correlation and Scatter plot with Salesprice
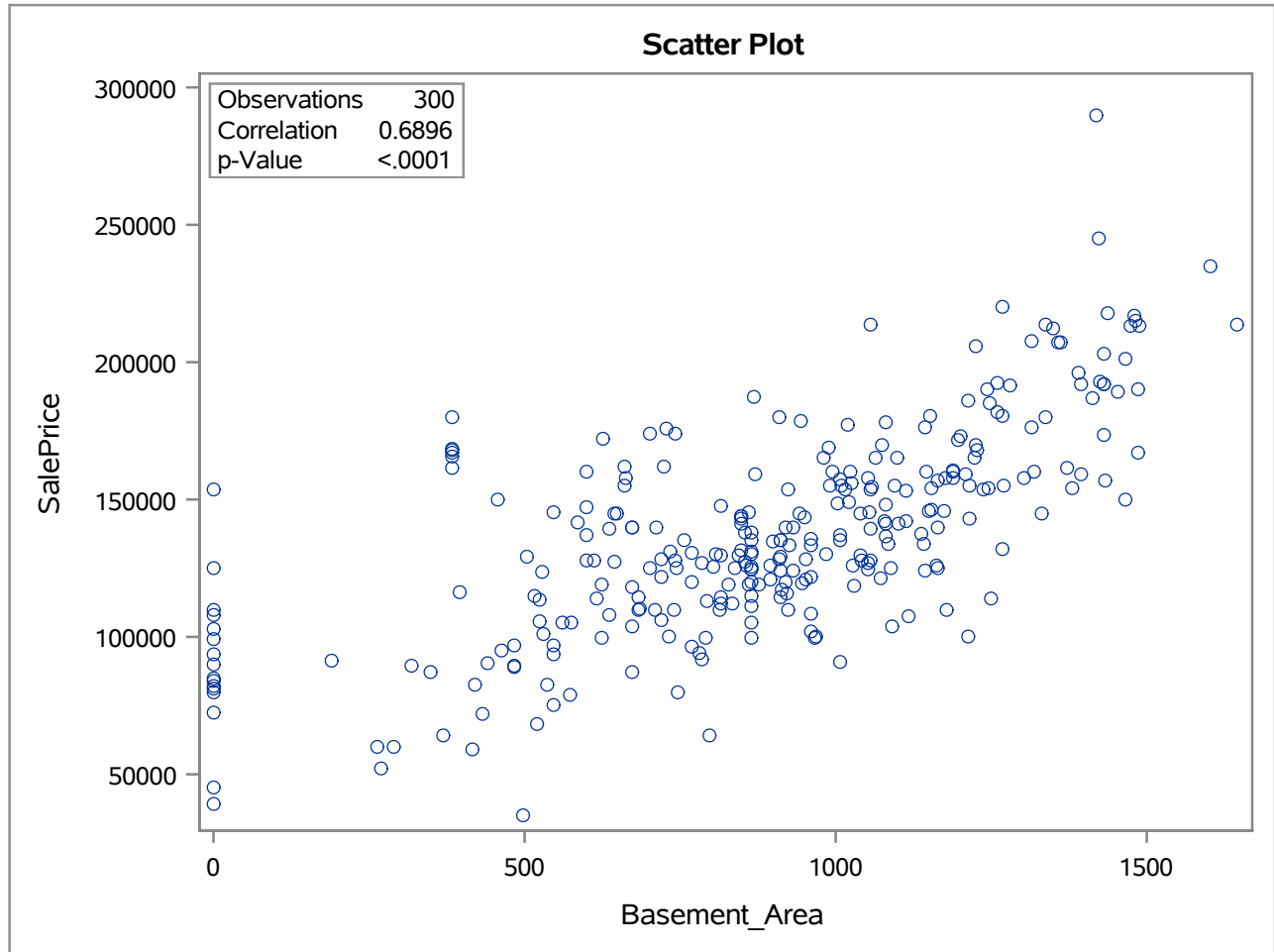
The CORR Procedure

1 With Variables:	SalePrice						
8 Variables:	Gr_Liv_Area	Basement_Area	Garage_Area	Deck_Porch_Area Lot_Area	Age_Sold	Bedroom_AbvGr	Total_Bathroom

Simple Statistics						
Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
SalePrice	300	137525	37623	41257460	35000	290000
Gr_Liv_Area	300	1131	232.64939	339222	334.00000	1500
Basement_Area	300	882.31000	359.78397	264693	0	1645
Garage_Area	300	369.45333	176.25309	110836	0	902.00000
Deck_Porch_Area	300	118.26333	132.61169	35479	0	897.00000
Lot_Area	300	8294	3324	2488241	1495	26142
Age_Sold	300	45.88667	27.47697	13766	1.00000	135.00000
Bedroom_AbvGr	300	2.51333	0.69144	754.00000	0	4.00000
Total_Bathroom	300	1.70167	0.65707	510.50000	1.00000	4.10000

Pearson Correlation Coefficients, N = 300 Prob > |r| under H0: Rho=0							
SalePrice	Basement_Area 0.68956 <.0001	Gr_Liv_Area 0.65046 <.0001	Age_Sold -0.61542 <.0001	Total_Bathroom 0.60043 <.0001	Garage_Area 0.57892 <.0001	Deck_Porch_Area 0.43989 <.0001	Lot_Area 0.25335 <.0001	Bedroom_AbvGr 0.16594 0.0040

correlation and Scatter plot with Salesprice
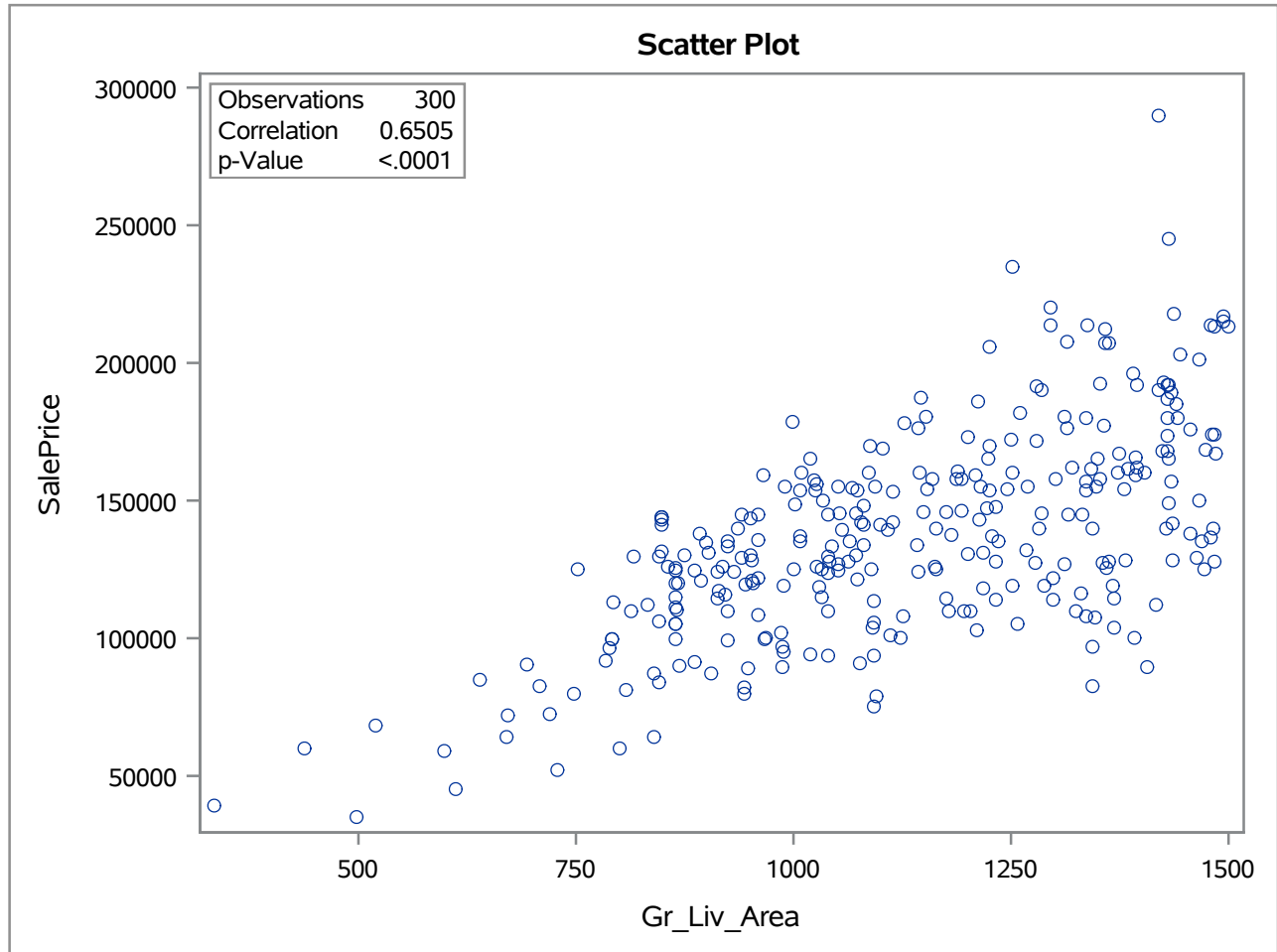
The CORR Procedure

correlation and Scatter plot with Salesprice

The CORR Procedure

Scatter Plot

Observations	300
Correlation	0.6896
p-Value	<.0001

correlation and Scatter plot with Salesprice

The CORR Procedure

correlation and Scatter plot with Salesprice

The CORR Procedure

correlation and Scatter plot with Salesprice

The CORR Procedure

Scatter Plot

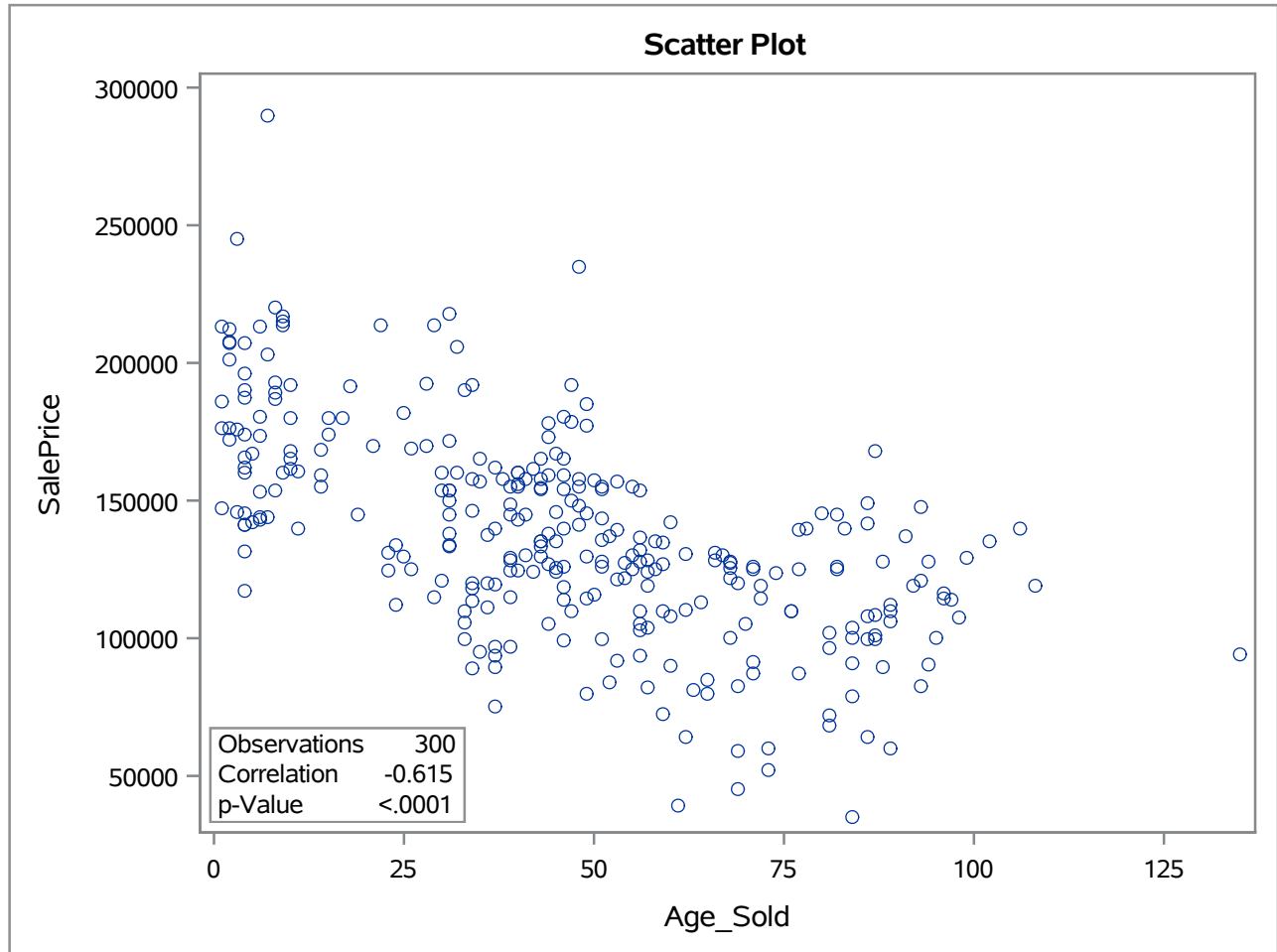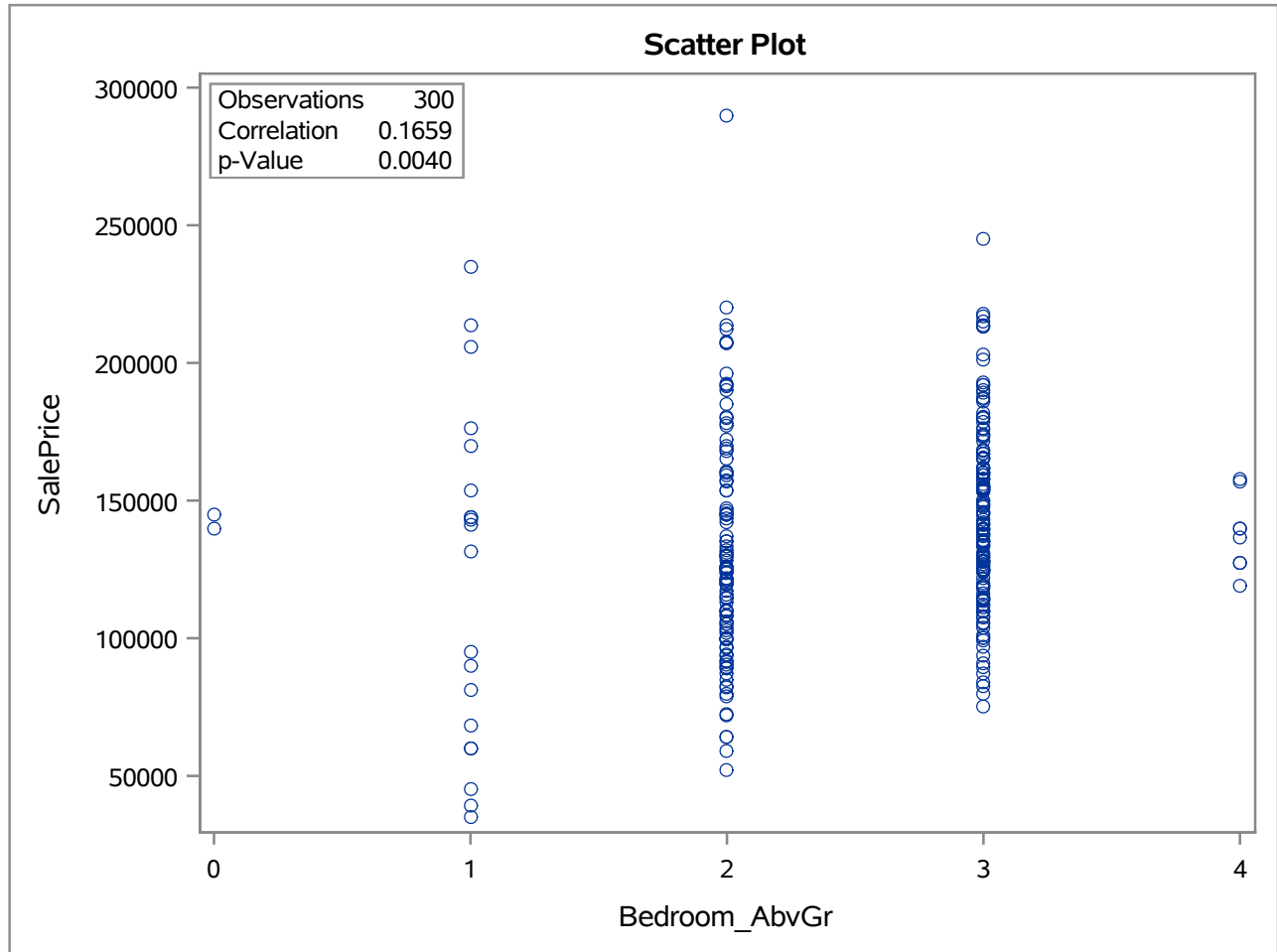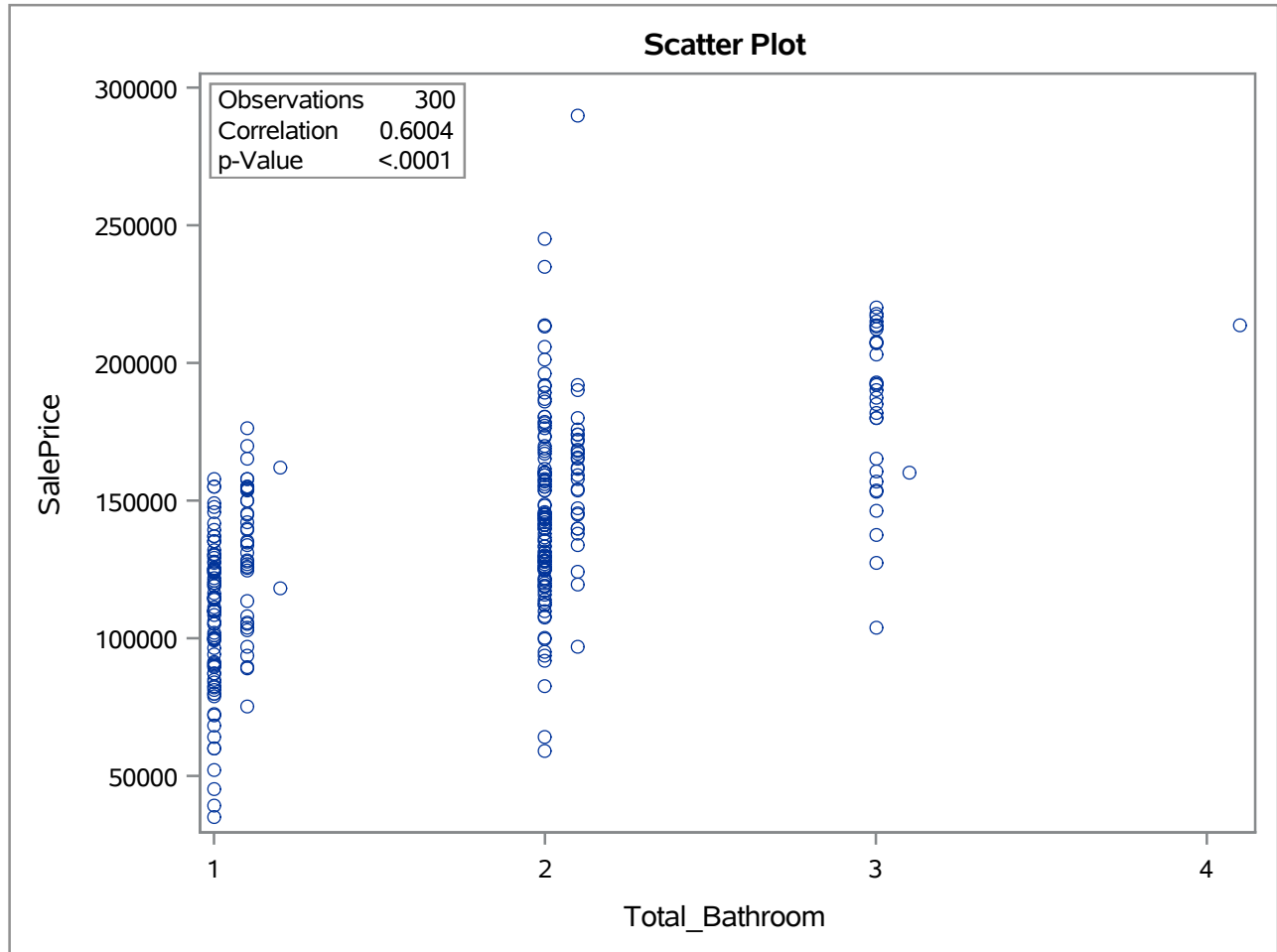|	
Observations	300
Correlation	0.2533
p-Value	<.0001
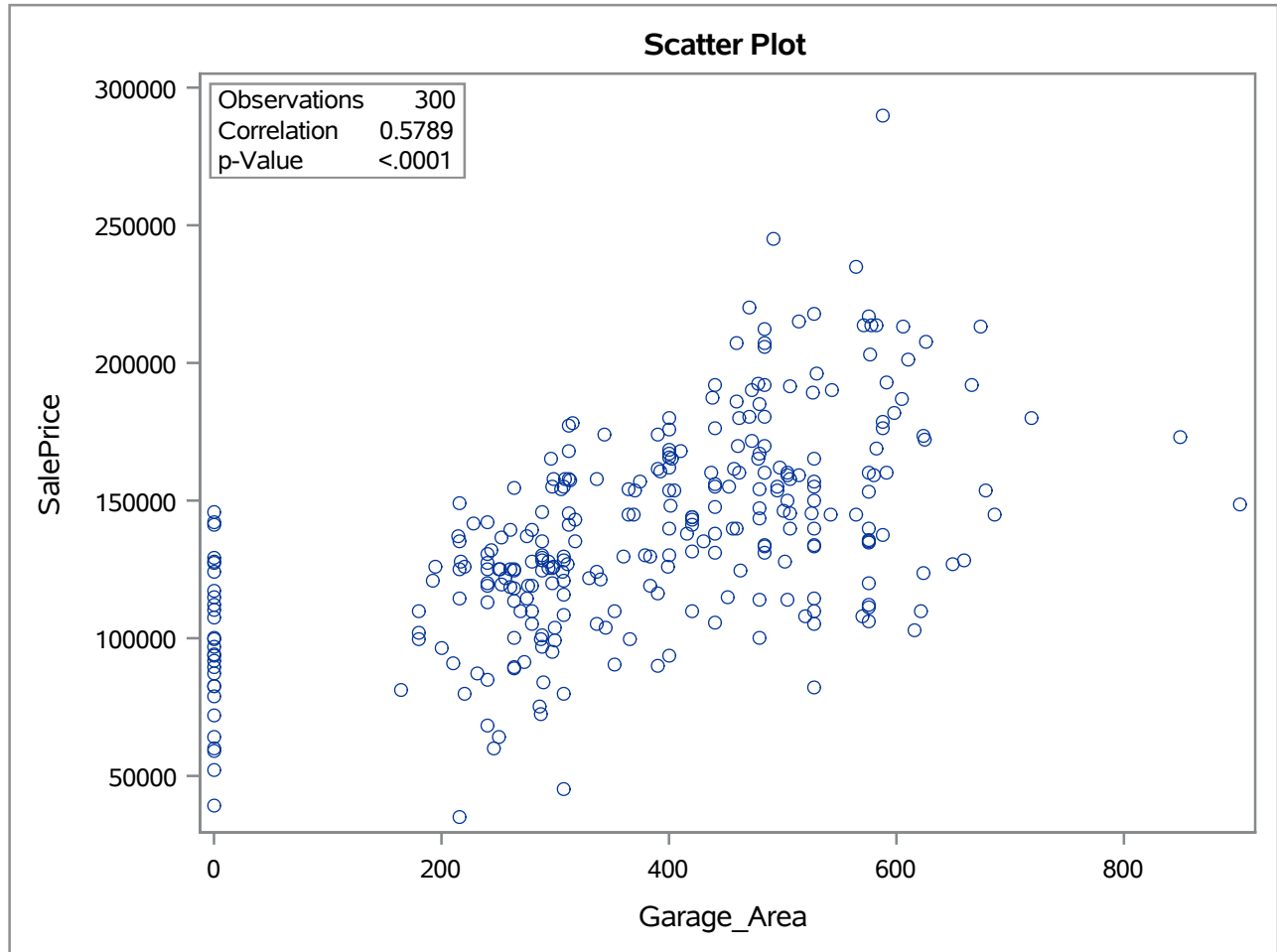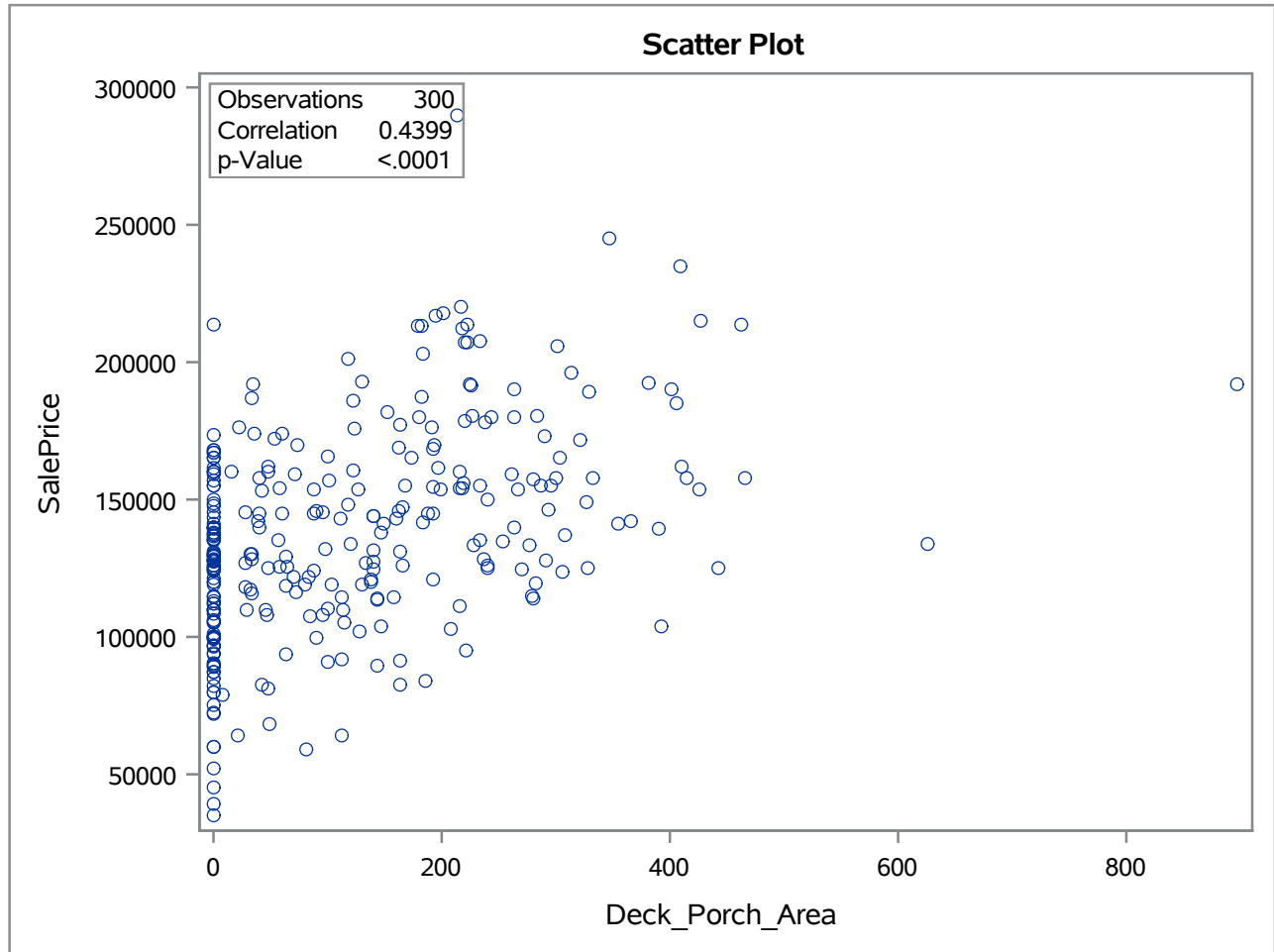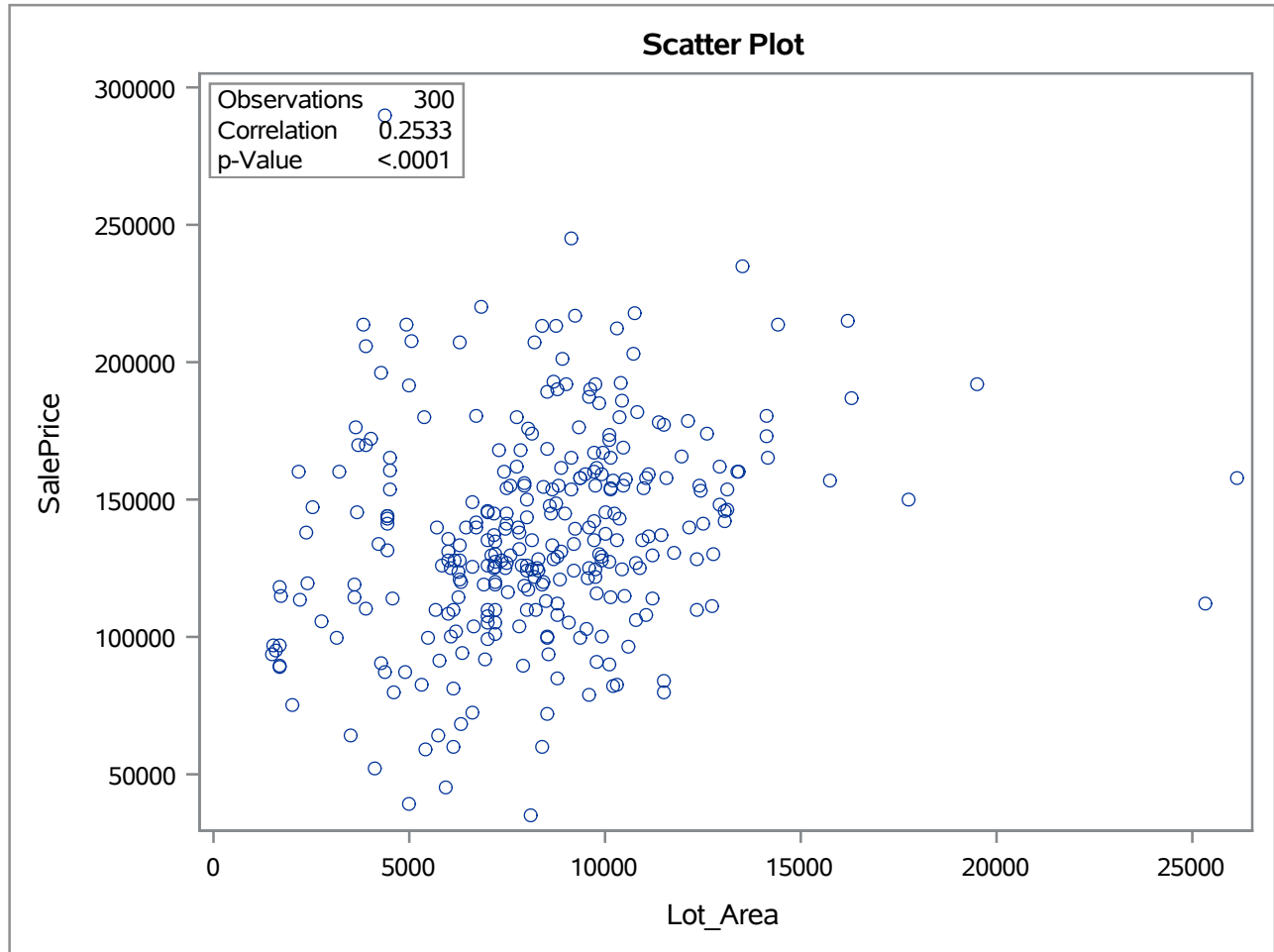
correlation and Scatter plot with Salesprice

The CORR Procedure

correlation and Scatter plot with Salesprice

The CORR Procedure

correlation and Scatter plot with Salesprice

The CORR Procedure

Correlation and Scatter Plot Matrix of Predictors

The CORR Procedure

8 Variables:	Gr_Liv_Area	Basement_Area	Garage_Area	Deck_Porch_Area Lot_Area		Age_Sold	Bedroom_AbvGr	Total_Bathroom

Pearson Correlation Coefficients, N = 300 Prob > |r| under H0: Rho=0			
Gr_Liv_Area	Gr_Liv_Area 1.00000	Bedroom_AbvGr 0.48431 <.0001	Basement_Area 0.43985 <.0001
Basement_Area	Basement_Area 1.00000	Total_Bathroom 0.48500 <.0001	Gr_Liv_Area 0.43985 <.0001
Garage_Area	Garage_Area 1.00000	Age_Sold -0.41346 <.0001	Total_Bathroom 0.36876 <.0001
Deck_Porch_Area	Deck_Porch_Area 1.00000	Basement_Area 0.33689 <.0001	Gr_Liv_Area 0.28058 <.0001
Lot_Area	Lot_Area 1.00000	Bedroom_AbvGr 0.29801 <.0001	Basement_Area 0.27198 <.0001
Age_Sold	Age_Sold 1.00000	Total_Bathroom -0.52889 <.0001	Garage_Area -0.41346 <.0001
Bedroom_AbvGr	Bedroom_AbvGr 1.00000	Gr_Liv_Area 0.48431 <.0001	Lot_Area 0.29801 <.0001
Total_Bathroom	Total_Bathroom 1.00000	Age_Sold -0.52889 <.0001	Basement_Area 0.48500 <.0001

Simple Regression with Lot Area as Regressor or Predictors

The REG Procedure
Model: MODEL1
Dependent Variable: SalePrice

Number of Observations Read	300
Number of Observations Used	300

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	27164711173	27164711173	20.44	<.0001
Error	298	3.960588E11	1329056404		
Corrected Total	299	4.232235E11			

Root MSE	36456	R-Square	0.0642
Dependent Mean	137525	Adj R-Sq	0.0610
Coeff Var	26.50882		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	113740	5666.48352	20.07	<.0001
Lot_Area	1	2.86770	0.63431	4.52	<.0001

Simple Regression with Lot Area as Regressor or Predictors

The REG Procedure
Model: MODEL1
Dependent Variable: SalePrice

Fit Diagnostics for SalePrice
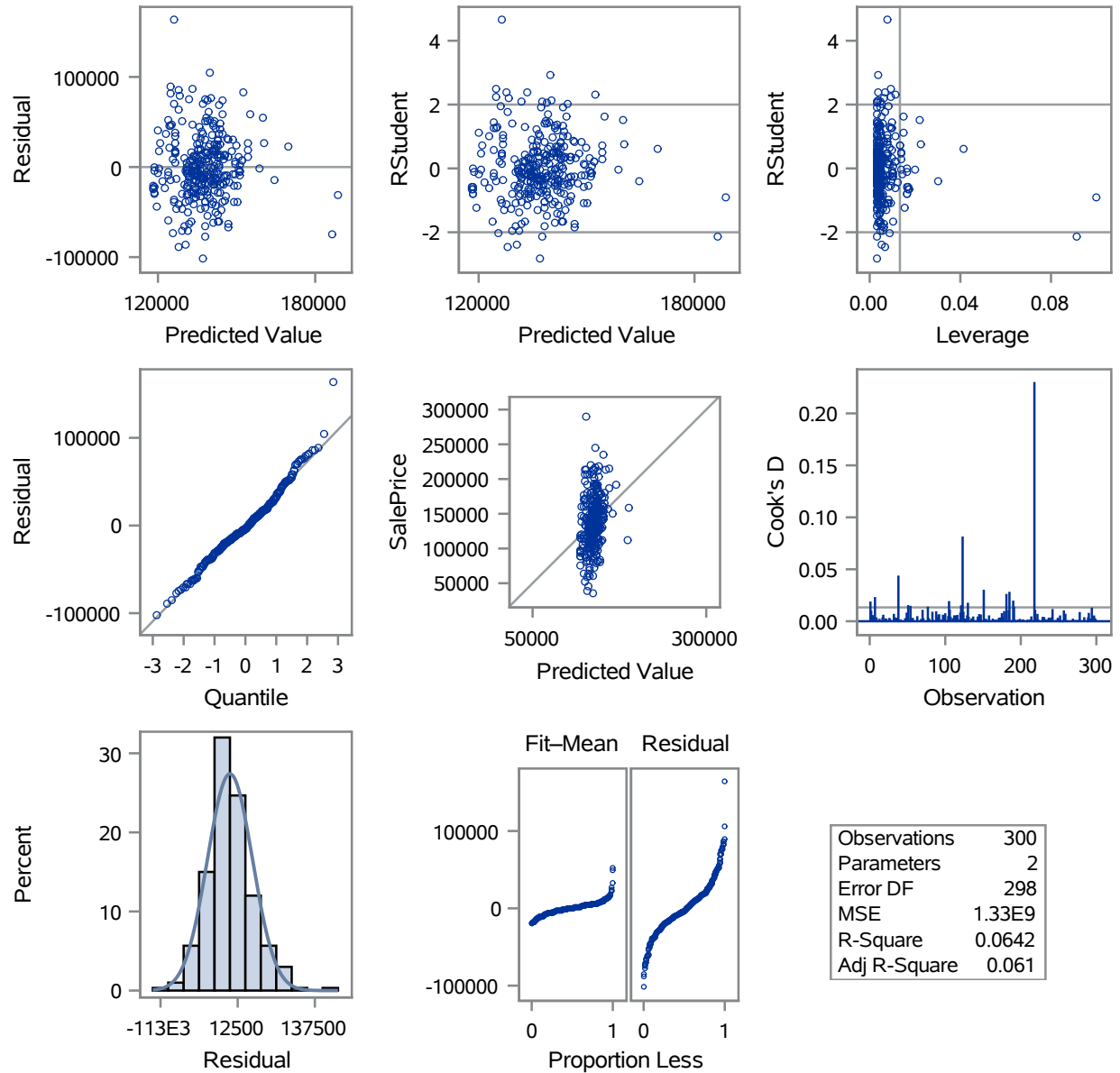
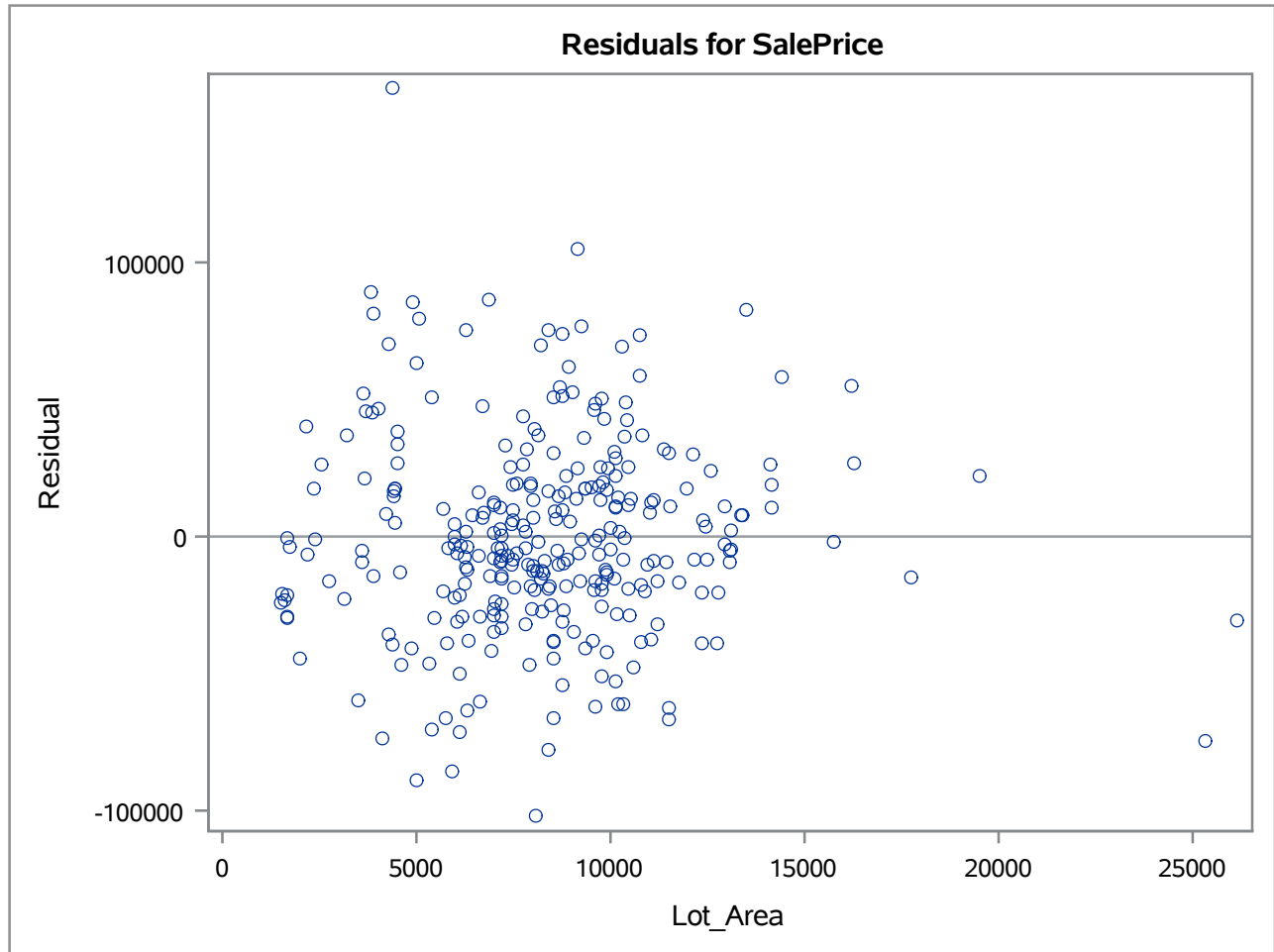| Observations | 300 |
Parameters	2
Error DF	298
MSE	1.33E9
R-Square	0.0642
Adj R-Square	0.061

Simple Regression with Lot Area as Regressor or Predictors

The REG Procedure
Model: MODEL1
Dependent Variable: SalePrice

Simple Regression with Lot Area as Regressor or Predictors

The REG Procedure
Model: MODEL1
Dependent Variable: SalePrice

Fit Plot for SalePrice

Observations	300
Parameters	2
Error DF	298
MSE	1.33E9
R-Square	0.0642
Adj R-Square	0.061

Legend: Fit — 95% Confidence Limits — 95% Prediction Limits

Axes: SalePrice (vertical) vs Lot_Area (horizontal)