Pearson Correlation Coefficient Between X and Y, X and Z

The CORR Procedure

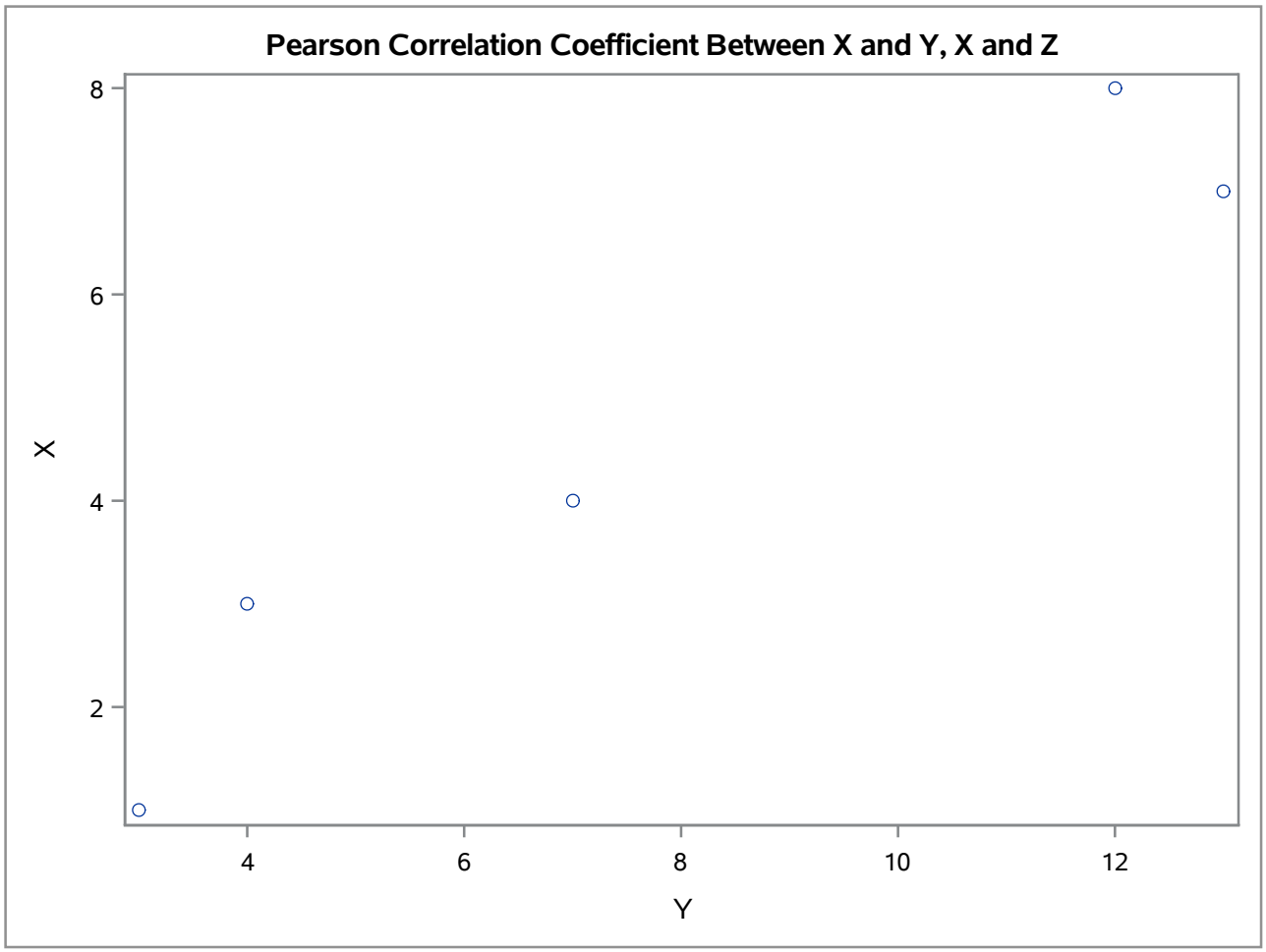
2 With Variables:	Y Z
1 Variables:	X

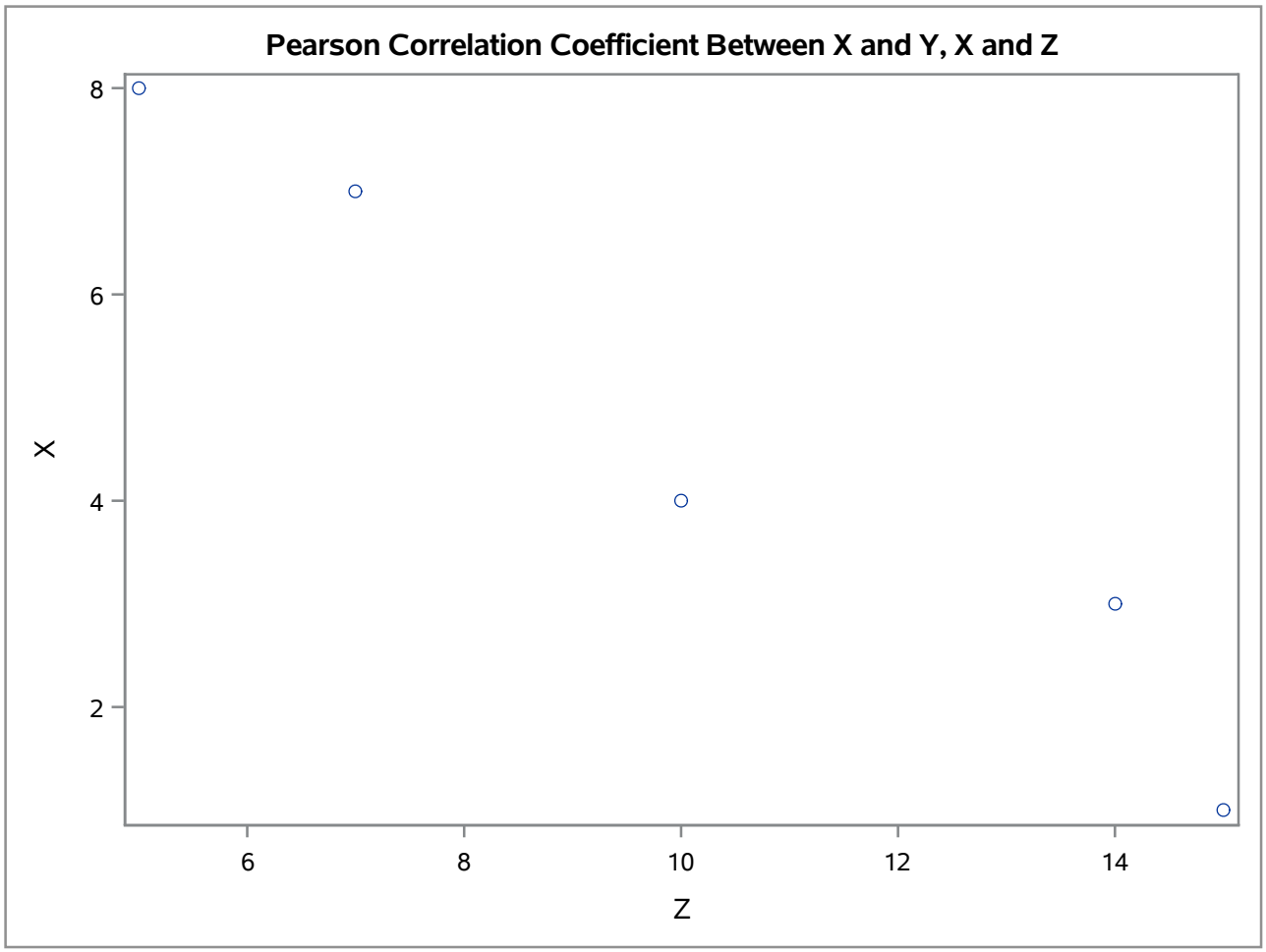
Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
Y	5	7.80000	4.54973	39.00000	3.00000	13.00000
Z	5	10.20000	4.32435	51.00000	5.00000	15.00000
X	5	4.60000	2.88097	23.00000	1.00000	8.00000

Pearson Correlation Coefficients, N = 5
Prob > |r| under H0: Rho=0

	X
Y	0.96509 0.0078
Z	-0.97525 0.0047


Pearson Correlation Coefficient Between X and Y, X and Z
8
6
4
2
X
4
6
8
10
12
Y


Pearson Correlation Coefficient Between X and Y, X and Z
8
6
4
2
X
6
8
10
12
14
Z

Pearson Correlation Coefficient Between variables X, Y Z

The CORR Procedure

3 Variables:	X Y Z

Simple Statistics						
Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
X	5	4.60000	2.88097	23.00000	1.00000	8.00000
Y	5	7.80000	4.54973	39.00000	3.00000	13.00000
Z	5	10.20000	4.32435	51.00000	5.00000	15.00000

Pearson Correlation Coefficients, N = 5 Prob > |r| under H0: Rho=0			
	X	Y	Z
X	1.00000	0.96509 0.0078	-0.97525 0.0047
Y	0.96509 0.0078	1.00000	-0.96317 0.0084
Z	-0.97525 0.0047	-0.96317 0.0084	1.00000

The REG Procedure
Model: MODEL1
Dependent Variable: Y

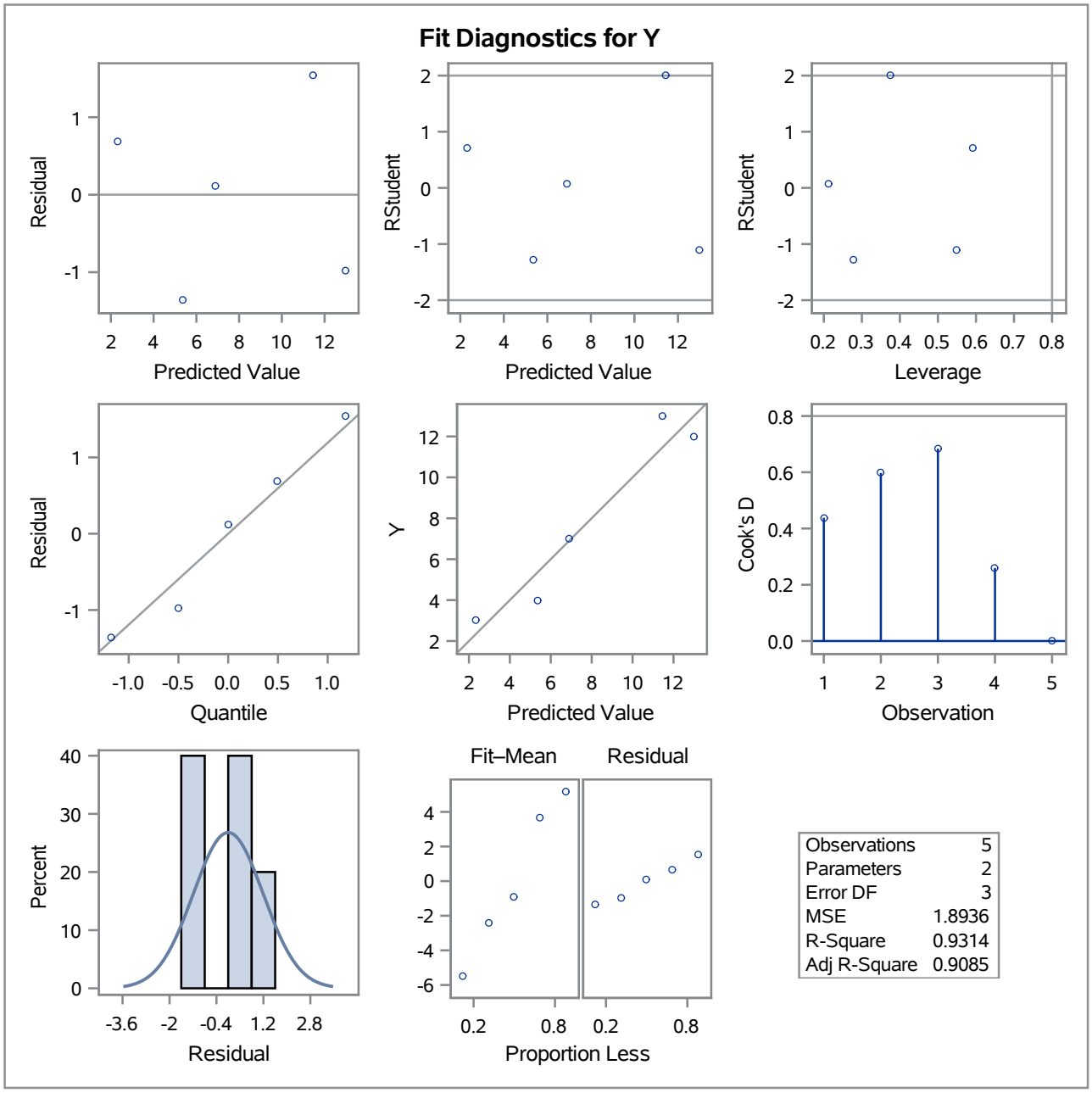
Number of Observations Read	5
Number of Observations Used	5

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	77.11928	77.11928	40.73	0.0078
Error	3	5.68072	1.89357		
Corrected Total	4	82.80000			

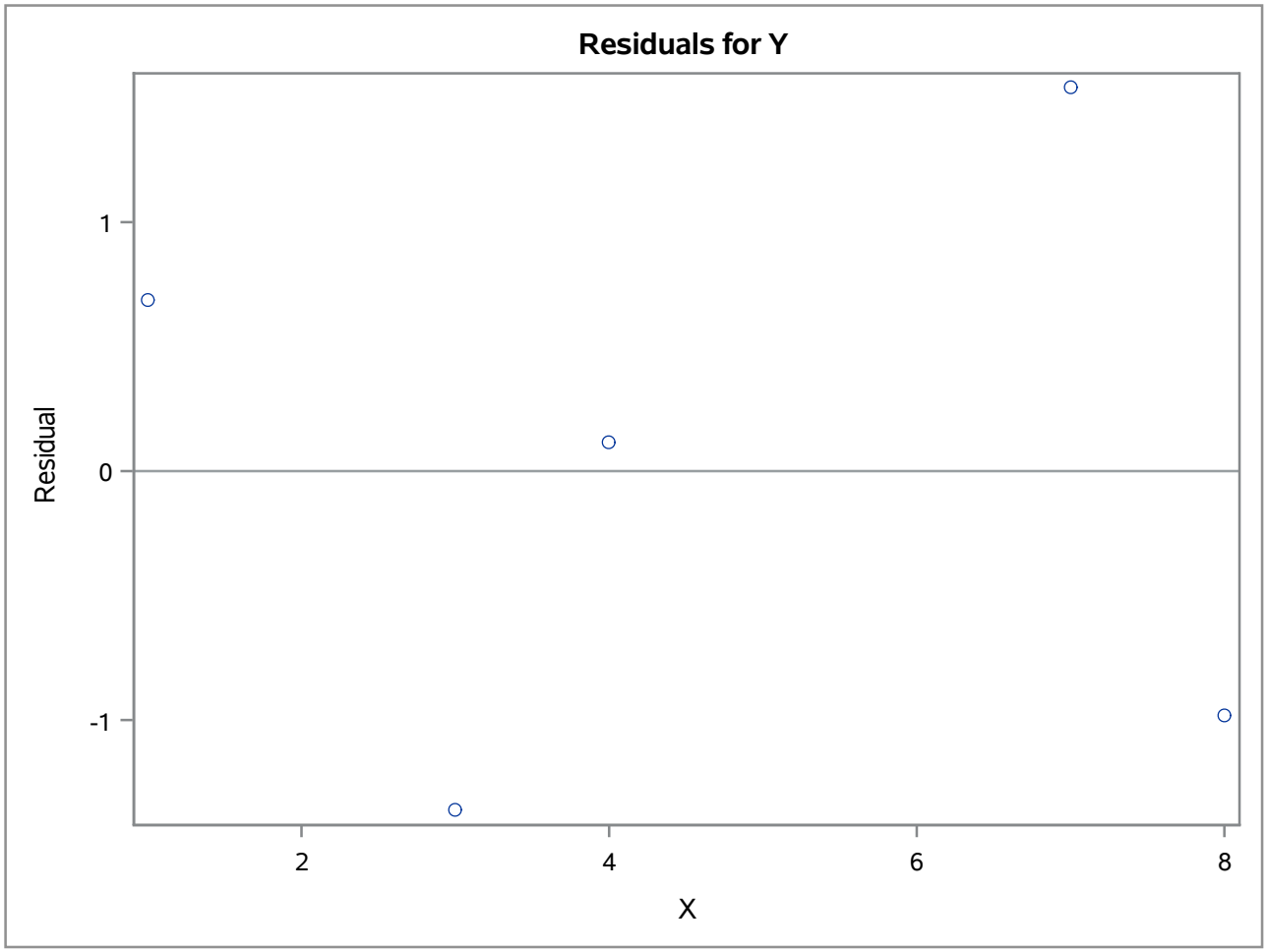
Root MSE	1.37607	R-Square	0.9314
Dependent Mean	7.80000	Adj R-Sq	0.9085
Coeff Var	17.64195		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	0.78916	1.25920	0.63	0.5753
X	1	1.52410	0.23882	6.38	0.0078

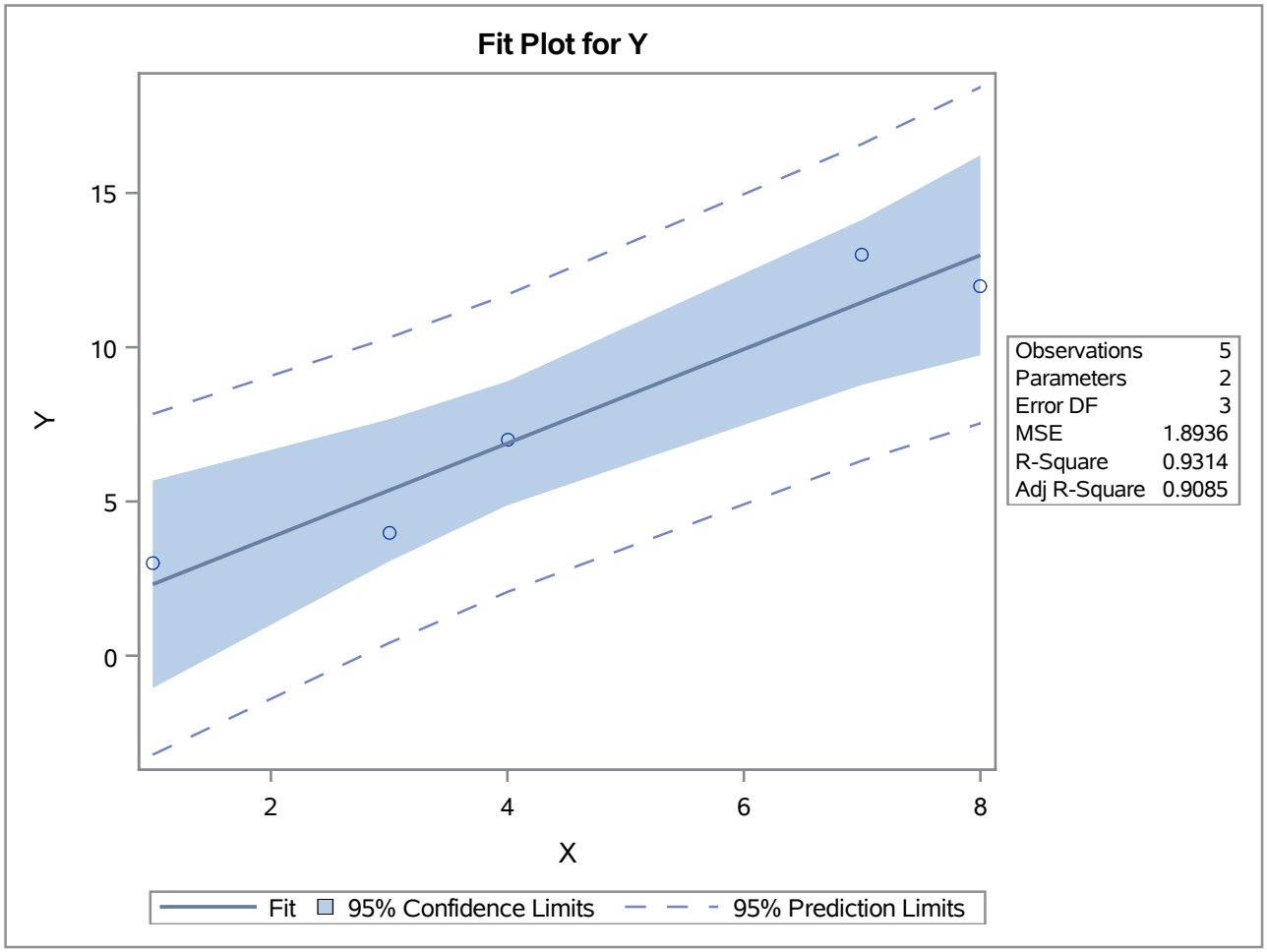
The REG Procedure
Model: MODEL1
Dependent Variable: Y



The REG Procedure
Model: MODEL1
Dependent Variable: Y



The REG Procedure
Model: MODEL1
Dependent Variable: Y



The CORR Procedure

2 Variables:	SBP AGE

Simple Statistics						
Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
SBP	6	132.66667	14.00952	796.00000	116.00000	150.00000
AGE	6	30.00000	13.03840	180.00000	15.00000	50.00000

Pearson Correlation Coefficients, N = 6 Prob > |r| under H0: Rho=0		
	SBP	AGE
SBP	1.00000	0.95258 0.0033
AGE	0.95258 0.0033	1.00000

The REG Procedure
Model: MODEL1
Dependent Variable: SBP Systolic Blood Pressure

Number of Observations Read	12
Number of Observations Used	12

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	4176.55854	4176.55854	103.61	<.0001
Error	10	403.10813	40.31081		
Corrected Total	11	4579.66667			

Root MSE	6.34908	**R-Square**	0.9120
Dependent Mean	163.83333	**Adj R-Sq**	0.9032
Coeff Var	3.87533		

Parameter Estimates

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	Intercept	1	188.82998	3.06430	61.62	<.0001
DOSE	Dose	1	-1.69469	0.16649	-10.18	<.0001

The REG Procedure
Model: MODEL1
Dependent Variable: DBP Diastolic Blood Pressure

Number of Observations Read	12
Number of Observations Used	12

Analysis of Variance

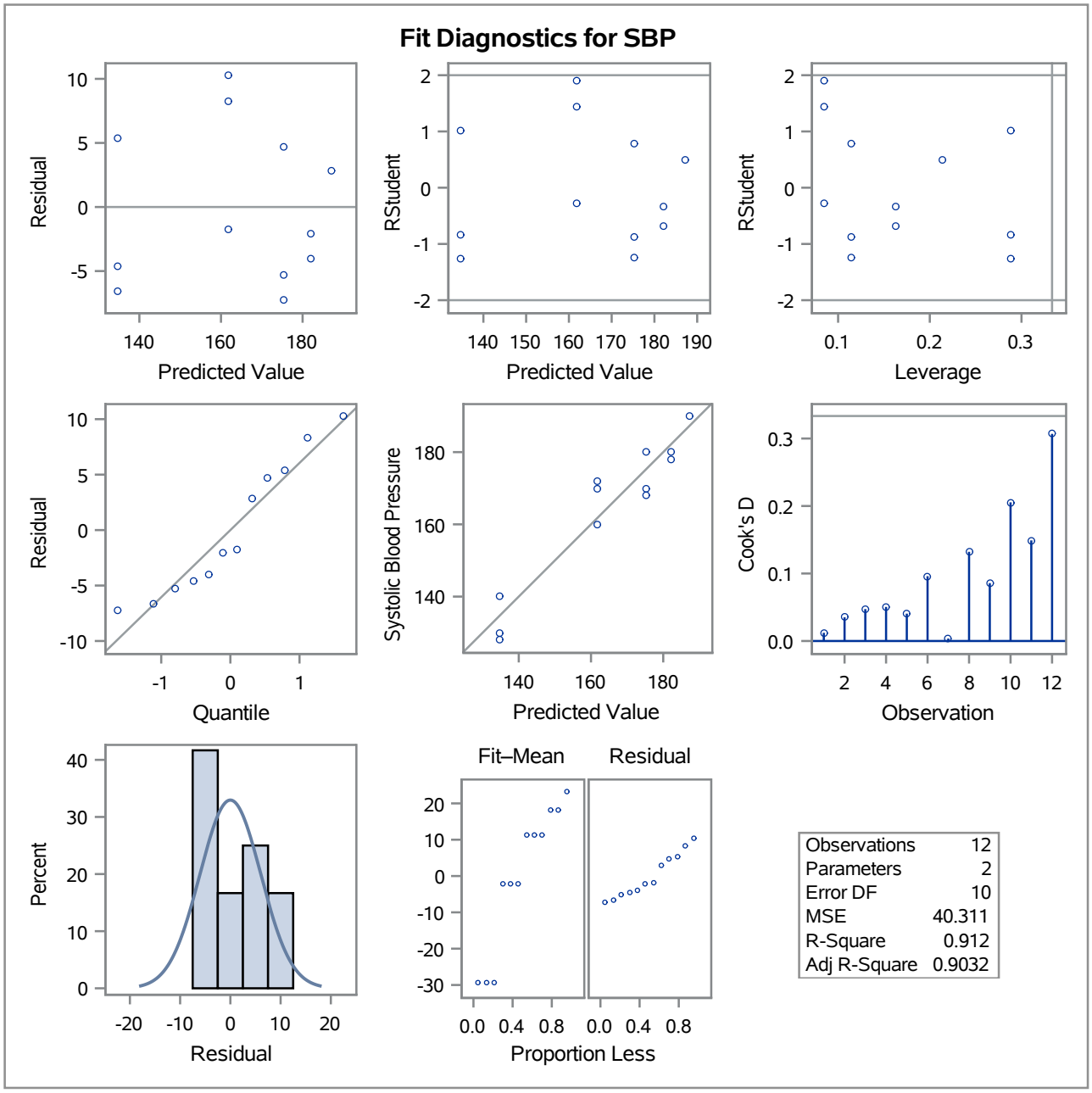
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	1606.54100	1606.54100	47.10	<.0001
Error	10	341.12567	34.11257		
Corrected Total	11	1947.66667			

Root MSE	5.84060	**R-Square**	0.8249
Dependent Mean	89.83333	**Adj R-Sq**	0.8073
Coeff Var	6.50159		

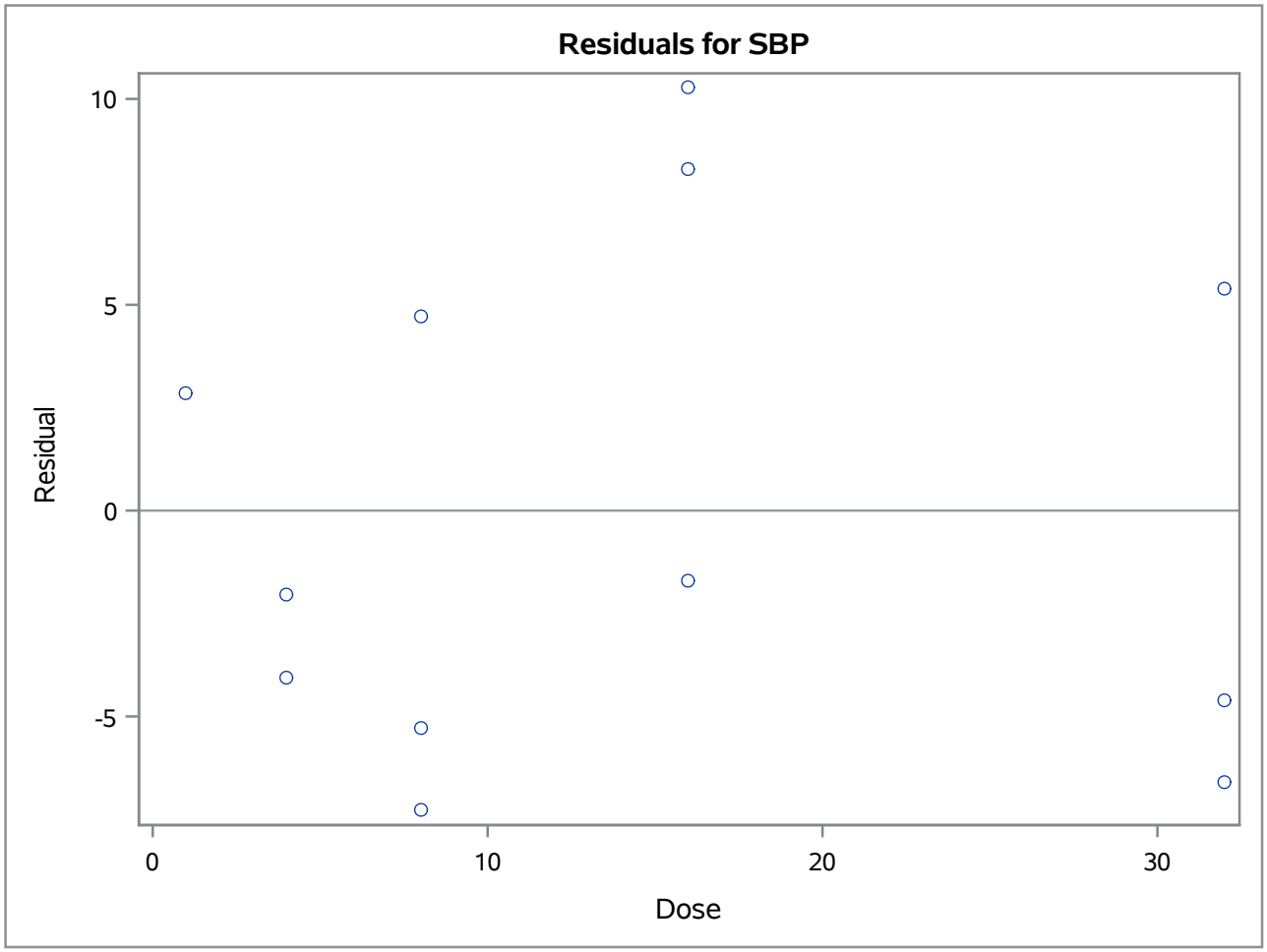
Parameter Estimates

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	Intercept	1	105.33643	2.81888	37.37	<.0001
DOSE	Dose	1	-1.05106	0.15316	-6.86	<.0001

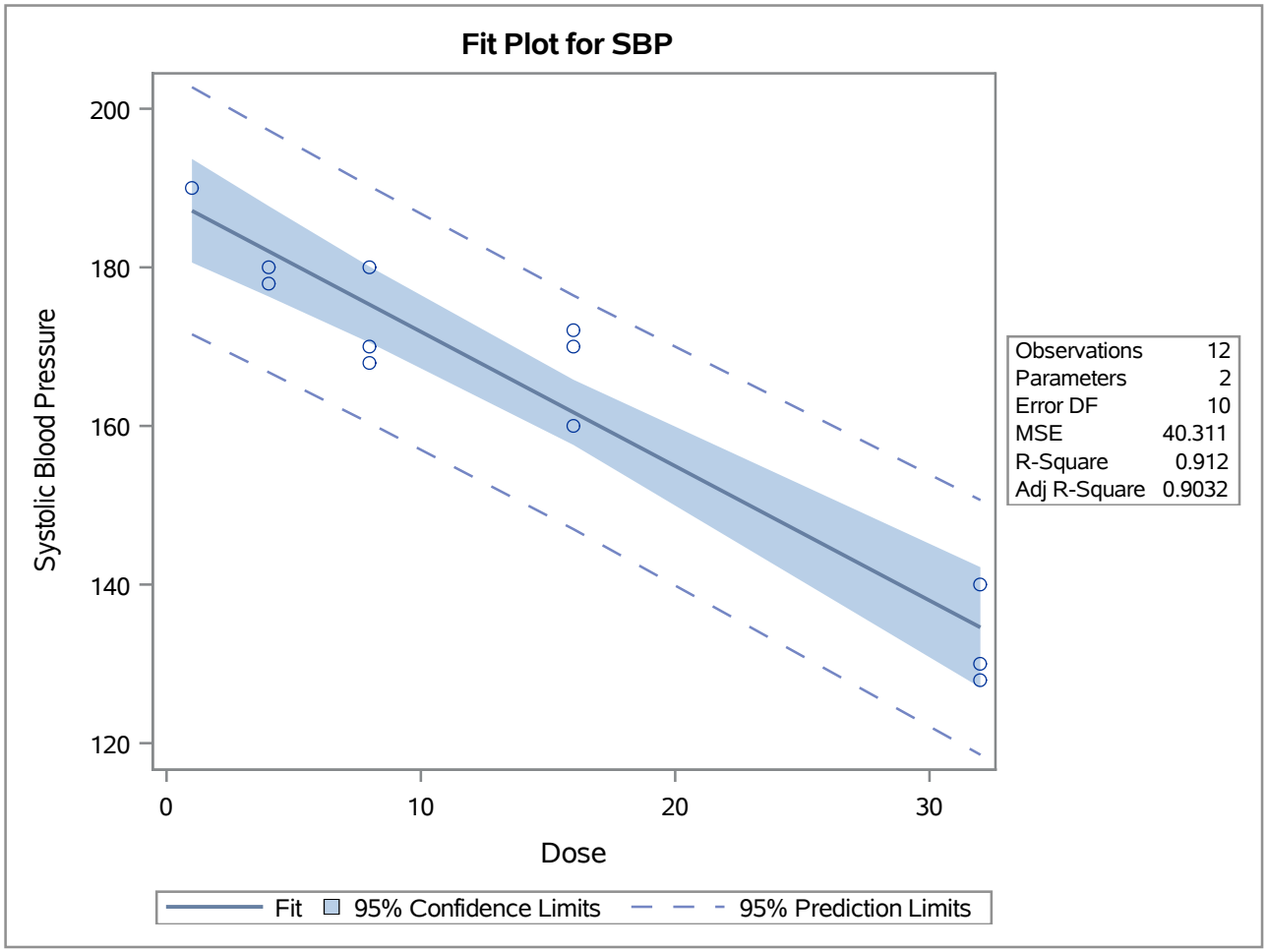
The REG Procedure
Model: MODEL1
Dependent Variable: SBP Systolic Blood Pressure



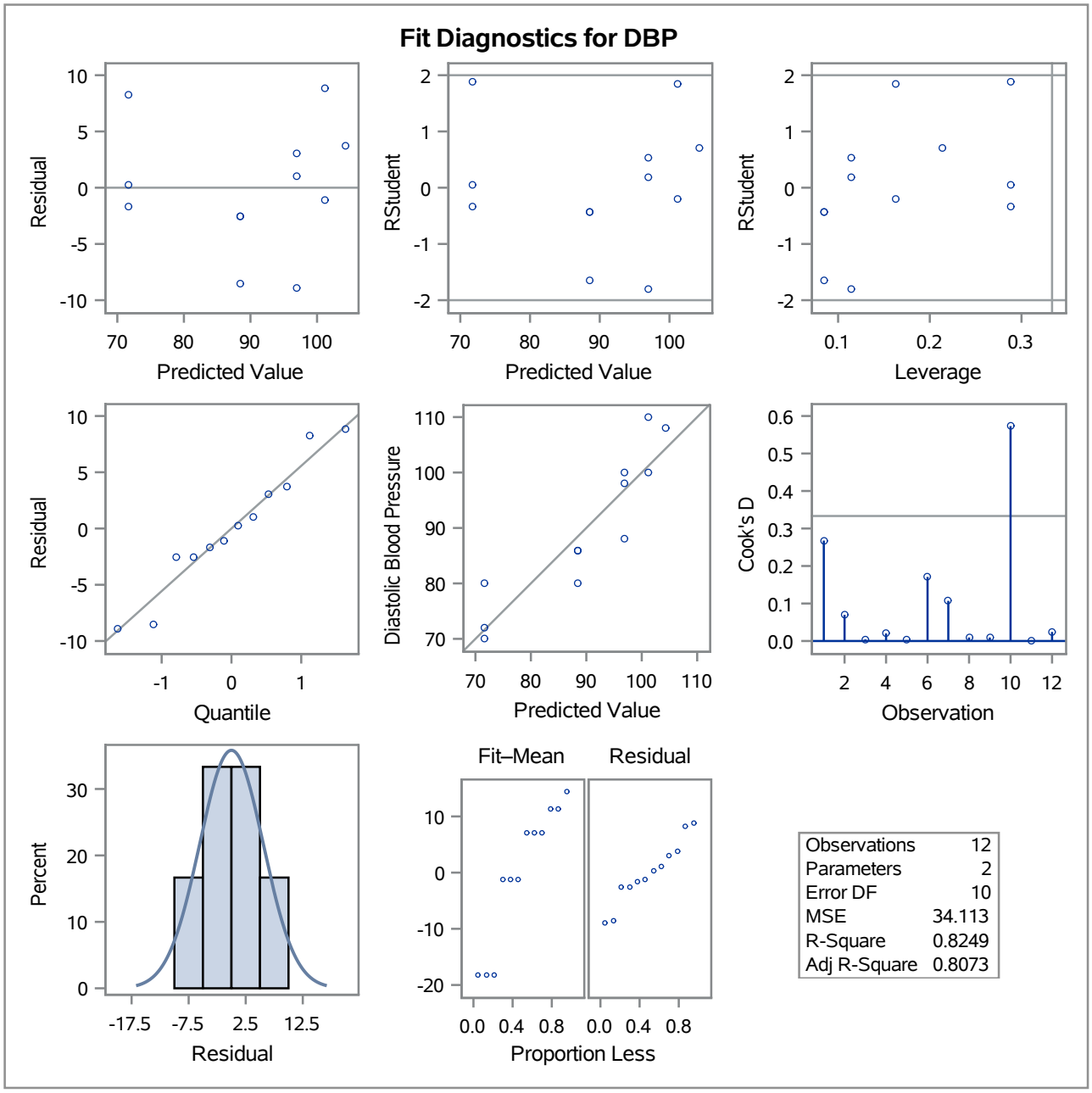
The REG Procedure
Model: MODEL1
Dependent Variable: SBP Systolic Blood Pressure



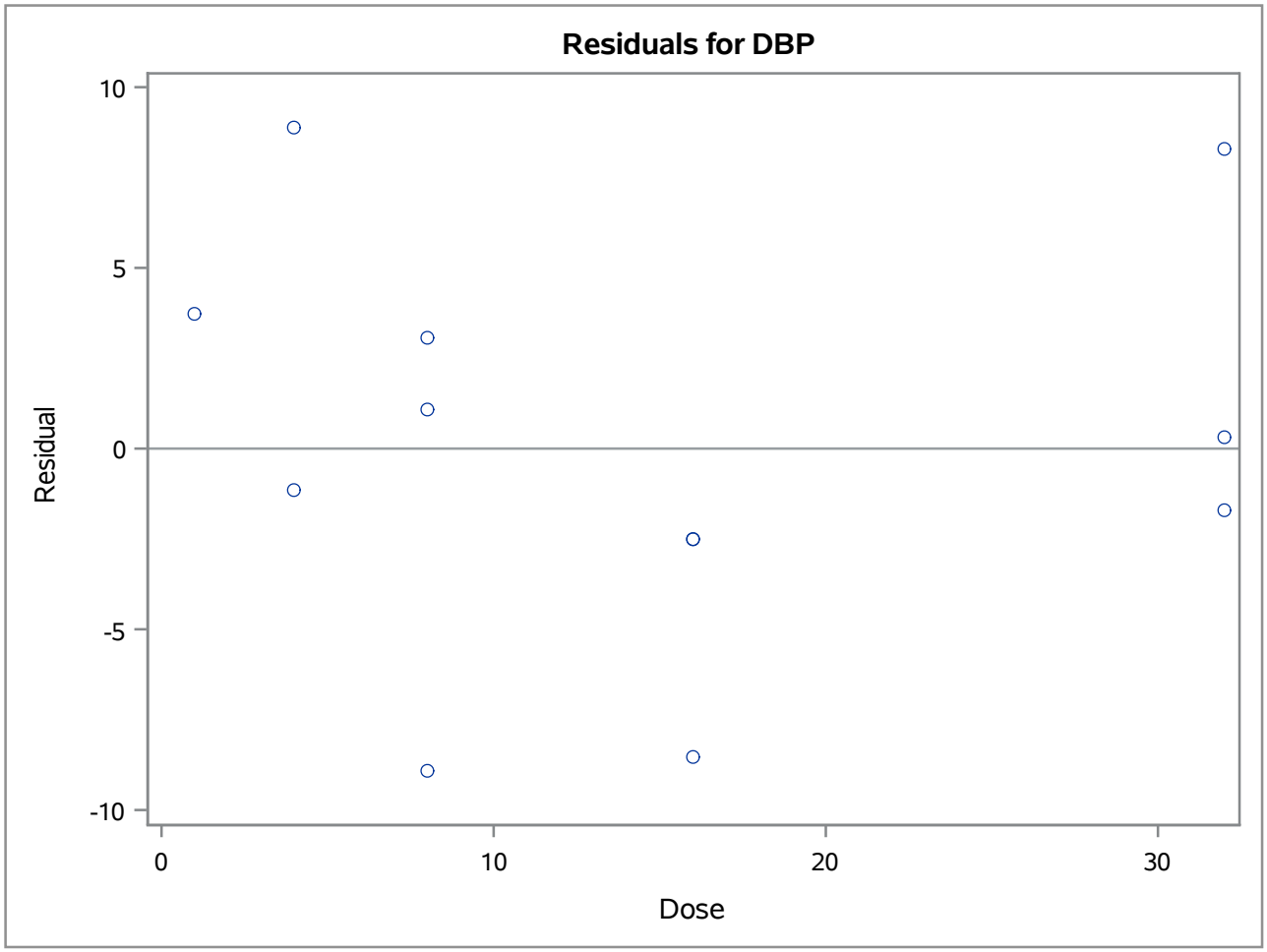
The REG Procedure
Model: MODEL1
Dependent Variable: SBP Systolic Blood Pressure



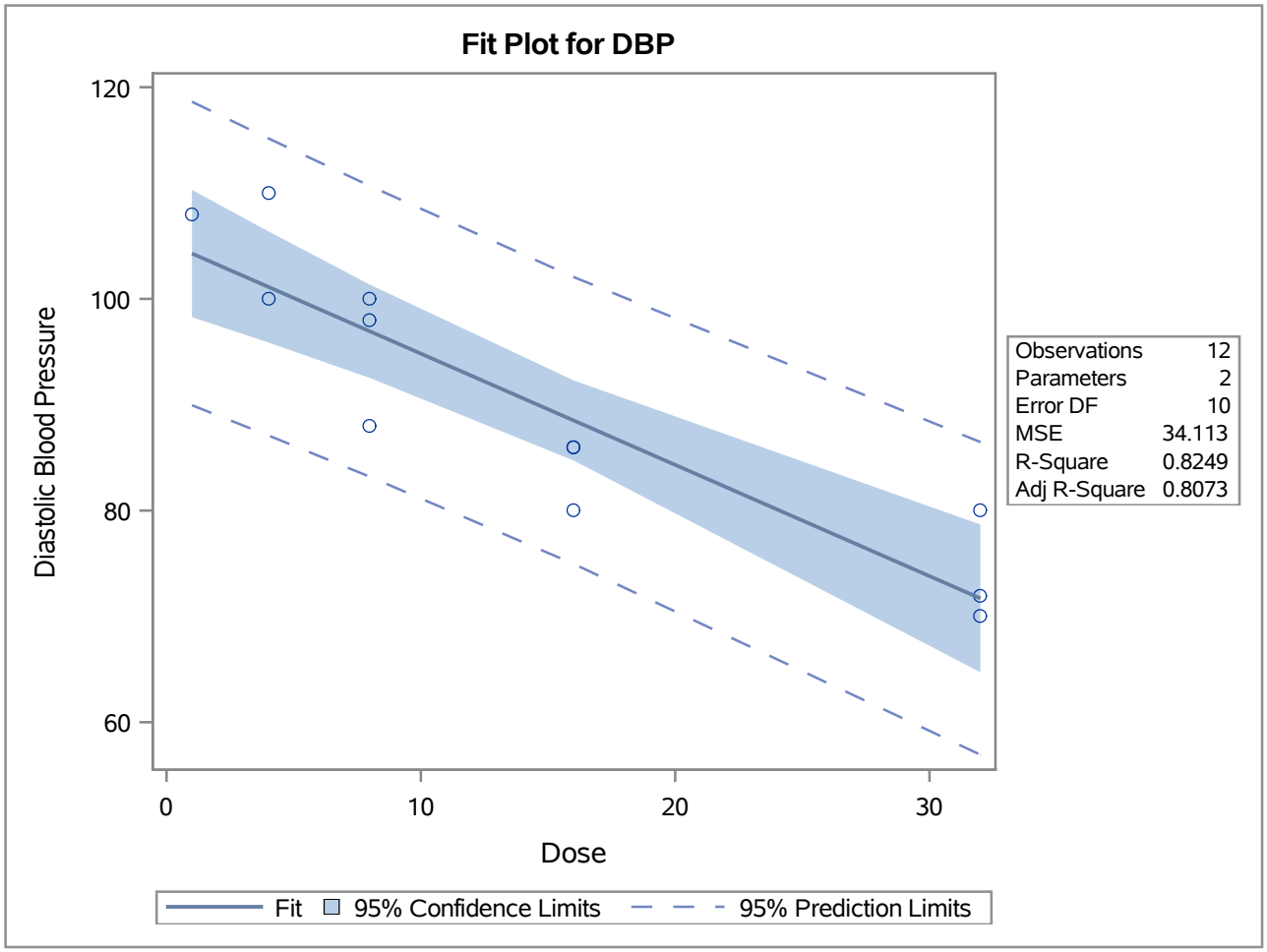
The REG Procedure
Model: MODEL1
Dependent Variable: DBP Diastolic Blood Pressure

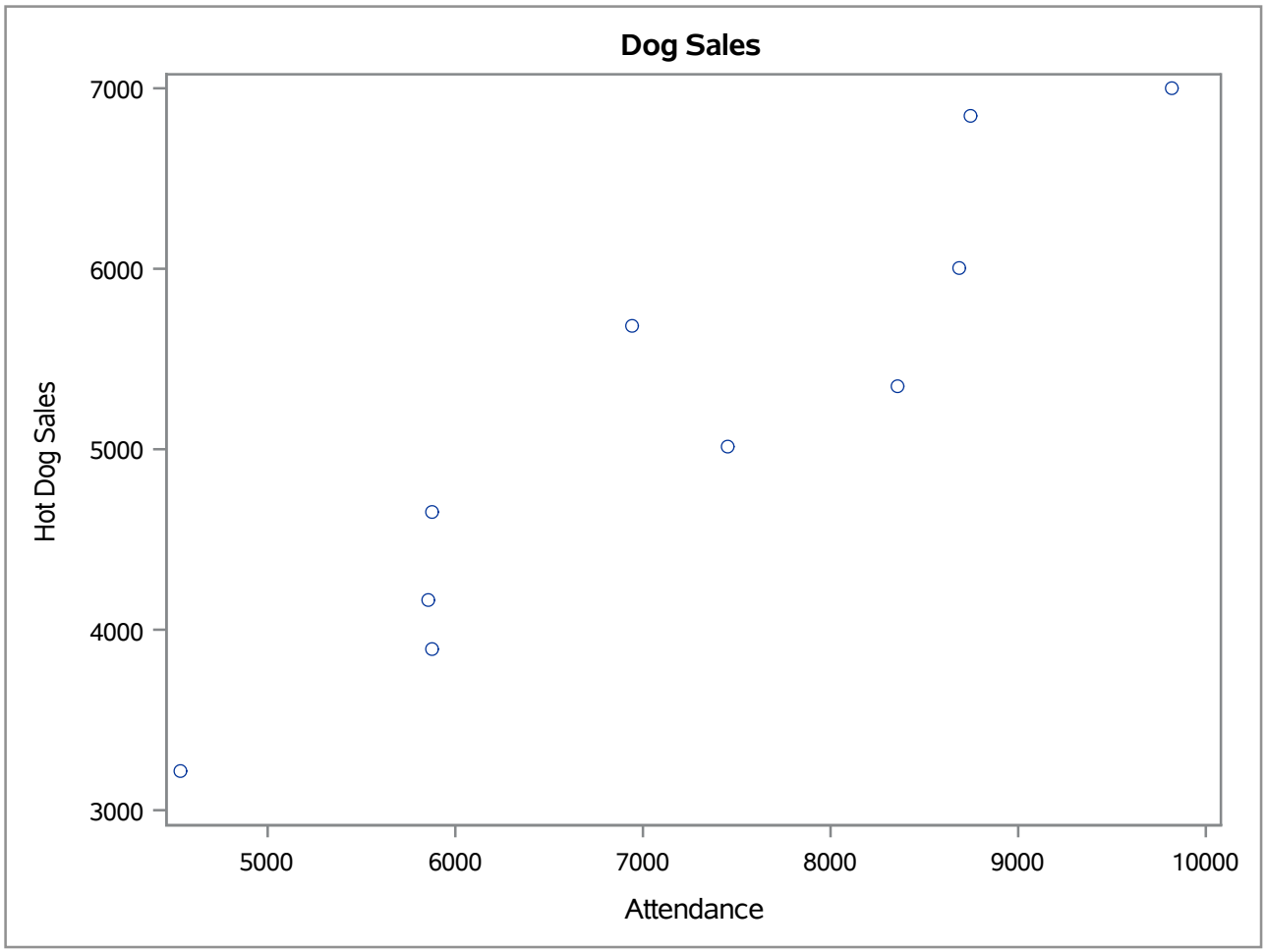


The REG Procedure
Model: MODEL1
Dependent Variable: DBP Diastolic Blood Pressure



The REG Procedure
Model: MODEL1
Dependent Variable: DBP Diastolic Blood Pressure




Dog Sales
Hot Dog Sales
7000
6000
5000
4000
3000
5000
6000
7000
8000
9000
10000
Attendance

The CORR Procedure

2 Variables:	ATT SALES

Simple Statistics							
Variable	N	Mean	Std Dev	Sum	Minimum	Maximum	Label
ATT	10	7215	1679	72149	4534	9821	Attendance
SALES	10	5184	1242	51838	3216	7001	Hot Dog Sales

Pearson Correlation Coefficients, N = 10 Prob > |r| under H0: Rho=0		
	ATT	SALES
ATT Attendance	1.00000	0.93748 <.0001
SALES Hot Dog Sales	0.93748 <.0001	1.00000

The REG Procedure
Model: MODEL1
Dependent Variable: SALES Hot Dog Sales

Number of Observations Read	10
Number of Observations Used	10

Analysis of Variance

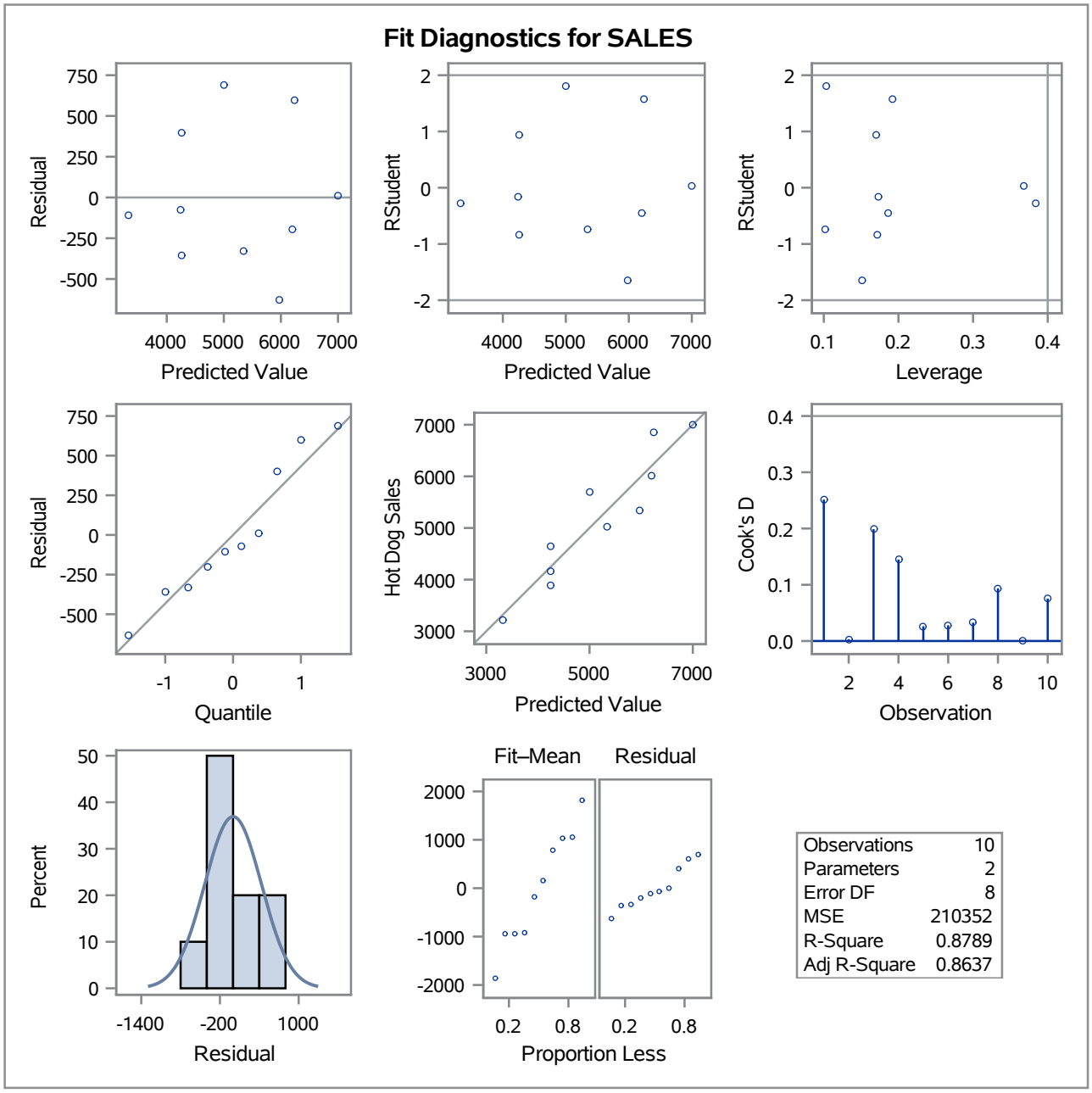
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	12209634	12209634	58.04	<.0001
Error	8	1682814	210352		
Corrected Total	9	13892448			

Root MSE	458.64114	**R-Square**	0.8789
Dependent Mean	5183.80000	**Adj R-Sq**	0.8637
Coeff Var	8.84759		

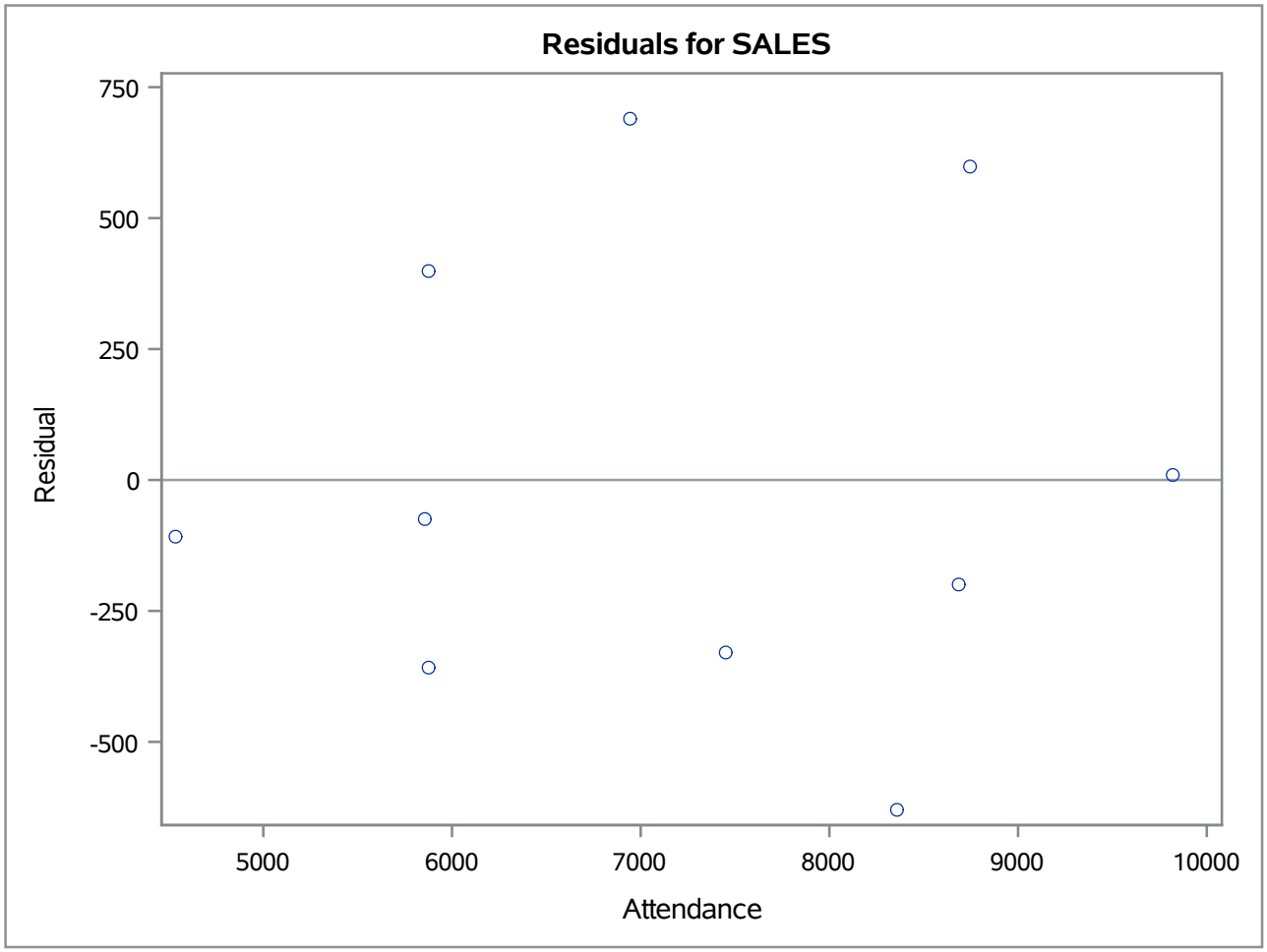
Parameter Estimates

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	95% Confidence Limits	
Intercept	Intercept	1	179.41977	672.68015	0.27	0.7964	-1371.78344	1730.62298
ATT	Attendance	1	0.69362	0.09104	7.62	<.0001	0.48367	0.90356

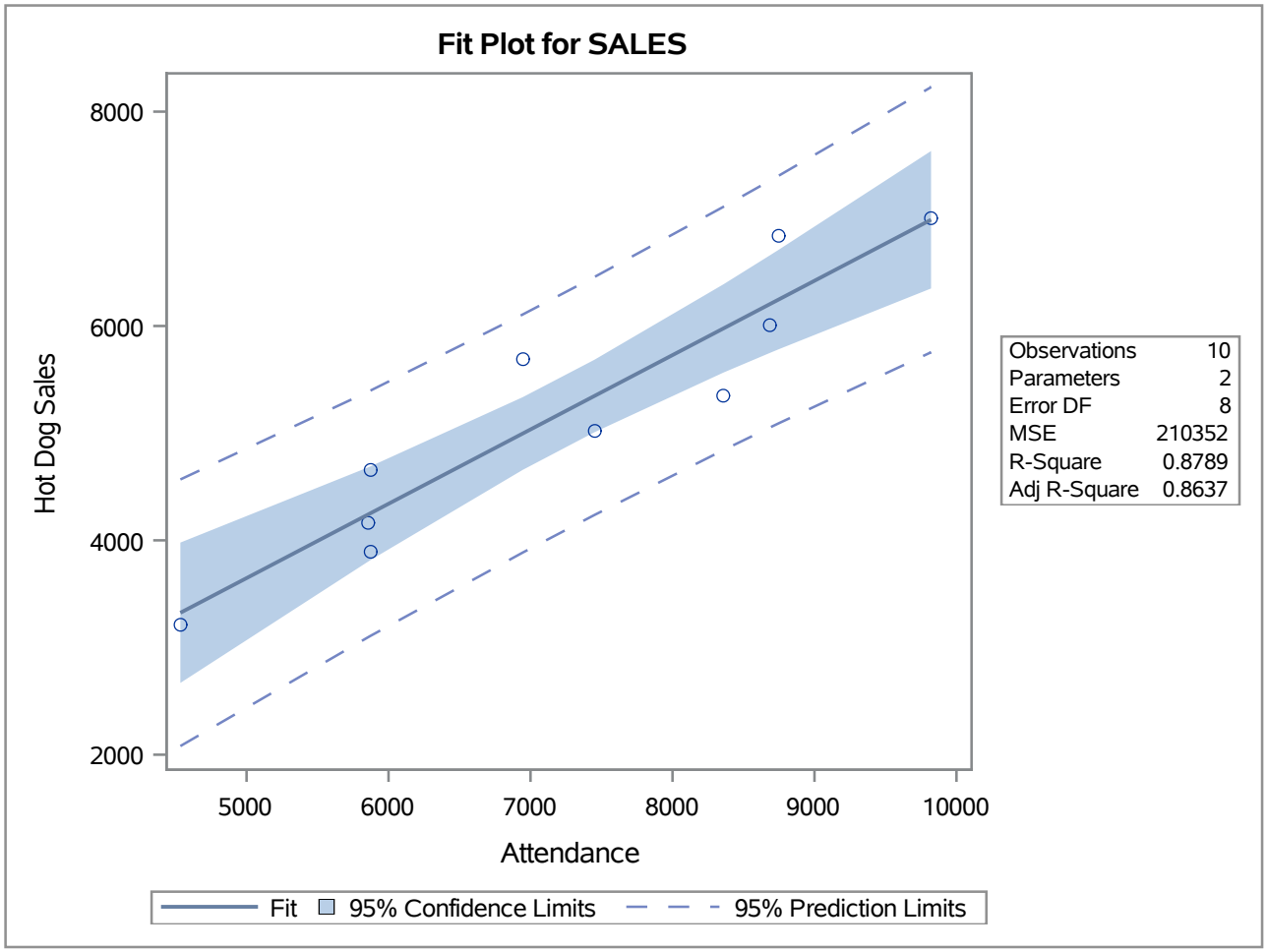
The REG Procedure
Model: MODEL1
Dependent Variable: SALES Hot Dog Sales



The REG Procedure
Model: MODEL1
Dependent Variable: SALES Hot Dog Sales



The REG Procedure
Model: MODEL1
Dependent Variable: SALES Hot Dog Sales



Correlation Coefficient Tax vs Gross correlation

The CORR Procedure

2 Variables:	TAX GROSS

Simple Statistics							
Variable	**N**	**Mean**	**Std Dev**	**Sum**	**Minimum**	**Maximum**	**Label**
TAX	11	21.51818	7.28215	236.70000	10.20000	30.40000	Taxes Paid (% of Total Income)
GROSS	11	85.96364	55.04433	945.60000	10.40000	172.20000	Gross Income (in 1000\' s)

Pearson Correlation Coefficients, N = 11 Prob > |r| under H0: Rho=0		
	TAX	**GROSS**
TAX Taxes Paid (% of Total Income)	1.00000	0.83412 0.0014
GROSS Gross Income (in 1000\' s)	0.83412 0.0014	1.00000

The REG Procedure
Model: MODEL1
Dependent Variable: TAX Taxes Paid (% of Total Income)

Number of Observations Read	11
Number of Observations Used	11

Analysis of Variance

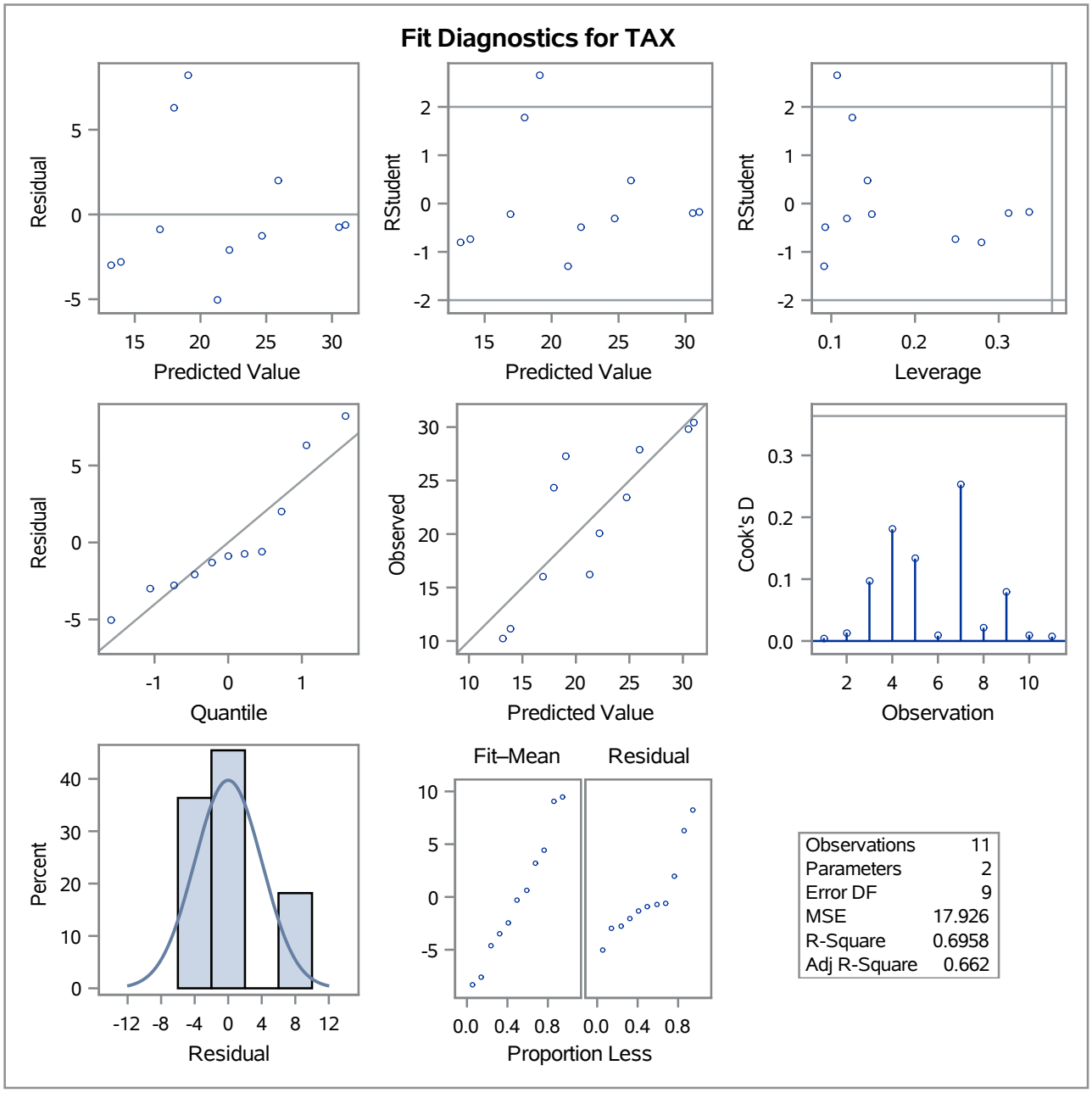
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	368.96003	368.96003	20.58	0.0014
Error	9	161.33633	17.92626		
Corrected Total	10	530.29636			

Root MSE	4.23394	**R-Square**	0.6958
Dependent Mean	21.51818	**Adj R-Sq**	0.6620
Coeff Var	19.67611		

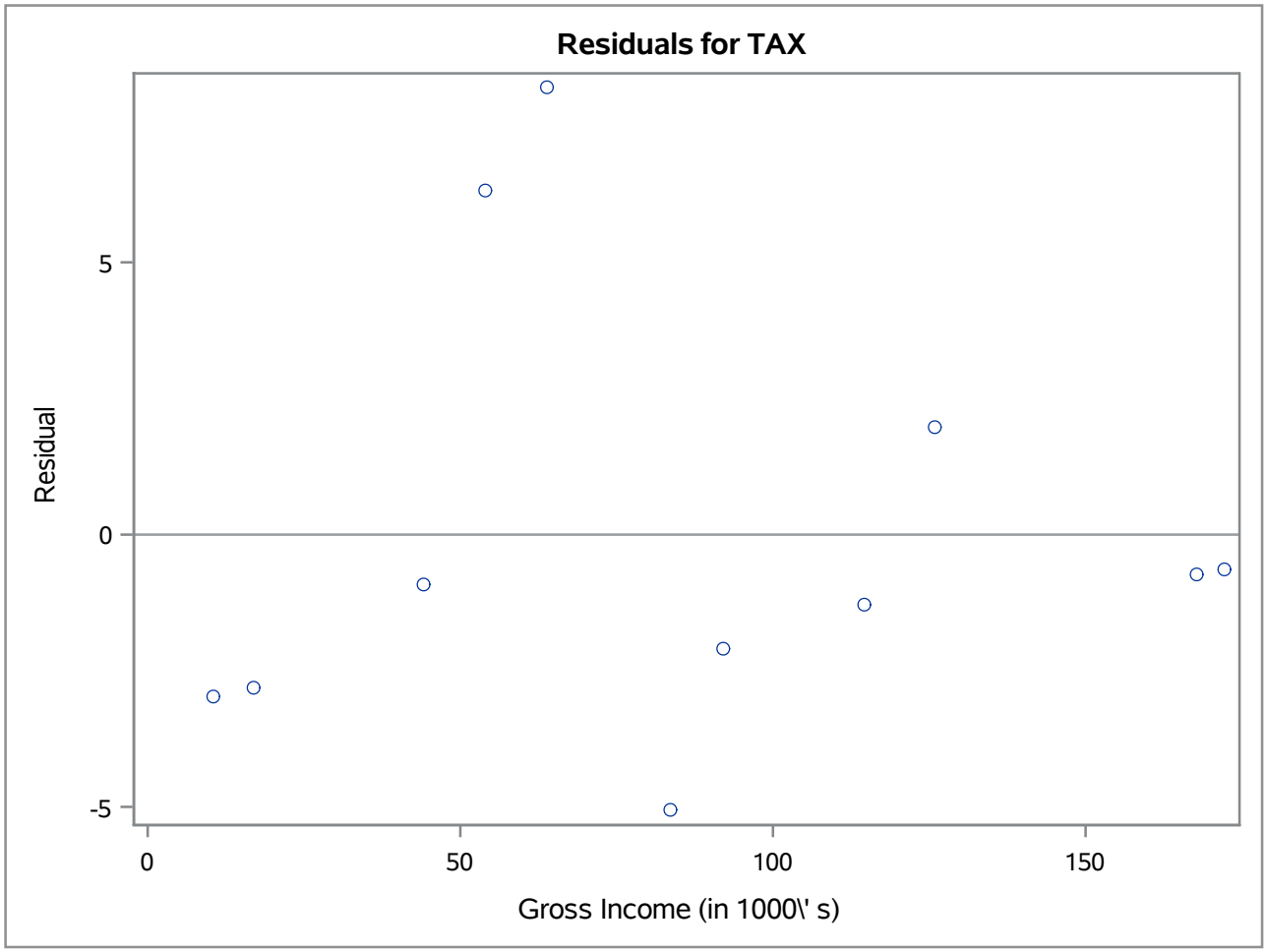
Parameter Estimates

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	95% Confidence Limits	
Intercept	Intercept	1	12.03199	2.44986	4.91	0.0008	6.49003	17.57395
GROSS	Gross Income (in 1000\' s)	1	0.11035	0.02432	4.54	0.0014	0.05533	0.16538

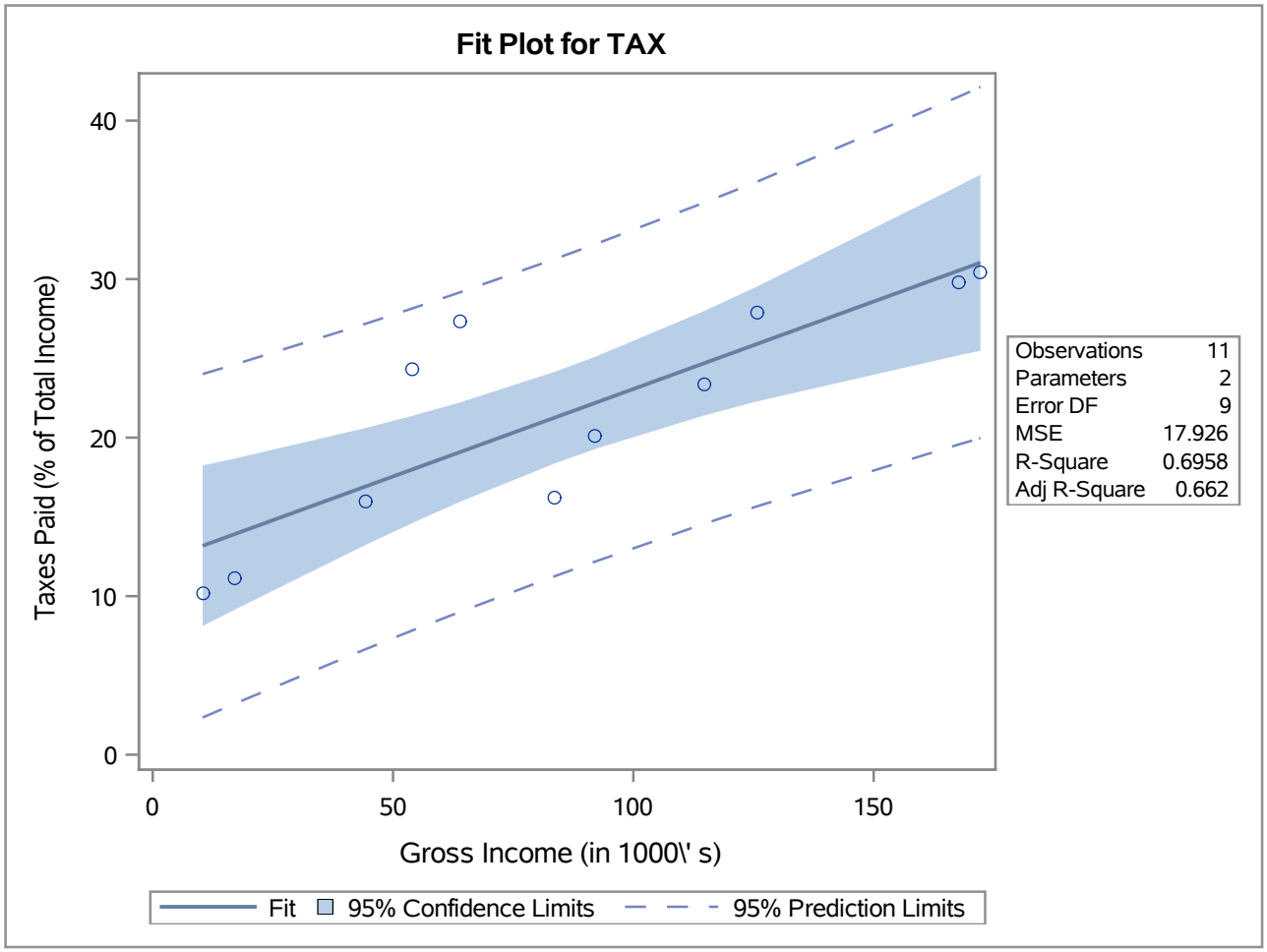
The REG Procedure
Model: MODEL1
Dependent Variable: TAX Taxes Paid (% of Total Income)



The REG Procedure
Model: MODEL1
Dependent Variable: TAX Taxes Paid (% of Total Income)



The REG Procedure
Model: MODEL1
Dependent Variable: TAX Taxes Paid (% of Total Income)



The REG Procedure
Model: MODEL1
Dependent Variable: TAX Taxes Paid (% of Total Income)

Number of Observations Read	11
Number of Observations Used	11

Analysis of Variance

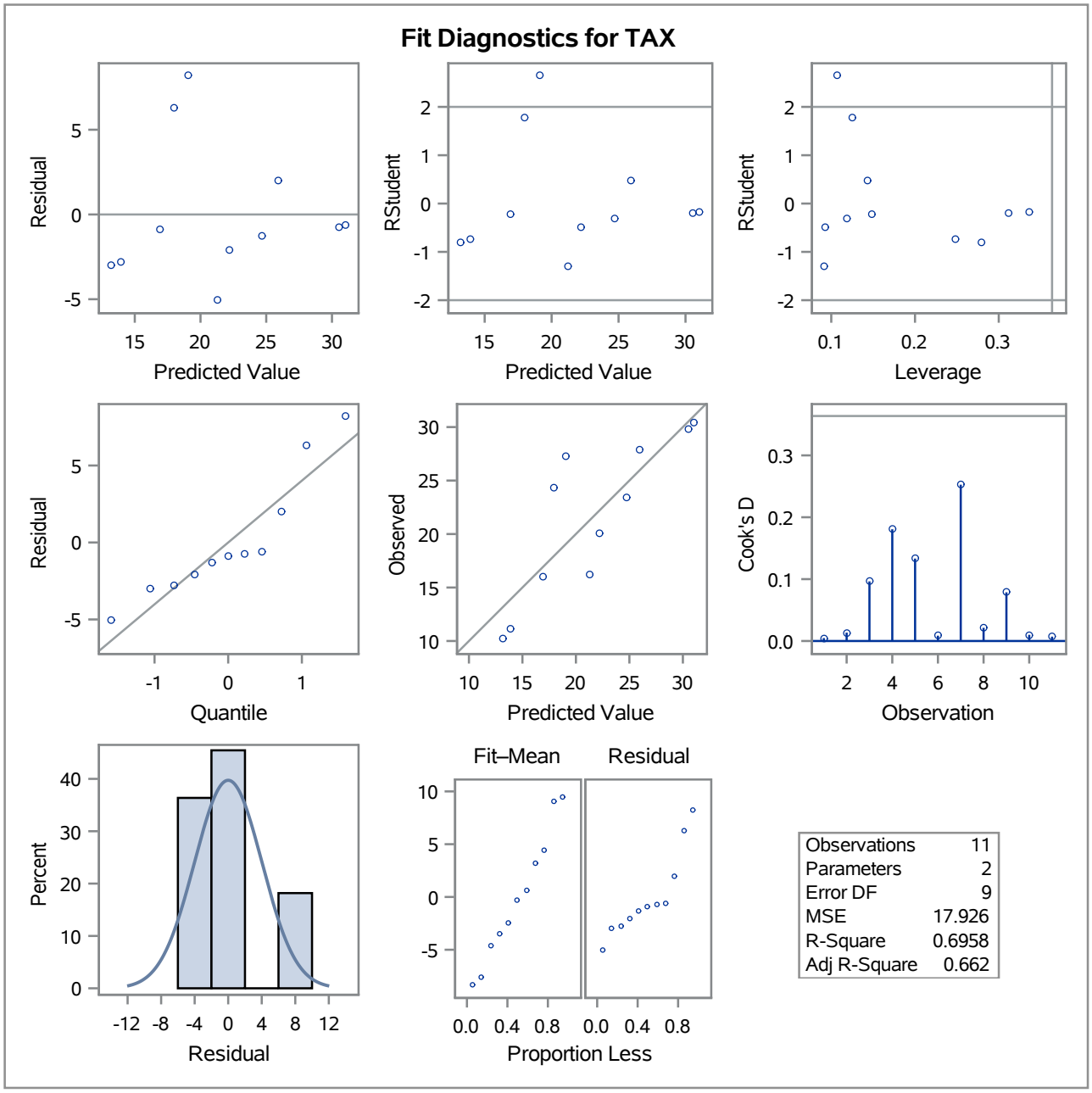
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	368.96003	368.96003	20.58	0.0014
Error	9	161.33633	17.92626		
Corrected Total	10	530.29636			

Root MSE	4.23394	**R-Square**	0.6958
Dependent Mean	21.51818	**Adj R-Sq**	0.6620
Coeff Var	19.67611		

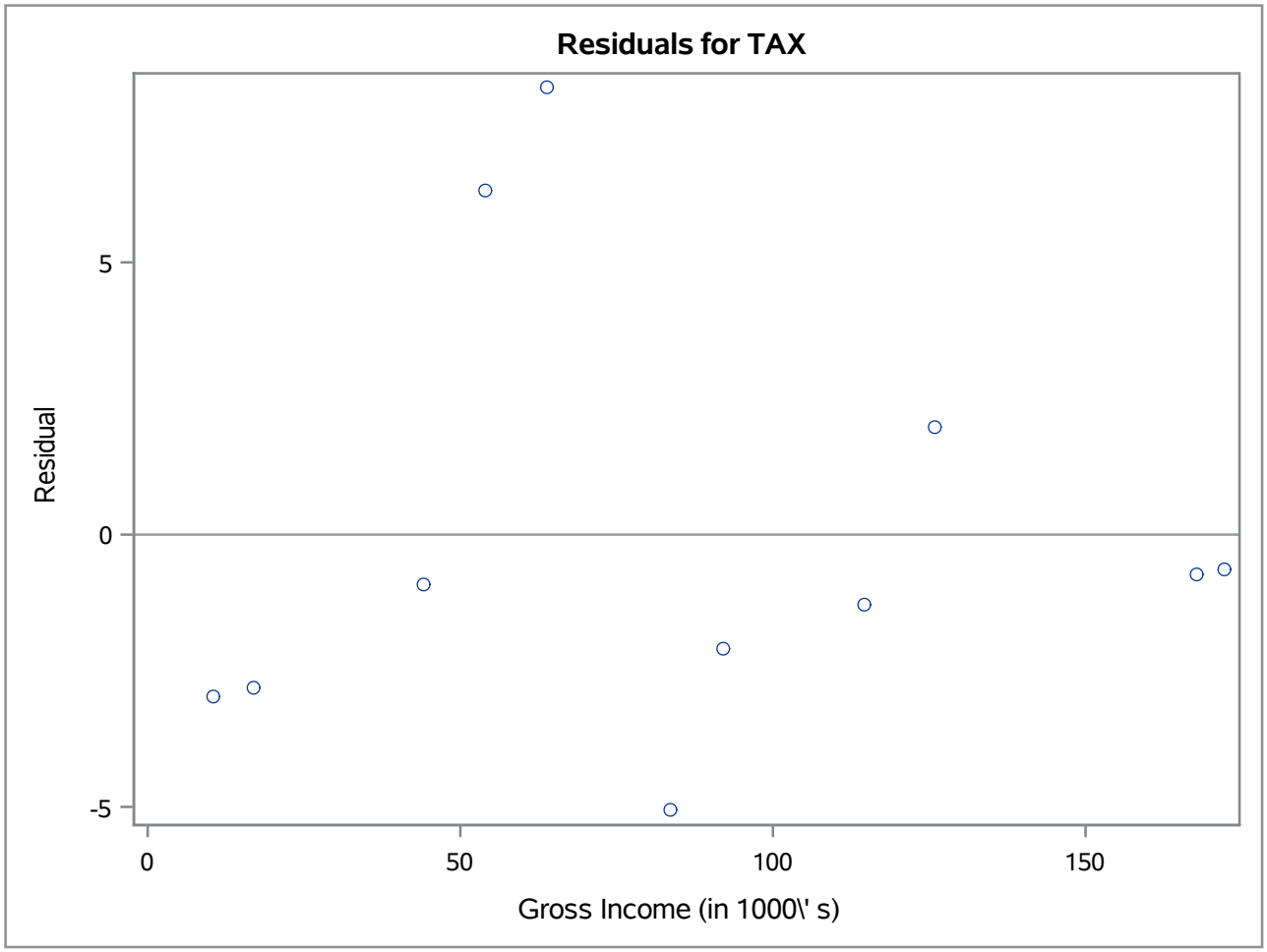
Parameter Estimates

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	95% Confidence Limits	
Intercept	Intercept	1	12.03199	2.44986	4.91	0.0008	6.49003	17.57395
GROSS	Gross Income (in 1000\' s)	1	0.11035	0.02432	4.54	0.0014	0.05533	0.16538

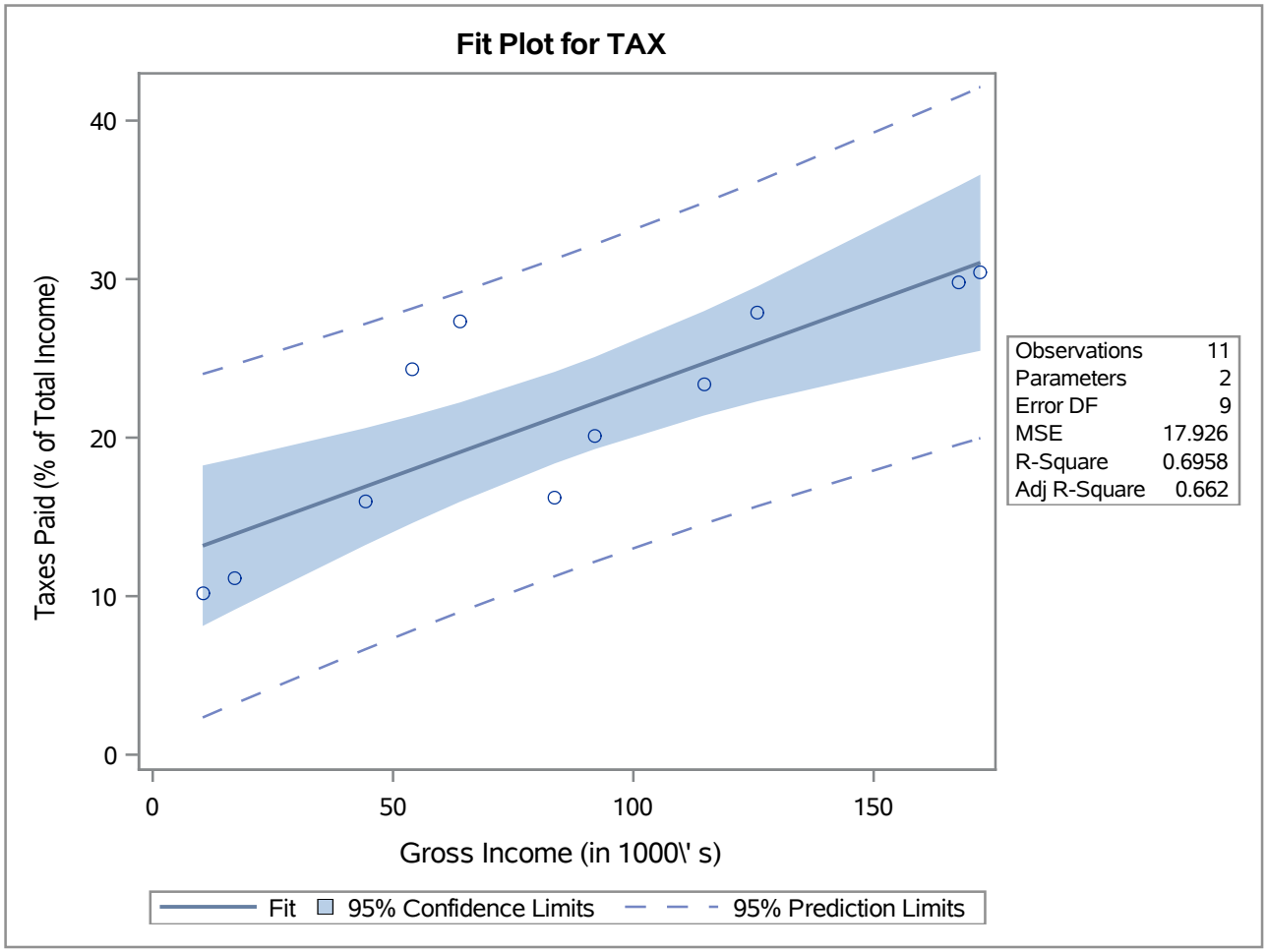
The REG Procedure
Model: MODEL1
Dependent Variable: TAX Taxes Paid (% of Total Income)



The REG Procedure
Model: MODEL1
Dependent Variable: TAX Taxes Paid (% of Total Income)



The REG Procedure
Model: MODEL1
Dependent Variable: TAX Taxes Paid (% of Total Income)



The REG Procedure
Model: MODEL1
Dependent Variable: TAX Taxes Paid (% of Total Income)

Number of Observations Read	12
Number of Observations Used	11
Number of Observations with Missing Values	1

Analysis of Variance

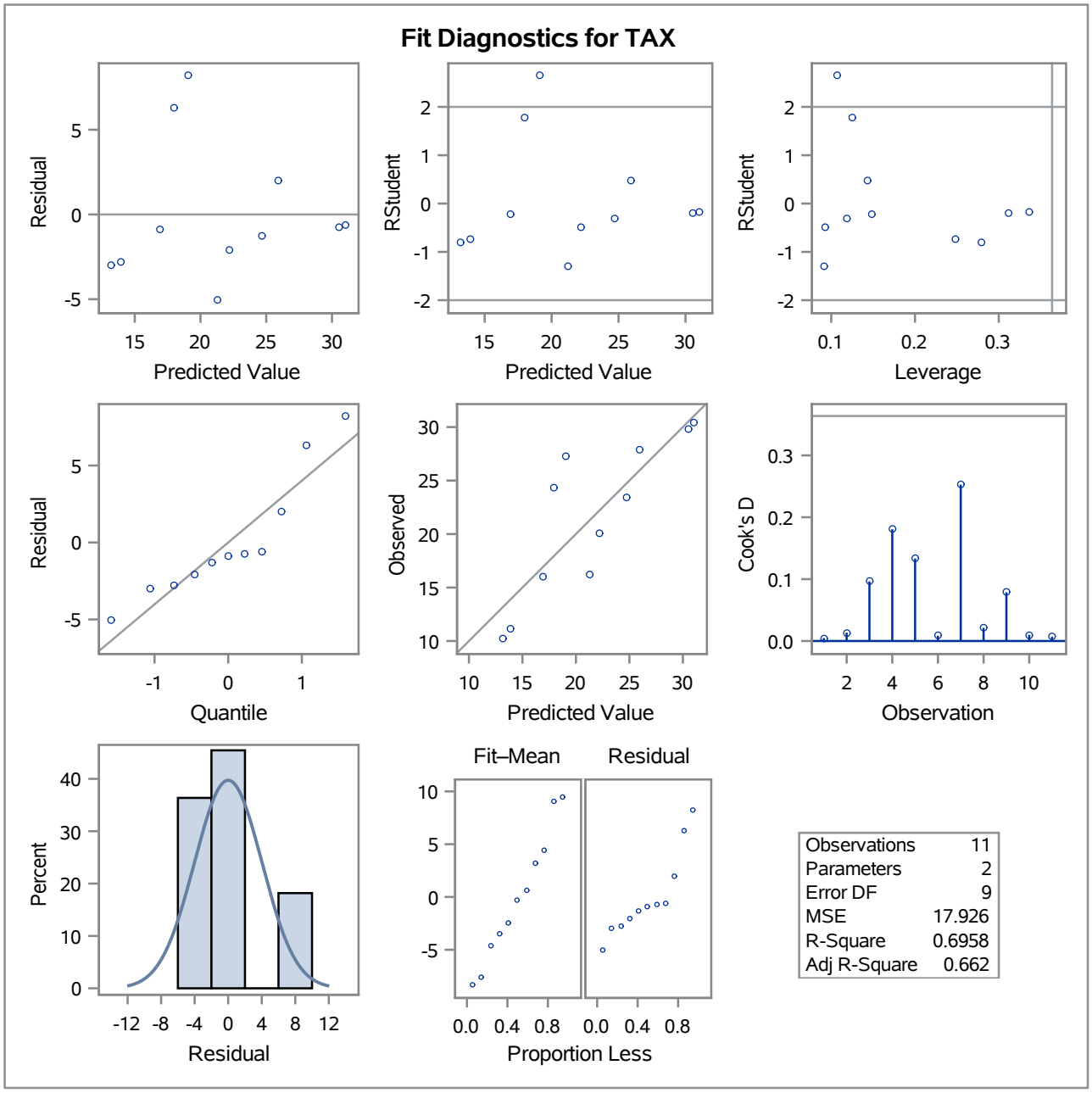
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	368.96003	368.96003	20.58	0.0014
Error	9	161.33633	17.92626		
Corrected Total	10	530.29636			

Root MSE	4.23394	**R-Square**	0.6958
Dependent Mean	21.51818	**Adj R-Sq**	0.6620
Coeff Var	19.67611		

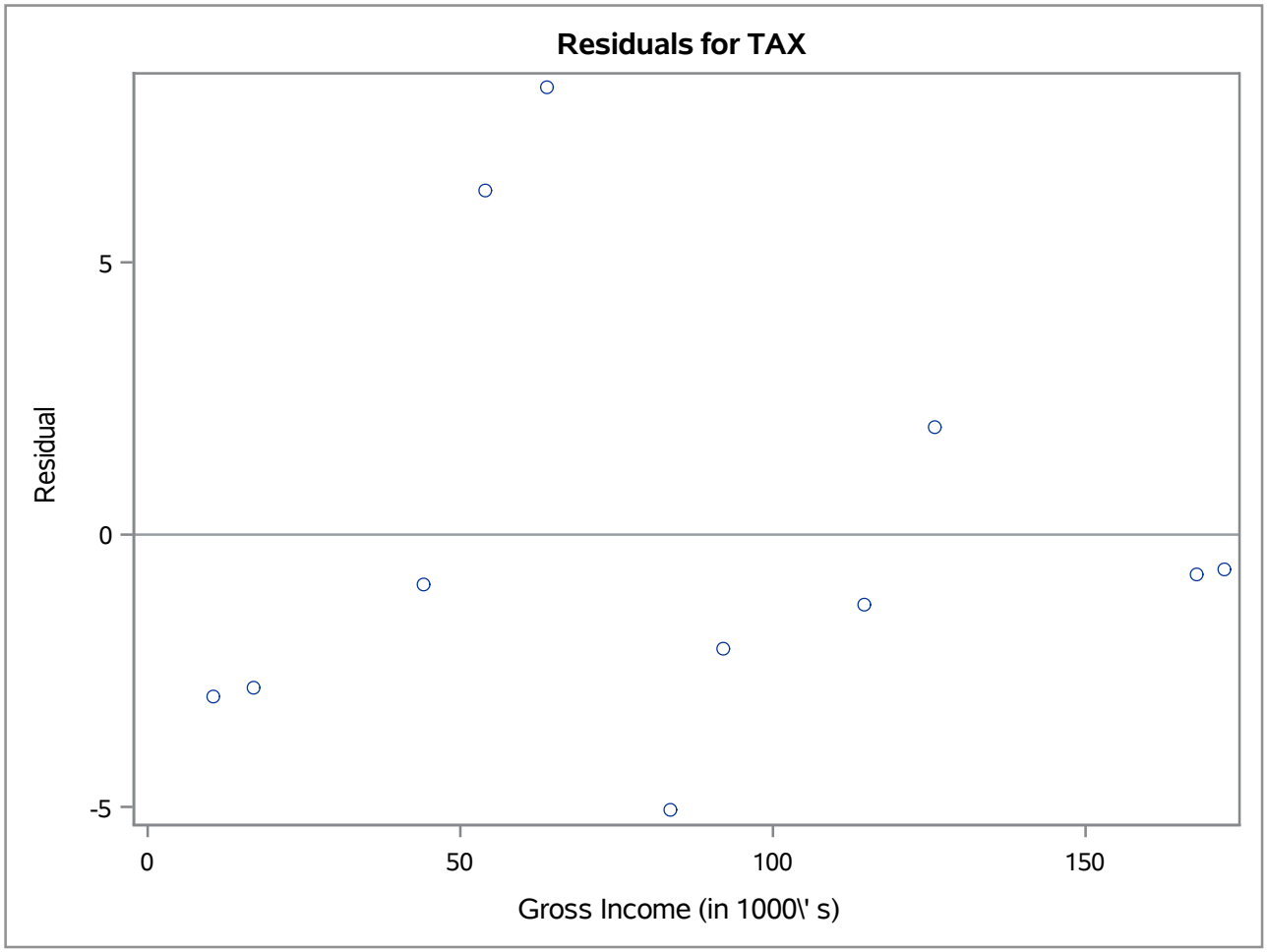
Parameter Estimates

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	95% Confidence Limits	
Intercept	Intercept	1	12.03199	2.44986	4.91	0.0008	6.49003	17.57395
GROSS	Gross Income (in 1000\' s)	1	0.11035	0.02432	4.54	0.0014	0.05533	0.16538

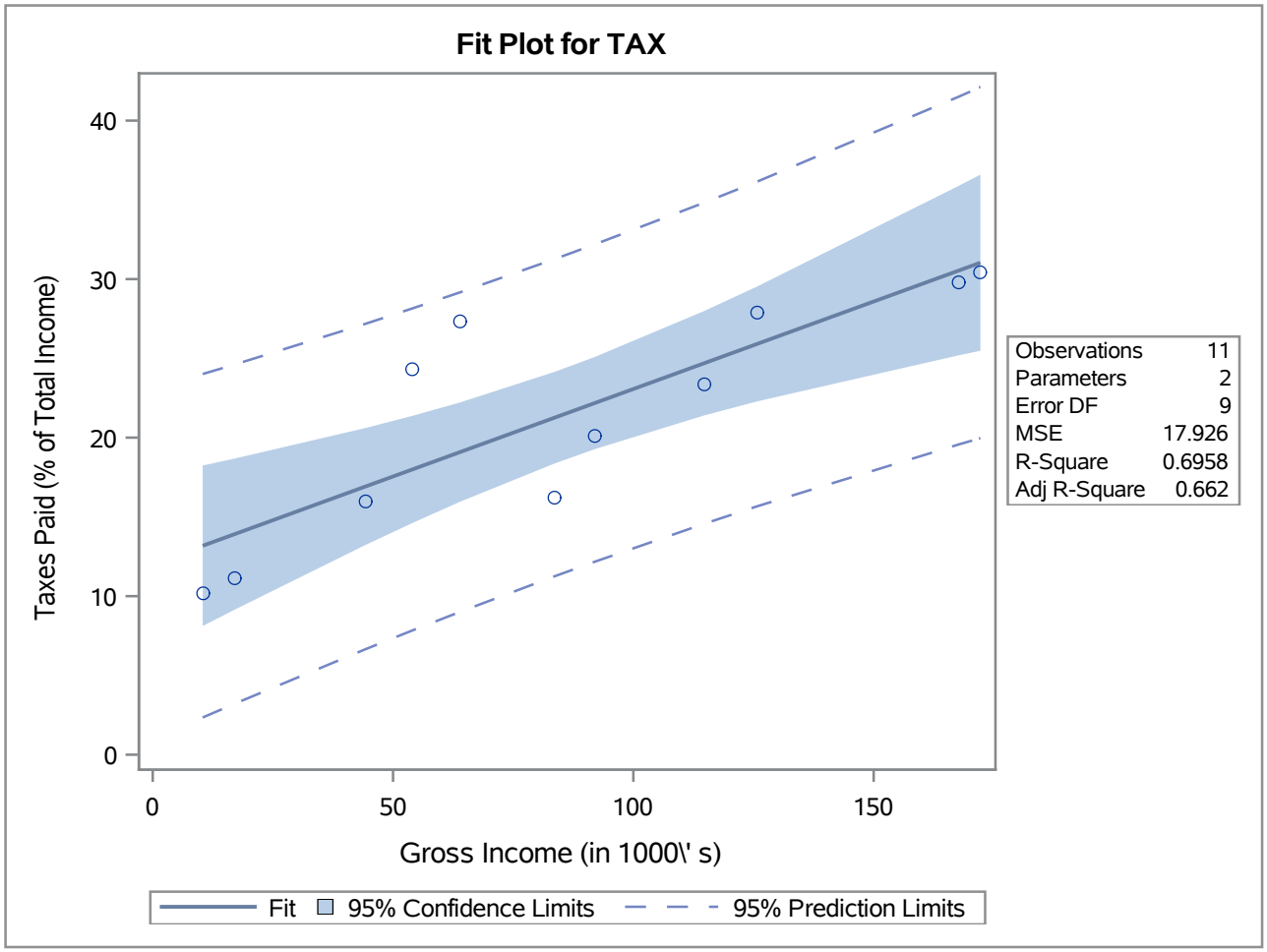
The REG Procedure
Model: MODEL1
Dependent Variable: TAX Taxes Paid (% of Total Income)



The REG Procedure
Model: MODEL1
Dependent Variable: TAX Taxes Paid (% of Total Income)



The REG Procedure
Model: MODEL1
Dependent Variable: TAX Taxes Paid (% of Total Income)



Obs	GROSS	TAX_hat	LCL_mean	UCL_mean
1	80	20.8601	17.9537	23.7665