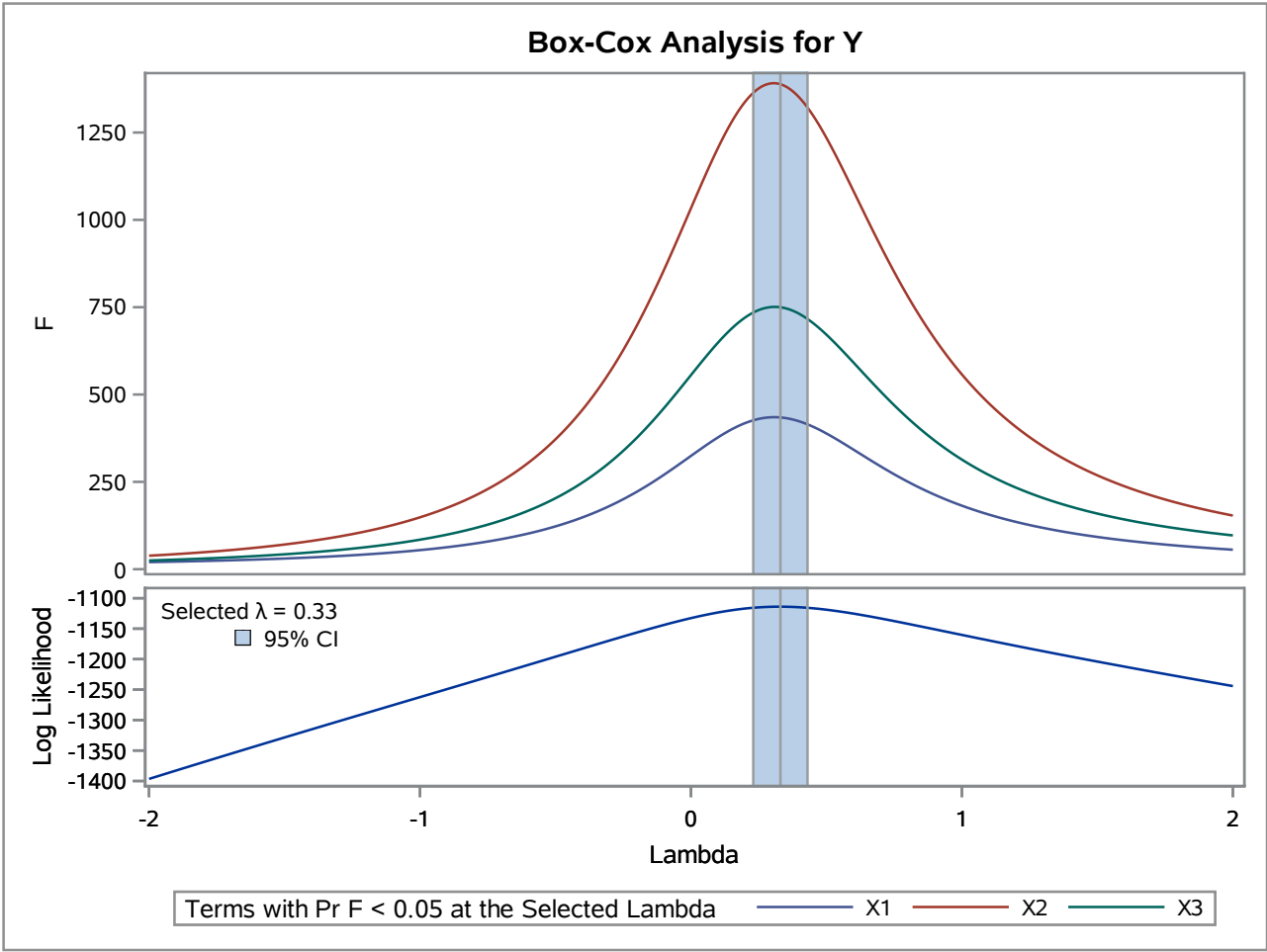


The TRANSREG Procedure



Model Statement Specification Details				
Type	DF	Variable	Description	Value
Dep	1	BoxCox(Y)	Lambda Used	0.33
			Lambda	0.33
			Log Likelihood	-1113.9
			Conv. Lambda	
			Conv. Lambda LL	
			CI Limit	-1115.8
			Alpha	0.05
Ind	1	Identity(X1)	DF	1
Ind	1	Identity(X2)	DF	1
Ind	1	Identity(X3)	DF	1

**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: TY Y Transformation**

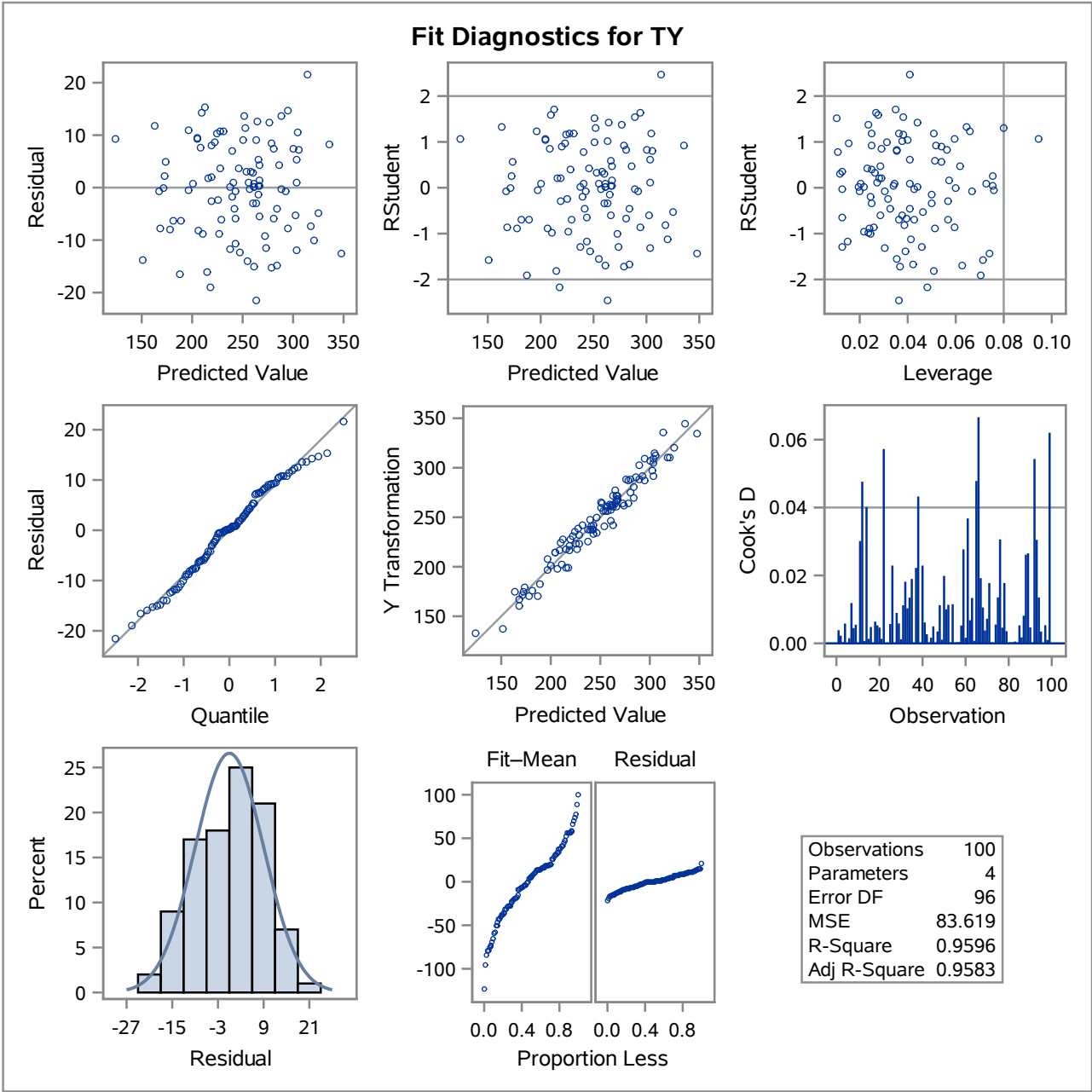
Number of Observations Read	100
Number of Observations Used	100

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	190475	63492	759.29	<.0001
Error	96	8027.46635	83.61944		
Corrected Total	99	198502			

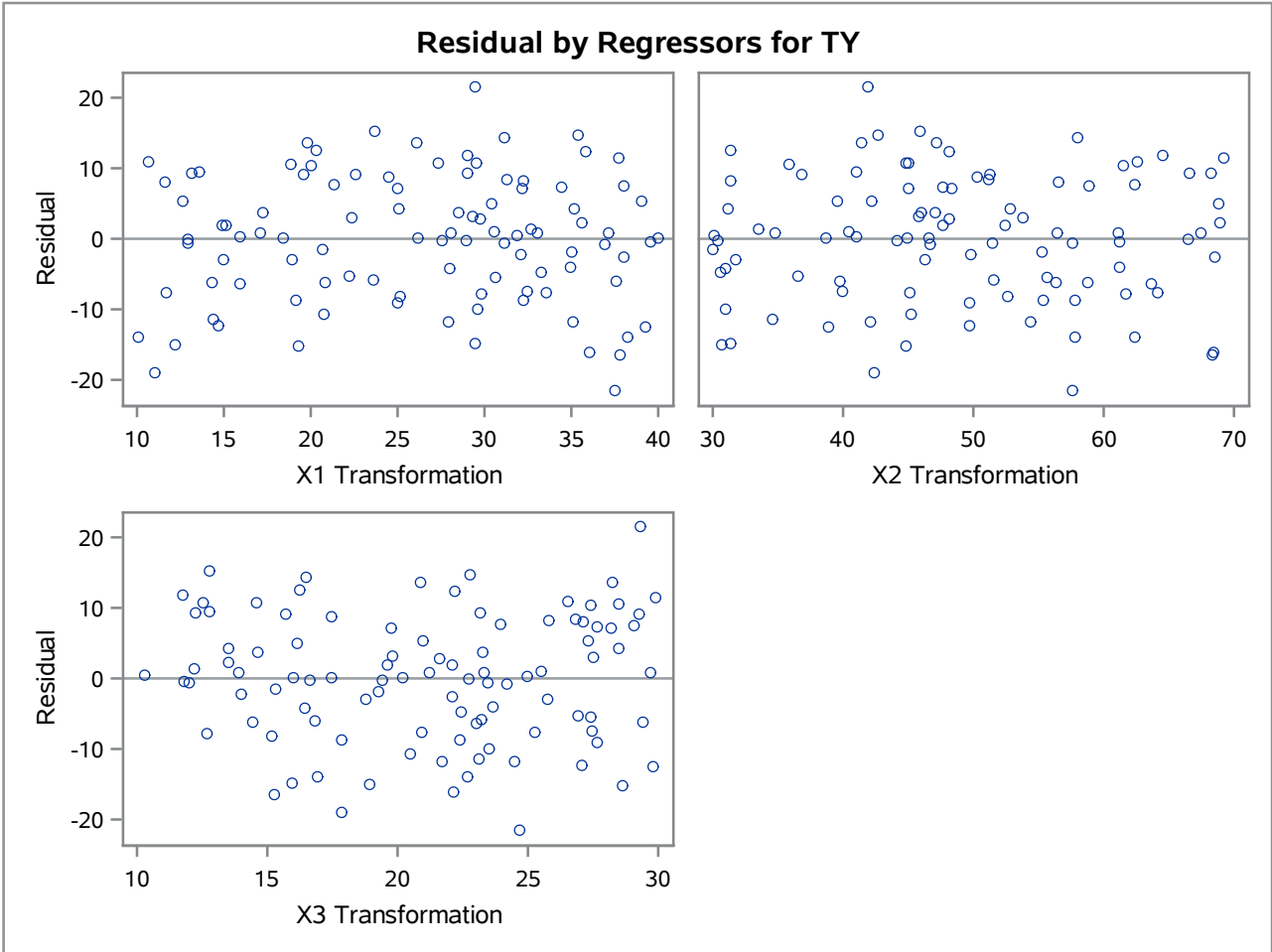
Root MSE	9.14437	R-Square	0.9596
Dependent Mean	247.15703	Adj R-Sq	0.9583
Coeff Var	3.69982		

Parameter Estimates						
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	Intercept	1	239.19831	5.84935	40.89	<.0001
TX1	X1 Transformation	1	2.23916	0.10743	20.84	<.0001
TX2	X2 Transformation	1	-3.02597	0.08121	-37.26	<.0001
TX3	X3 Transformation	1	4.62033	0.16873	27.38	<.0001

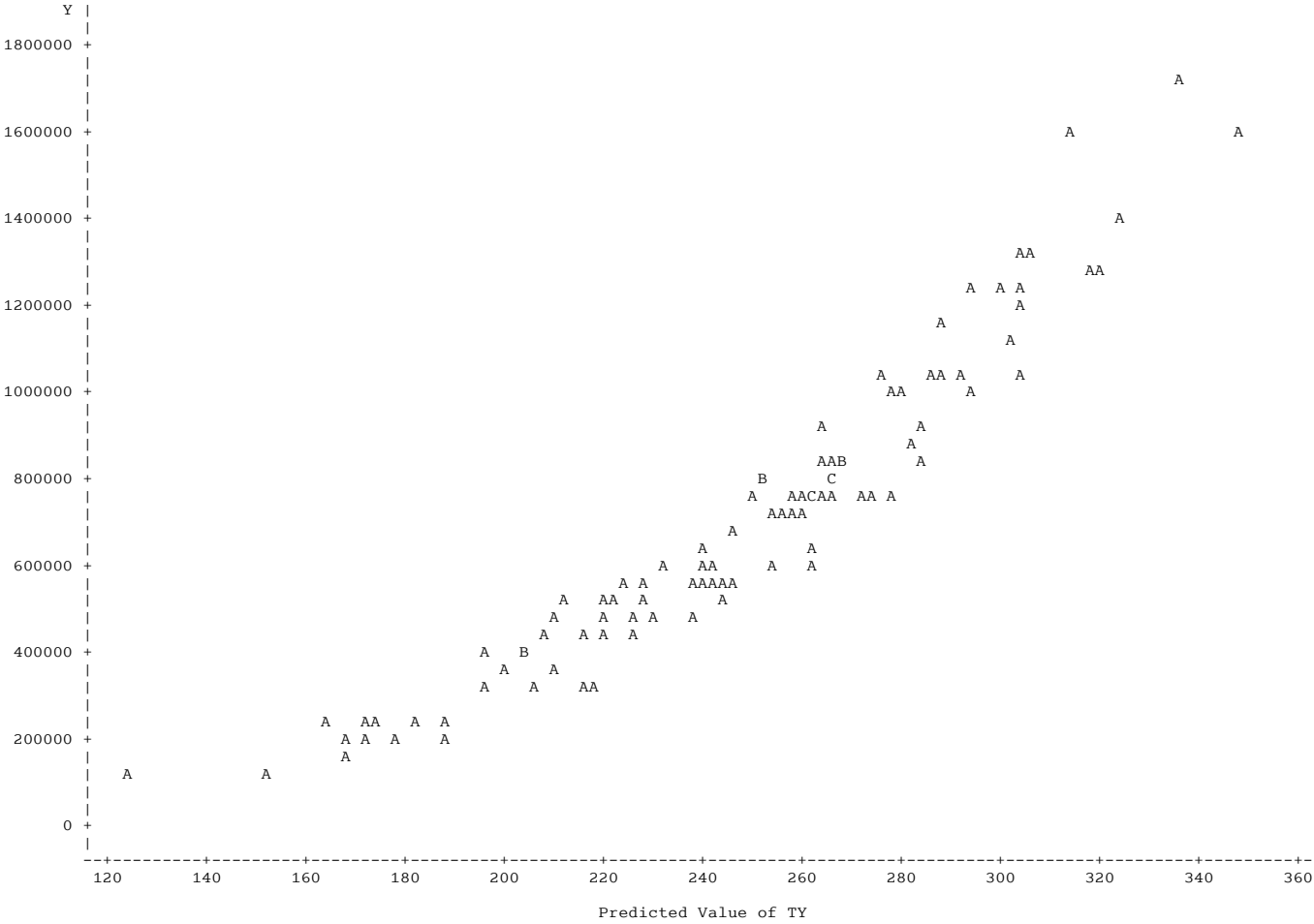
The REG Procedure  
Model: MODEL1  
Dependent Variable: TY Y Transformation

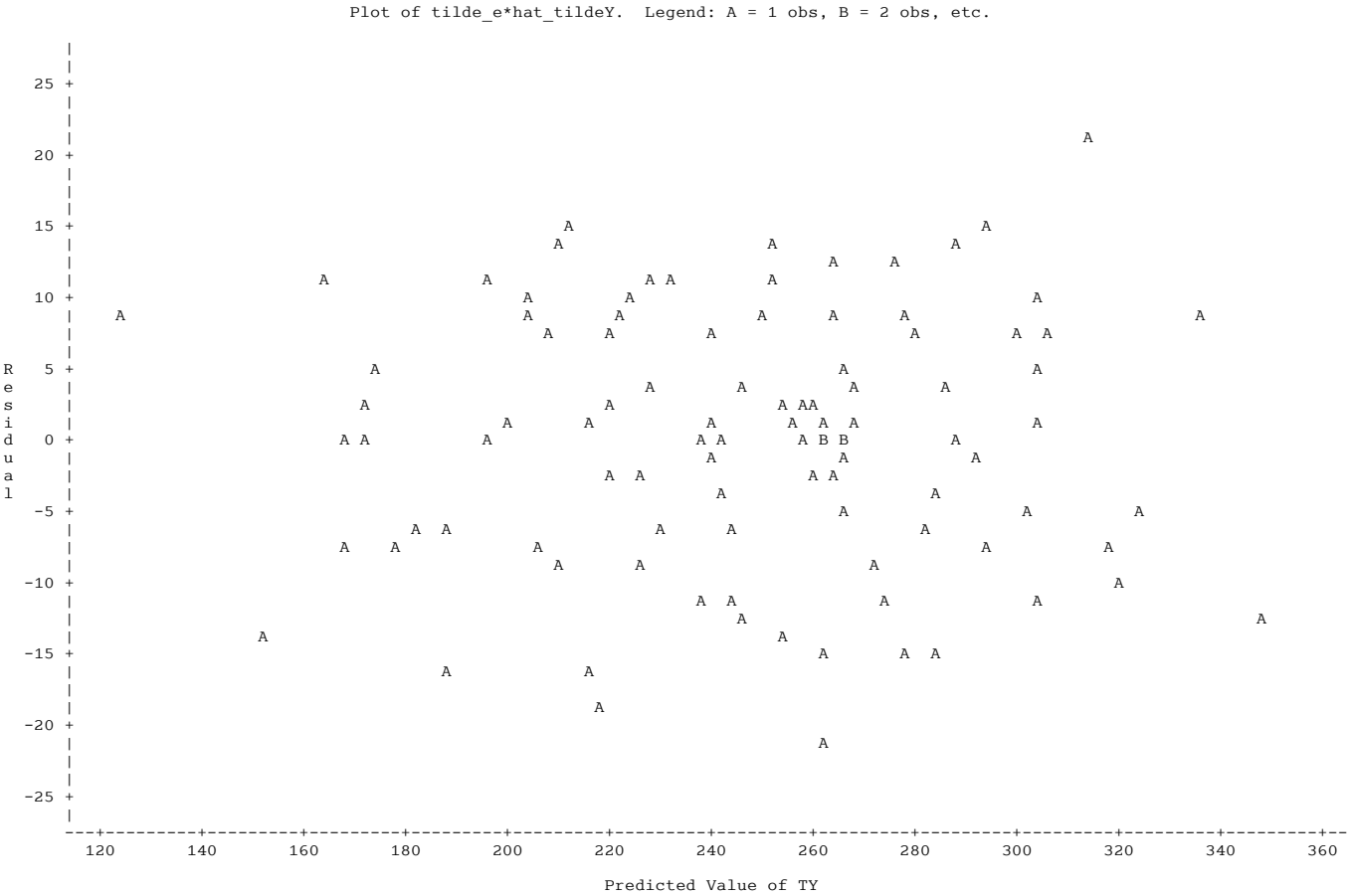


The REG Procedure  
Model: MODEL1  
Dependent Variable: TY Y Transformation



Plot of  $\hat{Y}_{\text{tilde}}$ . Legend: A = 1 obs, B = 2 obs, etc.





**The UNIVARIATE Procedure**  
**Variable: tilde\_e (Residual)**

Moments			
<b>N</b>	100	<b>Sum Weights</b>	100
<b>Mean</b>	0	<b>Sum Observations</b>	0
<b>Std Deviation</b>	9.00474978	<b>Variance</b>	81.0855187
<b>Skewness</b>	-0.1612325	<b>Kurtosis</b>	-0.5836252
<b>Uncorrected SS</b>	8027.46635	<b>Corrected SS</b>	8027.46635
<b>Coeff Variation</b>	.	<b>Std Error Mean</b>	0.90047498

Basic Statistical Measures			
Location		Variability	
<b>Mean</b>	0.000000	<b>Std Deviation</b>	9.00475
<b>Median</b>	0.241637	<b>Variance</b>	81.08552
<b>Mode</b>	.	<b>Range</b>	43.10508
		<b>Interquartile Range</b>	13.79151

Tests for Location: Mu0=0				
Test	Statistic		p Value	
<b>Student's t</b>	<b>t</b>	0	<b>Pr &gt;  t </b>	1.0000
<b>Sign</b>	<b>M</b>	4	<b>Pr &gt;=  M </b>	0.4841
<b>Signed Rank</b>	<b>S</b>	54	<b>Pr &gt;=  S </b>	0.8538

Tests for Normality				
Test	Statistic		p Value	
<b>Shapiro-Wilk</b>	<b>W</b>	0.985728	<b>Pr &lt; W</b>	0.3579
<b>Kolmogorov-Smirnov</b>	<b>D</b>	0.073927	<b>Pr &gt; D</b>	>0.1500
<b>Cramer-von Mises</b>	<b>W-Sq</b>	0.068403	<b>Pr &gt; W-Sq</b>	>0.2500
<b>Anderson-Darling</b>	<b>A-Sq</b>	0.45874	<b>Pr &gt; A-Sq</b>	>0.2500

Quantiles (Definition 5)	
Level	Quantile
<b>100% Max</b>	21.548307
<b>99%</b>	18.400058
<b>95%</b>	13.638694
<b>90%</b>	11.133787
<b>75% Q3</b>	7.505117
<b>50% Median</b>	0.241637
<b>25% Q1</b>	-6.286393

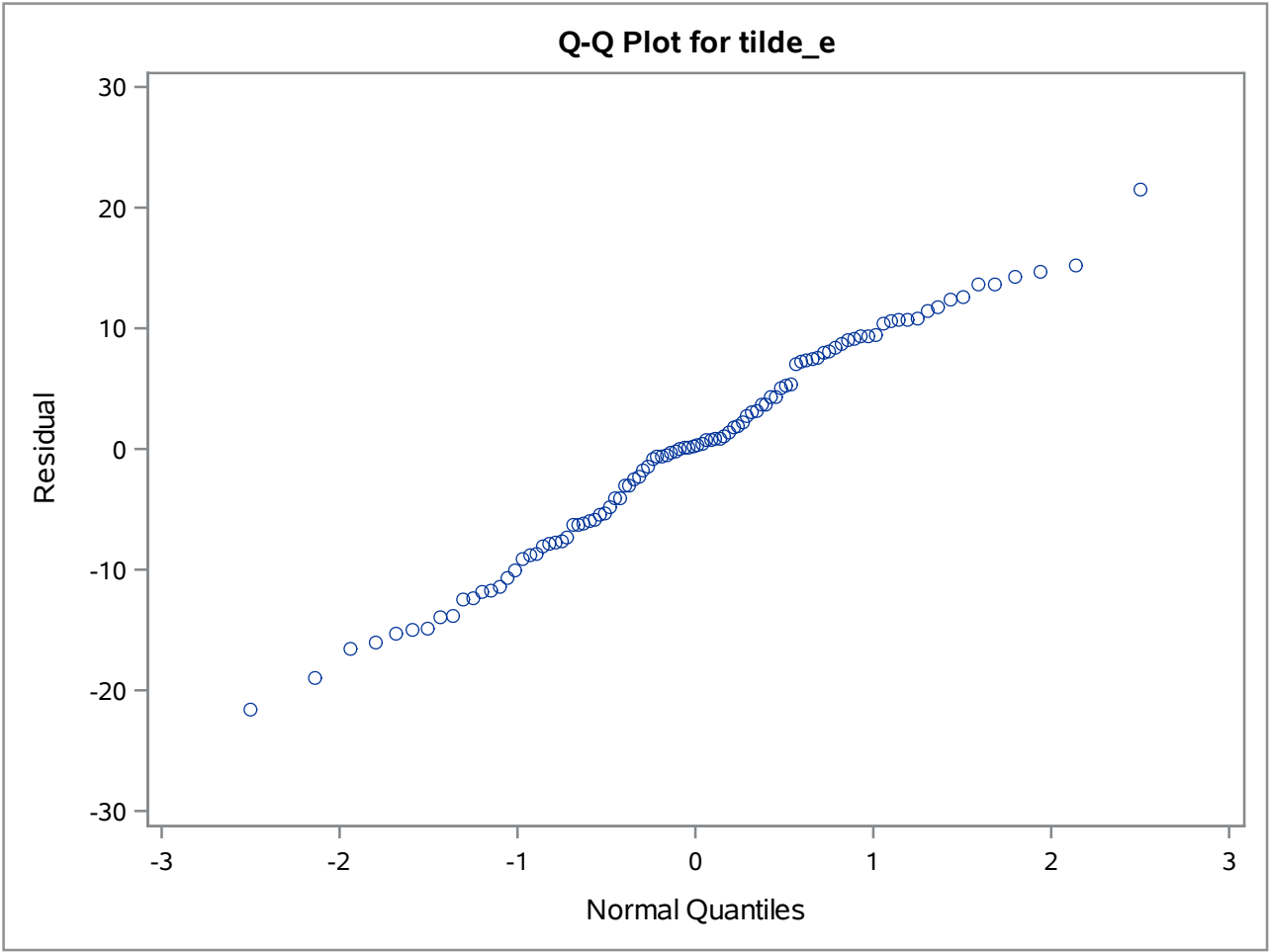
**The UNIVARIATE Procedure**  
**Variable: tilde\_e (Residual)**

Quantiles (Definition 5)	
Level	Quantile
10%	-12.410891
5%	-15.112421
1%	-20.253009
0% Min	-21.556773

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
-21.5568	92	13.6536	26
-18.9492	22	14.2779	71
-16.5513	66	14.6620	32
-16.0199	38	15.2518	88
-15.2625	59	21.5483	99



The UNIVARIATE Procedure



**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: TY Y Transformation**

Number of Observations Read	100
Number of Observations Used	100

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	190475	63492	759.29	<.0001
Error	96	8027.46635	83.61944		
Corrected Total	99	198502			

Root MSE	9.14437	R-Square	0.9596
Dependent Mean	247.15703	Adj R-Sq	0.9583
Coeff Var	3.69982		

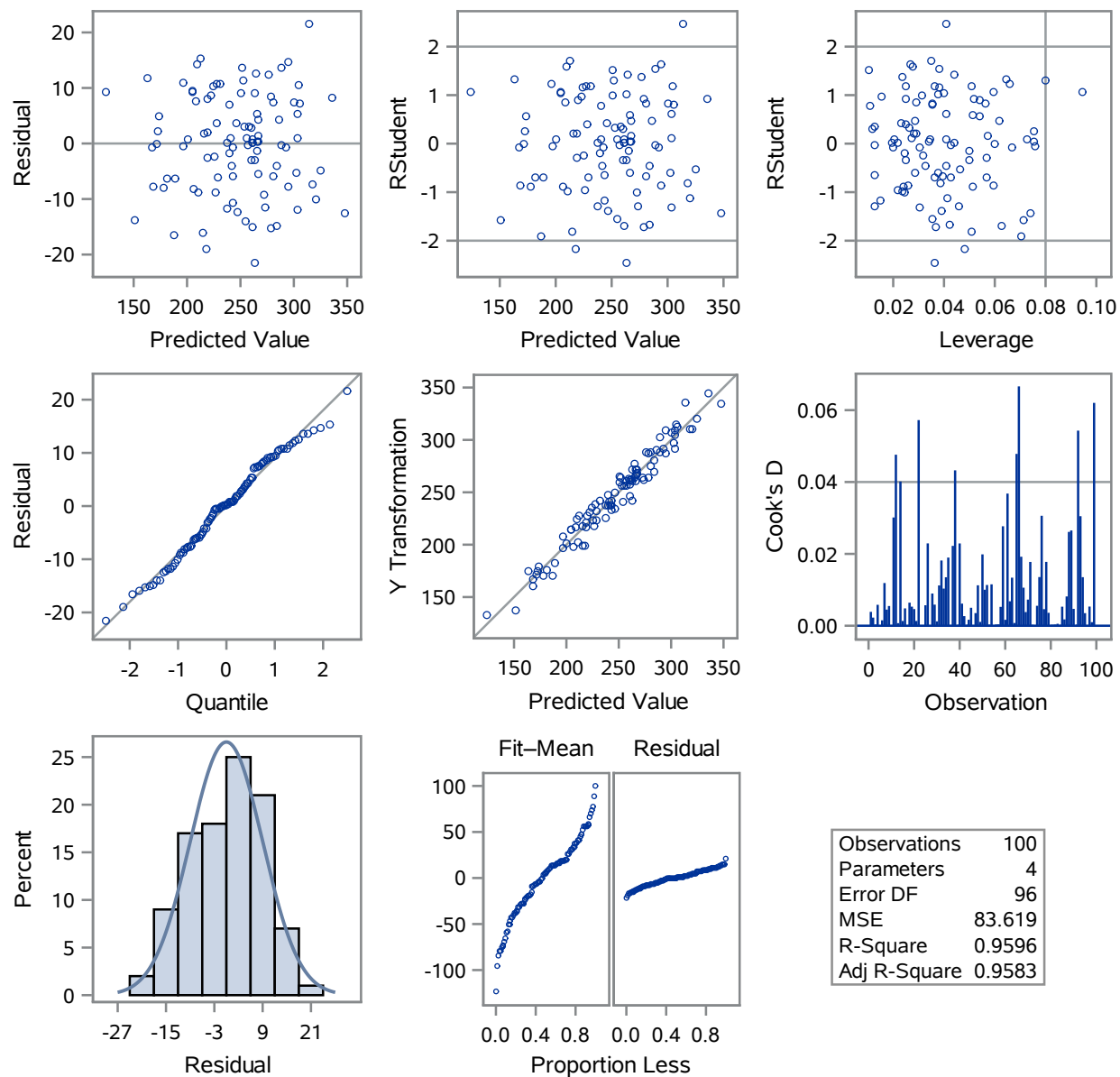
Parameter Estimates						
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	Intercept	1	239.19831	5.84935	40.89	<.0001
TX1	X1 Transformation	1	2.23916	0.10743	20.84	<.0001
TX2	X2 Transformation	1	-3.02597	0.08121	-37.26	<.0001
TX3	X3 Transformation	1	4.62033	0.16873	27.38	<.0001

**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: TY Y Transformation**

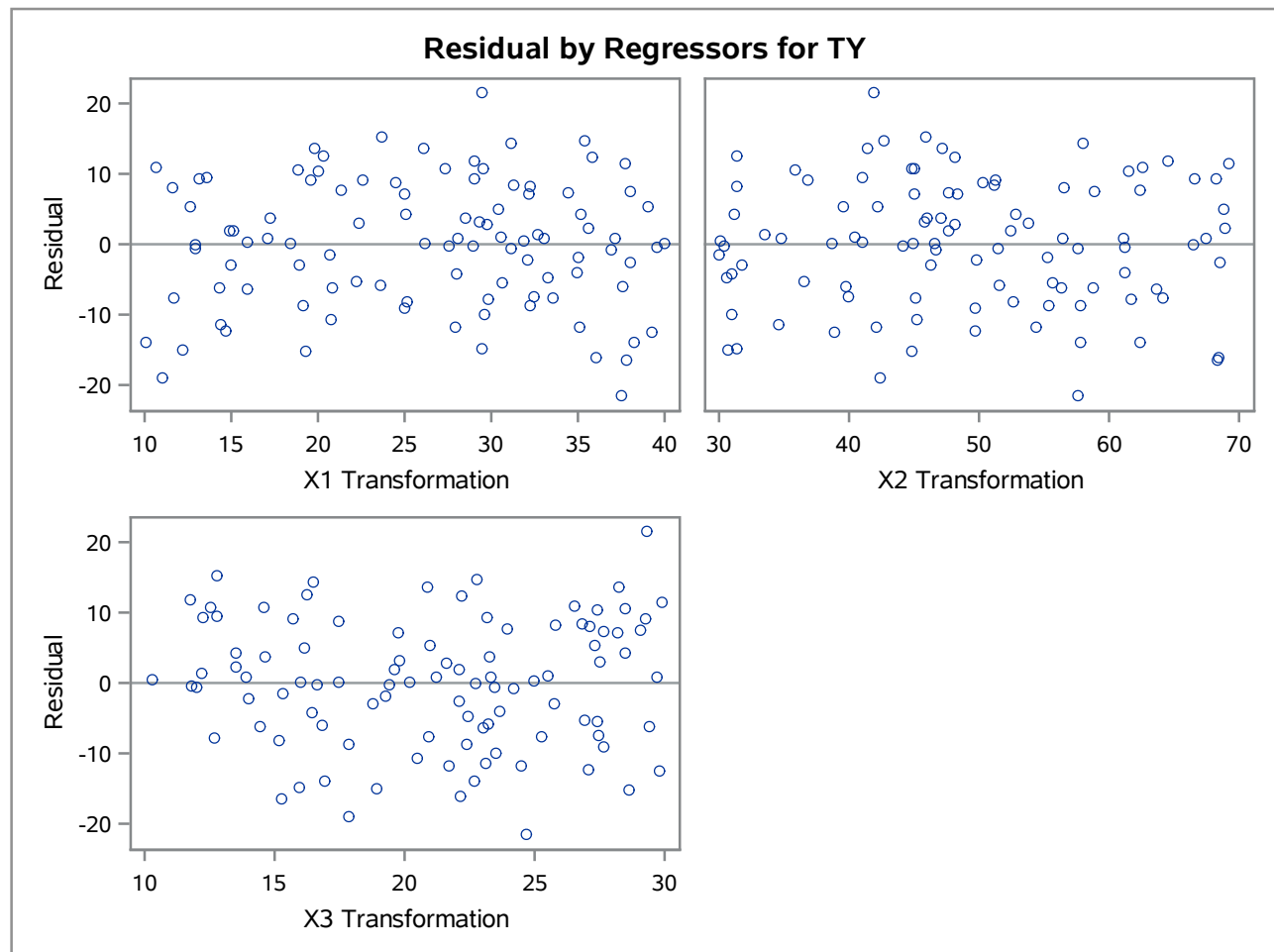
Test of First and Second Moment Specification		
DF	Chi-Square	Pr > ChiSq
9	8.19	0.5155

**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: TY Y Transformation**

**Fit Diagnostics for TY**



**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: TY Y Transformation**



**The GLMSELECT Procedure**

<b>Data Set</b>	WORK.PROBLEM2
<b>Dependent Variable</b>	Y
<b>Selection Method</b>	Stepwise
<b>Select Criterion</b>	SBC
<b>Stop Criterion</b>	SBC
<b>Effect Hierarchy Enforced</b>	None

<b>Number of Observations Read</b>	2000
<b>Number of Observations Used</b>	2000

Class Level Information		
Class	Levels	Values
<b>X26</b>	5	Erath Monroe Schleich Sutton TomGreen
<b>X33</b>	5	ExtraLar ExtraSma Large Medium Small
<b>X40</b>	5	Blue Green Orange Red Yellow

Dimensions	
<b>Number of Effects</b>	41
<b>Number of Parameters</b>	53

### The GLMSELECT Procedure

Stepwise Selection Summary					
Step	Effect Entered	Effect Removed	Number Effects In	Number Params In	SBC
0	Intercept		1	1	15908.9724
1	X39		2	2	11980.8580
2	X16		3	3	11228.6993
3	X33		4	7	10128.0700*
* Optimal Value of Criterion					

Selection stopped at a local minimum of the SBC criterion.

Stop Details				
Candidate For	Effect	Candidate SBC		Compare SBC
Entry	X18	10131.7061	>	10128.0700
Removal	X33	11228.6993	>	10128.0700

### The GLMSELECT Procedure Selected Model

The selected model is the model at the last step (Step 3).

<b>Effects:</b>	Intercept X16 X33 X39
-----------------	-----------------------

Analysis of Variance				
Source	DF	Sum of Squares	Mean Square	F Value
Model	6	5366893	894482	5785.22
Error	1993	308148	154.61498	
Corrected Total	1999	5675040		

Root MSE	12.43443
Dependent Mean	95.68722
R-Square	0.9457
Adj R-Sq	0.9455
AIC	12091
AICC	12091
SBC	10128

Parameter Estimates				
Parameter	DF	Estimate	Standard Error	t Value
Intercept	1	-22.542150	0.921147	-24.47
X16	1	4.873465	0.121613	40.07
X33 ExtraLar	1	22.202187	0.875088	25.37
X33 ExtraSma	1	0.526099	0.866893	0.61
X33 Large	1	21.875775	0.887294	24.65
X33 Medium	1	22.667239	0.873461	25.95
X33 Small	0	0	.	.
X39	1	17.002792	0.095274	178.46