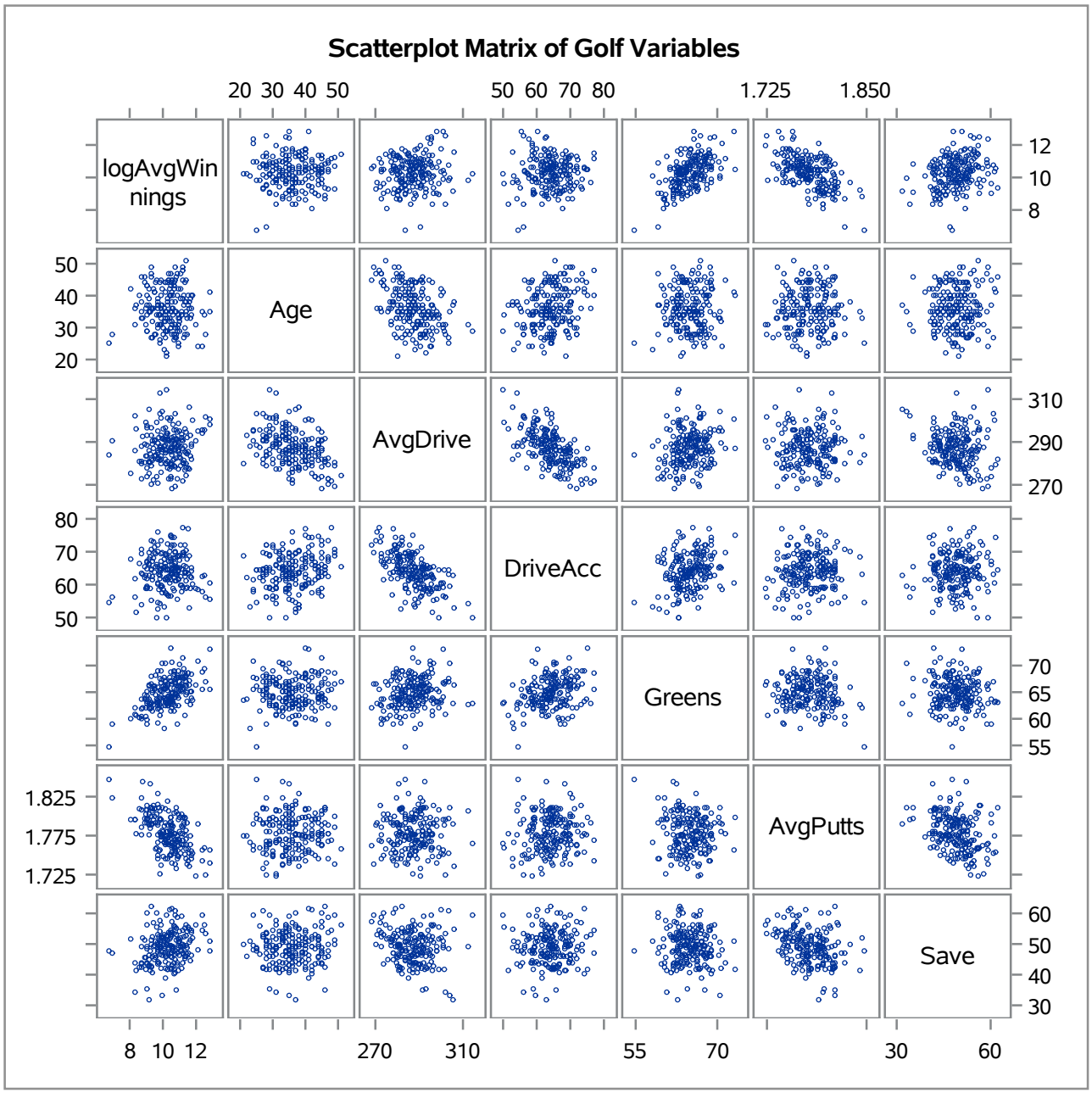

Scatterplot Matrix of Golf Variables
logAvgWinnings
Age
AvgDrive
DriveAcc
Greens
AvgPutts
Save
20 30 40 50
50 60 70 80
1.725 1.850
12
10
8
50
40
30
20
310
290
270
80
70
60
50
70
65
60
55
1.825
1.775
1.725
60
50
40
30
8 10 12
270 310
55 70
30 60

The GLMSELECT Procedure

Data Set	WORK.GOLF
Dependent Variable	logAvgWinnings
Selection Method	Forward
Select Criterion	SBC
Stop Criterion	None
Effect Hierarchy Enforced	None
Random Number Seed	1

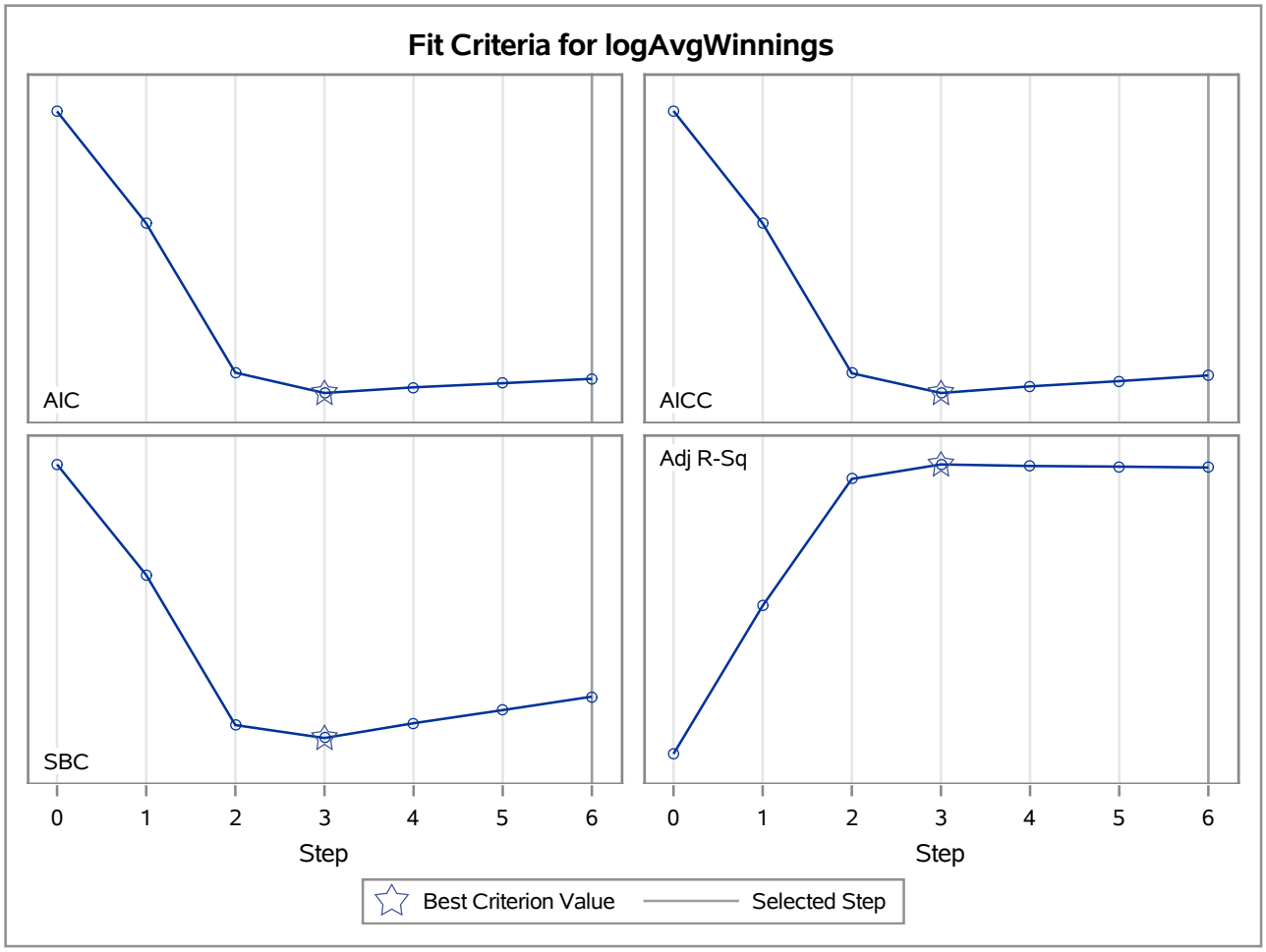
Number of Observations Read	196
Number of Observations Used	196
Number of Observations Used for Training	94
Number of Observations Used for Testing	102

Dimensions	
Number of Effects	7
Number of Parameters	7

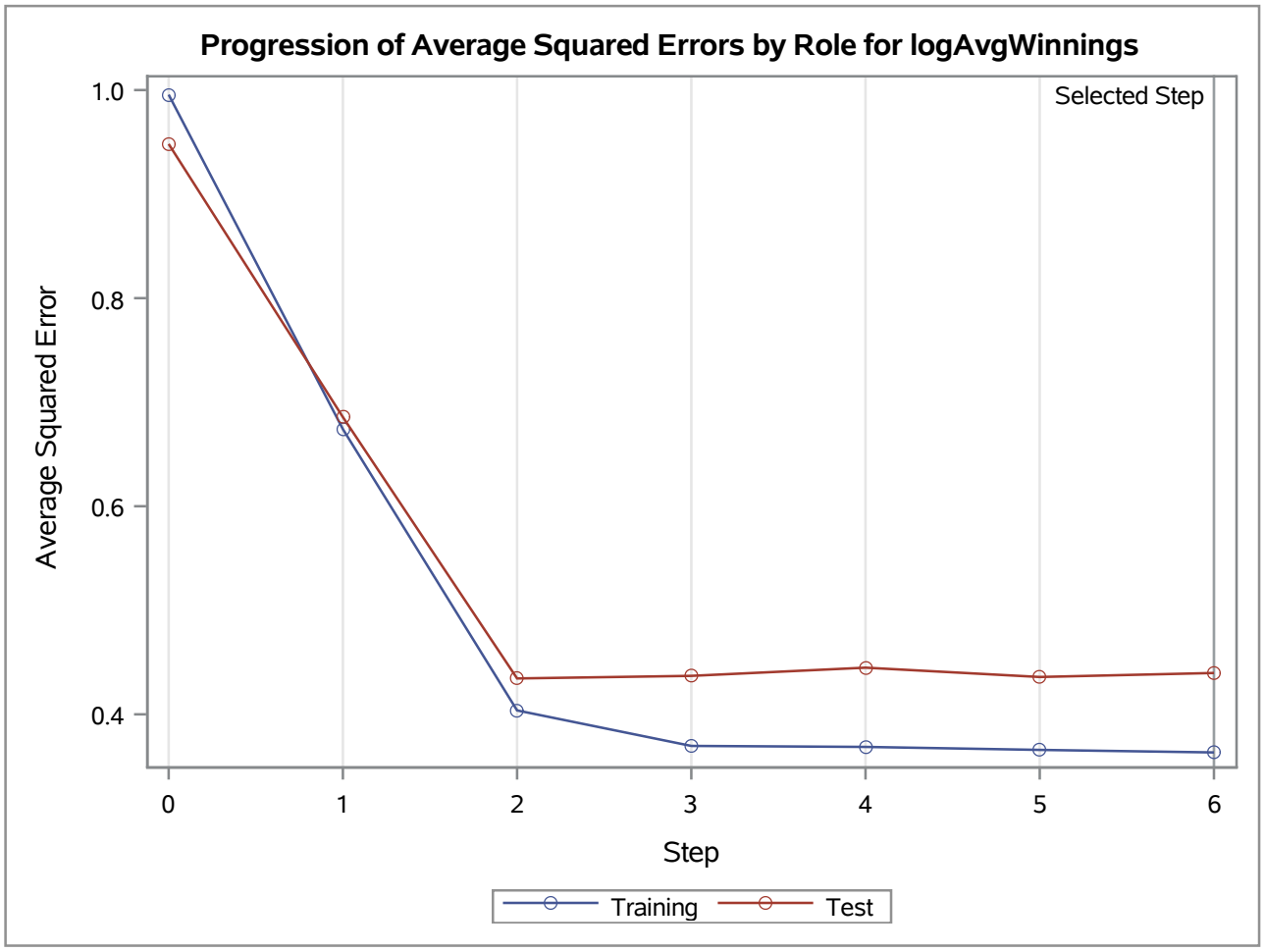
The GLMSELECT Procedure

Forward Selection Summary					
Step	Effect Entered	Number Effects In	SBC	ASE	Test ASE
0	Intercept	1	4.1263	0.9956	0.9482
1	Greens	2	-27.9862	0.6741	0.6857
2	AvgPutts	3	-71.6292	0.4037	0.4345
3	Save	4	-75.3780*	0.3696	0.4370
4	AvgDrive	5	-71.0830	0.3687	0.4448
5	DriveAcc	6	-67.2704	0.3658	0.4359
6	Age	7	-63.3551	0.3634	0.4397
* Optimal Value of Criterion					

Selection stopped because all effects are in the final model.



The GLMSELECT Procedure



The GLMSELECT Procedure
Selected Model

The selected model is the model at the last step (Step 6).

Effects:	Intercept Age AvgDrive DriveAcc Greens AvgPutts Save

Analysis of Variance				
Source	DF	Sum of Squares	Mean Square	F Value
Model	6	59.42667	9.90444	25.23
Error	87	34.15722	0.39261	
Corrected Total	93	93.58388		

Root MSE	0.62659
Dependent Mean	10.29633
R-Square	0.6350
Adj R-Sq	0.6098
AIC	14.84184
AICC	16.53596
SBC	-63.35510
ASE (Train)	0.36337
ASE (Test)	0.43975

Parameter Estimates				
Parameter	DF	Estimate	Standard Error	t Value
Intercept	1	31.595452	6.688557	4.72
Age	1	-0.009257	0.012122	-0.76
AvgDrive	1	-0.015690	0.013248	-1.18
DriveAcc	1	-0.017803	0.018437	-0.97
Greens	1	0.219421	0.030234	7.26
AvgPutts	1	-17.663487	3.206564	-5.51
Save	1	0.036291	0.012668	2.86

The GLMSELECT Procedure

Data Set	WORK.GOLF
Dependent Variable	logAvgWinnings
Selection Method	Forward
Select Criterion	SBC
Stop Criterion	None
Effect Hierarchy Enforced	None
Random Number Seed	1

Number of Observations Read	196
Number of Observations Used	196
Number of Observations Used for Training	94
Number of Observations Used for Testing	102

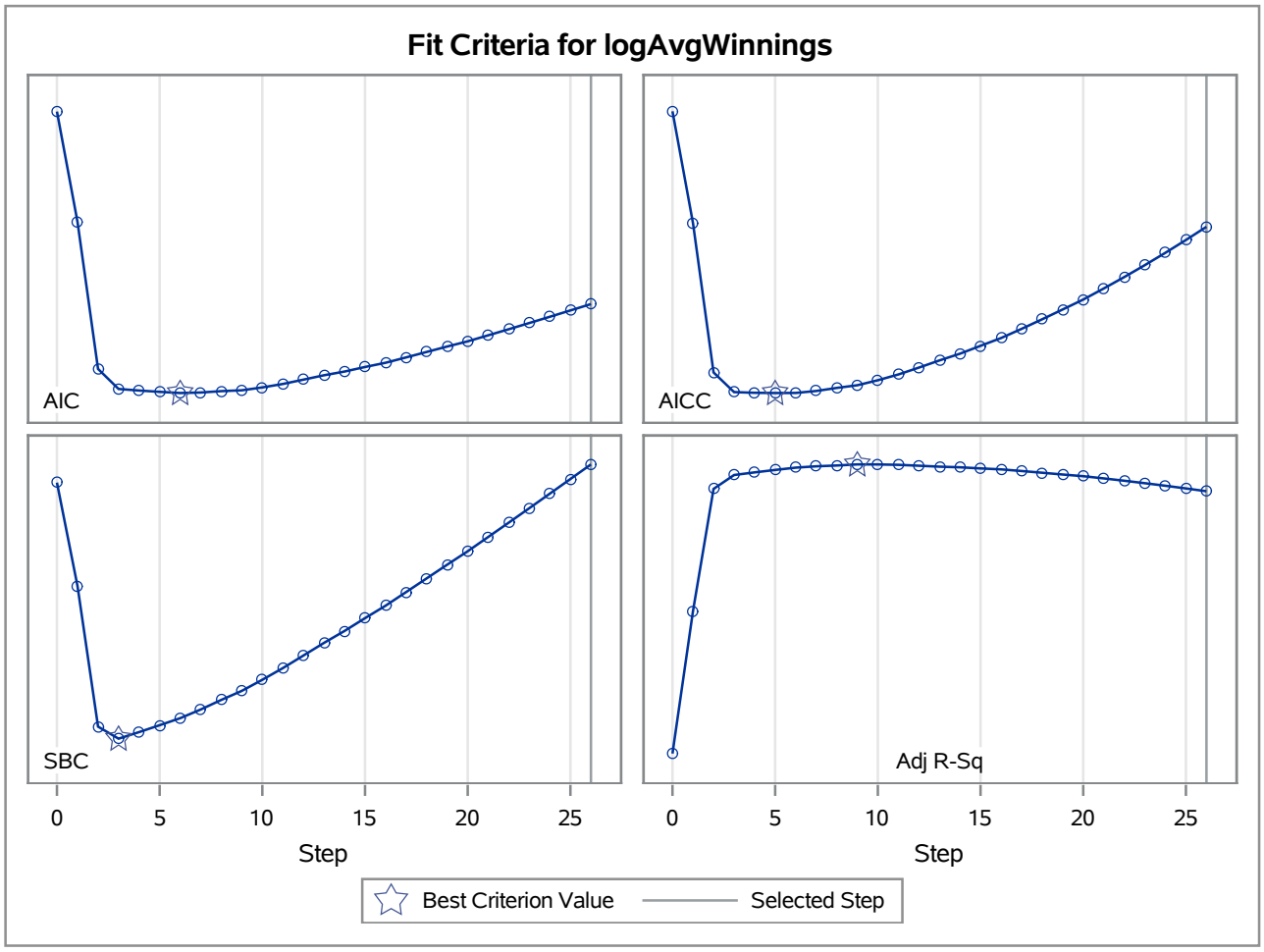
Dimensions	
Number of Effects	27
Number of Parameters	27

The GLMSELECT Procedure

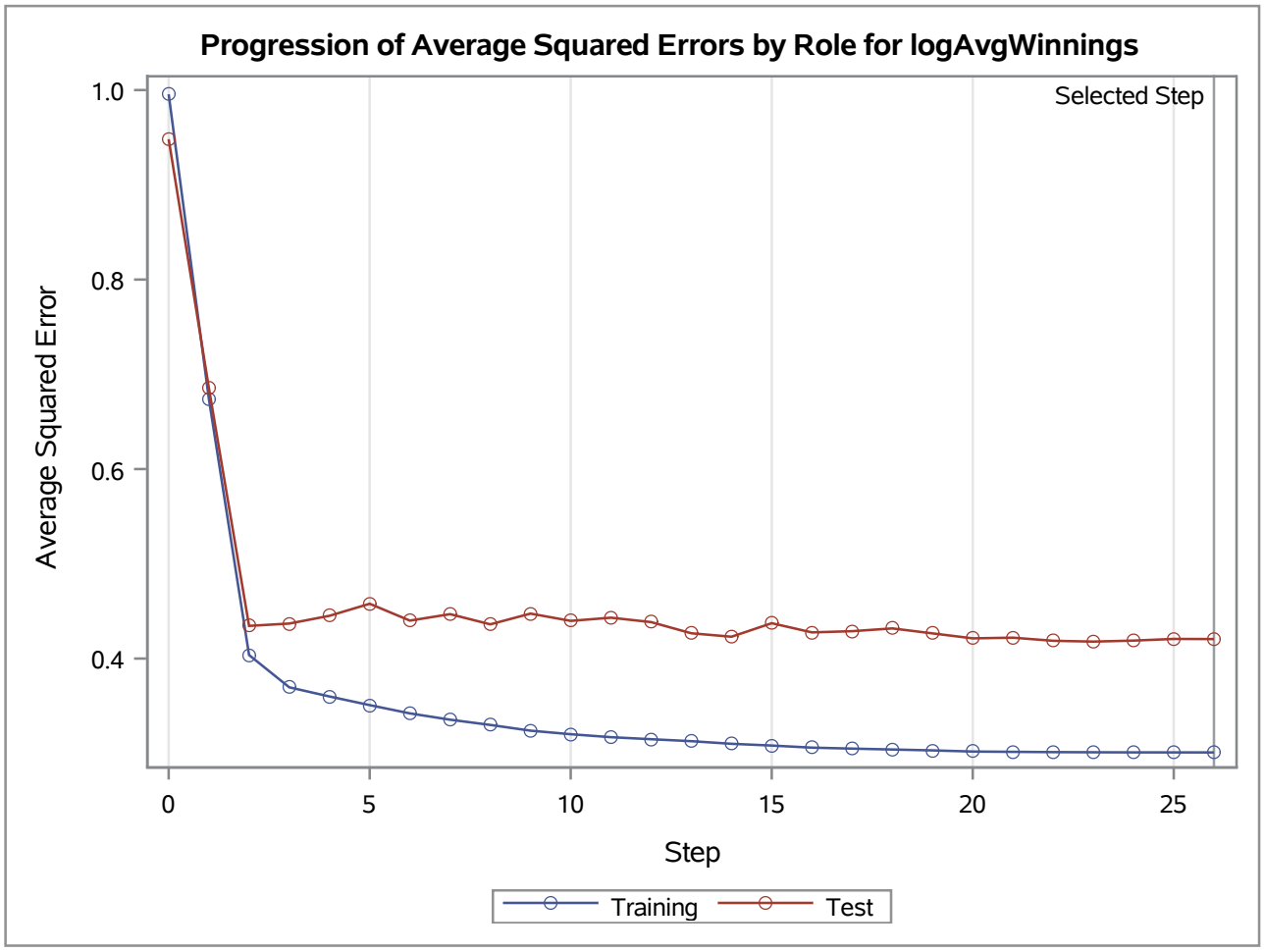
Forward Selection Summary					
Step	Effect Entered	Number Effects In	SBC	ASE	Test ASE
0	Intercept	1	4.1263	0.9956	0.9482
1	Greens	2	-27.9862	0.6741	0.6857
2	AvgPutts	3	-71.6292	0.4037	0.4345
3	Save	4	-75.3780*	0.3696	0.4370
4	V25	5	-73.3257	0.3600	0.4451
5	V14	6	-71.1893	0.3509	0.4578
6	V17	7	-69.0172	0.3421	0.4400
7	V15	8	-66.3184	0.3355	0.4469
8	V18	9	-63.3393	0.3299	0.4361
9	V26	10	-60.5347	0.3239	0.4475
10	V13	11	-57.0885	0.3201	0.4398
11	V12	12	-53.4615	0.3170	0.4431
12	V20	13	-49.5614	0.3149	0.4385
13	V23	14	-45.6426	0.3128	0.4267
14	V28	15	-41.9335	0.3100	0.4230
15	AvgDrive	16	-37.9534	0.3082	0.4373
16	DriveAcc	17	-34.0821	0.3060	0.4276
17	Age	18	-29.8563	0.3049	0.4289
18	V24	19	-25.5984	0.3040	0.4318
19	V21	20	-21.3498	0.3031	0.4266
20	V19	21	-17.1804	0.3019	0.4213
21	V31	22	-12.7359	0.3016	0.4220
22	V30	23	-8.2871	0.3012	0.4188
23	V29	24	-3.7946	0.3011	0.4179
24	V16	25	0.7124	0.3010	0.4189
25	V27	26	5.2459	0.3009	0.4207
26	V22	27	9.7870	0.3009	0.4206
* Optimal Value of Criterion					

Selection stopped because all effects are in the final model.

The GLMSELECT Procedure



The GLMSELECT Procedure



The GLMSELECT Procedure
Selected Model

The selected model is the model at the last step (Step 26).

Effects:	Intercept Age AvgDrive DriveAcc Greens AvgPutts Save V12 V13 V14 V15 V16 V17 V18 V19 V20 V21 V22 V23 V24 V25 V26 V27 V28 V29 V30 V31

Analysis of Variance				
Source	DF	Sum of Squares	Mean Square	F Value
Model	26	65.29631	2.51140	5.95
Error	67	28.28758	0.42220	
Corrected Total	93	93.58388		

Root MSE	0.64977
Dependent Mean	10.29633
R-Square	0.6977
Adj R-Sq	0.5804
AIC	37.11803
AICC	62.10265
SBC	9.78699
ASE (Train)	0.30093
ASE (Test)	0.42059

Parameter Estimates				
Parameter	DF	Estimate	Standard Error	t Value
Intercept	1	43.407535	24.366504	1.78
Age	1	-0.005251	0.014005	-0.37
AvgDrive	1	-0.013688	0.015035	-0.91
DriveAcc	1	-0.012844	0.022272	-0.58
Greens	1	0.219396	0.035538	6.17
AvgPutts	1	-20.000127	3.756550	-5.32
Save	1	0.038543	0.014080	2.74
V12	1	0.062114	0.075650	0.82
V13	1	0.066442	0.075174	0.88
V14	1	-0.085906	0.088666	-0.97
V15	1	-0.069845	0.071644	-0.97
V16	1	-0.011944	0.073827	-0.16
V17	1	-0.078570	0.082824	-0.95
V18	1	-0.073378	0.071137	-1.03

The GLMSELECT Procedure
Selected Model

Parameter Estimates				
Parameter	DF	Estimate	Standard Error	t Value
V19	1	-0.038600	0.087754	-0.44
V20	1	-0.053574	0.080279	-0.67
V21	1	0.049775	0.084325	0.59
V22	1	0.003066	0.077234	0.04
V23	1	0.071133	0.089737	0.79
V24	1	-0.048056	0.083816	-0.57
V25	1	0.001046	0.000834	1.25
V26	1	0.000633	0.000850	0.74
V27	1	0.000058503	0.000715	0.08
V28	1	-0.000705	0.000845	-0.83
V29	1	0.000161	0.000766	0.21
V30	1	-0.000173	0.000722	-0.24
V31	1	-0.000207	0.000770	-0.27

The GLMSELECT Procedure

Data Set	WORK.GOLF
Dependent Variable	logAvgWinnings
Selection Method	LASSO
Stop at Specified Number of Effects	27
Choose Criterion	Cross Validation
Cross Validation Method	Random
Cross Validation Fold	5
Effect Hierarchy Enforced	None
Random Number Seed	1

Number of Observations Read	196
Number of Observations Used	196
Number of Observations Used for Training	101
Number of Observations Used for Testing	95

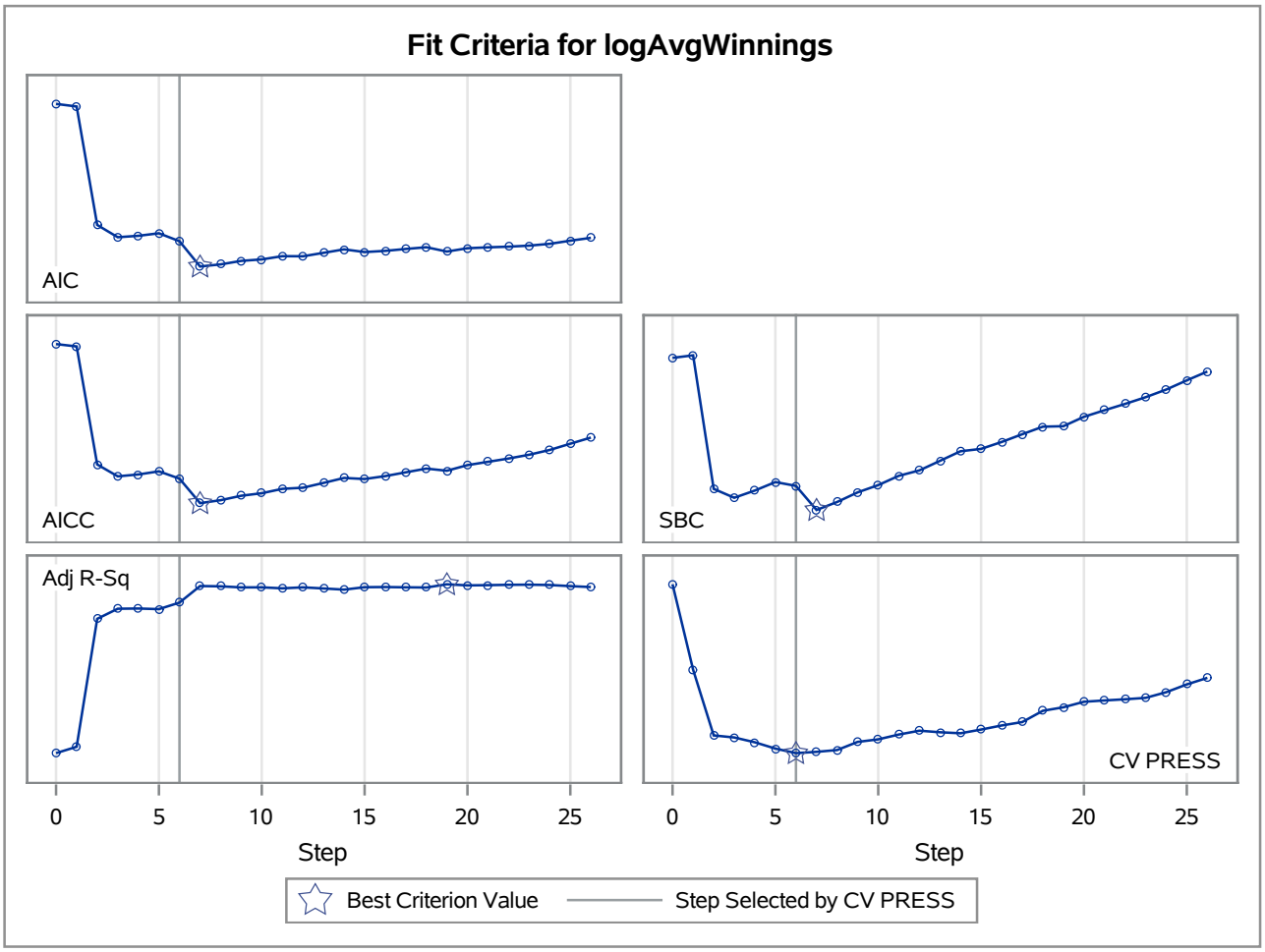
Dimensions	
Number of Effects	27
Number of Parameters	27

The GLMSELECT Procedure

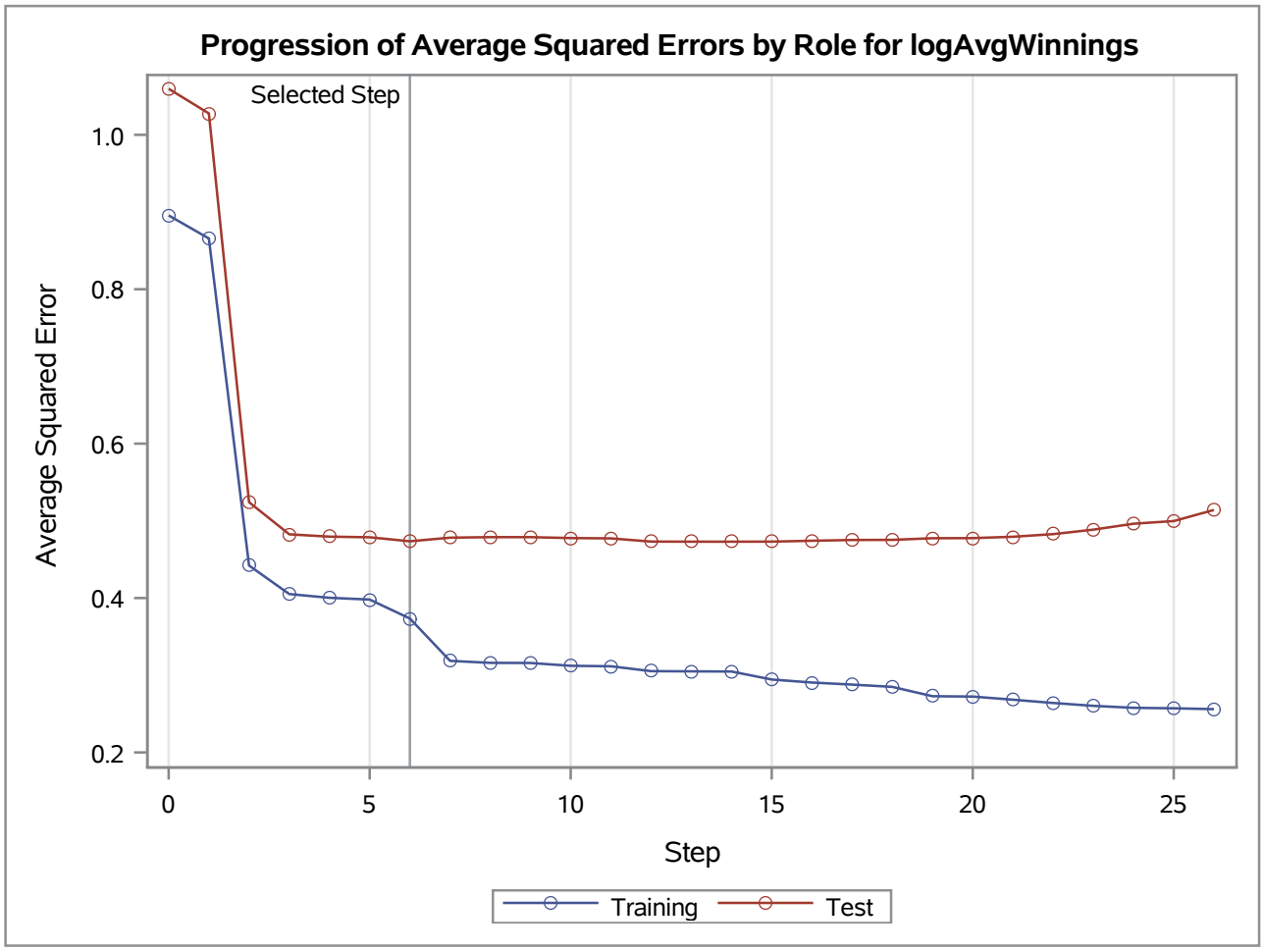
LASSO Selection Summary						
Step	Effect Entered	Effect Removed	Number Effects In	ASE	Test ASE	CV PRESS
0	Intercept		1	0.8956	1.0596	90.6685
1	AvgPutts		2	0.8658	1.0277	61.7920
2	Greens		3	0.4421	0.5241	39.5820
3	Save		4	0.4051	0.4825	38.8928
4	V25		5	0.4003	0.4795	37.2584
5	V23		6	0.3980	0.4787	35.1394
6	DriveAcc		7	0.3735	0.4735	33.5955*
7	V21		8	0.3186	0.4782	34.0273
8	V17		9	0.3160	0.4789	34.6420
9	V30		10	0.3159	0.4789	37.3978
10	V13		11	0.3122	0.4777	38.2573
11	V22		12	0.3116	0.4773	39.8788
12	V27		13	0.3053	0.4731	41.1765
13	AvgDrive		14	0.3050	0.4730	40.6578
14	V31		15	0.3048	0.4730	40.3106
15	V14		16	0.2944	0.4731	41.5680
16	V15		17	0.2905	0.4742	42.9449
17	Age		18	0.2879	0.4752	44.1016
18	V18		19	0.2849	0.4753	47.9075
19	V20		20	0.2728	0.4775	49.0919
20	V12		21	0.2724	0.4776	50.9652
21	V24		22	0.2683	0.4794	51.4078
22	V16		23	0.2641	0.4828	51.8035
23	V19		24	0.2603	0.4886	52.2773
24	V28		25	0.2578	0.4962	54.1921
25	V26		26	0.2571	0.4997	56.8274
26	V29		27	0.2560	0.5141	59.0355
* Optimal Value of Criterion						

Selection stopped because all effects are in the final model.

The GLMSELECT Procedure



The GLMSELECT Procedure



The GLMSELECT Procedure
Selected Model

The selected model, based on Cross Validation, is the model at Step 6.

Effects:	Intercept DriveAcc Greens AvgPutts Save V23 V25

Analysis of Variance				
Source	DF	Sum of Squares	Mean Square	F Value
Model	6	52.73751	8.78958	21.90
Error	94	37.71861	0.40126	
Corrected Total	100	90.45612		

Root MSE	0.63345
Dependent Mean	10.34981
R-Square	0.5830
Adj R-Sq	0.5564
AIC	17.51834
AICC	19.08356
SBC	-67.17581
ASE (Train)	0.37345
ASE (Test)	0.47350
CV PRESS	33.59548

Cross Validation Details			
	Observations		
Index	Fitted	Left Out	CV PRESS
1	80	21	12.0395
2	82	19	3.5355
3	76	25	5.8011
4	82	19	6.9674
5	84	17	5.2520
Total			33.5955

The GLMSELECT Procedure
Selected Model

Parameter Estimates		
Parameter	**DF**	**Estimate**
Intercept	1	24.755578
DriveAcc	1	-0.003765
Greens	1	0.149244
AvgPutts	1	-16.089533
Save	1	0.010052
V23	1	0.026607
V25	1	0.000341

The GLMSELECT Procedure

Data Set	WORK.GOLF
Dependent Variable	logAvgWinnings
Selection Method	Forward
Select Criterion	SBC
Stop Criterion	None
Effect Hierarchy Enforced	None
Random Number Seed	1

Number of Observations Read	196
Number of Observations Used	196
Number of Observations Used for Training	94
Number of Observations Used for Testing	102

Dimensions	
Number of Effects	30
Number of Parameters	30

The GLMSELECT Procedure

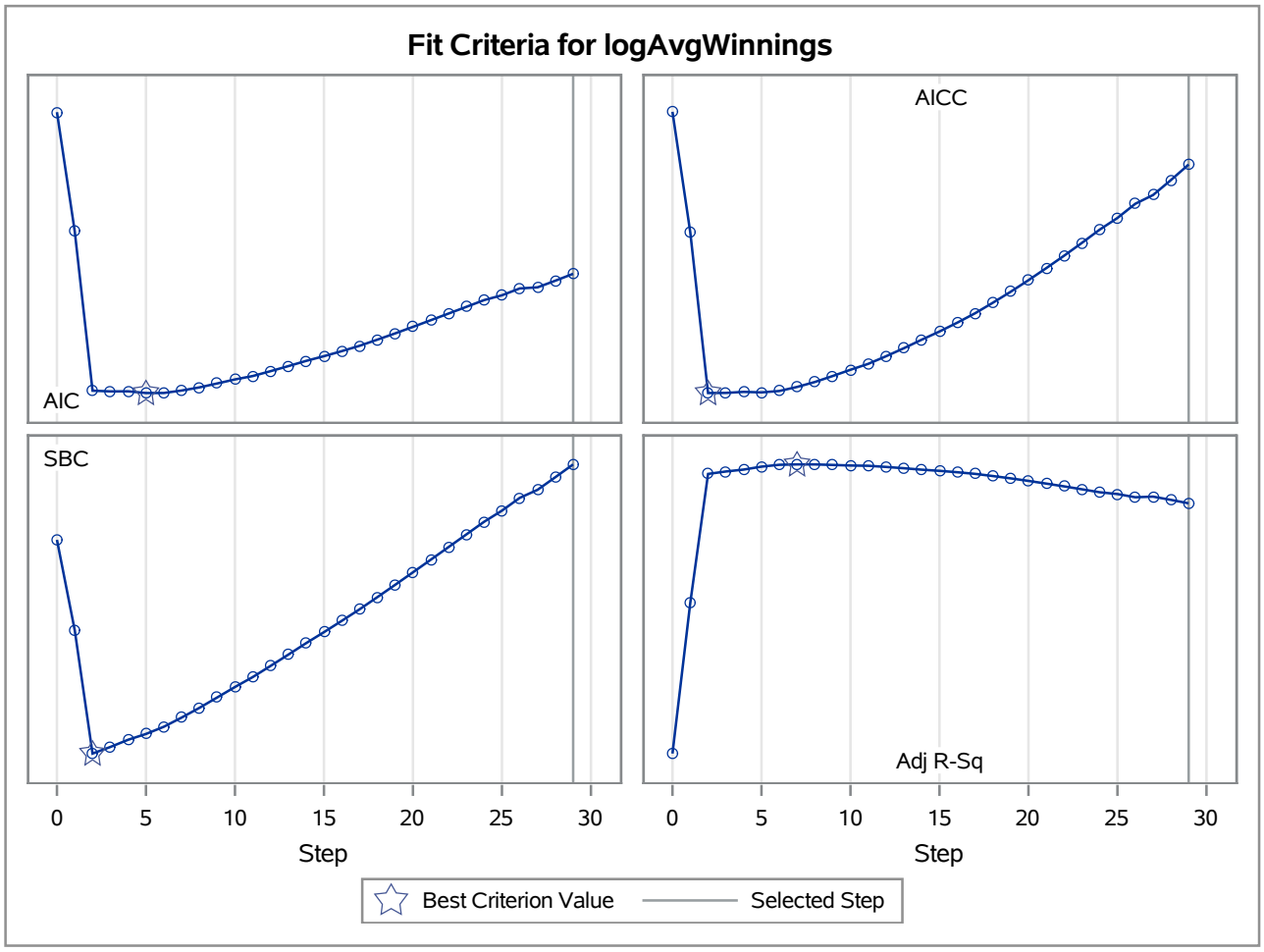
Forward Selection Summary

Step	Effect Entered	Number Effects In	SBC	ASE	Test ASE
0	Intercept	1	4.1263	0.9956	0.9482
1	Greens	2	-27.9862	0.6741	0.6857
2	Greens*AvgPutts	3	-71.7251*	0.4033	0.4319
3	V25	4	-69.3892	0.3940	0.4355
4	V14	5	-66.8226	0.3858	0.4410
5	V15	6	-64.7696	0.3757	0.4527
6	AvgDrive	7	-62.2232	0.3678	0.4868
7	V13	8	-58.9619	0.3628	0.4789
8	V21	9	-55.5126	0.3586	0.4687
9	V28	10	-51.8228	0.3554	0.4675
10	V17	11	-48.1083	0.3522	0.4533
11	V20	12	-44.5744	0.3485	0.4565
12	V26	13	-40.6179	0.3463	0.4581
13	V18	14	-36.6059	0.3444	0.4482
14	DriveAcc	15	-32.5389	0.3426	0.4392
15	V12	16	-28.6318	0.3403	0.4365
16	V23	17	-24.6235	0.3384	0.4296
17	V19	18	-20.5316	0.3368	0.4282
18	V29	19	-16.2012	0.3360	0.4259
19	V27	20	-11.8397	0.3353	0.4359
20	Greens*Greens	21	-7.4006	0.3350	0.4378
21	V30	22	-2.9212	0.3347	0.4362
22	V31	23	1.5636	0.3345	0.4384
23	V16	24	6.0562	0.3344	0.4384
24	AvgPutts	25	10.5588	0.3342	0.4398
25	AvgPutts*AvgPutts	26	14.5009	0.3321	0.4351
26	Age*Age	27	19.0284	0.3320	0.4344
27	Age	28	21.8888	0.3261	0.4451
28	V22	29	26.3661	0.3259	0.4464
29	V24	30	30.9082	0.3259	0.4467

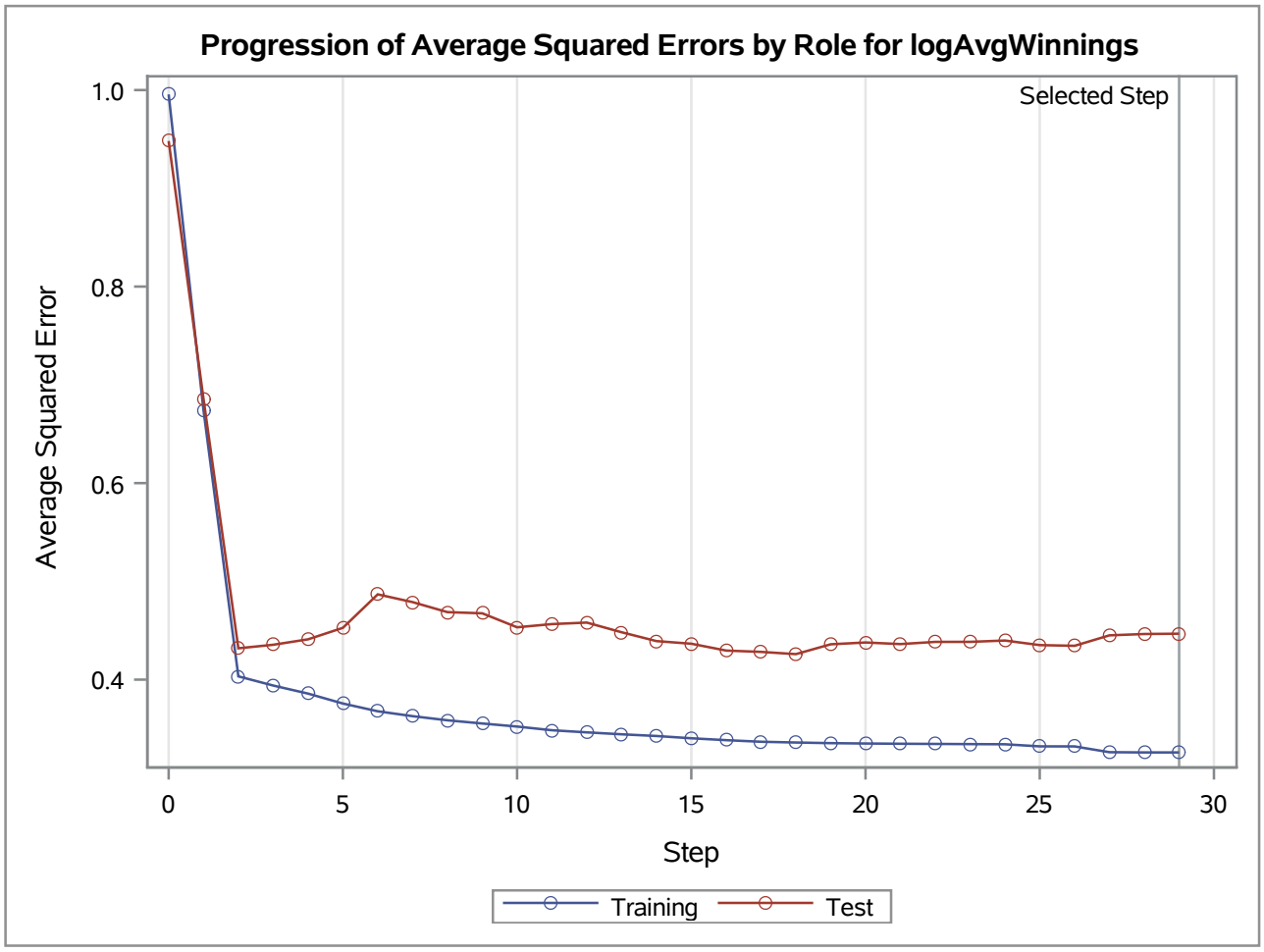
*** Optimal Value of Criterion**

Selection stopped because all effects are in the final model.

The GLMSELECT Procedure



The GLMSELECT Procedure



The GLMSELECT Procedure
Selected Model

The selected model is the model at the last step (Step 29).

Effects:	Intercept Age AvgDrive DriveAcc Greens AvgPutts Age*Age Greens*Greens AvgPutts*AvgPutts Greens*AvgPutts V12 V13 V14 V15 V16 V17 V18 V19 V20 V21 V22 V23 V24 V25 V26 V27 V28 V29 V30 V31

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value
Model	29	62.94965	2.17068	4.53
Error	64	30.63423	0.47866	
Corrected Total	93	93.58388		

Root MSE	0.69185
Dependent Mean	10.29633
R-Square	0.6727
Adj R-Sq	0.5243
AIC	50.60938
AICC	82.60938
SBC	30.90823
ASE (Train)	0.32590
ASE (Test)	0.44674

The GLMSELECT Procedure
Selected Model

Parameter Estimates				
Parameter	DF	Estimate	Standard Error	t Value
Intercept	1	329.870435	463.617013	0.71
Age	1	-0.141692	0.129782	-1.09
AvgDrive	1	-0.012105	0.016302	-0.74
DriveAcc	1	-0.012610	0.023811	-0.53
Greens	1	-0.268667	2.409311	-0.11
AvgPutts	1	-327.295350	489.222074	-0.67
Age*Age	1	0.001923	0.001753	1.10
Greens*Greens	1	0.002374	0.006942	0.34
AvgPutts*AvgPutts	1	83.618091	131.634009	0.64
Greens*AvgPutts	1	0.094899	1.232702	0.08
V12	1	0.047594	0.081832	0.58
V13	1	0.056326	0.081694	0.69
V14	1	-0.089500	0.098731	-0.91
V15	1	-0.092113	0.077942	-1.18
V16	1	0.013654	0.079319	0.17
V17	1	-0.074277	0.092161	-0.81
V18	1	-0.056751	0.080461	-0.71
V19	1	-0.044458	0.094036	-0.47
V20	1	-0.038209	0.086684	-0.44
V21	1	0.097380	0.089282	1.09
V22	1	0.018753	0.087877	0.21
V23	1	0.071163	0.096431	0.74
V24	1	-0.002481	0.088788	-0.03
V25	1	0.001080	0.000905	1.19
V26	1	0.000868	0.000962	0.90
V27	1	0.000520	0.000792	0.66
V28	1	-0.000941	0.000922	-1.02
V29	1	0.000095861	0.000848	0.11
V30	1	-0.000168	0.000783	-0.21
V31	1	-0.000354	0.000848	-0.42

The GLMSELECT Procedure

Data Set	WORK.GOLF
Dependent Variable	logAvgWinnings
Selection Method	LASSO
Stop at Specified Number of Effects	31
Choose Criterion	Cross Validation
Cross Validation Method	Random
Cross Validation Fold	5
Effect Hierarchy Enforced	None
Random Number Seed	1

Number of Observations Read	196
Number of Observations Used	196
Number of Observations Used for Training	101
Number of Observations Used for Testing	95

Dimensions	
Number of Effects	30
Number of Parameters	30

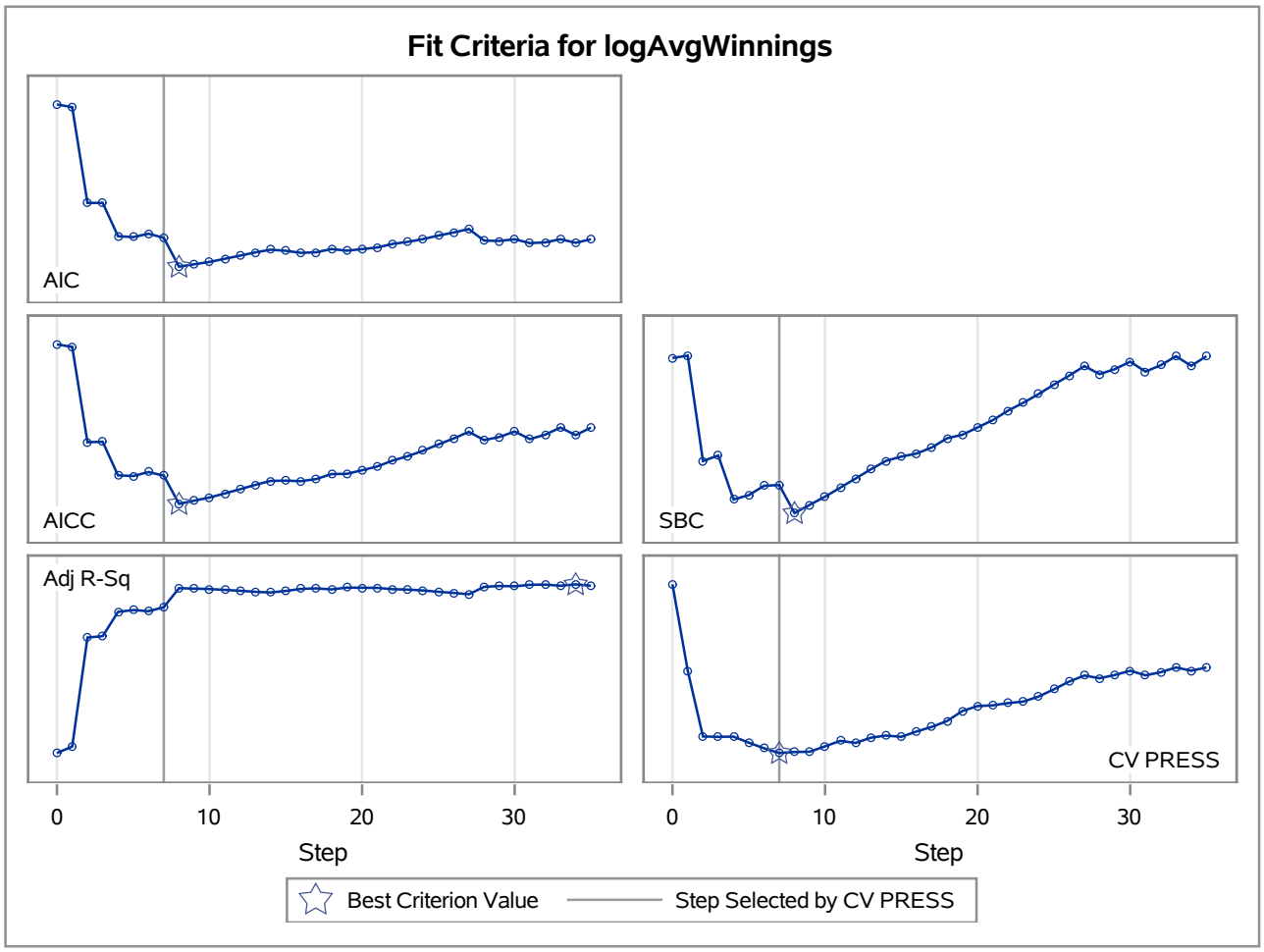
The GLMSELECT Procedure

LASSO Selection Summary						
Step	Effect Entered	Effect Removed	Number Effects In	ASE	Test ASE	CV PRESS
0	Intercept		1	0.8956	1.0596	90.6685
1	AvgPutts*AvgPutts		2	0.8652	1.0271	61.7326
2	Greens		3	0.5004	0.5931	39.6214
3	AvgPutts		4	0.4907	0.5816	39.5239
4		AvgPutts*AvgPutts	3	0.4167	0.4943	39.5820
5	V25		4	0.4064	0.4890	37.5587
6	DriveAcc		5	0.4060	0.4889	35.6819
7	V23		6	0.3891	0.4875	34.0810*
8	V21		7	0.3253	0.5092	34.4137
9	V13		8	0.3233	0.5105	34.5318
10	V30		9	0.3211	0.5118	36.3264
11	V17		10	0.3202	0.5120	38.1530
12	AvgDrive		11	0.3194	0.5121	37.4628
13	V22		12	0.3189	0.5120	39.2246
14	Age*Age		13	0.3172	0.5117	39.9355
15	V31		14	0.3092	0.5118	39.5274
16	V27		15	0.2997	0.5131	41.3194
17	V15		16	0.2948	0.5158	42.8547
18	V14		17	0.2942	0.5164	44.8326
19	V18		18	0.2858	0.5235	48.1765
20	V12		19	0.2827	0.5269	49.8414
21	V16		20	0.2796	0.5312	50.0778
22	V24		21	0.2796	0.5312	50.8219
23	V19		22	0.2772	0.5374	51.3412
24	V20		23	0.2760	0.5431	53.0294
25	V26		24	0.2758	0.5438	55.4537
26	V28		25	0.2750	0.5508	58.0622
27	V29		26	0.2748	0.5530	60.0726
28	Greens*Greens		27	0.2528	0.6045	59.1759
29	Age		28	0.2474	0.6545	60.2665
30	Greens*AvgPutts		29	0.2448	0.6637	61.6940
31		AvgPutts	28	0.2444	0.6734	60.1622
32	AvgPutts*AvgPutts		29	0.2406	0.6984	61.1895
33	AvgPutts		30	0.2400	0.7200	62.7958
* Optimal Value of Criterion						

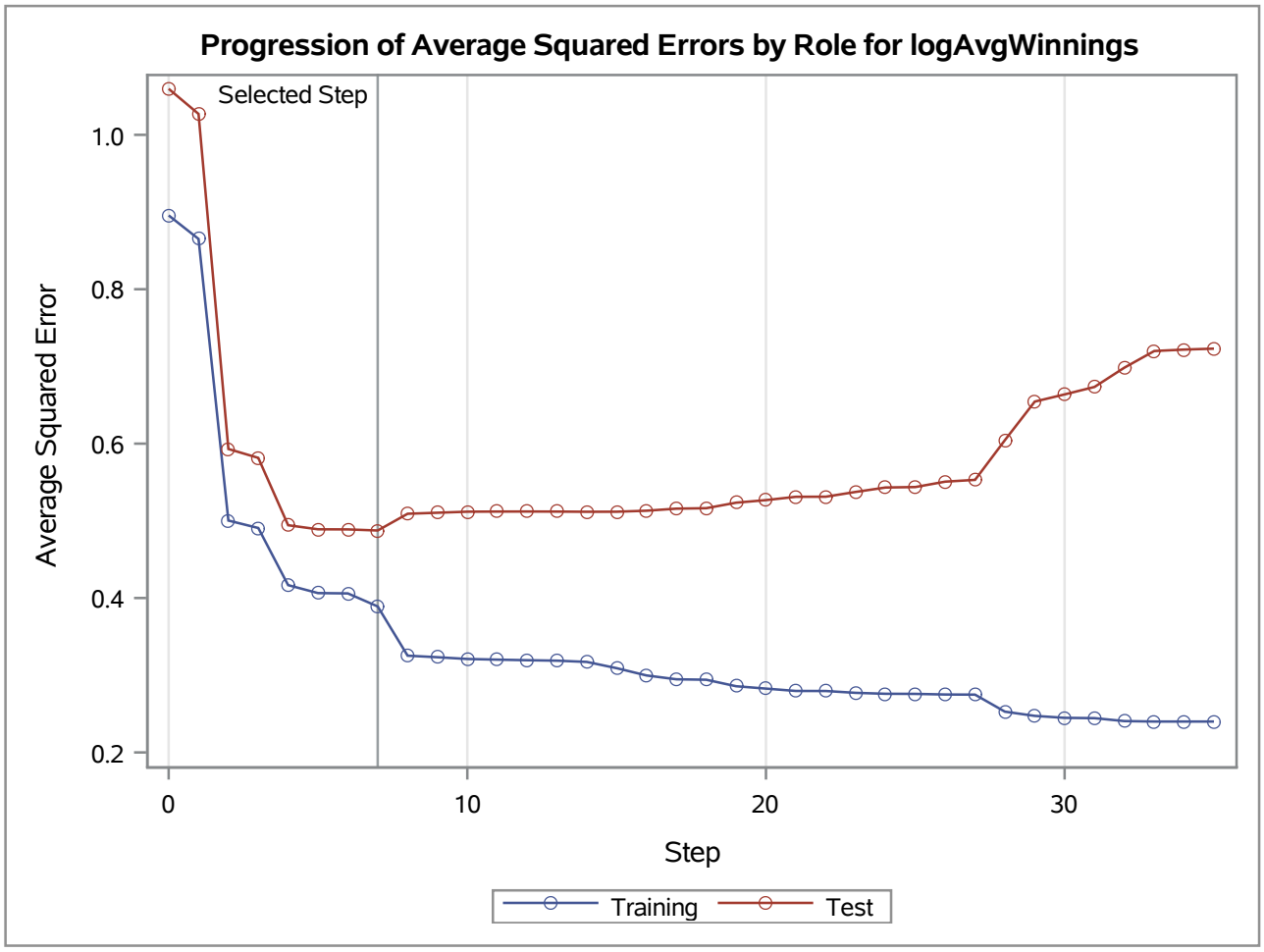
The GLMSELECT Procedure

LASSO Selection Summary						
Step	Effect Entered	Effect Removed	Number Effects In	ASE	Test ASE	CV PRESS
34		AvgPutts*AvgPutts	29	0.2400	0.7218	61.6940
35	AvgPutts*AvgPutts		30	0.2400	0.7231	62.7958
* Optimal Value of Criterion						

Selection stopped because all effects are in the final model.



The GLMSELECT Procedure



The GLMSELECT Procedure
Selected Model

The selected model, based on Cross Validation, is the model at Step 7.

Effects:	Intercept DriveAcc Greens AvgPutts V23 V25

Analysis of Variance				
Source	DF	Sum of Squares	Mean Square	F Value
Model	5	51.15632	10.23126	24.73
Error	95	39.29980	0.41368	
Corrected Total	100	90.45612		

Root MSE	0.64318
Dependent Mean	10.34981
R-Square	0.5655
Adj R-Sq	0.5427
AIC	19.66599
AICC	20.87029
SBC	-67.64329
ASE (Train)	0.38911
ASE (Test)	0.48747
CV PRESS	34.08099

Cross Validation Details			
	Observations		
Index	Fitted	Left Out	CV PRESS
1	80	21	12.1001
2	82	19	3.9682
3	76	25	6.4439
4	82	19	7.2927
5	84	17	4.2760
Total			34.0810

The GLMSELECT Procedure
Selected Model

Parameter Estimates		
Parameter	**DF**	**Estimate**
Intercept	1	27.060412
DriveAcc	1	-0.002770
Greens	1	0.145966
AvgPutts	1	-16.696214
V23	1	0.016640
V25	1	0.000357