

The REG Procedure
Model: model_1
Dependent Variable: Y

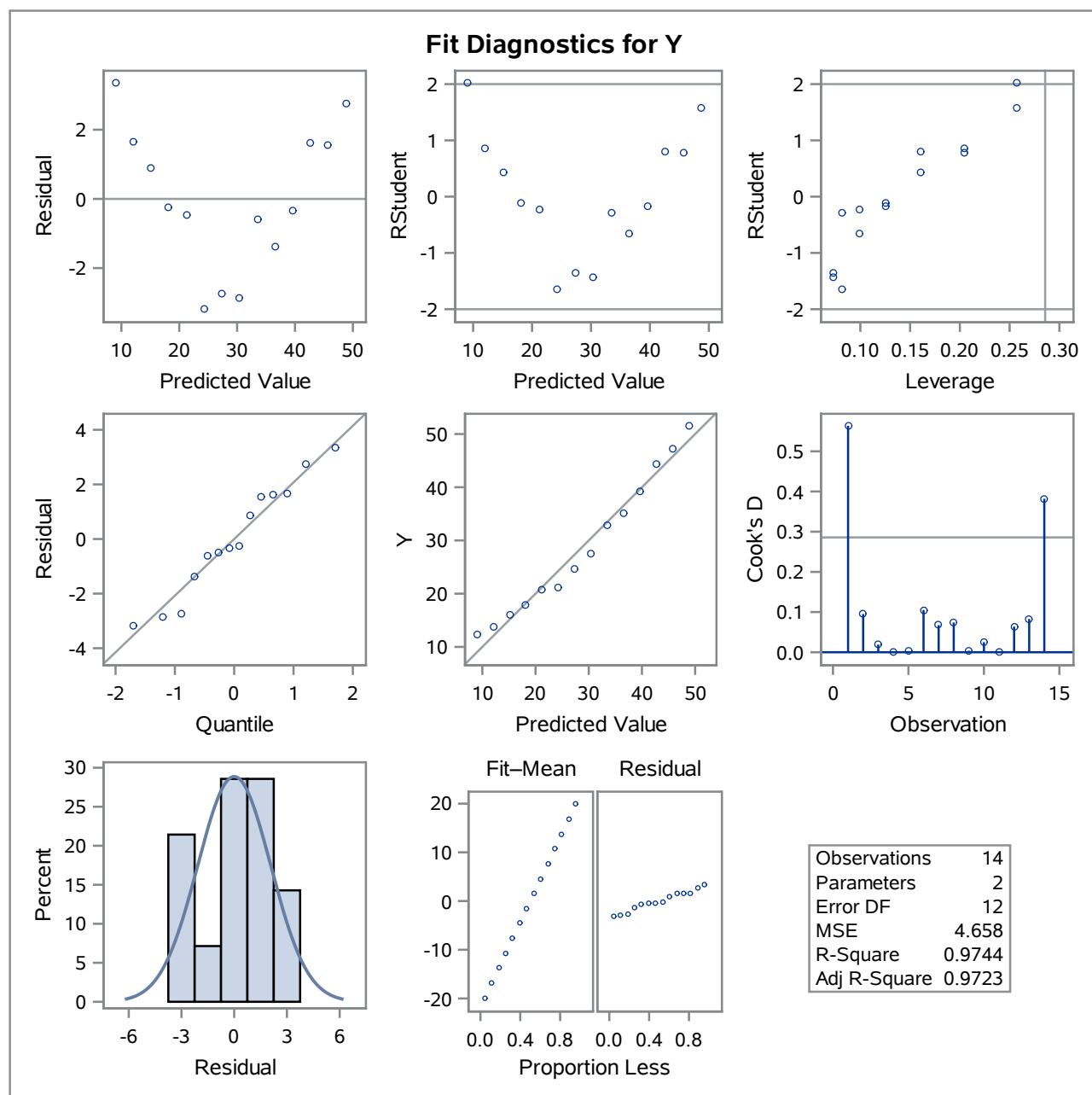
Number of Observations Read	14
Number of Observations Used	14

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	2131.62683	2131.62683	457.63	<.0001
Error	12	55.89557	4.65796		
Corrected Total	13	2187.52240			

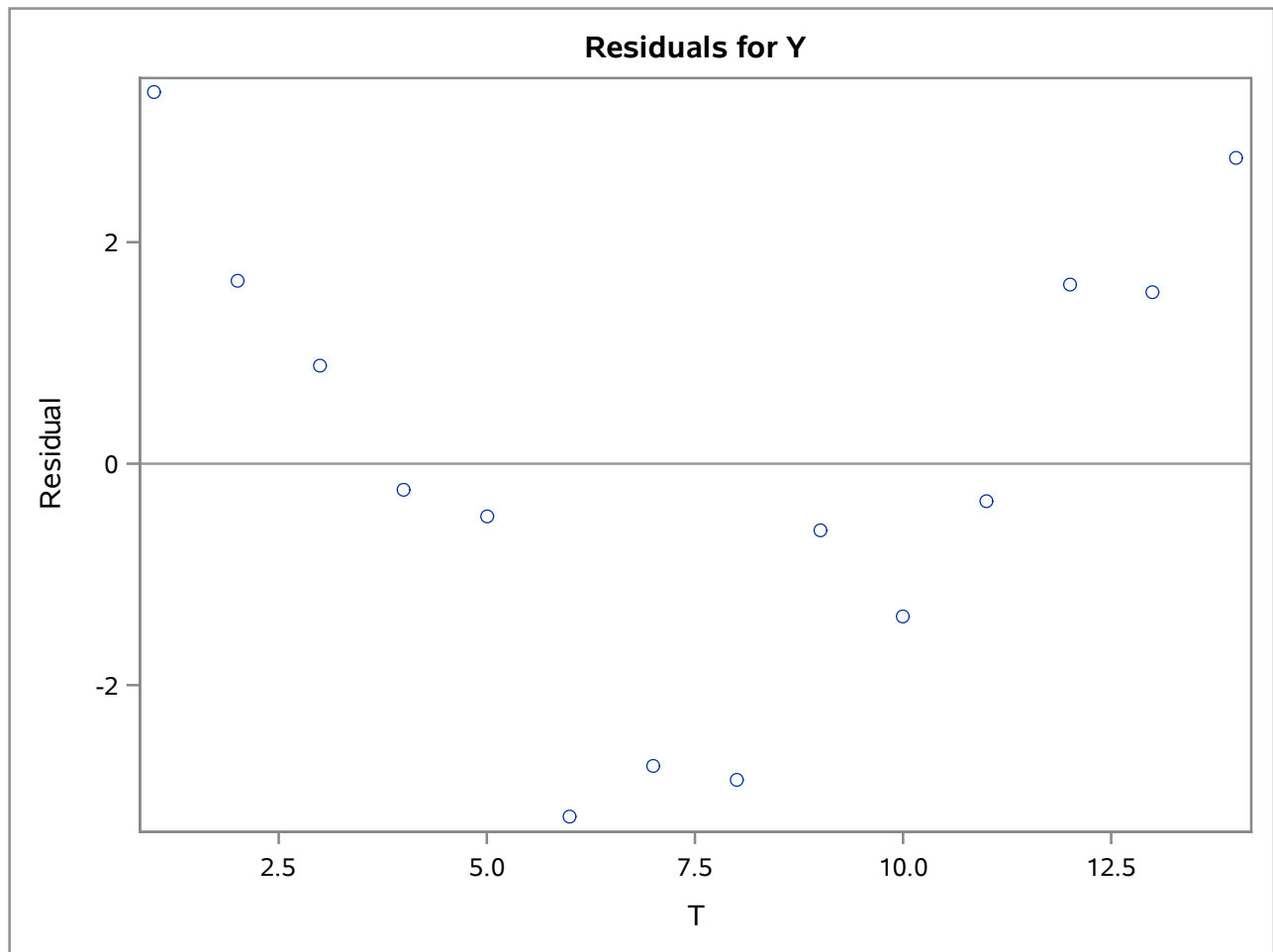
Root MSE	2.15823	R-Square	0.9744
Dependent Mean	28.89000	Adj R-Sq	0.9723
Coeff Var	7.47051		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > t
Intercept	1	5.93242	1.21836	4.87	0.0004
T	1	3.06101	0.14309	21.39	<.0001

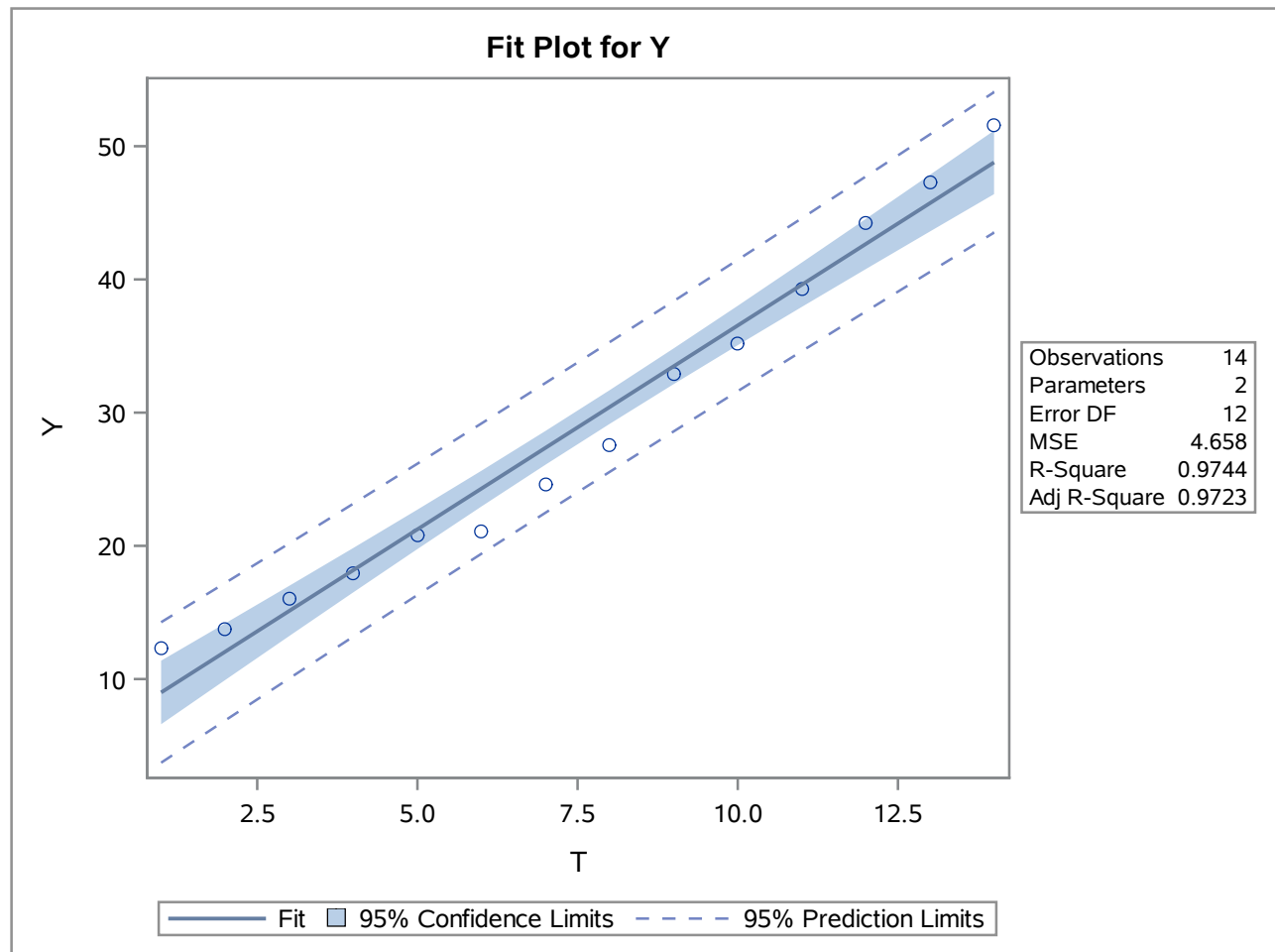
The REG Procedure
Model: model_1
Dependent Variable: Y



The REG Procedure
Model: model_1
Dependent Variable: Y



The REG Procedure
Model: model_1
Dependent Variable: Y



Regression Specifications - full sample

Just throw in a dummy variable

21:48 Saturday, September 21, 2019 5

The REG Procedure
Model: model_3
Dependent Variable: Y

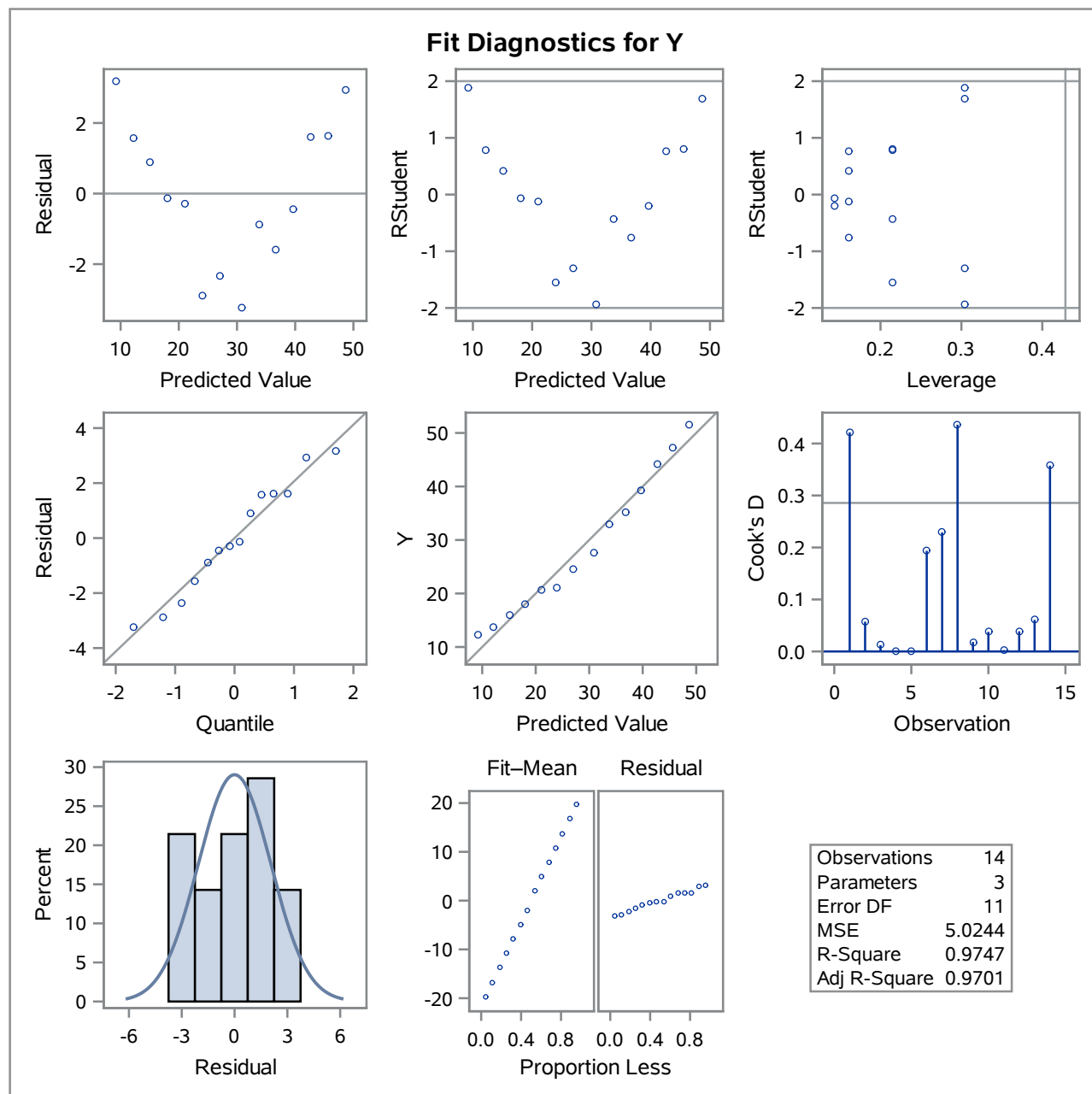
Number of Observations Read	14
Number of Observations Used	14

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	2132.25427	1066.12714	212.19	<.0001
Error	11	55.26813	5.02438		
Corrected Total	13	2187.52240			

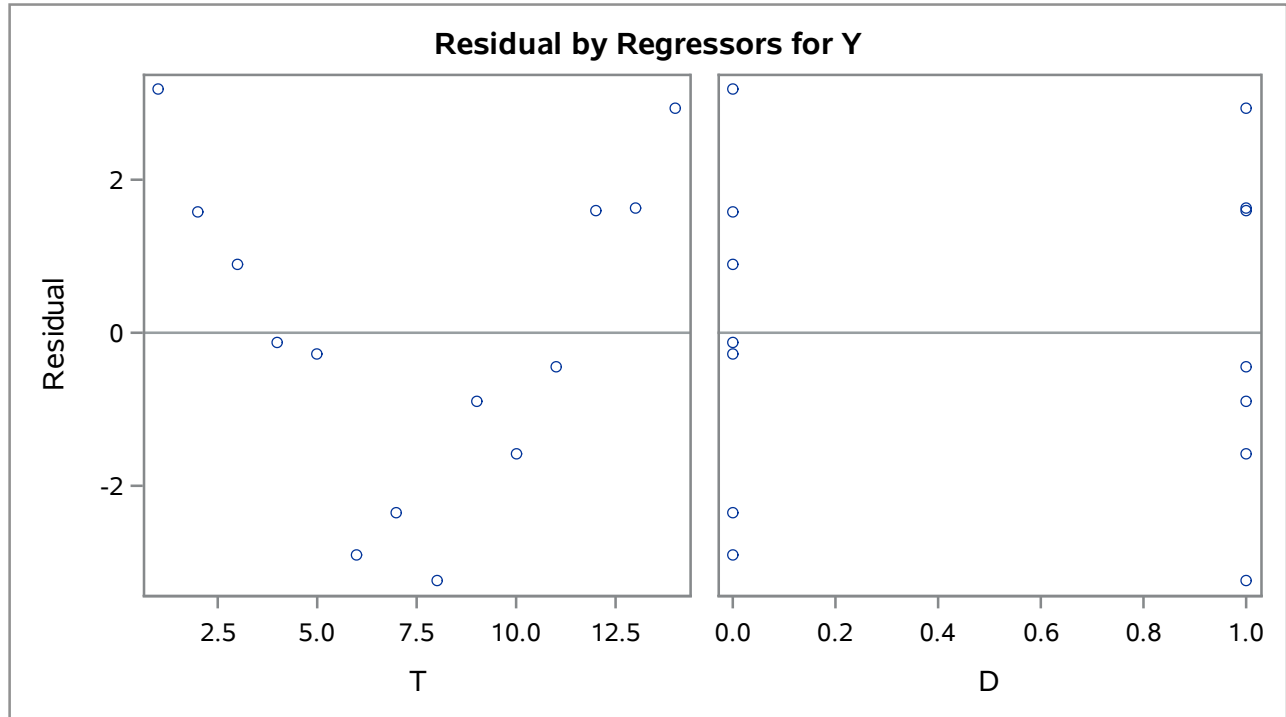
Root MSE	2.24151	R-Square	0.9747
Dependent Mean	28.89000	Adj R-Sq	0.9701
Coeff Var	7.75878		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > t
Intercept	1	6.19500	1.46741	4.22	0.0014
T	1	2.96911	0.29953	9.91	<.0001
D	1	0.85339	2.41493	0.35	0.7305

The REG Procedure
Model: model_3
Dependent Variable: Y



The REG Procedure
Model: model_3
Dependent Variable: Y



Regression Specifications - full sample Quadratic Model

21:48 Saturday, September 21, 2019 8

The REG Procedure
Model: model_2
Dependent Variable: Y

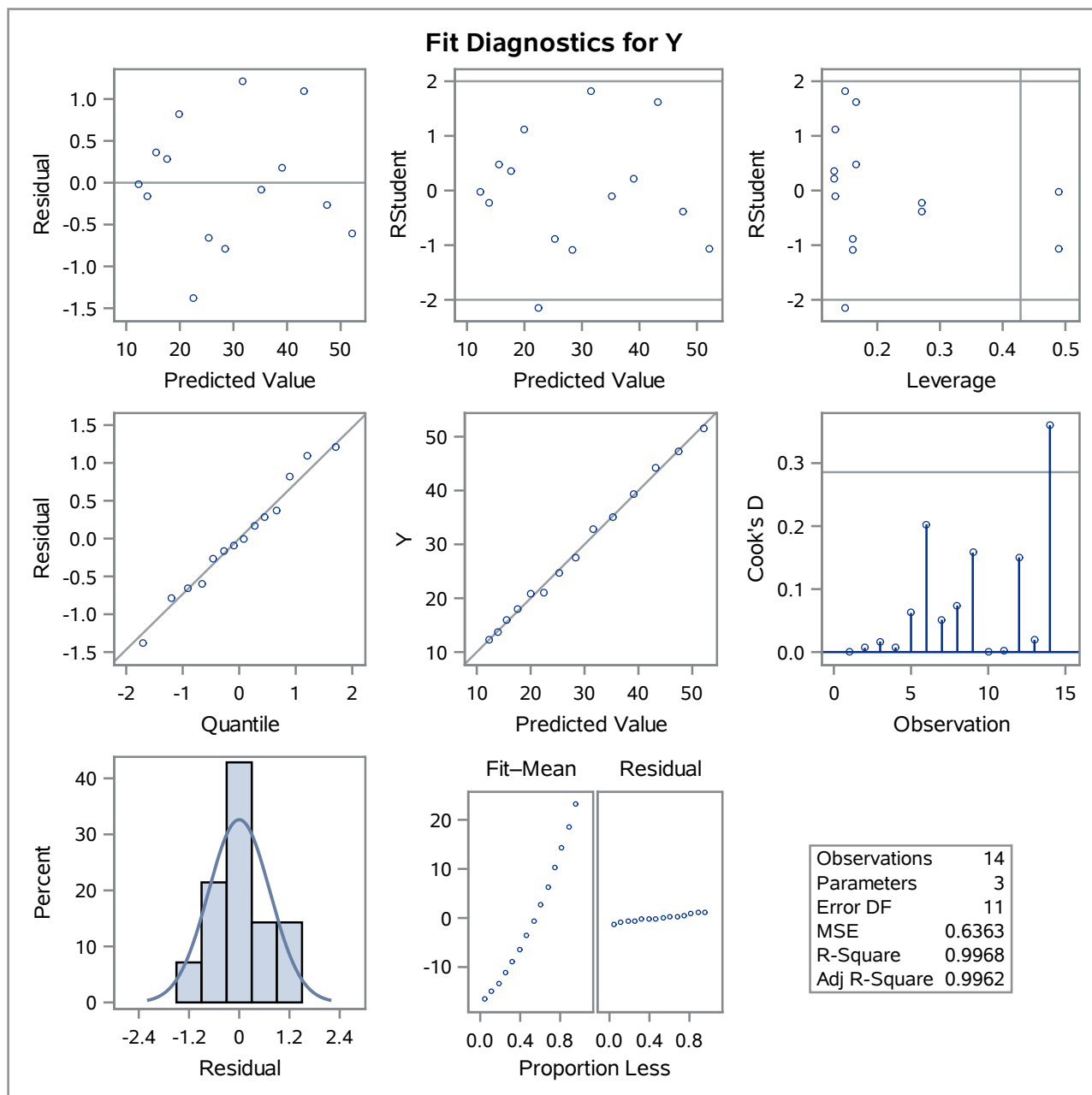
Number of Observations Read	14
Number of Observations Used	14

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	2180.52294	1090.26147	1713.40	<.0001
Error	11	6.99946	0.63631		
Corrected Total	13	2187.52240			

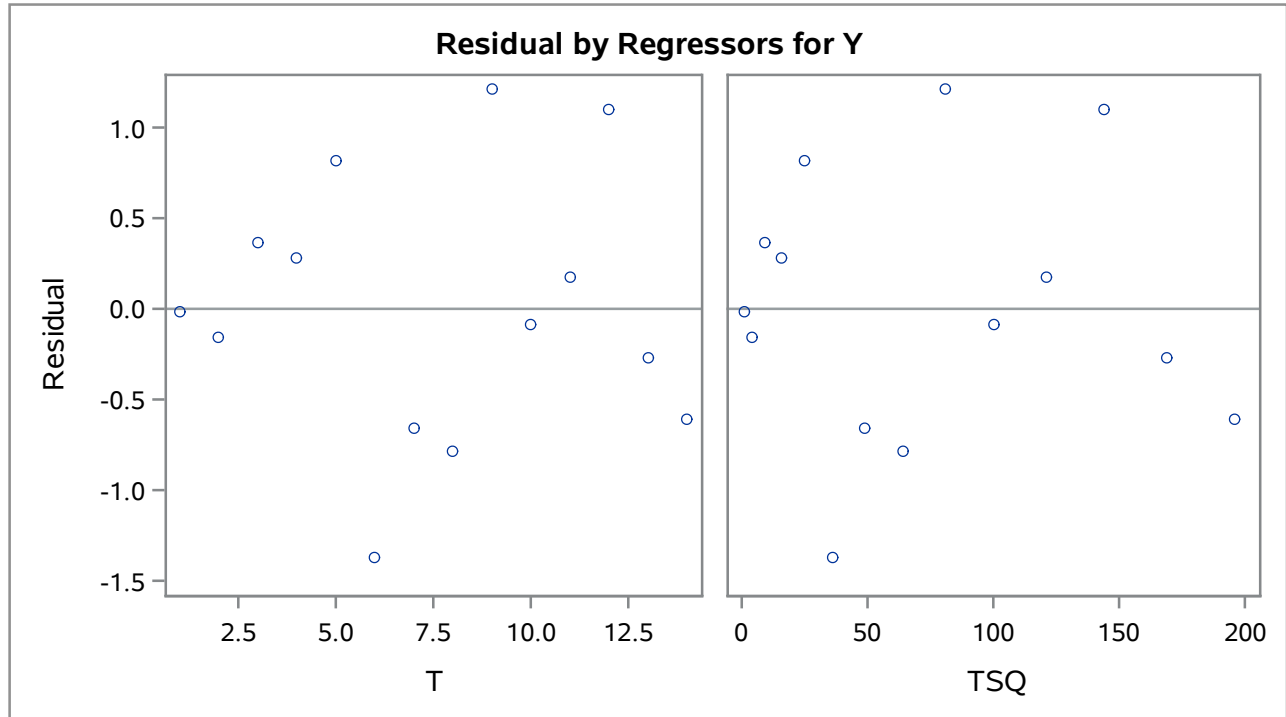
Root MSE	0.79769	R-Square	0.9968
Dependent Mean	28.89000	Adj R-Sq	0.9962
Coeff Var	2.76114		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > t
Intercept	1	11.11566	0.74324	14.96	<.0001
T	1	1.11730	0.22795	4.90	0.0005
TSQ	1	0.12958	0.01478	8.77	<.0001

The REG Procedure
Model: model_2
Dependent Variable: Y



The REG Procedure
Model: model_2
Dependent Variable: Y



The REG Procedure
Model: model_4
Dependent Variable: Y

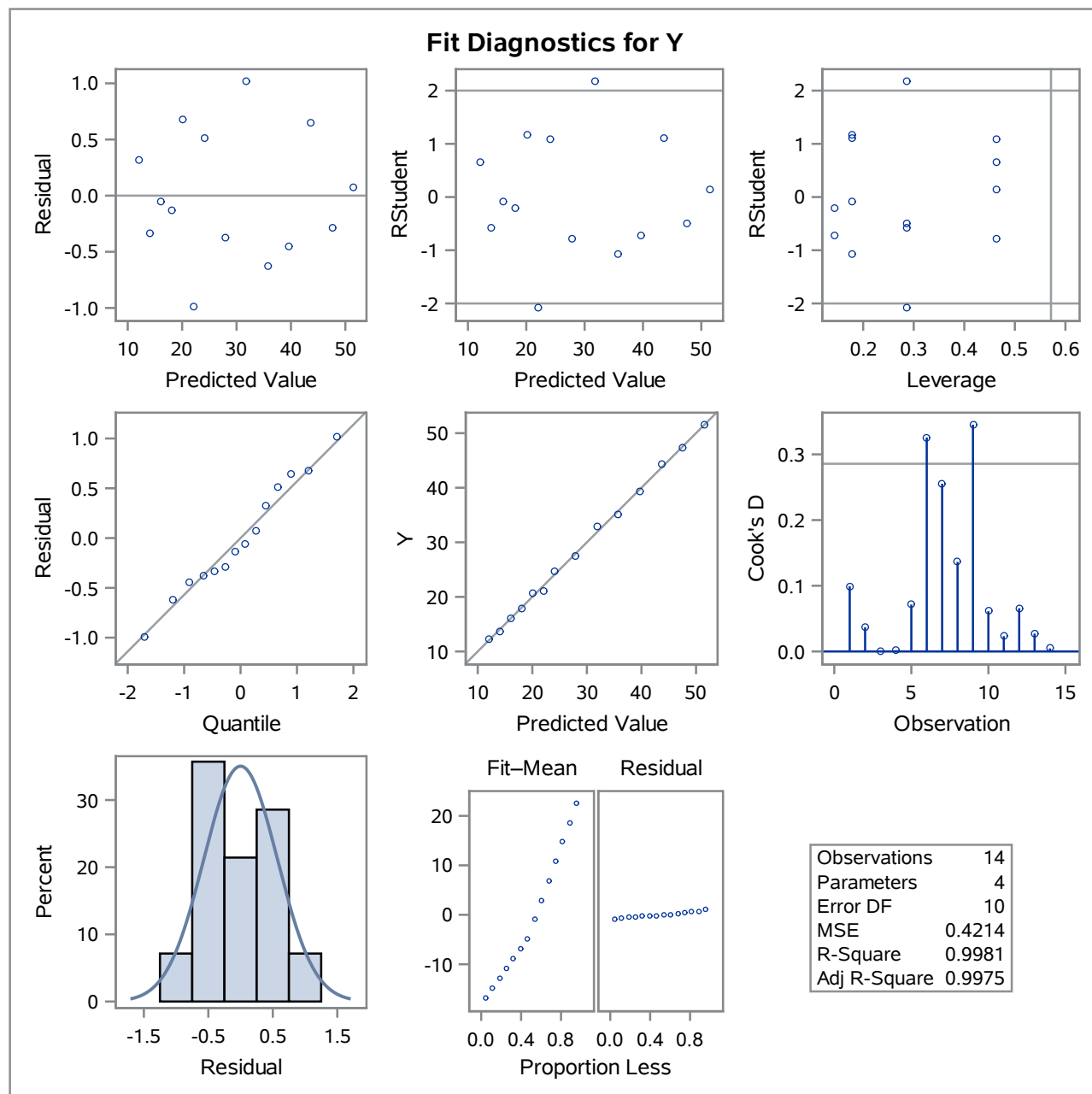
Number of Observations Read	14
Number of Observations Used	14

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	2183.30857	727.76952	1727.10	<.0001
Error	10	4.21383	0.42138		
Corrected Total	13	2187.52240			

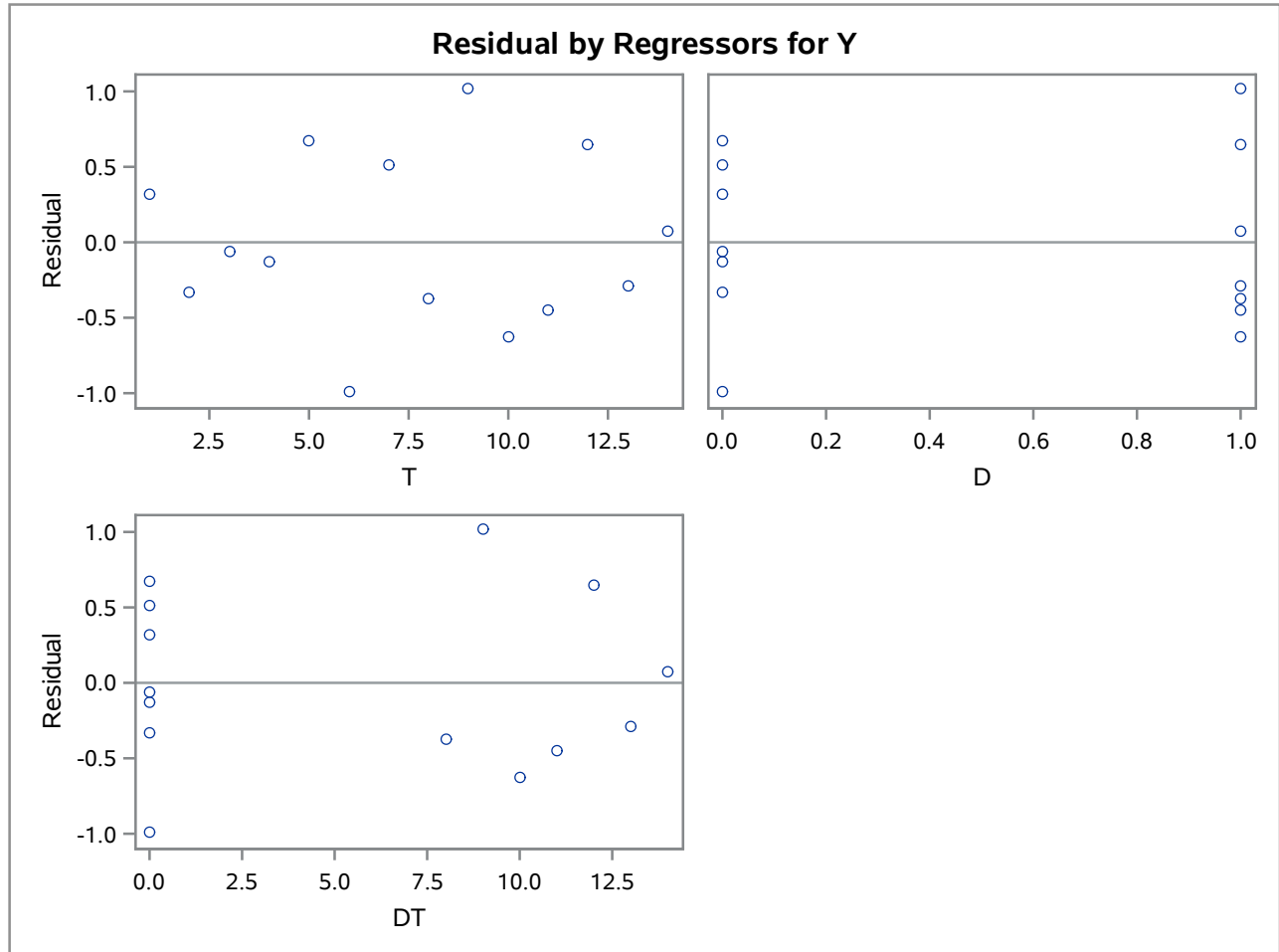
Root MSE	0.64914	R-Square	0.9981
Dependent Mean	28.89000	Adj R-Sq	0.9975
Coeff Var	2.24694		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > t
Intercept	1	10.01429	0.54862	18.25	<.0001
T	1	2.01429	0.12268	16.42	<.0001
D	1	-13.46893	1.47721	-9.12	<.0001
DT	1	1.90964	0.17349	11.01	<.0001

The REG Procedure
Model: model_4
Dependent Variable: Y



The REG Procedure
Model: model_4
Dependent Variable: Y



'Before Sample, ,
 model_6: model Y = T TSQ ;
 ...,7; PROC reg data=work.trdata; model_5: model Y = T ;
 where D=0; run; title2 'After Sample, T=8,..., 14

The REG Procedure
 Model: model_7
 Dependent Variable: Y

Number of Observations Read	7
Number of Observations Used	7

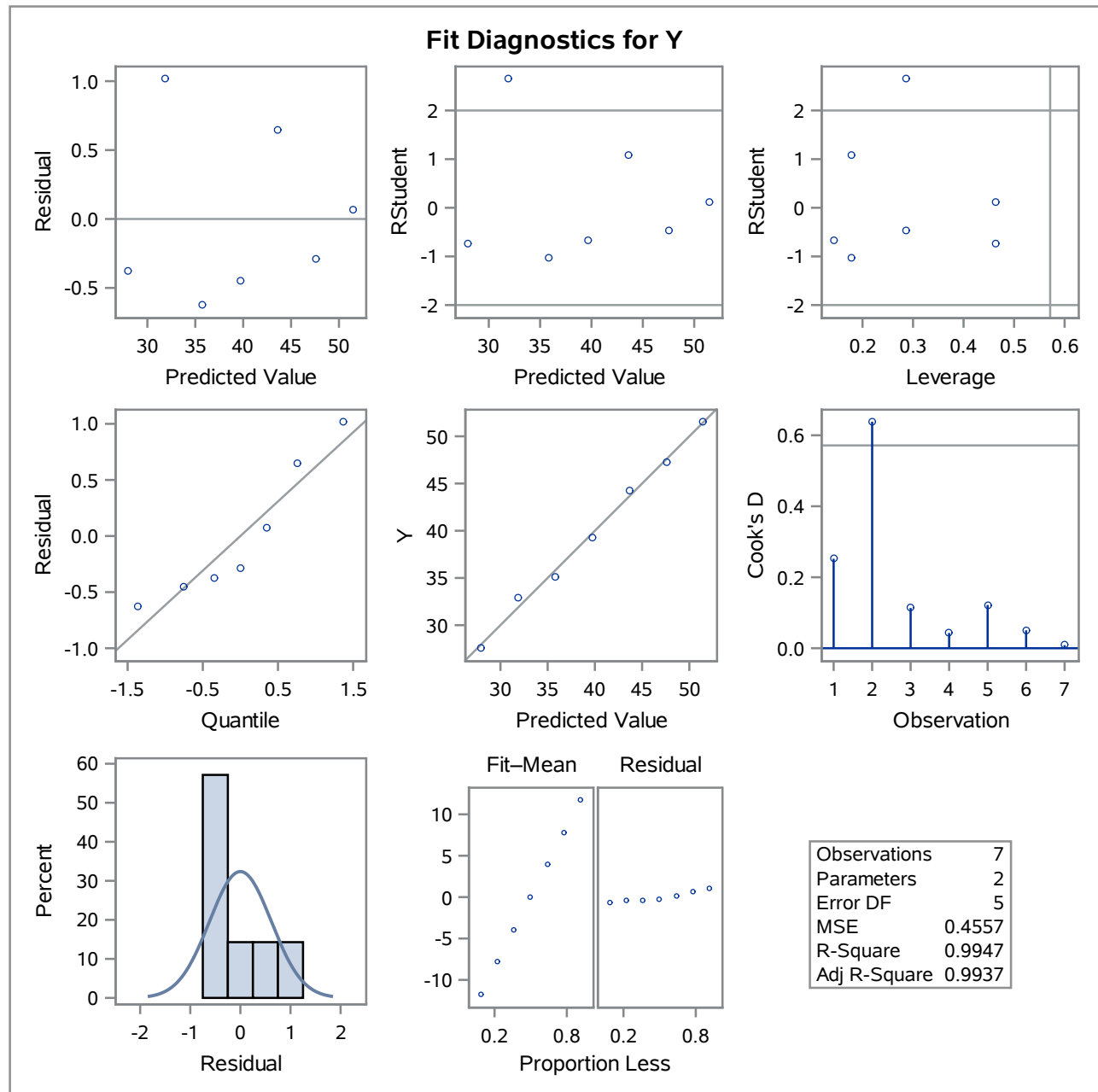
Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	431.12203	431.12203	946.08	<.0001
Error	5	2.27845	0.45569		
Corrected Total	6	433.40049			

Root MSE	0.67505	R-Square	0.9947
Dependent Mean	39.70857	Adj R-Sq	0.9937
Coeff Var	1.70001		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > t
Intercept	1	-3.45464	1.42630	-2.42	0.0600
T	1	3.92393	0.12757	30.76	<.0001

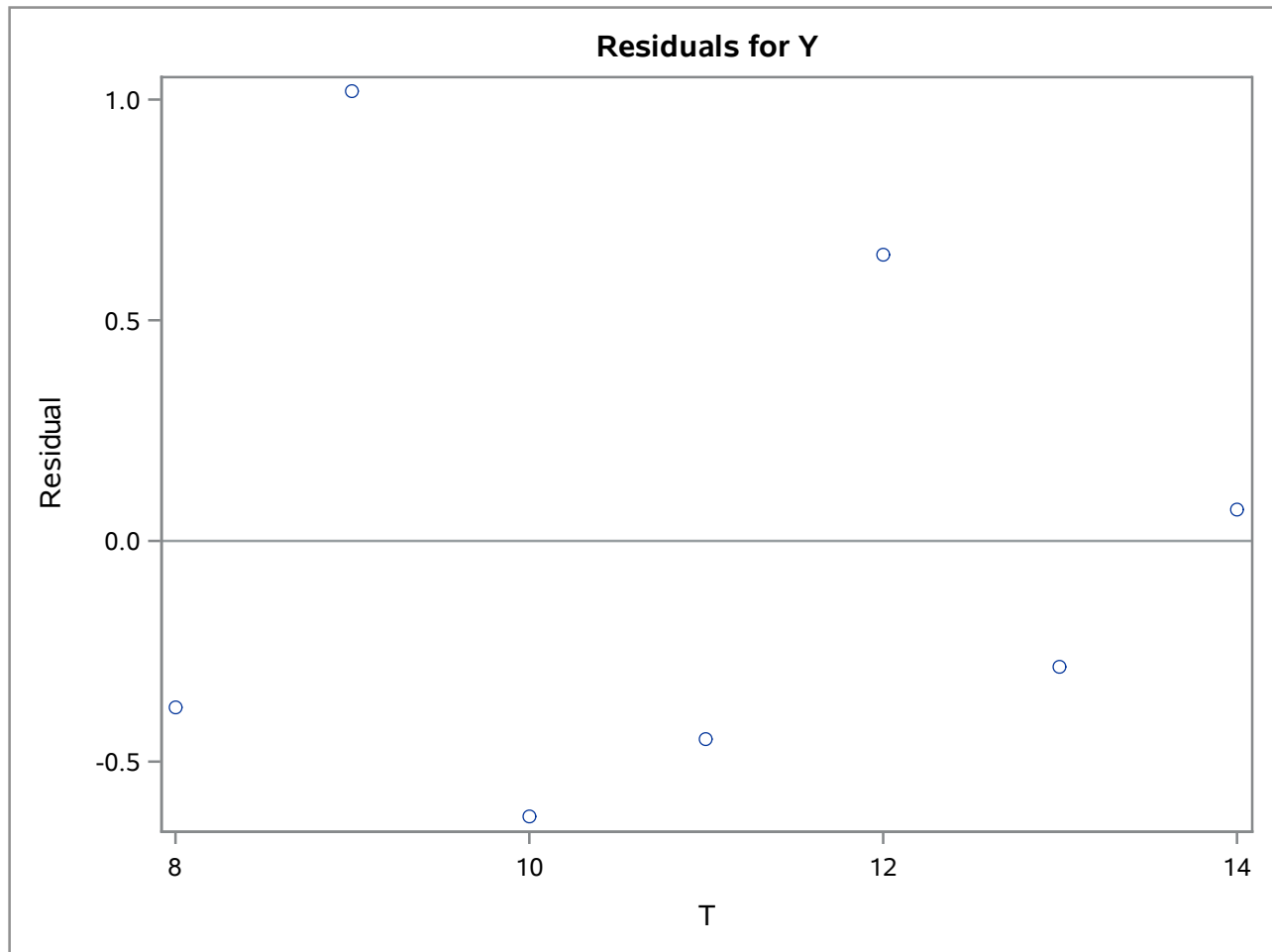
'Before Sample, , ...7; PROC reg data=work.trdata; model_5: model Y = T ;
 model_6: model Y = T TSQ ; where D=0; run; title2 'After Sample, T=8,..., 14

The REG Procedure
 Model: model_7
 Dependent Variable: Y



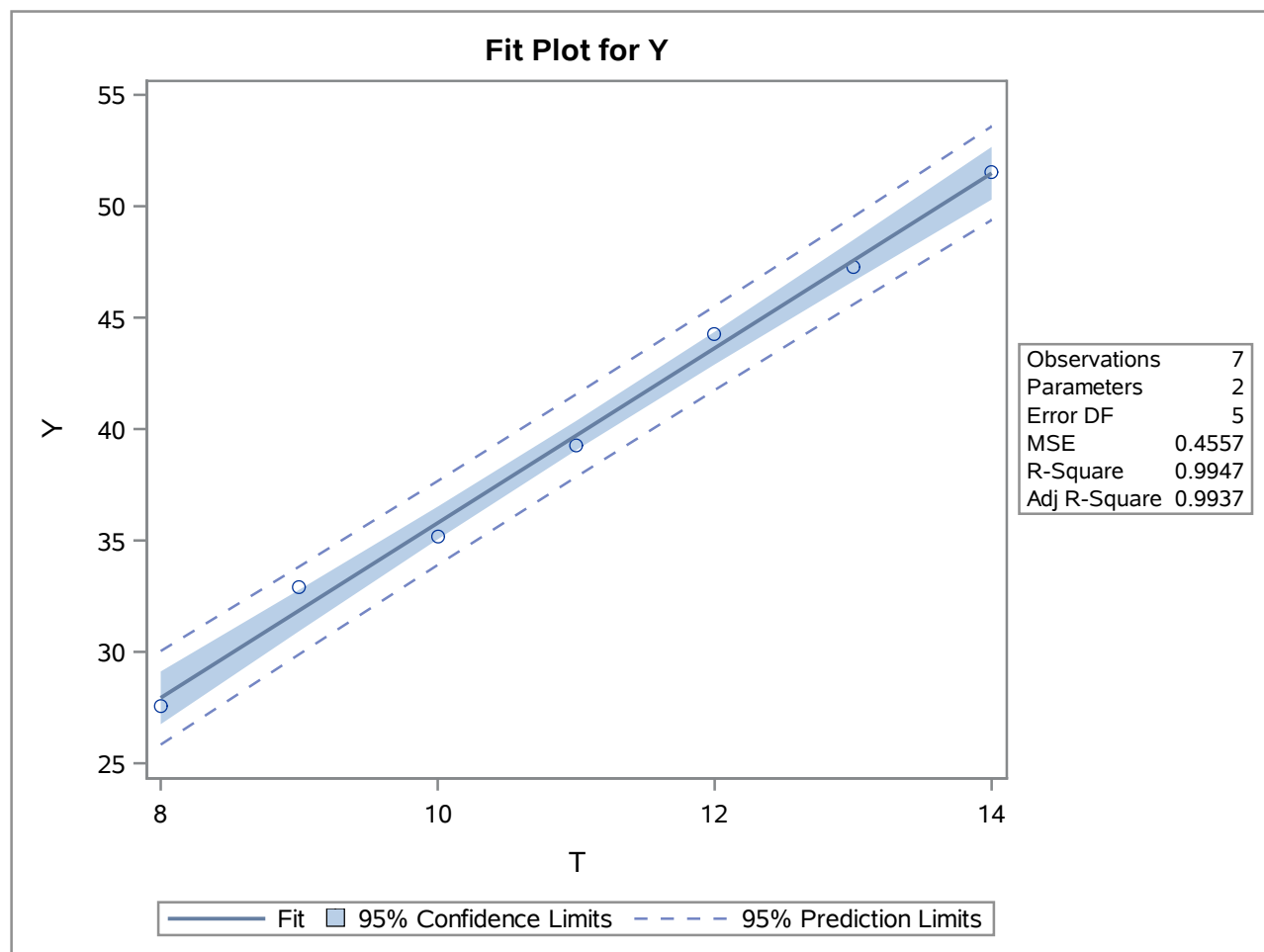
'Before Sample, ,
model_6: model Y = T TSQ ;
...,7; PROC reg data=work.trdata; model_5: model Y = T ;
where D=0; run; title2 'After Sample, T=8,..., 14

The REG Procedure
Model: model_7
Dependent Variable: Y



'Before Sample, , ...,7; PROC reg data=work.trdata; model_5: model Y = T ;
model_6: model Y = T TSQ ; where D=0; run; title2 'After Sample, T=8,..., 14

The REG Procedure
Model: model_7
Dependent Variable: Y



'Before Sample, ,
 model_6: model Y = T TSQ ;
 ...,7; PROC reg data=work.trdata; model_5: model Y = T ;
 where D=0; run; title2 'After Sample, T=8,..., 14

The REG Procedure
 Model: model_8
 Dependent Variable: Y

Number of Observations Read	7
Number of Observations Used	7

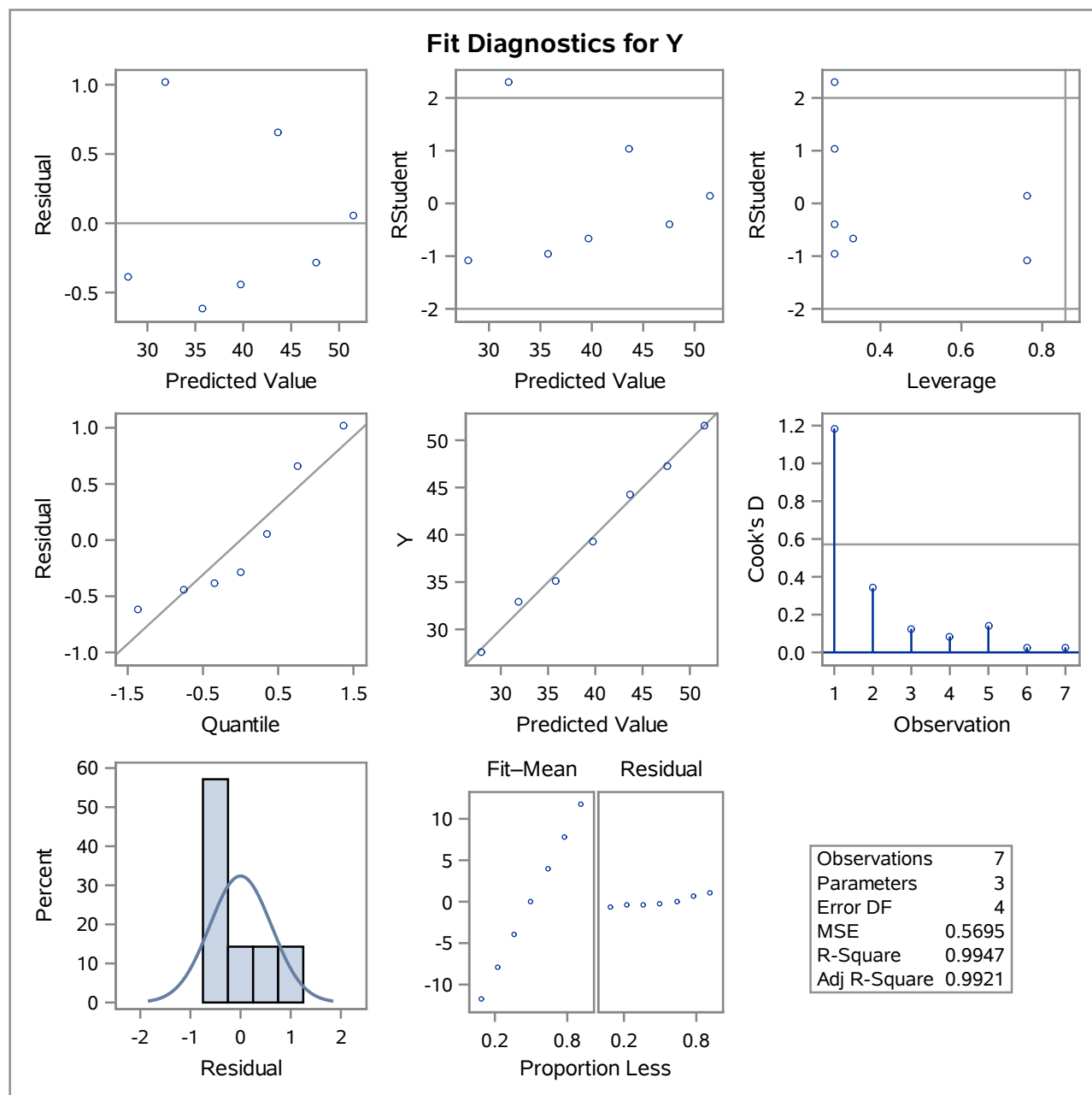
Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	431.12246	215.56123	378.51	<.0001
Error	4	2.27802	0.56951		
Corrected Total	6	433.40049			

Root MSE	0.75466	R-Square	0.9947
Dependent Mean	39.70857	Adj R-Sq	0.9921
Coeff Var	1.90049		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > t
Intercept	1	-3.19000	9.76481	-0.33	0.7603
T	1	3.87417	1.81708	2.13	0.1000
TSQ	1	0.00226	0.08234	0.03	0.9794

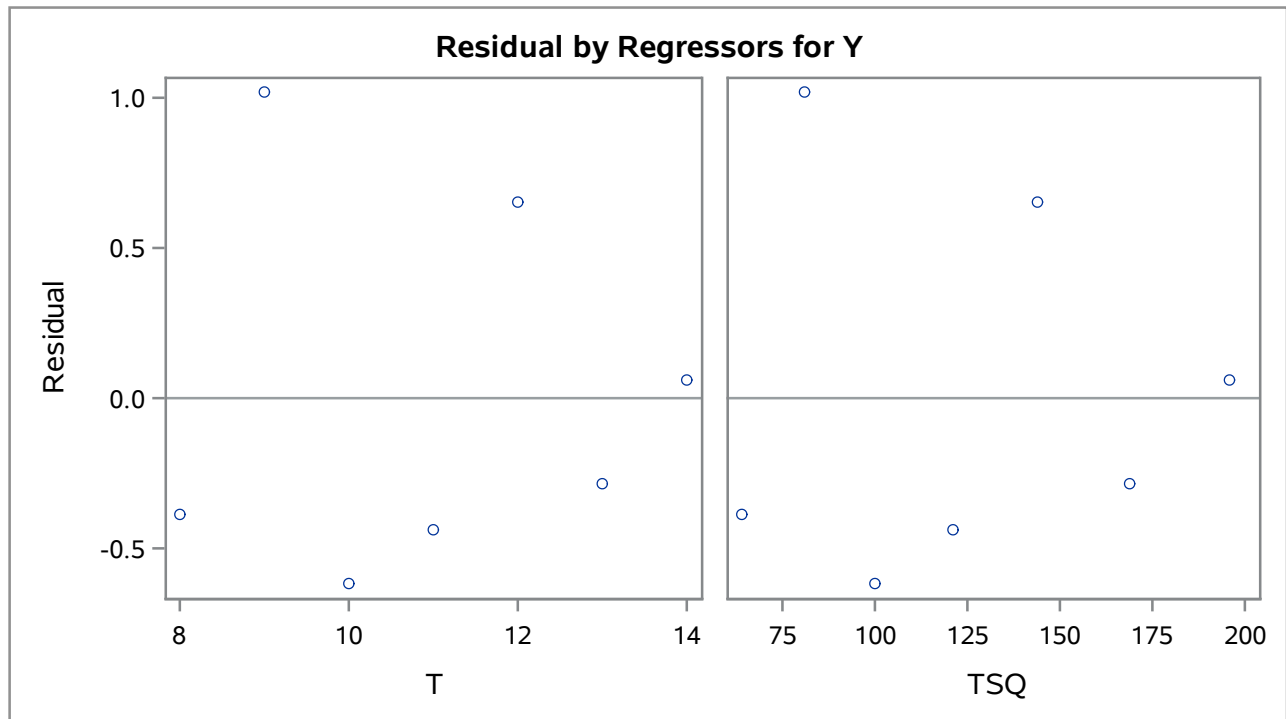
'Before Sample, ,
 model_6: model Y = T TSQ ;
 ...7; PROC reg data=work.trdata; model_5: model Y = T ;
 where D=0; run; title2 'After Sample, T=8,..., 14

The REG Procedure
 Model: model_8
 Dependent Variable: Y



'Before Sample, ,
model_6: model Y = T TSQ ;
...,7; PROC reg data=work.trdata; model_5: model Y = T ;
where D=0; run; title2 'After Sample, T=8,..., 14

The REG Procedure
Model: model_8
Dependent Variable: Y



The REG Procedure
Model: model_2
Dependent Variable: Y

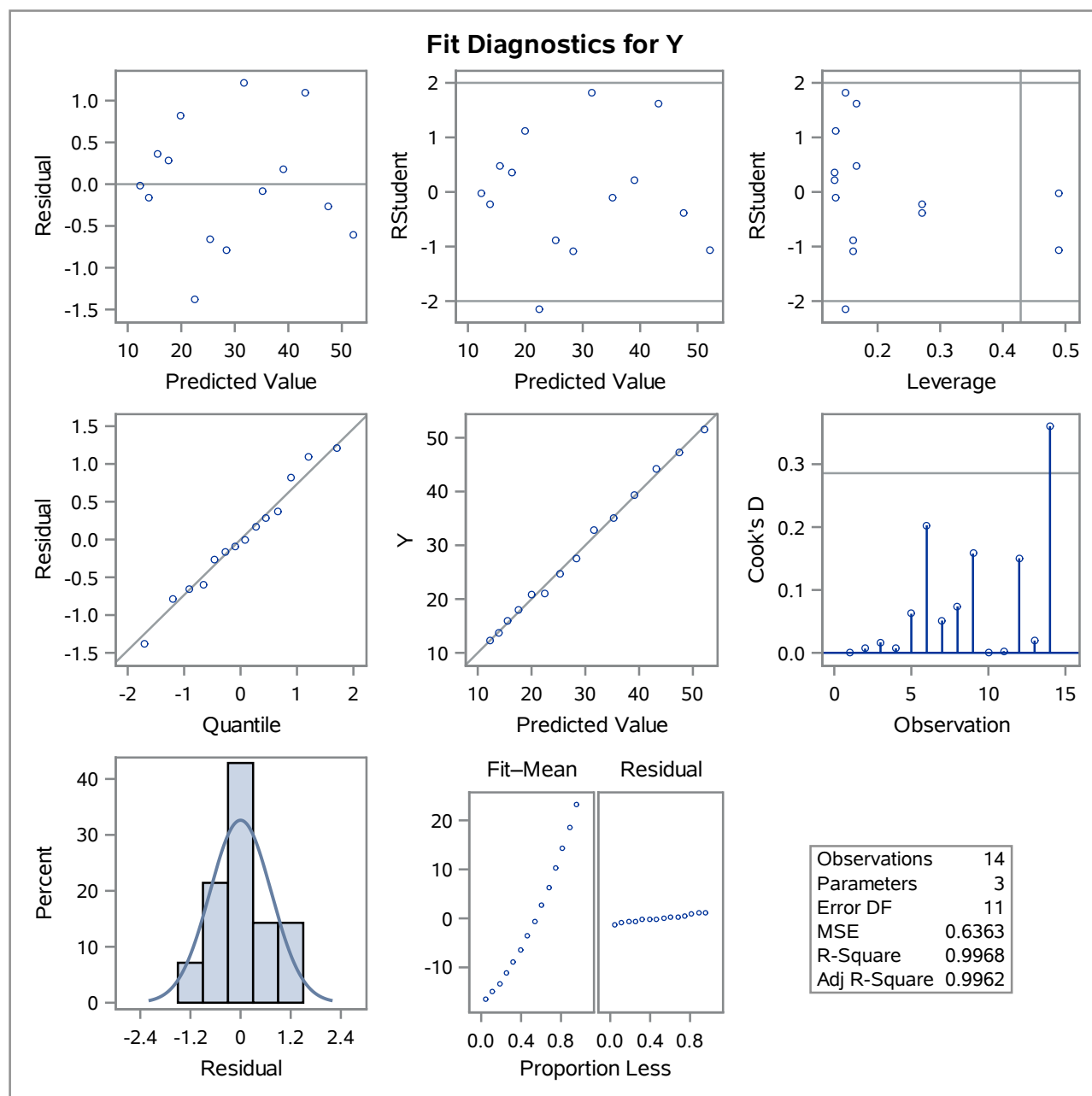
Number of Observations Read	14
Number of Observations Used	14

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	2180.52294	1090.26147	1713.40	<.0001
Error	11	6.99946	0.63631		
Corrected Total	13	2187.52240			

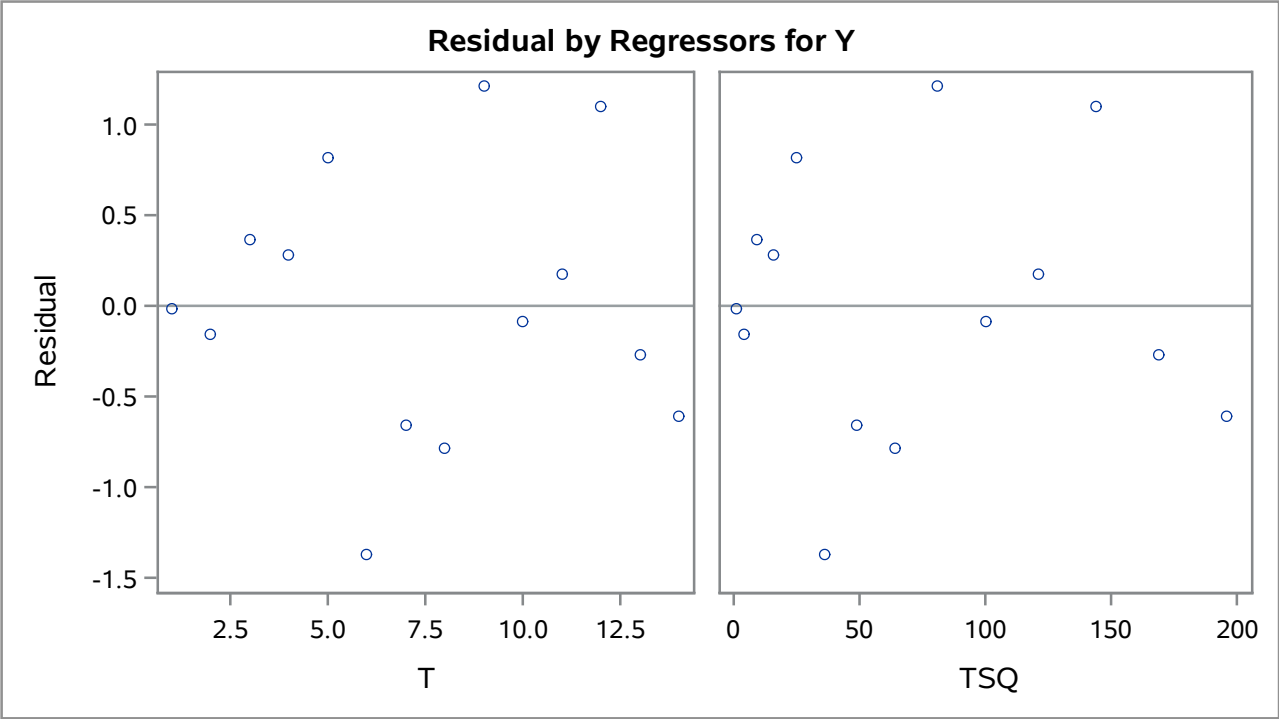
Root MSE	0.79769	R-Square	0.9968
Dependent Mean	28.89000	Adj R-Sq	0.9962
Coeff Var	2.76114		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > t
Intercept	1	11.11566	0.74324	14.96	<.0001
T	1	1.11730	0.22795	4.90	0.0005
TSQ	1	0.12958	0.01478	8.77	<.0001

The REG Procedure
Model: model_2
Dependent Variable: Y



The REG Procedure
Model: model_2
Dependent Variable: Y



The REG Procedure
Model: model_4
Dependent Variable: Y

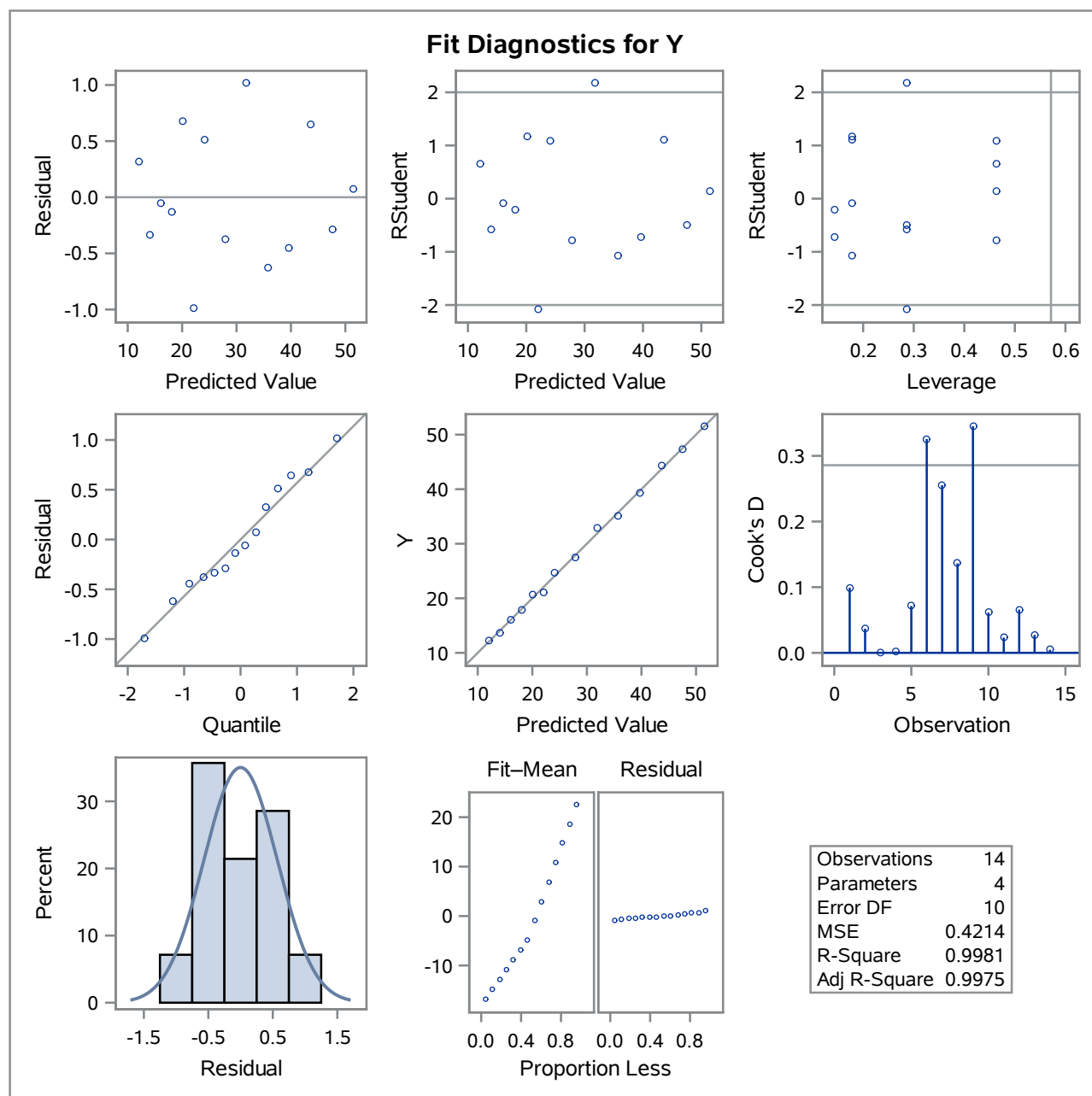
Number of Observations Read	14
Number of Observations Used	14

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	2183.30857	727.76952	1727.10	<.0001
Error	10	4.21383	0.42138		
Corrected Total	13	2187.52240			

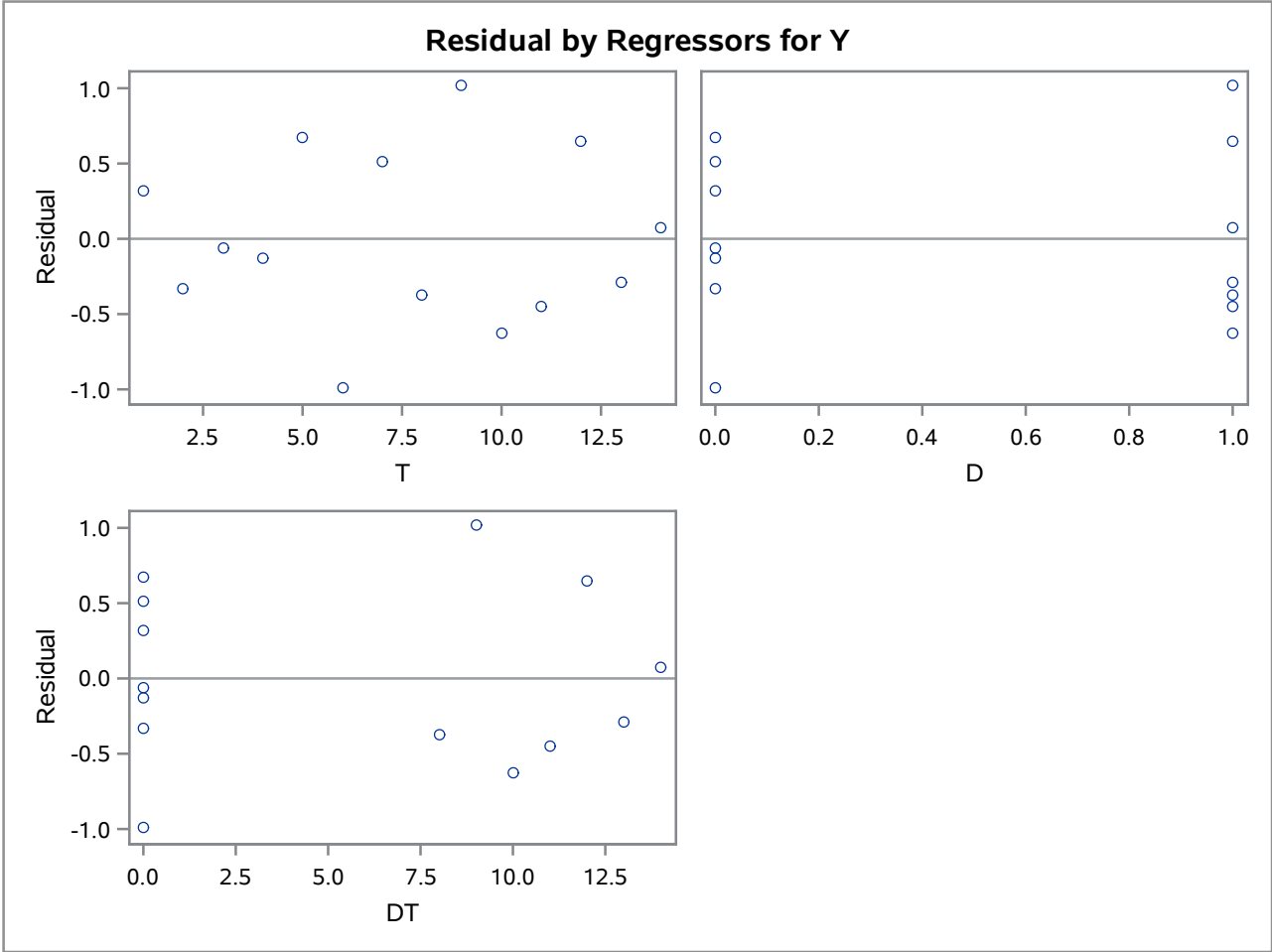
Root MSE	0.64914	R-Square	0.9981
Dependent Mean	28.89000	Adj R-Sq	0.9975
Coeff Var	2.24694		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > t
Intercept	1	10.01429	0.54862	18.25	<.0001
T	1	2.01429	0.12268	16.42	<.0001
D	1	-13.46893	1.47721	-9.12	<.0001
DT	1	1.90964	0.17349	11.01	<.0001

The REG Procedure
Model: model_4
Dependent Variable: Y



The REG Procedure
Model: model_4
Dependent Variable: Y



The REG Procedure
Model: model_4A
Dependent Variable: Y

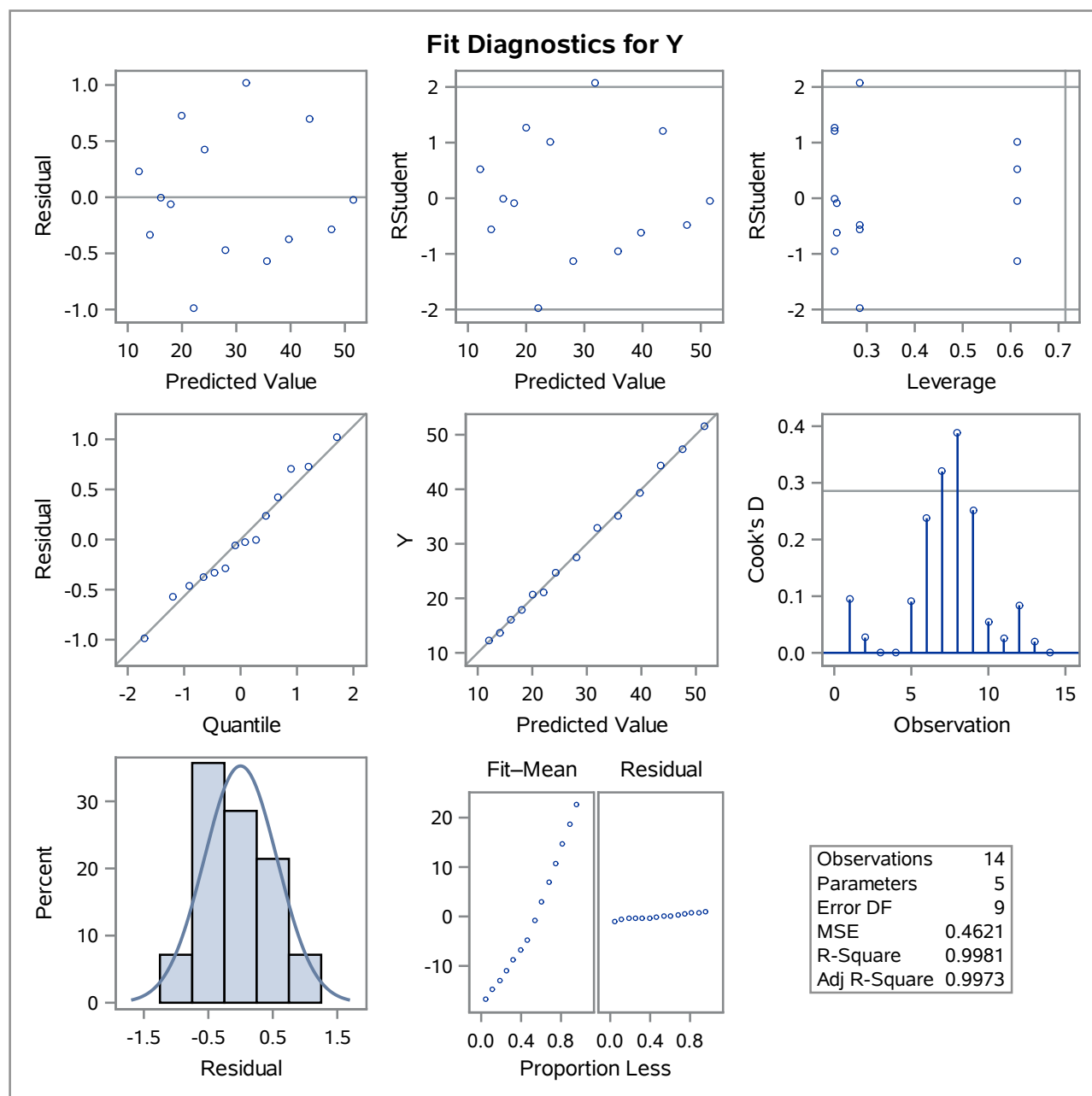
Number of Observations Read	14
Number of Observations Used	14

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	2183.36395	545.84099	1181.35	<.0001
Error	9	4.15845	0.46205		
Corrected Total	13	2187.52240			

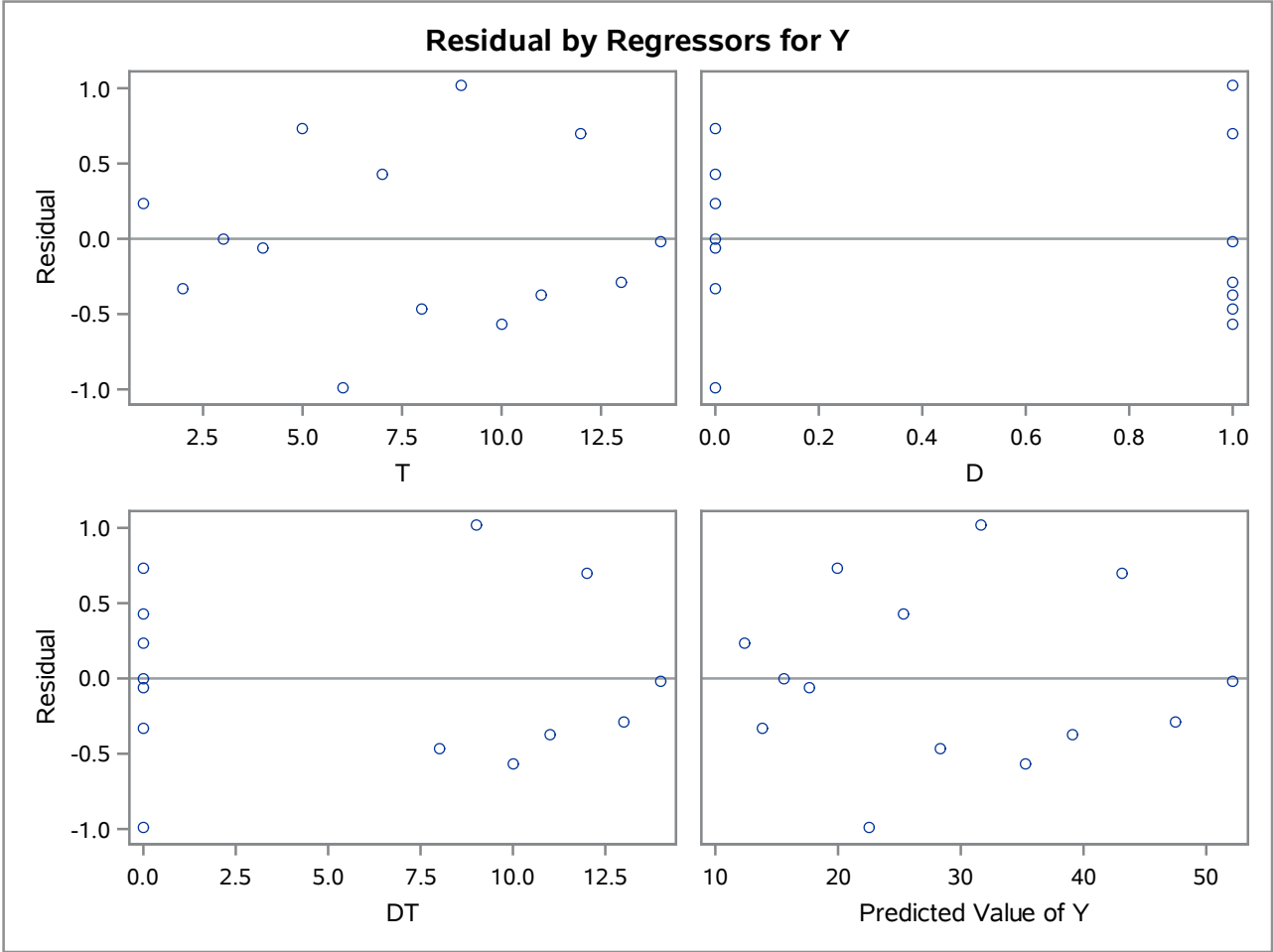
Root MSE	0.67974	R-Square	0.9981
Dependent Mean	28.89000	Adj R-Sq	0.9973
Coeff Var	2.35287		

Parameter Estimates						
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > t
Intercept	Intercept	1	8.67480	3.91176	2.22	0.0538
T		1	1.71251	0.88115	1.94	0.0838
D		1	-11.56268	5.71969	-2.02	0.0739
DT		1	1.65548	0.75635	2.19	0.0564
Yquadhat	Predicted Value of Y	1	0.14010	0.40471	0.35	0.7372

The REG Procedure
Model: model_4A
Dependent Variable: Y



The REG Procedure
Model: model_4A
Dependent Variable: Y



The REG Procedure
Model: model_2A
Dependent Variable: Y

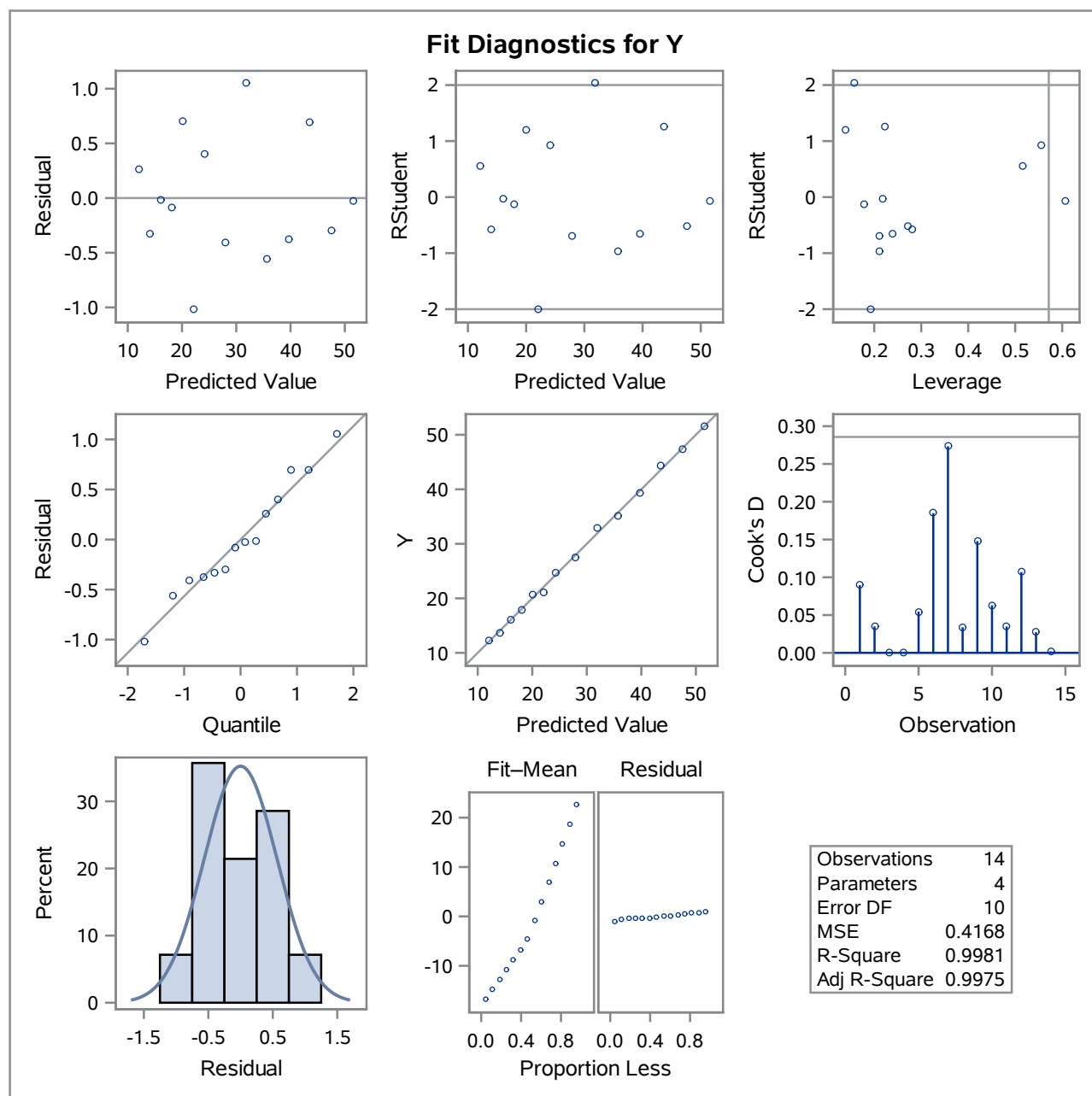
Number of Observations Read	14
Number of Observations Used	14

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	2183.35478	727.78493	1746.29	<.0001
Error	10	4.16762	0.41676		
Corrected Total	13	2187.52240			

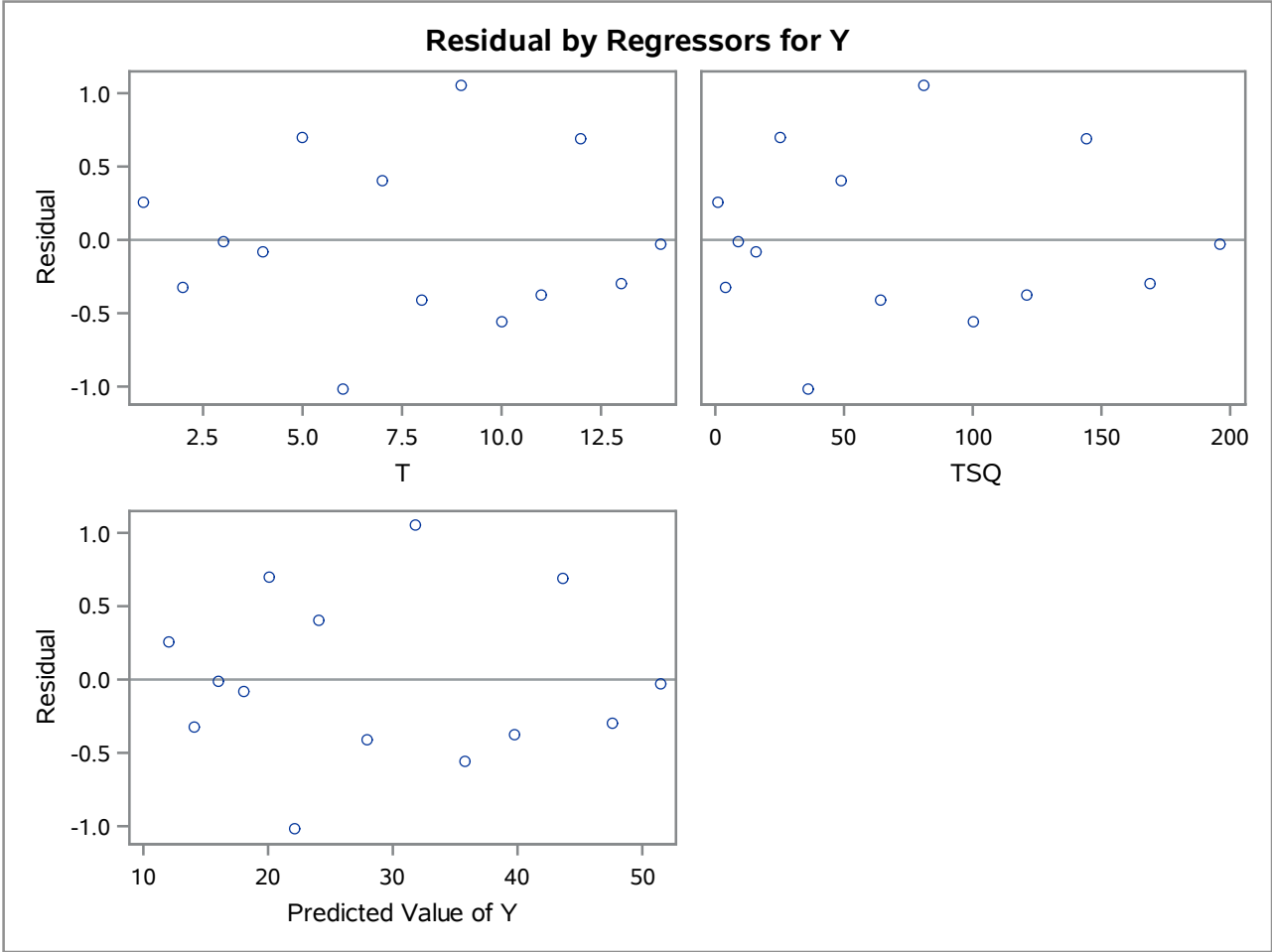
Root MSE	0.64557	R-Square	0.9981
Dependent Mean	28.89000	Adj R-Sq	0.9975
Coeff Var	2.23458		

Parameter Estimates						
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > t
Intercept	Intercept	1	1.25694	3.82960	0.33	0.7495
T		1	0.10861	0.42869	0.25	0.8051
TSQ		1	0.01515	0.04550	0.33	0.7460
Ybreakhat	Predicted Value of Y	1	0.89028	0.34153	2.61	0.0262

The REG Procedure
Model: model_2A
Dependent Variable: Y



The REG Procedure
Model: model_2A
Dependent Variable: Y



Non-nested hypothesis test - super model, F-test

The REG Procedure
Model: model_4A
Dependent Variable: Y

Number of Observations Read	14
Number of Observations Used	14

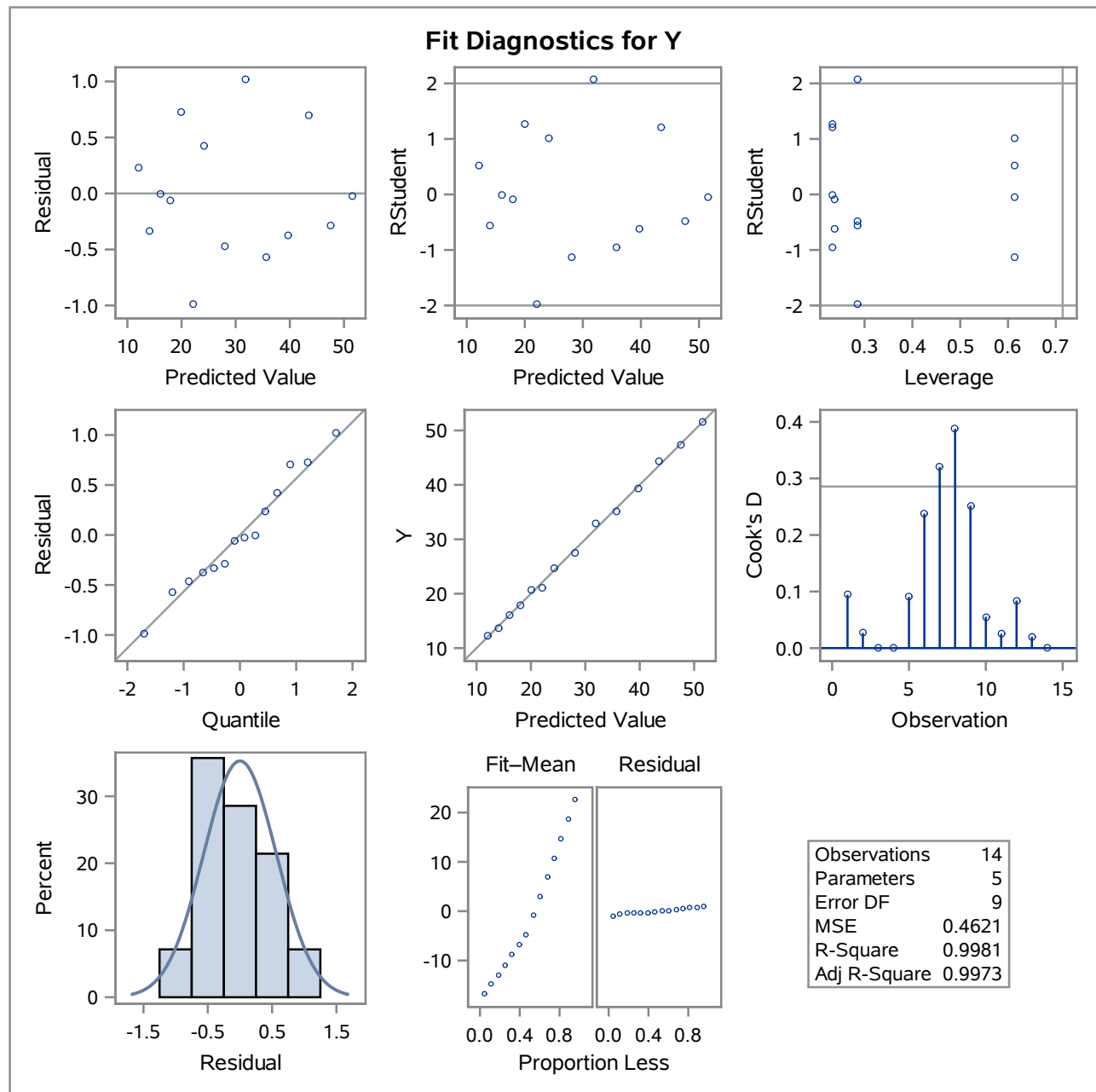
Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	2183.36395	545.84099	1181.35	<.0001
Error	9	4.15845	0.46205		
Corrected Total	13	2187.52240			

Root MSE	0.67974	R-Square	0.9981
Dependent Mean	28.89000	Adj R-Sq	0.9973
Coeff Var	2.35287		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > t
Intercept	1	10.23214	0.85210	12.01	<.0001
T	1	1.86905	0.43877	4.26	0.0021
TSQ	1	0.01815	0.05244	0.35	0.7372
D	1	-11.56268	5.71969	-2.02	0.0739
DT	1	1.65548	0.75635	2.19	0.0564

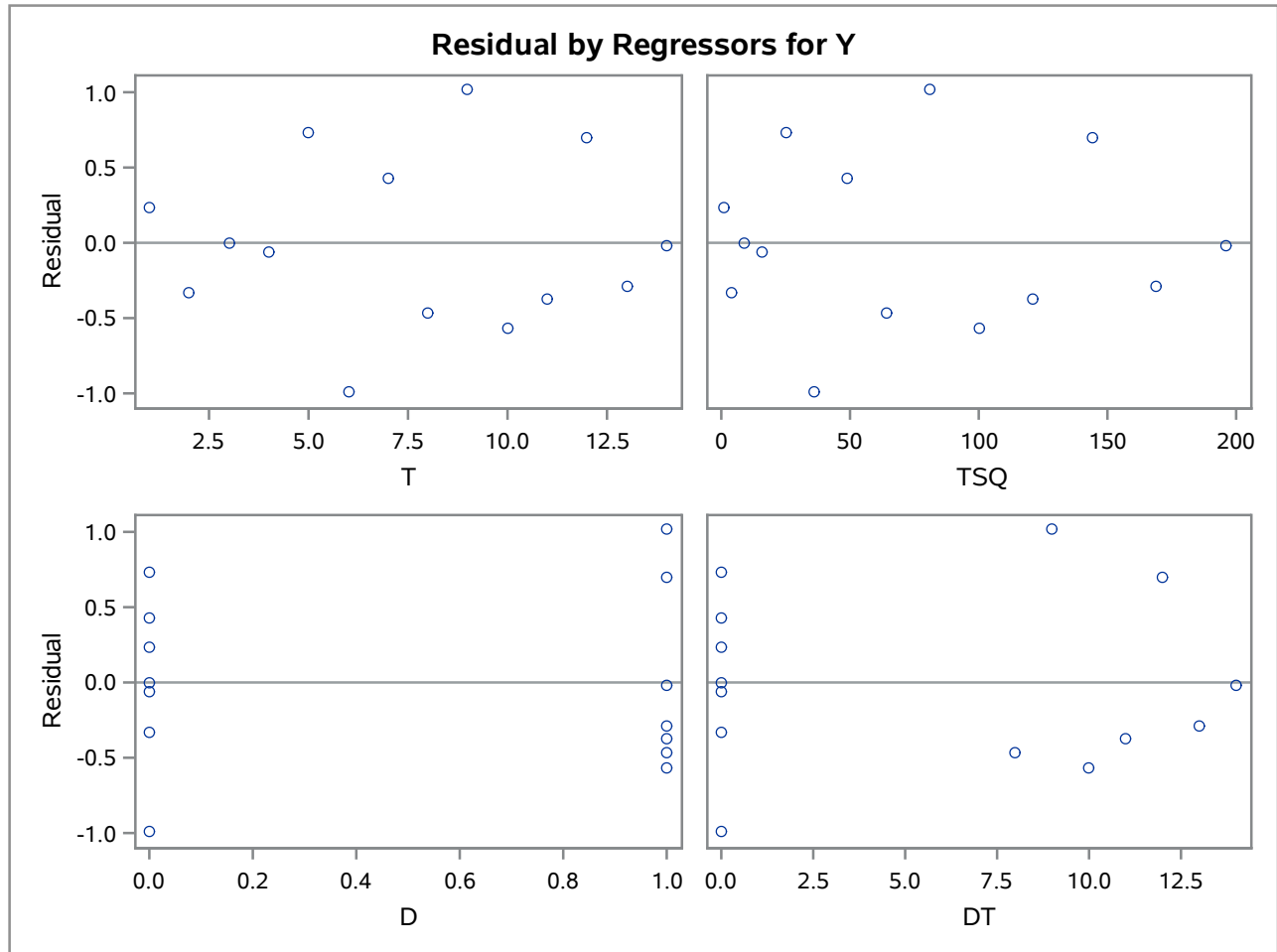
Non-nested hypothesis test - super model, F-test

The REG Procedure
 Model: model_4A
 Dependent Variable: Y



Non-nested hypothesis test - super model, F-test

The REG Procedure
Model: model_4A
Dependent Variable: Y



Non-nested hypothesis test - super model, F-test**The REG Procedure
Model: model_4A**

Test quad Results for Dependent Variable Y				
Source	DF	Mean Square	F Value	Pr > F
Numerator	1	0.05537	0.12	0.7372
Denominator	9	0.46205		

Non-nested hypothesis test - super model, F-test**The REG Procedure
Model: model_4A**

Test interactive Results for Dependent Variable Y				
Source	DF	Mean Square	F Value	Pr > F
Numerator	2	1.42050	3.07	0.0960
Denominator	9	0.46205		