

**The REG Procedure**  
**Model: MODEL1**  
**Dependent Variable: Y Product sales (\$1000s)**

**Weight: \_WT\_**

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
<b>Model</b>	3	1.787381E13	5.957937E12	20482.8	<.0001
<b>Error</b>	112	32578039964	290875357		
<b>Corrected Total</b>	115	1.790639E13			

<b>Root MSE</b>	17055	<b>R-Square</b>	0.9982
<b>Dependent Mean</b>	781025	<b>Adj R-Sq</b>	0.9981
<b>Coeff Var</b>	2.18368		

Parameter Estimates						
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
<b>Intercept</b>	Intercept	1	44270	5735.80843	7.72	<.0001
<b>X1</b>	advertising (\$1000s)	1	3.80691	0.26755	14.23	<.0001
<b>X2</b>	advertising ratio (comp/this)	1	-44560	3081.37220	-14.46	<.0001
<b>X3</b>	personel disposable income (\$billion)	1	84.88208	2.59940	32.65	<.0001

*sales x1: Difference between original and the reduced model Sum: = 29928104.776*

<b>advertising (\$1000s)</b>	<b>ID</b>	<b>predicted value, original</b>	<b>Pred. value reduced model</b>	<b>NEWVAR</b>	<b>difference in pred values</b>
4644	1	51959.73	38087.35	1000	13872.39
15256	7	81728.60	27457.26	1000	54271.34
16734	3	121944.19	62046.23	1000	59897.96
16861	2	142732.26	82350.83	1000	60381.43
23374	12	147517.74	62341.89	1000	85175.85
28611	10	167330.15	62217.49	1000	105112.65
18793	5	163734.22	95997.84	1000	67736.39
27023	8	217046.71	117979.43	1000	99067.28
30955	6	213300.28	99264.23	1000	114036.05
31305	19	237850.74	122482.27	1000	115368.47
25616	4	239849.77	146138.82	1000	93710.95
22334	13	231624.18	150407.52	1000	81216.66
26174	14	260733.92	164898.72	1000	95835.21
16972	9	264852.91	204048.91	1000	60804.00
22844	11	247783.39	164625.20	1000	83158.19
27601	15	255259.11	153991.44	1000	101267.67
20781	16	226093.95	150789.42	1000	75304.53
26642	22	301224.24	203607.39	1000	97616.84
27478	18	301839.17	201039.74	1000	100799.42
33929	17	286777.18	161419.37	1000	125357.81
36250	23	348389.71	214196.06	1000	134193.65
32286	25	332620.46	213517.41	1000	119103.05
31673	21	324047.38	207277.96	1000	116769.42
35509	24	378690.99	247318.26	1000	131372.73
40740	28	396847.29	245560.60	1000	151286.69
38383	26	370897.16	228583.37	1000	142313.80
44551	20	413539.13	247744.30	1000	165794.83
33490	30	424375.43	300688.85	1000	123686.58
40497	27	489817.80	339456.18	1000	150361.61
45214	33	468138.20	299819.39	1000	168318.81
44030	31	501910.05	338098.62	1000	163811.43
44804	34	502864.39	336106.41	1000	166757.98
42783	29	509494.23	350430.02	1000	159064.21
46273	32	517476.24	345125.91	1000	172350.33
48210	35	529793.22	350068.90	1000	179724.32
48797	36	547198.40	365239.42	1000	181958.98
52818	42	540740.48	343473.91	1000	197266.58
49933	38	526083.16	339799.53	1000	186283.63

*sales x1: Difference between original and the reduced model Sum: = 29928104.776*

<b>advertising (\$1000s)</b>	<b>ID</b>	<b>predicted value, original</b>	<b>Pred. value reduced model</b>	<b>NEWVAR</b>	<b>difference in pred values</b>
46138	39	548175.69	376339.28	1000	171836.40
53520	41	520534.15	320595.13	1000	199939.03
58182	45	607629.68	389942.83	1000	217686.85
50268	37	596725.59	409166.64	1000	187558.95
57596	47	611068.83	395612.83	1000	215456.00
61832	40	599136.96	367554.88	1000	231582.08
50877	43	602484.93	412607.57	1000	189877.36
56944	44	610935.83	397961.94	1000	212973.89
53425	46	676883.27	477305.90	1000	199577.37
62296	56	710531.08	477182.59	1000	233348.49
67985	52	669947.63	414941.62	1000	255006.01
61211	48	693707.65	464489.66	1000	229217.99
72862	60	709756.06	436183.74	1000	273572.32
63508	54	717497.44	479534.97	1000	237962.47
62690	51	713030.18	478181.76	1000	234848.41
57396	50	727460.04	512765.42	1000	214694.62
70237	57	754341.54	490762.36	1000	263579.18
73387	49	717355.00	441784.05	1000	275570.95
63847	53	738713.95	499460.94	1000	239253.01
70270	59	801132.49	537427.68	1000	263704.81
70553	55	780857.30	516075.14	1000	264782.16
72196	61	805875.08	534838.17	1000	271036.92
66249	64	825291.25	576894.03	1000	248397.21
71268	62	850256.91	582752.80	1000	267504.10
77698	58	829704.94	537722.39	1000	291982.55
81867	67	842543.84	534690.27	1000	307853.57
79185	63	852787.55	555144.13	1000	297643.43
74663	70	901125.30	620696.73	1000	280428.57
68691	65	879195.37	621501.68	1000	257693.69
83150	69	889827.72	577089.89	1000	312737.84
77446	68	900280.68	609257.47	1000	291023.21
86235	75	962919.10	638436.94	1000	324482.16
80561	79	952541.17	649659.43	1000	302881.74
80490	66	951041.66	648430.21	1000	302611.45
75424	73	984889.02	701563.39	1000	283325.63
94863	87	1007416.26	650088.06	1000	357328.20
81348	71	990296.49	684418.71	1000	305877.78
98203	85	1043155.85	673112.56	1000	370043.28

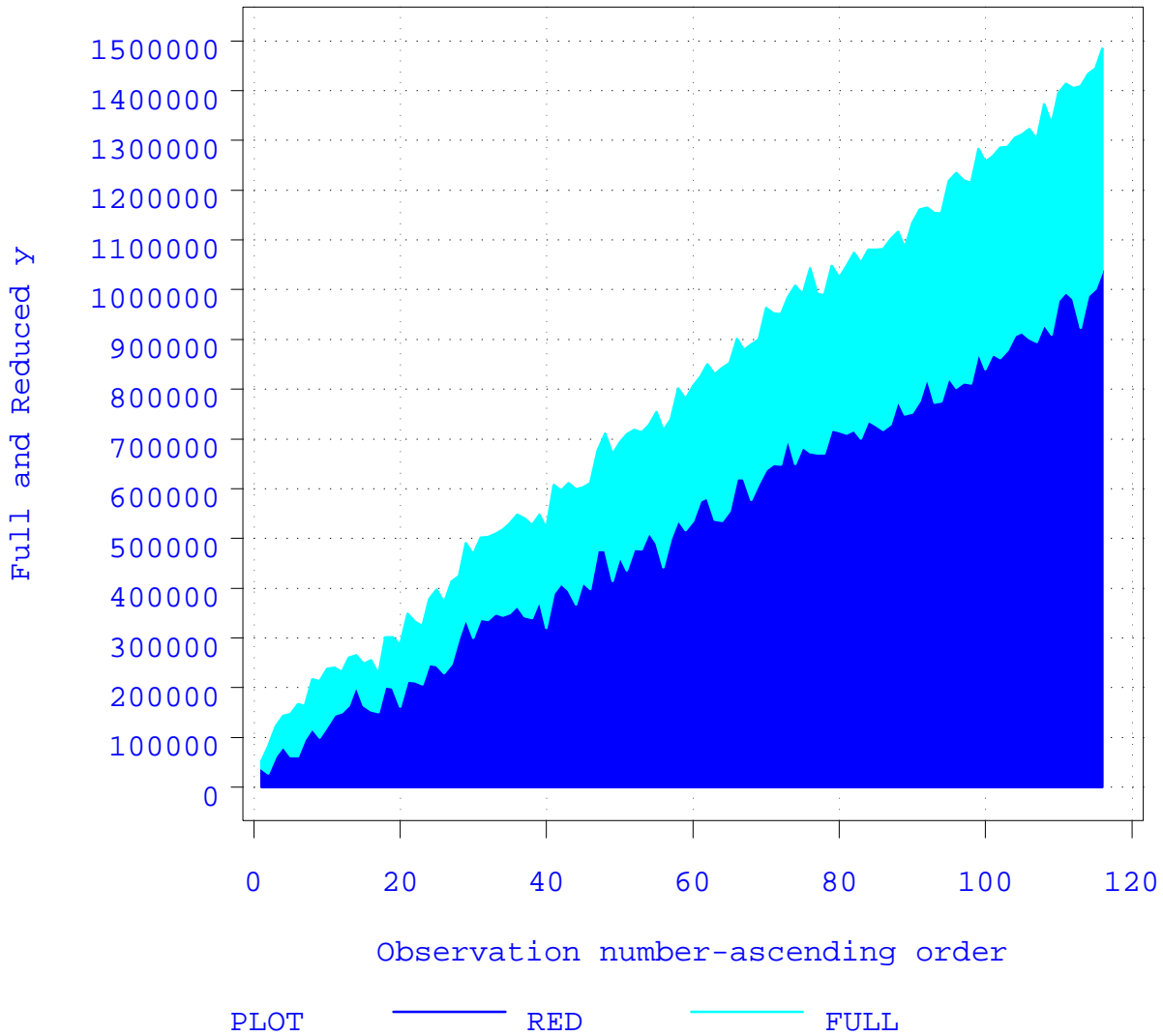
*sales x1: Difference between original and the reduced model Sum: = 29928104.776*

<b>advertising (\$1000s)</b>	<b>ID</b>	<b>predicted value, original</b>	<b>Pred. value reduced model</b>	<b>NEWVAR</b>	<b>difference in pred values</b>
84869	76	990738.12	671456.21	1000	319281.92
84695	74	989840.90	671221.38	1000	318619.51
87085	80	1047255.10	719537.07	1000	327718.03
81996	72	1023574.34	715229.68	1000	308344.66
89854	78	1048314.24	710054.87	1000	338259.37
94647	89	1074031.62	717525.71	1000	356505.90
93692	83	1053991.50	701121.20	1000	352870.30
90918	86	1079590.48	737280.55	1000	342309.93
93427	91	1079912.56	728051.09	1000	351861.47
96656	84	1081826.38	717672.39	1000	364153.99
98729	82	1100858.98	728813.26	1000	372045.72
89951	81	1116416.68	777788.04	1000	338628.64
88934	77	1084515.23	749758.22	1000	334757.02
100819	90	1133474.96	753472.80	1000	380002.17
102194	88	1161646.91	776410.24	1000	385236.67
90606	92	1164791.63	823669.46	1000	341122.17
100821	94	1153284.01	773274.23	1000	380009.78
100107	93	1153047.14	775755.50	1000	377291.64
104625	98	1218372.73	823881.46	1000	394491.27
114443	97	1234828.90	802961.36	1000	431867.54
107665	96	1219567.99	813503.70	1000	406064.29
107053	99	1215138.11	811403.66	1000	403734.46
108186	103	1282454.35	874406.66	1000	408047.69
110453	102	1257153.93	840475.97	1000	416677.96
105445	100	1268240.51	870627.57	1000	397612.94
112112	104	1285900.74	862907.11	1000	422993.63
107925	95	1286086.75	879032.67	1000	407054.08
105222	105	1305421.60	908657.60	1000	396764.00
105071	107	1311189.00	914999.85	1000	396189.16
111710	101	1323266.86	901803.61	1000	421463.25
107690	109	1301428.38	895268.92	1000	406159.46
117123	106	1373031.69	930961.62	1000	442070.06
112383	110	1333341.86	909316.56	1000	424025.30
110275	114	1394537.33	978537.01	1000	416000.33
110890	112	1413897.78	995556.20	1000	418341.58
112434	108	1405493.46	981274.01	1000	424219.45
128526	115	1409142.73	923662.45	1000	485480.28
117895	111	1433029.57	988020.57	1000	445009.00

*sales x1: Difference between original and the reduced model Sum: = 29928104.776*

<b>advertising (\$1000s)</b>	<b>ID</b>	<b>predicted value, original</b>	<b>Pred. value reduced model</b>	<b>NEWVAR</b>	<b>difference in pred values</b>
117501	113	1444985.02	1001475.94	1000	443509.08
118161	116	1484121.27	1038099.63	1000	446021.64

Lift chart—sales x1 — Sum of differeces:29928104.776



x1 = 1000 Total respoese: Full model:90598901 Reduced M: 60670796.224