

## Program Summary - adhoc and normality for enviornmental var.sas

### Execution Environment

Author: u64136608  
 File: /home/u64136608/STAT 520 PROJECT/adhoc and normality for enviornmental var.sas  
 SAS Platform: Linux LIN X64 5.14.0-284.30.1.el9\_2.x86\_64  
 SAS Host: ODAWS01-USW2.ODA.SAS.COM  
 SAS Version: 9.04.01M8P02222023  
 SAS Locale: en\_US  
 Submission Time: 10/19/2025, 12:23:06 PM  
 Browser Host: 104-63-252-32.LIGHTSPEED.SNDGCA.SBCGLOBAL.NET  
 User Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/141.0.0.0 Safari/537.36  
 Application Server: ODAMID00-USW2.ODA.SAS.COM

### Code: adhoc and normality for enviornmental var.sas

```

/*
 *
 * Task code generated by SAS Studio 3.8
 *
 * Generated on '10/15/25, 4:43 PM'
 * Generated by 'u64136608'
 * Generated on server 'ODAWS01-USW2.ODA.SAS.COM'
 * Generated on SAS platform 'Linux LIN X64 5.14.0-284.30.1.el9_2.x86_64'
 * Generated on SAS version '9.04.01M8P02222023'
 * Generated on browser 'Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/141.0.0.0 Sa
 * Generated on web client 'https://odamid-usw2.oda.sas.com/SASStudio/main?locale=en_US&zone=GMT-07%253A00&https%3A%2F%2Fodam
 */

ods noproctitle;

/** Analyze numeric variables */
title "Descriptive Statistics for Numeric Variables";

proc means data=STPROJ.RCHERI n nmiss min mean median max std;
  var SATIS01 SATIS02 SATIS07 SATIS13 SATIS25 CSSRAT07 CSSRAT16 GENACT05 COLACT17 COLACT19;
run;

title;

proc univariate data=STPROJ.RCHERI noprint;
  histogram SATIS01 SATIS02 SATIS07 SATIS13 SATIS25 CSSRAT07 CSSRAT16 GENACT05 COLACT17 COLACT19;
run;

title;

/* ----- HISTOGRAMS ----- */
title "Histograms for Selected Variables";
proc univariate data=STPROJ.RCHERI;
  var SATIS01 SATIS02 SATIS07 SATIS13 SATIS25
    CSSRAT07 CSSRAT16 GENACT05 COLACT17 COLACT19;
  histogram / normal; /* includes normal curve */
run;
/** Histograms & Normality Tests */
title "Histograms and Normality Tests";

proc univariate data=STPROJ.RCHERI normal;
  var SATIS01 SATIS02 SATIS07 SATIS13 SATIS25
    CSSRAT07 CSSRAT16 GENACT05 COLACT17 COLACT19;
  histogram / normal; /* Shows distribution with normal curve */
  inset n mean std skewness kurtosis / position=ne;
run;

title;

/** Optional: Correlations Between Variables */
title "Correlation Matrix (Ad-Hoc Association Check)";
proc corr data=STPROJ.RCHERI pearson spearman;
  var SATIS01 SATIS02 SATIS07 SATIS13 SATIS25
    CSSRAT07 CSSRAT16 GENACT05 COLACT17 COLACT19;
run;

```

**Log: adhoc and normality for enviornmental var.sas**

Notes (7)

```

1      OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
NOTE: ODS statements in the SAS Studio environment may disable some output features.
69
70      /*
71      *
72      * Task code generated by SAS Studio 3.8
73      *
74      * Generated on '10/15/25, 4:43 PM'
75      * Generated by 'u64136608'
76      * Generated on server 'ODAWS01-USW2.ODA.SAS.COM'
77      * Generated on SAS platform 'Linux LIN X64 5.14.0-284.30.1.el9_2.x86_64'
78      * Generated on SAS version '9.04.01M8P0222023'
79      * Generated on browser 'Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko)
79      ! Chrome/141.0.0.0 Safari/537.36'
80      * Generated on web client
80      ! 'https://odamid-usw2.oda.sas.com/SASStudio/main?locale=en_US&zone=GMT-07%253A00&https%3A%2F%2Fodamid-usw2.oda.sas.com%2FS
80      ! ASStudio%2Findex='
81      *
82      */
83
84      ods noproctitle;
85
86      /*** Analyze numeric variables ***/
87      title "Descriptive Statistics for Numeric Variables";
88
89      proc means data=STPROJ.RCHERI n nmiss min mean median max std;
90      var SATIS01 SATIS02 SATIS07 SATIS13 SATIS25 CSSRAT07 CSSRAT16 GENACT05 COLACT17 COLACT19;
91      run;

```

NOTE: There were 5000 observations read from the data set STPROJ.RCHERI.

NOTE: PROCEDURE MEANS used (Total process time):

```

real time          0.05 seconds
user cpu time      0.04 seconds
system cpu time    0.01 seconds
memory             8433.01k
OS Memory          35780.00k
Timestamp          10/19/2025 07:23:02 PM
Step Count                     177  Switch Count  3
Page Faults                    0
Page Reclaims                 1588
Page Swaps                     0
Voluntary Context Switches     32
Involuntary Context Switches    2
Block Input Operations          0
Block Output Operations         8

```

```

92
93      title;
94
95      proc univariate data=STPROJ.RCHERI noprint;
96      histogram SATIS01 SATIS02 SATIS07 SATIS13 SATIS25 CSSRAT07 CSSRAT16 GENACT05 COLACT17 COLACT19;
97      run;

```

NOTE: PROCEDURE UNIVARIATE used (Total process time):

```

real time          0.81 seconds
user cpu time      0.63 seconds
system cpu time    0.04 seconds
memory             29048.15k
OS Memory          55564.00k
Timestamp          10/19/2025 07:23:03 PM
Step Count                     178  Switch Count  3
Page Faults                    0
Page Reclaims                9822
Page Swaps                     0
Voluntary Context Switches     970
Involuntary Context Switches    24
Block Input Operations          0
Block Output Operations       2456

```

```

98
99      title;
100
101      /* ----- HISTOGRAMS ----- */
102      title "Histograms for Selected Variables";
103      proc univariate data=STPROJ.RCHERI;
104      var SATIS01 SATIS02 SATIS07 SATIS13 SATIS25
105      CSSRAT07 CSSRAT16 GENACT05 COLACT17 COLACT19;
106      histogram / normal; /* includes normal curve */
107      run;

```

```
NOTE: PROCEDURE UNIVARIATE used (Total process time):
  real time      1.19 seconds
  user cpu time   0.90 seconds
  system cpu time 0.06 seconds
  memory         9162.09k
  OS Memory      51468.00k
  Timestamp      10/19/2025 07:23:04 PM
  Step Count     179   Switch Count  4
  Page Faults    0
  Page Reclaims  3940
  Page Swaps     0
  Voluntary Context Switches 7597
  Involuntary Context Switches 28
  Block Input Operations 0
  Block Output Operations 3240

108      /*** Histograms & Normality Tests ***/
109      title "Histograms and Normality Tests";
110
111      proc univariate data=STPROJ.RCHERI normal;
112          var SATIS01 SATIS02 SATIS07 SATIS13 SATIS25
113              CSSRAT07 CSSRAT16 GENACT05 COLACT17 COLACT19;
114          histogram / normal; /* Shows distribution with normal curve */
115          inset n mean std skewness kurtosis / position=ne;
116      run;
```

```
NOTE: PROCEDURE UNIVARIATE used (Total process time):
  real time      1.43 seconds
  user cpu time   0.99 seconds
  system cpu time 0.06 seconds
  memory         9326.46k
  OS Memory      51468.00k
  Timestamp      10/19/2025 07:23:05 PM
  Step Count     180   Switch Count  4
  Page Faults    0
  Page Reclaims  3916
  Page Swaps     0
  Voluntary Context Switches 7594
  Involuntary Context Switches 31
  Block Input Operations 0
  Block Output Operations 3400
```

```
117
118      title;
119
120      /*** Optional: Correlations Between Variables ***/
121      title "Correlation Matrix (Ad-Hoc Association Check)";
122      proc corr data=STPROJ.RCHERI pearson spearman;
123          var SATIS01 SATIS02 SATIS07 SATIS13 SATIS25
124              CSSRAT07 CSSRAT16 GENACT05 COLACT17 COLACT19;
125      run;
```

```
NOTE: PROCEDURE CORR used (Total process time):
  real time      0.21 seconds
  user cpu time   0.20 seconds
  system cpu time 0.01 seconds
  memory         3308.65k
  OS Memory      50096.00k
  Timestamp      10/19/2025 07:23:06 PM
  Step Count     181   Switch Count  4
  Page Faults    0
  Page Reclaims  244
  Page Swaps     0
  Voluntary Context Switches 20
  Involuntary Context Switches 2
  Block Input Operations 0
  Block Output Operations 88
```

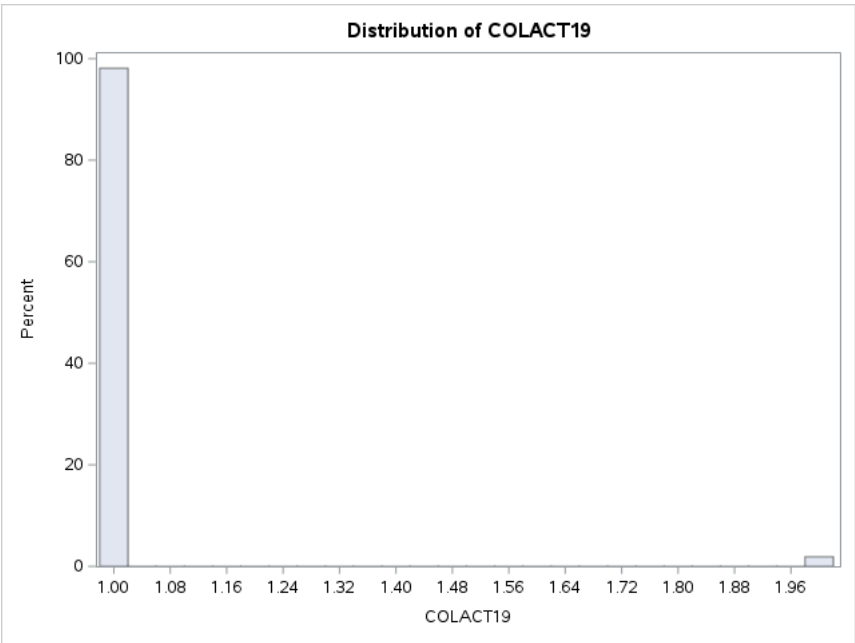
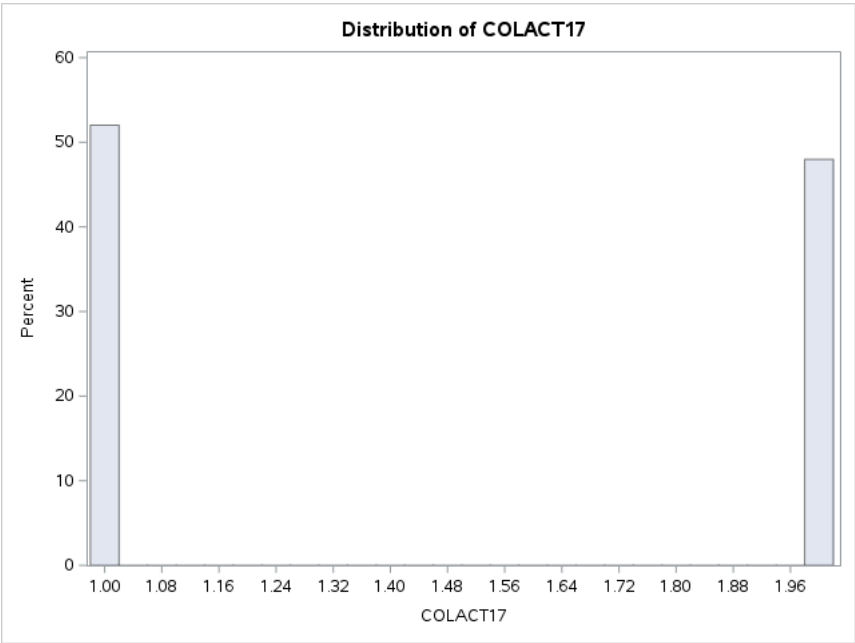
```
126
127
128      OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
138
```

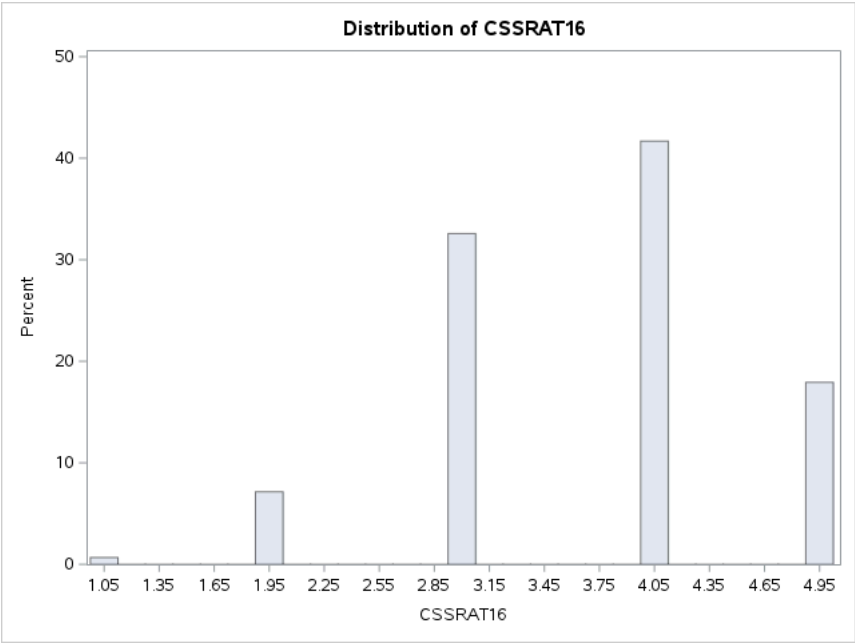
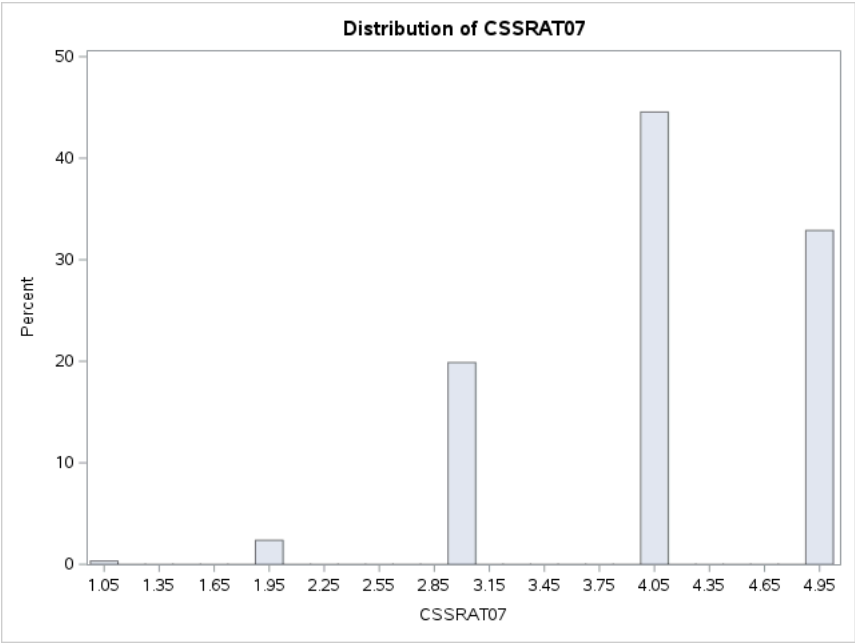
Results: adhoc and normality for enviornmental var.sas

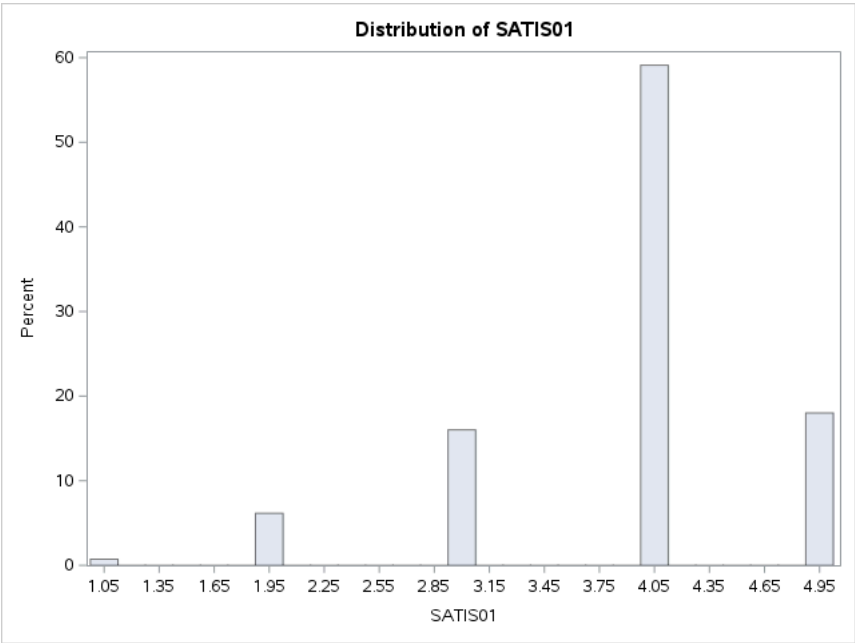
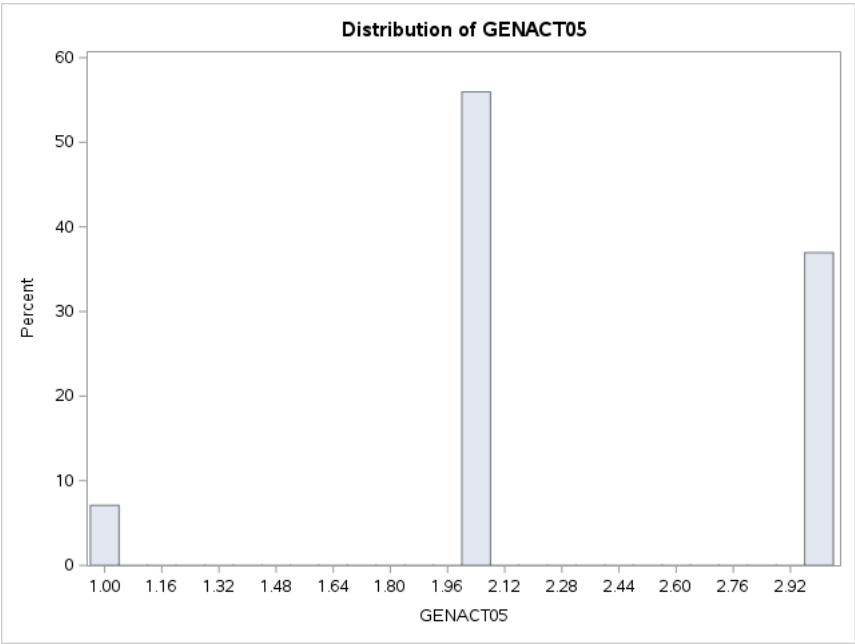
Descriptive Statistics for Numeric Variables

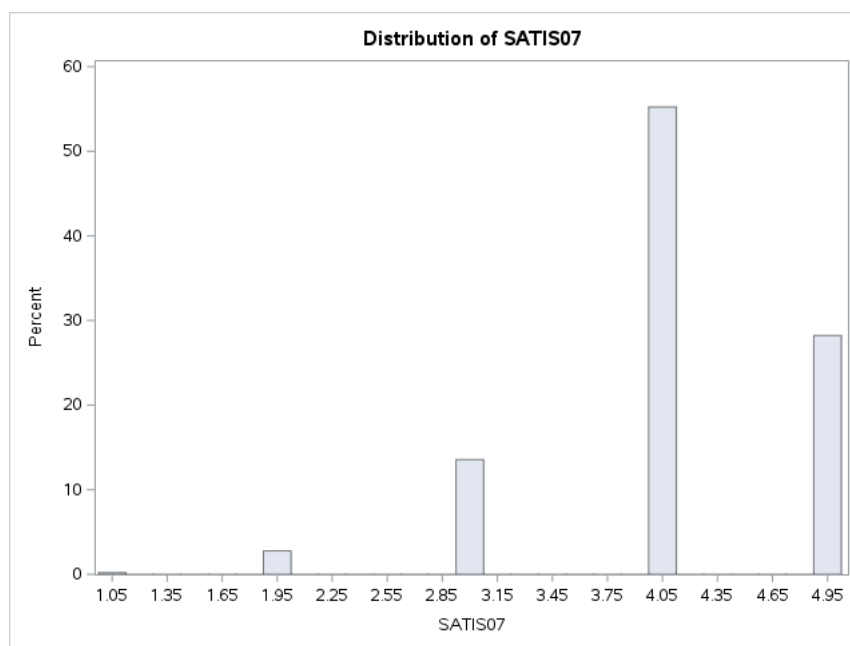
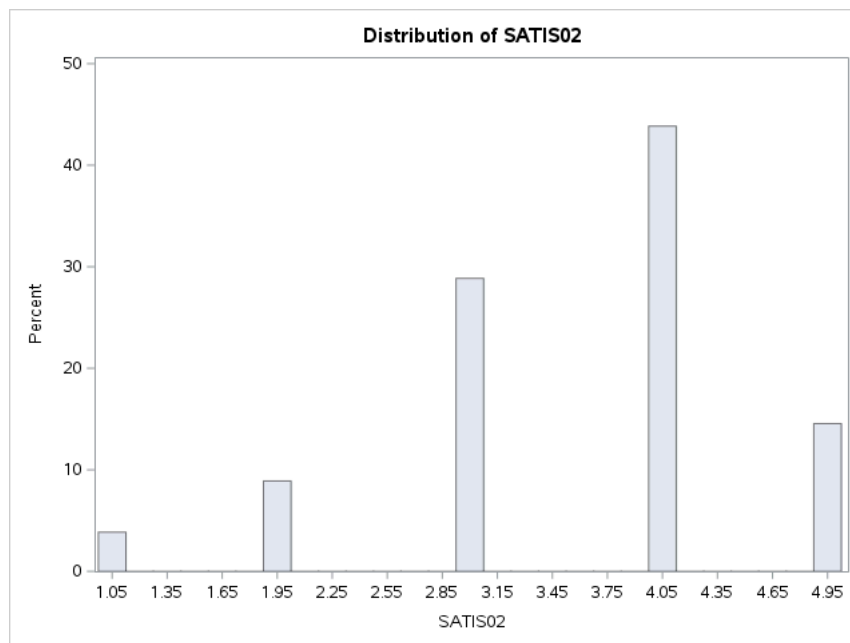
Variable	N	N Miss	Minimum	Mean	Median	Maximum	Std Dev
SATIS01	4959	41	1.0000000	3.8751764	4.0000000	5.0000000	0.7975525
SATIS02	4956	44	1.0000000	3.5633575	4.0000000	5.0000000	0.9727992
SATIS07	4949	51	1.0000000	4.0852698	4.0000000	5.0000000	0.7345851
SATIS13	4954	46	1.0000000	3.7454582	4.0000000	5.0000000	0.9825885
SATIS25	4949	51	1.0000000	3.9159426	4.0000000	5.0000000	1.0083556

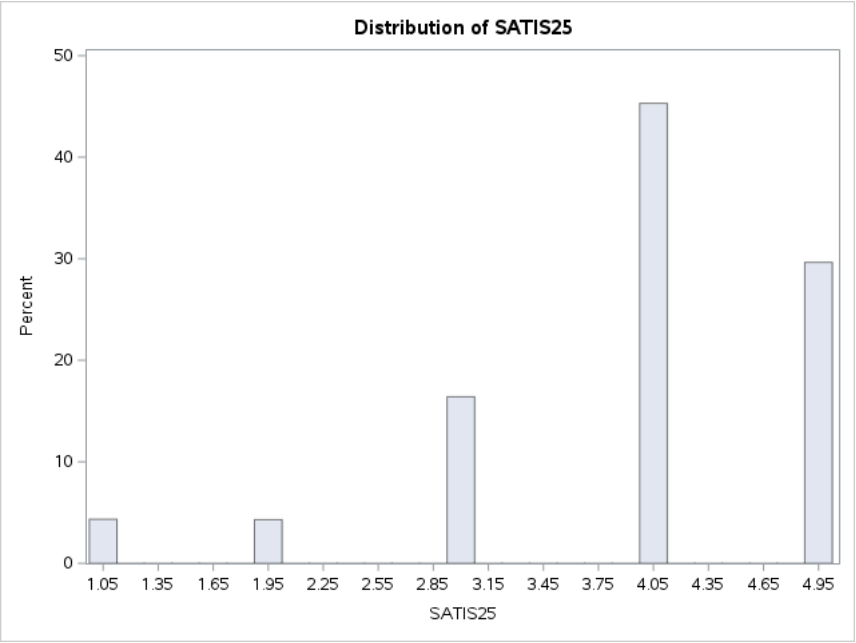
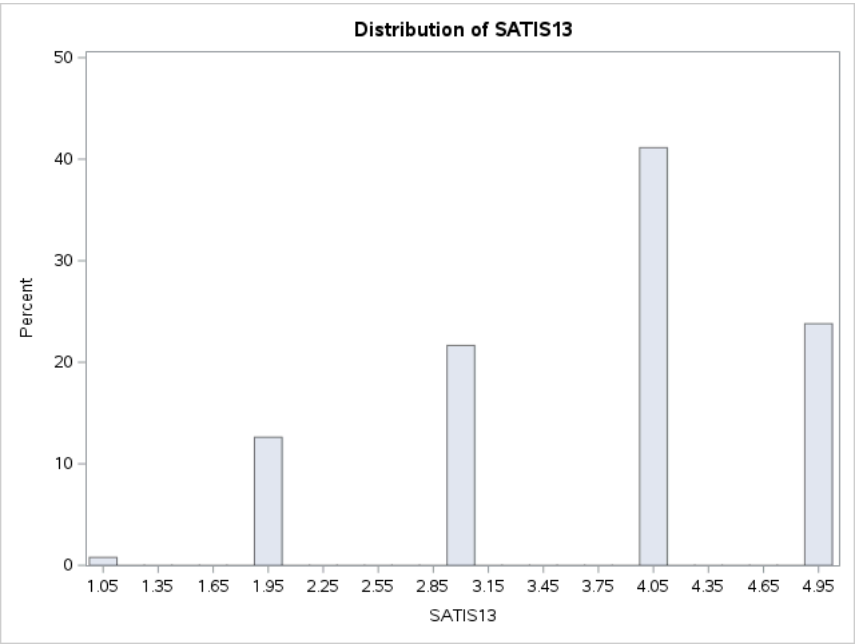
Variable	N	N Miss	Minimum	Mean	Median	Maximum	Std Dev
CSSRAT07	4896	104	1.0000000	4.0729167	4.0000000	5.0000000	0.8040969
CSSRAT16	4899	101	1.0000000	3.6903450	4.0000000	5.0000000	0.8692907
GENACT05	4936	64	1.0000000	2.2986224	2.0000000	3.0000000	0.5927339
COLACT17	5000	0	1.0000000	1.4798000	1.0000000	2.0000000	0.4996418
COLACT19	5000	0	1.0000000	1.0188000	1.0000000	2.0000000	0.1358317











**Histograms for Selected Variables**

Variable: SATIS01

Moments			
N	4959	Sum Weights	4959
Mean	3.87517645	Sum Observations	19217
Std Deviation	0.79755251	Variance	0.63609
Skewness	-0.8441368	Kurtosis	1.05445566
Uncorrected SS	77623	Corrected SS	3153.73422
Coeff Variation	20.581063	Std Error Mean	0.01132563

Basic Statistical Measures			
Location		Variability	
Mean	3.875176	Std Deviation	0.79755
Median	4.000000	Variance	0.63609
Mode	4.000000	Range	4.00000
		Interquartile Range	0

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	342.16	Pr >  t	<.0001



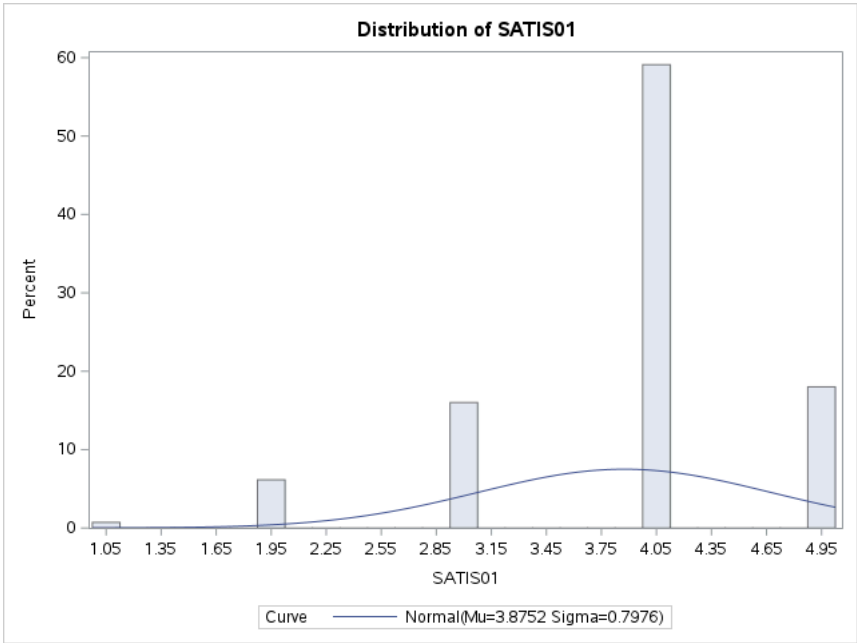
Tests for Location: Mu0=0				
Test	Statistic		p Value	
Sign	M	2479.5	Pr >=  M	<.0001
Signed Rank	S	6149160	Pr >=  S	<.0001

Quantiles (Definition 5)	
Level	Quantile
100% Max	5
99%	5
95%	5
90%	5
75% Q3	4
50% Median	4
25% Q1	4
10%	3
5%	2
1%	2
0% Min	1

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
1	4756	5	4987
1	4687	5	4992
1	4602	5	4994
1	4515	5	4998
1	4506	5	4999

Missing Values			
Missing Value	Count	Percent Of	
		All Obs	Missing Obs
.	41	0.82	100.00

Histograms for Selected Variables



Histograms for Selected Variables

Fitted Normal Distribution for SATIS01

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	3.875176
Std Dev	Sigma	0.797553

Goodness-of-Fit Tests for Normal Distribution			
Test	Statistic		p Value
Kolmogorov-Smirnov	D	0.333307	Pr > D <0.010
Cramer-von Mises	W-Sq	94.196244	Pr > W-Sq <0.005
Anderson-Darling	A-Sq	441.206487	Pr > A-Sq <0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	2.00000	2.01979
5.0	2.00000	2.56332
10.0	3.00000	2.85307
25.0	4.00000	3.33724
50.0	4.00000	3.87518
75.0	4.00000	4.41312
90.0	5.00000	4.89728
95.0	5.00000	5.18703
99.0	5.00000	5.73056

Histograms for Selected Variables

Variable: SATIS02

Moments			
N	4956	Sum Weights	4956
Mean	3.56335755	Sum Observations	17660
Std Deviation	0.97279915	Variance	0.94633819
Skewness	-0.6226332	Kurtosis	0.19648557
Uncorrected SS	67618	Corrected SS	4689.10573
Coeff Variation	27.3000713	Std Error Mean	0.01381839

Basic Statistical Measures			
Location		Variability	
Mean	3.563358	Std Deviation	0.97280
Median	4.000000	Variance	0.94634
Mode	4.000000	Range	4.00000
		Interquartile Range	1.00000

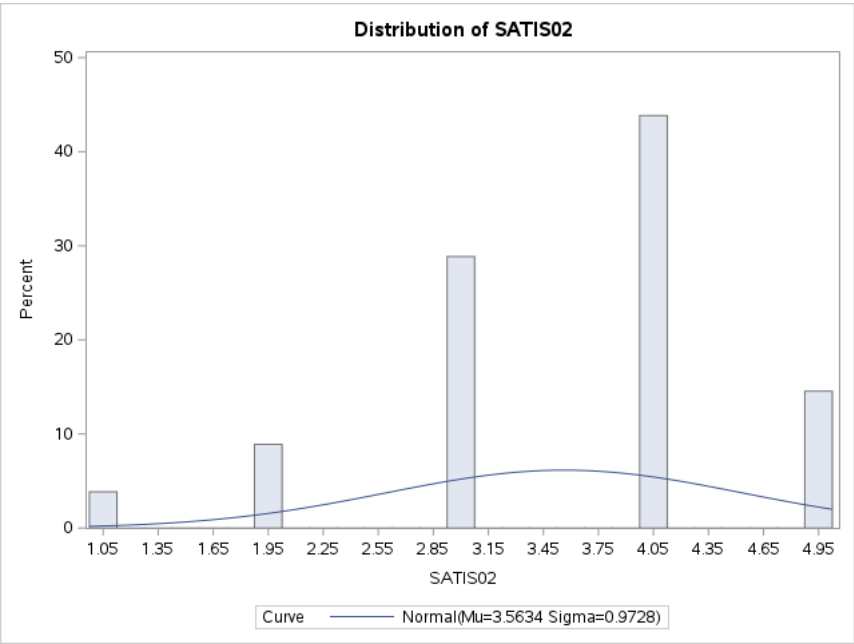
Tests for Location: Mu0=0				
Test		Statistic	p Value	
Student's t	t	257.8706	Pr >  t	<.0001
Sign	M	2478	Pr >=  M	<.0001
Signed Rank	S	6141723	Pr >=  S	<.0001

Quantiles (Definition 5)	
Level	Quantile
100% Max	5
99%	5
95%	5
90%	5
75% Q3	4
50% Median	4
25% Q1	3
10%	2
5%	2
1%	1
0% Min	1

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
1	4992	5	4970
1	4950	5	4976
1	4913	5	4983
1	4905	5	4987
1	4880	5	4998

Missing Values			
Missing Value	Count	Percent Of	
		All Obs	Missing Obs
.	44	0.88	100.00

Histograms for Selected Variables



**Histograms for Selected Variables**

**Fitted Normal Distribution for SATIS02**

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	3.563358
Std Dev	Sigma	0.972799

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.257169	Pr > D	<0.010
Cramer-von Mises	W-Sq	49.996502	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	259.579179	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	1.00000	1.30029
5.0	2.00000	1.96325
10.0	2.00000	2.31667
25.0	3.00000	2.90721
50.0	4.00000	3.56336
75.0	4.00000	4.21950
90.0	5.00000	4.81005
95.0	5.00000	5.16347
99.0	5.00000	5.82643

**Histograms for Selected Variables**

Variable: SATIS07

Moments			
N	4949	Sum Weights	4949
Mean	4.08526975	Sum Observations	20218
Std Deviation	0.73458507	Variance	0.53961523
Skewness	-0.6763793	Kurtosis	0.7545553
Uncorrected SS	85266	Corrected SS	2670.01616
Coeff Variation	17.9813114	Std Error Mean	0.01044199

Basic Statistical Measures			
Location		Variability	
Mean	4.085270	Std Deviation	0.73459
Median	4.000000	Variance	0.53962
Mode	4.000000	Range	4.00000
		Interquartile Range	1.00000

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	391.2347	Pr >  t	<.0001
Sign	M	2474.5	Pr >=  M	<.0001

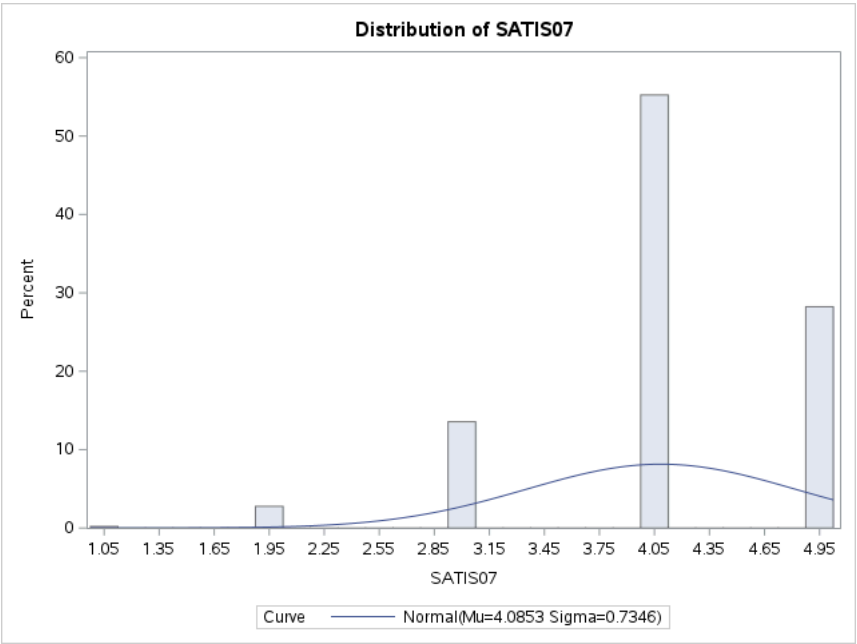
Tests for Location: Mu0=0				
Test	Statistic		p Value	
Signed Rank	S	6124388	Pr >=  S	<.0001

Quantiles (Definition 5)	
Level	Quantile
100% Max	5
99%	5
95%	5
90%	5
75% Q3	5
50% Median	4
25% Q1	4
10%	3
5%	3
1%	2
0% Min	1

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
1	4756	5	4983
1	4455	5	4987
1	4336	5	4991
1	4181	5	4994
1	3158	5	4999

Missing Values			
Missing Value	Count	Percent Of	
		All Obs	Missing Obs
.	51	1.02	100.00

Histograms for Selected Variables



Histograms for Selected Variables

Fitted Normal Distribution for SATIS07

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	4.08527
Std Dev	Sigma	0.734585

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.288509	Pr > D	<0.010
Cramer-von Mises	W-Sq	82.471709	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	421.923024	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	2.00000	2.37637
5.0	3.00000	2.87698
10.0	3.00000	3.14386
25.0	4.00000	3.58980
50.0	4.00000	4.08527
75.0	5.00000	4.58074
90.0	5.00000	5.02668
95.0	5.00000	5.29355
99.0	5.00000	5.79417

Histograms for Selected Variables

Variable: SATIS13

Moments			
N	4954	Sum Weights	4954
Mean	3.74545822	Sum Observations	18555
Std Deviation	0.98258846	Variance	0.96548007
Skewness	-0.4712984	Kurtosis	-0.5562571
Uncorrected SS	74279	Corrected SS	4782.02281
Coeff Variation	26.2341321	Std Error Mean	0.01396026

Basic Statistical Measures			
Location		Variability	
Mean	3.745458	Std Deviation	0.98259
Median	4.000000	Variance	0.96548
Mode	4.000000	Range	4.00000
		Interquartile Range	1.00000

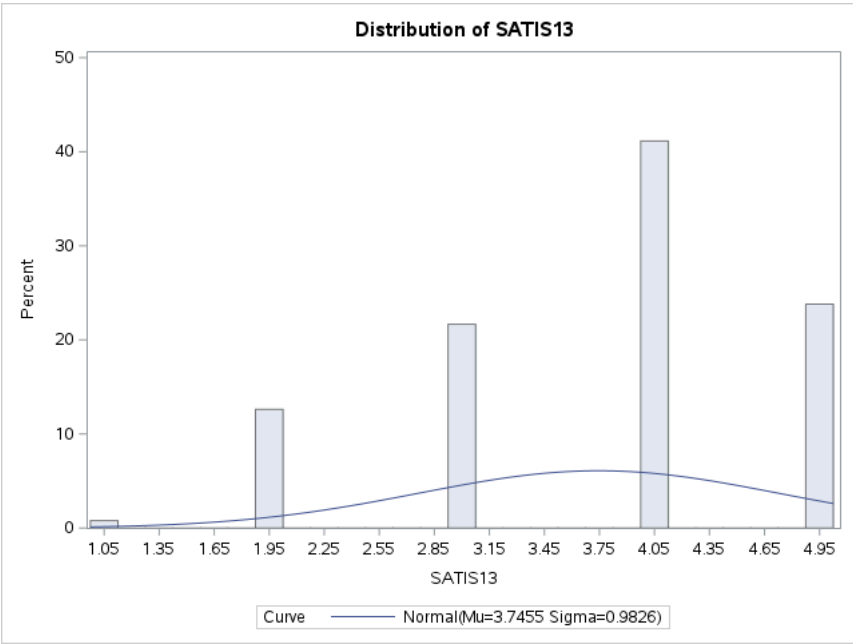
Tests for Location: Mu0=0				
Test		Statistic	p Value	
Student's t	t	268.2942	Pr >  t	<.0001
Sign	M	2477	Pr >=  M	<.0001
Signed Rank	S	6136768	Pr >=  S	<.0001

Quantiles (Definition 5)	
Level	Quantile
100% Max	5
99%	5
95%	5
90%	5
75% Q3	4
50% Median	4
25% Q1	3
10%	2
5%	2
1%	2
0% Min	1

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
1	4984	5	4983
1	4950	5	4991
1	4756	5	4992
1	4682	5	4998
1	4662	5	4999

Missing Values			
Missing Value	Count	Percent Of	
		All Obs	Missing Obs
.	46	0.92	100.00

Histograms for Selected Variables



**Histograms for Selected Variables**

Fitted Normal Distribution for SATIS13

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	3.745458
Std Dev	Sigma	0.982588

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.251577	Pr > D	<0.010
Cramer-von Mises	W-Sq	45.055238	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	255.233882	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	2.00000	1.45962
5.0	2.00000	2.12924
10.0	2.00000	2.48622
25.0	3.00000	3.08271
50.0	4.00000	3.74546
75.0	4.00000	4.40820
90.0	5.00000	5.00470
95.0	5.00000	5.36167
99.0	5.00000	6.03130

**Histograms for Selected Variables**

Variable: SATIS25

Moments			
N	4949	Sum Weights	4949
Mean	3.91594261	Sum Observations	19380
Std Deviation	1.00835557	Variance	1.01678095
Skewness	-1.1008388	Kurtosis	1.11061838
Uncorrected SS	80922	Corrected SS	5031.03213
Coeff Variation	25.7500088	Std Error Mean	0.01433359

Basic Statistical Measures			
Location		Variability	
Mean	3.915943	Std Deviation	1.00836
Median	4.000000	Variance	1.01678
Mode	4.000000	Range	4.00000
		Interquartile Range	2.00000

Tests for Location: $\mu_0=0$				
Test	Statistic		p Value	
Student's t	t	273.2004	Pr >  t	<.0001
Sign	M	2474.5	Pr >=  M	<.0001

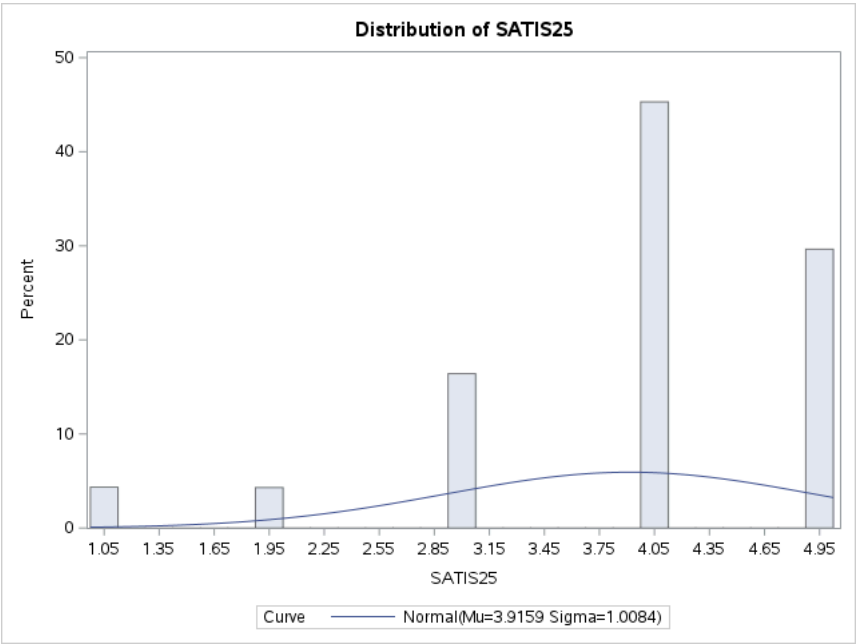
Tests for Location: Mu0=0				
Test	Statistic		p Value	
Signed Rank	S	6124388	Pr >=  S	<.0001

Quantiles (Definition 5)	
Level	Quantile
100% Max	5
99%	5
95%	5
90%	5
75% Q3	5
50% Median	4
25% Q1	3
10%	3
5%	2
1%	1
0% Min	1

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
1	4974	5	4992
1	4973	5	4993
1	4965	5	4996
1	4963	5	4998
1	4956	5	4999

Missing Values			
Missing Value	Count	Percent Of	
		All Obs	Missing Obs
.	51	1.02	100.00

Histograms for Selected Variables



Histograms for Selected Variables

Fitted Normal Distribution for SATIS25

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	3.915943
Std Dev	Sigma	1.008356

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.282662	Pr > D	<0.010
Cramer-von Mises	W-Sq	58.623650	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	320.992623	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	1.00000	1.57016
5.0	2.00000	2.25735
10.0	3.00000	2.62368
25.0	3.00000	3.23582
50.0	4.00000	3.91594
75.0	5.00000	4.59607
90.0	5.00000	5.20820
95.0	5.00000	5.57454
99.0	5.00000	6.26173

Histograms for Selected Variables

Variable: CSSRAT07

Moments			
N	4896	Sum Weights	4896
Mean	4.07291667	Sum Observations	19941
Std Deviation	0.80409686	Variance	0.64657176
Skewness	-0.5571107	Kurtosis	-0.043115
Uncorrected SS	84383	Corrected SS	3164.96875
Coeff Variation	19.7425315	Std Error Mean	0.01149179

Basic Statistical Measures			
Location		Variability	
Mean	4.072917	Std Deviation	0.80410
Median	4.000000	Variance	0.64657
Mode	4.000000	Range	4.00000
		Interquartile Range	1.00000

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	354.4197	Pr >  t	<.0001
Sign	M	2448	Pr >=  M	<.0001
Signed Rank	S	5993928	Pr >=  S	<.0001

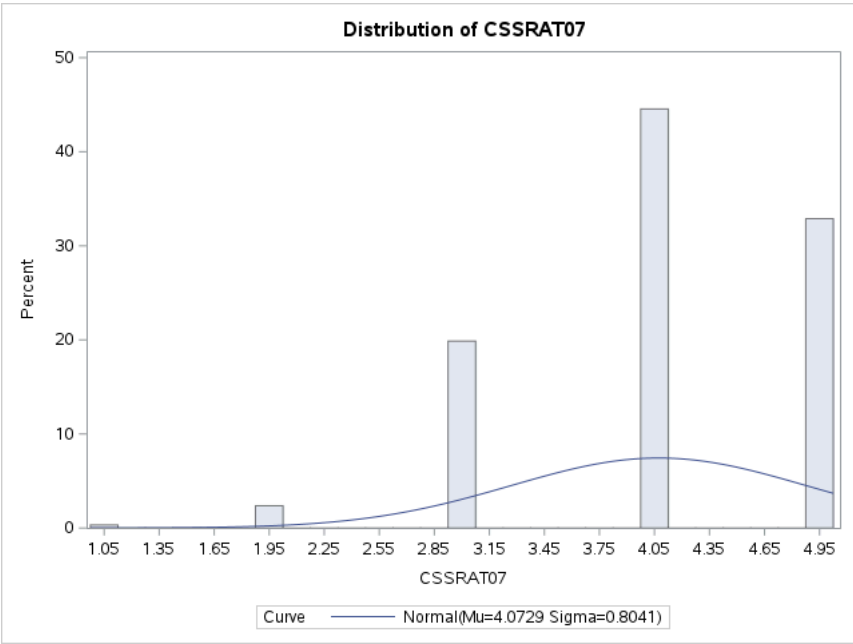
Quantiles (Definition 5)	
Level	Quantile
100% Max	5
99%	5
95%	5
90%	5
75% Q3	5
50% Median	4
25% Q1	4
10%	3
5%	3
1%	2
0% Min	1

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
1	4827	5	4989
1	4756	5	4991
1	4577	5	4992
1	4113	5	4996
1	3559	5	4998

Missing Values			
Missing Value	Count	Percent Of	
		All Obs	Missing Obs
.	104	2.08	100.00

Histograms for Selected Variables





**Histograms for Selected Variables**

Fitted Normal Distribution for CSSRAT07

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	4.072917
Std Dev	Sigma	0.804097

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.238178	Pr > D	<0.010
Cramer-von Mises	W-Sq	58.095731	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	338.835121	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	2.00000	2.20231
5.0	3.00000	2.75030
10.0	3.00000	3.04243
25.0	4.00000	3.53056
50.0	4.00000	4.07292
75.0	5.00000	4.61527
90.0	5.00000	5.10341
95.0	5.00000	5.39554
99.0	5.00000	5.94353

**Histograms for Selected Variables**

Variable: CSSRAT16

Moments			
N	4899	Sum Weights	4899
Mean	3.69034497	Sum Observations	18079
Std Deviation	0.86929066	Variance	0.75566626
Skewness	-0.2565816	Kurtosis	-0.2989645
Uncorrected SS	70419	Corrected SS	3701.25332
Coeff Variation	23.5558103	Std Error Mean	0.01241971

Basic Statistical Measures			
Location		Variability	
Mean	3.690345	Std Deviation	0.86929
Median	4.000000	Variance	0.75567
Mode	4.000000	Range	4.00000
		Interquartile Range	1.00000

Tests for Location: $\mu_0=0$				
Test	Statistic		p Value	
Student's t	t	297.1363	$\text{Pr} >  t $	<.0001
Sign	M	2449.5	$\text{Pr} \geq  M $	<.0001

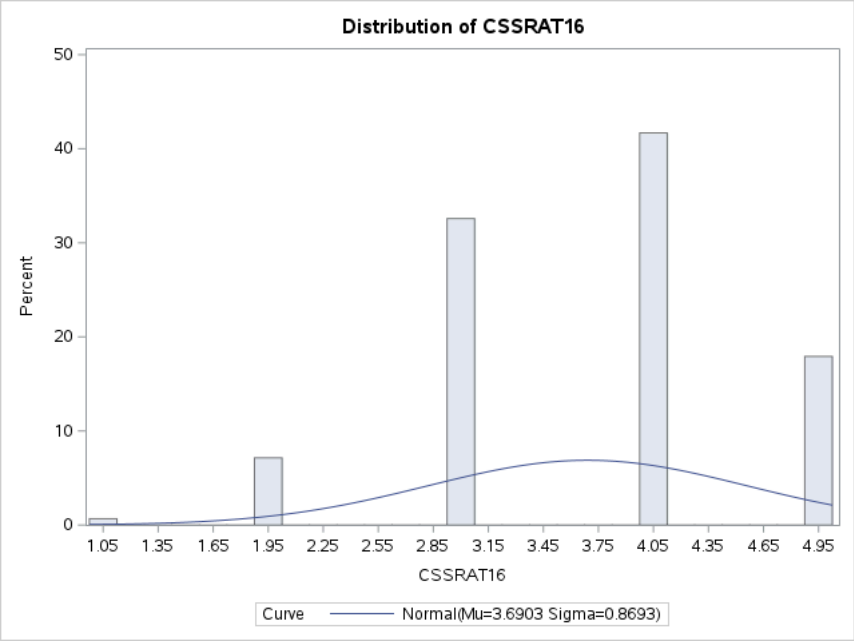
Tests for Location: Mu0=0				
Test	Statistic		p Value	
Signed Rank	S	6001275	Pr >=  S	<.0001

Quantiles (Definition 5)	
Level	Quantile
100% Max	5
99%	5
95%	5
90%	5
75% Q3	4
50% Median	4
25% Q1	3
10%	3
5%	2
1%	2
0% Min	1

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
1	4756	5	4989
1	4663	5	4993
1	4577	5	4994
1	4554	5	4997
1	4390	5	4998

Missing Values			
Missing Value	Count	Percent Of	
		All Obs	Missing Obs
.	101	2.02	100.00

Histograms for Selected Variables



Histograms for Selected Variables

Fitted Normal Distribution for CSSRAT16

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	3.690345
Std Dev	Sigma	0.869291

Goodness-of-Fit Tests for Normal Distribution			
Test	Statistic		p Value
Kolmogorov-Smirnov	D	0.235201	Pr > D <0.010
Cramer-von Mises	W-Sq	49.440303	Pr > W-Sq <0.005
Anderson-Darling	A-Sq	268.694230	Pr > A-Sq <0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	2.00000	1.66807
5.0	2.00000	2.26049
10.0	3.00000	2.57630
25.0	3.00000	3.10402
50.0	4.00000	3.69034
75.0	4.00000	4.27667
90.0	5.00000	4.80439
95.0	5.00000	5.12020
99.0	5.00000	5.71262

Histograms for Selected Variables

Variable: GENACT05

Moments			
N	4936	Sum Weights	4936
Mean	2.29862237	Sum Observations	11346
Std Deviation	0.59273389	Variance	0.35133346
Skewness	-0.2051295	Kurtosis	-0.604161
Uncorrected SS	27814	Corrected SS	1733.83063
Coeff Variation	25.7864839	Std Error Mean	0.00843669

Basic Statistical Measures			
Location		Variability	
Mean	2.298622	Std Deviation	0.59273
Median	2.000000	Variance	0.35133
Mode	2.000000	Range	2.00000
		Interquartile Range	1.00000

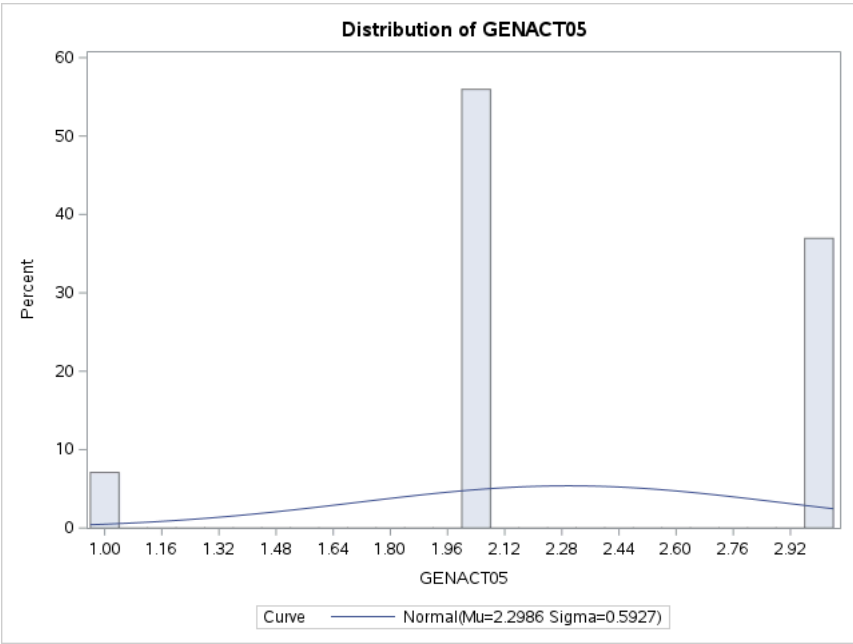
Tests for Location: Mu0=0				
Test		Statistic	p Value	
Student's t	t	272.4554	Pr >  t	<.0001
Sign	M	2468	Pr >=  M	<.0001
Signed Rank	S	6092258	Pr >=  S	<.0001

Quantiles (Definition 5)	
Level	Quantile
100% Max	3
99%	3
95%	3
90%	3
75% Q3	3
50% Median	2
25% Q1	2
10%	2
5%	1
1%	1
0% Min	1

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
1	4992	3	4990
1	4971	3	4994
1	4958	3	4996
1	4920	3	4997
1	4890	3	4998

Missing Values			
Missing Value	Count	Percent Of	
		All Obs	Missing Obs
.	64	1.28	100.00

Histograms for Selected Variables



**Histograms for Selected Variables**

**Fitted Normal Distribution for GENACT05**

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	2.298622
Std Dev	Sigma	0.592734

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.323271	Pr > D	<0.010
Cramer-von Mises	W-Sq	106.398089	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	595.063531	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	1.00000	0.91972
5.0	1.00000	1.32366
10.0	2.00000	1.53900
25.0	2.00000	1.89883
50.0	2.00000	2.29862
75.0	3.00000	2.69842
90.0	3.00000	3.05824
95.0	3.00000	3.27358
99.0	3.00000	3.67753

**Histograms for Selected Variables**

**Variable: COLACT17**

Moments			
N	5000	Sum Weights	5000
Mean	1.4798	Sum Observations	7399
Std Deviation	0.49964176	Variance	0.24964189
Skewness	0.08089029	Kurtosis	-1.9942546
Uncorrected SS	12197	Corrected SS	1247.9598
Coeff Variation	33.7641411	Std Error Mean	0.007066

Basic Statistical Measures			
Location		Variability	
Mean	1.479800	Std Deviation	0.49964
Median	1.000000	Variance	0.24964
Mode	1.000000	Range	1.00000
		Interquartile Range	1.00000

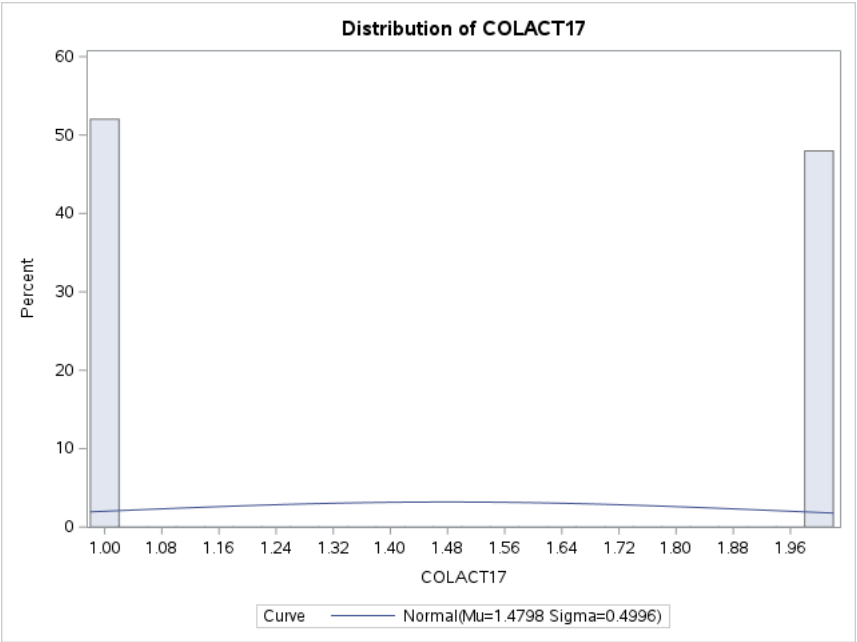
Tests for Location: $\mu_0=0$				
Test	Statistic		p Value	
Student's t	t	209.4254	$\Pr >  t $	<.0001
Sign	M	2500	$\Pr \geq  M $	<.0001

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Signed Rank	S	6251250	Pr >=  S	<.0001

Quantiles (Definition 5)	
Level	Quantile
100% Max	2
99%	2
95%	2
90%	2
75% Q3	2
50% Median	1
25% Q1	1
10%	1
5%	1
1%	1
0% Min	1

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
1	5000	2	4985
1	4999	2	4987
1	4996	2	4993
1	4995	2	4997
1	4994	2	4998

Histograms for Selected Variables



Histograms for Selected Variables

Fitted Normal Distribution for COLACT17

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	1.4798
Std Dev	Sigma	0.499642

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.351745	Pr > D	<0.010
Cramer-von Mises	W-Sq	146.386359	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	900.001859	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	1.00000	0.31746
5.0	1.00000	0.65796
10.0	1.00000	0.83948
25.0	1.00000	1.14280

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
50.0	1.00000	1.47980
75.0	2.00000	1.81680
90.0	2.00000	2.12012
95.0	2.00000	2.30164
99.0	2.00000	2.64214

Histograms for Selected Variables

Variable: COLACT19

Moments			
N	5000	Sum Weights	5000
Mean	1.0188	Sum Observations	5094
Std Deviation	0.1358317	Variance	0.01845025
Skewness	7.08807393	Kurtosis	48.2600959
Uncorrected SS	5282	Corrected SS	92.2328
Coeff Variation	13.3325184	Std Error Mean	0.00192095

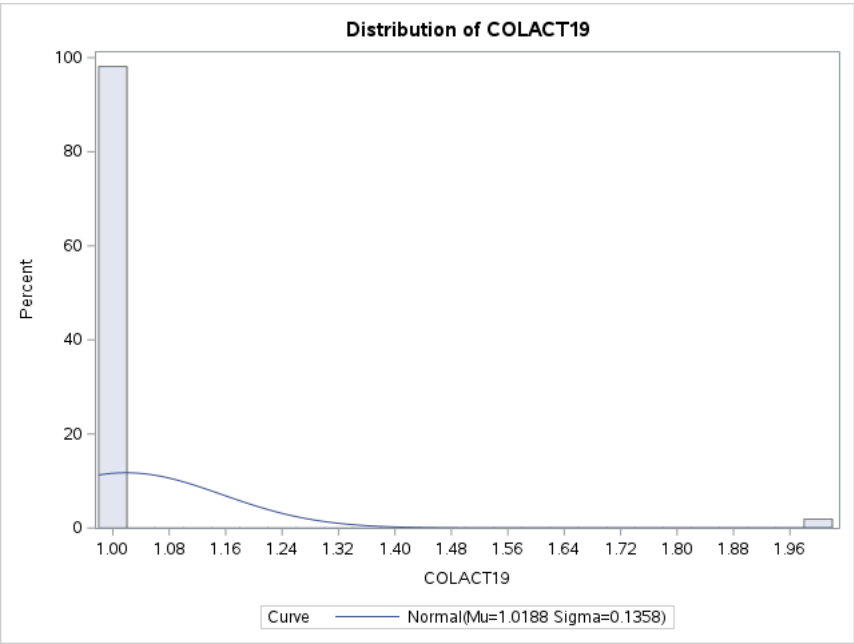
Basic Statistical Measures			
Location		Variability	
Mean	1.018800	Std Deviation	0.13583
Median	1.000000	Variance	0.01845
Mode	1.000000	Range	1.00000
		Interquartile Range	0

Tests for Location: Mu0=0				
Test		Statistic	p Value	
Student's t	t	530.3625	Pr >  t	<.0001
Sign	M	2500	Pr >=  M	<.0001
Signed Rank	S	6251250	Pr >=  S	<.0001

Quantiles (Definition 5)	
Level	Quantile
100% Max	2
99%	2
95%	1
90%	1
75% Q3	1
50% Median	1
25% Q1	1
10%	1
5%	1
1%	1
0% Min	1

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
1	5000	2	4903
1	4999	2	4945
1	4998	2	4946
1	4997	2	4949
1	4996	2	4975

Histograms for Selected Variables



**Histograms for Selected Variables**

Fitted Normal Distribution for COLACT19

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	1.0188
Std Dev	Sigma	0.135832

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.53624	Pr > D	<0.010
Cramer-von Mises	W-Sq	403.83622	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	1891.84235	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	1.00000	0.70281
5.0	1.00000	0.79538
10.0	1.00000	0.84472
25.0	1.00000	0.92718
50.0	1.00000	1.01880
75.0	1.00000	1.11042
90.0	1.00000	1.19288
95.0	1.00000	1.24222
99.0	2.00000	1.33479

**Histograms and Normality Tests**

Variable: SATIS01

Moments			
N	4959	Sum Weights	4959
Mean	3.87517645	Sum Observations	19217
Std Deviation	0.79755251	Variance	0.63609
Skewness	-0.8441368	Kurtosis	1.05445566
Uncorrected SS	77623	Corrected SS	3153.73422
Coeff Variation	20.581063	Std Error Mean	0.01132563

Basic Statistical Measures			
Location		Variability	
Mean	3.875176	Std Deviation	0.79755
Median	4.000000	Variance	0.63609
Mode	4.000000	Range	4.00000
		Interquartile Range	0

Tests for Location: Mu0=0			
Test	Statistic		p Value
Student's t	t	342.16	Pr >  t  <.0001

Tests for Location: Mu0=0				
Test		Statistic	p Value	
Sign	M	2479.5	Pr >=  M	<.0001
Signed Rank	S	6149160	Pr >=  S	<.0001

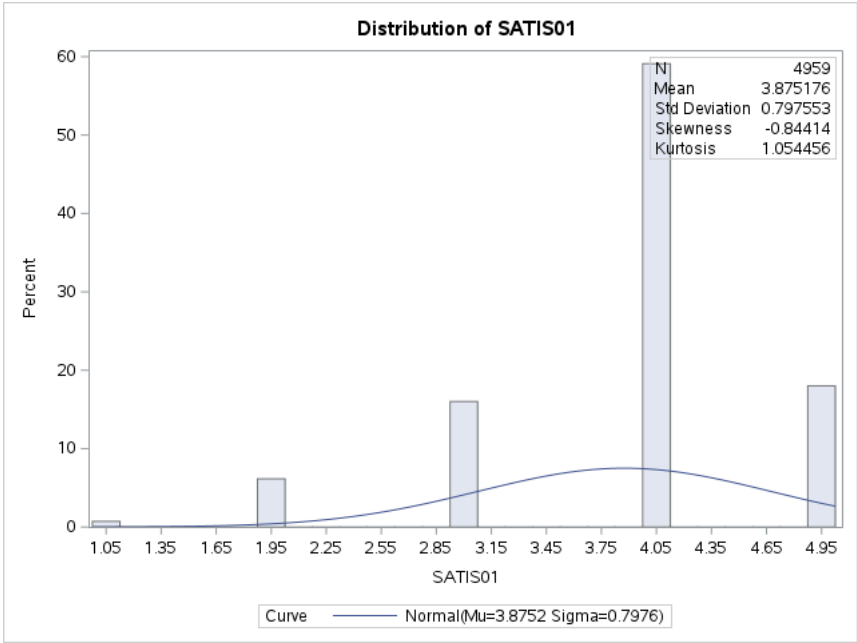
Tests for Normality				
Test		Statistic	p Value	
Kolmogorov-Smirnov	D	0.333307	Pr > D	<0.0100
Cramer-von Mises	W-Sq	94.19624	Pr > W-Sq	<0.0050
Anderson-Darling	A-Sq	441.2065	Pr > A-Sq	<0.0050

Quantiles (Definition 5)	
Level	Quantile
100% Max	5
99%	5
95%	5
90%	5
75% Q3	4
50% Median	4
25% Q1	4
10%	3
5%	2
1%	2
0% Min	1

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
1	4756	5	4987
1	4687	5	4992
1	4602	5	4994
1	4515	5	4998
1	4506	5	4999

Missing Values			
Missing Value	Count	Percent Of	
		All Obs	Missing Obs
.	41	0.82	100.00

Histograms and Normality Tests



Histograms and Normality Tests

Fitted Normal Distribution for SATIS01

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	3.875176
Std Dev	Sigma	0.797553



Goodness-of-Fit Tests for Normal Distribution			
Test	Statistic		p Value
Kolmogorov-Smirnov	D	0.333307	Pr > D <0.010
Cramer-von Mises	W-Sq	94.196244	Pr > W-Sq <0.005
Anderson-Darling	A-Sq	441.206487	Pr > A-Sq <0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	2.00000	2.01979
5.0	2.00000	2.56332
10.0	3.00000	2.85307
25.0	4.00000	3.33724
50.0	4.00000	3.87518
75.0	4.00000	4.41312
90.0	5.00000	4.89728
95.0	5.00000	5.18703
99.0	5.00000	5.73056

Histograms and Normality Tests

Variable: SATIS02

Moments			
N	4956	Sum Weights	4956
Mean	3.56335755	Sum Observations	17660
Std Deviation	0.97279915	Variance	0.94633819
Skewness	-0.6226332	Kurtosis	0.19648557
Uncorrected SS	67618	Corrected SS	4689.10573
Coeff Variation	27.3000713	Std Error Mean	0.01381839

Basic Statistical Measures			
Location		Variability	
Mean	3.563358	Std Deviation	0.97280
Median	4.000000	Variance	0.94634
Mode	4.000000	Range	4.00000
		Interquartile Range	1.00000

Tests for Location: Mu0=0			
Test	Statistic		p Value
Student's t	t	257.8706	Pr >  t  <.0001
Sign	M	2478	Pr >=  M  <.0001
Signed Rank	S	6141723	Pr >=  S  <.0001

Tests for Normality			
Test	Statistic		p Value
Kolmogorov-Smirnov	D	0.257169	Pr > D <0.0100
Cramer-von Mises	W-Sq	49.9965	Pr > W-Sq <0.0050
Anderson-Darling	A-Sq	259.5792	Pr > A-Sq <0.0050

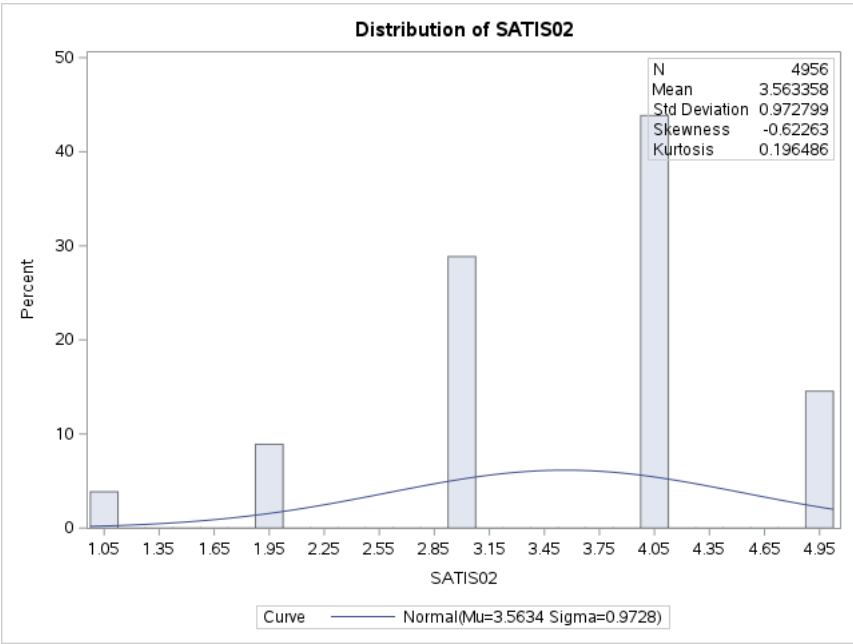
Quantiles (Definition 5)	
Level	Quantile
100% Max	5
99%	5
95%	5
90%	5
75% Q3	4
50% Median	4
25% Q1	3
10%	2
5%	2
1%	1
0% Min	1

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
1	4992	5	4970
1	4950	5	4976
1	4913	5	4983
1	4905	5	4987
1	4880	5	4998

Missing Values			
Missing Value	Count	Percent Of	
		All Obs	Missing Obs

Missing Values			
Missing Value	Count	Percent Of	
		All Obs	Missing Obs
.	44	0.88	100.00

Histograms and Normality Tests



Histograms and Normality Tests

Fitted Normal Distribution for SATIS02

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	3.563358
Std Dev	Sigma	0.972799

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.257169	Pr > D	<0.010
Cramer-von Mises	W-Sq	49.996502	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	259.579179	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	1.00000	1.30029
5.0	2.00000	1.96325
10.0	2.00000	2.31667
25.0	3.00000	2.90721
50.0	4.00000	3.56336
75.0	4.00000	4.21950
90.0	5.00000	4.81005
95.0	5.00000	5.16347
99.0	5.00000	5.82643

Histograms and Normality Tests

Variable: SATIS07

Moments			
N	4949	Sum Weights	4949
Mean	4.08526975	Sum Observations	20218
Std Deviation	0.73458507	Variance	0.53961523
Skewness	-0.6763793	Kurtosis	0.7545553
Uncorrected SS	85266	Corrected SS	2670.01616
Coeff Variation	17.9813114	Std Error Mean	0.01044199

Basic Statistical Measures			
Location		Variability	
Mean	4.085270	Std Deviation	0.73459

Basic Statistical Measures			
Location		Variability	
Median	4.000000	Variance	0.53962
Mode	4.000000	Range	4.00000
		Interquartile Range	1.00000

Tests for Location: Mu0=0			
Test		Statistic	p Value
Student's t	t	391.2347	Pr >  t  <.0001
Sign	M	2474.5	Pr >=  M  <.0001
Signed Rank	S	6124388	Pr >=  S  <.0001

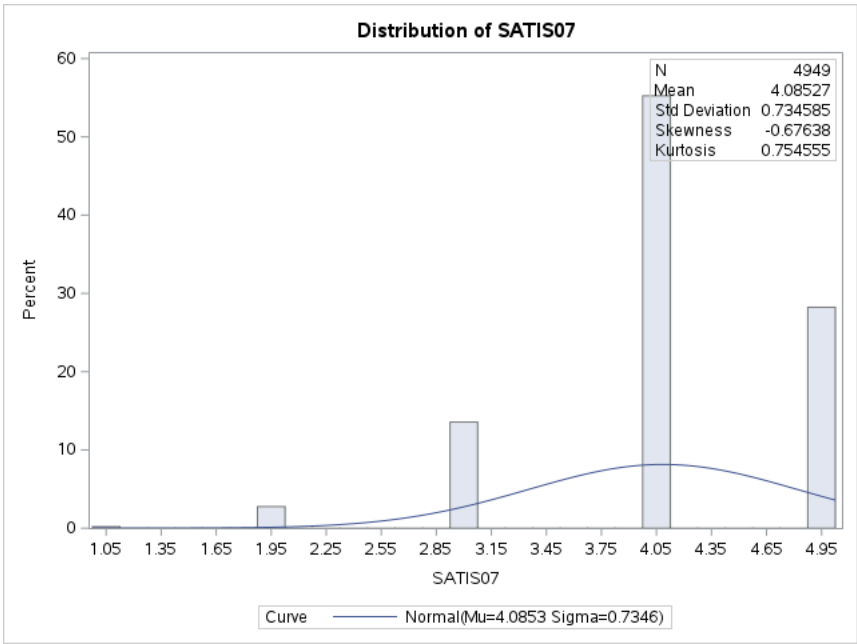
Tests for Normality			
Test		Statistic	p Value
Kolmogorov-Smirnov	D	0.288509	Pr > D <0.0100
Cramer-von Mises	W-Sq	82.47171	Pr > W-Sq <0.0050
Anderson-Darling	A-Sq	421.923	Pr > A-Sq <0.0050

Quantiles (Definition 5)	
Level	Quantile
100% Max	5
99%	5
95%	5
90%	5
75% Q3	5
50% Median	4
25% Q1	4
10%	3
5%	3
1%	2
0% Min	1

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
1	4756	5	4983
1	4455	5	4987
1	4336	5	4991
1	4181	5	4994
1	3158	5	4999

Missing Values			
Missing Value	Count	Percent Of	
		All Obs	Missing Obs
.	51	1.02	100.00

Histograms and Normality Tests



Histograms and Normality Tests

Fitted Normal Distribution for SATIS07

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	4.08527
Std Dev	Sigma	0.734585

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.288509	Pr > D	<0.010
Cramer-von Mises	W-Sq	82.471709	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	421.923024	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	2.00000	2.37637
5.0	3.00000	2.87698
10.0	3.00000	3.14386
25.0	4.00000	3.58980
50.0	4.00000	4.08527
75.0	5.00000	4.58074
90.0	5.00000	5.02668
95.0	5.00000	5.29355
99.0	5.00000	5.79417

Histograms and Normality Tests

Variable: SATIS13

Moments			
N	4954	Sum Weights	4954
Mean	3.74545822	Sum Observations	18555
Std Deviation	0.98258846	Variance	0.96548007
Skewness	-0.4712984	Kurtosis	-0.5562571
Uncorrected SS	74279	Corrected SS	4782.02281
Coeff Variation	26.2341321	Std Error Mean	0.01396026

Basic Statistical Measures			
Location		Variability	
Mean	3.745458	Std Deviation	0.98259
Median	4.000000	Variance	0.96548
Mode	4.000000	Range	4.00000
		Interquartile Range	1.00000

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	268.2942	Pr >  t	<.0001
Sign	M	2477	Pr >=  M	<.0001
Signed Rank	S	6136768	Pr >=  S	<.0001

Tests for Normality				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.251577	Pr > D	<0.0100
Cramer-von Mises	W-Sq	45.05524	Pr > W-Sq	<0.0050
Anderson-Darling	A-Sq	255.2339	Pr > A-Sq	<0.0050

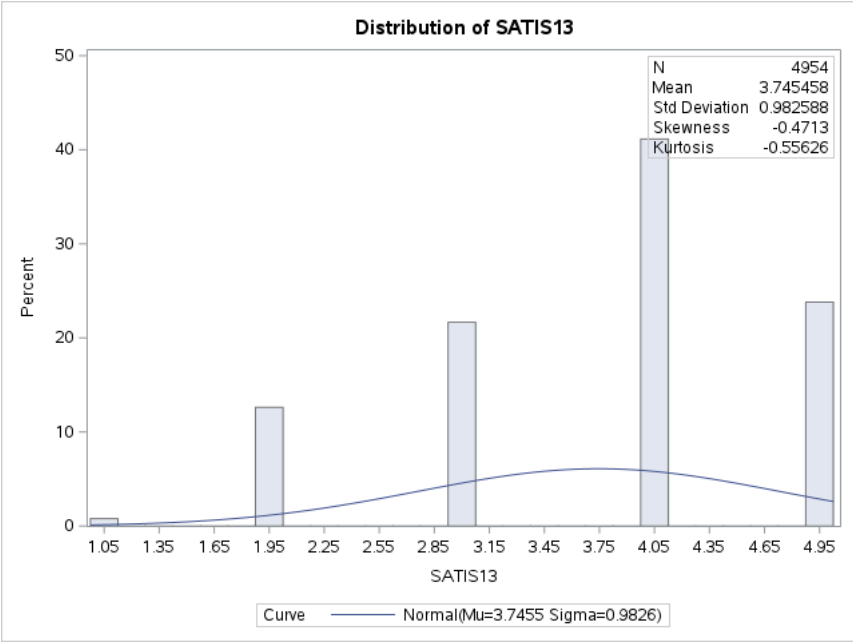
Quantiles (Definition 5)	
Level	Quantile
100% Max	5
99%	5
95%	5
90%	5
75% Q3	4
50% Median	4
25% Q1	3
10%	2
5%	2
1%	2
0% Min	1

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
1	4984	5	4983
1	4950	5	4991
1	4756	5	4992

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
1	4682	5	4998
1	4662	5	4999

Missing Values			
Missing Value	Count	Percent Of	
		All Obs	Missing Obs
.	46	0.92	100.00

Histograms and Normality Tests



Histograms and Normality Tests

Fitted Normal Distribution for SATIS13

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	3.745458
Std Dev	Sigma	0.982588

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.251577	Pr > D	<0.010
Cramer-von Mises	W-Sq	45.055238	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	255.233882	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	2.00000	1.45962
5.0	2.00000	2.12924
10.0	2.00000	2.48622
25.0	3.00000	3.08271
50.0	4.00000	3.74546
75.0	4.00000	4.40820
90.0	5.00000	5.00470
95.0	5.00000	5.36167
99.0	5.00000	6.03130

Histograms and Normality Tests

Variable: SATIS25

Moments			
N	4949	Sum Weights	4949
Mean	3.91594261	Sum Observations	19380
Std Deviation	1.00835557	Variance	1.01678095
Skewness	-1.1008388	Kurtosis	1.11061838

Moments			
Uncorrected SS	80922	Corrected SS	5031.03213
Coeff Variation	25.7500088	Std Error Mean	0.01433359

Basic Statistical Measures			
Location		Variability	
Mean	3.915943	Std Deviation	1.00836
Median	4.000000	Variance	1.01678
Mode	4.000000	Range	4.00000
		Interquartile Range	2.00000

Tests for Location: Mu0=0			
Test		Statistic	p Value
Student's t	t	273.2004	Pr >  t  <.0001
Sign	M	2474.5	Pr >=  M  <.0001
Signed Rank	S	6124388	Pr >=  S  <.0001

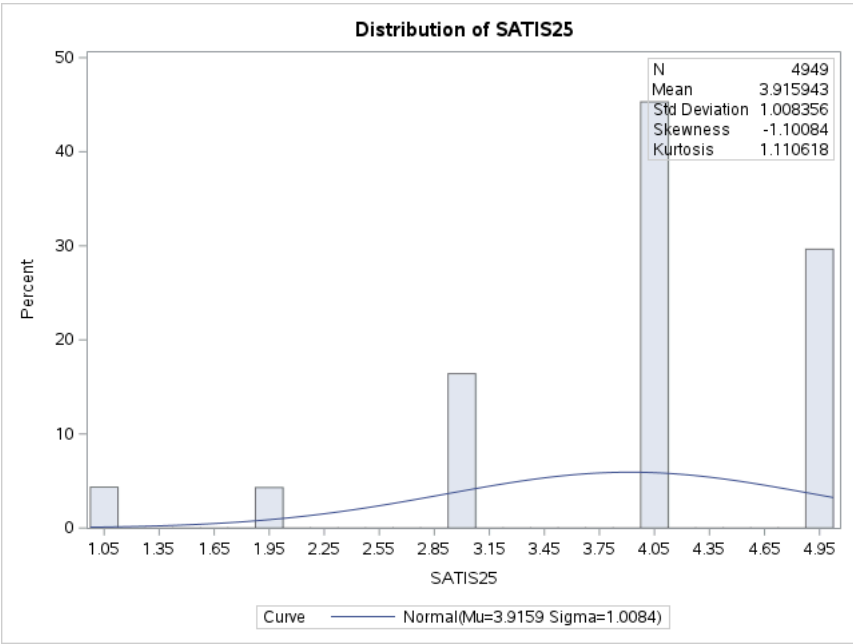
Tests for Normality			
Test		Statistic	p Value
Kolmogorov-Smirnov	D	0.282662	Pr > D <0.0100
Cramer-von Mises	W-Sq	58.62365	Pr > W-Sq <0.0050
Anderson-Darling	A-Sq	320.9926	Pr > A-Sq <0.0050

Quantiles (Definition 5)	
Level	Quantile
100% Max	5
99%	5
95%	5
90%	5
75% Q3	5
50% Median	4
25% Q1	3
10%	3
5%	2
1%	1
0% Min	1

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
1	4974	5	4992
1	4973	5	4993
1	4965	5	4996
1	4963	5	4998
1	4956	5	4999

Missing Values			
Missing Value	Count	Percent Of	
		All Obs	Missing Obs
.	51	1.02	100.00

Histograms and Normality Tests



**Histograms and Normality Tests**

Fitted Normal Distribution for SATIS25

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	3.915943
Std Dev	Sigma	1.008356

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.282662	Pr > D	<0.010
Cramer-von Mises	W-Sq	58.623650	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	320.992623	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	1.00000	1.57016
5.0	2.00000	2.25735
10.0	3.00000	2.62368
25.0	3.00000	3.23582
50.0	4.00000	3.91594
75.0	5.00000	4.59607
90.0	5.00000	5.20820
95.0	5.00000	5.57454
99.0	5.00000	6.26173

**Histograms and Normality Tests**

Variable: CSSRAT07

Moments			
N	4896	Sum Weights	4896
Mean	4.07291667	Sum Observations	19941
Std Deviation	0.80409686	Variance	0.64657176
Skewness	-0.5571107	Kurtosis	-0.043115
Uncorrected SS	84383	Corrected SS	3164.96875
Coeff Variation	19.7425315	Std Error Mean	0.01149179

Basic Statistical Measures		
Location		Variability
Mean	4.072917	Std Deviation 0.80410
Median	4.000000	Variance 0.64657
Mode	4.000000	Range 4.00000
		Interquartile Range 1.00000

Tests for Location: Mu0=0			
Test	Statistic		p Value
Student's t	t	354.4197	Pr >  t  <.0001
Sign	M	2448	Pr >=  M  <.0001

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Signed Rank	S	5993928	Pr >=  S	<.0001

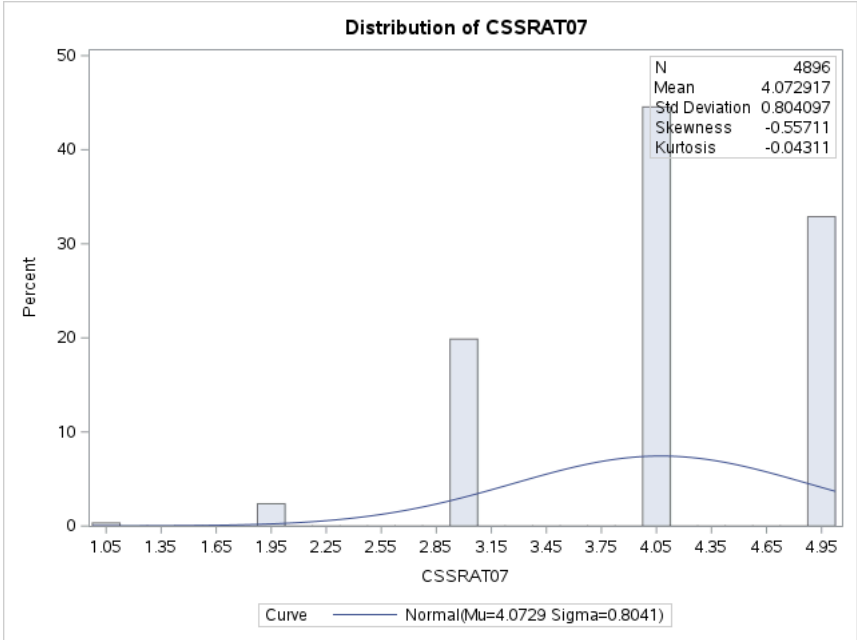
Tests for Normality				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.238178	Pr > D	<0.0100
Cramer-von Mises	W-Sq	58.09573	Pr > W-Sq	<0.0050
Anderson-Darling	A-Sq	338.8351	Pr > A-Sq	<0.0050

Quantiles (Definition 5)	
Level	Quantile
100% Max	5
99%	5
95%	5
90%	5
75% Q3	5
50% Median	4
25% Q1	4
10%	3
5%	3
1%	2
0% Min	1

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
1	4827	5	4989
1	4756	5	4991
1	4577	5	4992
1	4113	5	4996
1	3559	5	4998

Missing Values			
Missing Value	Count	Percent Of	
		All Obs	Missing Obs
.	104	2.08	100.00

Histograms and Normality Tests



Histograms and Normality Tests

Fitted Normal Distribution for CSSRAT07

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	4.072917
Std Dev	Sigma	0.804097

Goodness-of-Fit Tests for Normal Distribution		
Test	Statistic	p Value



Goodness-of-Fit Tests for Normal Distribution			
Test	Statistic		p Value
Kolmogorov-Smirnov	D	0.238178	Pr > D <0.010
Cramer-von Mises	W-Sq	58.095731	Pr > W-Sq <0.005
Anderson-Darling	A-Sq	338.835121	Pr > A-Sq <0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	2.00000	2.20231
5.0	3.00000	2.75030
10.0	3.00000	3.04243
25.0	4.00000	3.53056
50.0	4.00000	4.07292
75.0	5.00000	4.61527
90.0	5.00000	5.10341
95.0	5.00000	5.39554
99.0	5.00000	5.94353

Histograms and Normality Tests

Variable: CSSRAT16

Moments			
N	4899	Sum Weights	4899
Mean	3.69034497	Sum Observations	18079
Std Deviation	0.86929066	Variance	0.75566626
Skewness	-0.2565816	Kurtosis	-0.2989645
Uncorrected SS	70419	Corrected SS	3701.25332
Coeff Variation	23.5558103	Std Error Mean	0.01241971

Basic Statistical Measures			
Location		Variability	
Mean	3.690345	Std Deviation	0.86929
Median	4.000000	Variance	0.75567
Mode	4.000000	Range	4.00000
		Interquartile Range	1.00000

Tests for Location: Mu0=0			
Test	Statistic		p Value
Student's t	t	297.1363	Pr >  t  <.0001
Sign	M	2449.5	Pr >=  M  <.0001
Signed Rank	S	6001275	Pr >=  S  <.0001

Tests for Normality			
Test	Statistic		p Value
Kolmogorov-Smirnov	D	0.235201	Pr > D <0.0100
Cramer-von Mises	W-Sq	49.4403	Pr > W-Sq <0.0050
Anderson-Darling	A-Sq	268.6942	Pr > A-Sq <0.0050

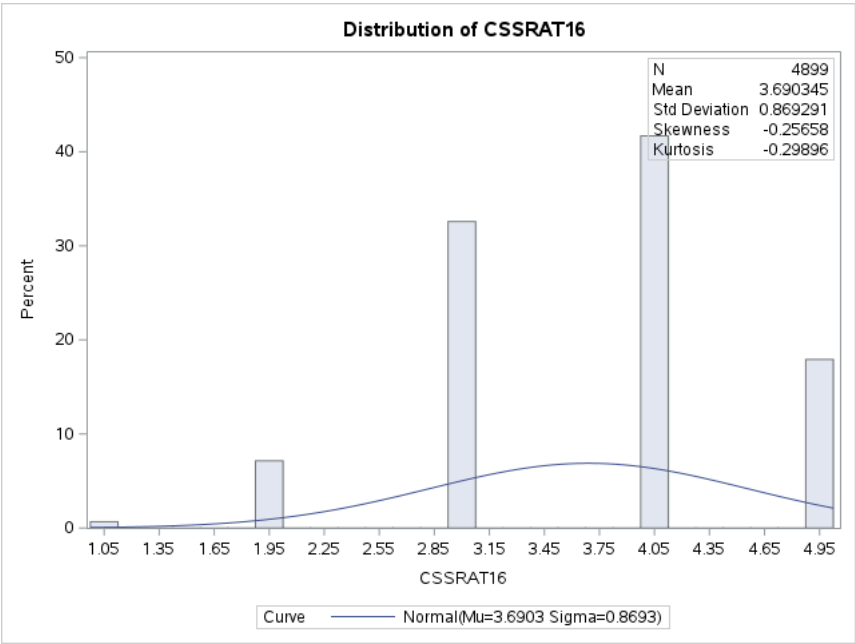
Quantiles (Definition 5)	
Level	Quantile
100% Max	5
99%	5
95%	5
90%	5
75% Q3	4
50% Median	4
25% Q1	3
10%	3
5%	2
1%	2
0% Min	1

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
1	4756	5	4989
1	4663	5	4993
1	4577	5	4994
1	4554	5	4997
1	4390	5	4998

Missing Values			
Missing Value	Count	Percent Of	
		All Obs	Missing Obs

Missing Values			
Missing Value	Count	Percent Of	
		All Obs	Missing Obs
.	101	2.02	100.00

Histograms and Normality Tests



Histograms and Normality Tests

Fitted Normal Distribution for CSSRAT16

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	3.690345
Std Dev	Sigma	0.869291

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.235201	Pr > D	<0.010
Cramer-von Mises	W-Sq	49.440303	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	268.694230	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	2.00000	1.66807
5.0	2.00000	2.26049
10.0	3.00000	2.57630
25.0	3.00000	3.10402
50.0	4.00000	3.69034
75.0	4.00000	4.27667
90.0	5.00000	4.80439
95.0	5.00000	5.12020
99.0	5.00000	5.71262

Histograms and Normality Tests

Variable: GENACT05

Moments			
N	4936	Sum Weights	4936
Mean	2.29862237	Sum Observations	11346
Std Deviation	0.59273389	Variance	0.35133346
Skewness	-0.2051295	Kurtosis	-0.604161
Uncorrected SS	27814	Corrected SS	1733.83063
Coeff Variation	25.7864839	Std Error Mean	0.00843669

Basic Statistical Measures			
Location		Variability	
Mean	2.298622	Std Deviation	0.59273

Basic Statistical Measures			
Location		Variability	
Median	2.000000	Variance	0.35133
Mode	2.000000	Range	2.00000
		Interquartile Range	1.00000

Tests for Location: Mu0=0			
Test		Statistic	p Value
Student's t	t	272.4554	Pr >  t  <.0001
Sign	M	2468	Pr >=  M  <.0001
Signed Rank	S	6092258	Pr >=  S  <.0001

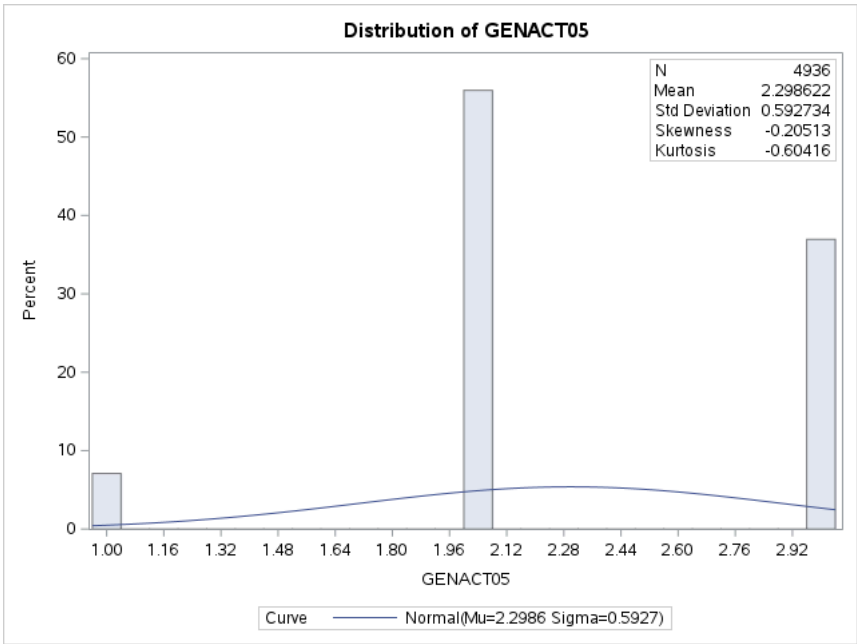
Tests for Normality			
Test		Statistic	p Value
Kolmogorov-Smirnov	D	0.323271	Pr > D <0.0100
Cramer-von Mises	W-Sq	106.3981	Pr > W-Sq <0.0050
Anderson-Darling	A-Sq	595.0635	Pr > A-Sq <0.0050

Quantiles (Definition 5)	
Level	Quantile
100% Max	3
99%	3
95%	3
90%	3
75% Q3	3
50% Median	2
25% Q1	2
10%	2
5%	1
1%	1
0% Min	1

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
1	4992	3	4990
1	4971	3	4994
1	4958	3	4996
1	4920	3	4997
1	4890	3	4998

Missing Values			
Missing Value	Count	Percent Of	
		All Obs	Missing Obs
.	64	1.28	100.00

Histograms and Normality Tests



Histograms and Normality Tests

Fitted Normal Distribution for GENACT05

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	2.298622
Std Dev	Sigma	0.592734

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.323271	Pr > D	<0.010
Cramer-von Mises	W-Sq	106.398089	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	595.063531	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	1.00000	0.91972
5.0	1.00000	1.32366
10.0	2.00000	1.53900
25.0	2.00000	1.89883
50.0	2.00000	2.29862
75.0	3.00000	2.69842
90.0	3.00000	3.05824
95.0	3.00000	3.27358
99.0	3.00000	3.67753

Histograms and Normality Tests

Variable: COLACT17

Moments			
N	5000	Sum Weights	5000
Mean	1.4798	Sum Observations	7399
Std Deviation	0.49964176	Variance	0.24964189
Skewness	0.08089029	Kurtosis	-1.9942546
Uncorrected SS	12197	Corrected SS	1247.9598
Coeff Variation	33.7641411	Std Error Mean	0.007066

Basic Statistical Measures			
Location		Variability	
Mean	1.479800	Std Deviation	0.49964
Median	1.000000	Variance	0.24964
Mode	1.000000	Range	1.00000
		Interquartile Range	1.00000

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	209.4254	Pr >  t	<.0001
Sign	M	2500	Pr >=  M	<.0001
Signed Rank	S	6251250	Pr >=  S	<.0001

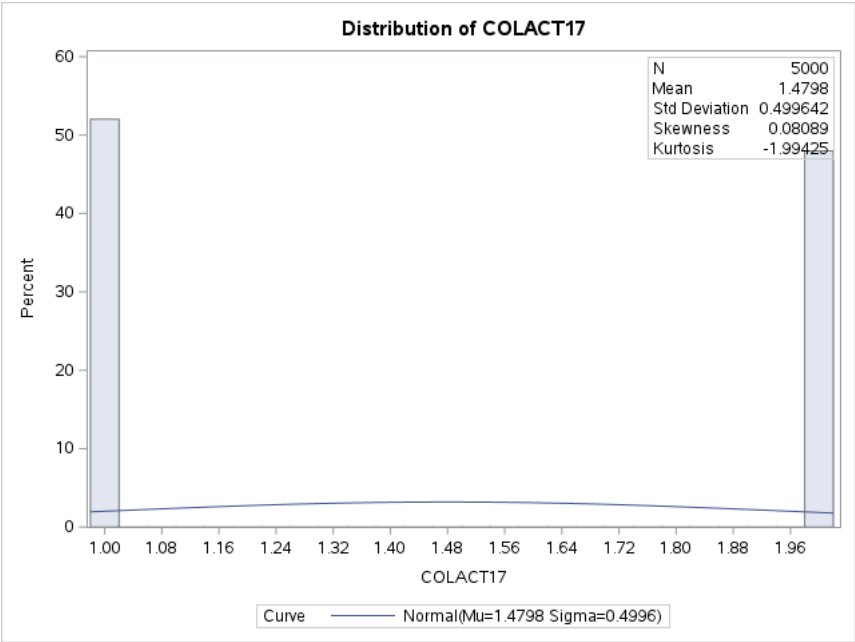
Tests for Normality				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.351745	Pr > D	<0.0100
Cramer-von Mises	W-Sq	146.3864	Pr > W-Sq	<0.0050
Anderson-Darling	A-Sq	900.0019	Pr > A-Sq	<0.0050

Quantiles (Definition 5)	
Level	Quantile
100% Max	2
99%	2
95%	2
90%	2
75% Q3	2
50% Median	1
25% Q1	1
10%	1
5%	1
1%	1
0% Min	1

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
1	5000	2	4985
1	4999	2	4987
1	4996	2	4993

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
1	4995	2	4997
1	4994	2	4998

Histograms and Normality Tests



Histograms and Normality Tests

Fitted Normal Distribution for COLACT17

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	1.4798
Std Dev	Sigma	0.499642

Goodness-of-Fit Tests for Normal Distribution			
Test	Statistic		p Value
Kolmogorov-Smirnov	D	0.351745	Pr > D <0.010
Cramer-von Mises	W-Sq	146.386359	Pr > W-Sq <0.005
Anderson-Darling	A-Sq	900.001859	Pr > A-Sq <0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	1.00000	0.31746
5.0	1.00000	0.65796
10.0	1.00000	0.83948
25.0	1.00000	1.14280
50.0	1.00000	1.47980
75.0	2.00000	1.81680
90.0	2.00000	2.12012
95.0	2.00000	2.30164
99.0	2.00000	2.64214

Histograms and Normality Tests

Variable: COLACT19

Moments			
N	5000	Sum Weights	5000
Mean	1.0188	Sum Observations	5094
Std Deviation	0.1358317	Variance	0.01845025
Skewness	7.08807393	Kurtosis	48.2600959
Uncorrected SS	5282	Corrected SS	92.2328
Coeff Variation	13.3325184	Std Error Mean	0.00192095

Basic Statistical Measures	
Location	Variability

Basic Statistical Measures			
Location		Variability	
Mean	1.018800	Std Deviation	0.13583
Median	1.000000	Variance	0.01845
Mode	1.000000	Range	1.00000
		Interquartile Range	0

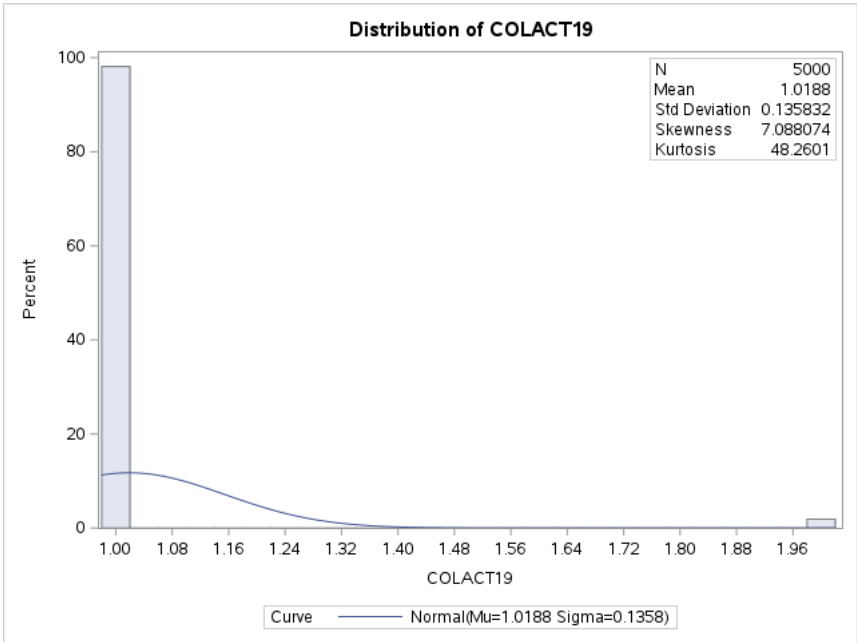
Tests for Location: Mu0=0			
Test	Statistic		p Value
Student's t	t	530.3625	Pr >  t  <.0001
Sign	M	2500	Pr >=  M  <.0001
Signed Rank	S	6251250	Pr >=  S  <.0001

Tests for Normality			
Test	Statistic		p Value
Kolmogorov-Smirnov	D	0.53624	Pr > D <0.0100
Cramer-von Mises	W-Sq	403.8362	Pr > W-Sq <0.0050
Anderson-Darling	A-Sq	1891.842	Pr > A-Sq <0.0050

Quantiles (Definition 5)	
Level	Quantile
100% Max	2
99%	2
95%	1
90%	1
75% Q3	1
50% Median	1
25% Q1	1
10%	1
5%	1
1%	1
0% Min	1

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
1	5000	2	4903
1	4999	2	4945
1	4998	2	4946
1	4997	2	4949
1	4996	2	4975

Histograms and Normality Tests



Histograms and Normality Tests

Fitted Normal Distribution for COLACT19

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	1.0188

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Std Dev	Sigma	0.135832

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.53624	Pr > D	<0.010
Cramer-von Mises	W-Sq	403.83622	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	1891.84235	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	1.00000	0.70281
5.0	1.00000	0.79538
10.0	1.00000	0.84472
25.0	1.00000	0.92718
50.0	1.00000	1.01880
75.0	1.00000	1.11042
90.0	1.00000	1.19288
95.0	1.00000	1.24222
99.0	2.00000	1.33479

Correlation Matrix (Ad-Hoc Association Check)

10 Variables:	SATIS01 SATIS02 SATIS07 SATIS13 SATIS25 CSSRAT07 CSSRAT16 GENACT05 COLACT17 COLACT19
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Simple Statistics						
Variable	N	Mean	Std Dev	Median	Minimum	Maximum
SATIS01	4959	3.87518	0.79755	4.00000	1.00000	5.00000
SATIS02	4956	3.56336	0.97280	4.00000	1.00000	5.00000
SATIS07	4949	4.08527	0.73459	4.00000	1.00000	5.00000
SATIS13	4954	3.74546	0.98259	4.00000	1.00000	5.00000
SATIS25	4949	3.91594	1.00836	4.00000	1.00000	5.00000
CSSRAT07	4896	4.07292	0.80410	4.00000	1.00000	5.00000
CSSRAT16	4899	3.69034	0.86929	4.00000	1.00000	5.00000
GENACT05	4936	2.29862	0.59273	2.00000	1.00000	3.00000
COLACT17	5000	1.47980	0.49964	1.00000	1.00000	2.00000
COLACT19	5000	1.01880	0.13583	1.00000	1.00000	2.00000

Pearson Correlation Coefficients Prob >  r  under H0: Rho=0 Number of Observations										
	SATIS01	SATIS02	SATIS07	SATIS13	SATIS25	CSSRAT07	CSSRAT16	GENACT05	COLACT17	COLACT19
SATIS01	1.00000 4959	0.33830 <.0001 4952	0.41276 <.0001 4943	0.26911 <.0001 4948	0.26176 <.0001 4943	0.09965 <.0001 4885	0.11395 <.0001 4888	-0.02991 0.0358 4925	0.00599 0.6734 4959	-0.00977 0.4917 4959
SATIS02	0.33830 <.0001 4952	1.00000 4956	0.24551 <.0001 4942	0.19346 <.0001 4947	0.14960 <.0001 4942	0.06041 <.0001 4884	0.01692 0.2370 4887	-0.04330 0.0024 4924	-0.02083 0.1426 4956	-0.02274 0.1094 4956
SATIS07	0.41276 <.0001 4943	0.24551 <.0001 4942	1.00000 4949	0.32307 <.0001 4945	0.37292 <.0001 4939	0.08811 <.0001 4878	0.08492 <.0001 4881	-0.03256 0.0224 4918	0.02141 0.1321 4949	-0.01414 0.3200 4949
SATIS13	0.26911 <.0001 4948	0.19346 <.0001 4947	0.32307 <.0001 4945	1.00000 4954	0.30464 <.0001 4944	0.08867 <.0001 4884	0.12637 <.0001 4887	-0.04387 0.0021 4924	0.01545 0.2769 4954	-0.00312 0.8261 4954
SATIS25	0.26176 <.0001 4943	0.14960 <.0001 4942	0.37292 <.0001 4939	0.30464 <.0001 4944	1.00000 4949	0.13320 <.0001 4881	0.14843 <.0001 4884	-0.02534 0.0755 4920	0.06714 <.0001 4949	0.02041 0.1511 4949
CSSRAT07	0.09965 <.0001 4885	0.06041 <.0001 4884	0.08811 <.0001 4878	0.08867 <.0001 4884	0.13320 <.0001 4881	1.00000 4896	0.30976 <.0001 4891	0.01948 0.1742 4868	0.09706 <.0001 4896	-0.00133 0.9261 4896
CSSRAT16	0.11395 <.0001 4888	0.01692 0.2370 4887	0.08492 <.0001 4881	0.12637 <.0001 4887	0.14843 <.0001 4884	0.30976 <.0001 4891	1.00000 4899	-0.12510 <.0001 4871	0.04169 0.0035 4899	-0.00207 0.8849 4899
GENACT05	-0.02991 0.0358 4925	-0.04330 0.0024 4924	-0.03256 0.0224 4918	-0.04387 0.0021 4924	-0.02534 0.0755 4920	0.01948 0.1742 4868	-0.12510 <.0001 4871	1.00000 4936	0.01866 0.1899 4936	0.01480 0.2984 4936
COLACT17	0.00599 0.6734 4959	-0.02083 0.1426 4956	0.02141 0.1321 4949	0.01545 0.2769 4954	0.06714 <.0001 4949	0.09706 <.0001 4896	0.04169 0.0035 4899	0.01866 0.1899 4936	1.00000 5000	-0.00325 0.8185 5000
COLACT19	-0.00977 0.4917 4959	-0.02274 0.1094 4956	-0.01414 0.3200 4949	-0.00312 0.8261 4954	0.02041 0.1511 4949	-0.00133 0.9261 4896	-0.00207 0.8849 4899	0.01480 0.2984 4936	-0.00325 0.8185 5000	1.00000 5000

Spearman Correlation Coefficients Prob >  r  under H0: Rho=0 Number of Observations										
	SATIS01	SATIS02	SATIS07	SATIS13	SATIS25	CSSRAT07	CSSRAT16	GENACT05	COLACT17	COLACT19
SATIS01	1.00000 4959	0.36864 <.0001 4952	0.42374 <.0001 4943	0.28130 <.0001 4948	0.30590 <.0001 4943	0.10309 <.0001 4885	0.11925 <.0001 4888	-0.03630 0.0108 4925	0.01171 0.4099 4959	-0.01055 0.4575 4959
SATIS02	0.36864 <.0001 4952	1.00000 4956	0.26081 <.0001 4942	0.20486 <.0001 4947	0.19208 <.0001 4942	0.07319 <.0001 4884	0.01825 0.2021 4887	-0.04582 0.0013 4924	-0.02425 0.0878 4956	-0.01959 0.1678 4956
SATIS07	0.42374 <.0001 4943	0.26081 <.0001 4942	1.00000 4949	0.33019 <.0001 4945	0.42781 <.0001 4939	0.08906 <.0001 4878	0.08458 <.0001 4881	-0.03791 0.0078 4918	0.01893 0.1830 4949	-0.01127 0.4280 4949

Spearman Correlation Coefficients Prob >  r  under H0: Rho=0 Number of Observations										
	SATIS01	SATIS02	SATIS07	SATIS13	SATIS25	CSSRAT07	CSSRAT16	GENACT05	COLACT17	COLACT19
<b>SATIS13</b>	0.28130 <.0001 4948	0.20486 <.0001 4947	0.33019 <.0001 4945	1.00000 4954	0.35636 <.0001 4944	0.08565 <.0001 4884	0.12843 <.0001 4887	-0.04912 0.0006 4924	0.01663 0.2419 4954	-0.00282 0.8429 4954
<b>SATIS25</b>	0.30590 <.0001 4943	0.19208 <.0001 4942	0.42781 <.0001 4939	0.35636 <.0001 4944	1.00000 4949	0.14040 <.0001 4881	0.14525 <.0001 4884	-0.02734 0.0551 4920	0.06140 <.0001 4949	0.01664 0.2419 4949
<b>CSSRAT07</b>	0.10309 <.0001 4885	0.07319 <.0001 4884	0.08906 <.0001 4878	0.08565 <.0001 4884	0.14040 <.0001 4881	1.00000 4896	0.32118 <.0001 4891	0.02151 0.1334 4868	0.09157 <.0001 4896	0.00118 0.9342 4896
<b>CSSRAT16</b>	0.11925 <.0001 4888	0.01825 0.2021 4887	0.08458 <.0001 4881	0.12843 <.0001 4887	0.14525 <.0001 4884	0.32118 <.0001 4891	1.00000 4899	-0.11765 <.0001 4871	0.04391 0.0021 4899	-0.00093 0.9483 4899
<b>GENACT05</b>	-0.03630 0.0108 4925	-0.04582 0.0013 4924	-0.03791 0.0078 4918	-0.04912 0.0006 4924	-0.02734 0.0551 4920	0.02151 0.1334 4868	-0.11765 <.0001 4871	1.00000 4936	0.01957 0.1692 4936	0.01565 0.2717 4936
<b>COLACT17</b>	0.01171 0.4099 4959	-0.02425 0.0878 4956	0.01893 0.1830 4949	0.01663 0.2419 4954	0.06140 <.0001 4949	0.09157 <.0001 4896	0.04391 0.0021 4899	0.01957 0.1692 4936	1.00000 5000	-0.00325 0.8185 5000
<b>COLACT19</b>	-0.01055 0.4575 4959	-0.01959 0.1678 4956	-0.01127 0.4280 4949	-0.00282 0.8429 4954	0.01664 0.2419 4949	0.00118 0.9342 4896	-0.00093 0.9483 4899	0.01565 0.2717 4936	-0.00325 0.8185 5000	1.00000 5000