

## The SAS System

The UNIVARIATE Procedure  
Variable: td\_mean1

Moments			
<b>N</b>	740556	<b>Sum Weights</b>	740556
<b>Mean</b>	10.7119143	<b>Sum Observations</b>	7932772.4
<b>Std Deviation</b>	7.36448545	<b>Variance</b>	54.2356459
<b>Skewness</b>	5.89946015	<b>Kurtosis</b>	59.6207873
<b>Uncorrected SS</b>	125139657	<b>Corrected SS</b>	40164478.7
<b>Coeff Variation</b>	68.7504142	<b>Std Error Mean</b>	0.00855783

Basic Statistical Measures			
Location		Variability	
<b>Mean</b>	10.71191	<b>Std Deviation</b>	7.36449
<b>Median</b>	9.36667	<b>Variance</b>	54.23565
<b>Mode</b>	9.40000	<b>Range</b>	114.10000
		<b>Interquartile Range</b>	6.75835

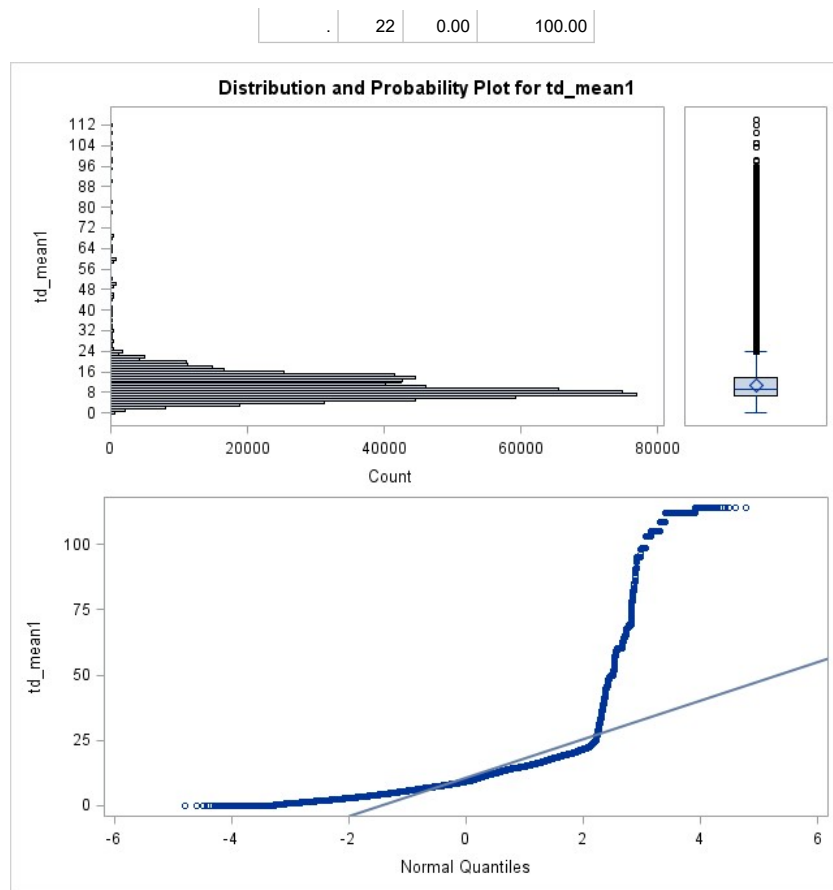
Tests for Location: Mu0=0				
Test	Statistic		p Value	
<b>Student's t</b>	<b>t</b>	1251.71	<b>Pr &gt;  t </b>	<.0001
<b>Sign</b>	<b>M</b>	370100.5	<b>Pr &gt;=  M </b>	<.0001
<b>Signed Rank</b>	<b>S</b>	1.37E11	<b>Pr &gt;=  S </b>	<.0001

Tests for Normality				
Test	Statistic		p Value	
<b>Kolmogorov-Smirnov</b>	<b>D</b>	0.124065	<b>Pr &gt; D</b>	<0.0100
<b>Cramer-von Mises</b>	<b>W-Sq</b>	5461.249	<b>Pr &gt; W-Sq</b>	<0.0050
<b>Anderson-Darling</b>	<b>A-Sq</b>	35983.82	<b>Pr &gt; A-Sq</b>	<0.0050

Quantiles (Definition 5)	
Level	Quantile
<b>100% Max</b>	114.00000
<b>99%</b>	36.46800
<b>95%</b>	19.17250
<b>90%</b>	16.60500
<b>75% Q3</b>	13.55835
<b>50% Median</b>	9.36667
<b>25% Q1</b>	6.80000
<b>10%</b>	4.83333
<b>5%</b>	3.78889
<b>1%</b>	2.20938
<b>0% Min</b>	-0.10000

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
-0.1	491433	114	716145
0.0	710139	114	716147
0.0	695122	114	716163
0.0	695098	114	716165
0.0	695082	114	716167

Missing Values			
Missing Value	Count	Percent Of	
		All Obs	Missing Obs



## The SAS System

The UNIVARIATE Procedure  
Variable: td\_mean1

Moments			
<b>N</b>	729071	<b>Sum Weights</b>	729071
<b>Mean</b>	10.077576	<b>Sum Observations</b>	7347268.43
<b>Std Deviation</b>	4.44008097	<b>Variance</b>	19.714319
<b>Skewness</b>	0.48087215	<b>Kurtosis</b>	-0.3814812
<b>Uncorrected SS</b>	88415774.7	<b>Corrected SS</b>	14373118.6
<b>Coeff Variation</b>	44.0590174	<b>Std Error Mean</b>	0.00520003

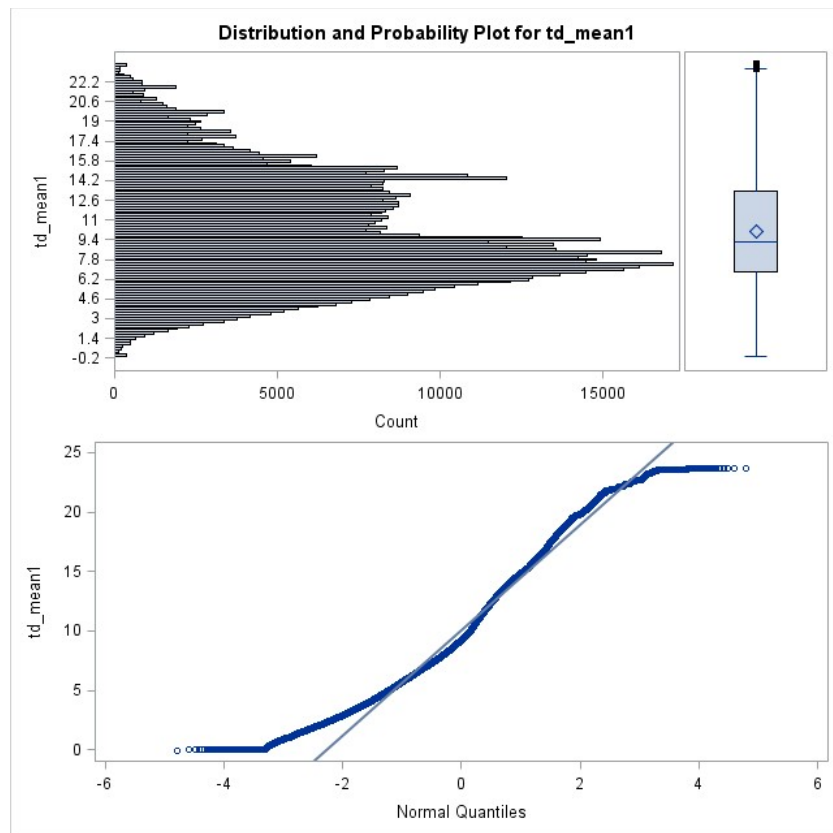
Basic Statistical Measures			
Location		Variability	
<b>Mean</b>	10.07758	<b>Std Deviation</b>	4.44008
<b>Median</b>	9.25800	<b>Variance</b>	19.71432
<b>Mode</b>	9.40000	<b>Range</b>	23.79553
		<b>Interquartile Range</b>	6.59000

Tests for Location: Mu0=0				
Test		Statistic	p Value	
<b>Student's t</b>	<b>t</b>	1937.984	<b>Pr &gt;  t </b>	<.0001
<b>Sign</b>	<b>M</b>	364358	<b>Pr &gt;=  M </b>	<.0001
<b>Signed Rank</b>	<b>S</b>	1.328E11	<b>Pr &gt;=  S </b>	<.0001

Tests for Normality				
Test		Statistic	p Value	
<b>Kolmogorov-Smirnov</b>	<b>D</b>	0.077826	<b>Pr &gt; D</b>	<0.0100
<b>Cramer-von Mises</b>	<b>W-Sq</b>	1104.468	<b>Pr &gt; W-Sq</b>	<0.0050
<b>Anderson-Darling</b>	<b>A-Sq</b>	6049.689	<b>Pr &gt; A-Sq</b>	<0.0050

Quantiles (Definition 5)	
Level	Quantile
<b>100% Max</b>	23.69553
<b>99%</b>	21.27500
<b>95%</b>	18.26900
<b>90%</b>	16.18670
<b>75% Q3</b>	13.35000
<b>50% Median</b>	9.25800
<b>25% Q1</b>	6.76000
<b>10%</b>	4.80708
<b>5%</b>	3.76667
<b>1%</b>	2.19667
<b>0% Min</b>	-0.10000

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
-0.1	488275	23.6917	402571
0.0	699451	23.6925	402518
0.0	685118	23.6942	430559
0.0	685094	23.6950	403155
0.0	685078	23.6955	348124



## The SAS System

The UNIVARIATE Procedure  
Variable: mileage1

Moments			
<b>N</b>	726878	<b>Sum Weights</b>	726878
<b>Mean</b>	58907.3527	<b>Sum Observations</b>	4.28185E10
<b>Std Deviation</b>	73118.0226	<b>Variance</b>	5346245222
<b>Skewness</b>	2.2688229	<b>Kurtosis</b>	9.19481143
<b>Uncorrected SS</b>	6.40838E15	<b>Corrected SS</b>	3.88606E15
<b>Coeff Variation</b>	124.123762	<b>Std Error Mean</b>	85.7617581

Basic Statistical Measures			
Location		Variability	
<b>Mean</b>	58907.35	<b>Std Deviation</b>	73118
<b>Median</b>	32776.00	<b>Variance</b>	5346245222
<b>Mode</b>	0.00	<b>Range</b>	1554961
		<b>Interquartile Range</b>	78111

Tests for Location: Mu0=0				
Test		Statistic	p Value	
<b>Student's t</b>	<b>t</b>	686.872	<b>Pr &gt;  t </b>	<.0001
<b>Sign</b>	<b>M</b>	282588.5	<b>Pr &gt;=  M </b>	<.0001
<b>Signed Rank</b>	<b>S</b>	7.986E10	<b>Pr &gt;=  S </b>	<.0001

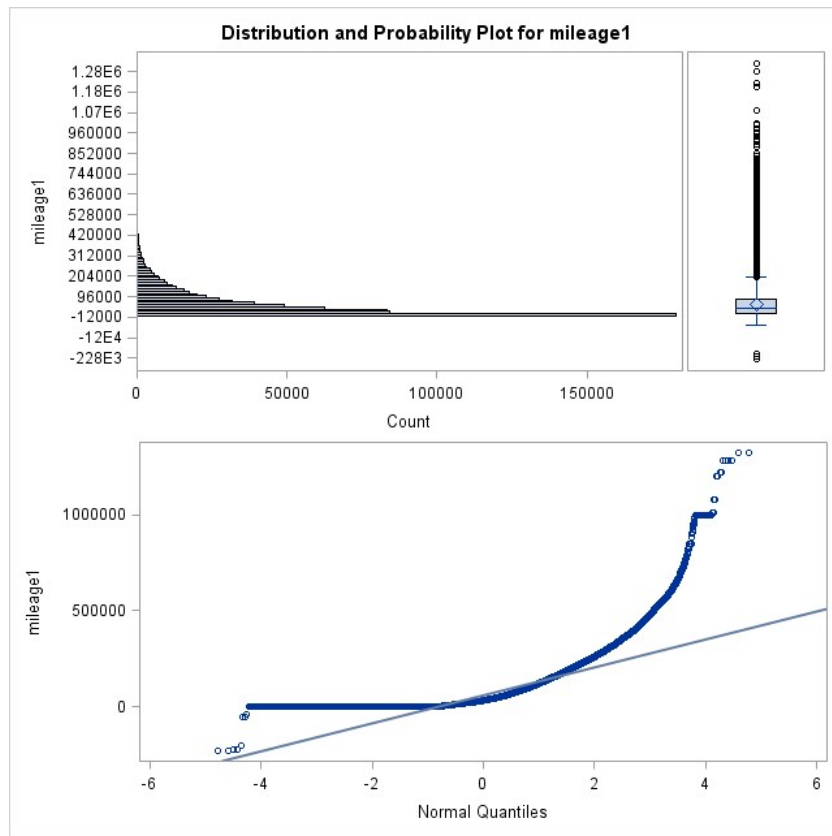
Tests for Normality				
Test		Statistic	p Value	
<b>Kolmogorov-Smirnov</b>	<b>D</b>	0.210212	<b>Pr &gt; D</b>	<0.0100
<b>Cramer-von Mises</b>	<b>W-Sq</b>	8142.796	<b>Pr &gt; W-Sq</b>	<0.0050
<b>Anderson-Darling</b>	<b>A-Sq</b>	45894.94	<b>Pr &gt; A-Sq</b>	<0.0050

Quantiles (Definition 5)	
Level	Quantile
<b>100% Max</b>	1323980
<b>99%</b>	316902
<b>95%</b>	207368
<b>90%</b>	157609
<b>75% Q3</b>	84460
<b>50% Median</b>	32776
<b>25% Q1</b>	6349
<b>10%</b>	0
<b>5%</b>	0
<b>1%</b>	0
<b>0% Min</b>	-230981

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
-230981	285838	1283770	368108
-230981	263728	1283770	387531
-222161	285840	1283770	392019
-222161	263730	1323980	456923
-202963	22259	1323980	488078

Missing Values		
Missing		Percent Of

Value	Count	All Obs	Missing Obs
.	2193	0.30	100.00



## The SAS System

The UNIVARIATE Procedure  
Variable: td\_min1

Moments			
<b>N</b>	200053	<b>Sum Weights</b>	200053
<b>Mean</b>	4.71581071	<b>Sum Observations</b>	943412.08
<b>Std Deviation</b>	6.07665113	<b>Variance</b>	36.9256889
<b>Skewness</b>	1.38119276	<b>Kurtosis</b>	0.47708058
<b>Uncorrected SS</b>	11836010.7	<b>Corrected SS</b>	7387057.92
<b>Coeff Variation</b>	128.856977	<b>Std Error Mean</b>	0.013586

Basic Statistical Measures			
Location		Variability	
<b>Mean</b>	4.715811	<b>Std Deviation</b>	6.07665
<b>Median</b>	1.000000	<b>Variance</b>	36.92569
<b>Mode</b>	1.000000	<b>Range</b>	23.00000
		<b>Interquartile Range</b>	6.50000

Tests for Location: Mu0=0				
Test	Statistic		p Value	
<b>Student's t</b>	<b>t</b>	347.108	<b>Pr &gt;  t </b>	<.0001
<b>Sign</b>	<b>M</b>	100015	<b>Pr &gt;=  M </b>	<.0001
<b>Signed Rank</b>	<b>S</b>	1E10	<b>Pr &gt;=  S </b>	<.0001

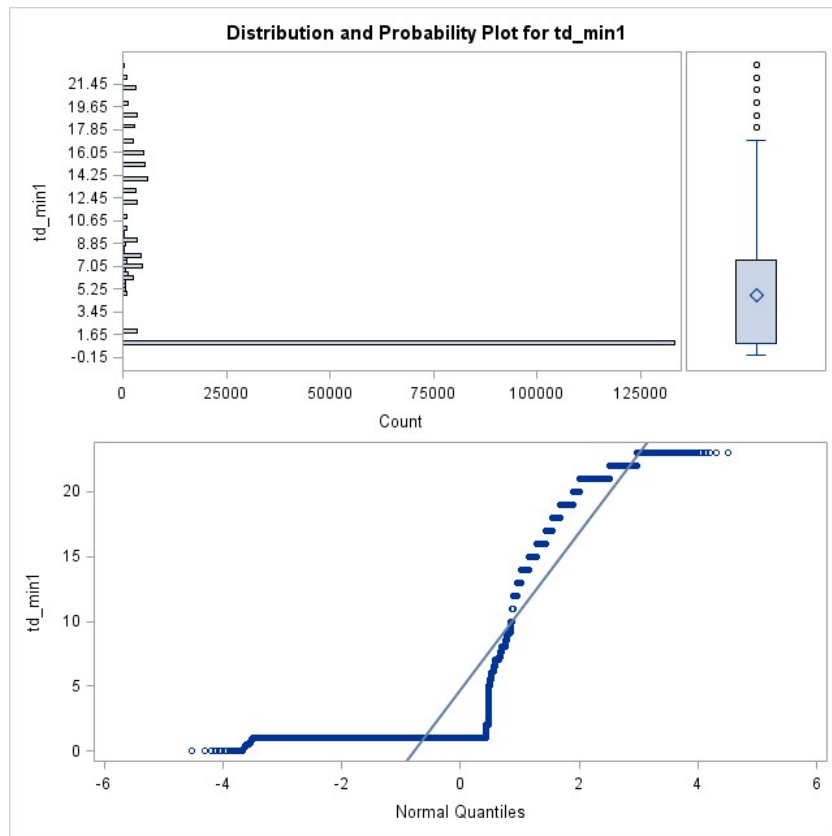
Tests for Normality				
Test	Statistic		p Value	
<b>Kolmogorov-Smirnov</b>	<b>D</b>	0.395311	<b>Pr &gt; D</b>	<0.0100
<b>Cramer-von Mises</b>	<b>W-Sq</b>	6171.695	<b>Pr &gt; W-Sq</b>	<0.0050
<b>Anderson-Darling</b>	<b>A-Sq</b>	31963.38	<b>Pr &gt; A-Sq</b>	<0.0050

Quantiles (Definition 5)	
Level	Quantile
<b>100% Max</b>	23.0
<b>99%</b>	21.0
<b>95%</b>	18.0
<b>90%</b>	15.0
<b>75% Q3</b>	7.5
<b>50% Median</b>	1.0
<b>25% Q1</b>	1.0
<b>10%</b>	1.0
<b>5%</b>	1.0
<b>1%</b>	1.0
<b>0% Min</b>	0.0

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
0	578912	23	418801
0	487081	23	420999
0	458003	23	421056
0	399516	23	448083
0	384188	23	450146

Missing Values		
Missing		Percent Of

Value	Count	All Obs	Missing Obs
.	529018	72.56	100.00





## The SAS System

The UNIVARIATE Procedure  
Variable: tach01

Moments			
<b>N</b>	613070	<b>Sum Weights</b>	613070
<b>Mean</b>	305907.98	<b>Sum Observations</b>	1.87543E11
<b>Std Deviation</b>	302741.686	<b>Variance</b>	9.16525E10
<b>Skewness</b>	8.64824136	<b>Kurtosis</b>	245.090993
<b>Uncorrected SS</b>	1.1356E17	<b>Corrected SS</b>	5.61893E16
<b>Coeff Variation</b>	98.9649523	<b>Std Error Mean</b>	386.649268

Basic Statistical Measures			
Location		Variability	
<b>Mean</b>	305908.0	<b>Std Deviation</b>	302742
<b>Median</b>	230302.0	<b>Variance</b>	9.16525E10
<b>Mode</b>	0.0	<b>Range</b>	10464400
		<b>Interquartile Range</b>	319549

Tests for Location: Mu0=0				
Test	Statistic		p Value	
<b>Student's t</b>	<b>t</b>	791.1769	<b>Pr &gt;  t </b>	<.0001
<b>Sign</b>	<b>M</b>	299751.5	<b>Pr &gt;=  M </b>	<.0001
<b>Signed Rank</b>	<b>S</b>	8.985E10	<b>Pr &gt;=  S </b>	<.0001

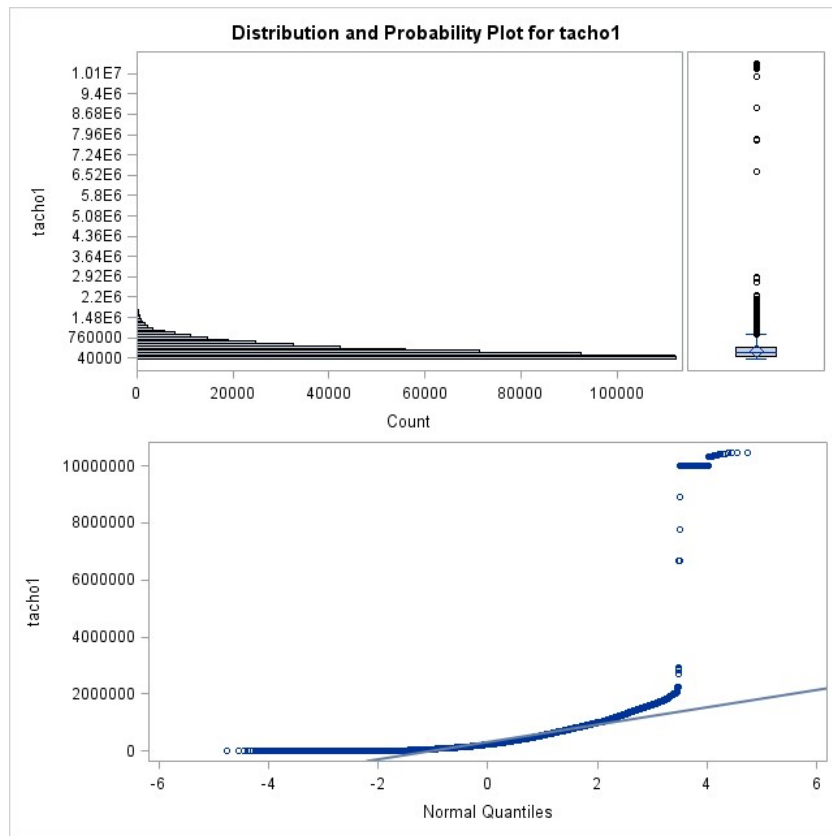
Tests for Normality				
Test	Statistic		p Value	
<b>Kolmogorov-Smirnov</b>	<b>D</b>	0.156138	<b>Pr &gt; D</b>	<0.0100
<b>Cramer-von Mises</b>	<b>W-Sq</b>	3935.047	<b>Pr &gt; W-Sq</b>	<0.0050
<b>Anderson-Darling</b>	<b>A-Sq</b>	23373.5	<b>Pr &gt; A-Sq</b>	<0.0050

Quantiles (Definition 5)	
Level	Quantile
<b>100% Max</b>	10464400.0
<b>99%</b>	1174350.0
<b>95%</b>	832946.0
<b>90%</b>	671111.0
<b>75% Q3</b>	428100.0
<b>50% Median</b>	230302.0
<b>25% Q1</b>	108551.0
<b>10%</b>	43652.5
<b>5%</b>	18972.0
<b>1%</b>	0.0
<b>0% Min</b>	0.0

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
0	701733	10420800	489307
0	701667	10441900	469787
0	701655	10441900	489302
0	701578	10464400	469788
0	701575	10464400	489308

Missing Values		
Missing		Percent Of

Value	Count	All Obs	Missing Obs
.	116001	15.91	100.00



## The SAS System

The UNIVARIATE Procedure  
Variable: tsize\_rim (tsize\_rim)

Moments			
<b>N</b>	729071	<b>Sum Weights</b>	729071
<b>Mean</b>	20.071875	<b>Sum Observations</b>	14633822
<b>Std Deviation</b>	10.8346531	<b>Variance</b>	117.389707
<b>Skewness</b>	37.6964637	<b>Kurtosis</b>	1563.32652
<b>Uncorrected SS</b>	379313560	<b>Corrected SS</b>	85585313.6
<b>Coeff Variation</b>	53.9792772	<b>Std Error Mean</b>	0.01268908

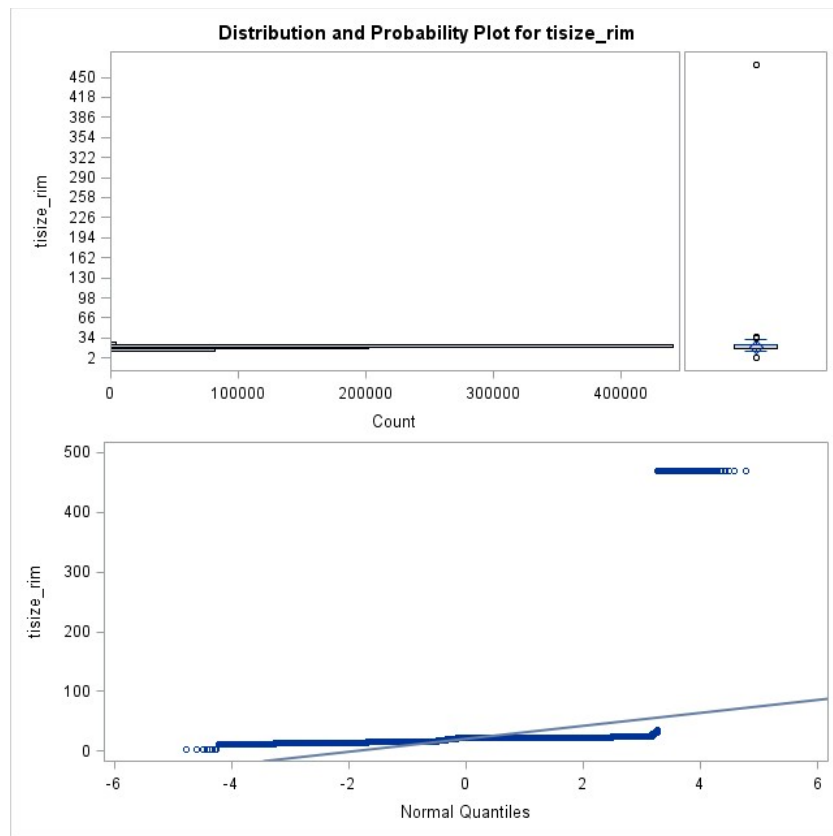
Basic Statistical Measures			
Location		Variability	
<b>Mean</b>	20.07188	<b>Std Deviation</b>	10.83465
<b>Median</b>	22.50000	<b>Variance</b>	117.38971
<b>Mode</b>	22.50000	<b>Range</b>	468.00000
		<b>Interquartile Range</b>	6.50000

Tests for Location: Mu0=0				
Test		Statistic	p Value	
<b>Student's t</b>	<b>t</b>	1581.823	<b>Pr &gt;  t </b>	<.0001
<b>Sign</b>	<b>M</b>	364535.5	<b>Pr &gt;=  M </b>	<.0001
<b>Signed Rank</b>	<b>S</b>	1.329E11	<b>Pr &gt;=  S </b>	<.0001

Tests for Normality				
Test		Statistic	p Value	
<b>Kolmogorov-Smirnov</b>	<b>D</b>	0.40491	<b>Pr &gt; D</b>	<0.0100
<b>Cramer-von Mises</b>	<b>W-Sq</b>	26435.12	<b>Pr &gt; W-Sq</b>	<0.0050
<b>Anderson-Darling</b>	<b>A-Sq</b>	140535.3	<b>Pr &gt; A-Sq</b>	<0.0050

Quantiles (Definition 5)	
Level	Quantile
<b>100% Max</b>	470.0
<b>99%</b>	22.5
<b>95%</b>	22.5
<b>90%</b>	22.5
<b>75% Q3</b>	22.5
<b>50% Median</b>	22.5
<b>25% Q1</b>	16.0
<b>10%</b>	15.0
<b>5%</b>	15.0
<b>1%</b>	13.0
<b>0% Min</b>	2.0

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
2	641483	470	340615
2	641482	470	364561
2	641481	470	364562
2	641480	470	364563
2	641479	470	364564



## The SAS System

The UNIVARIATE Procedure  
Variable: tsize\_width (tsize\_width)

Moments			
<b>N</b>	729071	<b>Sum Weights</b>	729071
<b>Mean</b>	281.918361	<b>Sum Observations</b>	205538502
<b>Std Deviation</b>	67.7291886	<b>Variance</b>	4587.24299
<b>Skewness</b>	0.53804106	<b>Kurtosis</b>	1.42921358
<b>Uncorrected SS</b>	6.12895E10	<b>Corrected SS</b>	3344421248
<b>Coeff Variation</b>	24.0243978	<b>Std Error Mean</b>	0.07932151

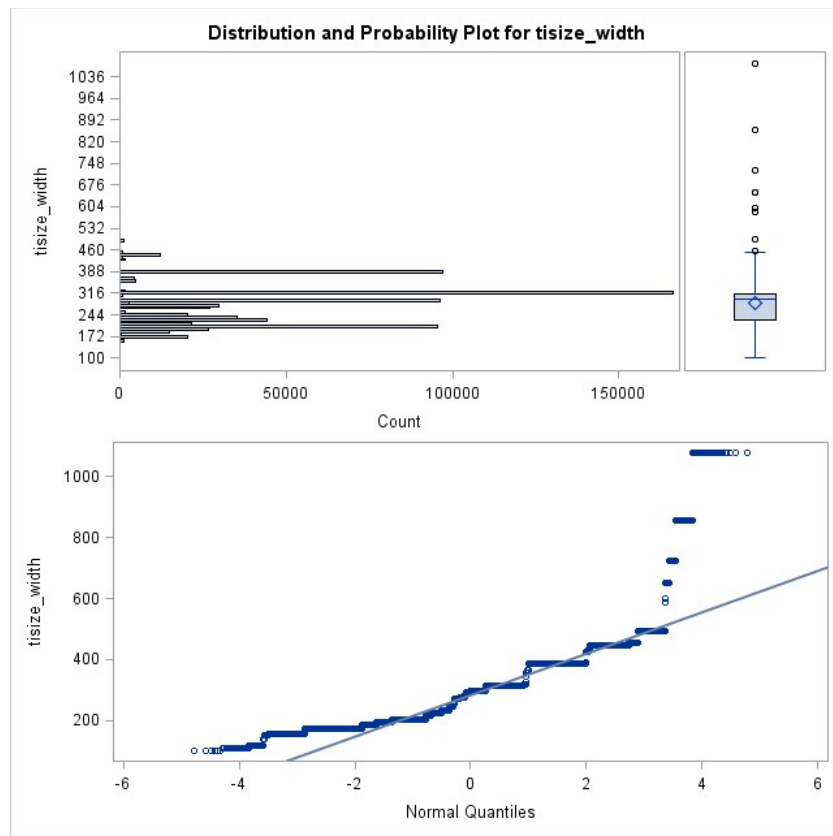
Basic Statistical Measures			
Location		Variability	
<b>Mean</b>	281.9184	<b>Std Deviation</b>	67.72919
<b>Median</b>	295.0000	<b>Variance</b>	4587
<b>Mode</b>	315.0000	<b>Range</b>	978.00000
		<b>Interquartile Range</b>	90.00000

Tests for Location: Mu0=0				
Test		Statistic	p Value	
<b>Student's t</b>	<b>t</b>	3554.123	<b>Pr &gt;  t </b>	<.0001
<b>Sign</b>	<b>M</b>	364535.5	<b>Pr &gt;=  M </b>	<.0001
<b>Signed Rank</b>	<b>S</b>	1.329E11	<b>Pr &gt;=  S </b>	<.0001

Tests for Normality				
Test		Statistic	p Value	
<b>Kolmogorov-Smirnov</b>	<b>D</b>	0.12973	<b>Pr &gt; D</b>	<0.0100
<b>Cramer-von Mises</b>	<b>W-Sq</b>	2432.845	<b>Pr &gt; W-Sq</b>	<0.0050
<b>Anderson-Darling</b>	<b>A-Sq</b>	15931.22	<b>Pr &gt; A-Sq</b>	<0.0050

Quantiles (Definition 5)	
Level	Quantile
<b>100% Max</b>	1078
<b>99%</b>	445
<b>95%</b>	385
<b>90%</b>	385
<b>75% Q3</b>	315
<b>50% Median</b>	295
<b>25% Q1</b>	225
<b>10%</b>	205
<b>5%</b>	185
<b>1%</b>	175
<b>0% Min</b>	100

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
100	171820	1078	673628
100	171819	1078	673629
100	171818	1078	673630
100	171817	1078	673631
100	171816	1078	673632



### The SAS System

The UNIVARIATE Procedure  
Variable: tsize\_ratio (tsize\_ratio)

Moments			
<b>N</b>	729071	<b>Sum Weights</b>	729071
<b>Mean</b>	69.5503799	<b>Sum Observations</b>	50707165
<b>Std Deviation</b>	12.9522439	<b>Variance</b>	167.760623
<b>Skewness</b>	0.38727277	<b>Kurtosis</b>	-0.1428145
<b>Uncorrected SS</b>	3649011825	<b>Corrected SS</b>	122309237
<b>Coeff Variation</b>	18.6228227	<b>Std Error Mean</b>	0.01516911

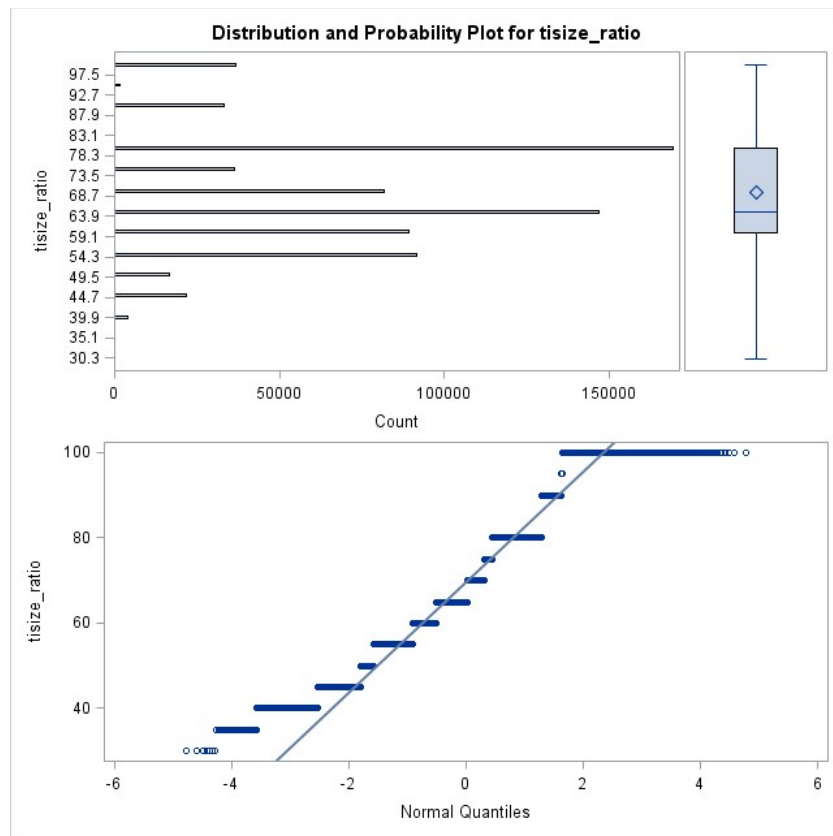
Basic Statistical Measures			
Location		Variability	
<b>Mean</b>	69.55038	<b>Std Deviation</b>	12.95224
<b>Median</b>	65.00000	<b>Variance</b>	167.76062
<b>Mode</b>	80.00000	<b>Range</b>	70.00000
		<b>Interquartile Range</b>	20.00000

Tests for Location: Mu0=0				
Test		Statistic	p Value	
<b>Student's t</b>	<b>t</b>	4585.001	<b>Pr &gt;  t </b>	<.0001
<b>Sign</b>	<b>M</b>	364535.5	<b>Pr &gt;=  M </b>	<.0001
<b>Signed Rank</b>	<b>S</b>	1.329E11	<b>Pr &gt;=  S </b>	<.0001

Tests for Normality				
Test		Statistic	p Value	
<b>Kolmogorov-Smirnov</b>	<b>D</b>	0.145372	<b>Pr &gt; D</b>	<0.0100
<b>Cramer-von Mises</b>	<b>W-Sq</b>	2167.778	<b>Pr &gt; W-Sq</b>	<0.0050
<b>Anderson-Darling</b>	<b>A-Sq</b>	12820.22	<b>Pr &gt; A-Sq</b>	<0.0050

Quantiles (Definition 5)	
Level	Quantile
<b>100% Max</b>	100
<b>99%</b>	100
<b>95%</b>	100
<b>90%</b>	80
<b>75% Q3</b>	80
<b>50% Median</b>	65
<b>25% Q1</b>	60
<b>10%</b>	55
<b>5%</b>	50
<b>1%</b>	45
<b>0% Min</b>	30

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
30	511021	100	725742
30	511020	100	725743
30	511019	100	725744
30	511018	100	725745
30	511017	100	725746





## The SAS System

The UNIVARIATE Procedure  
Variable: td\_mean1

Moments			
<b>N</b>	740556	<b>Sum Weights</b>	740556
<b>Mean</b>	10.7119143	<b>Sum Observations</b>	7932772.4
<b>Std Deviation</b>	7.36448545	<b>Variance</b>	54.2356459
<b>Skewness</b>	5.89946015	<b>Kurtosis</b>	59.6207873
<b>Uncorrected SS</b>	125139657	<b>Corrected SS</b>	40164478.7
<b>Coeff Variation</b>	68.7504142	<b>Std Error Mean</b>	0.00855783

Basic Statistical Measures			
Location		Variability	
<b>Mean</b>	10.71191	<b>Std Deviation</b>	7.36449
<b>Median</b>	9.36667	<b>Variance</b>	54.23565
<b>Mode</b>	9.40000	<b>Range</b>	114.10000
		<b>Interquartile Range</b>	6.75835

Tests for Location: Mu0=0				
Test	Statistic		p Value	
<b>Student's t</b>	<b>t</b>	1251.71	<b>Pr &gt;  t </b>	<.0001
<b>Sign</b>	<b>M</b>	370100.5	<b>Pr &gt;=  M </b>	<.0001
<b>Signed Rank</b>	<b>S</b>	1.37E11	<b>Pr &gt;=  S </b>	<.0001

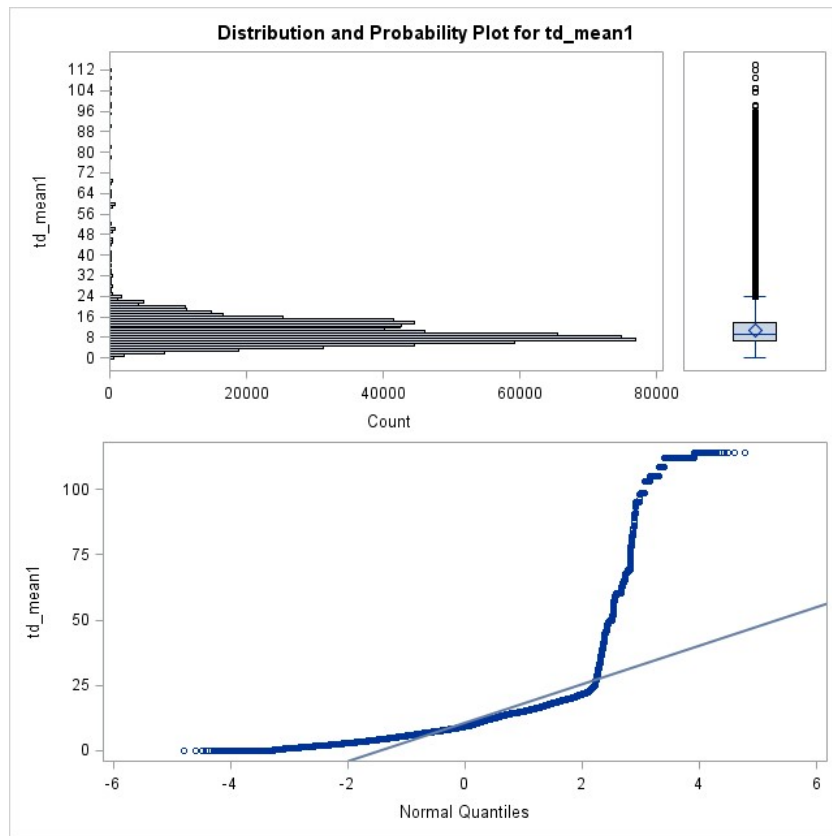
Tests for Normality				
Test	Statistic		p Value	
<b>Kolmogorov-Smirnov</b>	<b>D</b>	0.124065	<b>Pr &gt; D</b>	<0.0100
<b>Cramer-von Mises</b>	<b>W-Sq</b>	5461.249	<b>Pr &gt; W-Sq</b>	<0.0050
<b>Anderson-Darling</b>	<b>A-Sq</b>	35983.82	<b>Pr &gt; A-Sq</b>	<0.0050

Quantiles (Definition 5)	
Level	Quantile
<b>100% Max</b>	114.00000
<b>99%</b>	36.46800
<b>95%</b>	19.17250
<b>90%</b>	16.60500
<b>75% Q3</b>	13.55835
<b>50% Median</b>	9.36667
<b>25% Q1</b>	6.80000
<b>10%</b>	4.83333
<b>5%</b>	3.78889
<b>1%</b>	2.20938
<b>0% Min</b>	-0.10000

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
-0.1	491433	114	716145
0.0	710139	114	716147
0.0	695122	114	716163
0.0	695098	114	716165
0.0	695082	114	716167

Missing Values		
Missing		Percent Of

Value	Count	All Obs	Missing Obs
.	22	0.00	100.00



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**The SAS System****The SURVEYSELECT Procedure**

<b>Selection Method</b>	Simple Random Sampling
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<b>Input Data Set</b>	TIRES1
<b>Random Number Seed</b>	190708000
<b>Sampling Rate</b>	0.8
<b>Sample Size</b>	549804
<b>Selection Probability</b>	0.800001
<b>Sampling Weight</b>	0
<b>Output Data Set</b>	SAMPLE

### The SAS System

The REG Procedure  
Model: MODEL1  
Dependent Variable: td\_mean1

Number of Observations Read	549804
Number of Observations Used	100521
Number of Observations with Missing Values	449283

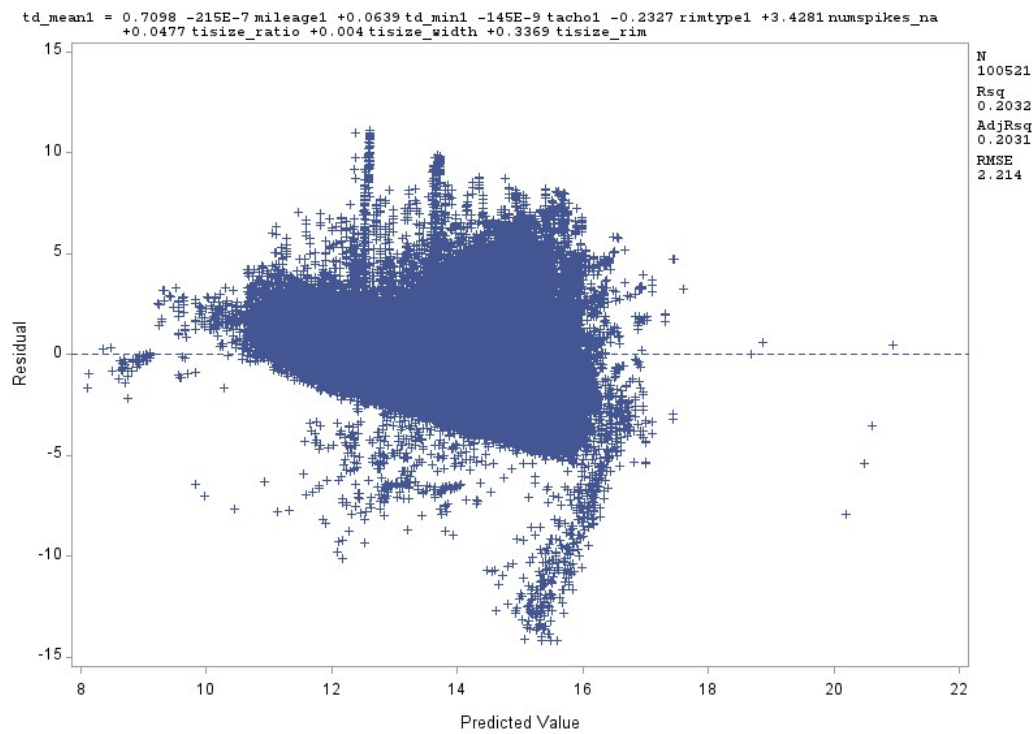
Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	8	125625	15703	3203.49	<.0001
Error	100512	492699	4.90189		
Corrected Total	100520	618325			

Root MSE	2.21402	R-Square	0.2032
Dependent Mean	14.13515	Adj R-Sq	0.2031
Coeff Var	15.66324		

Parameter Estimates								
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr >  t	Tolerance	Variance Inflation
Intercept	Intercept	1	0.70984	0.23085	3.07	0.0021	.	0
mileage1		1	-0.00002145	1.641275E-7	-130.70	<.0001	0.91009	1.09879
td_min1		1	0.06388	0.00351	18.21	<.0001	0.97041	1.03049
tacho1		1	-1.4465E-7	2.255545E-8	-6.41	<.0001	0.95268	1.04967
rimtype1		1	-0.23269	0.00732	-31.79	<.0001	0.94410	1.05921
numspikes_na	numspikes_na	1	3.42810	0.20692	16.57	<.0001	0.96318	1.03822
tisize_ratio	tisize_ratio	1	0.04774	0.00084440	56.54	<.0001	0.57653	1.73451
tisize_width	tisize_width	1	0.00403	0.00021083	19.12	<.0001	0.47417	2.10894
tisize_rim	tisize_rim	1	0.33685	0.00589	57.20	<.0001	0.73438	1.36170

Collinearity Diagnostics											
Number	Eigenvalue	Condition Index	Proportion of Variation								
			Intercept	mileage1	td_min1	tacho1	rimtype1	numspikes_na	tisize_ratio	tisize_width	tisize_rim
1	7.39437	1.00000	0.00001645	0.00470	0.00443	0.00504	0.00051247	0.00002049	0.00021708	0.00017717	0.00005175
2	0.68257	3.29136	0.00000213	0.03101	0.89882	0.01583	0.00017470	0.00000314	0.00001762	0.00005252	0.00000940
3	0.46024	4.00827	0.00005787	0.16636	0.04291	0.61274	0.00282	0.00007235	0.00086441	0.00057720	0.00014825
4	0.39748	4.31315	0.00000416	0.71924	0.01471	0.34513	0.00056666	0.00000513	0.00015320	0.00000380	0.00000856
5	0.03383	14.78327	0.00000827	0.02403	0.00368	0.00110	0.00027191	0.00000783	0.19359	0.13577	0.00060135
6	0.02454	17.35960	0.00101	0.04340	0.02167	0.00055363	0.97289	0.00124	0.01936	0.01860	0.00538
7	0.00419	42.00781	0.03172	0.00103	0.00508	0.00219	0.00581	0.05680	0.76816	0.75354	0.04723
8	0.00221	57.78109	0.03617	0.00949	0.00006402	0.01700	0.01625	0.09144	0.00105	0.08624	0.92744
9	0.00056440	114.46081	0.93101	0.00074148	0.00864	0.00040571	0.00069720	0.85042	0.01658	0.00504	0.01913

## The REG Procedure



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**The SAS System****The SURVEYSELECT Procedure**

<b>Selection Method</b>	Simple Random Sampling
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<b>Input Data Set</b>	TIRES1
<b>Random Number Seed</b>	598769001
<b>Sampling Rate</b>	0.8
<b>Sample Size</b>	443444
<b>Selection Probability</b>	0.800001
<b>Sampling Weight</b>	0
<b>Output Data Set</b>	SAMPLE

## The SAS System

The REG Procedure  
Model: MODEL1  
Dependent Variable: td\_mean1

Number of Observations Read	443444
Number of Observations Used	97338
Number of Observations with Missing Values	346106

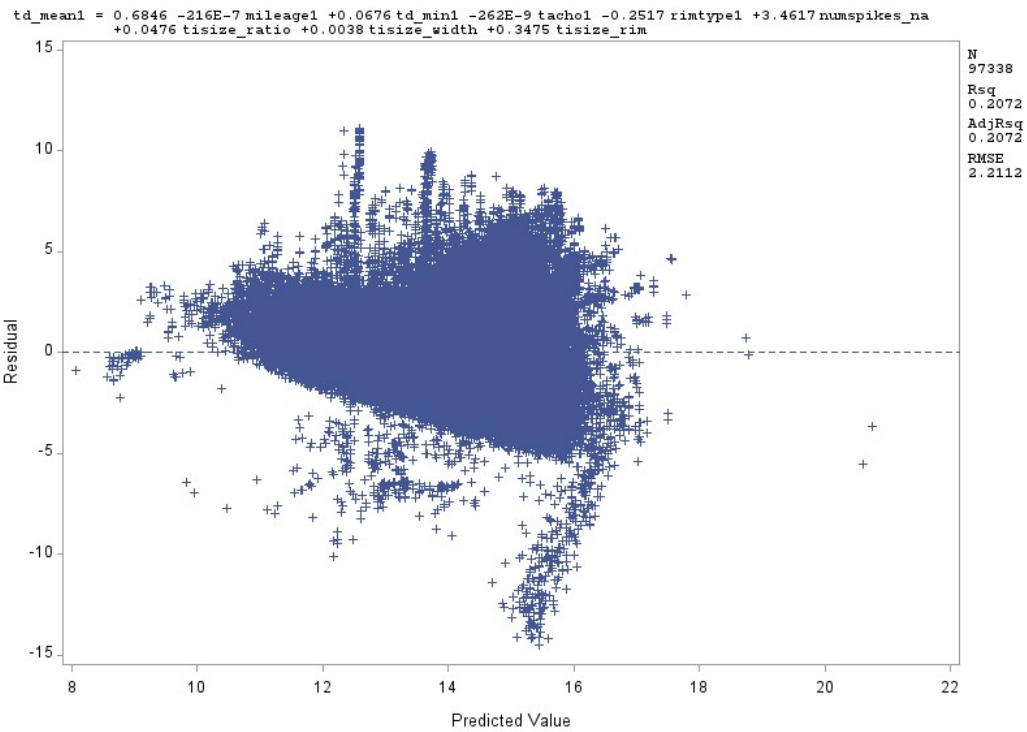
Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	8	124401	15550	3180.27	<.0001
Error	97329	475898	4.88958		
Corrected Total	97337	600299			

Root MSE	2.21124	R-Square	0.2072
Dependent Mean	14.14523	Adj R-Sq	0.2072
Coeff Var	15.63240		

Parameter Estimates								
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr >  t	Tolerance	Variance Inflation
Intercept	Intercept	1	0.68460	0.22825	3.00	0.0027	.	0
mileage1		1	-0.00002160	1.675031E-7	-128.93	<.0001	0.90536	1.10453
td_min1		1	0.06759	0.00355	19.03	<.0001	0.96818	1.03287
tacho1		1	-2.61634E-7	3.150461E-8	-8.30	<.0001	0.93467	1.06989
rimtype1		1	-0.25172	0.00742	-33.92	<.0001	0.94080	1.06292
numspikes_na	numspikes_na	1	3.46173	0.20352	17.01	<.0001	0.96099	1.04059
tisize_ratio	tisize_ratio	1	0.04755	0.00085312	55.74	<.0001	0.58008	1.72389
tisize_width	tisize_width	1	0.00377	0.00021302	17.72	<.0001	0.47365	2.11124
tisize_rim	tisize_rim	1	0.34748	0.00599	58.05	<.0001	0.72120	1.38658

Collinearity Diagnostics											
Number	Eigenvalue	Condition Index	Proportion of Variation								
			Intercept	mileage1	td_min1	tacho1	rimtype1	numspikes_na	tisize_ratio	tisize_width	tisize_rim
1	7.49475	1.00000	0.00001689	0.00455	0.00429	0.00440	0.00050004	0.00002125	0.00021363	0.00017406	0.00005032
2	0.68234	3.31419	0.00000299	0.03158	0.90801	0.00483	0.00021752	0.00000439	0.00002485	0.00006542	0.00001177
3	0.42698	4.18965	0.00005754	0.71967	0.04626	0.05617	0.00337	0.00007248	0.00101	0.00042238	0.00013205
4	0.33027	4.76368	0.00001850	0.16667	0.00089286	0.90075	0.00048286	0.00002337	0.00017687	0.00028888	0.00004308
5	0.03402	14.84197	0.00000911	0.02403	0.00359	0.00031919	0.00027110	0.00000866	0.19423	0.13638	0.00062216
6	0.02457	17.46397	0.00107	0.04402	0.02287	0.00157	0.97149	0.00131	0.02007	0.01909	0.00536
7	0.00424	42.03821	0.03333	0.00073879	0.00504	0.00527	0.00677	0.06178	0.76454	0.74268	0.04369
8	0.00222	58.08203	0.03539	0.00794	0.00003487	0.02617	0.01632	0.09658	0.00179	0.09568	0.92883
9	0.00060026	111.74024	0.93011	0.00080236	0.00901	0.00052253	0.00056577	0.84020	0.01795	0.00521	0.02127

## The REG Procedure





## The SAS System

## The CORR Procedure

**11 Variables:** Year Month Day mileage1 td\_min1 tachometer1 rimtype1 numspikes\_na tsize\_ratio tsize\_width tsize\_rim

## Covariance Matrix, DF = 121697

		Year	Month	Day	mileage1	td_min1	tachometer1	rimtype1	numspikes_na	tsize_ratio	tsize_width	tsize_rim
<b>Year</b>		30	-0	-1	41142	1	15702	-3	-0	1	-33	-0
<b>Month</b>		-0	12	-0	-819	1	-9161	-0	0	-1	3	-0
<b>Day</b>		-1	-0	74	-8902	-0	-45916	0	-0	2	5	-0
<b>mileage1</b>		41142	-819	-8902	1967337520	-3397	1802663321	-6652	53	-56583	329666	12582
<b>td_min1</b>		1	1	-0	-3397	4	11096	-0	-0	1	-8	-0
<b>tachometer1</b>		15702	-9161	-45916	1802663321	11096	54327273674	-6616	162	-15470	109037	61531
<b>rimtype1</b>		-3	-0	0	-6652	-0	-6616	1	0	0	2	-0
<b>numspikes_na</b>	numspikes_na	-0	0	-0	53	-0	162	0	0	0	0	0
<b>tsize_ratio</b>	tsize_ratio	1	-1	2	-56583	1	-15470	0	0	119	-327	-2
<b>tsize_width</b>	tsize_width	-33	3	5	329666	-8	109037	2	0	-327	2337	29
<b>tsize_rim</b>	tsize_rim	-0	-0	-0	12582	-0	61531	-0	0	-2	29	2

## Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum	Label
<b>Year</b>	121698	2002	5.50863	243597081	1900	2019	
<b>Month</b>	121698	6.45361	3.44911	785391	1.00000	12.00000	
<b>Day</b>	121698	16.00499	8.58919	1947775	1.00000	31.00000	
<b>mileage1</b>	121698	47671	44355	5801493644	0	201597	
<b>td_min1</b>	121698	1.34687	2.03495	163911	0	22.00000	
<b>tachometer1</b>	121698	296099	233082	3.60346E10	0	907389	
<b>rimtype1</b>	121698	5.47922	0.98344	666810	1.00000	6.00000	
<b>numspikes_na</b>	121698	0.99870	0.03601	121540	0	1.00000	numspikes_na
<b>tsize_ratio</b>	121698	73.61616	10.90994	8958940	40.00000	100.00000	tsize_ratio
<b>tsize_width</b>	121698	327.56539	48.34718	39864053	171.50000	1078	tsize_width
<b>tsize_rim</b>	121698	22.05896	1.39679	2684532	12.00000	25.00000	tsize_rim

## Pearson Correlation Coefficients, N = 121698

	Year	Month	Day	mileage1	td_min1	tachometer1	rimtype1	numspikes_na	tsize_ratio	tsize_width	tsize_rim
<b>Year</b>	1.00000	-0.02559	-0.02604	0.16838	0.12901	0.01223	-0.54090	-0.05700	0.01742	-0.12337	-0.06187
<b>Month</b>	-0.02559	1.00000	-0.00887	-0.00535	0.08108	-0.01140	-0.01718	0.02572	-0.02214	0.01954	-0.00898
<b>Day</b>	-0.02604	-0.00887	1.00000	-0.02337	-0.01374	-0.02294	0.02432	-0.00293	0.01854	0.01187	-0.01650
<b>mileage1</b>	0.16838	-0.00535	-0.02337	1.00000	-0.03764	0.17437	-0.15249	0.03324	-0.11693	0.15373	0.20309
<b>td_min1</b>	0.12901	0.08108	-0.01374	-0.03764	1.00000	0.02339	-0.13733	-0.07937	0.02635	-0.08238	-0.03587
<b>tachometer1</b>	0.01223	-0.01140	-0.02294	0.17437	0.02339	1.00000	-0.02886	0.01933	-0.00608	0.00968	0.18900
<b>rimtype1</b>	-0.54090	-0.01718	0.02432	-0.15249	-0.13733	-0.02886	1.00000	0.08115	0.03243	0.04968	-0.01299
<b>numspikes_na</b> numspikes_na	-0.05700	0.02572	-0.00293	0.03324	-0.07937	0.01933	0.08115	1.00000	0.03851	0.07673	0.15109
<b>tsize_ratio</b> tsize_ratio	0.01742	-0.02214	0.01854	-0.11693	0.02635	-0.00608	0.03243	0.03851	1.00000	-0.62057	-0.12378
<b>tsize_width</b> tsize_width	-0.12337	0.01954	0.01187	0.15373	-0.08238	0.00968	0.04968	0.07673	-0.62057	1.00000	0.43545
<b>tsize_rim</b> tsize_rim	-0.06187	-0.00898	-0.01650	0.20309	-0.03587	0.18900	-0.01299	0.15109	-0.12378	0.43545	1.00000

## The SAS System

The REG Procedure  
 Model: MODEL1  
 Dependent Variable: td\_mean1

Number of Observations Read	443444
Number of Observations Used	97338
Number of Observations with Missing Values	346106

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	7	124064	17723	3622.21	<.0001
Error	97330	476235	4.89299		
Corrected Total	97337	600299			

Root MSE	2.21201	R-Square	0.2067
Dependent Mean	14.14523	Adj R-Sq	0.2066
Coeff Var	15.63786		

Parameter Estimates								
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr >  t	Tolerance	Variance Inflation
Intercept	Intercept	1	0.74599	0.22821	3.27	0.0011	.	0
mileage1		1	-0.00002180	1.657413E-7	-131.54	<.0001	0.92536	1.08066
td_min1		1	0.06671	0.00355	18.79	<.0001	0.96906	1.03193
rimtype1		1	-0.25221	0.00742	-33.98	<.0001	0.94086	1.06286
numspikes_na	numspikes_na	1	3.46787	0.20359	17.03	<.0001	0.96100	1.04058
tisize_ratio	tisize_ratio	1	0.04780	0.00085290	56.04	<.0001	0.58079	1.72178
tisize_width	tisize_width	1	0.00394	0.00021218	18.56	<.0001	0.47774	2.09318
tisize_rim	tisize_rim	1	0.33827	0.00588	57.49	<.0001	0.74679	1.33907

Collinearity Diagnostics										
Number	Eigenvalue	Condition Index	Proportion of Variation							
			Intercept	mileage1	td_min1	rimtype1	numspikes_na	tisize_ratio	tisize_width	tisize_rim
1	6.83563	1.00000	0.00002042	0.00556	0.00526	0.00060465	0.00002567	0.00025843	0.00021215	0.00006286
2	0.67885	3.17323	0.00000509	0.03294	0.91176	0.00031994	0.00000722	0.00004738	0.00009715	0.00001899
3	0.41973	4.03558	0.00003930	0.87385	0.04173	0.00259	0.00004940	0.00075001	0.00024888	0.00009131
4	0.03403	14.17220	0.00000878	0.02341	0.00371	0.00035148	0.00000830	0.19417	0.13776	0.00063415
5	0.02461	16.66576	0.00105	0.04824	0.02330	0.97242	0.00129	0.01939	0.01906	0.00560
6	0.00426	40.03654	0.03196	0.00171	0.00533	0.00627	0.05920	0.76650	0.75432	0.05033
7	0.00228	54.74757	0.03716	0.01327	0.00000696	0.01690	0.09799	0.00061553	0.08264	0.92287
8	0.00060057	106.68619	0.92975	0.00102	0.00890	0.00055147	0.84143	0.01827	0.00567	0.02039

## The REG Procedure

