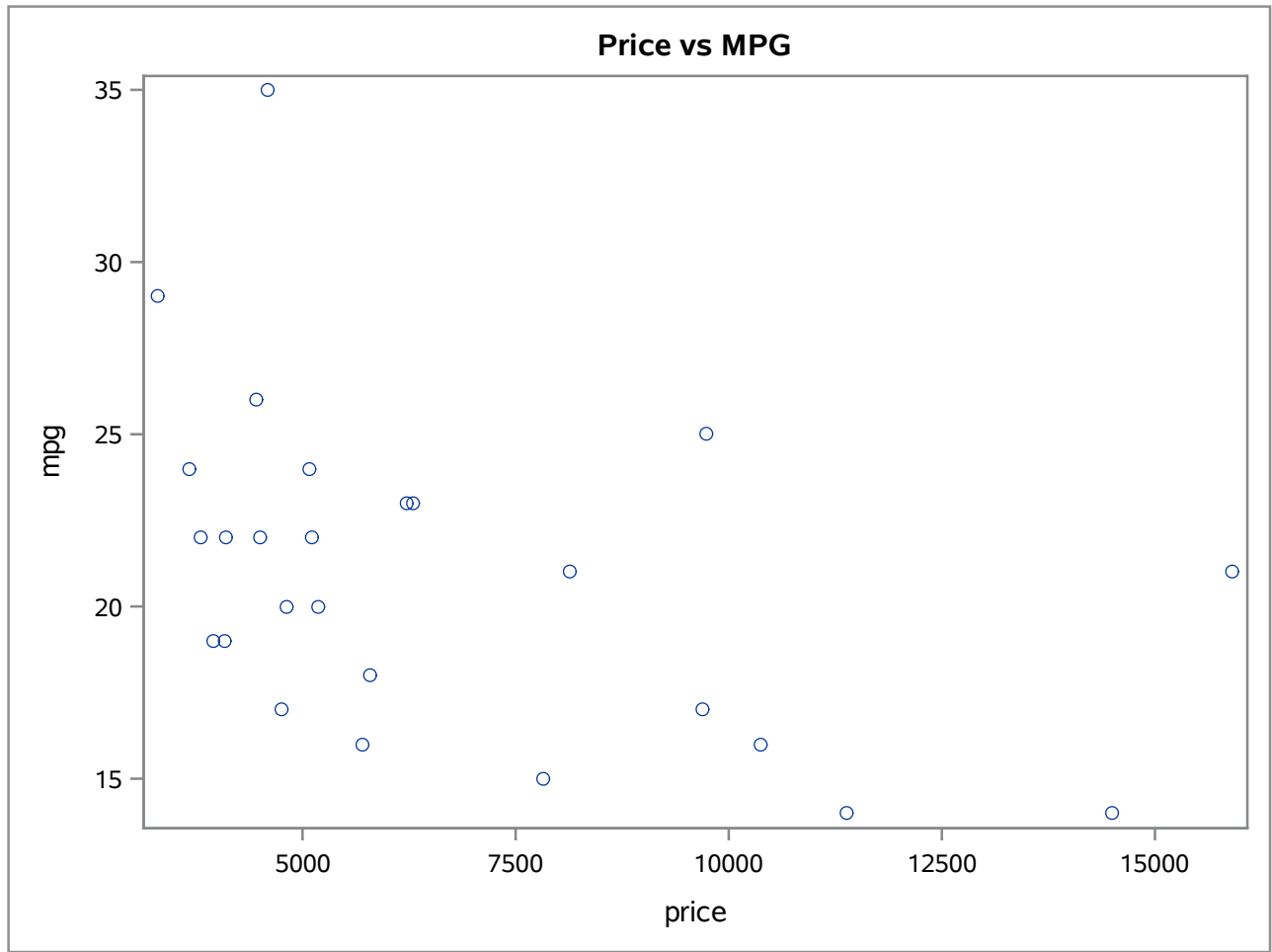


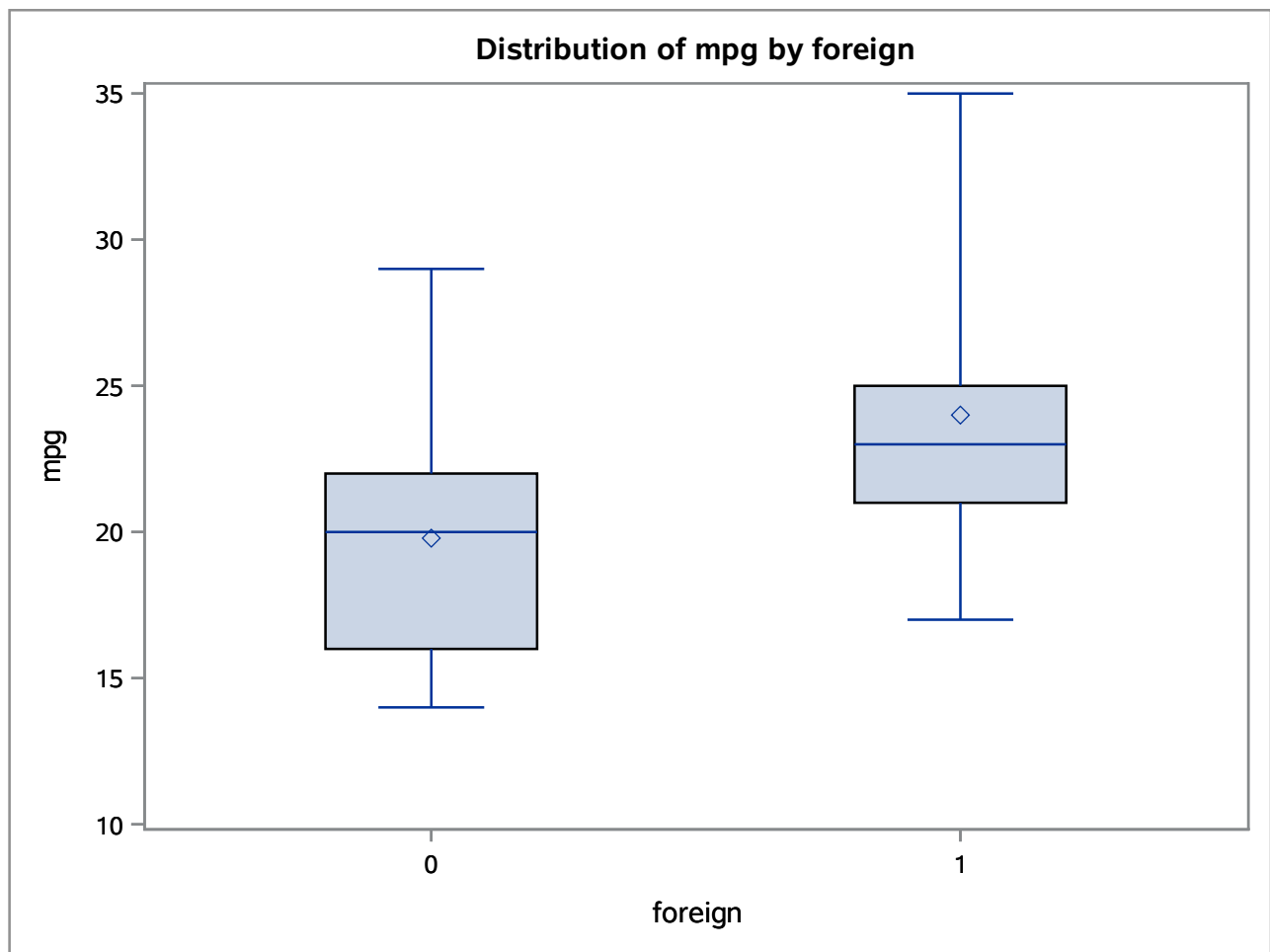
**The CORR Procedure**

<b>2 Variables:</b>	length weight
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Simple Statistics						
Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
length	26	190.07692	18.17014	4942	163.00000	222.00000
weight	26	3099	695.07941	80580	2020	4330

Pearson Correlation Coefficients, N = 26 Prob >  r  under H0: Rho=0		
	length	weight
length	1.00000	0.90654 <.0001
weight	0.90654 <.0001	1.00000



**Box plot of MPG, for foreign vs domestic cars**

**simple linear regression,  $y = \text{mpg}$ ,  $x = \text{price1}$** 

**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: mpg**

Number of Observations Read	26
Number of Observations Used	26

**Note:** No intercept in model. R-Square is redefined.

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	8262.45717	8262.45717	56.05	<.0001
Error	25	3685.54283	147.42171		
Uncorrected Total	26	11948			

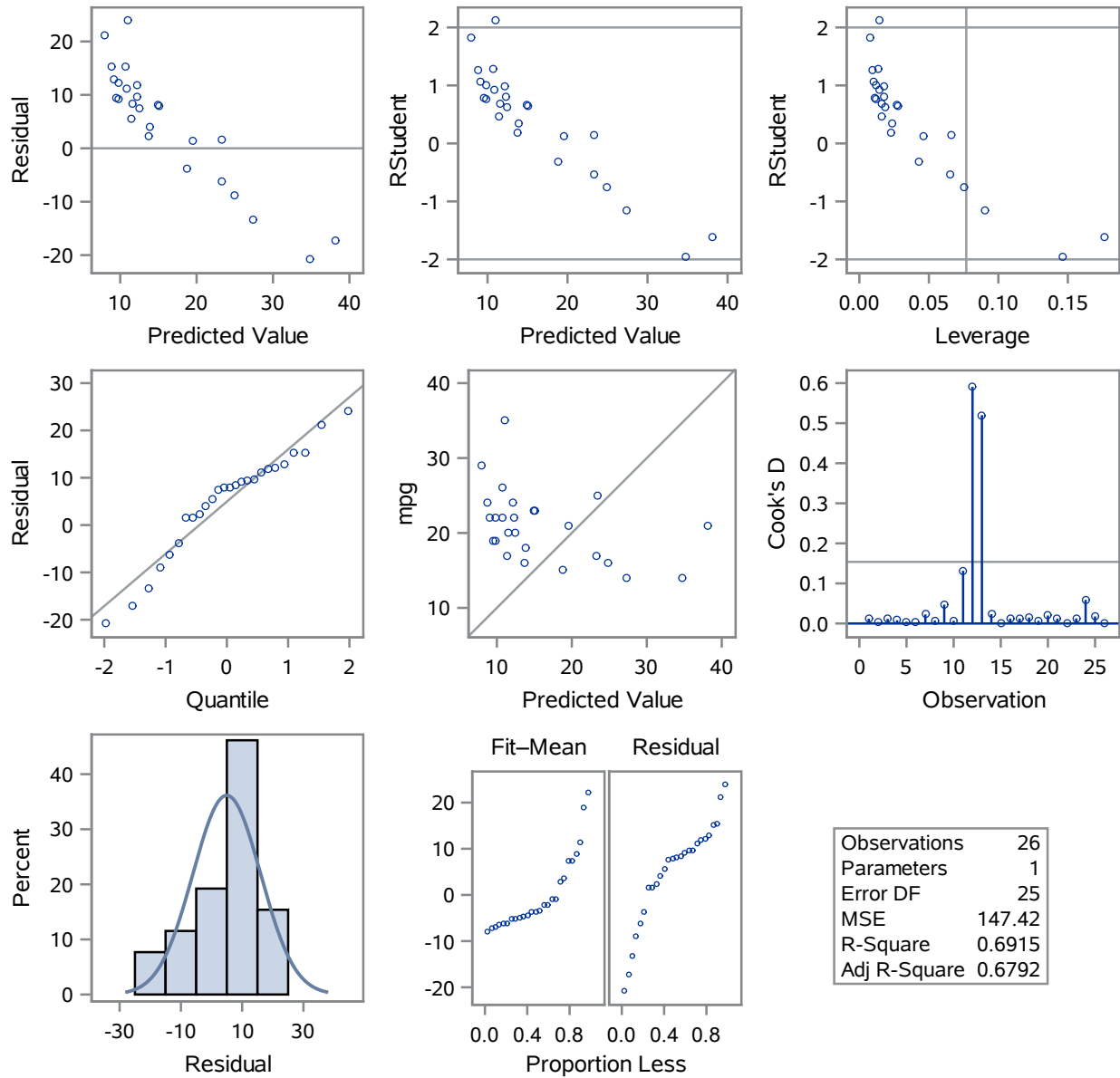
Root MSE	12.14173	R-Square	0.6915
Dependent Mean	20.92308	Adj R-Sq	0.6792
Coeff Var	58.03035		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
price1	1	2.39997	0.32058	7.49	<.0001

# simple linear regression, $y = \text{mpg}$ , $x = \text{price1}$

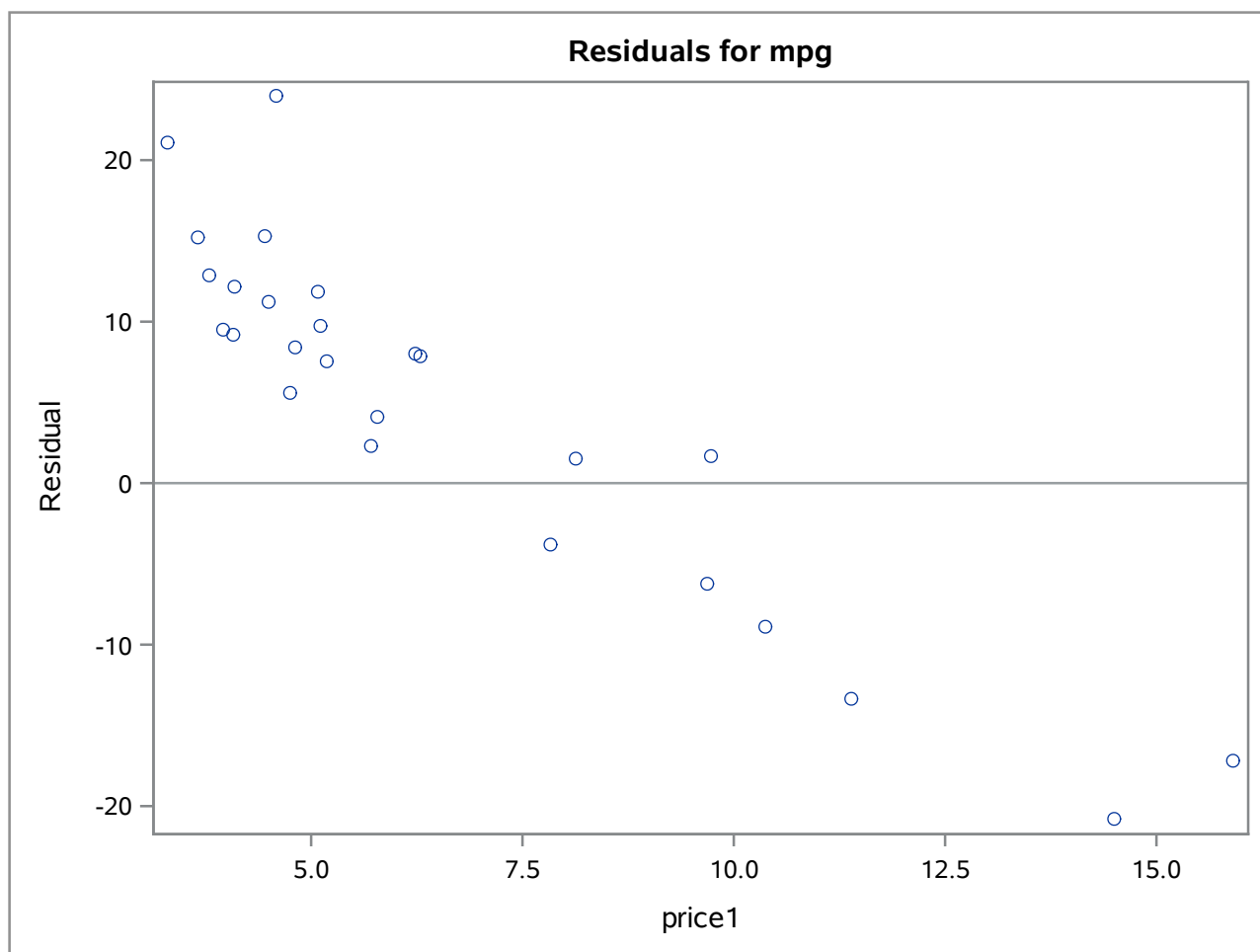
The REG Procedure  
Model: MODEL1  
Dependent Variable: mpg

## Fit Diagnostics for mpg



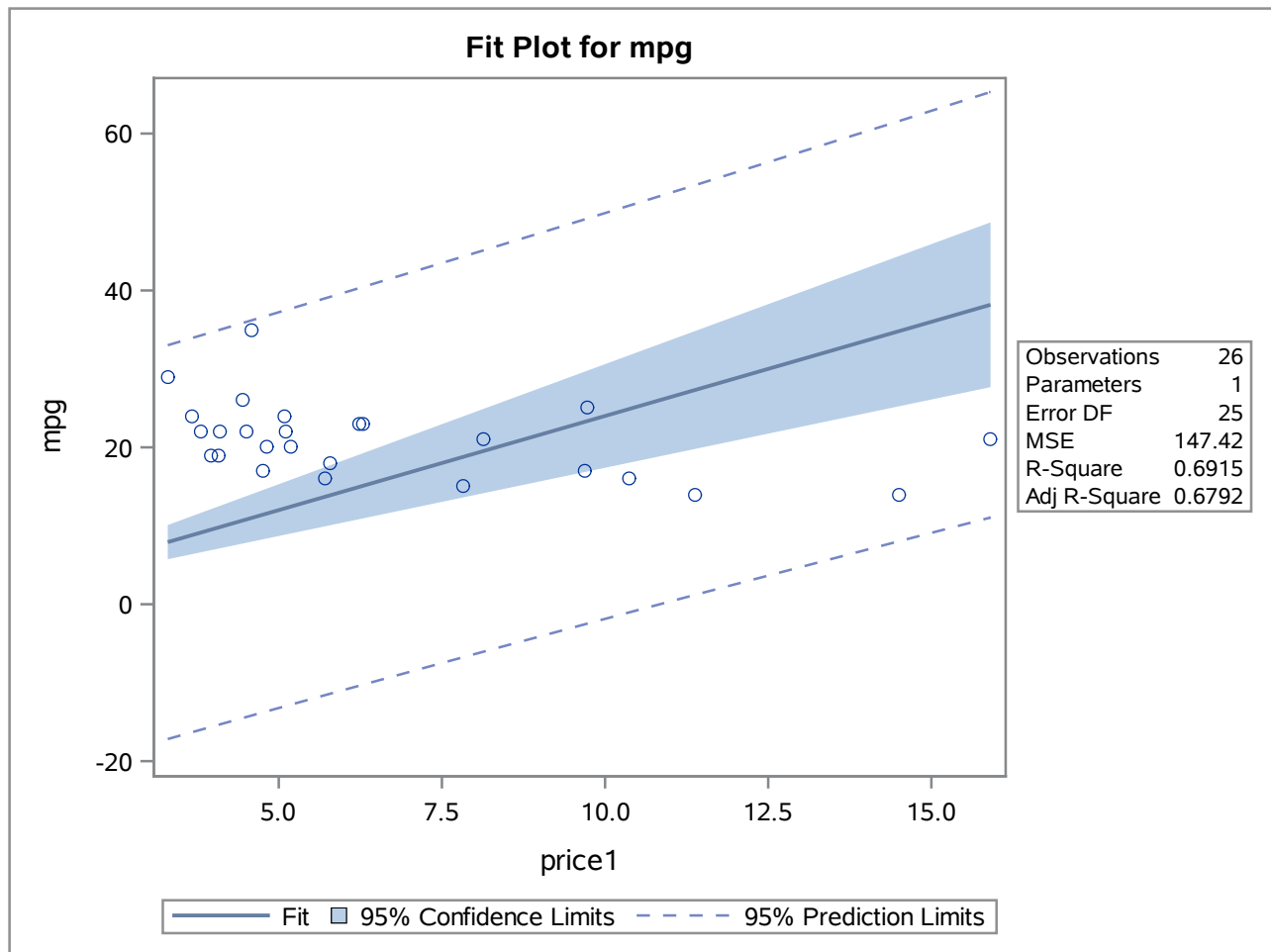
**simple linear regression,  $y = \text{mpg}$ ,  $x = \text{price1}$** 

The REG Procedure  
Model: MODEL1  
Dependent Variable: mpg



**simple linear regression,  $y = \text{mpg}$ ,  $x = \text{price1}$** 

The REG Procedure  
Model: MODEL1  
Dependent Variable: mpg



**simple linear regression,  $x_1 = \text{length}$ ,  $x_2 = \text{length}^2$** **The GLM Procedure**

Number of Observations Read	26
Number of Observations Used	26



**simple linear regression,  $x_1 = \text{length}$ ,  $x_2 = \text{length}^2$** **The GLM Procedure****Dependent Variable: mpg**

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	343.2308092	171.6154046	17.73	<.0001
Error	23	222.6153446	9.6789280		
Corrected Total	25	565.8461538			

R-Square	Coeff Var	Root MSE	mpg Mean
0.606580	14.86922	3.111098	20.92308

Source	DF	Type I SS	Mean Square	F Value	Pr > F
length	1	333.7945975	333.7945975	34.49	<.0001
length*length	1	9.4362118	9.4362118	0.97	0.3337

Source	DF	Type III SS	Mean Square	F Value	Pr > F
length	1	14.72375568	14.72375568	1.52	0.2299
length*length	1	9.43621177	9.43621177	0.97	0.3337

Parameter	Estimate	Standard Error	t Value	Pr >  t
Intercept	135.4470552	77.55066223	1.75	0.0941
length	-1.0047165	0.81460651	-1.23	0.2299
length*length	0.0020976	0.00212437	0.99	0.3337

# simple linear regression, $x_1 = \text{length}$ , $x_2 = \text{length}^2$

The GLM Procedure

Dependent Variable: mpg

