

The GLM Procedure

Class Level Information		
Class	Levels	Values
Origin1	3	1 2 0

Number of Observations Read	428
Number of Observations Used	426

The GLM Procedure

Dependent Variable: Weight Weight (LBS)

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	11	208340828.3	18940075.3	211.61	<.0001
Error	414	37055245.9	89505.4		
Corrected Total	425	245396074.2			

R-Square	Coeff Var	Root MSE	Weight Mean
0.848998	8.355725	299.1746	3580.474

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Cylinders	1	135182247.3	135182247.3	1510.32	<.0001
EngineSize	1	25395745.3	25395745.3	283.73	<.0001
Horsepower	1	144058.8	144058.8	1.61	0.2053
Invoice	1	63365.2	63365.2	0.71	0.4006
Length	1	13105312.8	13105312.8	146.42	<.0001
MPG_City	1	10748348.0	10748348.0	120.09	<.0001
MPG_Highway	1	14314464.3	14314464.3	159.93	<.0001
MSRP	1	18523.4	18523.4	0.21	0.6494
Origin1	2	4610305.5	2305152.8	25.75	<.0001
Wheelbase	1	4758457.8	4758457.8	53.16	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Cylinders	1	7691.479	7691.479	0.09	0.7696
EngineSize	1	2867534.406	2867534.406	32.04	<.0001
Horsepower	1	616818.833	616818.833	6.89	0.0090
Invoice	1	311166.382	311166.382	3.48	0.0630
Length	1	241585.006	241585.006	2.70	0.1012
MPG_City	1	1642023.006	1642023.006	18.35	<.0001
MPG_Highway	1	8227423.336	8227423.336	91.92	<.0001
MSRP	1	371409.493	371409.493	4.15	0.0423
Origin1	2	2445882.043	1222941.021	13.66	<.0001
Wheelbase	1	4758457.797	4758457.797	53.16	<.0001

The GLM Procedure

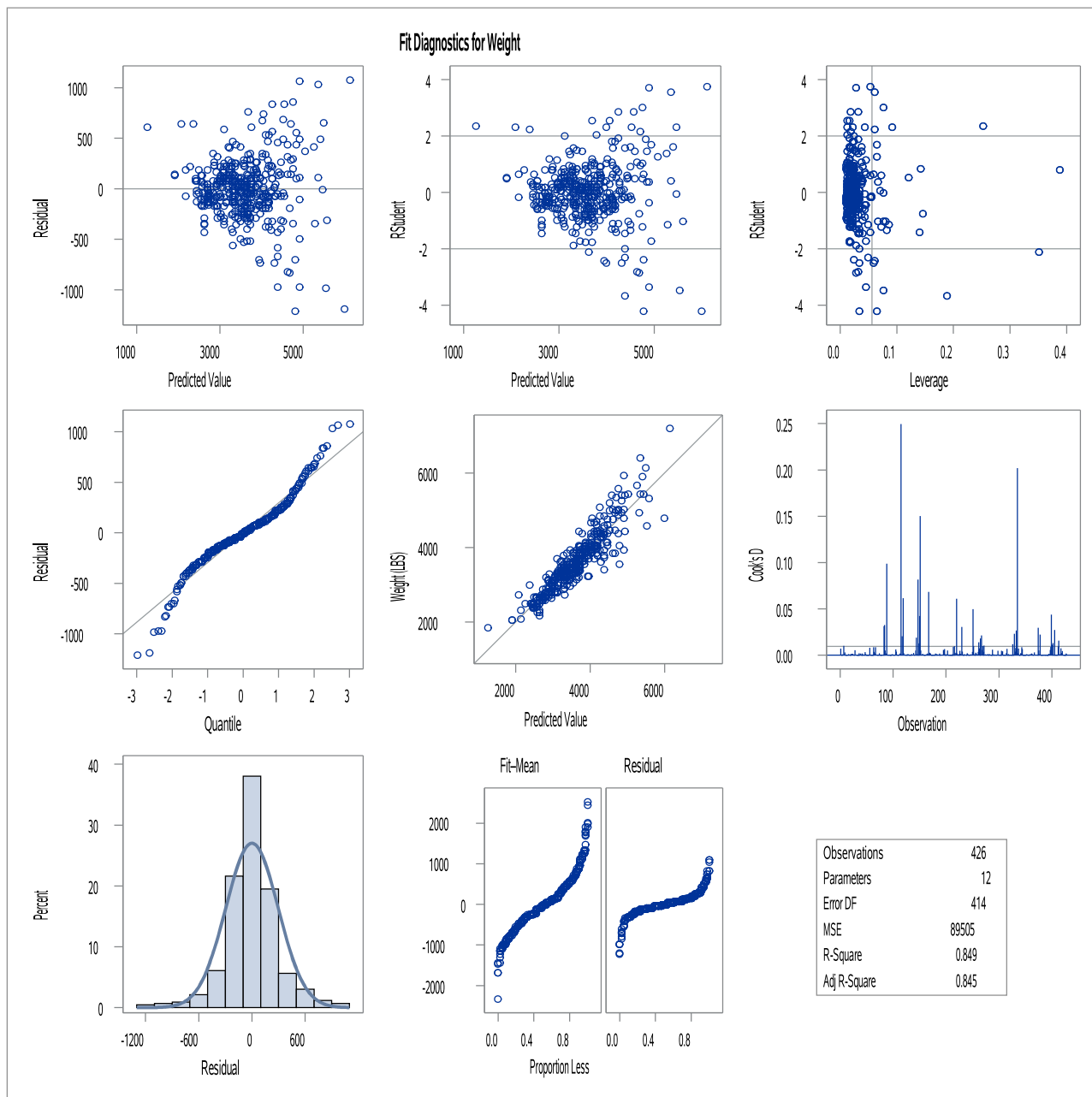
Dependent Variable: Weight Weight (LBS)

Parameter	Estimate		Standard Error	t Value	Pr > t
Intercept	194.5495500	B	305.8203179	0.64	0.5250
Cylinders	-7.3632116		25.1181146	-0.29	0.7696
EngineSize	246.2654480		43.5084732	5.66	<.0001
Horsepower	-1.3987871		0.5328408	-2.63	0.0090
Invoice	-0.0385482		0.0206744	-1.86	0.0630
Length	4.1761060		2.5419160	1.64	0.1012
MPG_City	41.0986862		9.5953982	4.28	<.0001
MPG_Highway	-82.8738865		8.6439145	-9.59	<.0001
MSRP	0.0382472		0.0187758	2.04	0.0423
Origin1 1	219.6158268	B	48.2957142	4.55	<.0001
Origin1 2	-41.6694371	B	39.5863946	-1.05	0.2931
Origin1 0	0.0000000	B	.	.	.
Wheelbase	31.5970221		4.3334892	7.29	<.0001

Note: The X'X matrix has been found to be singular, and a generalized inverse was used to solve the normal equations. Terms whose estimates are followed by the letter 'B' are not uniquely estimable.

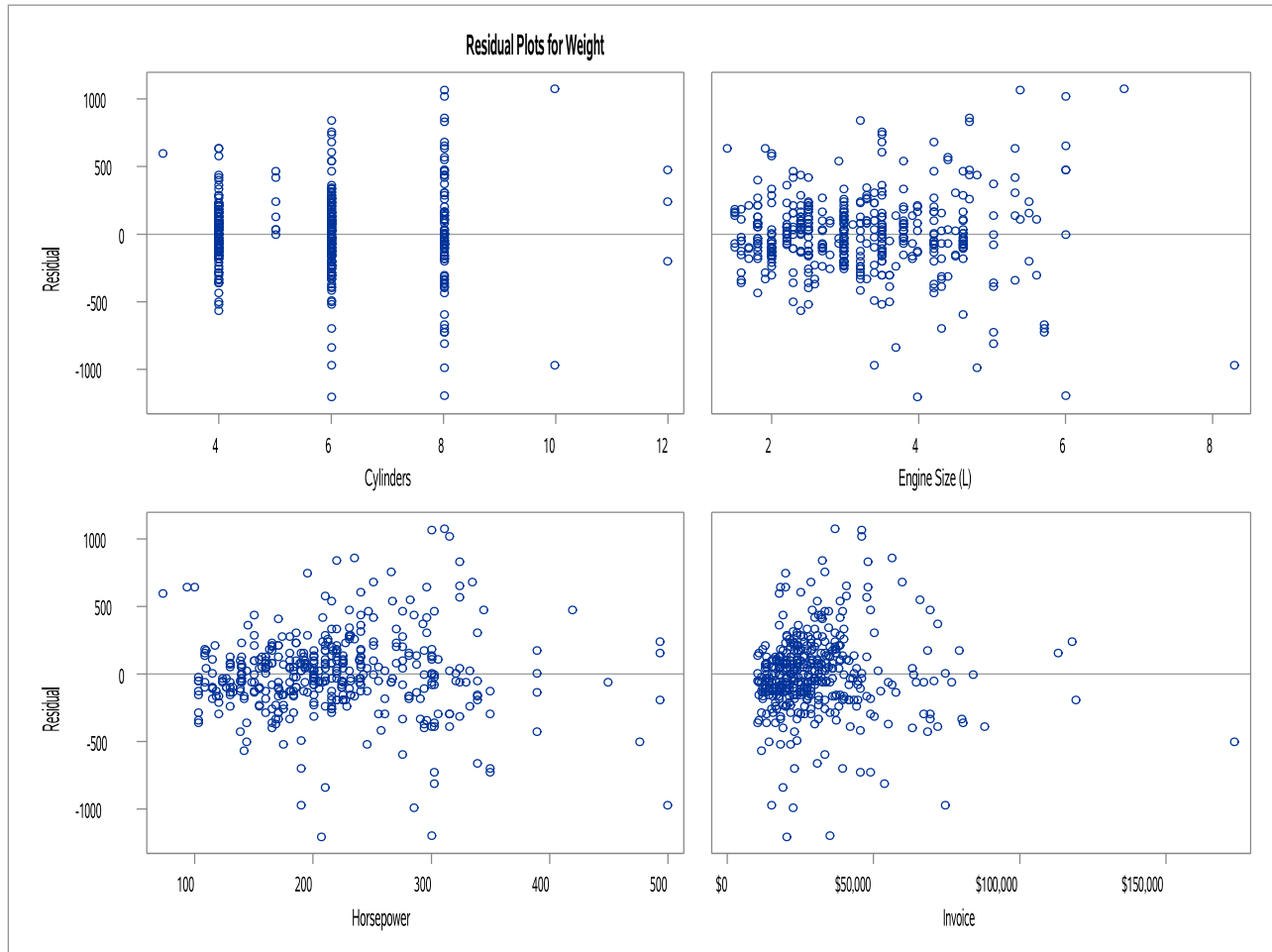
The GLM Procedure

Dependent Variable: Weight Weight (LBS)



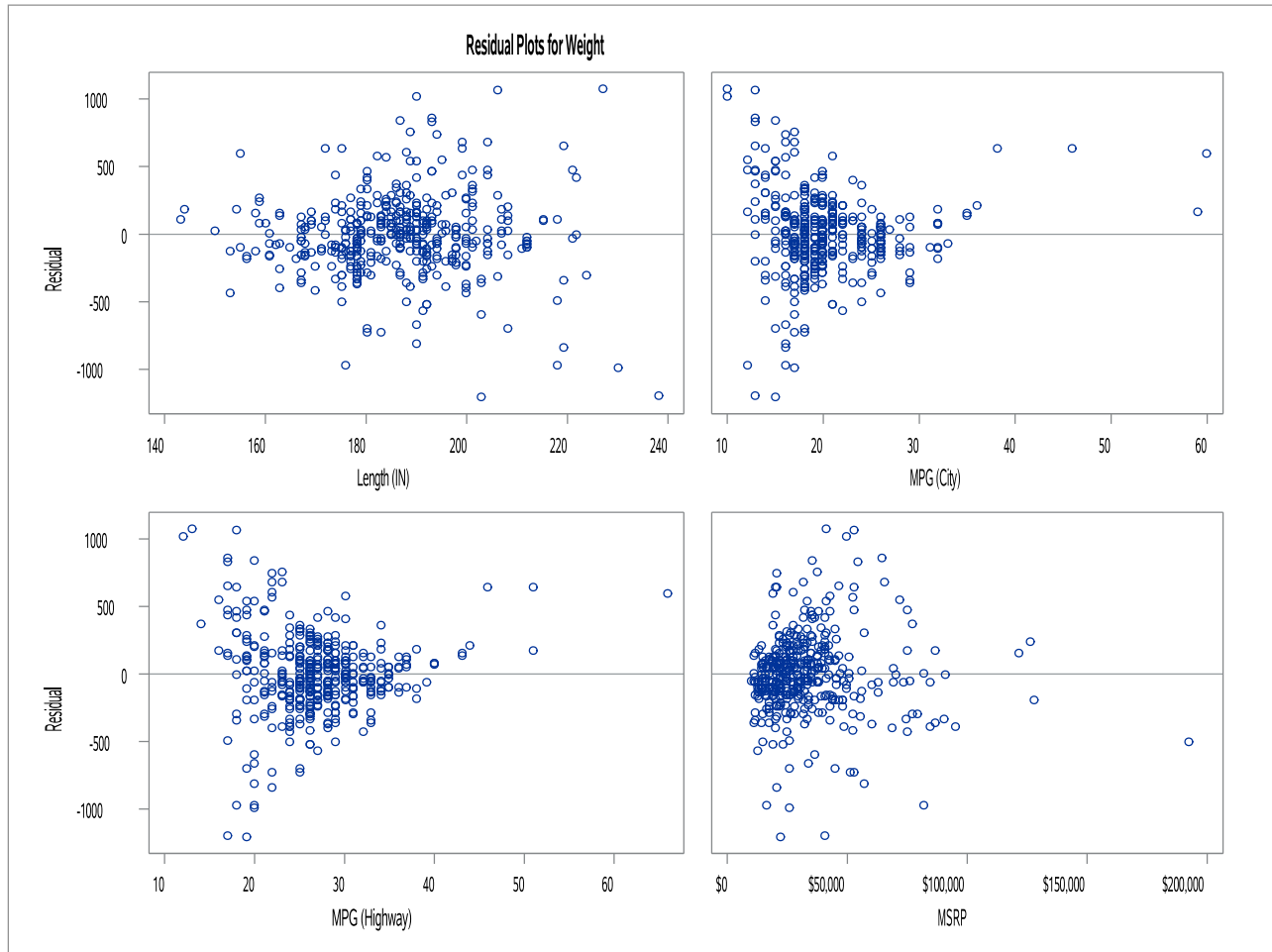
The GLM Procedure

Dependent Variable: Weight Weight (LBS)



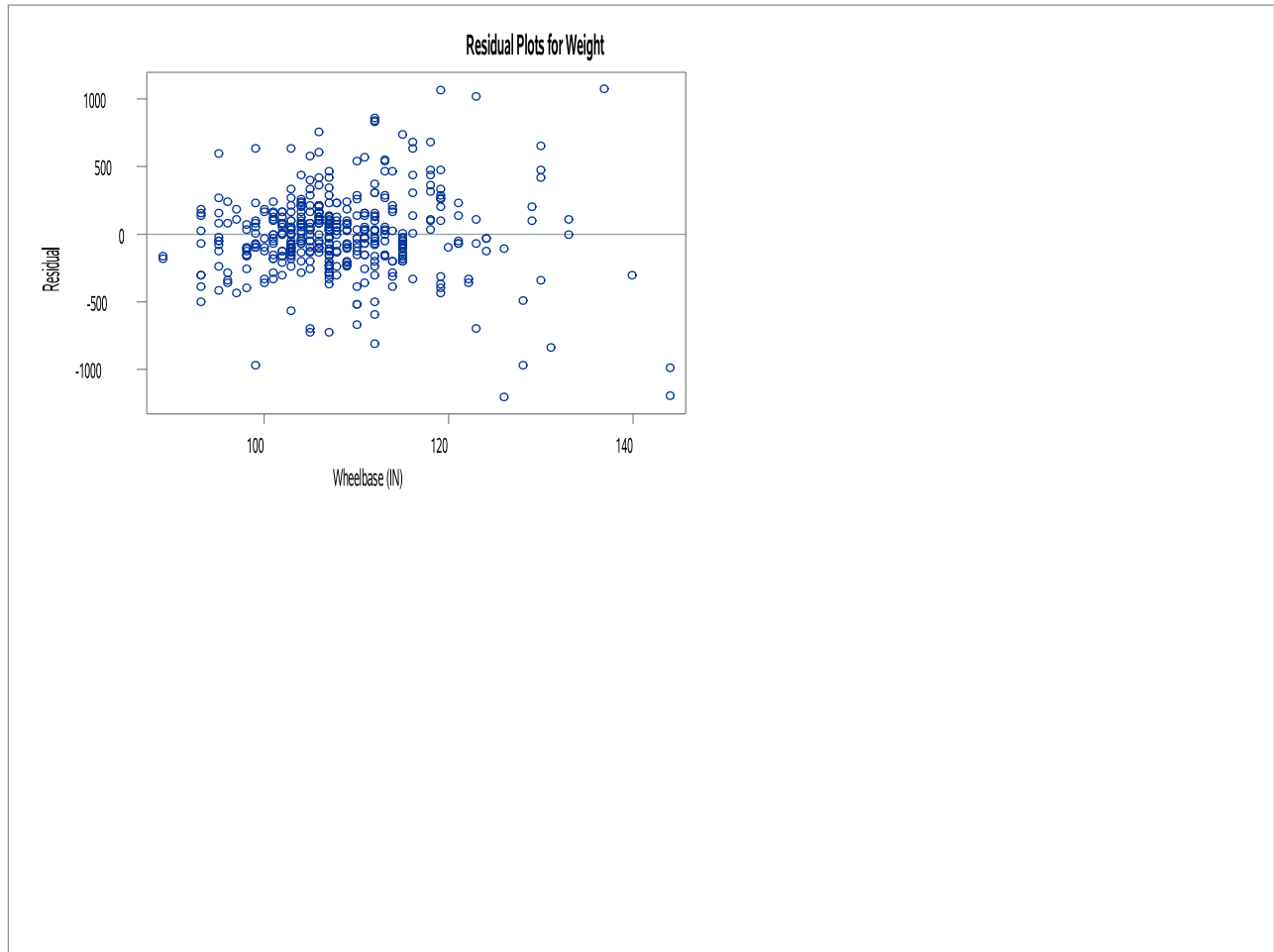
The GLM Procedure

Dependent Variable: Weight Weight (LBS)



The GLM Procedure

Dependent Variable: Weight Weight (LBS)



The LOGISTIC Procedure

Model Information	
Data Set	WORK.CARS
Response Variable	Mass
Number of Response Levels	2
Model	binary logit
Optimization Technique	Fisher's scoring

Number of Observations Read	428
Number of Observations Used	426

Response Profile		
Ordered Value	Mass	Total Frequency
1	1	187
2	0	239

Probability modeled is Mass=1.

Note: 2 observations were deleted due to missing values for the response or explanatory variables.

Model Convergence Status
Convergence criterion (GCONV=1E-8) satisfied.

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	586.198	226.440
SC	590.253	271.039
-2 Log L	584.198	204.440

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	379.7580	10	<.0001
Score	236.0170	10	<.0001
Wald	80.3539	10	<.0001

The LOGISTIC Procedure

Analysis of Maximum Likelihood Estimates					
Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	1	-19.6716	6.2222	9.9951	0.0016
Cylinders	1	0.3982	0.3117	1.6321	0.2014
EngineSize	1	-0.1061	0.5108	0.0432	0.8354
Horsepower	1	-0.0137	0.00696	3.8667	0.0493
Invoice	1	0.000416	0.000313	1.7683	0.1836
Length	1	0.0124	0.0312	0.1594	0.6897
MPG_City	1	-0.3824	0.2226	2.9508	0.0858
MPG_Highway	1	-0.3564	0.1303	7.4768	0.0062
MSRP	1	-0.00032	0.000281	1.3018	0.2539
Origin1	1	-0.2587	0.2580	1.0048	0.3162
Wheelbase	1	0.3037	0.0684	19.7034	<.0001

Odds Ratio Estimates			
Effect	Point Estimate	95% Wald Confidence Limits	
Cylinders	1.489	0.808	2.743
EngineSize	0.899	0.330	2.447
Horsepower	0.986	0.973	1.000
Invoice	1.000	1.000	1.001
Length	1.013	0.953	1.076
MPG_City	0.682	0.441	1.055
MPG_Highway	0.700	0.542	0.904
MSRP	1.000	0.999	1.000
Origin1	0.772	0.466	1.280
Wheelbase	1.355	1.185	1.549

Association of Predicted Probabilities and Observed Responses			
Percent Concordant	96.7	Somers' D	0.933
Percent Discordant	3.3	Gamma	0.933
Percent Tied	0.0	Tau-a	0.461
Pairs	44693	c	0.967