Reduced model regressions by month: Brunswick, JAN1993-DEC2002 1
RESIDENTIAL 02:56 Wednesday, May 7, 2003

The GLM Procedure

Class Level Information

Class	Levels	Values
month	12	1 2 3 4 5 6 7 8 9 10 11 12

Number of observations 132

NOTE: Due to missing values, only 120 observations can be used in this analysis.

The GLM Procedure

Dependent Variable: res_gallons

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	11	5072.46129	461.13284	2.82	0.0029
Error	108	17668.80237	163.60002		
Corrected Total	119	22741.26366			

R-Square	Coeff Var	Root MSE	res_gallons Mean
0.223051	10.10931	12.79062	126.5232

Source	DF	Type I SS	Mean Square	F Value	Pr > F
month	11	5072.461292	461.132845	2.82	0.0029

Source	DF	Type III SS	Mean Square	F Value	Pr > F
month	11	5072.461292	461.132845	2.82	0.0029

Parameter		Estimate	Standard Error	t Value	Pr > |t|
Intercept		125.7934333 B	4.04474995	31.10	<.0001
month	1	-0.1918527 B	5.72014024	-0.03	0.9733
month	2	8.8800183 B	5.72014024	1.55	0.1235
month	3	-3.2849272 B	5.72014024	-0.57	0.5670
month	4	-12.1056591 B	5.72014024	-2.12	0.0366
month	5	-1.6529333 B	5.72014024	-0.29	0.7732
month	6	-4.2771108 B	5.72014024	-0.75	0.4562
month	7	5.3452000 B	5.72014024	0.93	0.3522
month	8	4.1228892 B	5.72014024	0.72	0.4726
month	9	14.3893409 B	5.72014024	2.52	0.0134
month	10	-0.6352333 B	5.72014024	-0.11	0.9118
month	11	-1.8320462 B	5.72014024	-0.32	0.7494
month	12	0.0000000 B	.	.	.

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 MEANS Procedure

Analysis Variable : p

N	Mean	Std Dev	Minimum	Maximum
12	126.5558607	37.7148537	113.6877742	140.1827742

The GLM Procedure

Class Level Information

Class	Levels	Values
month	12	1 2 3 4 5 6 7 8 9 10 11 12

Number of observations 132

NOTE: Due to missing values, only 120 observations can be used in this analysis.

The GLM Procedure

Dependent Variable: com_gallons

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	23	82340.0758	3580.0033	4.61	<.0001
Error	96	74475.8213	775.7898		
Corrected Total	119	156815.8971			

R-Square	Coeff Var	Root MSE	com_gallons Mean
0.525075	13.46409	27.85300	206.8687

Source	DF	Type I SS	Mean Square	F Value	Pr > F
month	11	59743.25619	5431.20511	7.00	<.0001
since_90*month	12	22596.81965	1883.06830	2.43	0.0085

Source	DF	Type III SS	Mean Square	F Value	Pr > F
month	11	10887.61787	989.78344	1.28	0.2501
since_90*month	12	22596.81965	1883.06830	2.43	0.0085

Parameter		Estimate	Standard Error	t Value	Pr > |t|
Intercept		227.5528788 B	24.62776025	9.24	<.0001
month	1	-26.8364389 B	34.82891255	-0.77	0.4429
month	2	30.9256549 B	34.82891255	0.89	0.3768
month	3	13.2968698 B	34.82891255	0.38	0.7035
month	4	-39.9858348 B	34.82891255	-1.15	0.2538
month	5	16.1736909 B	34.82891255	0.46	0.6434
month	6	-25.6867380 B	34.82891255	-0.74	0.4626
month	7	45.2421455 B	34.82891255	1.30	0.1971
month	8	24.5254907 B	34.82891255	0.70	0.4830
month	9	44.2390978 B	34.82891255	1.27	0.2071
month	10	-4.5512182 B	34.82891255	-0.13	0.8963
month	11	-0.7934536 B	34.82891255	-0.02	0.9819
month	12	0.0000000 B	.	.	.
since_90*month	1	-2.9345748	3.06651476	-0.96	0.3410
since_90*month	2	-9.3304927	3.06651476	-3.04	0.0030
since_90*month	3	-5.7357097	3.06651476	-1.87	0.0645
since_90*month	4	-1.8304145	3.06651476	-0.60	0.5520
since_90*month	5	-5.8044182	3.06651476	-1.89	0.0614
since_90*month	6	3.7651554	3.06651476	1.23	0.2225
since_90*month	7	-3.2731232	3.06651476	-1.07	0.2885
since_90*month	8	-1.5558514	3.06651476	-0.51	0.6131
since_90*month	9	-7.0144829	3.06651476	-2.29	0.0244
since_90*month	10	-2.3482303	3.06651476	-0.77	0.4457
since_90*month	11	-3.4440782	3.06651476	-1.12	0.2642
since_90*month	12	-3.7949616	3.06651476	-1.24	0.2189

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 MEANS Procedure

Analysis Variable : p

N	Mean	Std Dev	Minimum	Maximum
12	187.1349552	187.0011986	137.1821290	250.8131613

The GLM Procedure

Number of observations 11

NOTE: Due to missing values, only 10 observations can be used in this analysis.

The GLM Procedure

Dependent Variable: res_gallons

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	391826.8815	391826.8815	5530.02	<.0001
Error	9	637.6911	70.8546		
Uncorrected Total	10	392464.5726			

R-Square	Coeff Var	Root MSE	res_gallons Mean
0.000000	4.252426	8.417515	197.9462

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Intercept	1	391826.8815	391826.8815	5530.02	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Intercept	1	391826.8815	391826.8815	5530.02	<.0001

Parameter	Estimate	Standard Error	t Value	Pr > |t|
Intercept	197.9461749	2.66185205	74.36	<.0001

The MEANS Procedure

Analysis Variable : p

N	Mean	Std Dev	Minimum	Maximum
1	197.9461749	.	197.9461749	197.9461749

The GLM Procedure

Number of observations 11

NOTE: Due to missing values, only 10 observations can be used in this analysis.

The GLM Procedure

Dependent Variable: com_gallons

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	7502766.881	7502766.881	19095.2	<.0001
Error	9	3536.220	392.913		
Uncorrected Total	10	7506303.101			

R-Square	Coeff Var	Root MSE	com_gallons Mean
0.000000	2.288430	19.82204	866.1851

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Intercept	1	7502766.881	7502766.881	19095.2	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Intercept	1	7502766.881	7502766.881	19095.2	<.0001

Parameter	Estimate	Standard Error	t Value	Pr > |t|
Intercept	866.1851350	6.26827992	138.19	<.0001

The MEANS Procedure

Analysis Variable : p

N	Mean	Std Dev	Minimum	Maximum
1	866.1851350	.	866.1851350	866.1851350

The GLM Procedure

Class Level Information

Class	Levels	Values
month	12	1 2 3 4 5 6 7 8 9 10 11 12

Number of observations 132

NOTE: Due to missing values, only 120 observations can be used in this analysis.

The GLM Procedure

Dependent Variable: res_gallons

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	31	27754.43542	895.30437	4.08	<.0001
Error	88	19297.31370	219.28766		
Corrected Total	119	47051.74912			

R-Square	Coeff Var	Root MSE	res_gallons Mean
0.589870	9.433098	14.80836	156.9830

Source	DF	Type I SS	Mean Square	F Value	Pr > F
month	11	14912.73433	1355.70312	6.18	<.0001
pdsi*month	8	2049.15895	256.14487	1.17	0.3275
since_90*month	12	10792.54215	899.37851	4.10	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
month	11	9021.34492	820.12227	3.74	0.0002
pdsi*month	8	3832.07742	479.00968	2.18	0.0361
since_90*month	12	10792.54215	899.37851	4.10	<.0001

Parameter		Estimate		Standard Error	t Value	Pr > |t|
Intercept		150.1820495	B	14.95756558	10.04	<.0001
month	1	40.7178977	B	19.87892966	2.05	0.0435
month	2	25.8529359	B	19.87892966	1.30	0.1968
month	3	27.3846138	B	19.87892966	1.38	0.1718
month	4	-21.8770759	B	19.87892966	-1.10	0.2741
month	5	12.1696637	B	23.12059467	0.53	0.6000
month	6	-27.4690210	B	26.97261538	-1.02	0.3113
month	7	86.3061606	B	23.09906319	3.74	0.0003
month	8	57.1493322	B	22.66138270	2.52	0.0135
month	9	42.9469498	B	21.35888538	2.01	0.0474
month	10	29.8994477	B	20.74513990	1.44	0.1531
month	11	10.4414398	B	21.04132800	0.50	0.6210
month	12	0.0000000	B	.	.	.
pdsi*month	1	0.0000000	B	.	.	.
pdsi*month	2	0.0000000	B	.	.	.
pdsi*month	3	0.0000000	B	.	.	.
pdsi*month	4	0.0000000	B	.	.	.
pdsi*month	5	0.3496581	B	3.41242107	0.10	0.9186
pdsi*month	6	6.2980935	B	4.44862682	1.42	0.1604
pdsi*month	7	-5.9499680	B	3.29326326	-1.81	0.0742
pdsi*month	8	-7.5691054	B	2.96095717	-2.56	0.0123
pdsi*month	9	-4.1637044	B	2.11212625	-1.97	0.0518
pdsi*month	10	-0.4673934	B	2.09195738	-0.22	0.8237
pdsi*month	11	-0.3308375	B	1.96785205	-0.17	0.8669
pdsi*month	12	2.7615263	B	2.11981585	1.30	0.1961
since_90*month	1	-5.1374467		1.63034726	-3.15	0.0022
since_90*month	2	-3.8978905		1.63034726	-2.39	0.0189

The GLM Procedure

Dependent Variable: res_gallons

Parameter	Estimate	Standard Error	t Value	Pr > |t|
since_90*month 3	-3.4397832	1.63034726	-2.11	0.0377
since_90*month 4	1.2572336	1.63034726	0.77	0.4427
since_90*month 5	-1.5371106	1.78676188	-0.86	0.3920
since_90*month 6	4.2706468	2.21586168	1.93	0.0572
since_90*month 7	-7.2041710	1.81823599	-3.96	0.0002
since_90*month 8	-2.6547508	1.80067748	-1.47	0.1440
since_90*month 9	-1.9356392	1.76250024	-1.10	0.2751
since_90*month 10	-3.3479084	1.69170582	-1.98	0.0509
since_90*month 11	-1.6693079	1.74799083	-0.95	0.3422
since_90*month 12	0.7303599	1.80970268	0.40	0.6875

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 MEANS Procedure

Analysis Variable : p

N	Mean	Std Dev	Minimum	Maximum
12	146.5302001	101.5565809	124.1131398	183.2888063

The GLM Procedure

Class Level Information

Class	Levels	Values
month	12	1 2 3 4 5 6 7 8 9 10 11 12

Number of observations 132

NOTE: Due to missing values, only 120 observations can be used in this analysis.

The GLM Procedure

Dependent Variable: com_gallons

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	11	298458.939	27132.631	3.83	0.0001
Error	108	765931.032	7091.954		
Corrected Total	119	1064389.971			

R-Square	Coeff Var	Root MSE	com_gallons Mean
0.280404	14.51775	84.21374	580.0745

Source	DF	Type I SS	Mean Square	F Value	Pr > F
month	11	298458.9393	27132.6308	3.83	0.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
month	11	298458.9393	27132.6308	3.83	0.0001

Parameter		Estimate		Standard Error	t Value	Pr > |t|
Intercept		566.6064000	B	26.63072285	21.28	<.0001
month	1	-5.4326258	B	37.66152944	-0.14	0.8856
month	2	-32.0480452	B	37.66152944	-0.85	0.3967
month	3	-0.6357929	B	37.66152944	-0.02	0.9866
month	4	-22.2347871	B	37.66152944	-0.59	0.5562
month	5	-19.5525667	B	37.66152944	-0.52	0.6047
month	6	-4.8460452	B	37.66152944	-0.13	0.8979
month	7	82.8788333	B	37.66152944	2.20	0.0299
month	8	72.4272129	B	37.66152944	1.92	0.0571
month	9	129.2058903	B	37.66152944	3.43	0.0009
month	10	-35.3377333	B	37.66152944	-0.94	0.3502
month	11	-2.8072387	B	37.66152944	-0.07	0.9407
month	12	0.0000000	B	.	.	.

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 MEANS Procedure

Analysis Variable : p

N	Mean	Std Dev	Minimum	Maximum
12	580.2613288	288.5924460	531.2686667	695.8122903

The GLM Procedure

Class Level Information

Class	Levels	Values
month	12	1 2 3 4 5 6 7 8 9 10 11 12

Number of observations 132

NOTE: Due to missing values, only 120 observations can be used in this analysis.

The GLM Procedure

Dependent Variable: res_gallons

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	19	394981.6280	20788.5067	15.77	<.0001
Error	100	131824.6903	1318.2469		
Corrected Total	119	526806.3183			

R-Square	Coeff Var	Root MSE	res_gallons Mean
0.749766	13.01810	36.30767	278.9014

Source	DF	Type I SS	Mean Square	F Value	Pr > F
month	11	324458.8239	29496.2567	22.38	<.0001
pdsi*month	8	70522.8042	8815.3505	6.69	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
month	11	350872.5931	31897.5085	24.20	<.0001
pdsi*month	8	70522.8042	8815.3505	6.69	<.0001

Parameter		Estimate		Standard Error	t Value	Pr > |t|
Intercept		246.2537903	B	12.54011014	19.64	<.0001
month	1	-20.6087903	B	17.00232492	-1.21	0.2283
month	2	-18.0532097	B	17.00232492	-1.06	0.2909
month	3	1.1133845	B	17.00232492	0.07	0.9479
month	4	-16.6685968	B	17.00232492	-0.98	0.3293
month	5	44.5802643	B	21.31980535	2.09	0.0391
month	6	85.6002553	B	25.77446900	3.32	0.0013
month	7	162.1795648	B	20.74524642	7.82	<.0001
month	8	155.7014554	B	19.95752486	7.80	<.0001
month	9	125.8710760	B	18.41463476	6.84	<.0001
month	10	68.3064834	B	18.39275851	3.71	0.0003
month	11	-2.7035099	B	18.11616703	-0.15	0.8817
month	12	0.0000000	B	.	.	.
pdsi*month	1	0.0000000	B	.	.	.
pdsi*month	2	0.0000000	B	.	.	.
pdsi*month	3	0.0000000	B	.	.	.
pdsi*month	4	0.0000000	B	.	.	.
pdsi*month	5	-13.2785256	B	5.37972944	-2.47	0.0153
pdsi*month	6	-15.4068600	B	8.01125762	-1.92	0.0573
pdsi*month	7	-15.4561385	B	5.03021034	-3.07	0.0027
pdsi*month	8	-20.7030670	B	5.15590356	-4.02	0.0001
pdsi*month	9	-14.3731054	B	4.18984725	-3.43	0.0009
pdsi*month	10	-10.6755781	B	4.39005358	-2.43	0.0168
pdsi*month	11	-1.0256805	B	4.13645167	-0.25	0.8047
pdsi*month	12	-2.6672728	B	4.22343732	-0.63	0.5291

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 MEANS Procedure

Analysis Variable : p

N	Mean	Std Dev	Minimum	Maximum
12	286.6441758	340.7148117	225.6450000	391.1637480

The GLM Procedure

Class Level Information

Class	Levels	Values
month	12	1 2 3 4 5 6 7 8 9 10 11 12

Number of observations 132

NOTE: Due to missing values, only 120 observations can be used in this analysis.

The GLM Procedure

Dependent Variable: com_gallons

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	23	2930856.707	127428.552	9.53	<.0001
Error	96	1283818.285	13373.107		
Corrected Total	119	4214674.992			

R-Square	Coeff Var	Root MSE	com_gallons Mean
0.695393	13.76149	115.6422	840.3318

Source	DF	Type I SS	Mean Square	F Value	Pr > F
month	11	1865363.507	169578.501	12.68	<.0001
since_90*month	12	1065493.200	88791.100	6.64	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
month	11	38588.837	3508.076	0.26	0.9911
since_90*month	12	1065493.200	88791.100	6.64	<.0001

Parameter		Estimate		Standard Error	t Value	Pr > |t|
Intercept		573.3440727	B	102.2513487	5.61	<.0001
month	1	136.0662499	B	144.6052441	0.94	0.3491
month	2	65.1634874	B	144.6052441	0.45	0.6533
month	3	132.3342600	B	144.6052441	0.92	0.3624
month	4	8.7666545	B	144.6052441	0.06	0.9518
month	5	44.3237758	B	144.6052441	0.31	0.7599
month	6	1.5614991	B	144.6052441	0.01	0.9914
month	7	52.2835636	B	144.6052441	0.36	0.7185
month	8	15.1252997	B	144.6052441	0.10	0.9169
month	9	101.0293408	B	144.6052441	0.70	0.4865
month	10	118.7648424	B	144.6052441	0.82	0.4135
month	11	14.1065314	B	144.6052441	0.10	0.9225
month	12	0.0000000	B	.	.	.
since_90*month	1	7.8584086		12.7317818	0.62	0.5385
since_90*month	2	8.6414780		12.7317818	0.68	0.4989
since_90*month	3	14.6524658		12.7317818	1.15	0.2526
since_90*month	4	17.4895288		12.7317818	1.37	0.1727
since_90*month	5	19.5357758		12.7317818	1.53	0.1282
since_90*month	6	40.1873216		12.7317818	3.16	0.0021
since_90*month	7	49.9690929		12.7317818	3.92	0.0002
since_90*month	8	64.6245181		12.7317818	5.08	<.0001
since_90*month	9	45.2024008		12.7317818	3.55	0.0006
since_90*month	10	27.4908202		12.7317818	2.16	0.0333
since_90*month	11	21.4387195		12.7317818	1.68	0.0955
since_90*month	12	18.1530747		12.7317818	1.43	0.1572

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 MEANS Procedure

Analysis Variable : p

N	Mean	Std Dev	Minimum	Maximum
12	994.7076572	1244.79	750.8467742	1428.59

The GLM Procedure

Class Level Information

Class	Levels	Values
month	12	1 2 3 4 5 6 7 8 9 10 11 12

Number of observations 132

NOTE: Due to missing values, only 120 observations can be used in this analysis.

The GLM Procedure

Dependent Variable: res_gallons

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	19	604612.7129	31821.7217	47.51	<.0001
Error	100	66983.3824	669.8338		
Corrected Total	119	671596.0953			

R-Square	Coeff Var	Root MSE	res_gallons Mean
0.900262	9.651431	25.88115	268.1587

Source	DF	Type I SS	Mean Square	F Value	Pr > F
month	11	559912.2575	50901.1143	75.99	<.0001
pdsi*month	8	44700.4555	5587.5569	8.34	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
month	11	511181.9595	46471.0872	69.38	<.0001
pdsi*month	8	44700.4555	5587.5569	8.34	<.0001

Parameter		Estimate		Standard Error	t Value	Pr > |t|
Intercept		220.4702999	B	8.45180842	26.09	<.0001
month	1	-3.7017838	B	11.76505198	-0.31	0.7537
month	2	-22.7746870	B	11.76505198	-1.94	0.0557
month	3	-8.2030204	B	11.76505198	-0.70	0.4873
month	4	-12.9419773	B	11.76505198	-1.10	0.2740
month	5	20.7916527	B	15.49519931	1.34	0.1827
month	6	67.0969213	B	14.79442267	4.54	<.0001
month	7	168.5769357	B	14.79750955	11.39	<.0001
month	8	216.9379475	B	14.30840388	15.16	<.0001
month	9	166.3964000	B	12.60013637	13.21	<.0001
month	10	83.8545234	B	12.52218494	6.70	<.0001
month	11	2.8168454	B	12.28465669	0.23	0.8191
month	12	0.0000000	B	.	.	.
pdsi*month	1	0.0000000	B	.	.	.
pdsi*month	2	0.0000000	B	.	.	.
pdsi*month	3	0.0000000	B	.	.	.
pdsi*month	4	0.0000000	B	.	.	.
pdsi*month	5	-2.6245292	B	5.44192436	-0.48	0.6307
pdsi*month	6	-0.9585636	B	5.72057774	-0.17	0.8673
pdsi*month	7	-9.3875996	B	5.16098695	-1.82	0.0719
pdsi*month	8	-29.3131273	B	4.68546560	-6.26	<.0001
pdsi*month	9	-14.1280725	B	3.41465831	-4.14	<.0001
pdsi*month	10	-8.5304766	B	3.52358338	-2.42	0.0173
pdsi*month	11	-3.2381742	B	3.20781900	-1.01	0.3152
pdsi*month	12	-0.5356011	B	3.33770131	-0.16	0.8728

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 MEANS Procedure

Analysis Variable : p

N	Mean	Std Dev	Minimum	Maximum
12	271.9436549	422.7762709	197.6956129	407.0888005

The GLM Procedure

Class Level Information

Class	Levels	Values
month	12	1 2 3 4 5 6 7 8 9 10 11 12

Number of observations 132

NOTE: Due to missing values, only 120 observations can be used in this analysis.

The GLM Procedure

Dependent Variable: com_gallons

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	19	7640591.423	402136.391	23.37	<.0001
Error	100	1720941.150	17209.412		
Corrected Total	119	9361532.573			

R-Square	Coeff Var	Root MSE	com_gallons Mean
0.816169	10.15617	131.1846	1291.675

Source	DF	Type I SS	Mean Square	F Value	Pr > F
month	11	6821697.695	620154.336	36.04	<.0001
pdsi*month	8	818893.728	102361.716	5.95	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
month	11	6398471.759	581679.251	33.80	<.0001
pdsi*month	8	818893.728	102361.716	5.95	<.0001

Parameter		Estimate		Standard Error	t Value	Pr > |t|
Intercept		1075.190236	B	42.83996596	25.10	<.0001
month	1	31.532086	B	59.63391513	0.53	0.5981
month	2	-44.342140	B	59.63391513	-0.74	0.4589
month	3	15.509707	B	59.63391513	0.26	0.7953
month	4	28.953086	B	59.63391513	0.49	0.6284
month	5	138.835147	B	78.54103851	1.77	0.0802
month	6	285.520788	B	74.98898839	3.81	0.0002
month	7	547.946398	B	75.00463492	7.31	<.0001
month	8	798.848446	B	72.52548857	11.01	<.0001
month	9	695.848963	B	63.86673550	10.90	<.0001
month	10	360.478531	B	63.47162045	5.68	<.0001
month	11	148.579743	B	62.26765302	2.39	0.0189
month	12	0.000000	B	.	.	.
pdsi*month	1	0.000000	B	.	.	.
pdsi*month	2	0.000000	B	.	.	.
pdsi*month	3	0.000000	B	.	.	.
pdsi*month	4	0.000000	B	.	.	.
pdsi*month	5	-14.183045	B	27.58366525	-0.51	0.6083
pdsi*month	6	-8.517791	B	28.99608502	-0.29	0.7696
pdsi*month	7	-9.423482	B	26.15966835	-0.36	0.7194
pdsi*month	8	-92.444451	B	23.74937728	-3.89	0.0002
pdsi*month	9	-82.574838	B	17.30799355	-4.77	<.0001
pdsi*month	10	-24.634183	B	17.86010571	-1.38	0.1709
pdsi*month	11	-42.437456	B	16.25958016	-2.61	0.0104
pdsi*month	12	-11.672051	B	16.91791902	-0.69	0.4918

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 MEANS Procedure

Analysis Variable : p

N	Mean	Std Dev	Minimum	Maximum
12	1304.91	1473.24	1030.85	1778.42

The GLM Procedure

Number of observations 11

NOTE: Due to missing values, only 10 observations can be used in this analysis.

The GLM Procedure

Dependent Variable: res_gallons

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	384.9903956	192.4951978	4.21	0.0631
Error	7	320.1426202	45.7346600		
Corrected Total	9	705.1330159			

R-Square	Coeff Var	Root MSE	res_gallons Mean
0.545983	3.744343	6.762741	180.6122

Source	DF	Type I SS	Mean Square	F Value	Pr > F
pdsi	1	68.8122812	68.8122812	1.50	0.2596
since_90	1	316.1781144	316.1781144	6.91	0.0339

Source	DF	Type III SS	Mean Square	F Value	Pr > F
pdsi	1	322.0073366	322.0073366	7.04	0.0328
since_90	1	316.1781144	316.1781144	6.91	0.0339

Parameter	Estimate	Standard Error	t Value	Pr > |t|
Intercept	207.3052768	9.66262342	21.45	<.0001
pdsi	-3.7914158	1.42886520	-2.65	0.0328
since_90	-2.5991555	0.98852827	-2.63	0.0339

The MEANS Procedure

Analysis Variable : p

N	Mean	Std Dev	Minimum	Maximum
1	169.2436516	.	169.2436516	169.2436516

The GLM Procedure

Number of observations 11

NOTE: Due to missing values, only 10 observations can be used in this analysis.

The GLM Procedure

Dependent Variable: com_gallons

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	6639.30452	6639.30452	13.30	0.0065
Error	8	3993.86310	499.23289		
Corrected Total	9	10633.16762			

R-Square	Coeff Var	Root MSE	com_gallons Mean
0.624396	2.684615	22.34352	832.2802

Source	DF	Type I SS	Mean Square	F Value	Pr > F
since_90	1	6639.304521	6639.304521	13.30	0.0065

Source	DF	Type III SS	Mean Square	F Value	Pr > F
since_90	1	6639.304521	6639.304521	13.30	0.0065

Parameter	Estimate	Standard Error	t Value	Pr > |t|
Intercept	764.9986757	19.75624834	38.72	<.0001
since_90	8.9708650	2.45994059	3.65	0.0065

The MEANS Procedure

Analysis Variable : p

N	Mean	Std Dev	Minimum	Maximum
1	881.6199204	.	881.6199204	881.6199204

The GLM Procedure

Class Level Information

Class	Levels	Values
month	12	1 2 3 4 5 6 7 8 9 10 11 12

Number of observations 132

NOTE: Due to missing values, only 120 observations can be used in this analysis.

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The GLM Procedure

Dependent Variable: res_gallons

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	23	409060529.8	17785240.4	3.69	<.0001
Error	96	463235313.2	4825367.8		
Corrected Total	119	872295843.0			

R-Square	Coeff Var	Root MSE	res_gallons Mean
0.468947	12.96618	2196.672	16941.55

Source	DF	Type I SS	Mean Square	F Value	Pr > F
month	11	174352494.1	15850226.7	3.28	0.0007
since_90*month	12	234708035.7	19559003.0	4.05	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
month	11	49275901.4	4479627.4	0.93	0.5169
since_90*month	12	234708035.7	19559003.0	4.05	<.0001

Parameter		Estimate		Standard Error	t Value	Pr > |t|
Intercept		20120.61176	B	1942.307987	10.36	<.0001
month	1	880.79065	B	2746.838297	0.32	0.7492
month	2	-2899.87425	B	2746.838297	-1.06	0.2937
month	3	1948.75944	B	2746.838297	0.71	0.4798
month	4	785.27812	B	2746.838297	0.29	0.7756
month	5	-1818.56247	B	2746.838297	-0.66	0.5095
month	6	-374.42087	B	2746.838297	-0.14	0.8919
month	7	3850.64058	B	2746.838297	1.40	0.1642
month	8	-960.76266	B	2746.838297	-0.35	0.7273
month	9	-252.66483	B	2746.838297	-0.09	0.9269
month	10	2119.97627	B	2746.838297	0.77	0.4421
month	11	-1232.29418	B	2746.838297	-0.45	0.6547
month	12	0.00000	B	.	.	.
since_90*month	1	-457.88111		241.845627	-1.89	0.0613
since_90*month	2	-272.13162		241.845627	-1.13	0.2633
since_90*month	3	-759.44856		241.845627	-3.14	0.0022
since_90*month	4	-621.76894		241.845627	-2.57	0.0117
since_90*month	5	-378.30211		241.845627	-1.56	0.1211
since_90*month	6	-396.18879		241.845627	-1.64	0.1047
since_90*month	7	-652.47348		241.845627	-2.70	0.0082
since_90*month	8	-193.10209		241.845627	-0.80	0.4266
since_90*month	9	-108.48484		241.845627	-0.45	0.6548
since_90*month	10	-646.38579		241.845627	-2.67	0.0088
since_90*month	11	-327.27056		241.845627	-1.35	0.1792
since_90*month	12	-545.98421		241.845627	-2.26	0.0262

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 MEANS Procedure

Analysis Variable : p

N	Mean	Std Dev	Minimum	Maximum
12	14510.00	9726.77	12196.54	18457.64

The GLM Procedure

Class Level Information

Class	Levels	Values
month	12	1 2 3 4 5 6 7 8 9 10 11 12

Number of observations 132

NOTE: Due to missing values, only 120 observations can be used in this analysis.

The GLM Procedure

Dependent Variable: com_gallons

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	31	3657958069	117998647	69.04	<.0001
Error	88	150396963	1709056		
Corrected Total	119	3808355032			

R-Square	Coeff Var	Root MSE	com_gallons Mean
0.960509	9.119407	1307.309	14335.46

Source	DF	Type I SS	Mean Square	F Value	Pr > F
month	11	3406141773	309649252	181.18	<.0001
pdsi*month	8	188681876	23585235	13.80	<.0001
since_90*month	12	63134420	5261202	3.08	0.0011

Source	DF	Type III SS	Mean Square	F Value	Pr > F
month	11	306521330.6	27865575.5	16.30	<.0001
pdsi*month	8	151640541.4	18955067.7	11.09	<.0001
since_90*month	12	63134420.1	5261201.7	3.08	0.0011

Parameter		Estimate		Standard Error	t Value	Pr > |t|
Intercept		10068.13034	B	1320.480584	7.62	<.0001
month	1	-822.48285	B	1754.947388	-0.47	0.6405
month	2	-1670.65882	B	1754.947388	-0.95	0.3437
month	3	-1065.46807	B	1754.947388	-0.61	0.5453
month	4	1192.13588	B	1754.947388	0.68	0.4987
month	5	-434.31230	B	2041.127360	-0.21	0.8320
month	6	2172.93263	B	2381.190623	0.91	0.3640
month	7	8592.20817	B	2039.226522	4.21	<.0001
month	8	16913.00956	B	2000.587308	8.45	<.0001
month	9	8990.75311	B	1885.600520	4.77	<.0001
month	10	6706.03221	B	1831.417974	3.66	0.0004
month	11	2609.69153	B	1857.565988	1.40	0.1636
month	12	0.00000	B	.	.	.
pdsi*month	1	0.00000	B	.	.	.
pdsi*month	2	0.00000	B	.	.	.
pdsi*month	3	0.00000	B	.	.	.
pdsi*month	4	0.00000	B	.	.	.
pdsi*month	5	-214.38453	B	301.254622	-0.71	0.4786
pdsi*month	6	330.88129	B	392.732715	0.84	0.4018
pdsi*month	7	279.94280	B	290.735158	0.96	0.3382
pdsi*month	8	-2183.50940	B	261.398583	-8.35	<.0001
pdsi*month	9	-361.69280	B	186.462275	-1.94	0.0556
pdsi*month	10	-562.75746	B	184.681731	-3.05	0.0030
pdsi*month	11	-317.51049	B	173.725491	-1.83	0.0710
pdsi*month	12	-121.33213	B	187.141127	-0.65	0.5184
since_90*month	1	-14.64330		143.929966	-0.10	0.9192
since_90*month	2	45.35590		143.929966	0.32	0.7534

The GLM Procedure

Dependent Variable: com_gallons

Parameter	Estimate	Standard Error	t Value	Pr > |t|
since_90*month 3	32.29061	143.929966	0.22	0.8230
since_90*month 4	-112.24311	143.929966	-0.78	0.4376
since_90*month 5	399.83360	157.738527	2.53	0.0130
since_90*month 6	466.76330	195.620224	2.39	0.0192
since_90*month 7	420.59859	160.517119	2.62	0.0103
since_90*month 8	-154.89963	158.967022	-0.97	0.3325
since_90*month 9	622.46969	155.596667	4.00	0.0001
since_90*month 10	60.33262	149.346809	0.40	0.6872
since_90*month 11	-25.71301	154.315750	-0.17	0.8680
since_90*month 12	-33.49035	159.763782	-0.21	0.8344

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 MEANS Procedure

Analysis Variable : p

N	Mean	Std Dev	Minimum	Maximum
12	15288.76	36266.87	8987.10	26861.64

The GLM Procedure

Class Level Information

Class	Levels	Values
month	12	1 2 3 4 5 6 7 8 9 10 11 12

Number of observations 132

NOTE: Due to missing values, only 120 observations can be used in this analysis.

The GLM Procedure

Dependent Variable: res_gallons

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	19	261753.8733	13776.5196	78.58	<.0001
Error	100	17531.7162	175.3172		
Corrected Total	119	279285.5895			

R-Square	Coeff Var	Root MSE	res_gallons Mean
0.937227	4.804637	13.24074	275.5825

Source	DF	Type I SS	Mean Square	F Value	Pr > F
month	11	244041.3920	22185.5811	126.55	<.0001
avg_pdsi*month	8	17712.4813	2214.0602	12.63	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
month	11	220806.4741	20073.3158	114.50	<.0001
avg_pdsi*month	8	17712.4813	2214.0602	12.63	<.0001

Parameter		Estimate		Standard Error	t Value	Pr > |t|
Intercept		254.2995941	B	4.52075022	56.25	<.0001
month	1	-15.1840072	B	6.16189084	-2.46	0.0154
month	2	5.1137646	B	6.16189084	0.83	0.4086
month	3	-28.0687022	B	6.16189084	-4.56	<.0001
month	4	-39.5462944	B	6.16189084	-6.42	<.0001
month	5	-0.1516553	B	7.17806788	-0.02	0.9832
month	6	-10.6010867	B	7.77745584	-1.36	0.1759
month	7	26.7931196	B	8.15002036	3.29	0.0014
month	8	109.0608386	B	7.73723920	14.10	<.0001
month	9	105.7980802	B	7.17825498	14.74	<.0001
month	10	108.9449042	B	6.79625748	16.03	<.0001
month	11	50.9869882	B	6.51266658	7.83	<.0001
month	12	0.0000000	B	.	.	.
avg_pdsi*month	1	0.0000000	B	.	.	.
avg_pdsi*month	2	0.0000000	B	.	.	.
avg_pdsi*month	3	0.0000000	B	.	.	.
avg_pdsi*month	4	0.0000000	B	.	.	.
avg_pdsi*month	5	0.2404023	B	2.46880738	0.10	0.9226
avg_pdsi*month	6	1.1403892	B	2.90186456	0.39	0.6952
avg_pdsi*month	7	3.1919950	B	3.10129234	1.03	0.3058
avg_pdsi*month	8	-10.0126523	B	2.78254500	-3.60	0.0005
avg_pdsi*month	9	-11.5723900	B	2.30232149	-5.03	<.0001
avg_pdsi*month	10	-13.6732154	B	2.01152391	-6.80	<.0001
avg_pdsi*month	11	-5.4463829	B	1.73780501	-3.13	0.0023
avg_pdsi*month	12	-4.0886501	B	1.73284599	-2.36	0.0202

The GLM Procedure

Dependent Variable: res_gallons

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 MEANS Procedure

Analysis Variable : p

N	Mean	Std Dev	Minimum	Maximum
12	277.6197278	479.6789100	214.7532998	353.9084890

The GLM Procedure

Class Level Information

Class	Levels	Values
month	12	1 2 3 4 5 6 7 8 9 10 11 12

Number of observations 132

NOTE: Due to missing values, only 120 observations can be used in this analysis.

The GLM Procedure

Dependent Variable: com_gallons

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	23	4344110.036	188874.349	75.36	<.0001
Error	96	240605.353	2506.306		
Corrected Total	119	4584715.390			

R-Square	Coeff Var	Root MSE	com_gallons Mean
0.947520	4.969383	50.06302	1007.429

Source	DF	Type I SS	Mean Square	F Value	Pr > F
month	11	3854926.365	350447.851	139.83	<.0001
since_90*month	12	489183.671	40765.306	16.27	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
month	11	119991.6493	10908.3318	4.35	<.0001
since_90*month	12	489183.6713	40765.3059	16.27	<.0001

Parameter		Estimate		Standard Error	t Value	Pr > |t|
Intercept		851.8251988	B	44.26596226	19.24	<.0001
month	1	-81.3604557	B	62.60152419	-1.30	0.1968
month	2	-27.2124281	B	62.60152419	-0.43	0.6648
month	3	-58.5663997	B	62.60152419	-0.94	0.3519
month	4	-65.3661210	B	62.60152419	-1.04	0.2990
month	5	-30.7992594	B	62.60152419	-0.49	0.6239
month	6	-64.6511099	B	62.60152419	-1.03	0.3043
month	7	83.4817962	B	62.60152419	1.33	0.1855
month	8	142.4691332	B	62.60152419	2.28	0.0251
month	9	159.5560838	B	62.60152419	2.55	0.0124
month	10	156.9482676	B	62.60152419	2.51	0.0139
month	11	41.5494138	B	62.60152419	0.66	0.5085
month	12	0.0000000	B	.	.	.
since_90*month	1	10.3835270		5.51175687	1.88	0.0626
since_90*month	2	6.0575059		5.51175687	1.10	0.2745
since_90*month	3	1.4982181		5.51175687	0.27	0.7863
since_90*month	4	-0.6997858		5.51175687	-0.13	0.8992
since_90*month	5	8.1912105		5.51175687	1.49	0.1405
since_90*month	6	19.8524519		5.51175687	3.60	0.0005
since_90*month	7	15.4248139		5.51175687	2.80	0.0062
since_90*month	8	39.4783702		5.51175687	7.16	<.0001
since_90*month	9	32.5517391		5.51175687	5.91	<.0001
since_90*month	10	33.9893538		5.51175687	6.17	<.0001
since_90*month	11	32.7933966		5.51175687	5.95	<.0001
since_90*month	12	15.3059647		5.51175687	2.78	0.0066

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 MEANS Procedure

Analysis Variable : p

N	Mean	Std Dev	Minimum	Maximum
12	1107.54	2492.90	777.3618619	1507.51

The GLM Procedure

Class Level Information

Class	Levels	Values
month	12	1 2 3 4 5 6 7 8 9 10 11 12

Number of observations 132

NOTE: Due to missing values, only 120 observations can be used in this analysis.

The GLM Procedure

Dependent Variable: opam_gallons

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	19	19400830816	1021096359	48.51	<.0001
Error	100	2104744037	21047440		
Corrected Total	119	21505574853			

R-Square	Coeff Var	Root MSE	opam_gallons Mean
0.902130	29.61959	4587.749	15488.90

Source	DF	Type I SS	Mean Square	F Value	Pr > F
month	11	18530070710	1684551883	80.04	<.0001
pdsi*month	8	870760106	108845013	5.17	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
month	11	15562465164	1414769560	67.22	<.0001
pdsi*month	8	870760106	108845013	5.17	<.0001

Parameter		Estimate		Standard Error	t Value	Pr > |t|
Intercept		5346.25235	B	1498.186058	3.57	0.0006
month	1	-1422.23738	B	2085.498862	-0.68	0.4968
month	2	-1268.45109	B	2085.498862	-0.61	0.5444
month	3	-1631.72671	B	2085.498862	-0.78	0.4358
month	4	150.25065	B	2085.498862	0.07	0.9427
month	5	5041.32291	B	2746.712941	1.84	0.0694
month	6	17270.68298	B	2622.491741	6.59	<.0001
month	7	31735.27515	B	2623.038927	12.10	<.0001
month	8	38716.07634	B	2536.338986	15.26	<.0001
month	9	30040.71022	B	2233.527748	13.45	<.0001
month	10	12664.17330	B	2219.709907	5.71	<.0001
month	11	5194.28701	B	2177.605130	2.39	0.0189
month	12	0.00000	B	.	.	.
pdsi*month	1	0.00000	B	.	.	.
pdsi*month	2	0.00000	B	.	.	.
pdsi*month	3	0.00000	B	.	.	.
pdsi*month	4	0.00000	B	.	.	.
pdsi*month	5	-533.56602	B	964.647422	-0.55	0.5814
pdsi*month	6	188.75830	B	1014.042130	0.19	0.8527
pdsi*month	7	-1550.59494	B	914.847842	-1.69	0.0932
pdsi*month	8	-4393.72299	B	830.555887	-5.29	<.0001
pdsi*month	9	-1561.75304	B	605.289805	-2.58	0.0113
pdsi*month	10	-433.38629	B	624.598101	-0.69	0.4894
pdsi*month	11	-983.11457	B	568.625015	-1.73	0.0869
pdsi*month	12	-125.30230	B	591.648239	-0.21	0.8327

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 MEANS Procedure

Analysis Variable : p

N	Mean	Std Dev	Minimum	Maximum
12	16036.71	75565.85	3714.53	39517.77

The GLM Procedure

Class Level Information

Class	Levels	Values
month	12	1 2 3 4 5 6 7 8 9 10 11 12

Number of observations 132

NOTE: Due to missing values, only 120 observations can be used in this analysis.

Reduced model regressions for Other Public Authorities: St Louis,JAN1993-DEC2 56
OPA QUARTERLY 02:56 Wednesday, May 7, 2003

The GLM Procedure

Dependent Variable: opaq_gallons

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	23	38439693.20	1671291.01	13.53	<.0001
Error	96	11857677.92	123517.48		
Corrected Total	119	50297371.12			

R-Square	Coeff Var	Root MSE	opaq_gallons Mean
0.764249	30.21965	351.4505	1162.987

Source	DF	Type I SS	Mean Square	F Value	Pr > F
month	11	29264470.02	2660406.37	21.54	<.0001
since_90*month	12	9175223.18	764601.93	6.19	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
month	11	1834050.397	166731.854	1.35	0.2097
since_90*month	12	9175223.178	764601.932	6.19	<.0001

Parameter		Estimate	Standard Error	t Value	Pr > |t|
Intercept		1120.042639 B	310.7542603	3.60	0.0005
month	1	-654.817952 B	439.4728895	-1.49	0.1395
month	2	-702.532297 B	439.4728895	-1.60	0.1132
month	3	-1091.912001 B	439.4728895	-2.48	0.0147
month	4	-637.399884 B	439.4728895	-1.45	0.1502
month	5	-733.575302 B	439.4728895	-1.67	0.0983
month	6	-777.617750 B	439.4728895	-1.77	0.0800
month	7	-142.652032 B	439.4728895	-0.32	0.7462
month	8	-5.583060 B	439.4728895	-0.01	0.9899
month	9	-871.833305 B	439.4728895	-1.98	0.0501
month	10	-187.584159 B	439.4728895	-0.43	0.6705
month	11	-385.656624 B	439.4728895	-0.88	0.3824
month	12	0.000000 B	.	.	.
since_90*month	1	11.960866	38.6934304	0.31	0.7579
since_90*month	2	40.053572	38.6934304	1.04	0.3032
since_90*month	3	87.750031	38.6934304	2.27	0.0256
since_90*month	4	-4.099118	38.6934304	-0.11	0.9159
since_90*month	5	61.813883	38.6934304	1.60	0.1134
since_90*month	6	124.033961	38.6934304	3.21	0.0018
since_90*month	7	56.871909	38.6934304	1.47	0.1449
since_90*month	8	115.146540	38.6934304	2.98	0.0037
since_90*month	9	227.931916	38.6934304	5.89	<.0001
since_90*month	10	57.742872	38.6934304	1.49	0.1389
since_90*month	11	103.066188	38.6934304	2.66	0.0091
since_90*month	12	11.926801	38.6934304	0.31	0.7586

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 MEANS Procedure

Analysis Variable : p

N	Mean	Std Dev	Minimum	Maximum
12	1576.84	7744.11	429.3542259	3211.32

The GLM Procedure

Class Level Information

Class	Levels	Values
month	12	1 2 3 4 5 6 7 8 9 10 11 12

Number of observations 132

NOTE: Due to missing values, only 120 observations can be used in this analysis.

The GLM Procedure

Dependent Variable: res_gallons

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	11	39740.75298	3612.79573	8.45	<.0001
Error	108	46160.22891	427.40953		
Corrected Total	119	85900.98189			

R-Square	Coeff Var	Root MSE	res_gallons Mean
0.462634	11.36782	20.67389	181.8633

Source	DF	Type I SS	Mean Square	F Value	Pr > F
month	11	39740.75298	3612.79573	8.45	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
month	11	39740.75298	3612.79573	8.45	<.0001

Parameter		Estimate	Standard Error	t Value	Pr > |t|
Intercept		172.8353000 B	6.53765651	26.44	<.0001
month	1	-9.2592677 B	9.24564251	-1.00	0.3188
month	2	-10.8592032 B	9.24564251	-1.17	0.2428
month	3	1.4979241 B	9.24564251	0.16	0.8716
month	4	-11.5937194 B	9.24564251	-1.25	0.2126
month	5	0.2058000 B	9.24564251	0.02	0.9823
month	6	12.0447645 B	9.24564251	1.30	0.1954
month	7	35.4548333 B	9.24564251	3.83	0.0002
month	8	39.5883129 B	9.24564251	4.28	<.0001
month	9	35.0082161 B	9.24564251	3.79	0.0003
month	10	20.0581333 B	9.24564251	2.17	0.0322
month	11	-3.8098484 B	9.24564251	-0.41	0.6811
month	12	0.0000000 B	.	.	.

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 MEANS Procedure

Analysis Variable : p

N	Mean	Std Dev	Minimum	Maximum
12	181.8714692	105.3335940	161.2415806	212.4236129

The GLM Procedure

Class Level Information

Class	Levels	Values
month	12	1 2 3 4 5 6 7 8 9 10 11 12

Number of observations 132

NOTE: Due to missing values, only 110 observations can be used in this analysis.

The GLM Procedure

Dependent Variable: com_gallons

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	23	422797.4686	18382.4986	3.72	<.0001
Error	86	425440.4679	4946.9822		
Corrected Total	109	848237.9365			

R-Square	Coeff Var	Root MSE	com_gallons Mean
0.498442	8.187028	70.33479	859.1004

Source	DF	Type I SS	Mean Square	F Value	Pr > F
month	11	226104.4726	20554.9521	4.16	<.0001
since_90*month	12	196692.9960	16391.0830	3.31	0.0006

Source	DF	Type III SS	Mean Square	F Value	Pr > F
month	11	54181.5626	4925.5966	1.00	0.4570
since_90*month	12	196692.9960	16391.0830	3.31	0.0006

Parameter		Estimate		Standard Error	t Value	Pr > |t|
Intercept		923.0941425	B	70.8434416	13.03	<.0001
month	1	-37.1904707	B	97.6180156	-0.38	0.7042
month	2	111.3728025	B	97.6180156	1.14	0.2571
month	3	61.7359466	B	97.6180156	0.63	0.5288
month	4	-16.2931937	B	97.6180156	-0.17	0.8678
month	5	21.7838183	B	97.6180156	0.22	0.8239
month	6	78.7561849	B	97.6180156	0.81	0.4220
month	7	-21.5465346	B	97.6180156	-0.22	0.8258
month	8	-86.6831571	B	94.2678834	-0.92	0.3604
month	9	35.3163385	B	94.2678834	0.37	0.7089
month	10	-72.4031849	B	100.1877559	-0.72	0.4718
month	11	116.0262920	B	100.1877559	1.16	0.2500
month	12	0.0000000	B	.	.	.
since_90*month	1	-11.1770389		8.0916478	-1.38	0.1708
since_90*month	2	-27.9351879		8.0916478	-3.45	0.0009
since_90*month	3	-15.3481990		8.0916478	-1.90	0.0612
since_90*month	4	-13.4328178		8.0916478	-1.66	0.1005
since_90*month	5	-14.2284569		8.0916478	-1.76	0.0822
since_90*month	6	-14.4353278		8.0916478	-1.78	0.0780
since_90*month	7	-0.3226686		8.0916478	-0.04	0.9683
since_90*month	8	7.8249912		7.7436051	1.01	0.3151
since_90*month	9	-1.4284555		7.7436051	-0.18	0.8541
since_90*month	10	5.2074091		8.4741390	0.61	0.5405
since_90*month	11	-26.2176925		8.4741390	-3.09	0.0027
since_90*month	12	-12.8486425		8.4741390	-1.52	0.1331

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 MEANS Procedure

Analysis Variable : p

N	Mean	Std Dev	Minimum	Maximum
12	804.1387932	530.9326305	671.3095028	939.8405591

Missouri-American Water Company
Summary of Weather Normalized and Usage Per Day Estimates
Schedule ELS-5

District	Monthly Residential	Commercial	Quarterly Residential	Commercial	Monthy OPA	Quarterly OPA
Brunswick	126.56	187.13				
Jefferson City	(1)	(1)				
Joplin	197.95	866.19				
Mexico	146.53	580.26				
Parkville Water	286.64	994.71				
St. Charles	271.94	1,304.91				
St. Joseph	169.24	881.62				
St. Louis	14,510.00	15,288.76	277.62	1,107.54	16,036.71	1,576.84
Warrensburg	181.87	804.14				

Note (1) : Sufficient historical data is not available to perform a meaningful analysis. Company is making a separate recommendation.
Usage amounts are in gallons per day.