.093237	СМа	5.780688	

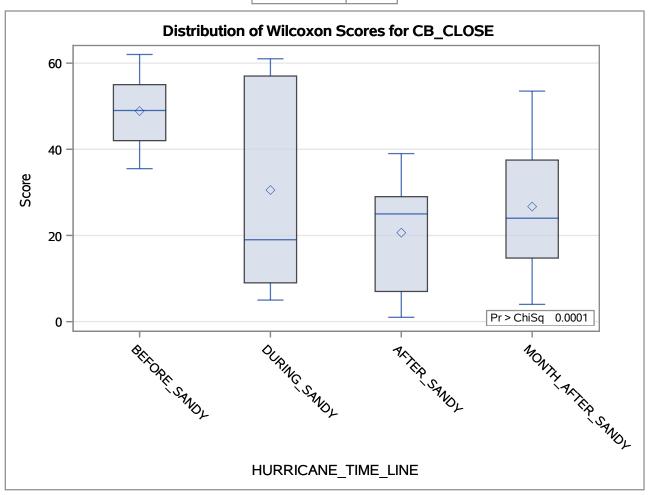
Analysis of Variance for Variable CB_CLOSE Classified by Variable HURRICANE_TIME_LINE				
HURRICANE_TIME_LINE	N	Mean		
BEFORE_SANDY	15	78.108667		
DURING_SANDY	13	76.851538		
AFTER_SANDY	14	75.872143		
MONTH_AFTER_SANDY	20	76.283000		

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F	
Among	3	42.974223	14.324741	6.4299	0.0008	
Within	58	129.213398	2.227817			
Average scores were used for ties.						



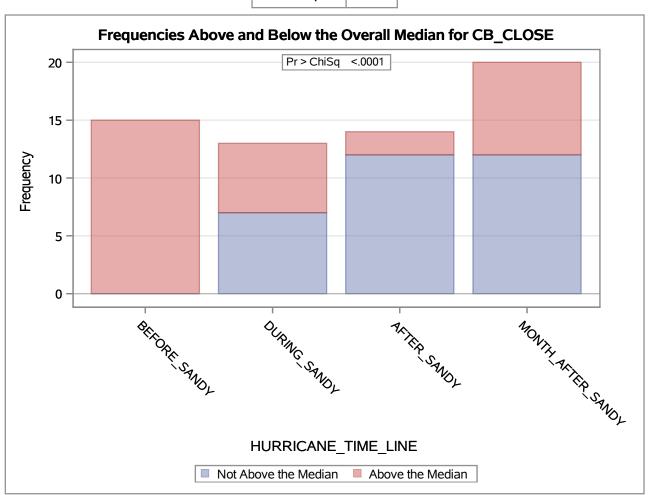
Wilcoxon Scores (Rank Sums) for Variable CB_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
BEFORE_SANDY	15	733.0	472.50	60.834069	48.866667
DURING_SANDY	13	397.0	409.50	57.825850	30.538462
<b>AFTER_SANDY</b> 14 289.0 441.00 59.393230 20.642857					
MONTH_AFTER_SANDY	20	534.0	630.00	66.403650	26.700000
Average scores were used for ties.					

Kruskal-Wallis Test				
Chi-Square	20.4238			
DF	3			
Pr > Chi-Square	0.0001			



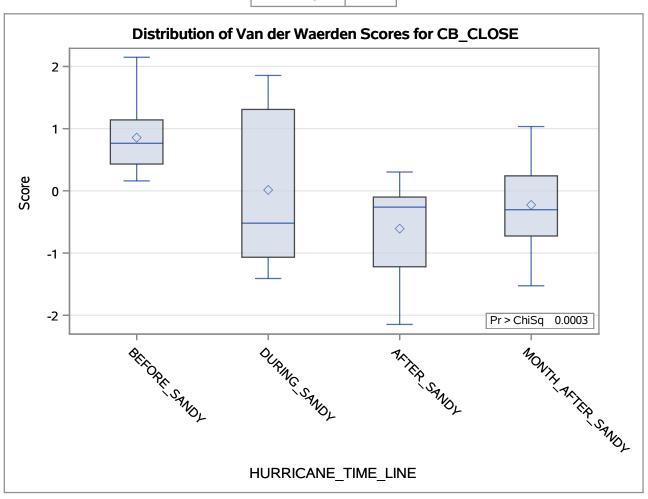
Median Scores (Number of Points Above Median) for Variable CB_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
BEFORE_SANDY	15	15.0	7.50	1.699807	1.000000
DURING_SANDY	13	6.0	6.50	1.615752	0.461538
AFTER_SANDY	14	2.0	7.00	1.659548	0.142857
MONTH_AFTER_SANDY	20	8.0	10.00	1.855431	0.400000
Average scores were used for ties.					

Median One-Way Analysis				
Chi-Square	22.6485			
DF	3			
Pr > Chi-Square	<.0001			



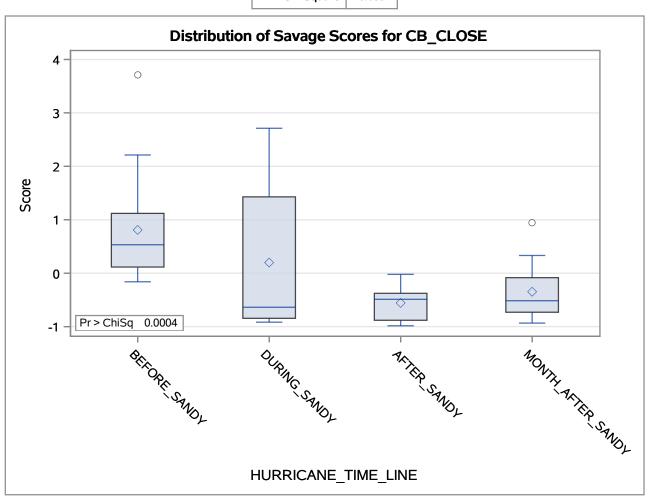
Van der Waerden Scores (Normal) for Variable CB_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
BEFORE_SANDY	15	12.843303	0.0	3.205605	0.856220
DURING_SANDY	13	0.187343	0.0	3.047089	0.014411
AFTER_SANDY	14	-8.506889	0.0	3.129681	-0.607635
MONTH_AFTER_SANDY	20	-4.523757	0.0	3.499089	-0.226188
Average scores were used for ties.					

Van der Waerden One-Way Analysis				
Chi-Square	19.0238			
DF				
Pr > Chi-Square	0.0003			



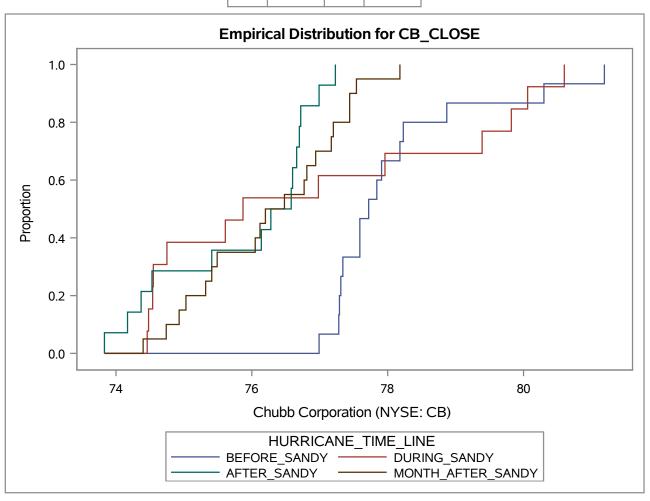
Savage Scores (Exponential) for Variable CB_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
BEFORE_SANDY	15	12.142021	0.0	3.267556	0.809468
DURING_SANDY	13	2.590606	0.0	3.105976	0.199277
AFTER_SANDY	14	-7.787294	0.0	3.190165	-0.556235
MONTH_AFTER_SANDY	20	-6.945332	0.0	3.566712	-0.347267
Average scores were used for ties.					

Savage One-Way Analysis				
Chi-Square	18.1991			
DF	3			
Pr > Chi-Square	0.0004			



Kolmogorov-Smirnov Test for Variable CB_CLOSE Classified by Variable HURRICANE_TIME_LINE							
HURRICANE_TIME_LINE N EDF at Maximum at Maximum							
BEFORE_SANDY	15	0.066667	-2.178033				
DURING_SANDY	13	0.615385	-0.049207				
AFTER_SANDY	14	1.000000	1.388034				
MONTH_AFTER_SANDY	20	0.800000	0.764591				
<b>Total</b> 62 0.629032							
Maximum Deviation Occurred at Observation 37							
Value of CB_CLOSE at Maximum = 77.230							

Kolr	Kolmogorov-Smirnov Statistics (Asymptotic)				
KS	0.342135	KSa	2.693972		

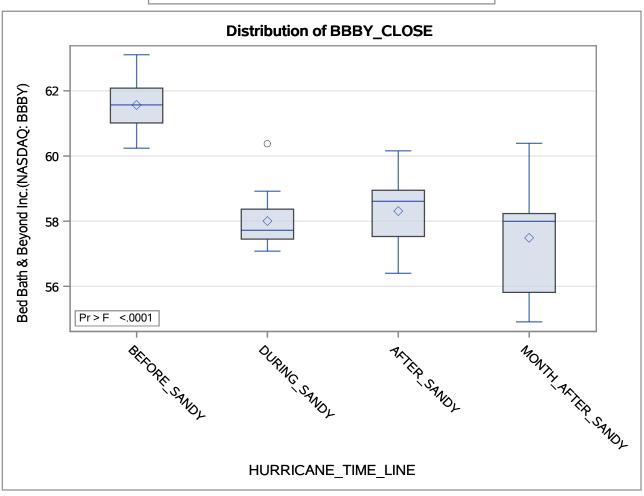


Cramer-von Mises Test for Variable CB_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE	N	Summed Deviation from Mean			
BEFORE_SANDY	15	1.610661			
DURING_SANDY	13	0.207151			
AFTER_SANDY	14	0.600200			
MONTH_AFTER_SANDY	20	0.244426			

Cramer-von Mises Statistics (Asymptotic)				
СМ	0.042943	СМа	2.662438	

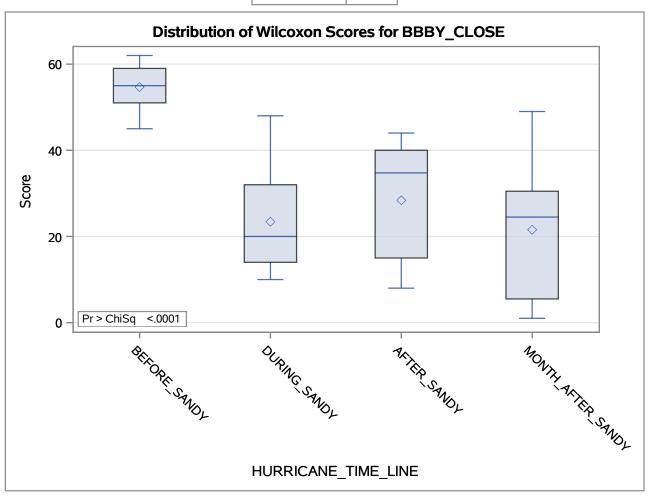
Analysis of Variance for Variable BBBY_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE	N	Mean			
BEFORE_SANDY	15	61.567333			
<b>DURING_SANDY</b> 13 58.00461					
<b>AFTER_SANDY</b> 14 58.310000					
MONTH_AFTER_SANDY	20	57.489095			

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F	
Among	3	160.768399	53.589466	37.6101	<.0001	
Within	58	82.642463	1.424870			
Average scores were used for ties.						



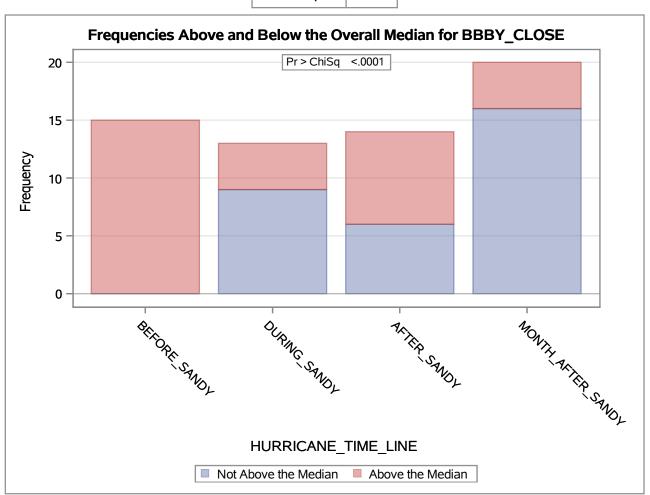
Wilcoxon Scores (Rank Sums) for Variable BBBY_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N Sum of Scores Under H0 Score Score						
BEFORE_SANDY	15	820.00	472.50	60.836367	54.666667	
DURING_SANDY	13	304.50	409.50	57.828034	23.423077	
<b>AFTER_SANDY</b> 14 397.50 441.00 59.395474 28.392857						
MONTH_AFTER_SANDY	20	431.00	630.00	66.406159	21.550000	
Average scores were used for ties.						

Kruskal-Wallis Test				
Chi-Square	33.8380			
DF	3			
Pr > Chi-Square	<.0001			



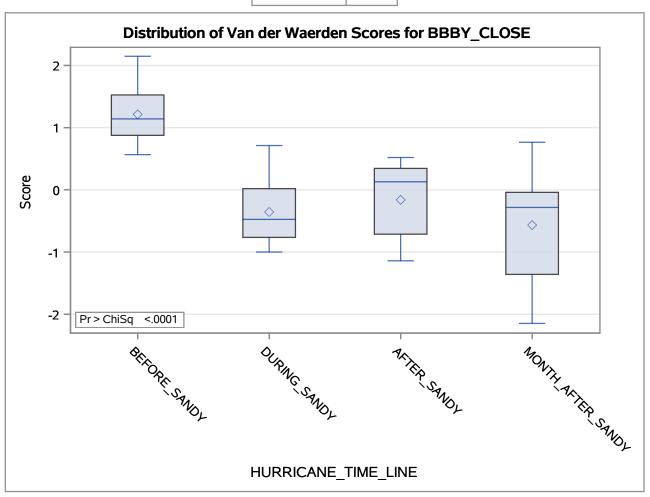
Median Scores (Number of Points Above Median) for Variable BBBY_CLOSE Classified by Variable HURRICANE_TIME_LINE						
Sum of Expected Std Dev Mean HURRICANE_TIME_LINE N Scores Under H0 Under H0 Score						
BEFORE_SANDY	15	15.0	7.50	1.699807	1.000000	
DURING_SANDY	13	4.0	6.50	1.615752	0.307692	
<b>AFTER_SANDY</b> 14 8.0 7.00 1.659548 0.571429						
MONTH_AFTER_SANDY	20	4.0	10.00	1.855431	0.200000	
	Average scores were used for ties.					

Median One-Way Analysis				
Chi-Square	24.0151			
DF	3			
Pr > Chi-Square	<.0001			



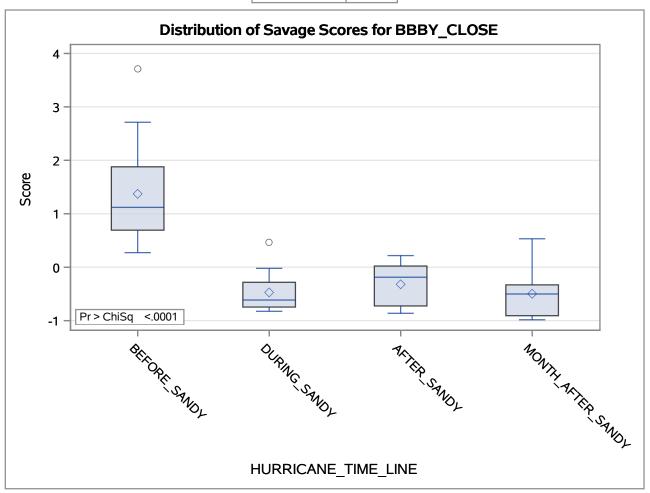
Van der Waerden Scores (Normal) for Variable BBBY_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE N Scores Under H0 Std Dev Under H0 Score					
BEFORE_SANDY	15	18.204440	0.0	3.205742	1.213629
DURING_SANDY	13	-4.629791	0.0	3.047219	-0.356138
AFTER_SANDY 14 -2.244942 0.0 3.129815 -0.160353					
MONTH_AFTER_SANDY	20	-11.329707	0.0	3.499239	-0.566485
Average scores were used for ties.					

Van der Waerden One-Way Analysis				
<b>Chi-Square</b> 33.7699				
DF 3				
Pr > Chi-Square	<.0001			



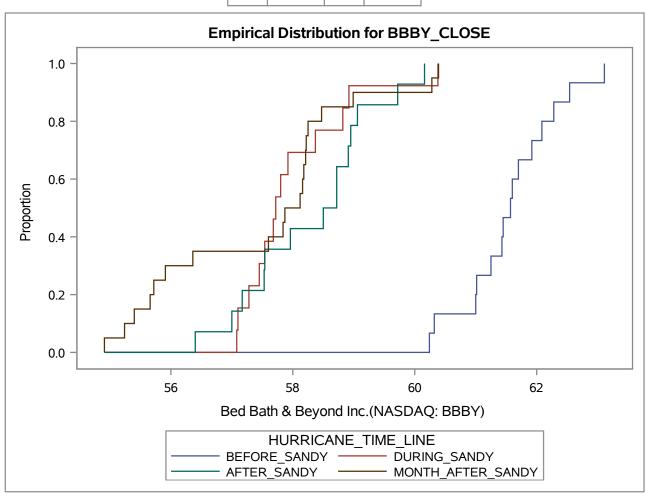
Savage Scores (Exponential) for Variable BBBY_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score	
BEFORE_SANDY	15	20.586373	0.0	3.267839	1.372425	
DURING_SANDY	13	-6.143946	0.0	3.106246	-0.472611	
<b>AFTER_SANDY</b> 14 -4.483821 0.0 3.190441 -0.320273						
MONTH_AFTER_SANDY	20	-9.958606	0.0	3.567021	-0.497930	
Average scores were used for ties.						

Savage One-Way Analysis				
Chi-Square	39.9858			
DF	3			
Pr > Chi-Square	<.0001			



Kolmogorov-Smirnov Test for Variable BBBY_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE N BEDF at Maximum at Maximum					
BEFORE_SANDY	15	0.000000	-2.748569		
DURING_SANDY	13	0.923077	0.769423		
AFTER_SANDY	14	1.000000	1.086288		
MONTH_AFTER_SANDY	20	0.900000	0.851148		
<b>Total</b> 62 0.709677					
Maximum Deviation Occurred at Observation 37					
Value of BBBY_CLOSE at Maximum = 60.160					

Kolmogorov-Smirnov Statistics (Asymptotic)			
KS	0.402635	KSa	3.170350

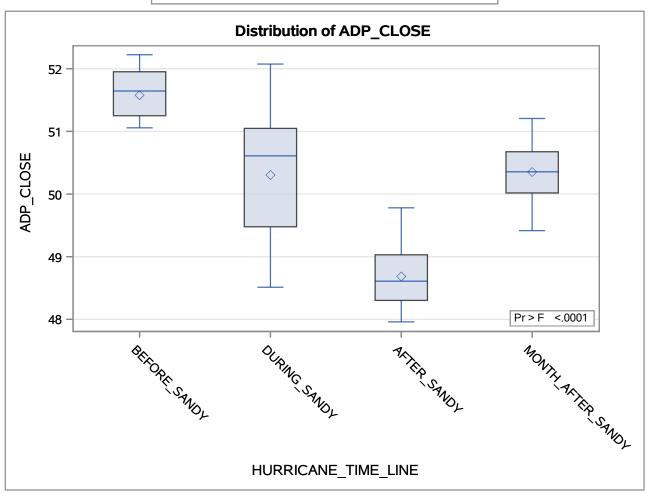


Cramer-von Mises Test for Variable BBBY_CLOSE Classified by Variable HURRICANE_TIME_LINE				
HURRICANE_TIME_LINE	N	Summed Deviation from Mean		
BEFORE_SANDY	15	2.770342		
DURING_SANDY	13	0.423437		
AFTER_SANDY	14	0.180147		
MONTH_AFTER_SANDY	20	0.627328		

Cramer-von Mises Statistics (Asymptotic)			
СМ	0.064536	СМа	4.001253

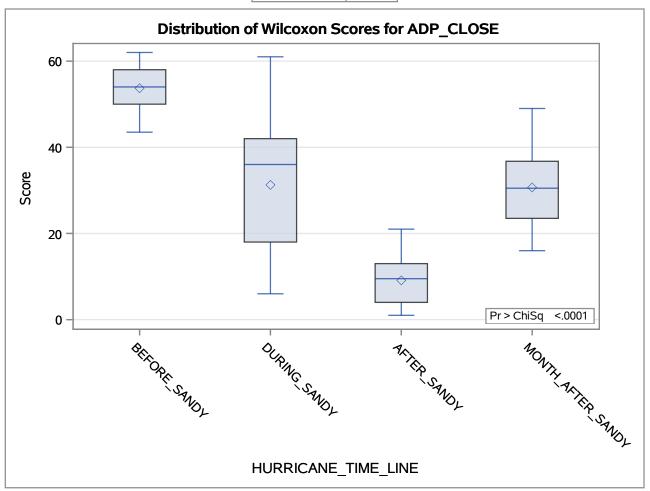
Analysis of Variance for Variable ADP_CLOSE Classified by Variable HURRICANE_TIME_LINE				
HURRICANE_TIME_LINE	N	Mean		
BEFORE_SANDY	15	51.576760		
DURING_SANDY	13	50.303854		
AFTER_SANDY	14	48.685171		
MONTH_AFTER_SANDY	20	50.351605		

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Among	3	60.921693	20.307231	50.3701	<.0001
Within	58	23.383316	0.403161		
Average scores were used for ties.					



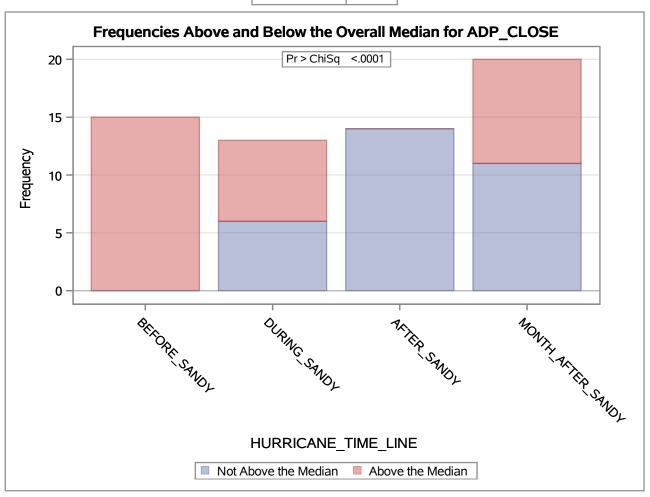
Wilcoxon Scores (Rank Sums) for Variable ADP_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N Sum of Scores Under H0 Std Dev Under H0 Score						
BEFORE_SANDY	15	805.50	472.50	60.834069	53.700000	
DURING_SANDY	13	406.50	409.50	57.825850	31.269231	
<b>AFTER_SANDY</b> 14 127.50 441.00 59.393230 9.107143						
MONTH_AFTER_SANDY	20	613.50	630.00	66.403650	30.675000	
Average scores were used for ties.						

Kruskal-Wallis Test				
Chi-Square	44.3284			
DF	3			
Pr > Chi-Square	<.0001			



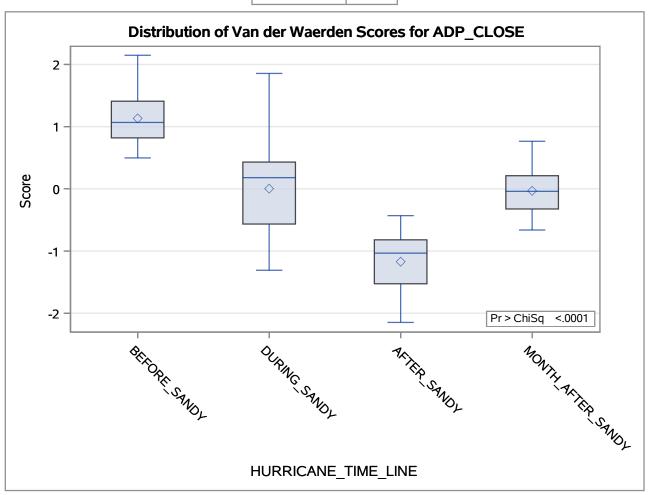
Median Scores (Number of Points Above Median) for Variable ADP_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N Scores Scores Std Dev Under H0 Score						
BEFORE_SANDY	15	15.0	7.50	1.699807	1.000000	
DURING_SANDY	13	7.0	6.50	1.615752	0.538462	
<b>AFTER_SANDY</b> 14 0.0 7.00 1.659548 0.000000						
MONTH_AFTER_SANDY	20	9.0	10.00	1.855431	0.450000	
Average scores were used for ties.						

Median One-Way Analysis				
Chi-Square	28.8047			
DF	3			
Pr > Chi-Square	<.0001			



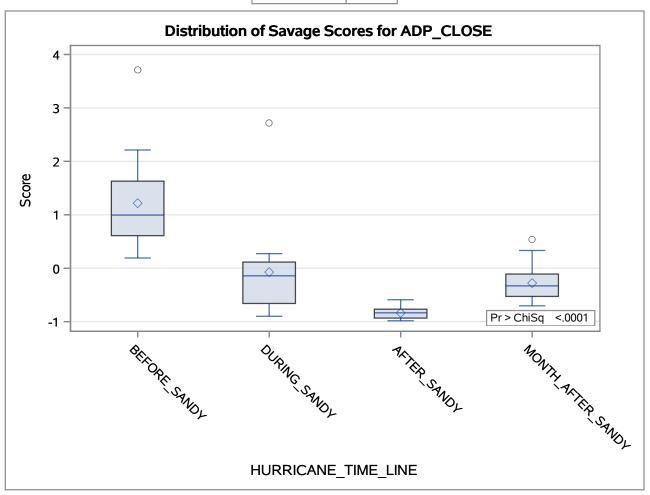
Van der Waerden Scores (Normal) for Variable ADP_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N Sum of Scores Under H0 Std Dev Under H0 Score						
BEFORE_SANDY	15	16.992531	0.0	3.205607	1.132835	
DURING_SANDY	13	0.042867	0.0	3.047091	0.003297	
AFTER_SANDY	14	-16.394444	0.0	3.129683	-1.171032	
MONTH_AFTER_SANDY	20	-0.640954	0.0	3.499092	-0.032048	
Average scores were used for ties.						

Van der Waerden One-Way Analysis			
<b>Chi-Square</b> 42.5683			
DF	3		
Pr > Chi-Square	<.0001		



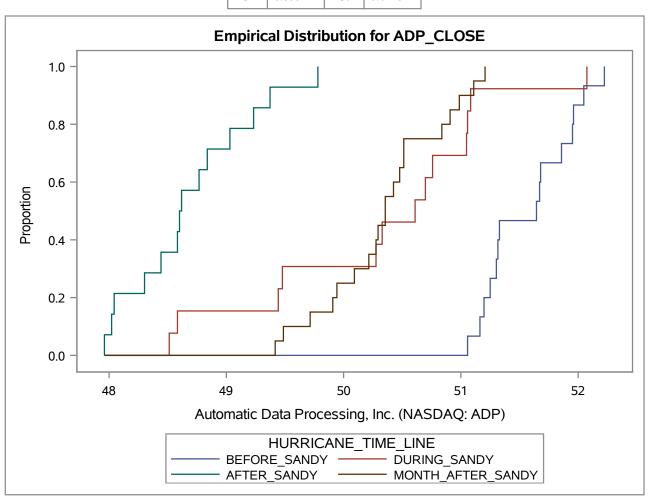
Savage Scores (Exponential) for Variable ADP_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N Sum of Scores Expected Under H0 Score Mean Score						
BEFORE_SANDY	15	18.252939	0.0	3.267778	1.216863	
DURING_SANDY	13	-0.957078	0.0	3.106188	-0.073621	
AFTER_SANDY	14	-11.717501	0.0	3.190381	-0.836964	
MONTH_AFTER_SANDY	20	-5.578361	0.0	3.566955	-0.278918	
Average scores were used for ties.						

Savage One-Way Analysis			
Chi-Square	35.8270		
DF	3		
Pr > Chi-Square	<.0001		



Kolmogorov-Smirnov Test for Variable ADP_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N EDF at Maximum Deviation from Mean at Maximum						
BEFORE_SANDY	15	0.000000	-2.623634			
DURING_SANDY	13	0.769231	0.331031			
AFTER_SANDY	14	1.000000	1.206986			
MONTH_AFTER_SANDY	20	0.900000	0.995411			
<b>Total</b> 62 0.677419						
Maximum Deviation Occurred at Observation 20						
Value of ADP_CLOSE at Maximum = 51.04820						

Kolmogorov-Smirnov Statistics (Asymptotic)			
KS	0.390217	KSa	3.072571



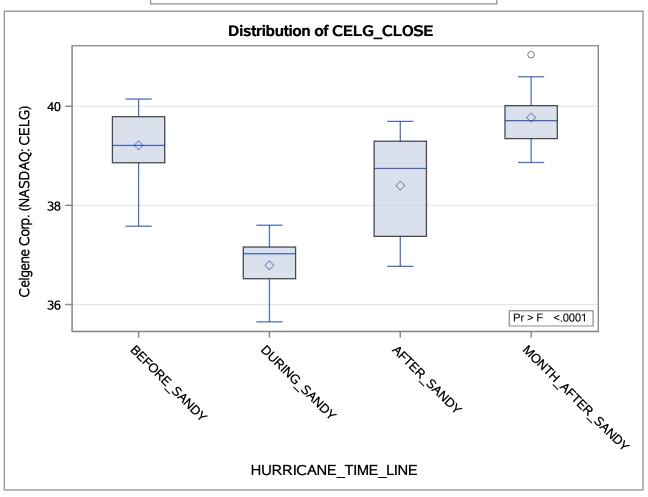
# Saturday, February 16, 2019 08:14:10 PM 70 NONPARAMETRIC TEST OF STOCK PRICE BEFORE, DURING AND AFTER HURRICANE SANDY

Cramer-von Mises Test for Variable ADP_CLOSE Classified by Variable HURRICANE_TIME_LINE				
HURRICANE_TIME_LINE	N	Summed Deviation from Mean		
BEFORE_SANDY	15	2.584682		
DURING_SANDY	13	0.074469		
AFTER_SANDY	14	2.388304		
MONTH_AFTER_SANDY	20	0.454172		

Cramer-von Mises Statistics (Asymptotic)			
СМ	0.088736	СМа	5.501627

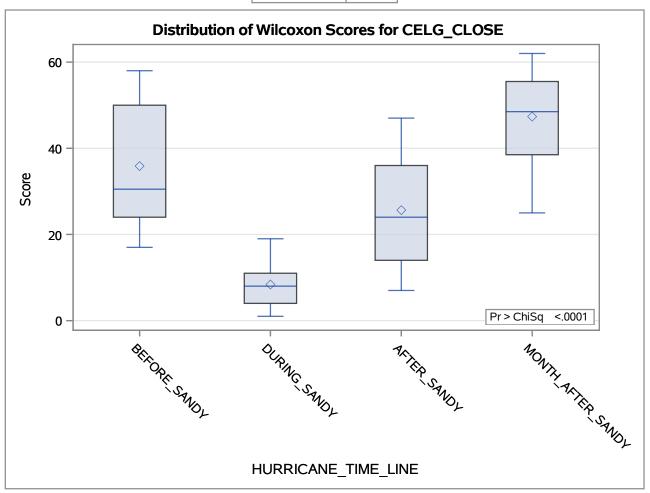
Analysis of Variance for Variable CELG_CLOSE Classified by Variable HURRICANE_TIME_LINE				
HURRICANE_TIME_LINE	N	Mean		
BEFORE_SANDY	15	39.212500		
DURING_SANDY	13	36.790385		
AFTER_SANDY	14	38.398036		
MONTH_AFTER_SANDY	20	39.772000		

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Among	3	75.606189	25.202063	49.2311	<.0001
Within	58	29.690983	0.511913		
Average scores were used for ties.					



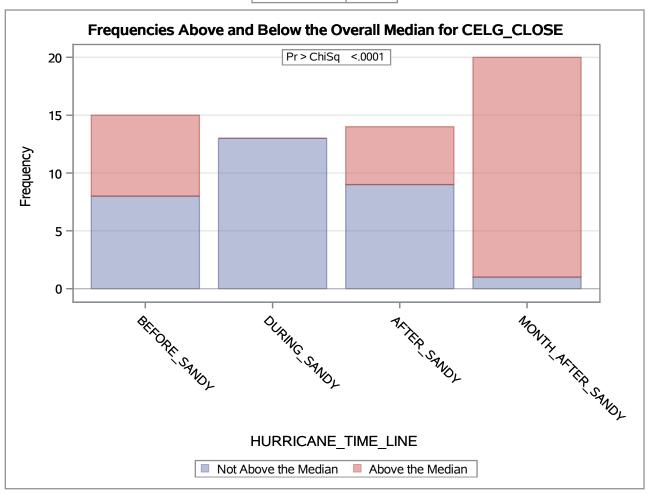
Wilcoxon Scores (Rank Sums) for Variable CELG_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N Sum of Scores Under H0 Score Score Std Dev Under H0 Score						
BEFORE_SANDY	15	538.0	472.50	60.835601	35.866667	
DURING_SANDY	13	109.0	409.50	57.827306	8.384615	
AFTER_SANDY	14	359.0	441.00	59.394726	25.642857	
MONTH_AFTER_SANDY	20	947.0	630.00	66.405322	47.350000	
Average scores were used for ties.						

Kruskal-Wallis Test				
Chi-Square	39.1333			
DF	3			
Pr > Chi-Square	<.0001			



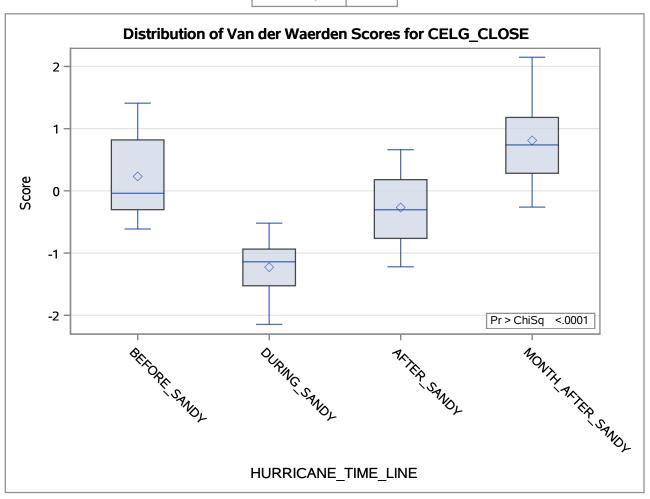
Median Scores (Number of Points Above Median) for Variable CELG_CLOSE Classified by Variable HURRICANE_TIME_LINE						
Sum of Expected Std Dev Mean HURRICANE_TIME_LINE N Scores Under H0 Under H0 Scores						
BEFORE_SANDY	15	7.0	7.50	1.699807	0.466667	
DURING_SANDY	13	0.0	6.50	1.615752	0.000000	
<b>AFTER_SANDY</b> 14 5.0 7.00 1.659548 0.357143						
MONTH_AFTER_SANDY	20	19.0	10.00	1.855431	0.950000	
Average scores were used for ties.						

Median One-Way Analysis			
Chi-Square	29.9190		
DF	3		
Pr > Chi-Square	<.0001		



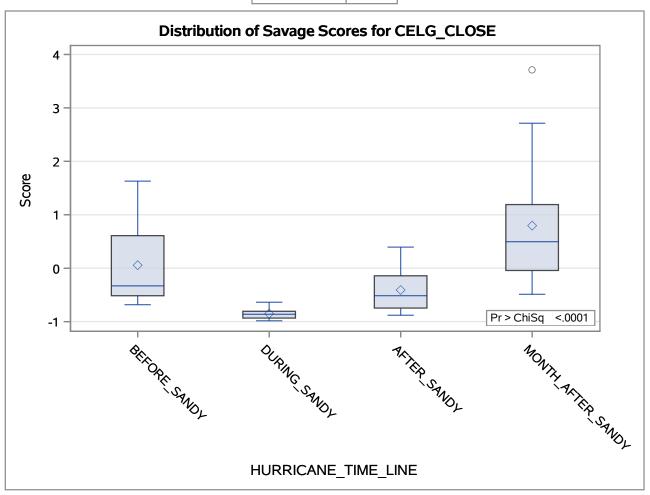
Van der Waerden Scores (Normal) for Variable CELG_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N Sum of Scores Under H0 Std Dev Under H0 Score						
BEFORE_SANDY	15	3.476071	0.0	3.205658	0.231738	
DURING_SANDY	13	-15.954838	0.0	3.047139	-1.227295	
<b>AFTER_SANDY</b> 14 -3.751850 0.0 3.129733 -0.267989						
MONTH_AFTER_SANDY	20	16.230616	0.0	3.499147	0.811531	
Average scores were used for ties.						

Van der Waerden One-Way Analysis			
<b>Chi-Square</b> 38.2460			
DF	3		
Pr > Chi-Square	<.0001		



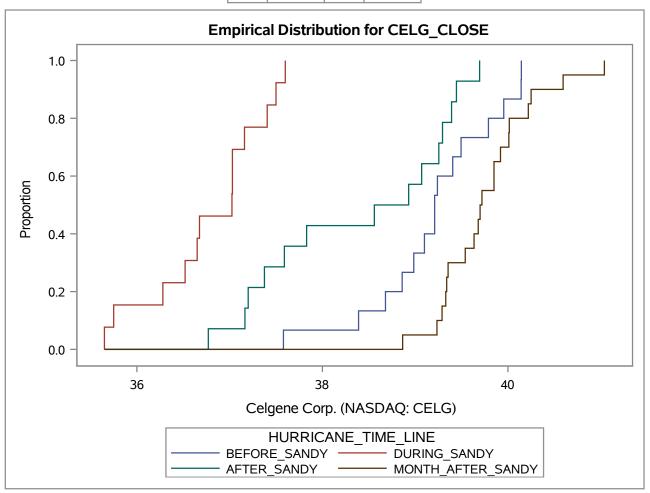
Savage Scores (Exponential) for Variable CELG_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N Scores Under H0 Std Dev Mean Score						
BEFORE_SANDY	15	0.842760	0.0	3.267728	0.056184	
DURING_SANDY	13	-11.058817	0.0	3.106141	-0.850678	
AFTER_SANDY 14 -5.716473 0.0 3.190333 -0.408320						
MONTH_AFTER_SANDY	20	15.932530	0.0	3.566901	0.796626	
Average scores were used for ties.						

Savage One-Way Analysis			
Chi-Square	26.0699		
DF	3		
Pr > Chi-Square	<.0001		



Kolmogorov-Smirnov Test for Variable CELG_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N Maximum at Maximum						
BEFORE_SANDY	15	0.066667	-0.991151			
DURING_SANDY	13	1.000000	2.442470			
AFTER_SANDY	14	0.428571	0.396581			
MONTH_AFTER_SANDY	20	0.000000	-1.442625			
Total	62	0.322581				
Maximum Deviation Occurred at Observation 29						
Value of CELG_CLOSE at Maximum = 37.830						

Kolmogorov-Smirnov Statistics (Asymptotic)			
KS	0.384927	KSa	3.030921



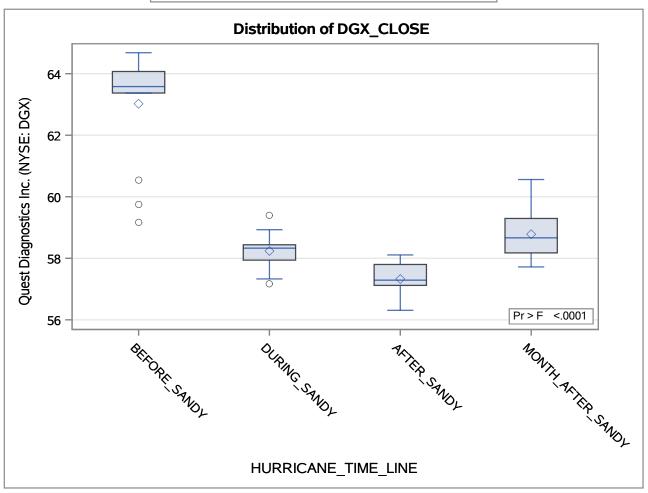
# Saturday, February 16, 2019 08:14:10 PM 77 NONPARAMETRIC TEST OF STOCK PRICE BEFORE, DURING AND AFTER HURRICANE SANDY

Cramer-von Mises Test for Variable CELG_CLOSE Classified by Variable HURRICANE_TIME_LINE				
HURRICANE_TIME_LINE Summed Deviation from Mear				
BEFORE_SANDY	15	0.206705		
DURING_SANDY	13	2.353264		
AFTER_SANDY	14	0.260564		
MONTH_AFTER_SANDY	20	1.648343		

Cramer-von Mises Statistics (Asymptotic)				
СМ	0.072079	СМа	4.468877	

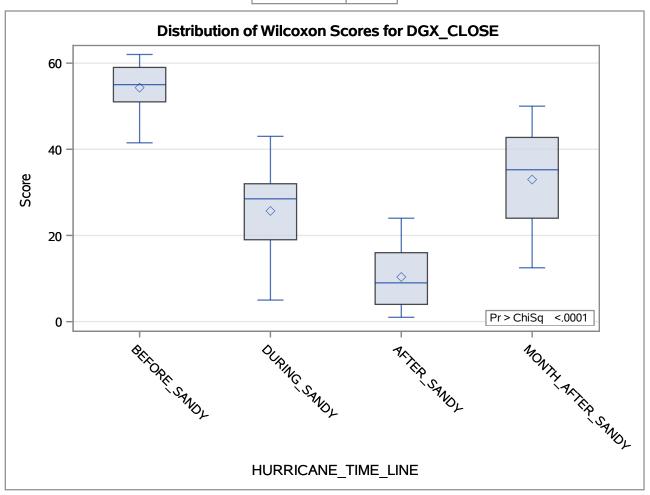
Analysis of Variance for Variable DGX_CLOSE Classified by Variable HURRICANE_TIME_LINE				
HURRICANE_TIME_LINE N Mean				
BEFORE_SANDY	15	63.022000		
DURING_SANDY	13	58.238462		
AFTER_SANDY	14	57.327857		
MONTH_AFTER_SANDY	20	58.784500		

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Among	3	281.941707	93.980569	87.0405	<.0001
Within	58	62.624540	1.079733		
Average scores were used for ties.					



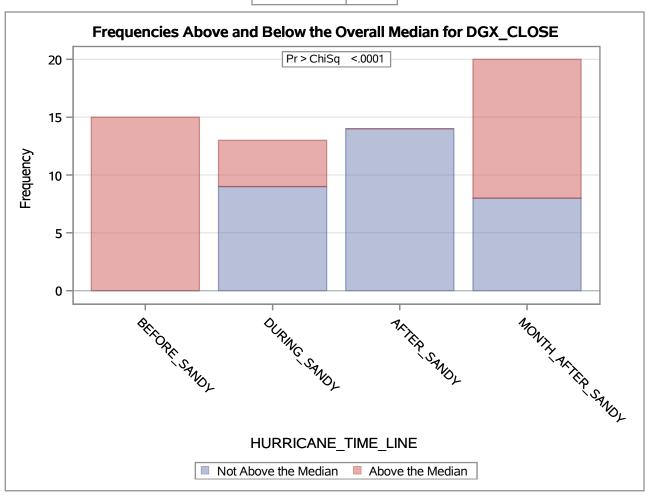
Wilcoxon Scores (Rank Sums) for Variable DGX_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE N Sum of Expected Under H0 Scores Under H0 Scores					
BEFORE_SANDY	15	814.50	472.50	60.834069	54.300000
DURING_SANDY	13	334.00	409.50	57.825850	25.692308
AFTER_SANDY 14 145.00 441.00 59.393230 10.357143					
MONTH_AFTER_SANDY	20	659.50	630.00	66.403650	32.975000
Average scores were used for ties.					

Kruskal-Wallis Test				
Chi-Square 44.6688				
DF	3			
Pr > Chi-Square	<.0001			



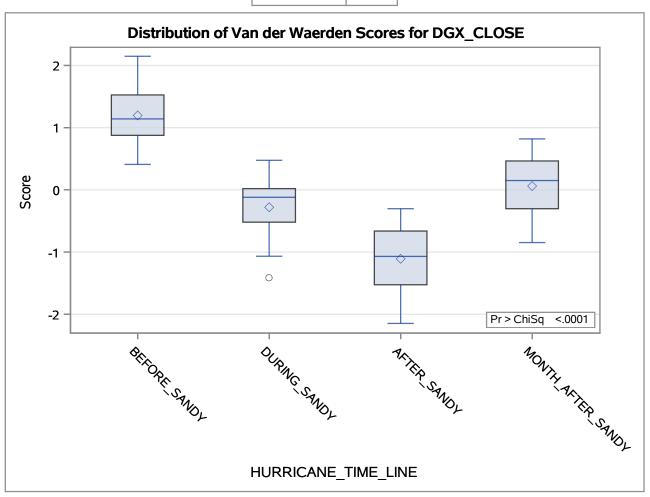
Median Scores (Number of Points Above Median) for Variable DGX_CLOSE Classified by Variable HURRICANE_TIME_LINE						
Sum of Expected Std Dev Mean HURRICANE_TIME_LINE N Scores Under H0 Under H0 Scores						
BEFORE_SANDY	15	15.0	7.50	1.699807	1.000000	
DURING_SANDY	13	4.0	6.50	1.615752	0.307692	
<b>AFTER_SANDY</b> 14 0.0 7.00 1.659548 0.000000						
MONTH_AFTER_SANDY	20	12.0	10.00	1.855431	0.600000	
	Average	scores were us	sed for ties.			

Median One-Way Analysis			
Chi-Square 31.2114			
DF	3		
Pr > Chi-Square	<.0001		



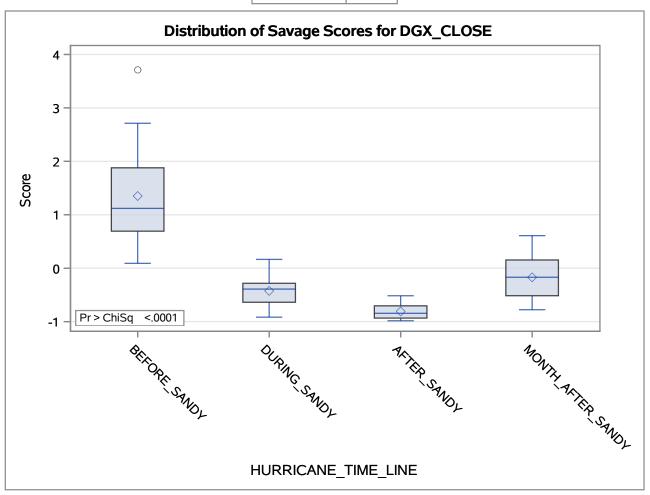
Van der Waerden Scores (Normal) for Variable DGX_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N Scores Under H0 Std Dev Mean Scores						
BEFORE_SANDY	15	17.944382	0.0	3.205620	1.196292	
DURING_SANDY	13	-3.633475	0.0	3.047104	-0.279498	
<b>AFTER_SANDY</b> 14 -15.522453 0.0 3.129696 -1.108747						
MONTH_AFTER_SANDY	20	1.211547	0.0	3.499106	0.060577	
	Average scores were used for ties.					

Van der Waerden One-Way Analysis			
Chi-Square 44.0034			
DF	3		
Pr > Chi-Square	<.0001		



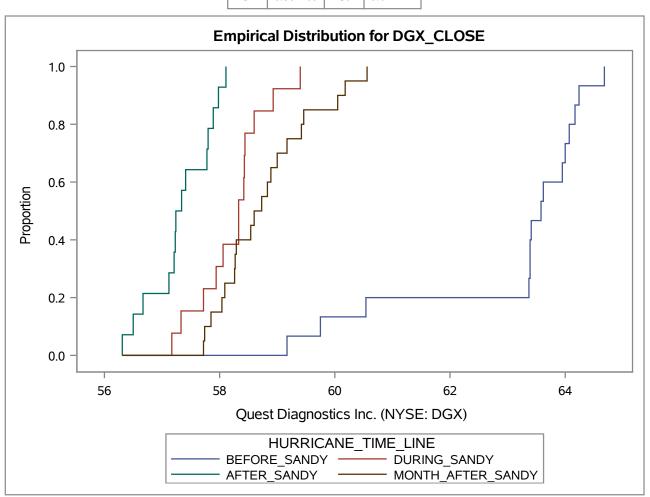
Savage Scores (Exponential) for Variable DGX_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE N Scores Under H0 Std Dev Scores					
BEFORE_SANDY	15	20.264953	0.0	3.267654	1.350997
DURING_SANDY	13	-5.521645	0.0	3.106070	-0.424742
<b>AFTER_SANDY</b> 14 -11.331483 0.0 3.190261 -0.809392					
MONTH_AFTER_SANDY 20 -3.411825 0.0 3.566820 -0.170591					
,	Average sco	res were use	d for ties.		

Savage One-Way Analysis			
Chi-Square 42.04			
DF	3		
Pr > Chi-Square	<.0001		



Kolmogorov-Smirnov Test for Variable DGX_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE	N	EDF at Maximum	Deviation from Mean at Maximum		
BEFORE_SANDY	15	0.000000	-2.498699		
DURING_SANDY	13	0.923077	1.002039		
AFTER_SANDY	14	1.000000	1.327685		
MONTH_AFTER_SANDY	20	0.700000	0.245246		
<b>Total</b> 62 0.645161					
Maximum Deviation Occurred at Observation 58					
Value of DGX_CLOSE at Maximum = 59.0					

Kolmogorov-Smirnov Statistics (Asymptotic)				
KS	0.382489	KSa	3.011722	



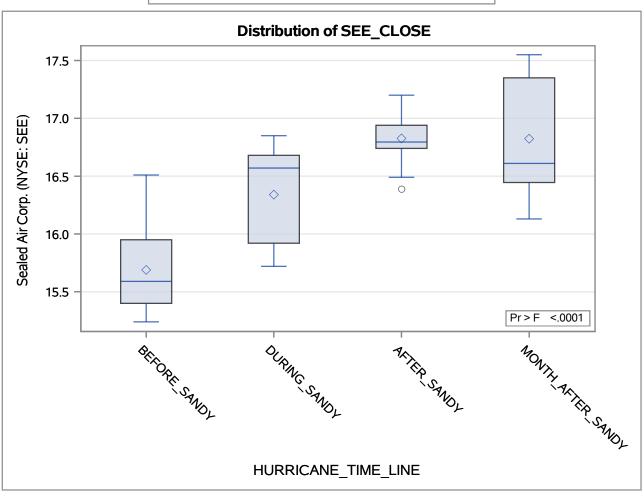
# Saturday, February 16, 2019 08:14:10 PM **84** NONPARAMETRIC TEST OF STOCK PRICE BEFORE, DURING AND AFTER HURRICANE SANDY

Cramer-von Mises Test for Variable DGX_CLOSE Classified by Variable HURRICANE_TIME_LINE				
HURRICANE_TIME_LINE Summed Deviation from Mean				
BEFORE_SANDY	15	2.641289		
DURING_SANDY	13	0.310065		
AFTER_SANDY	14	2.064361		
MONTH_AFTER_SANDY	20	0.250509		

Cramer-von Mises Statistics (Asymptotic)				
СМ	0.084939	СМа	5.266224	

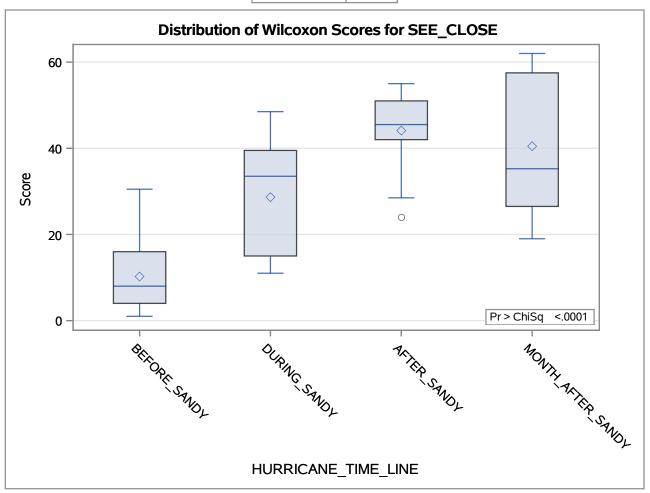
Analysis of Variance for Variable SEE_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE	N	Mean			
BEFORE_SANDY	15	15.689333			
DURING_SANDY	13	16.340000			
AFTER_SANDY	14	16.826429			
MONTH_AFTER_SANDY	20	16.823500			

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F	
Among	3	13.610169	4.536723	28.5636	<.0001	
Within	58	9.212070	0.158829			
Average scores were used for ties.						



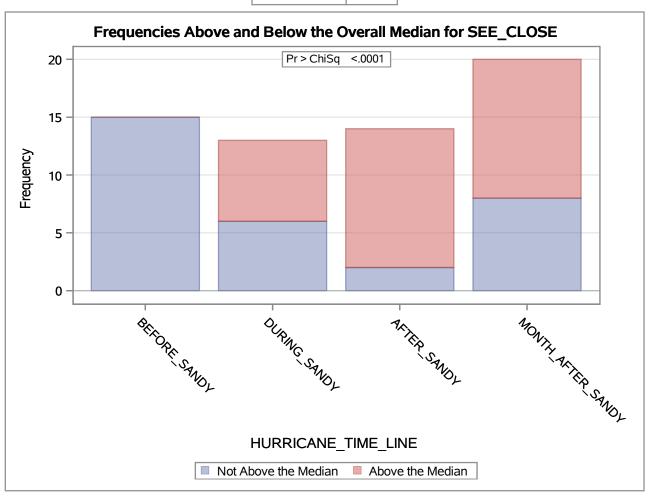
Wilcoxon Scores (Rank Sums) for Variable SEE_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N Scores Under H0 Std Dev Score						
BEFORE_SANDY	15	153.50	472.50	60.832537	10.233333	
DURING_SANDY	13	372.50	409.50	57.824394	28.653846	
AFTER_SANDY	14	617.50	441.00	59.391734	44.107143	
MONTH_AFTER_SANDY	20	809.50	630.00	66.401978	40.475000	
Average scores were used for ties.						

Kruskal-Wallis Test				
Chi-Square	32.9568			
DF	3			
Pr > Chi-Square	<.0001			



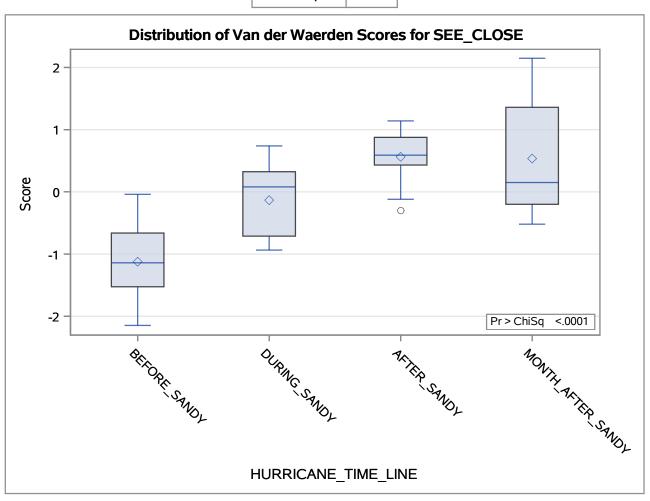
Median Scores (Number of Points Above Median) for Variable SEE_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N Scores Under H0 Under H0 Score						
BEFORE_SANDY	15	0.0	7.50	1.699807	0.000000	
DURING_SANDY	13	7.0	6.50	1.615752	0.538462	
AFTER_SANDY	14	12.0	7.00	1.659548	0.857143	
MONTH_AFTER_SANDY	20	12.0	10.00	1.855431	0.600000	
Average scores were used for ties.						

Median One-Way Analysis				
Chi-Square	22.6485			
DF	3			
Pr > Chi-Square	<.0001			



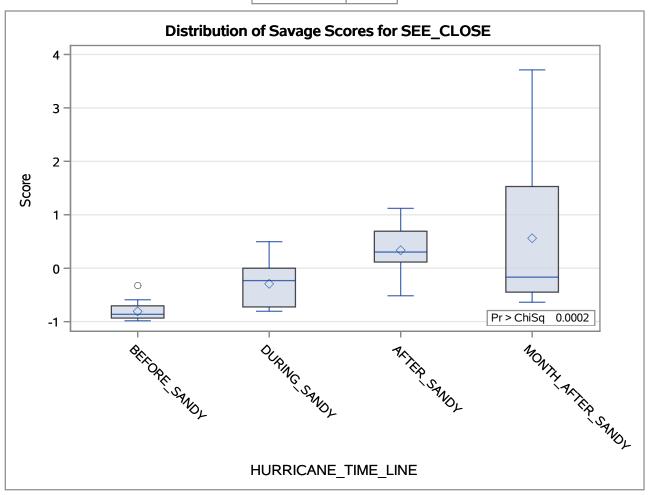
Van der Waerden Scores (Normal) for Variable SEE_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N Sum of Expected Std Dev Mean Scores Under H0 Under H0 Score						
BEFORE_SANDY	15	-16.855601	0.0	3.205009	-1.123707	
DURING_SANDY	13	-1.738323	0.0	3.046523	-0.133717	
<b>AFTER_SANDY</b> 14 7.887056 0.0 3.129099 0.563361						
MONTH_AFTER_SANDY	20	10.706868	0.0	3.498439	0.535343	
Average scores were used for ties.						

Van der Waerden One-Way Analysis				
Chi-Square	32.4879			
DF 3				
Pr > Chi-Square	<.0001			



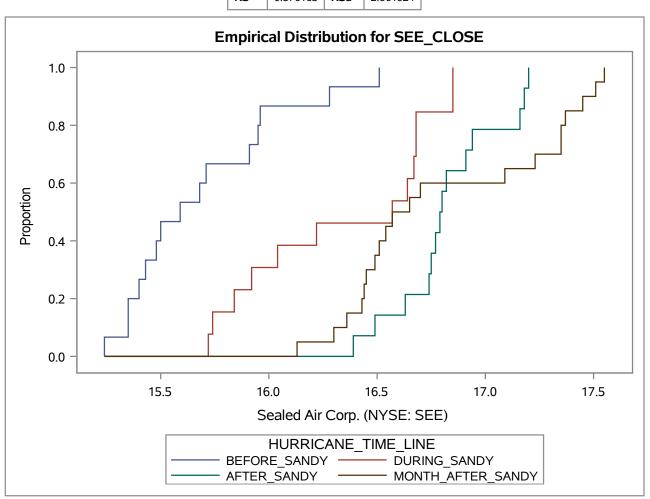
Savage Scores (Exponential) for Variable SEE_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N Sum of Scores Expected Under H0 Score Mean Score						
BEFORE_SANDY	15	-12.120416	0.0	3.267148	-0.808028	
DURING_SANDY	13	-3.805140	0.0	3.105589	-0.292703	
<b>AFTER_SANDY</b> 14 4.708769 0.0 3.189766 0.336341						
MONTH_AFTER_SANDY 20 11.216787 0.0 3.566267 0.560839						
Average scores were used for ties.						

Savage One-Way Analysis				
Chi-Square	20.0079			
DF	3			
Pr > Chi-Square	0.0002			



Kolmogorov-Smirnov Test for Variable SEE_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N EDF at Maximum at Maximum						
BEFORE_SANDY	15	0.933333	2.302968			
DURING_SANDY	13	0.461538	0.442865			
AFTER_SANDY	14	0.000000	-1.267336			
MONTH_AFTER_SANDY	20	0.050000	-1.291149			
<b>Total</b> 62 0.338710						
Maximum Deviation Occurred at Observation 13						
Value of SEE_CLOSE at Maximum = 16.280						

Kolmogorov-Smirnov Statistics (Asymptotic)				
KS	0.376165	KSa	2.961924	



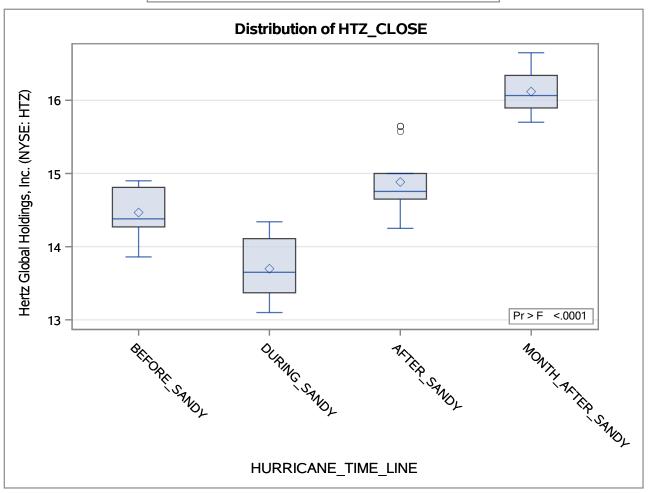
# Saturday, February 16, 2019 08:14:10 PM 91 NONPARAMETRIC TEST OF STOCK PRICE BEFORE, DURING AND AFTER HURRICANE SANDY

Cramer-von Mises Test for Variable SEE_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE	N	Summed Deviation from Mean			
BEFORE_SANDY	15	2.227542			
DURING_SANDY	13	0.144633			
AFTER_SANDY	14	0.946049			
MONTH_AFTER_SANDY	20	0.534251			

Cramer-von Mises Statistics (Asymptotic)			
СМ	0.062137	СМа	3.852475

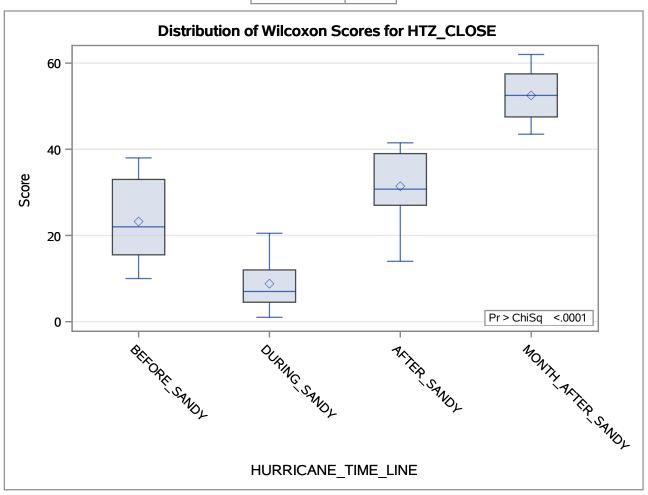
Analysis of Variance for Variable HTZ_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE	N	Mean			
BEFORE_SANDY	15	14.466667			
DURING_SANDY	13	13.698462			
AFTER_SANDY	14	14.883571			
MONTH_AFTER_SANDY	20	16.119000			

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F		
Among	3	51.241230	17.080410	124.8253	<.0001		
Within	58	7.936404	0.136835				
Average scores were used for ties.							



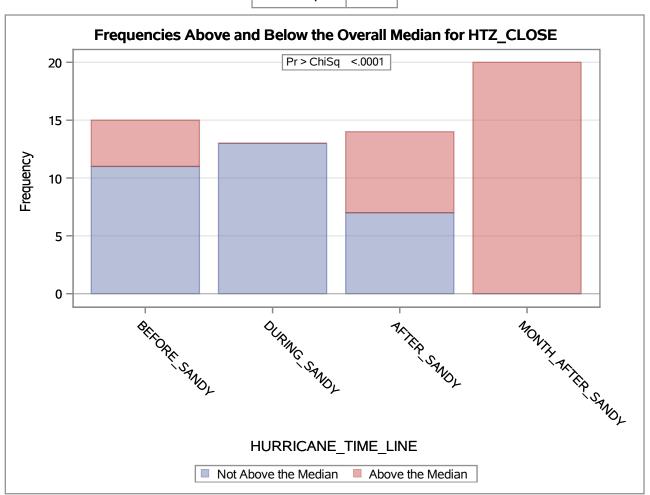
Wilcoxon Scores (Rank Sums) for Variable HTZ_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
BEFORE_SANDY	15	348.50	472.50	60.833303	23.233333
DURING_SANDY	13	114.50	409.50	57.825122	8.807692
AFTER_SANDY	14	440.00	441.00	59.392482	31.428571
MONTH_AFTER_SANDY	20	1050.00	630.00	66.402814	52.500000
Average scores were used for ties.					

Kruskal-Wallis Test				
Chi-Square	50.8199			
DF	3			
Pr > Chi-Square	<.0001			



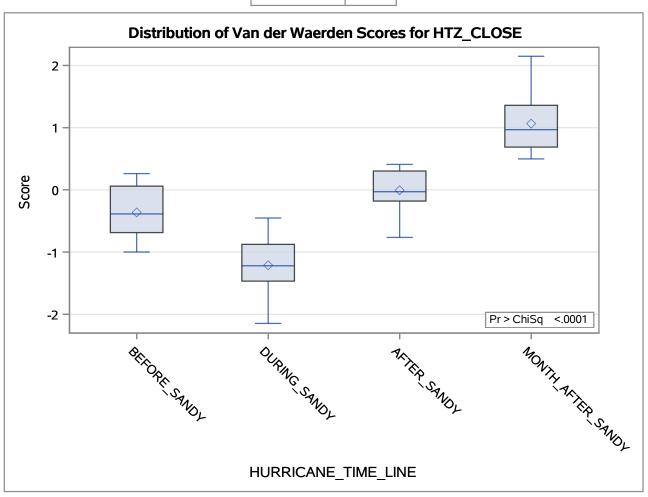
Median Scores (Number of Points Above Median) for Variable HTZ_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
BEFORE_SANDY	15	4.0	7.50	1.699807	0.266667
DURING_SANDY	13	0.0	6.50	1.615752	0.000000
AFTER_SANDY	14	7.0	7.00	1.659548	0.500000
MONTH_AFTER_SANDY	20	20.0	10.00	1.855431	1.000000
Average scores were used for ties.					

Median One-Way Analysis				
Chi-Square	35.6817			
DF	3			
Pr > Chi-Square	<.0001			



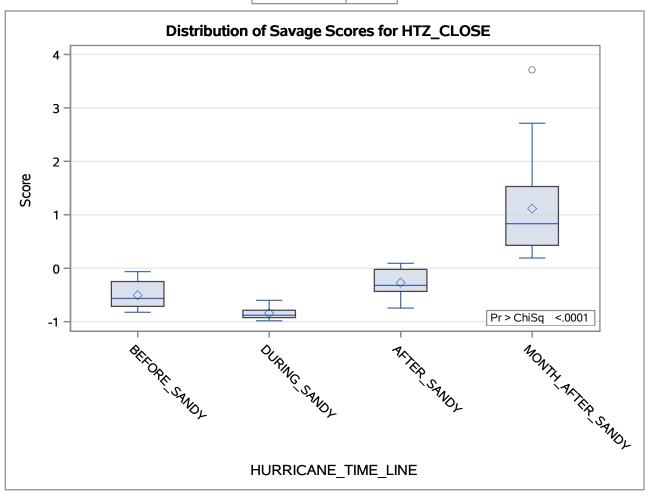
Van der Waerden Scores (Normal) for Variable HTZ_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
BEFORE_SANDY	15	-5.444063	0.0	3.205457	-0.362938
DURING_SANDY	13	-15.760022	0.0	3.046948	-1.212309
AFTER_SANDY	14	-0.085454	0.0	3.129536	-0.006104
MONTH_AFTER_SANDY	20	21.289539	0.0	3.498928	1.064477
Average scores were used for ties.					

Van der Waerden One-Way Analysis			
Chi-Square	48.4108		
DF	3		
Pr > Chi-Square	<.0001		



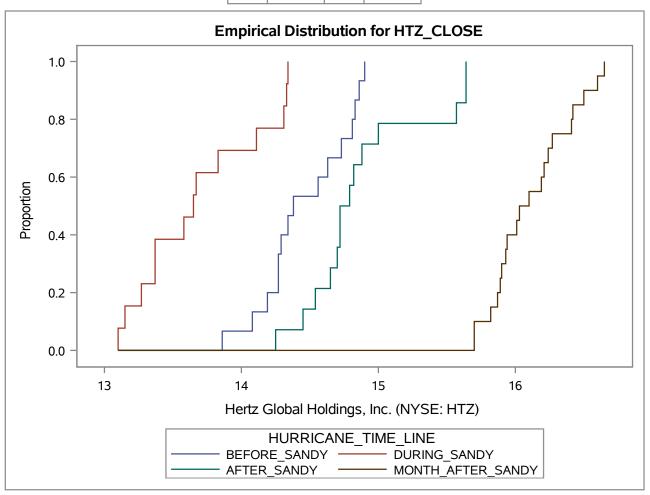
Savage Scores (Exponential) for Variable HTZ_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
BEFORE_SANDY	15	-7.580029	0.0	3.267762	-0.505335
DURING_SANDY	13	-10.927690	0.0	3.106172	-0.840592
AFTER_SANDY	14	-3.785346	0.0	3.190365	-0.270382
MONTH_AFTER_SANDY	20	22.293065	0.0	3.566937	1.114653
Average scores were used for ties.					

Savage One-Way Analysis				
Chi-Square	41.4114			
DF	3			
Pr > Chi-Square	<.0001			



Kolmogorov-Smirnov Test for Variable HTZ_CLOSE Classified by Variable HURRICANE_TIME_LINE							
EDF at Deviation from Mean HURRICANE_TIME_LINE N Maximum at Maximum							
BEFORE_SANDY	15	1.000000	1.249349				
DURING_SANDY	13	1.000000	1.163081				
AFTER_SANDY	14	1.000000	1.206986				
MONTH_AFTER_SANDY	20	0.000000	-3.029511				
<b>Total</b> 62 0.677419							
Maximum Deviation Occurred at Observation 41							
Value of HTZ_CLOSE at Maximum = 15.640							

Kolmogorov-Smirnov Statistics (Asymptotic)				
KS	0.467464	KSa	3.680813	



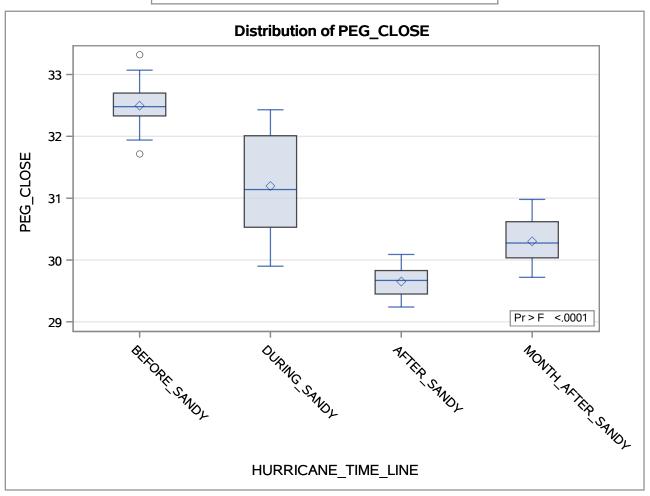
# Saturday, February 16, 2019 08:14:10 PM 98 NONPARAMETRIC TEST OF STOCK PRICE BEFORE, DURING AND AFTER HURRICANE SANDY

Cramer-von Mises Test for Variable HTZ_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE Summed Deviation from Mean					
BEFORE_SANDY	15	0.565756			
DURING_SANDY	2.228318				
AFTER_SANDY	14	0.412331			
MONTH_AFTER_SANDY	20	3.066155			

Cramer-von Mises Statistics (Asymptotic)				
СМ	0.101170	СМа	6.272560	

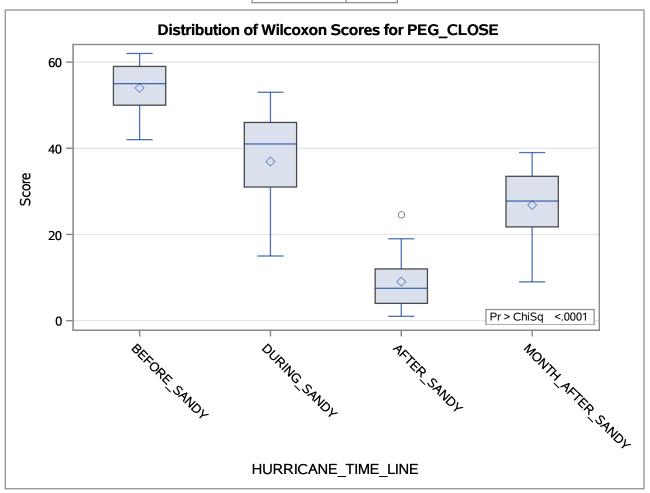
Analysis of Variance for Variable PEG_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE	N	Mean			
BEFORE_SANDY	15	32.496000			
<b>DURING_SANDY</b> 13 31.1969.					
<b>AFTER_SANDY</b> 14 29.652143					
MONTH_AFTER_SANDY	20	30.301500			

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F	
Among	3	68.275092	22.758364	84.5335	<.0001	
Within	58	15.614928	0.269223			
Average scores were used for ties.						



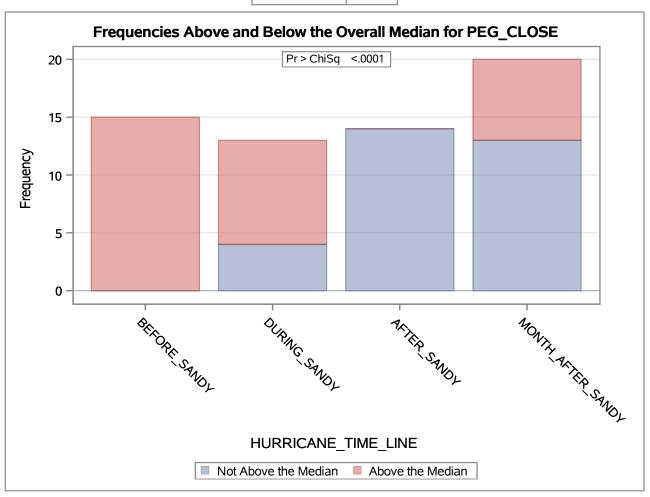
Wilcoxon Scores (Rank Sums) for Variable PEG_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N Scores Under H0 Score Std Dev Score						
BEFORE_SANDY	15	810.00	472.50	60.831005	54.000000	
DURING_SANDY	13	480.00	409.50	57.822937	36.923077	
<b>AFTER_SANDY</b> 14 126.50 441.00 59.390238 9.035714						
MONTH_AFTER_SANDY 20 536.50 630.00 66.400305 26.825000						
Average scores were used for ties.						

Kruskal-Wallis Test				
Chi-Square	47.5629			
DF	3			
Pr > Chi-Square	<.0001			



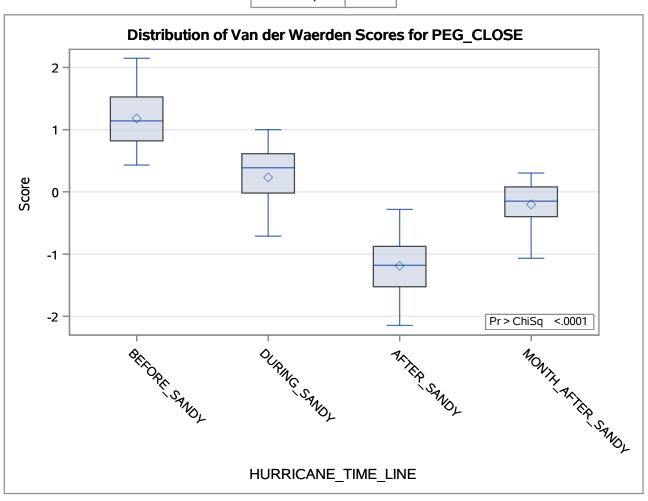
Median Scores (Number of Points Above Median) for Variable PEG_CLOSE Classified by Variable HURRICANE_TIME_LINE							
HURRICANE_TIME_LINE N Scores Under H0 Under H0 Score							
BEFORE_SANDY	15	15.0	7.50	1.699807	1.000000		
DURING_SANDY	13	9.0	6.50	1.615752	0.692308		
AFTER_SANDY	<b>AFTER_SANDY</b> 14 0.0 7.00 1.659548 0.000000						
MONTH_AFTER_SANDY	20	7.0	10.00	1.855431	0.350000		
Average scores were used for ties.							

Median One-Way Analysis				
Chi-Square	32.1953			
DF	3			
Pr > Chi-Square	<.0001			



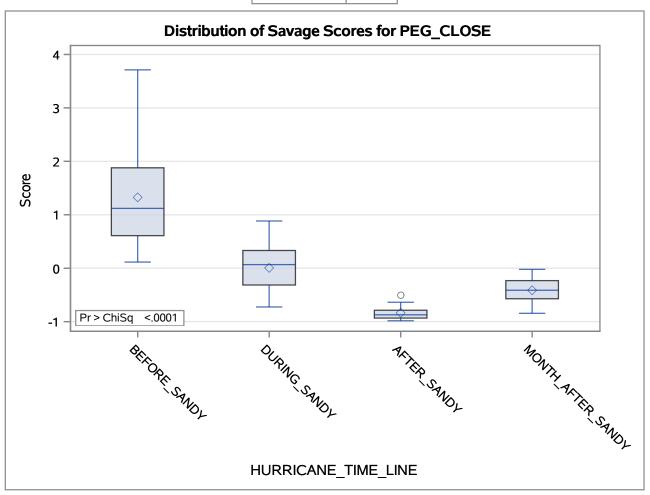
Van der Waerden Scores (Normal) for Variable PEG_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N Scores Under H0 Std Dev Under H0 Score						
BEFORE_SANDY	15	17.685866	0.0	3.205522	1.179058	
DURING_SANDY	13	3.040657	0.0	3.047010	0.233897	
<b>AFTER_SANDY</b> 14 -16.656900 0.0 3.129600 -1.189779						
MONTH_AFTER_SANDY	20	-4.069624	0.0	3.498999	-0.203481	
Average scores were used for ties.						

Van der Waerden One-Way Analysis				
Chi-Square	46.7105			
DF 3				
Pr > Chi-Square	<.0001			



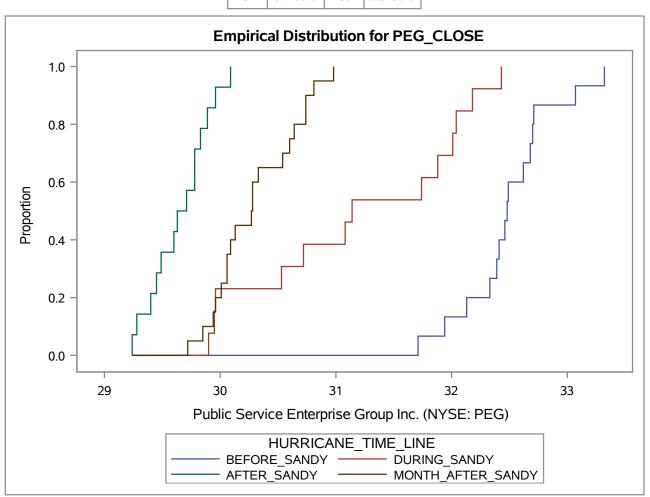
Savage Scores (Exponential) for Variable PEG_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N Sum of Scores Scores Under H0 Std Dev Under H0 Score						
BEFORE_SANDY	15	19.884268	0.0	3.267778	1.325618	
DURING_SANDY	13	0.072592	0.0	3.106187	0.005584	
<b>AFTER_SANDY</b> 14 -11.701044 0.0 3.190381 -0.835789						
MONTH_AFTER_SANDY         20         -8.255816         0.0         3.566955         -0.412791						
Average scores were used for ties.						

Savage One-Way Analysis				
Chi-Square	42.1119			
DF	3			
Pr > Chi-Square	<.0001			



Kolmogorov-Smirnov Test for Variable PEG_CLOSE Classified by Variable HURRICANE_TIME_LINE					
EDF at Deviation from Mean HURRICANE_TIME_LINE N Maximum at Maximum					
BEFORE_SANDY	15	0.000000	-2.436231		
DURING_SANDY	13	0.384615	-0.881258		
AFTER_SANDY	14	1.000000	1.388034		
MONTH_AFTER_SANDY	20	1.000000	1.659018		
Total 62 0.629032					
Maximum Deviation Occurred at Observation 54					
Value of PEG_CLOSE at Maximum = 30.980					

Kolmogorov-Smirnov Statistics (Asymptotic)			tatistics
KS	0.428629	KSa	3.375029



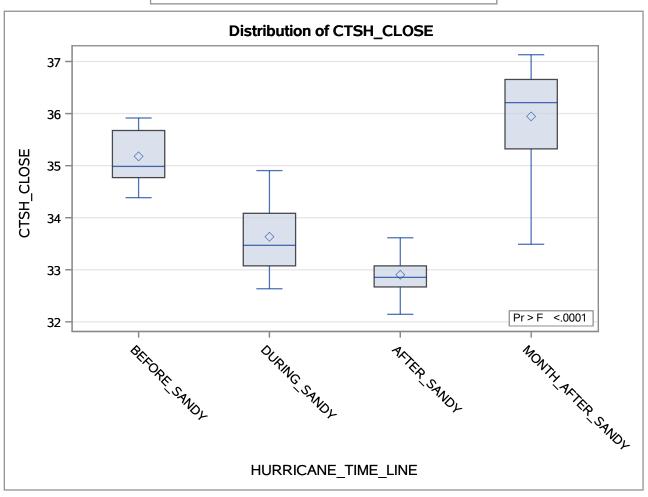
# Saturday, February 16, 2019 08:14:10 PM 105 NONPARAMETRIC TEST OF STOCK PRICE BEFORE, DURING AND AFTER HURRICANE SANDY

Cramer-von Mises Test for Variable PEG_CLOSE Classified by Variable HURRICANE_TIME_LINE				
HURRICANE_TIME_LINE N Summed Deviation from Mean				
BEFORE_SANDY	15	2.591380		
DURING_SANDY	13	0.286957		
AFTER_SANDY	14	2.373050		
MONTH_AFTER_SANDY	20	0.631199		

Cramer-von Mises Statistics (Asymptotic)			
СМ	0.094880	СМа	5.882585

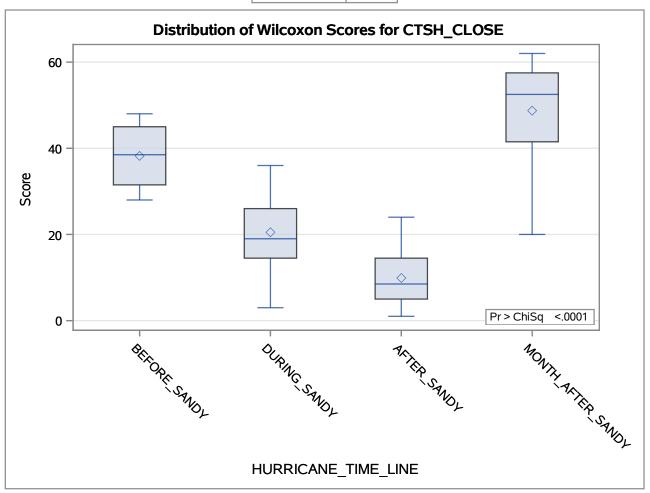
Analysis of Variance for Variable CTSH_CLOSE Classified by Variable HURRICANE_TIME_LINE				
HURRICANE_TIME_LINE N Mean				
BEFORE_SANDY	15	35.178167		
DURING_SANDY	13	33.634285		
AFTER_SANDY 14 32.9				
MONTH_AFTER_SANDY	20	35.945670		

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Among	3	93.615887	31.205296	55.8281	<.0001
Within	58	32.419261	0.558953		
Average scores were used for ties.					



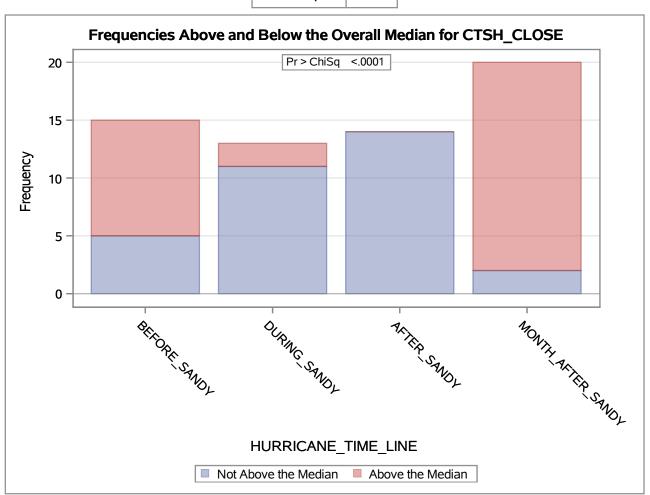
Wilcoxon Scores (Rank Sums) for Variable CTSH_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE N Sum of Scores Under H0 Std Dev Under H0 Score					
BEFORE_SANDY	15	573.50	472.50	60.835601	38.233333
DURING_SANDY	13	266.50	409.50	57.827306	20.500000
AFTER_SANDY 14 138.50 441.00 59.394726 9.892857					
MONTH_AFTER_SANDY	20	974.50	630.00	66.405322	48.725000
Average scores were used for ties.					

Kruskal-Wallis Test				
Chi-Square	45.2361			
DF	3			
Pr > Chi-Square	<.0001			



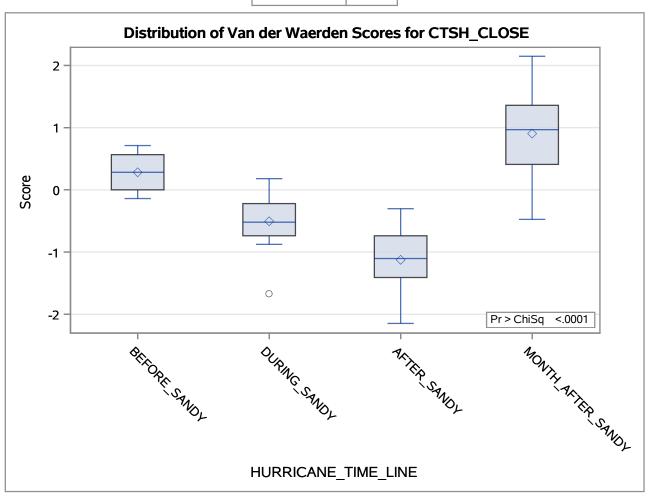
Median Scores (Number of Points Above Median) for Variable CTSH_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N Scores Under H0 Std Dev Score						
BEFORE_SANDY	15	11.0	7.50	1.672166	0.733333	
DURING_SANDY	13	2.0	6.50	1.589478	0.153846	
<b>AFTER_SANDY</b> 14 0.0 7.00 1.632561 0.000000						
MONTH_AFTER_SANDY	20	18.0	10.00	1.825259	0.900000	
Average scores were used for ties.						

Median One-Way Analysis				
<b>Chi-Square</b> 36.9024				
DF	3			
Pr > Chi-Square	<.0001			



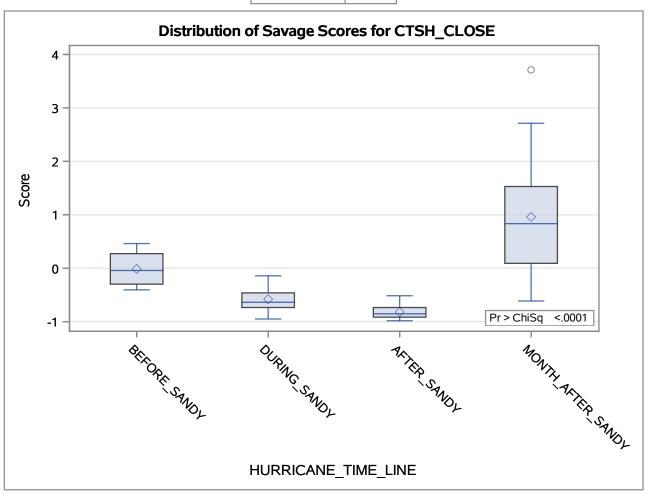
Van der Waerden Scores (Normal) for Variable CTSH_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N Sum of Scores Under H0 Std Dev Under H0 Score						
BEFORE_SANDY	15	4.236841	0.0	3.205712	0.282456	
DURING_SANDY	13	-6.568727	0.0	3.047191	-0.505287	
AFTER_SANDY	14	-15.747087	0.0	3.129786	-1.124792	
MONTH_AFTER_SANDY	20	18.078972	0.0	3.499207	0.903949	
Average scores were used for ties.						

Van der Waerden One-Way Analysis			
<b>Chi-Square</b> 42.6779			
DF	3		
Pr > Chi-Square	<.0001		



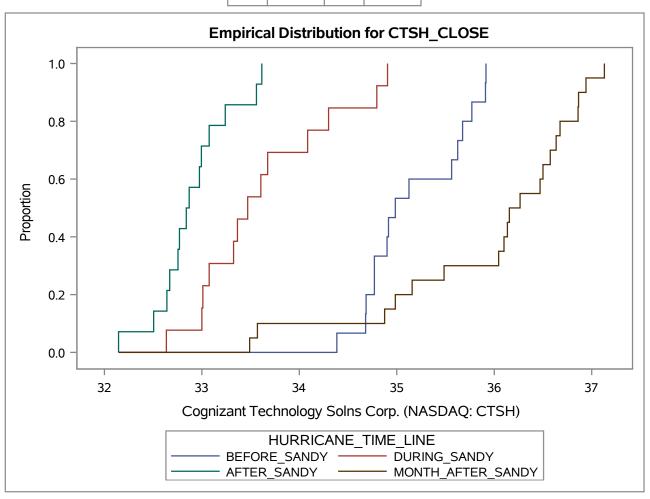
Savage Scores (Exponential) for Variable CTSH_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N Sum of Scores Under H0 Std Dev Under H0 Score						
BEFORE_SANDY	15	-0.188116	0.0	3.267819	-0.012541	
DURING_SANDY	13	-7.539103	0.0	3.106227	-0.579931	
AFTER_SANDY	14	-11.468086	0.0	3.190422	-0.819149	
MONTH_AFTER_SANDY         20         19.195305         0.0         3.567000         0.959765						
Average scores were used for ties.						

Savage One-Way Analysis			
Chi-Square 34.278			
DF	3		
Pr > Chi-Square	<.0001		



Kolmogorov-Smirnov Test for Variable CTSH_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE	N	EDF at Maximum	Deviation from Mean at Maximum		
BEFORE_SANDY	15	0.000000	-1.686622		
DURING_SANDY	13	0.846154	1.480692		
AFTER_SANDY	14	1.000000	2.112226		
MONTH_AFTER_SANDY	20	0.100000	-1.500329		
<b>Total</b> 62 0.435484					
Maximum Deviation Occurred at Observation 18					
Value of CTSH_CLOSE at Maximum = 34.30					

Kolmogorov-Smirnov Statistics (Asymptotic)			tatistics
KS	0.435328	KSa	3.427773

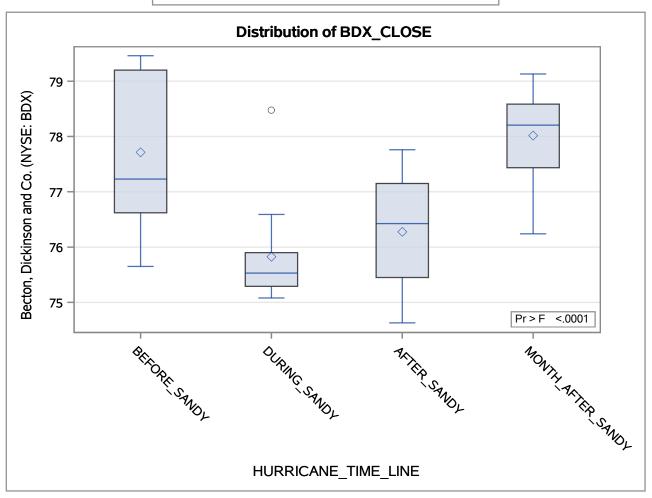


Cramer-von Mises Test for Variable CTSH_CLOSE Classified by Variable HURRICANE_TIME_LINE			
HURRICANE_TIME_LINE	N	Summed Deviation from Mean	
BEFORE_SANDY	15	0.659865	
DURING_SANDY	13	0.715904	
AFTER_SANDY	14	2.196972	
MONTH_AFTER_SANDY	20	1.916628	

Cramer-von Mises Statistics (Asymptotic)			
СМ	0.088538	СМа	5.489369

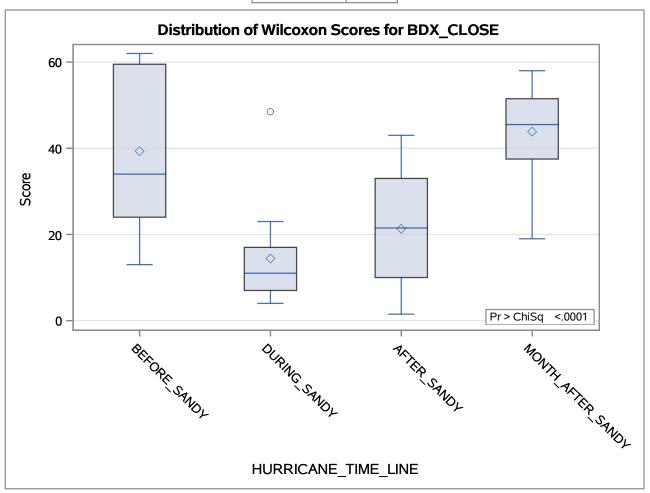
Analysis of Variance for Variable BDX_CLOSE Classified by Variable HURRICANE_TIME_LINE				
HURRICANE_TIME_LINE	N	Mean		
BEFORE_SANDY	15	77.713333		
DURING_SANDY	13	75.824615		
AFTER_SANDY	14	76.275714		
MONTH_AFTER_SANDY	20	78.015500		

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Among	3	53.057604	17.685868	16.8102	<.0001
Within	58	61.021294	1.052091		
Average scores were used for ties.					



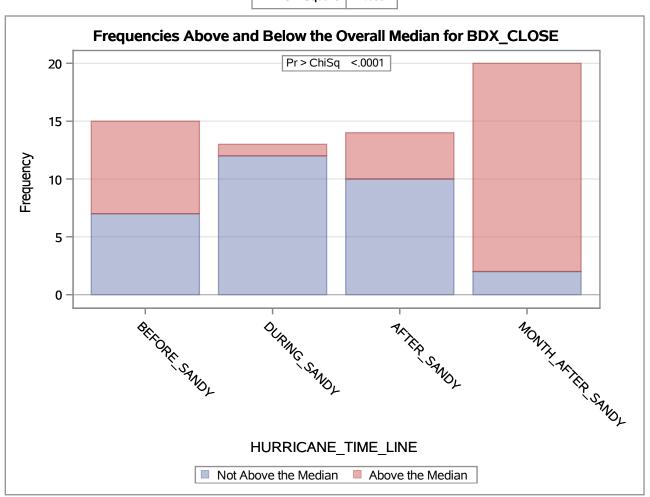
Wilcoxon Scores (Rank Sums) for Variable BDX_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
BEFORE_SANDY	15	590.00	472.50	60.834835	39.333333
DURING_SANDY	13	187.50	409.50	57.826578	14.423077
AFTER_SANDY	14	298.50	441.00	59.393978	21.321429
MONTH_AFTER_SANDY	20	877.00	630.00	66.404486	43.850000
Average scores were used for ties.					

Kruskal-Wallis Test			
Chi-Square	28.3051		
DF	3		
Pr > Chi-Square	<.0001		



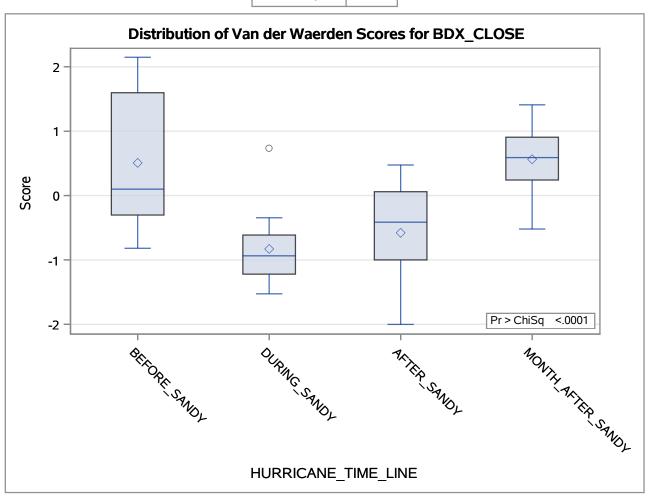
Median Scores (Number of Points Above Median) for Variable BDX_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE N Scores Under H0 Std Dev Score					
BEFORE_SANDY	15	8.0	7.50	1.699807	0.533333
DURING_SANDY	13	1.0	6.50	1.615752	0.076923
AFTER_SANDY	14	4.0	7.00	1.659548	0.285714
MONTH_AFTER_SANDY	20	18.0	10.00	1.855431	0.900000
Average scores were used for ties.					

Median One-Way Analysis			
Chi-Square	24.3467		
DF	3		
Pr > Chi-Square	<.0001		



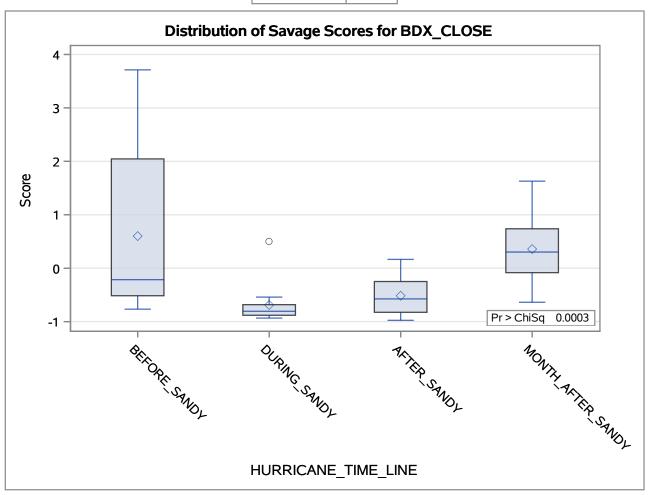
Van der Waerden Scores (Normal) for Variable BDX_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N Sum of Scores Under H0 Std Dev Under H0 Score						
BEFORE_SANDY	15	7.613954	0.0	3.204204	0.507597	
DURING_SANDY	13	-10.781331	0.0	3.045757	-0.829333	
AFTER_SANDY	14	-8.109168	0.0	3.128313	-0.579226	
MONTH_AFTER_SANDY         20         11.276545         0.0         3.497560         0.563827						
Average scores were used for ties.						

Van der Waerden One-Way Analysis		
<b>Chi-Square</b> 26.4271		
DF	3	
Pr > Chi-Square	<.0001	



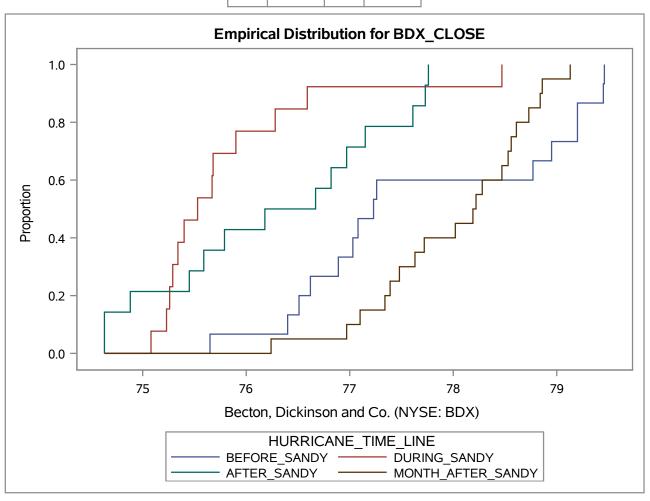
Savage Scores (Exponential) for Variable BDX_CLOSE Classified by Variable HURRICANE_TIME_LINE						
HURRICANE_TIME_LINE N Scores Under H0 Std Dev Score						
BEFORE_SANDY	15	9.011636	0.0	3.266191	0.600776	
DURING_SANDY	13	-8.958240	0.0	3.104680	-0.689095	
<b>AFTER_SANDY</b> 14 -7.213574 0.0 3.188832 -0.515255						
MONTH_AFTER_SANDY 20 7.160178 0.0 3.565223 0.358009						
Average scores were used for ties.						

Savage One-Way Analysis			
<b>Chi-Square</b> 19.0446			
DF	3		
Pr > Chi-Square	0.0003		



Kolmogorov-Smirnov Test for Variable BDX_CLOSE Classified by Variable HURRICANE_TIME_LINE					
HURRICANE_TIME_LINE N EDF at Maximum at Maximum					
BEFORE_SANDY	15	0.266667	-0.591359		
DURING_SANDY	13	0.923077	1.816196		
AFTER_SANDY	14	0.642857	0.836269		
MONTH_AFTER_SANDY	20	0.050000	-1.651805		
Total	62	0.419355			
Maximum Deviation Occurred at Observation 36					
Value of BDX_CLOSE at Maximum = 76.820					

Kolmogorov-Smirnov Statistics (Asymptotic)				
KS	0.337832	KSa	2.660090	



# Saturday, February 16, 2019 08:14:10 PM 119 NONPARAMETRIC TEST OF STOCK PRICE BEFORE, DURING AND AFTER HURRICANE SANDY

Cramer-von Mises Test for Variable BDX_CLOSE Classified by Variable HURRICANE_TIME_LINE				
HURRICANE_TIME_LINE Summed Deviation from Mean				
BEFORE_SANDY	15	0.324213		
DURING_SANDY	13	1.358017		
AFTER_SANDY	14	0.444338		
MONTH_AFTER_SANDY	20	1.199540		

Cramer-von Mises Statistics (Asymptotic)				
СМ	0.053647	СМа	3.326108	