```
*-------------------------------------------------------------*
User:                 dwijd
Date:                 11 August 2021
Time:                 14:41:11
*-------------------------------------------------------------*
* Training Output
*-------------------------------------------------------------*



Variable Summary

           Measurement    Frequency
 Role         Level         Count

INPUT      BINARY             2
INPUT      INTERVAL          12
TARGET     INTERVAL           1



Predicted and decision variables

Type         Variable         Label

TARGET       UCity
PREDICTED    P_UCity     Predicted: UCity
RESIDUAL     R_UCity     Residual: UCity


```

The DMREG Procedure

Model Information

Training Data Set	WORK.EM_DMREG.VIEW
DMDB Catalog	WORK.REG_DMDB
Target Variable	UCity
Target Measurement Level	Interval
Error	Normal
Link Function	Identity
Number of Model Parameters	15
Number of Observations	31790

Stepwise Selection Procedure

Step 0: Intercept entered.

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	0	0	.	.	.
Error	31789	1181900	37.179532		
Corrected Total	31789	1181900			

Model Fit Statistics

R-Square	0.0000	Adj R-Sq	0.0000
AIC	114945.9594	BIC	114944.0730
SBC	114954.3263	C(p)	1635747.1576

Analysis of Maximum Likelihood Estimates

Parameter	DF	Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	22.4709	0.0342	657.07	<.0001

Step 1: Effect SQRT_comb08 entered.

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	1109626	1109626	488041	<.0001
Error	31788	72274	2.273631		
Corrected Total	31789	1181900			

Model Fit Statistics

R-Square	0.9388	Adj R-Sq	0.9388
AIC	26113.6097	BIC	26111.9094
SBC	26130.3435	C(p)	70185.1681

Type 3 Analysis of Effects

Effect	DF	Sum of Squares	F Value	Pr > F
SQRT_comb08	1	1109625.96	488041	<.0001

Analysis of Maximum Likelihood Estimates

Parameter	DF	Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	-8.4870	0.0451	-188.12	<.0001
SQRT_comb08	1	54.8852	0.0786	698.60	<.0001

Step 2: Effect SQRT_highway08 entered.

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	1132536	566268	364638	<.0001

Error	31787	49364	1.552960	
Corrected Total	31789	1181900		

Model Fit Statistics

R-Square	0.9582	Adj R-Sq	0.9582
AIC	13995.7786	BIC	13993.9264
SBC	14020.8794	C(p)	37863.2667

Type 3 Analysis of Effects

Effect	DF	Sum of Squares	F Value	Pr > F
SQRT_comb08	1	154542.524	99514.8	<.0001
SQRT_highway08	1	22910.2358	14752.6	<.0001

Analysis of Maximum Likelihood Estimates

Parameter	DF	Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	-8.8355	0.0374	-236.27	<.0001
SQRT_comb08	1	87.7301	0.2781	315.46	<.0001
SQRT_highway08	1	-31.1906	0.2568	-121.46	<.0001

Step 3: Effect UHighway entered.

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	1154406	384802	444865	<.0001
Error	31786	27494	0.864986		
Corrected Total	31789	1181900			

Model Fit Statistics

R-Square	0.9767	Adj R-Sq	0.9767
AIC	-4606.8668	BIC	-4606.3759
SBC	-4573.3991	C(p)	7009.7532

Type 3 Analysis of Effects

Effect	DF	Sum of Squares	F Value	Pr > F
SQRT_comb08	1	97285.0409	112470	<.0001
SQRT_highway08	1	44468.4521	51409.4	<.0001
UHighway	1	21869.4854	25283.0	<.0001

Analysis of Maximum Likelihood Estimates

Parameter	DF	Estimate	Standard Error	t Value	Pr > |t|

```
196 Intercept              1     -4.1185      0.0407    -101.12
         <.0001
197 SQRT_comb08            1     74.7762      0.2230     335.37
         <.0001
198 SQRT_highway08         1    -56.3576      0.2486    -226.74
         <.0001
199 UHighway               1      0.5082     0.00320     159.01
         <.0001
200
201
202 Step 4: Effect PWR_city08 entered.
203
204
205                              Analysis of Variance
206
207                                    Sum of
208 Source                  DF         Squares     Mean Square
     F Value    Pr > F
209
210 Model                    4         1155808          288952
      351992    <.0001
211 Error                31785           26092        0.820904
212 Corrected Total      31789         1181900
213
214
215               Model Fit Statistics
216
217 R-Square        0.9779     Adj R-Sq        0.9779
218 AIC         -6268.7157     BIC         -6268.1176
219 SBC         -6226.8812     C(p)         5033.6582
220
221
222                 Type 3 Analysis of Effects
223
224                                  Sum of
225 Effect                 DF       Squares    F Value    Pr > F
```

PWR_city08	1	1402.0158	1707.89	<.0001
SQRT_comb08	1	7933.3034	9664.10	<.0001
SQRT_highway08	1	38727.0327	47176.1	<.0001
UHighway	1	22430.1455	27323.7	<.0001

Analysis of Maximum Likelihood Estimates

Parameter	DF	Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	-11.0915	0.1733	-63.99	<.0001
PWR_city08	1	20.7566	0.5023	41.33	<.0001
SQRT_comb08	1	53.9489	0.5488	98.31	<.0001
SQRT_highway08	1	-54.0152	0.2487	-217.20	<.0001
UHighway	1	0.5686	0.00344	165.30	<.0001

Step 5: Effect PWR_barrels08 entered.

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	5	1156790	231358	292845	<.0001

Error	31784	25110	0.790034	
Corrected Total	31789	1181900		

Model Fit Statistics

R-Square	0.9788	Adj R-Sq	0.9788
AIC	-7486.2306	BIC	-7485.4840
SBC	-7436.0291	C(p)	3650.1725

Type 3 Analysis of Effects

Effect	DF	Sum of Squares	F Value	Pr > F
PWR_barrels08	1	981.9918	1242.97	<.0001
PWR_city08	1	1605.6592	2032.39	<.0001
SQRT_comb08	1	3548.7929	4491.95	<.0001
SQRT_highway08	1	35958.6851	45515.3	<.0001
UHighway	1	20845.2020	26385.2	<.0001

Analysis of Maximum Likelihood Estimates

Parameter	DF	Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	4.5125	0.4741	9.52	<.0001
PWR_barrels08	1	-14.8606	0.4215	-35.26	<.0001
PWR_city08	1	22.3006	0.4947	45.08	<.0001
SQRT_comb08	1	42.3181	0.6314	67.02	

```
        <.0001
SQRT_highway08         1    -52.6760      0.2469    -213.34
        <.0001
UHighway               1      0.5529     0.00340     162.44
        <.0001


Step 6: Effect IMP_cylinders entered.


                              Analysis of Variance

                                      Sum of
Source                  DF          Squares     Mean Square
 F Value    Pr > F

Model                    6          1157210          192868
  248275    <.0001
Error                31783            24690        0.776833
Corrected Total      31789          1181900


               Model Fit Statistics

R-Square        0.9791     Adj R-Sq        0.9791
AIC         -8020.9396     BIC         -8020.1787
SBC         -7962.3712     C(p)         3059.0612


                 Type 3 Analysis of Effects

                                   Sum of
Effect                 DF       Squares    F Value    Pr > F

IMP_cylinders           1      420.3799     541.15    <.0001
PWR_barrels08           1     1128.4165    1452.59    <.0001
```

PWR_city08	1	1897.6424	2442.79	<.0001
SQRT_comb08	1	3600.9281	4635.40	<.0001
SQRT_highway08	1	36379.0467	46830.0	<.0001
UHighway	1	19658.1622	25305.5	<.0001

Analysis of Maximum Likelihood Estimates

Parameter	DF	Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	3.3944	0.4726	7.18	<.0001
IMP_cylinders	1	0.1105	0.00475	23.26	<.0001
PWR_barrels08	1	-16.0485	0.4211	-38.11	<.0001
PWR_city08	1	24.8338	0.5025	49.42	<.0001
SQRT_comb08	1	42.6381	0.6263	68.08	<.0001
SQRT_highway08	1	-53.2877	0.2462	-216.40	<.0001
UHighway	1	0.5421	0.00341	159.08	<.0001

Step 7: Effect PWR_youSaveSpend entered.

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F

Model	7	1157730	165390	217478 <.0001
Error	31782	24170	0.760492	
Corrected Total	31789	1181900		

Model Fit Statistics

R-Square	0.9795	Adj R-Sq	0.9795
AIC	-8695.7561	BIC	-8694.8497
SBC	-8628.8209	C(p)	2327.2538

Type 3 Analysis of Effects

Effect	DF	Sum of Squares	F Value	Pr > F
IMP_cylinders	1	624.2957	820.91	<.0001
PWR_barrels08	1	1102.2299	1449.36	<.0001
PWR_city08	1	1952.8189	2567.83	<.0001
PWR_youSaveSpend	1	520.1012	683.90	<.0001
SQRT_comb08	1	2782.0508	3658.22	<.0001
SQRT_highway08	1	31580.6643	41526.6	<.0001
UHighway	1	18472.4986	24290.2	<.0001

Analysis of Maximum Likelihood Estimates

Parameter	DF	Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	3.6117	0.4677	7.72	<.0001

IMP_cylinders	1	0.1380	0.00482	28.65	<.0001
PWR_barrels08	1	-15.8635	0.4167	-38.07	<.0001
PWR_city08	1	25.2024	0.4973	50.67	<.0001
PWR_youSaveSpend	1	2.2479	0.0860	26.15	<.0001
SQRT_comb08	1	38.6153	0.6384	60.48	<.0001
SQRT_highway08	1	-51.5215	0.2528	-203.78	<.0001
UHighway	1	0.5302	0.00340	155.85	<.0001

Step 8: Effect FuelNum entered.

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	8	1158833	144854	199570	<.0001
Error	31781	23068	0.725830		
Corrected Total	31789	1181900			

Model Fit Statistics

R-Square	0.9805	Adj R-Sq	0.9805
AIC	-10177.7613	BIC	-10176.1805
SBC	-10102.4591	C(p)	773.9404

Type 3 Analysis of Effects

Effect	DF	Sum of Squares	F Value	Pr > F
FuelNum	1	1102.3606	1518.76	<.0001
IMP_cylinders	1	373.6674	514.81	<.0001
PWR_barrels08	1	2061.2235	2839.81	<.0001
PWR_city08	1	2137.7034	2945.18	<.0001
PWR_youSaveSpend	1	1528.8928	2106.41	<.0001
SQRT_comb08	1	1034.7959	1425.67	<.0001
SQRT_highway08	1	27563.7015	37975.4	<.0001
UHighway	1	16013.9379	22062.9	<.0001

Analysis of Maximum Likelihood Estimates

Parameter	DF	Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	16.8365	0.5691	29.58	<.0001
FuelNum	1	-0.4471	0.0115	-38.97	<.0001
IMP_cylinders	1	0.1081	0.00477	22.69	<.0001
PWR_barrels08	1	-25.1070	0.4711	-53.29	<.0001
PWR_city08	1	26.4232	0.4869	54.27	<.0001
PWR_youSaveSpend	1	5.1554	0.1123	45.90	<.0001
SQRT_comb08	1	26.3702	0.6984	37.76	

```
        <.0001
SQRT_highway08         1    -49.3466      0.2532    -194.87
        <.0001
UHighway               1      0.5038     0.00339     148.54
        <.0001


Step 9: Effect Transmission entered.


                              Analysis of Variance

                                    Sum of
Source                  DF         Squares     Mean Square
 F Value    Pr > F

Model                    9         1159085          128787
  179396    <.0001
Error                31780           22815        0.717895
Corrected Total      31789         1181900


               Model Fit Statistics

R-Square        0.9807     Adj R-Sq        0.9807
AIC        -10526.2113     BIC        -10524.4596
SBC        -10442.5422     C(p)          419.1274


                 Type 3 Analysis of Effects

                                  Sum of
Effect                 DF       Squares    F Value    Pr > F

FuelNum                 1     1072.5585    1494.03    <.0001
IMP_cylinders           1      465.0170     647.75    <.0001
```

PWR_barrels08	1	2020.5174	2814.50	<.0001
PWR_city08	1	2223.2754	3096.94	<.0001
PWR_youSaveSpend	1	1489.2038	2074.40	<.0001
SQRT_comb08	1	1022.5670	1424.40	<.0001
SQRT_highway08	1	27620.1732	38473.8	<.0001
Transmission	1	252.8987	352.28	<.0001
UHighway	1	16120.0320	22454.6	<.0001

Analysis of Maximum Likelihood Estimates

Parameter	DF	Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	16.2515	0.5669	28.67	<.0001
FuelNum	1	-0.4412	0.0114	-38.65	<.0001
IMP_cylinders	1	0.1221	0.00480	25.45	<.0001
PWR_barrels08	1	-24.8671	0.4687	-53.05	<.0001
PWR_city08	1	27.0013	0.4852	55.65	<.0001
PWR_youSaveSpend	1	5.0905	0.1118	45.55	<.0001
SQRT_comb08	1	26.2158	0.6946	37.74	<.0001
SQRT_highway08	1	-49.4003	0.2519	-196.15	<.0001
Transmission 1	1	0.0987	0.00526	18.77	<.0001
UHighway	1	0.5057	0.00337	149.85	<.0001

Step 10: Effect IMP_displ entered.

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	10	1159259	115926	162715	<.0001
Error	31779	22641	0.712450		
Corrected Total	31789	1181900			

Model Fit Statistics

R-Square	0.9808	Adj R-Sq	0.9808
AIC	-10767.2739	BIC	-10765.3799
SBC	-10675.2379	C(p)	175.9516

Type 3 Analysis of Effects

Effect	DF	Sum of Squares	F Value	Pr > F
FuelNum	1	1164.0159	1633.82	<.0001
IMP_cylinders	1	601.6515	844.48	<.0001
IMP_displ	1	173.7734	243.91	<.0001
PWR_barrels08	1	1949.2122	2735.93	<.0001
PWR_city08	1	2257.2857	3168.34	<.0001
PWR_youSaveSpend	1	1616.1659	2268.46	<.0001
SQRT_comb08	1	937.2336	1315.51	<.0001
SQRT_highway08	1	27766.9075	38973.9	<.0001

Transmission	1	232.7545	326.70	<.0001
UHighway	1	16293.6936	22870.0	<.0001

Analysis of Maximum Likelihood Estimates

Parameter	DF	Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	16.3399	0.5647	28.93	<.0001
FuelNum	1	-0.4631	0.0115	-40.42	<.0001
IMP_cylinders	1	0.1978	0.00681	29.06	<.0001
IMP_displ	1	-0.1453	0.00930	-15.62	<.0001
PWR_barrels08	1	-24.4620	0.4677	-52.31	<.0001
PWR_city08	1	27.2183	0.4836	56.29	<.0001
PWR_youSaveSpend	1	5.3722	0.1128	47.63	<.0001
SQRT_comb08	1	25.2071	0.6950	36.27	<.0001
SQRT_highway08	1	-49.5884	0.2512	-197.42	<.0001
Transmission 1	1	0.0948	0.00525	18.07	<.0001
UHighway	1	0.5110	0.00338	151.23	<.0001

Step 11: Effect Vtype entered.

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	11	1159362	105397	148605	<.0001
Error	31778	22538	0.709240		
Corrected Total	31789	1181900			

Model Fit Statistics

R-Square	0.9809	Adj R-Sq	0.9809
AIC	-10909.7961	BIC	-10907.8030
SBC	-10809.3932	C(p)	33.0590

Type 3 Analysis of Effects

Effect	DF	Sum of Squares	F Value	Pr > F
FuelNum	1	1144.4835	1613.67	<.0001
IMP_cylinders	1	547.3736	771.77	<.0001
IMP_displ	1	150.1380	211.69	<.0001
PWR_barrels08	1	1926.7381	2716.62	<.0001
PWR_city08	1	2285.9609	3223.11	<.0001
PWR_youSaveSpend	1	1590.8352	2243.01	<.0001
SQRT_comb08	1	916.0832	1291.64	<.0001
SQRT_highway08	1	27772.5216	39158.1	<.0001
Transmission	1	213.5046	301.03	<.0001
UHighway	1	16394.1973	23115.1	<.0001
Vtype	1	102.6956	144.80	<.0001

Analysis of Maximum Likelihood Estimates

Parameter	DF	Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	16.0070	0.5642	28.37	<.0001
FuelNum	1	-0.4593	0.0114	-40.17	<.0001
IMP_cylinders	1	0.1896	0.00683	27.78	<.0001
IMP_displ	1	-0.1356	0.00932	-14.55	<.0001
PWR_barrels08	1	-24.3275	0.4667	-52.12	<.0001
PWR_city08	1	27.4048	0.4827	56.77	<.0001
PWR_youSaveSpend	1	5.3323	0.1126	47.36	<.0001
SQRT_comb08	1	24.9344	0.6938	35.94	<.0001
SQRT_highway08	1	-49.5935	0.2506	-197.88	<.0001
Transmission 1	1	0.0910	0.00524	17.35	<.0001
UHighway	1	0.5147	0.00339	152.04	<.0001
Vtype	1	0.0266	0.00221	12.03	<.0001

Step 12: Effect DriveNum entered.

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	12	1159373	96614	136285	<.0001
Error	31777	22527	0.708913		
Corrected Total	31789	1181900			

Model Fit Statistics

R-Square	0.9809	Adj R-Sq	0.9809
AIC	-10923.4687	BIC	-10921.4632
SBC	-10814.6989	C(p)	19.3859

Type 3 Analysis of Effects

Effect	DF	Sum of Squares	F Value	Pr > F
DriveNum	1	11.1087	15.67	<.0001
FuelNum	1	1141.7950	1610.63	<.0001
IMP_cylinders	1	549.8768	775.66	<.0001
IMP_displ	1	144.0804	203.24	<.0001
PWR_barrels08	1	1928.5182	2720.39	<.0001
PWR_city08	1	2282.6059	3219.87	<.0001
PWR_youSaveSpend	1	1589.9910	2242.86	<.0001
SQRT_comb08	1	913.1732	1288.13	<.0001
SQRT_highway08	1	27641.2341	38991.0	<.0001
Transmission	1	219.4025	309.49	<.0001
UHighway	1	16396.0136	23128.4	<.0001

Vtype	1	102.8232	145.04	<.0001

Analysis of Maximum Likelihood Estimates

Parameter	DF	Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	15.9603	0.5641	28.29	<.0001
DriveNum	1	0.0241	0.00609	3.96	<.0001
FuelNum	1	-0.4588	0.0114	-40.13	<.0001
IMP_cylinders	1	0.1901	0.00682	27.85	<.0001
IMP_displ	1	-0.1331	0.00934	-14.26	<.0001
PWR_barrels08	1	-24.3393	0.4667	-52.16	<.0001
PWR_city08	1	27.3860	0.4826	56.74	<.0001
PWR_youSaveSpend	1	5.3309	0.1126	47.36	<.0001
SQRT_comb08	1	24.8971	0.6937	35.89	<.0001
SQRT_highway08	1	-49.5422	0.2509	-197.46	<.0001
Transmission 1	1	0.0925	0.00526	17.59	<.0001
UHighway	1	0.5147	0.00338	152.08	<.0001
Vtype	1	0.0266	0.00221	12.04	<.0001

Step 13: Effect PWR_fuelCost08 entered.

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	13	1159378	89183	125826	<.0001
Error	31776	22522	0.708777		
Corrected Total	31789	1181900			

Model Fit Statistics

R-Square	0.9809	Adj R-Sq	0.9809
AIC	-10928.5576	BIC	-10926.5455
SBC	-10811.4209	C(p)	14.2992

Type 3 Analysis of Effects

Effect	DF	Sum of Squares	F Value	Pr > F
DriveNum	1	11.1633	15.75	<.0001
FuelNum	1	1145.0427	1615.52	<.0001
IMP_cylinders	1	546.2829	770.74	<.0001
IMP_displ	1	130.2200	183.72	<.0001
PWR_barrels08	1	1686.4942	2379.44	<.0001
PWR_city08	1	2203.2078	3108.46	<.0001
PWR_fuelCost08	1	5.0228	7.09	0.0078
PWR_youSaveSpend	1	316.4019	446.41	<.0001

SQRT_comb08	1	822.5159	1160.47	<.0001
SQRT_highway08	1	27390.4548	38644.6	<.0001
Transmission	1	221.0155	311.83	<.0001
UHighway	1	16129.1133	22756.2	<.0001
Vtype	1	100.4209	141.68	<.0001

Analysis of Maximum Likelihood Estimates

Parameter	DF	Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	15.0243	0.6647	22.60	<.0001
DriveNum	1	0.0242	0.00609	3.97	<.0001
FuelNum	1	-0.4621	0.0115	-40.19	<.0001
IMP_cylinders	1	0.1895	0.00683	27.76	<.0001
IMP_displ	1	-0.1286	0.00949	-13.55	<.0001
PWR_barrels08	1	-24.8888	0.5102	-48.78	<.0001
PWR_city08	1	27.7006	0.4968	55.75	<.0001
PWR_fuelCost08	1	1.6165	0.6072	2.66	0.0078
PWR_youSaveSpend	1	6.0289	0.2853	21.13	<.0001
SQRT_comb08	1	24.4164	0.7167	34.07	<.0001
SQRT_highway08	1	-49.4867	0.2517	-196.58	<.0001
Transmission 1	1	0.0928	0.00526	17.66	

```
        <.0001
UHighway                1      0.5137     0.00341     150.85
        <.0001
Vtype                   1      0.0263     0.00221      11.90
        <.0001


Step 14: Effect MPGdNum entered.


                              Analysis of Variance

                                        Sum of
Source                  DF          Squares     Mean Square
 F Value    Pr > F

Model                   14          1159379           82813
  116840    <.0001
Error                31775            22521        0.708771
Corrected Total      31789          1181900


               Model Fit Statistics

R-Square        0.9809     Adj R-Sq        0.9809
AIC        -10927.8574     BIC        -10925.8433
SBC        -10802.3538     C(p)           15.0000


                 Type 3 Analysis of Effects

                                    Sum of
Effect                 DF       Squares    F Value    Pr > F

DriveNum                1       11.4139      16.10    <.0001
FuelNum                 1     1140.9508    1609.76    <.0001
```

749	IMP_cylinders	1	545.2702	769.32	<.0001
750	IMP_displ	1	130.3189	183.87	<.0001
751	MPGdNum	1	0.9209	1.30	0.2544
752	PWR_barrels08	1	1682.0273	2373.16	<.0001
753	PWR_city08	1	2195.9830	3098.30	<.0001
754	PWR_fuelCost08	1	4.7308	6.67	0.0098
755	PWR_youSaveSpend	1	315.0987	444.57	<.0001
756	SQRT_comb08	1	822.7715	1160.84	<.0001
757	SQRT_highway08	1	27212.6979	38394.2	<.0001
758	Transmission	1	218.4368	308.19	<.0001
759	UHighway	1	16109.7448	22729.1	<.0001
760	Vtype	1	100.1228	141.26	<.0001

761

762

763 Analysis of Maximum Likelihood Estimates

764

765	Parameter	DF	Estimate	Standard Error	t Value	Pr > |t|
767						
768	Intercept	1	15.0465	0.6650	22.63	<.0001
769	DriveNum	1	0.0245	0.00609	4.01	<.0001
770	FuelNum	1	-0.4616	0.0115	-40.12	<.0001
771	IMP_cylinders	1	0.1894	0.00683	27.74	<.0001
772	IMP_displ	1	-0.1287	0.00949	-13.56	<.0001
773	MPGdNum 0	1	0.00591	0.00519	1.14	0.2544
774	PWR_barrels08	1	-24.8695	0.5105	-48.72	<.0001
775	PWR_city08	1	27.6777	0.4972	55.66	<.0001

PWR_fuelCost08		1	1.5720	0.6085	2.58	0.0098
PWR_youSaveSpend		1	6.0192	0.2855	21.08	<.0001
SQRT_comb08		1	24.4205	0.7168	34.07	<.0001
SQRT_highway08		1	-49.4652	0.2524	-195.94	<.0001
Transmission	1	1	0.0925	0.00527	17.56	<.0001
UHighway		1	0.5136	0.00341	150.76	<.0001
Vtype		1	0.0263	0.00221	11.89	<.0001

NOTE: All effects have been entered into the model.

Summary of Stepwise Selection

Step	Effect Entered	DF	Number In	F Value	Pr > F
1	SQRT_comb08	1	1	488041	<.0001
2	SQRT_highway08	1	2	14752.6	<.0001
3	UHighway	1	3	25283.0	<.0001
4	PWR_city08	1	4	1707.89	<.0001
5	PWR_barrels08	1	5	1242.97	<.0001
6	IMP_cylinders	1	6	541.15	

<.0001

799	7	PWR_youSaveSpend	1	7	683.90	<.0001
800	8	FuelNum	1	8	1518.76	<.0001
801	9	Transmission	1	9	352.28	<.0001
802	10	IMP_displ	1	10	243.91	<.0001
803	11	Vtype	1	11	144.80	<.0001
804	12	DriveNum	1	12	15.67	<.0001
805	13	PWR_fuelCost08	1	13	7.09	0.0078
806	14	MPGdNum	1	14	1.30	0.2544

807

808

809 The selected model is the model trained in the last step (Step 14). It consists of the following effects:

810

811 Intercept DriveNum FuelNum IMP_cylinders IMP_displ MPGdNum PWR_barrels08 PWR_city08 PWR_fuelCost08 PWR_youSaveSpend SQRT_comb08 SQRT_highway08 Transmission UHighway Vtype

812

813

814 Analysis of Variance

815

816

817 Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
818					
819 Model	14	1159379	82813	116840	<.0001

Error	31775	22521	0.708771	
Corrected Total	31789	1181900		

Model Fit Statistics

R-Square	0.9809	Adj R-Sq	0.9809
AIC	-10927.8574	BIC	-10925.8433
SBC	-10802.3538	C(p)	15.0000

Type 3 Analysis of Effects

Effect	DF	Sum of Squares	F Value	Pr > F
DriveNum	1	11.4139	16.10	<.0001
FuelNum	1	1140.9508	1609.76	<.0001
IMP_cylinders	1	545.2702	769.32	<.0001
IMP_displ	1	130.3189	183.87	<.0001
MPGdNum	1	0.9209	1.30	0.2544
PWR_barrels08	1	1682.0273	2373.16	<.0001
PWR_city08	1	2195.9830	3098.30	<.0001
PWR_fuelCost08	1	4.7308	6.67	0.0098
PWR_youSaveSpend	1	315.0987	444.57	<.0001
SQRT_comb08	1	822.7715	1160.84	<.0001
SQRT_highway08	1	27212.6979	38394.2	<.0001
Transmission	1	218.4368	308.19	<.0001
UHighway	1	16109.7448	22729.1	<.0001
Vtype	1	100.1228	141.26	<.0001

Analysis of Maximum Likelihood Estimates

Parameter	DF	Estimate	Standard Error	t Value

```
       Pr > |t|
856
857  Intercept              1     15.0465      0.6650      22.63
         <.0001
858  DriveNum               1      0.0245     0.00609       4.01
         <.0001
859  FuelNum                1     -0.4616      0.0115     -40.12
         <.0001
860  IMP_cylinders          1      0.1894     0.00683      27.74
         <.0001
861  IMP_displ              1     -0.1287     0.00949     -13.56
         <.0001
862  MPGdNum          0     1     0.00591     0.00519       1.14
         0.2544
863  PWR_barrels08          1    -24.8695      0.5105     -48.72
         <.0001
864  PWR_city08             1     27.6777      0.4972      55.66
         <.0001
865  PWR_fuelCost08         1      1.5720      0.6085       2.58
         0.0098
866  PWR_youSaveSpend       1      6.0192      0.2855      21.08
         <.0001
867  SQRT_comb08            1     24.4205      0.7168      34.07
         <.0001
868  SQRT_highway08         1    -49.4652      0.2524    -195.94
         <.0001
869  Transmission     1     1      0.0925     0.00527      17.56
         <.0001
870  UHighway               1      0.5136     0.00341     150.76
         <.0001
871  Vtype                  1      0.0263     0.00221      11.89
         <.0001
872
873
874  *-------------------------------------------------------
     -*
```

```
875 * Score Output
876 *-------------------------------------------------------------
    -*
877
878
879 *-------------------------------------------------------------
    -*
880 * Report Output
881 *-------------------------------------------------------------
    -*
882
883
884
885
886 Fit Statistics
887
888 Target=UCity Target Label=' '
889
890    Fit
891 Statistics    Statistics Label                       Train
        Test
892
893  _AIC_        Akaike's Information Criterion    -10927.86
         .
894  _ASE_        Average Squared Error                  0.71
        0.70
895  _AVERR_      Average Error Function                 0.71
        0.70
896  _DFE_        Degrees of Freedom for Error       31775.00
         .
897  _DFM_        Model Degrees of Freedom              15.00
         .
898  _DFT_        Total Degrees of Freedom           31790.00
         .
899  _DIV_        Divisor for ASE                    31790.00
     7947.00
```

```
900   _ERR_         Error Function                        22521.19
     5565.09
901   _FPE_         Final Prediction Error                    0.71
          .
902   _MAX_         Maximum Absolute Error                   16.03
       16.03
903   _MSE_         Mean Square Error                         0.71
        0.70
904   _NOBS_        Sum of Frequencies                    31790.00
     7947.00
905   _NW_          Number of Estimate Weights               15.00
          .
906   _RASE_        Root Average Sum of Squares               0.84
        0.84
907   _RFPE_        Root Final Prediction Error               0.84
          .
908   _RMSE_        Root Mean Squared Error                   0.84
        0.84
909   _SBC_         Schwarz's Bayesian Criterion          -10802.35
          .
910   _SSE_         Sum of Squared Errors                 22521.19
     5565.09
911   _SUMW_        Sum of Case Weights Times Freq        31790.00
     7947.00
912
913
914
915
916  Assessment Score Rankings
917
918  Data Role=TRAIN Target Variable=UCity Target Label=' '
919
920              Number of       Mean        Mean
921  Depth     Observations     Target    Predicted
922
923     5          1591        38.2146     37.2029
```

924	10	1589	32.0236	31.7212
925	15	1589	29.2448	29.4536
926	20	1589	27.6473	27.9189
927	25	1592	26.2933	26.5656
928	30	1587	25.1575	25.3893
929	35	1590	24.2736	24.4676
930	40	1590	23.3412	23.6706
931	45	1590	22.6031	22.9318
932	50	1588	21.8234	22.1423
933	55	1591	21.1703	21.4175
934	60	1589	20.5538	20.7097
935	65	1590	19.9695	20.0809
936	70	1590	19.2755	19.4204
937	75	1589	18.7621	18.7961
938	80	1588	18.0800	18.0329
939	85	1590	17.1623	17.1089
940	90	1591	16.1854	15.9962
941	95	1589	14.8033	14.4747
942	100	1588	12.8158	11.8994
943				
944				
945				
946				

947 Assessment Score Distribution

948

949 Data Role=TRAIN Target Variable=UCity Target Label=' '

950

951	Range for Predicted	Mean Target	Mean Predicted	Number of Observations	Model Score
952					
953					
954	57.109 - 60.589	59.0000	60.2993	9	58.8490
955	50.147 - 53.628	55.5000	51.1287	2	51.8874

956	46.666 - 48.4066	50.147	52.2727	48.6900	11
957	43.185 - 44.9258	46.666	49.1769	45.4263	65
958	39.705 - 41.4450	43.185	42.6611	41.1327	180
959	36.224 - 37.9641	39.705	38.8435	37.7865	575
960	32.743 - 34.4833	36.224	34.7918	34.2057	1011
961	29.262 - 31.0025	32.743	30.8390	30.7725	2279
962	25.781 - 27.5217	29.262	27.1962	27.4586	3963
963	22.300 - 24.0409	25.781	23.6828	23.9601	6673
964	18.820 - 20.5601	22.300	20.3242	20.5032	8211
965	15.339 - 17.0792	18.820	17.4061	17.3254	5541
966	11.858 - 13.5984	15.339	14.3071	13.8752	2717
967	8.377 - 10.1176	11.858	11.8856	10.6438	494
968	4.896 - 6.6368	8.377	10.0364	7.2198	55
969	-9.027 - -7.2865	-5.546	7.0000	-9.0269	4