

Stepwise Regression Model using All Metrics

The PHREG Procedure

Model Information		
Data Set	DEB.DATA2014	
Dependent Variable	Num_Semem_To	Num_Semem_To
Ties Handling	BRESLOW	

Number of Observations Read	292
Number of Observations Used	292

Summary of the Number of Event and Censored Values

Total	Event	Censored	Percent Censored
292	292	0	0.00

Analysis of Effects Eligible for Entry

Effect	DF	Score Chi-Square	Pr > ChiSq	Effect Label
AvgGPACHg_To	1	0.0255	0.8730	AvgGPACHg_To
Base_GPA	1	0.1822	0.6695	Base_GPA
AvgDelta_AttPass_To	1	14.3503	0.0002	AvgDelta_AttPass_To
AvgQualPts_To	1	15.9235	<.0001	AvgQualPts_To
AvgProGpa_To	1	48.2820	<.0001	AvgProGpa_To
Age	1	3.8856	0.0487	Age

Residual Chi-Square Test

Chi-Square	DF	Pr > ChiSq
150.2762	6	<.0001

Step 1. Effect AvgProGpa_To is entered. The model contains the following effects:

AvgProGpa_To

Convergence Status

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

Model Fit Statistics

Criterion	Without Covariates	With Covariates
-2 LOG L	2805.335	2764.231
AIC	2805.335	2766.231
SBC	2805.335	2769.908

Testing Global Null Hypothesis: BETA=0

Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	41.1045	1	<.0001
Score	48.2820	1	<.0001
Wald	46.8547	1	<.0001

Analysis of Maximum Likelihood Estimates

Parameter	DF	Parameter Estimate	Standard Error	Chi-Square	Pr > ChiSq	Hazard Ratio	Label
AvgProGpa_To	1	-0.46064	0.06730	46.8547	<.0001	0.631	AvgProGpa_To

Analysis of Effects Eligible for Entry

Effect	DF	Score Chi-Square	Pr > ChiSq	Effect Label
AvgGPACHg_To	1	1.4549	0.2277	AvgGPACHg_To
Base_GPA	1	35.3631	<.0001	Base_GPA
AvgDelta_AttPass_To	1	33.0149	<.0001	AvgDelta_AttPass_To
AvgQualPts_To	1	4.8628	0.0274	AvgQualPts_To
Age	1	9.7962	0.0017	Age

Residual Chi-Square Test

Chi-Square	DF	Pr > ChiSq
66.3631	5	<.0001

Step 2. Effect Base_GPA is entered. The model contains the following effects:

Base_GPA AvgProGpa_To

Convergence Status

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

Model Fit Statistics		
Criterion	Without Covariates	With Covariates
-2 LOG L	2805.335	2728.795
AIC	2805.335	2732.795
SBC	2805.335	2740.149

Testing Global Null Hypothesis: BETA=0				
Test	Chi-Square	DF	Pr > ChiSq	
Likelihood Ratio	76.5400	2	<.0001	
Score	102.0692	2	<.0001	
Wald	79.1772	2	<.0001	

Analysis of Maximum Likelihood Estimates							
Parameter	DF	Parameter Estimate	Standard Error	Chi-Square	Pr > ChiSq	Hazard Ratio	Label
Base_GPA	1	0.46696	0.08055	33.6089	<.0001	1.595	Base_GPA
AvgProGpa_To	1	-0.81405	0.09166	78.8684	<.0001	0.443	AvgProGpa_To

Analysis of Effects Eligible for Entry				
Effect	DF	Score Chi-Square	Pr > ChiSq	Effect Label
AvgGPACHg_To	1	0.2231	0.6367	AvgGPACHg_To
AvgDelta_AttPass_To	1	24.8942	<.0001	AvgDelta_AttPass_To
AvgQualPts_To	1	8.1802	0.0042	AvgQualPts_To
Age	1	4.4857	0.0342	Age

Residual Chi-Square Test		
Chi-Square	DF	Pr > ChiSq
32.5480	4	<.0001

Step 3. Effect AvgDelta_AttPass_To is entered. The model contains the following effects:

Base_GPA AvgDelta_AttPass_To AvgProGpa_To

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

Model Fit Statistics		
Criterion	Without Covariates	With Covariates
-2 LOG L	2805.335	2700.537
AIC	2805.335	2706.537
SBC	2805.335	2717.568

Testing Global Null Hypothesis: BETA=0				
Test	Chi-Square	DF	Pr > ChiSq	
Likelihood Ratio	104.7980	3	<.0001	
Score	145.1704	3	<.0001	
Wald	91.1963	3	<.0001	

Analysis of Maximum Likelihood Estimates							
Parameter	DF	Parameter Estimate	Standard Error	Chi-Square	Pr > ChiSq	Hazard Ratio	Label
Base_GPA	1	0.41330	0.08421	24.0867	<.0001	1.512	Base_GPA
AvgDelta_AttPass_To	1	-0.23166	0.04631	25.0211	<.0001	0.793	AvgDelta_AttPass_To
AvgProGpa_To	1	-0.89634	0.10060	79.3820	<.0001	0.408	AvgProGpa_To

Analysis of Effects Eligible for Entry				
Effect	DF	Score Chi-Square	Pr > ChiSq	Effect Label
AvgGPACHg_To	1	0.9398	0.3323	AvgGPACHg_To
AvgQualPts_To	1	0.1128	0.7370	AvgQualPts_To
Age	1	5.7478	0.0165	Age

Residual Chi-Square Test		
Chi-Square	DF	Pr > ChiSq
7.0400	3	0.0706

Step 4. Effect Age is entered. The model contains the following effects:

Base_GPA AvgDelta_AttPass_To AvgProGpa_To Age

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

Model Fit Statistics		
Criterion	Without Covariates	With Covariates
-2 LOG L	2805.335	2693.685
AIC	2805.335	2701.685
SBC	2805.335	2716.392

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	111.6504	4	<.0001
Score	149.2567	4	<.0001
Wald	95.8304	4	<.0001

Analysis of Maximum Likelihood Estimates							
Parameter	DF	Parameter Estimate	Standard Error	Chi-Square	Pr > ChiSq	Hazard Ratio	Label
Base_GPA	1	0.37688	0.08684	18.8342	<.0001	1.458	Base_GPA
AvgDelta_AttPass_To	1	-0.23940	0.04664	26.3514	<.0001	0.787	AvgDelta_AttPass_To
AvgProGpa_To	1	-0.91461	0.10196	80.4690	<.0001	0.401	AvgProGpa_To
Age	1	-0.03013	0.01263	5.6861	0.0171	0.970	Age

Analysis of Effects Eligible for Entry				
Effect	DF	Score Chi-Square	Pr > ChiSq	Effect Label
AvgGPACHg_To	1	1.2705	0.2597	AvgGPACHg_To
AvgQualPts_To	1	0.2462	0.6198	AvgQualPts_To

Residual Chi-Square Test		
Chi-Square	DF	Pr > ChiSq
1.3387	2	0.5120

Note: No (additional) effects met the 0.25 level for entry into the model.

Summary of Stepwise Selection								
Step	Effect		DF	Number In	Score Chi-Square	Wald Chi-Square	Pr > ChiSq	Effect Label
	Entered	Removed						
1	AvgProGpa_To		1	1	48.2820		<.0001	AvgProGpa_To
2	Base_GPA		1	2	35.3631		<.0001	Base_GPA
3	AvgDelta_AttPass_To		1	3	24.8942		<.0001	AvgDelta_AttPass_To
4	Age		1	4	5.7478		0.0165	Age