Gasoline mileage data

The REG Procedure
Model: MODEL1
Dependent Variable: y mpg

Number of Observations Read	32
Number of Observations Used	30
Number of Observations with Missing Values	2

Analysis of Variance					
Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**	**Pr > F**
Model	11	951.70434	86.51858	8.31	<.0001
Error	18	187.40068	10.41115		
Corrected Total	29	1139.10502			

Root MSE	3.22663	**R-Square**	0.8355
Dependent Mean	20.03833	**Adj R-Sq**	0.7349
Coeff Var	16.10229		

Parameter Estimates							
Variable	**Label**	**DF**	**Parameter Estimate**	**Standard Error**	**t Value**	**Pr > |t|**	**Variance Inflation**
Intercept	Intercept	1	17.33984	30.35537	0.57	0.5749	0
x1	displacement	1	-0.07559	0.05635	-1.34	0.1964	119.48780
x2	hp	1	-0.06916	0.08779	-0.79	0.4411	42.80081
x3	torque	1	0.11512	0.08811	1.31	0.2078	149.23441
x4	compress ratio	1	1.49474	3.10146	0.48	0.6357	2.06004
x5	r axle ratio	1	5.84349	3.14844	1.86	0.0799	7.72919
x6	carb	1	0.31758	1.28897	0.25	0.8082	5.32473
x7	# speeds	1	-3.20539	3.10919	-1.03	0.3162	11.76134
x8	length	1	0.18081	0.13030	1.39	0.1822	20.91763

Gasoline mileage data

The REG Procedure
Model: MODEL1
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Parameter Estimates							
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	Variance Inflation
x9	width	1	-0.39795	0.32346	-1.23	0.2344	9.39711
x10	weight	1	-0.00512	0.00590	-0.87	0.3971	85.74434
x11	trans type	1	0.63848	3.02168	0.21	0.8350	5.14505

Gasoline mileage data
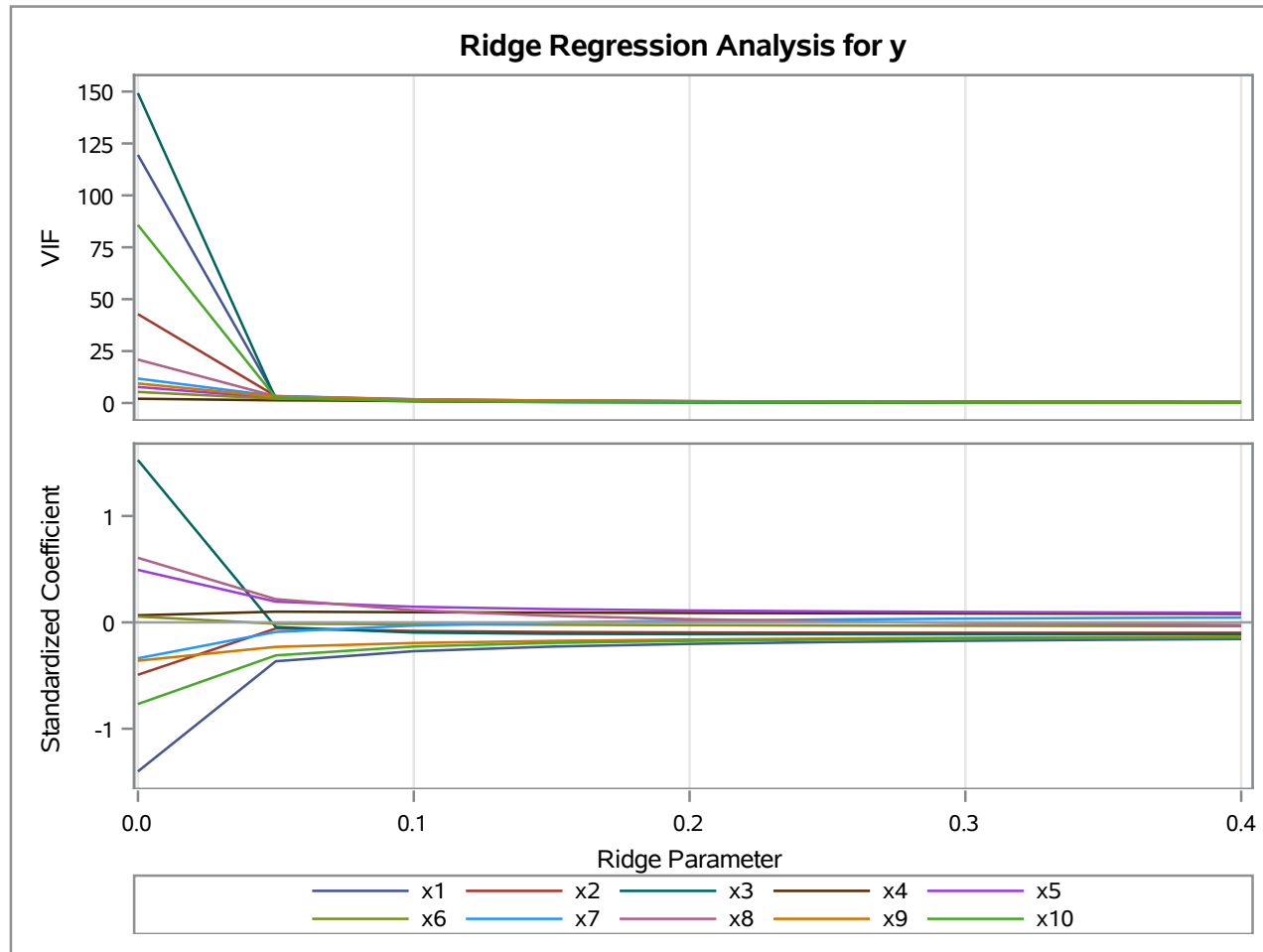
The REG Procedure
Model: MODEL1
Dependent Variable: y mpg

Ridge Regression Analysis for y

Gasoline mileage data

The REG Procedure
Model: MODEL1
Dependent Variable: y mpg

Ridge Regression Analysis for y
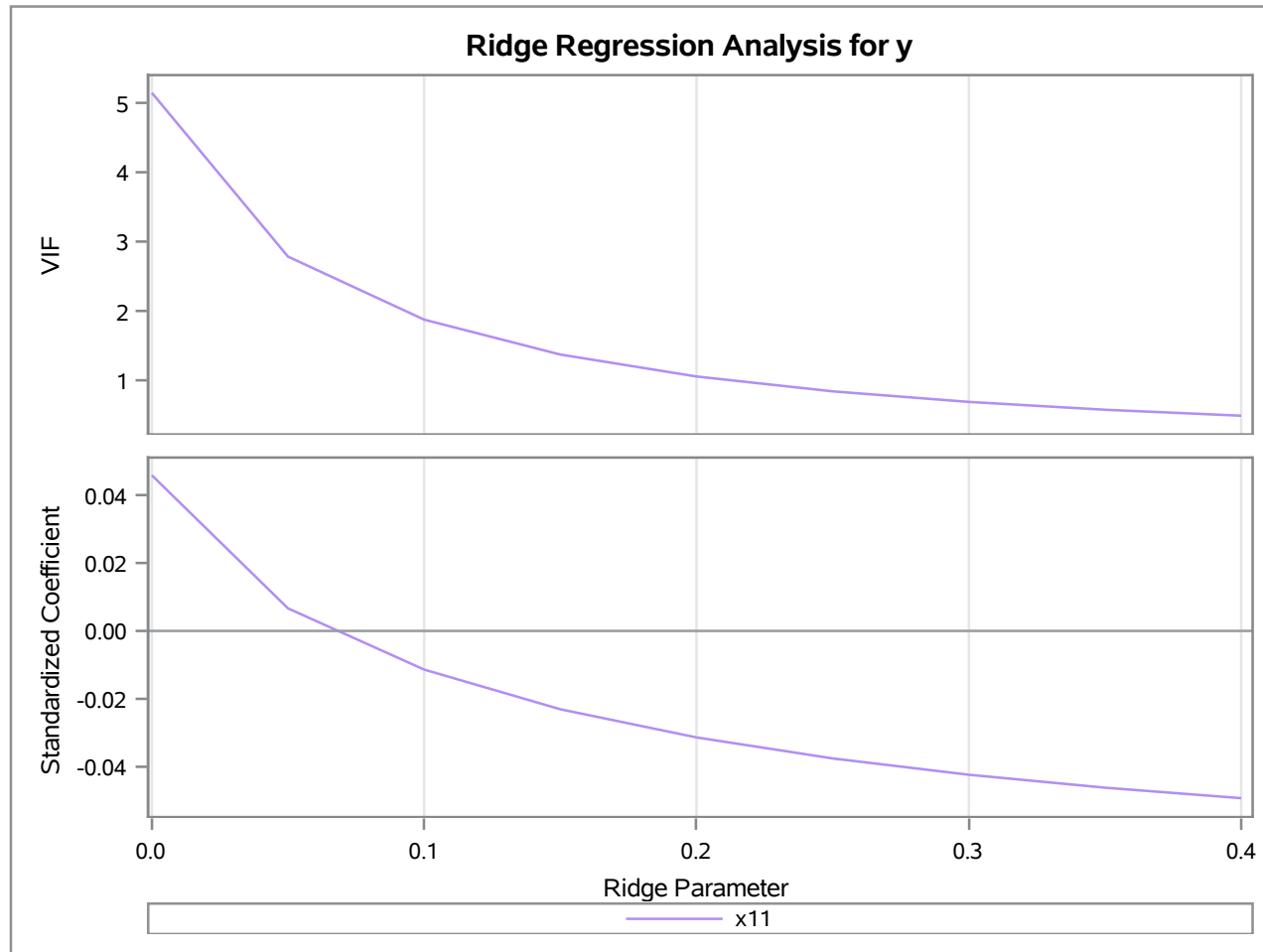
Gasoline mileage data

The REG Procedure
Model: MODEL1
Dependent Variable: y mpg

Fit Diagnostics for y
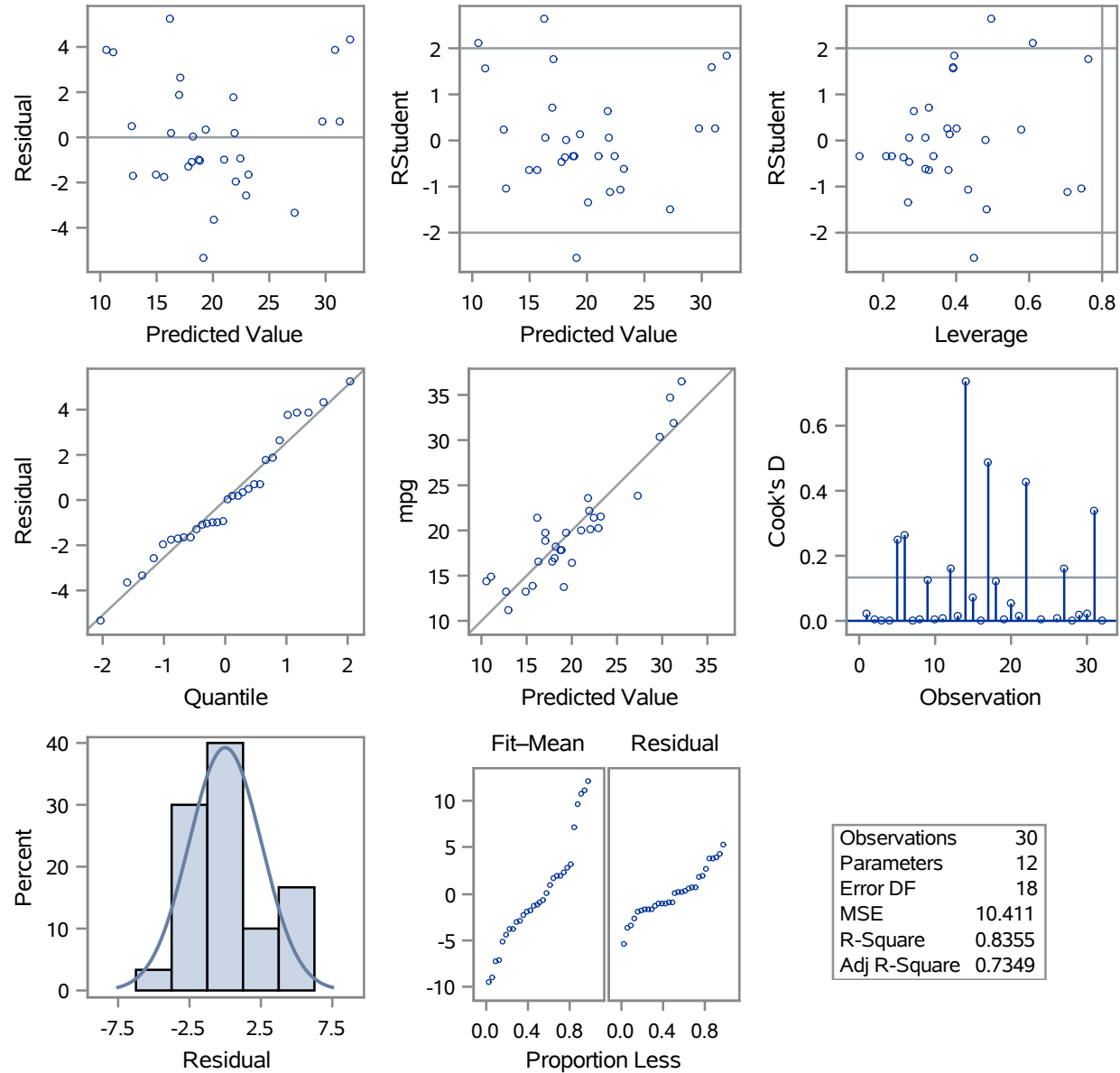
Observations	30
Parameters	12
Error DF	18
MSE	10.411
R-Square	0.8355
Adj R-Square	0.7349

Gasoline mileage data

The REG Procedure
Model: MODEL1
Dependent Variable: y mpg

Residual by Regressors for y

Gasoline mileage data

The REG Procedure
Model: MODEL1
Dependent Variable: y mpg

Residual by Regressors for y
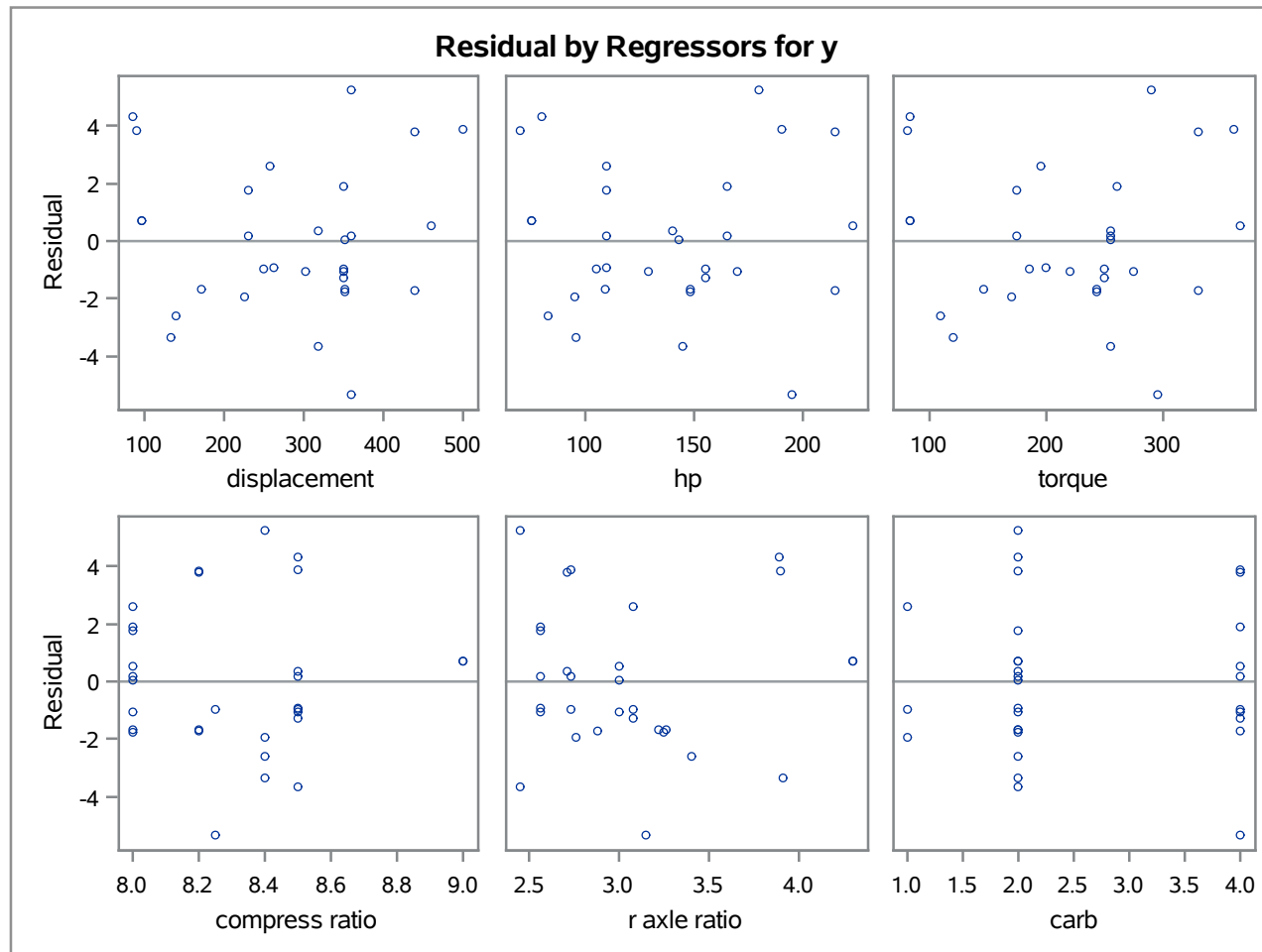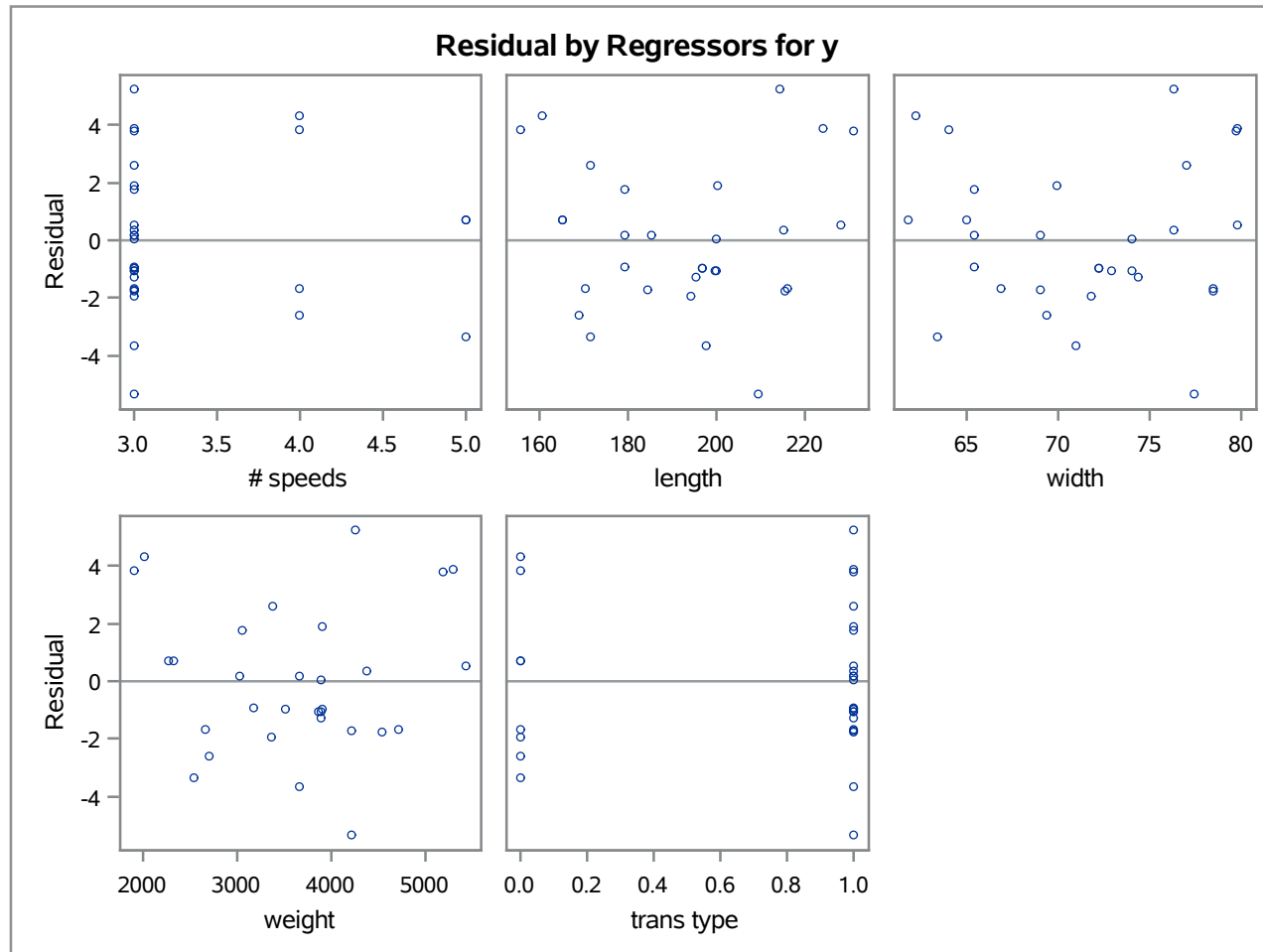
Gasoline mileage data
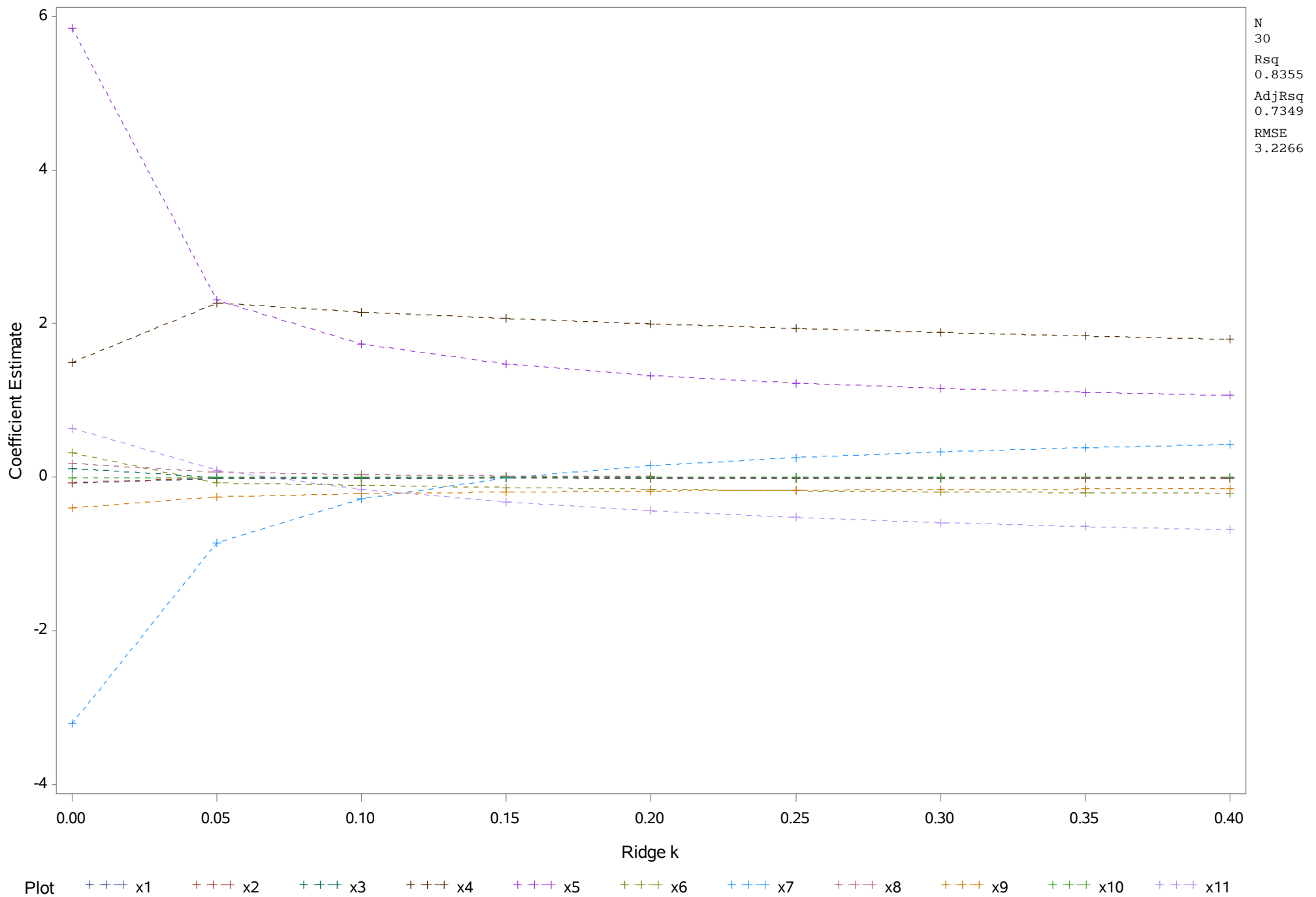
Gasoline mileage data

Obs	_MODEL_	_TYPE_	_DEPVAR_	_RIDGE_	_PCOMIT_	_RMSE_	Intercept	x1	x2	x3	x4	x5	x6
1	MODEL1	PARMS	y	.	.	3.22663	17.3398	-0.075588	-0.069163	0.11512	1.49474	5.84349	0.31758
2	MODEL1	RIDGE	y	0.00	.	3.22663	17.3398	-0.075588	-0.069163	0.11512	1.49474	5.84349	0.31758
3	MODEL1	RIDGE	y	0.05	.	3.53896	17.7372	-0.019709	-0.008136	-0.00333	2.26726	2.30557	-0.07556
4	MODEL1	RIDGE	y	0.10	.	3.64210	19.8006	-0.014618	-0.011347	-0.00723	2.15041	1.73431	-0.10375
5	MODEL1	RIDGE	y	0.15	.	3.70000	20.8893	-0.012285	-0.012700	-0.00813	2.06533	1.47374	-0.13320
6	MODEL1	RIDGE	y	0.20	.	3.73845	21.6035	-0.010915	-0.013314	-0.00840	1.99637	1.32351	-0.15680
7	MODEL1	RIDGE	y	0.25	.	3.76662	22.1238	-0.010003	-0.013607	-0.00846	1.93713	1.22570	-0.17516
8	MODEL1	RIDGE	y	0.30	.	3.78872	22.5255	-0.009346	-0.013742	-0.00845	1.88475	1.15694	-0.18955
9	MODEL1	RIDGE	y	0.35	.	3.80696	22.8474	-0.008848	-0.013791	-0.00840	1.83767	1.10594	-0.20097
10	MODEL1	RIDGE	y	0.40	.	3.82264	23.1117	-0.008455	-0.013792	-0.00834	1.79487	1.06653	-0.21018

Obs	x7	x8	x9	x10	x11	y
1	-3.20539	0.18081	-0.39795	-.005115293	0.63848	-1
2	-3.20539	0.18081	-0.39795	-.005115293	0.63848	-1
3	-0.85230	0.06495	-0.25414	-.002067211	0.09243	-1
4	-0.28102	0.03379	-0.21446	-.001516093	-0.15870	-1
5	-0.00849	0.01828	-0.19245	-.001287764	-0.32144	-1
6	0.15143	0.00891	-0.17814	-.001160899	-0.43687	-1
7	0.25652	0.00266	-0.16791	-.001078939	-0.52317	-1
8	0.33065	-0.00179	-0.16011	-.001020819	-0.59002	-1
9	0.38553	-0.00511	-0.15391	-.000976902	-0.64314	-1
10	0.42759	-0.00766	-0.14879	-.000942154	-0.68617	-1