

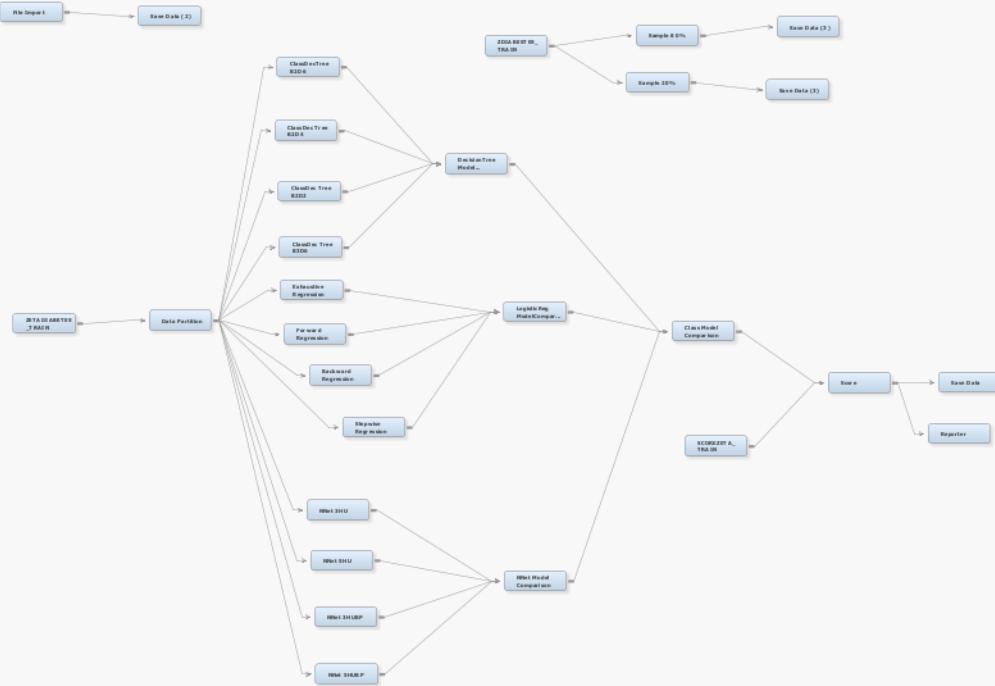
## SAS Enterprise Miner Report

User = shre2  
 Date = 14:39:36 March 09  
 Project = SV.PredictiveAnalysis  
 Diagram = Zeta.Predictive

Start Node = Report  
 Node label = Reporter  
 Nodes = PATH  
 Showall = N

Format = PDF  
 Style = JOURNAL

### SAS Enterprise Miner Report Process Flow Diagram



## SAS Enterprise Miner Report

### Node=ZETADIABETES\_TRAIN Summary

Node id = lds5  
 Node label = ZETADIABETES\_TRAIN  
 Meta path = lds5  
 Notes =

### Node=ZETADIABETES\_TRAIN Properties

Property	Value	Default	Property	Value	Default	Property	Value	Default
Component	DataSource		DsCreatedBy	shre2		NBytes	38667264	.
ApplyIntervalLevelLowerLimit	Y		DsId	zetadiabetestrain		NCols	23	.
ApplyMaxClassLevels	Y		DsModifiedBy	shre2		NObs	200573	.
ApplyMaxPercentMissing	Y		DsModifyDate	2025170943.7		NewTable		
CMeta	WORK.M0KTH0MB		DsSampleName			NewVariableRole	REJECT	
ComputeStatistics	N		DsSampleSize			OutputType	VIEW	
DBPassThrough	Y		DsSampleSizeType			Role	RAW	TRAIN
Data	ZETADATA.ZETADIABETES_TRAIN		DsScope	LOCAL		Sample	D	
DataSelection	DATASOURCE		IdentifyEmptyColumns	Y		SampleSizeObs	10000	
DataSource	zetadiabetestrain		IntervalLowerLimit	20		SampleSizePercent	20	
DataSourceRole	RAW		Library	ZETADATA		SampleSizeType	PERCENT	
Description			MaxClassLevels	20		Scope	LOCAL	
DropMapVariables	Y		MaxPercentMissing	50		Segment		
DsCreateDate	2025170943.4		MetaAdvisor	BASIC		Table	ZETADIABETES_TRAIN	

### Node=ZETADIABETES\_TRAIN Data Attributes

Attribute	Value	Attribute	Value	Attribute	Value
Data Name	ZETADIABETES_TRAIN	Date Created	04Mar2024:11:26:21	Data Size	38667264
Data Type	DATA	Date Modified	04Mar2024:11:26:21	Role	RAW
Data Label		Number Rows	200573	Segment	
Engine	BASE	Number Columns	23	Data Library	ZETADATA

### Node=ZETADIABETES\_TRAIN Variables List

Name	Label	Role	Level	Type	Length	Format	Creator
Age		INPUT	INTERVAL	N	8	BEST12.0	
AnyHealthcare		INPUT	BINARY	N	8	BEST12.0	
BMI		INPUT	INTERVAL	N	8	BEST12.0	
CholCheck		INPUT	BINARY	N	8	BEST12.0	
Diabetes_Prediction	Diabetes Prediction	TARGET	NOMINAL	C	11		
DiffWalk		INPUT	BINARY	N	8	BEST12.0	
Education		INPUT	ORDINAL	N	8	BEST12.0	
Fruits		INPUT	BINARY	N	8	BEST12.0	
GenHlth		INPUT	ORDINAL	N	8	BEST12.0	
HeartDiseaseorAttack		INPUT	BINARY	N	8	BEST12.0	
HighBP		INPUT	BINARY	N	8	BEST12.0	

Name	Label	Role	Level	Type	Length	Format	Creator
HighChol		INPUT	BINARY	N	8	BEST12.0	
HvyAlcoholConsump		INPUT	BINARY	N	8	BEST12.0	
Income		INPUT	ORDINAL	N	8	BEST12.0	
MentHlth		INPUT	ORDINAL	N	8	BEST12.0	
NoDocbcCost		INPUT	BINARY	N	8	BEST12.0	
PhysActivity		INPUT	BINARY	N	8	BEST12.0	
PhysHlth		INPUT	ORDINAL	N	8	BEST12.0	
Sex		INPUT	BINARY	N	8	BEST12.0	
Smoker		INPUT	BINARY	N	8	BEST12.0	
Stroke		INPUT	BINARY	N	8	BEST12.0	
Veggies		INPUT	BINARY	N	8	BEST12.0	
_dataobs_	Observation Number	REJECTED	INTERVAL	N	8		

## SAS Enterprise Miner Report

### Node=Data Partition Summary

Node id = Part  
 Node label = Data Partition  
 Meta path = lds5 => Part  
 Notes =

### Node=Data Partition Properties

Property	Value	Default	Property	Value	Default	Property	Value	Default
Component	Partition		Method	DEFAULT		TestPct	30	
ClassDistribution	Y		OutputType	DATA		TrainPct	40	
IntervalDistribution	Y		RandomSeed	12345		ValidatePct	30	

### Node=Data Partition Variable Summary

Role	Level	Frequency		Name
		Count		
TARGET	NOMINAL	1	Diabetes_Prediction	
INPUT	BINARY	14	AnyHealthcare CholCheck DiffWalk Fruits HeartDiseaseorAttack HighBP HighChol HvyAlcoholConsump NoDocbcCost PhysActivity Sex Smoker Stroke Veggies	
INPUT	INTERVAL	2	Age BMI	
INPUT	ORDINAL	5	Education GenHlth Income MentHlth PhysHlth	

## SAS Enterprise Miner Report

### Node=NNet 3HU Summary

Node id = Neural  
 Node label = NNet 3HU  
 Meta path = lds5 => Part => Neural  
 Notes =

### Node=NNet 3HU Properties

Property	Value	Default	Property	Value	Default	Property	Value	Default
Component	NeuralNetwork		Hidden	3		Prelim	N	Y
AbsConvValue	-1.34078E154	-7.237006E75	HiddenActivation	DEFAULT		PrelimMaxTime	1 HOUR	
AbsFTime	1		HiddenBias	Y		PrelimMaxiter	10	
AbsFValue	0		HiddenCombFunction	DEFAULT		PrelimOutest		
AbsGTime	1		HiddenUnits	N		PreliminaryRuns	5	
AbsGValue	1E-5	0.00001	InitialDs			RandDist	NORMAL	
AbsXTime	1		InitialSeed	12345		RandLoc	0	
AbsXValue	1E-8		InputStandardization	STD		RandScale	0.1	
Accelerate	1.2		Learn	0.1		Residuals	Y	
AddHidden	Y		MaxLearn	50		Standardizations	N	
CodefileNoRes			MaxMomentum	1.75		SuppressOutput	N	
CodefileRes			Maxiter	50		TargetActivation	DEFAULT	
ConvDefaults	Y		Maxtime	4 HOURS		TargetBias	Y	
Decelerate	0.5		MinLearn	1E-5	0.00001	TargetCombFunction	DEFAULT	
DirectConnection	N		ModelSelectionCriterion	PROFIT/LOSS		TargetError	DEFAULT	
FConvTime	1		Momentum	0		Tilt	0	
FConvValue	0		NetworkArchitecture	MLP		TrainCode		
GConvTime	1		Outest			TrainingTechnique	DEFAULT	
GConvValue	1E-6		Outfit			UseEstimates	N	

### Node=NNet 3HU Variable Summary

Role	Level	Frequency		Name
		Count	Name	
TARGET	NOMINAL	1	Diabetes_Prediction	
INPUT	BINARY	14	AnyHealthcare CholCheck DiffWalk Fruits HeartDiseaseorAttack HighBP HighChol HwyAlcoholConsump NoDocbcCost PhysActivity Sex Smoker Stroke Veggies	
INPUT	INTERVAL	2	Age BMI	
INPUT	ORDINAL	5	Education GenHlth Income MentHlth PhysHlth	

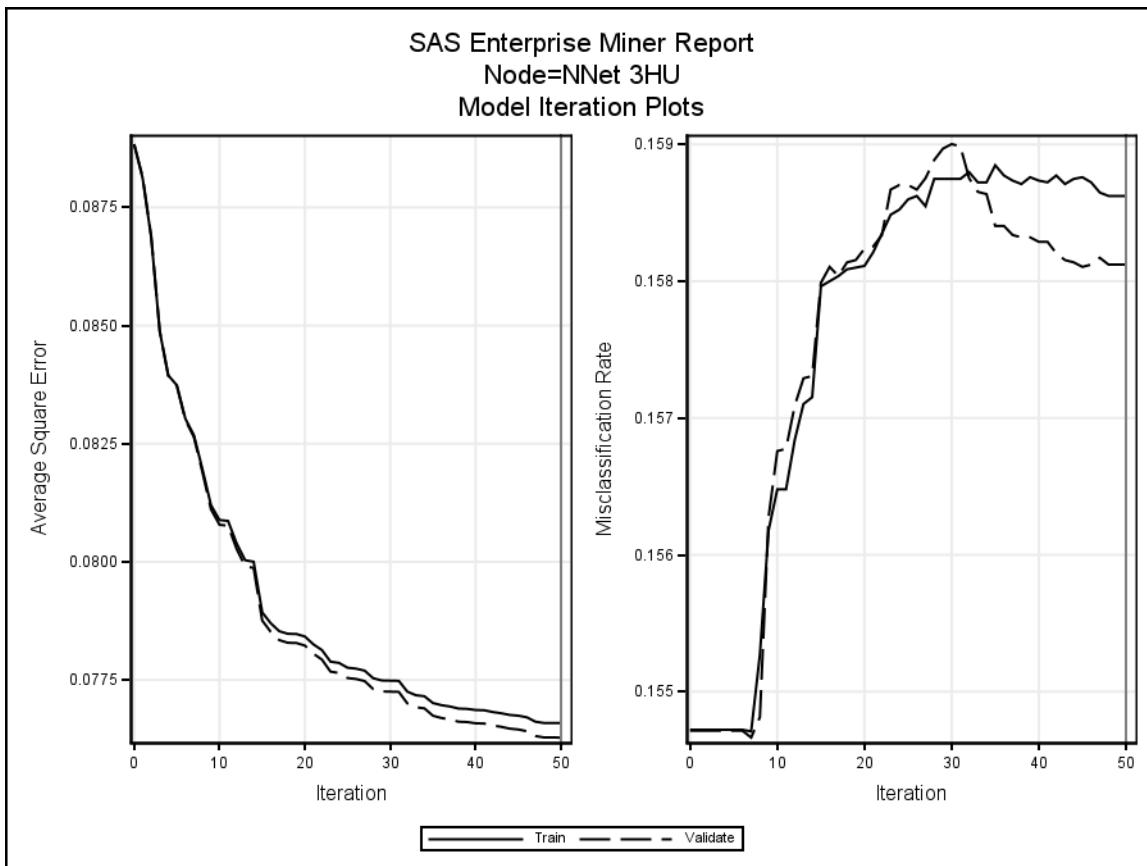
### Node=NNet 3HU Model Fit Statistics

Target=Diabetes\_Prediction Target Label=Diabetes Prediction

Label of Statistic	Train	Validation	Test
Total Degrees of Freedom	160456.00	.	.
Degrees of Freedom for Error	160169.00	.	.
Model Degrees of Freedom	287.00	.	.
Number of Estimated Weights	287.00	.	.

Target=Diabetes\_Prediction Target Label=Diabetes Prediction

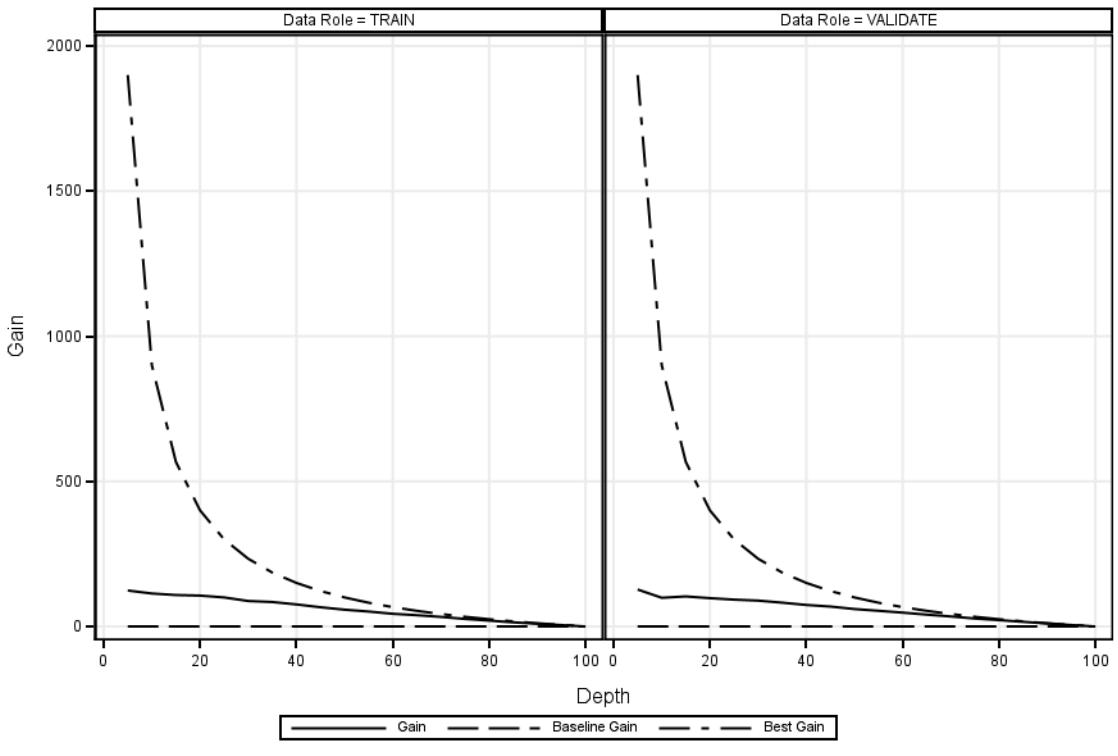
Label of Statistic	Train	Validation	Test
Akaike's Information Criterion	66256.84		
Schwarz's Bayesian Criterion	69122.76		
Average Squared Error	0.08	0.08	0.08
Maximum Absolute Error	1.00	1.00	1.00
Divisor for ASE	240684.00	180507.00	180528.00
Sum of Frequencies	80228.00	60169.00	60176.00
Root Average Squared Error	0.28	0.28	0.28
Sum of Squared Errors	18432.90	13768.98	13751.62
Sum of Case Weights Times Freq	240684.00	180507.00	180528.00
Final Prediction Error	0.08		
Mean Squared Error	0.08	0.08	0.08
Root Final Prediction Error	0.28		
Root Mean Squared Error	0.28	0.28	0.28
Average Error Function	0.27	0.27	0.27
Error Function	65682.84	49016.53	49045.60
Misclassification Rate	0.16	0.16	0.16
Number of Wrong Classifications	12726.00	9514.00	9541.00



### SAS Enterprise Miner Report

Node=NNet 3HU

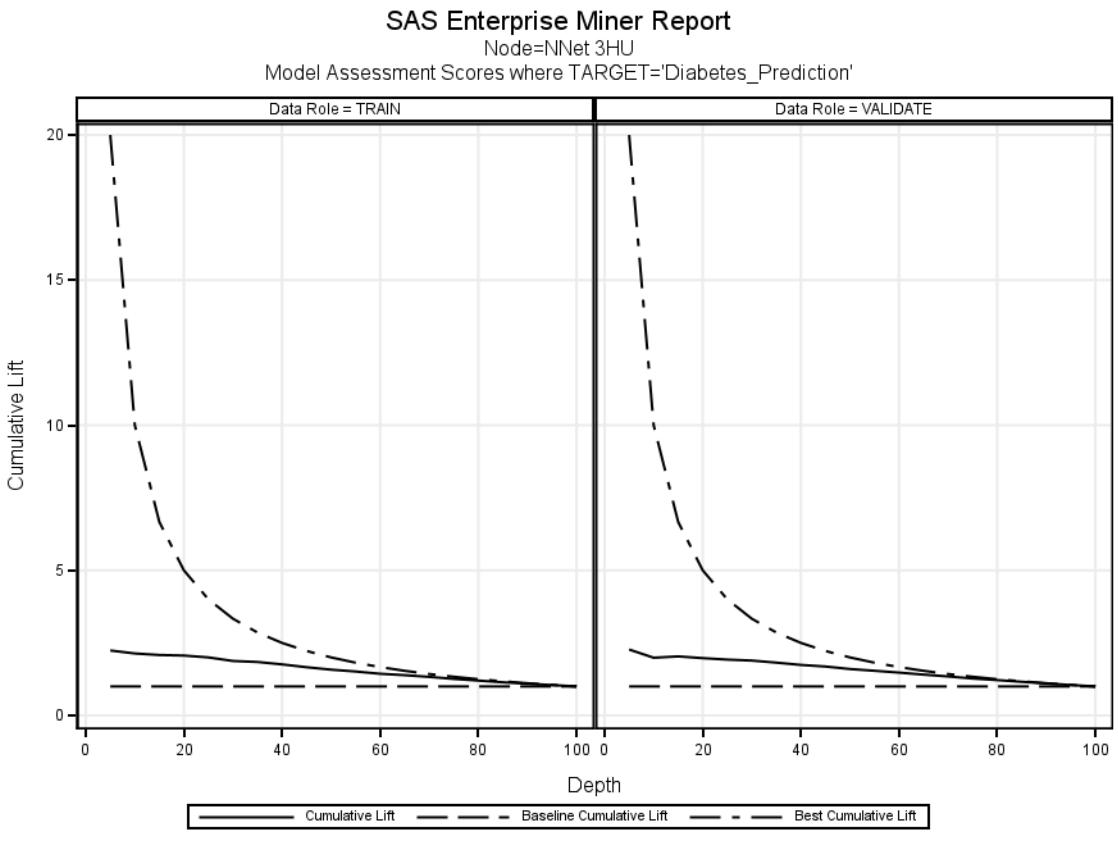
Model Assessment Scores where TARGET='Diabetes\_Prediction'



### SAS Enterprise Miner Report

Node=NNet 3HU

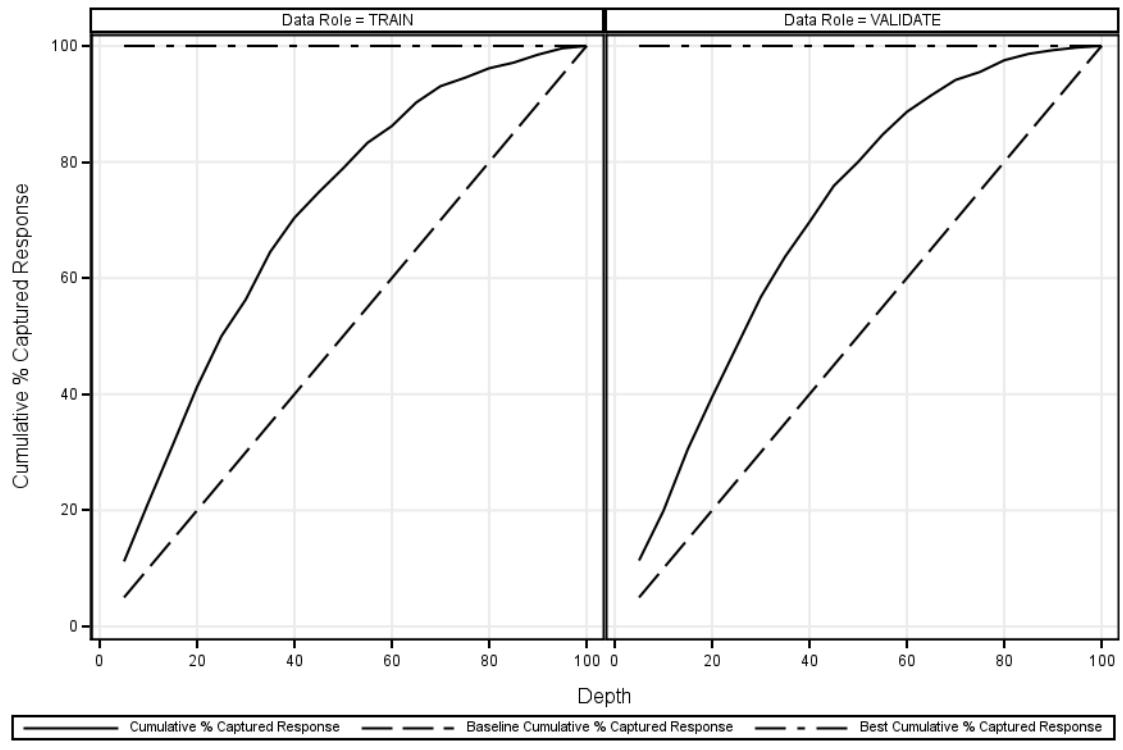
Model Assessment Scores where TARGET='Diabetes\_Prediction'



### SAS Enterprise Miner Report

Node=NNet 3HU

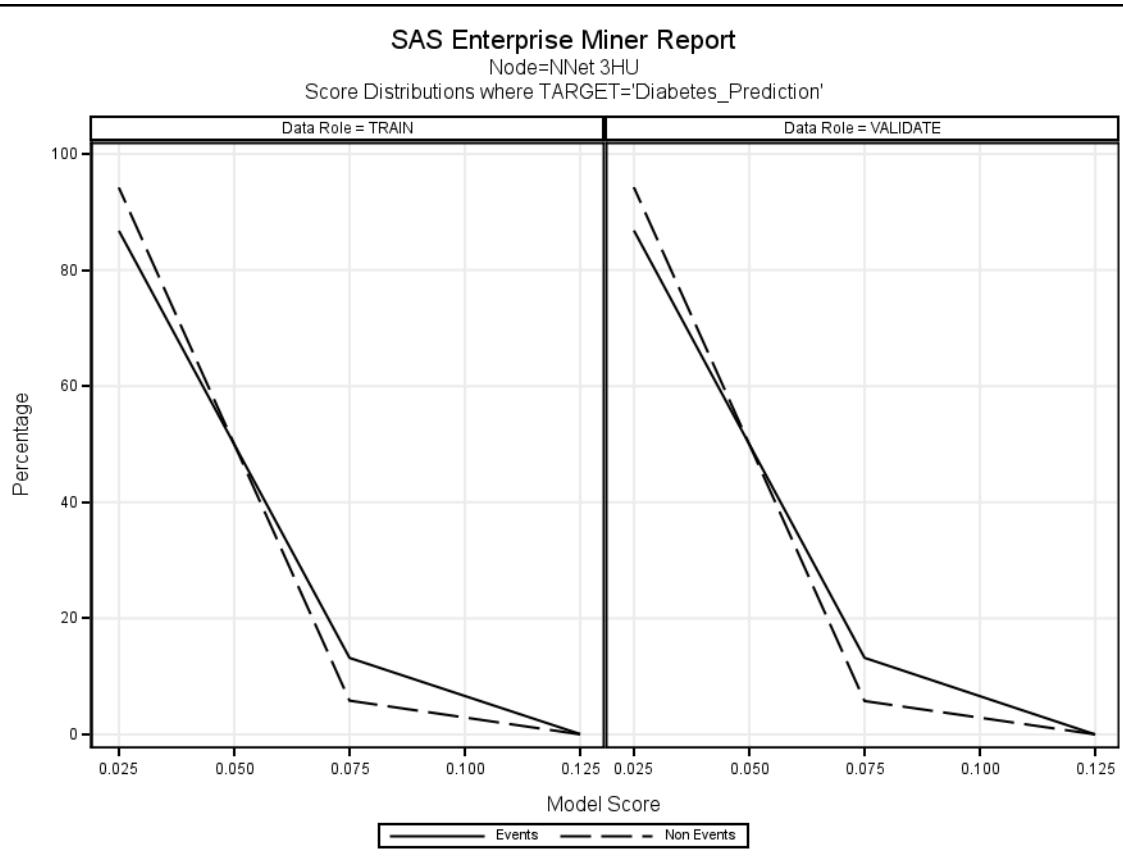
Model Assessment Scores where TARGET='Diabetes\_Prediction'

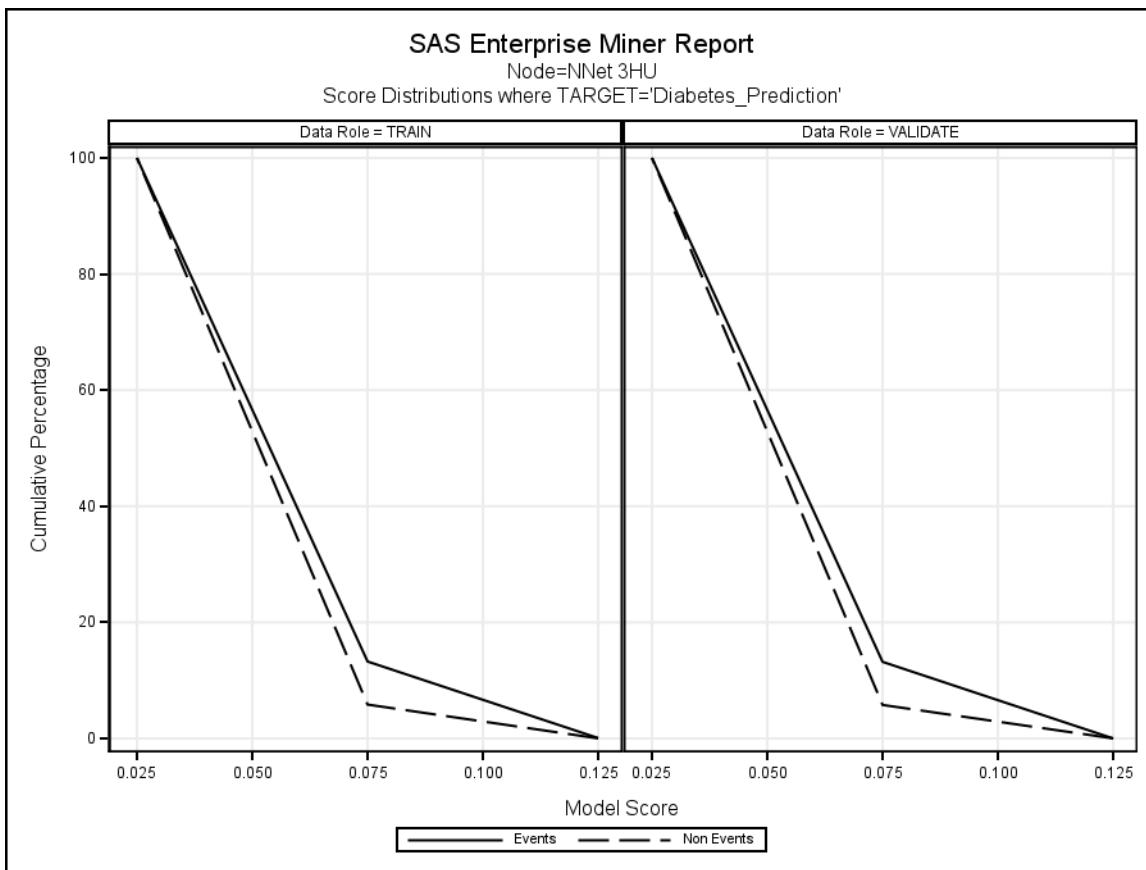


### SAS Enterprise Miner Report

Node=NNet 3HU

Score Distributions where TARGET='Diabetes\_Prediction'





**Node=NNet 3HU**  
**Score Distributions**

Target Variable=Diabetes\_Prediction Data Role=TRAIN

Posterior Probability Range	Number of Events	Percentage of Events	Percentage of Nonevents	Cumulative Percentage of Events	Cumulative Percentage of Nonevents
0.10-0.15	1	0.0687	0.0190	0.069	0.019
0.05-0.10	192	13.1868	5.8206	13.255	5.840
0.00-0.05	1263	86.7445	94.1604	100.000	100.000

Target Variable=Diabetes\_Prediction Data Role=VALIDATE

Posterior Probability Range	Number of Events	Percentage of Events	Percentage of Nonevents	Cumulative Percentage of Events	Cumulative Percentage of Nonevents
0.10-0.15	0	0.0000	0.0169	0.000	0.017
0.05-0.10	144	13.1989	5.7568	13.199	5.774
0.00-0.05	947	86.8011	94.2263	100.000	100.000

## SAS Enterprise Miner Report

### Node=NNet 5HU Summary

Node id = Neural2  
 Node label = NNet 5HU  
 Meta path = lds5 => Part => Neural2  
 Notes =

### Node=NNet 5HU Properties

Property	Value	Default	Property	Value	Default	Property	Value	Default
Component	NeuralNetwork		Hidden	5	3	Prelim	N	Y
AbsConvValue	-1.34078E154	-7.237006E75	HiddenActivation	DEFAULT		PrelimMaxTime	1 HOUR	
AbsFTime	1		HiddenBias	Y		PrelimMaxiter	10	
AbsFValue	0		HiddenCombFunction	DEFAULT		PrelimOutest		
AbsGTime	1		HiddenUnits	N		PreliminaryRuns	5	
AbsGValue	1E-5	0.00001	InitialDs			RandDist	NORMAL	
AbsXTime	1		InitialSeed	12345		RandLoc	0	
AbsXValue	1E-8		InputStandardization	STD		RandScale	0.1	
Accelerate	1.2		Learn	0.1		Residuals	Y	
AddHidden	Y		MaxLearn	50		Standardizations	N	
CodefileNoRes			MaxMomentum	1.75		SuppressOutput	N	
CodefileRes			Maxiter	50		TargetActivation	DEFAULT	
ConvDefaults	Y		Maxtime	4 HOURS		TargetBias	Y	
Decelerate	0.5		MinLearn	1E-5	0.00001	TargetCombFunction	DEFAULT	
DirectConnection	N		ModelSelectionCriterion	PROFIT/LOSS		TargetError	DEFAULT	
FConvTime	1		Momentum	0		Tilt	0	
FConvValue	0		NetworkArchitecture	MLP		TrainCode		
GConvTime	1		Outest			TrainingTechnique	DEFAULT	
GConvValue	1E-6		Outfit			UseEstimates	N	

### Node=NNet 5HU Variable Summary

Role	Level	Frequency		Name
		Count	Name	
TARGET	NOMINAL	1	Diabetes_Prediction	
INPUT	BINARY	14	AnyHealthcare CholCheck DiffWalk Fruits HeartDiseaseorAttack HighBP HighChol HwyAlcoholConsump NoDocbcCost PhysActivity Sex Smoker Stroke Veggies	
INPUT	INTERVAL	2	Age BMI	
INPUT	ORDINAL	5	Education GenHlth Income MentHlth PhysHlth	

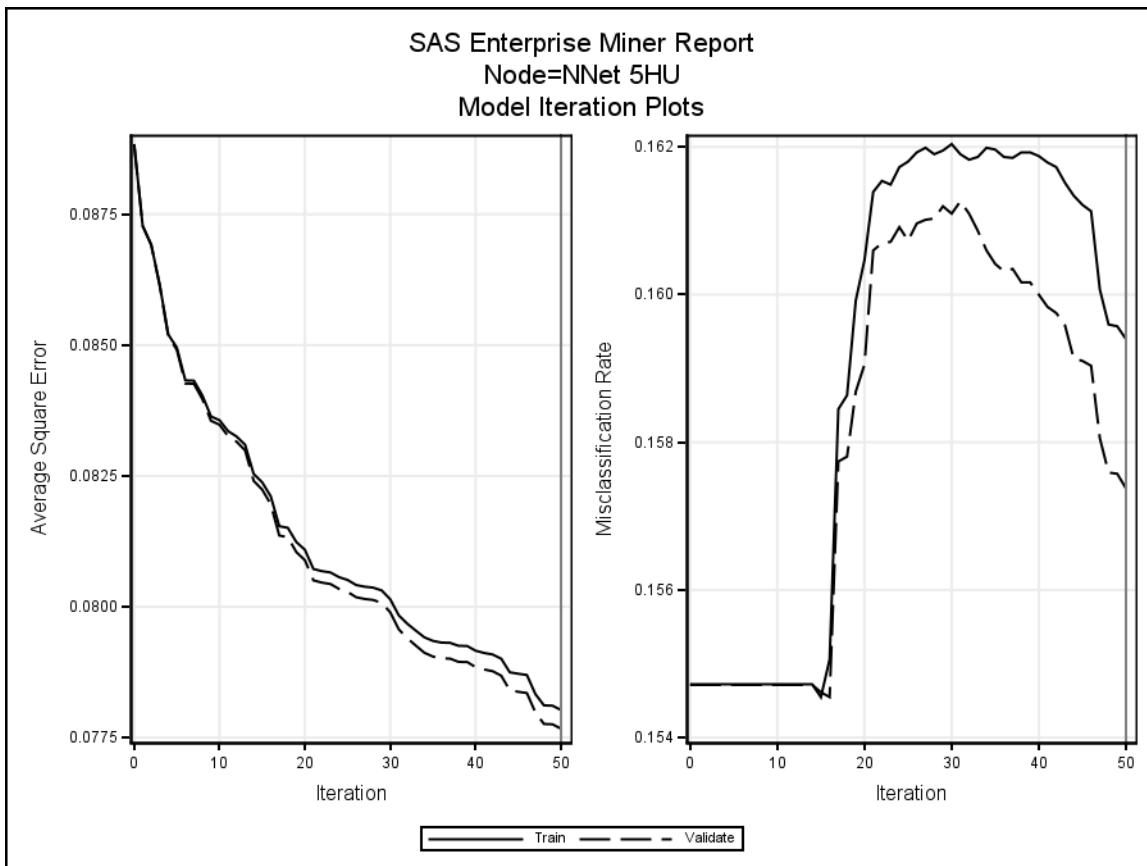
### Node=NNet 5HU Model Fit Statistics

Target=Diabetes\_Prediction Target Label=Diabetes Prediction

Label of Statistic	Train	Validation	Test
Total Degrees of Freedom	160456.00	.	.
Degrees of Freedom for Error	159979.00	.	.
Model Degrees of Freedom	477.00	.	.
Number of Estimated Weights	477.00	.	.

Target=Diabetes\_Prediction Target Label=Diabetes Prediction

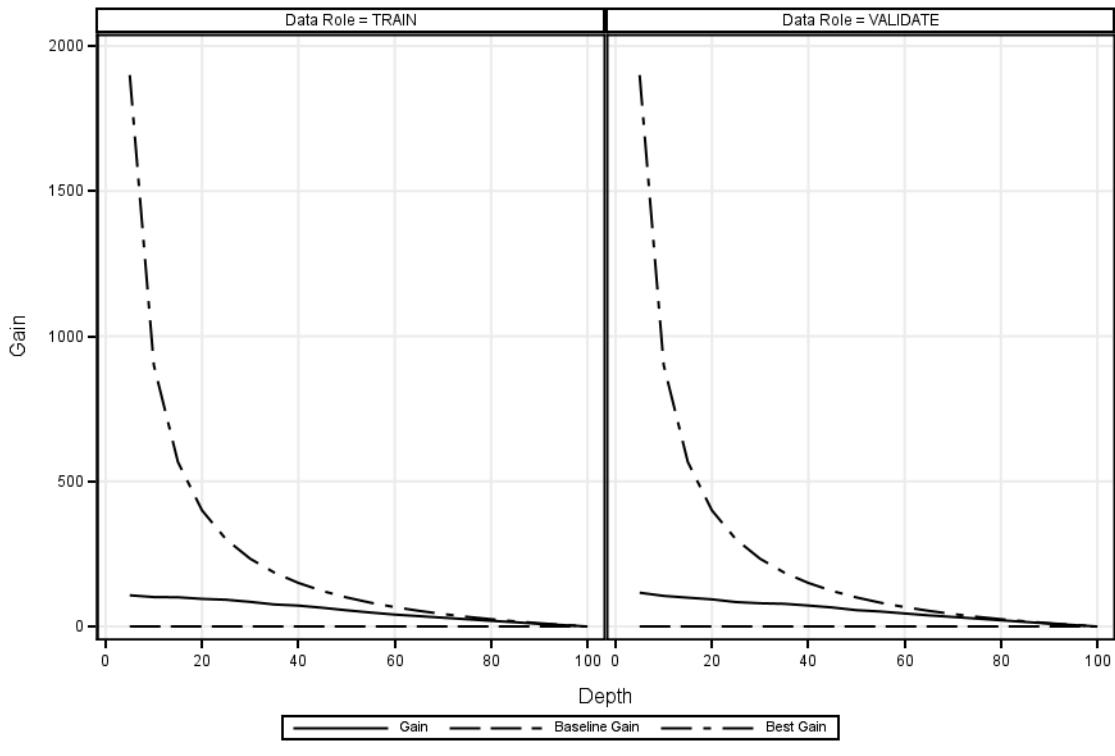
Label of Statistic	Train	Validation	Test
Akaike's Information Criterion	68361.44		
Schwarz's Bayesian Criterion	73124.65		
Average Squared Error	0.08	0.08	0.08
Maximum Absolute Error	1.00	0.99	0.99
Divisor for ASE	240684.00	180507.00	180528.00
Sum of Frequencies	80228.00	60169.00	60176.00
Root Average Squared Error	0.28	0.28	0.28
Sum of Squared Errors	18779.82	14019.87	14000.88
Sum of Case Weights Times Freq	240684.00	180507.00	180528.00
Final Prediction Error	0.08		
Mean Squared Error	0.08	0.08	0.08
Root Final Prediction Error	0.28		
Root Mean Squared Error	0.28	0.28	0.28
Average Error Function	0.28	0.28	0.28
Error Function	67407.44	50316.94	50320.95
Misclassification Rate	0.16	0.16	0.16
Number of Wrong Classifications	12788.00	9469.00	9508.00



### SAS Enterprise Miner Report

Node=NNet 5HU

Model Assessment Scores where TARGET='Diabetes\_Prediction'



### SAS Enterprise Miner Report

Node=NNet 5HU

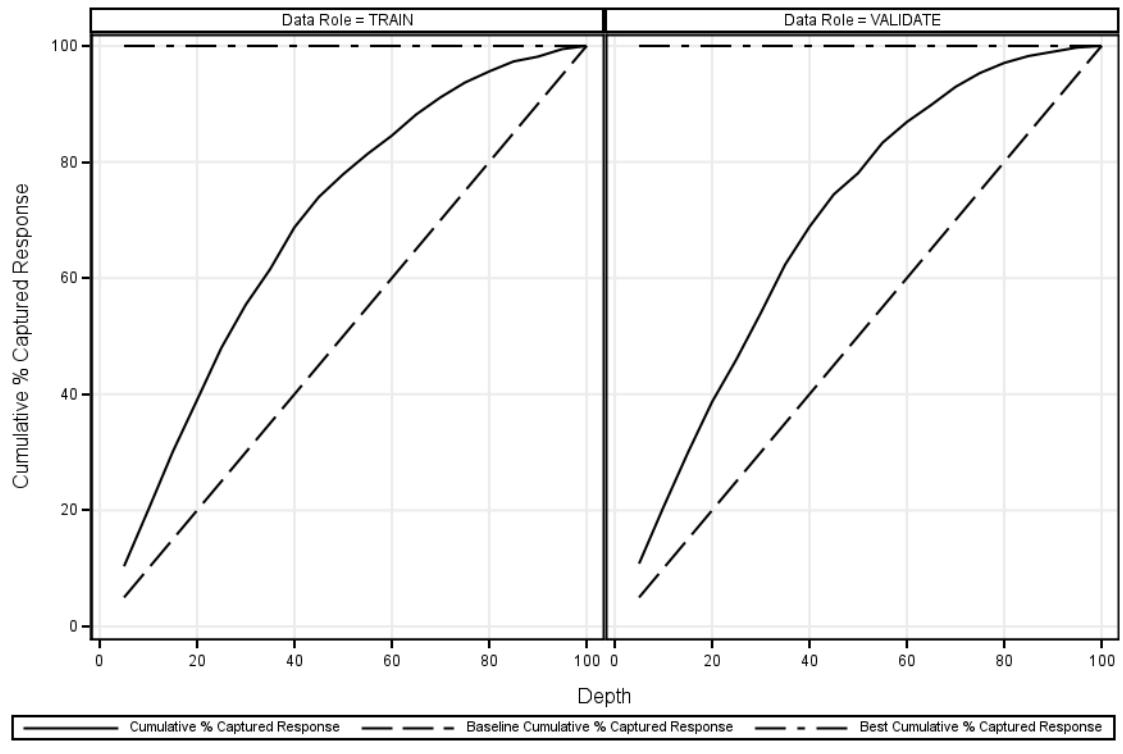
Model Assessment Scores where TARGET='Diabetes\_Prediction'



### SAS Enterprise Miner Report

Node=NNet 5HU

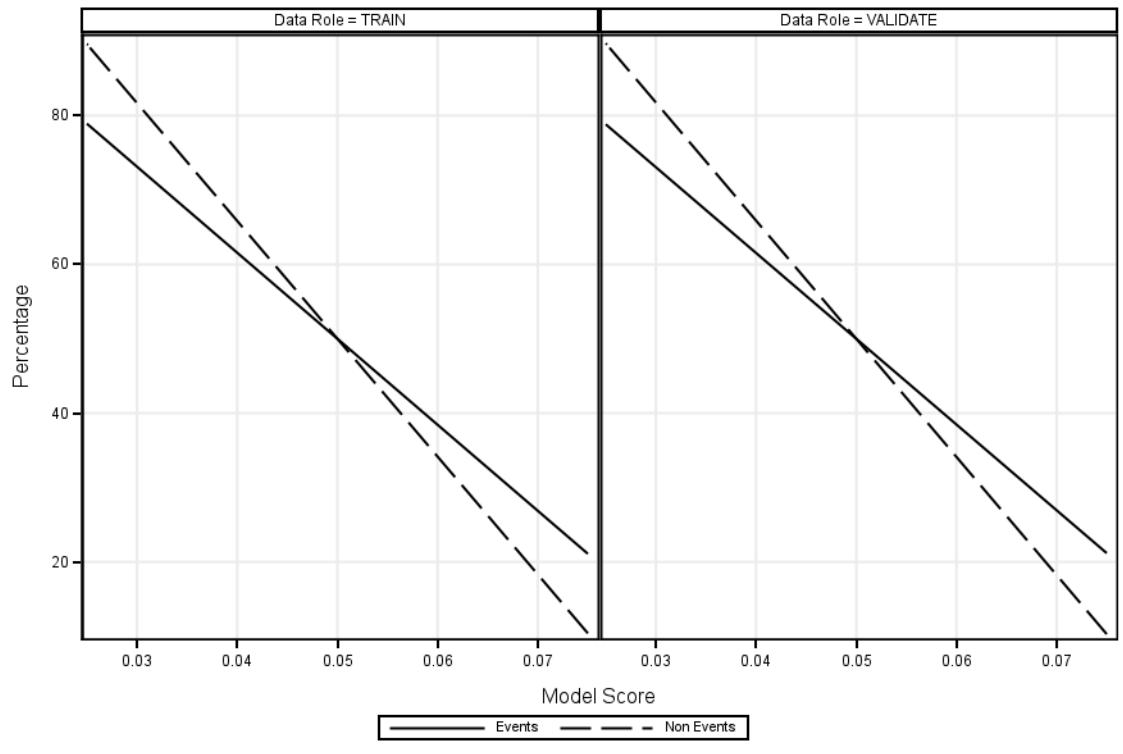
Model Assessment Scores where TARGET='Diabetes\_Prediction'

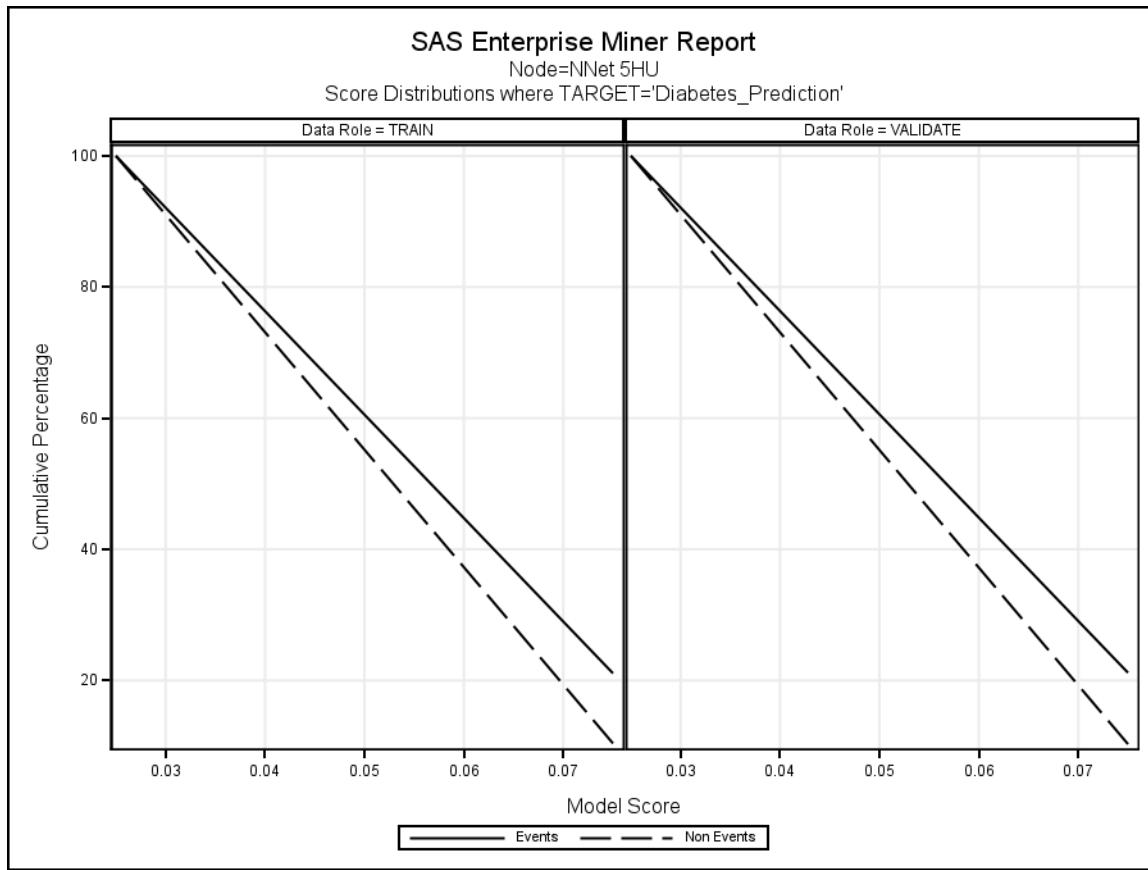


### SAS Enterprise Miner Report

Node=NNet 5HU

Score Distributions where TARGET='Diabetes\_Prediction'





**Node=NNet 5HU**  
**Score Distributions**

Target Variable=Diabetes\_Prediction Data Role=TRAIN

Posterior Probability Range	Number of Events	Percentage of Events	Cumulative Percentage		
			Percentage of Nonevents	Cumulative Percentage of Events	Cumulative Percentage of Nonevents
0.05-0.10	307	21.0852	10.3920	21.085	10.392
0.00-0.05	1149	78.9148	89.6080	100.000	100.000

Target Variable=Diabetes\_Prediction Data Role=VALIDATE

Posterior Probability Range	Number of Events	Percentage of Events	Cumulative Percentage		
			Percentage of Nonevents	Cumulative Percentage of Events	Cumulative Percentage of Nonevents
0.05-0.10	231	21.1732	10.2847	21.173	10.285
0.00-0.05	860	78.8268	89.7153	100.000	100.000

## SAS Enterprise Miner Report

### Node=NNet 3HUBP Summary

Node id = Neural4  
 Node label = NNet 3HUBP  
 Meta path = lds5 => Part => Neural4  
 Notes =

### Node=NNet 3HUBP Properties

Property	Value	Default	Property	Value	Default	Property	Value	Default
Component	NeuralNetwork		Hidden	3		Prelim	N	Y
AbsConvValue	-1.34078E154	-7.237006E75	HiddenActivation	DEFAULT		PrelimMaxTime	1 HOUR	
AbsFTime	1		HiddenBias	Y		PrelimMaxiter	10	
AbsFValue	0		HiddenCombFunction	DEFAULT		PrelimOutest		
AbsGTime	1		HiddenUnits	N		PreliminaryRuns	5	
AbsGValue	1E-5	0.00001	InitialDs			RandDist	NORMAL	
AbsXTime	1		InitialSeed	12345		RandLoc	0	
AbsXValue	1E-8		InputStandardization	STD		RandScale	0.1	
Accelerate	1.2		Learn	0.1		Residuals	Y	
AddHidden	Y		MaxLearn	50		Standardizations	N	
CodefileNoRes			MaxMomentum	1.75		SuppressOutput	N	
CodefileRes			Maxiter	50		TargetActivation	DEFAULT	
ConvDefaults	Y		Maxtime	4 HOURS		TargetBias	Y	
Decelerate	0.5		MinLearn	1E-5	0.00001	TargetCombFunction	DEFAULT	
DirectConnection	N		ModelSelectionCriterion	PROFIT/LOSS		TargetError	DEFAULT	
FConvTime	1		Momentum	0		Tilt	0	
FConvValue	0		NetworkArchitecture	MLP		TrainCode		
GConvTime	1		Outest			TrainingTechnique	BPROP	DEFAULT
GConvValue	1E-6		Outfit			UseEstimates	N	

### Node=NNet 3HUBP Variable Summary

Role	Level	Frequency		Name
		Count	Name	
TARGET	NOMINAL	1	Diabetes_Prediction	
INPUT	BINARY	14	AnyHealthcare CholCheck DiffWalk Fruits HeartDiseaseorAttack HighBP HighChol HwyAlcoholConsump NoDocbcCost PhysActivity Sex Smoker Stroke Veggies	
INPUT	INTERVAL	2	Age BMI	
INPUT	ORDINAL	5	Education GenHlth Income MentHlth PhysHlth	

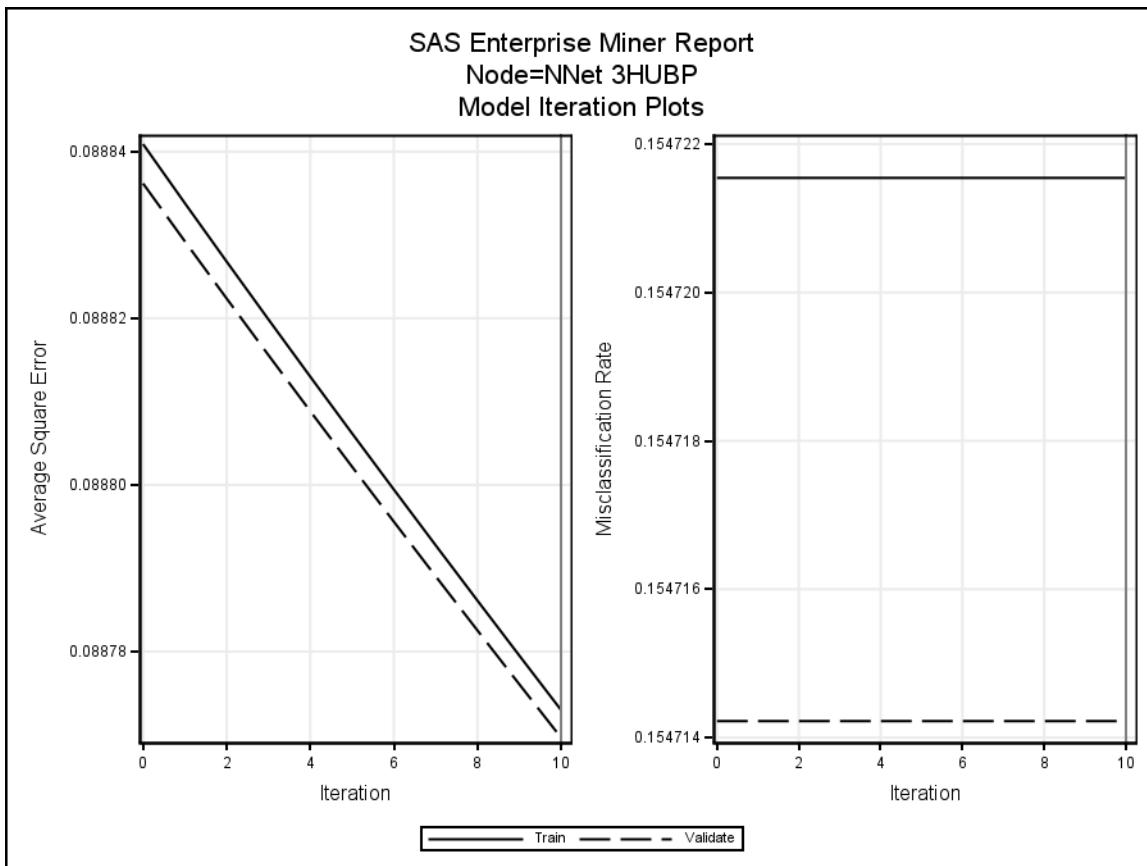
### Node=NNet 3HUBP Model Fit Statistics

Target=Diabetes\_Prediction Target Label=Diabetes Prediction

Label of Statistic	Train	Validation	Test
Total Degrees of Freedom	160456.00	.	.
Degrees of Freedom for Error	160169.00	.	.
Model Degrees of Freedom	287.00	.	.
Number of Estimated Weights	287.00	.	.

Target=Diabetes\_Prediction Target Label=Diabetes Prediction

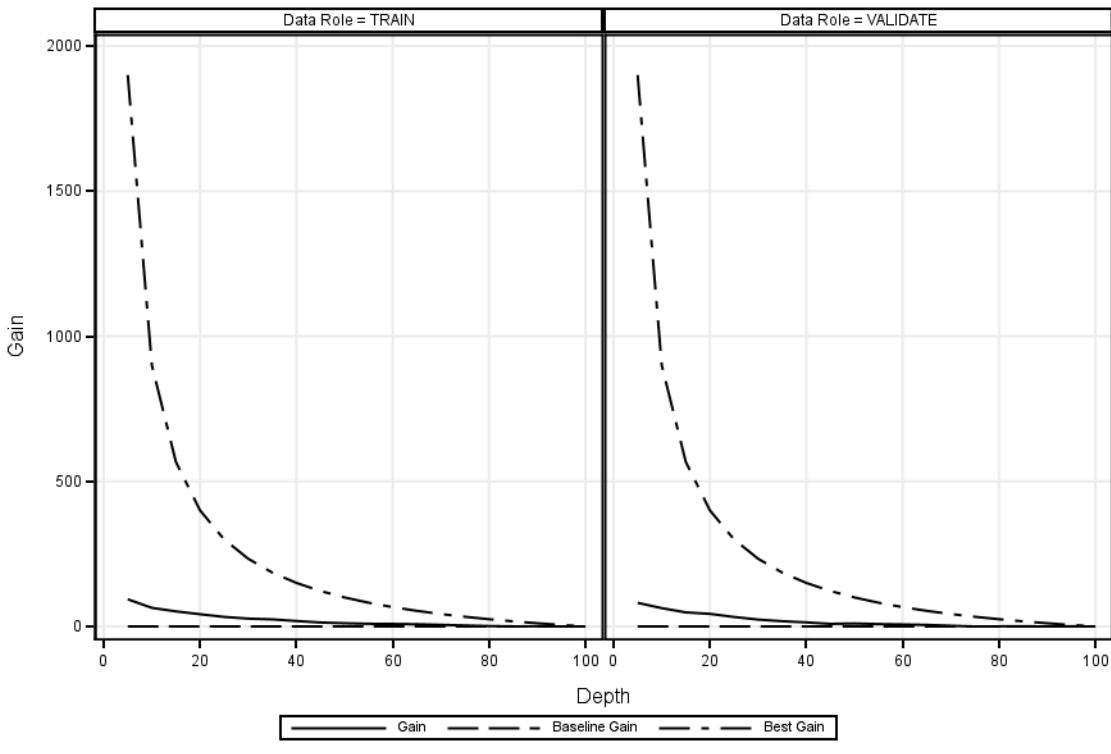
Label of Statistic	Train	Validation	Test
Akaike's Information Criterion	78606.28		
Schwarz's Bayesian Criterion	81472.20		
Average Squared Error	0.09	0.09	0.09
Maximum Absolute Error	0.98	0.98	0.98
Divisor for ASE	240684.00	180507.00	180528.00
Sum of Frequencies	80228.00	60169.00	60176.00
Root Average Squared Error	0.30	0.30	0.30
Sum of Squared Errors	21366.24	16023.55	16029.83
Sum of Case Weights Times Freq	240684.00	180507.00	180528.00
Final Prediction Error	0.09		
Mean Squared Error	0.09	0.09	0.09
Root Final Prediction Error	0.30		
Root Mean Squared Error	0.30	0.30	0.30
Average Error Function	0.32	0.32	0.32
Error Function	78032.28	58517.85	58545.46
Misclassification Rate	0.15	0.15	0.15
Number of Wrong Classifications	12413.00	9309.00	9313.00



### SAS Enterprise Miner Report

Node=NNet 3HUBP

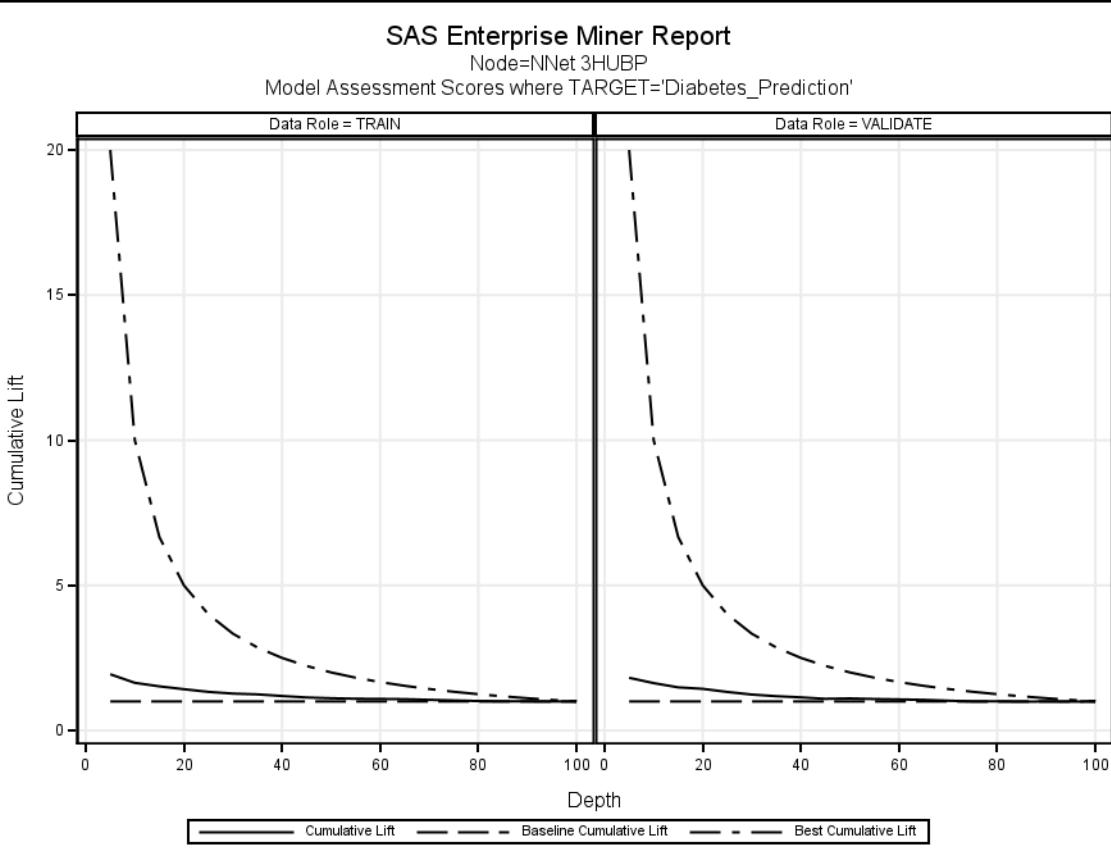
Model Assessment Scores where TARGET='Diabetes\_Prediction'



### SAS Enterprise Miner Report

Node=NNet 3HUBP

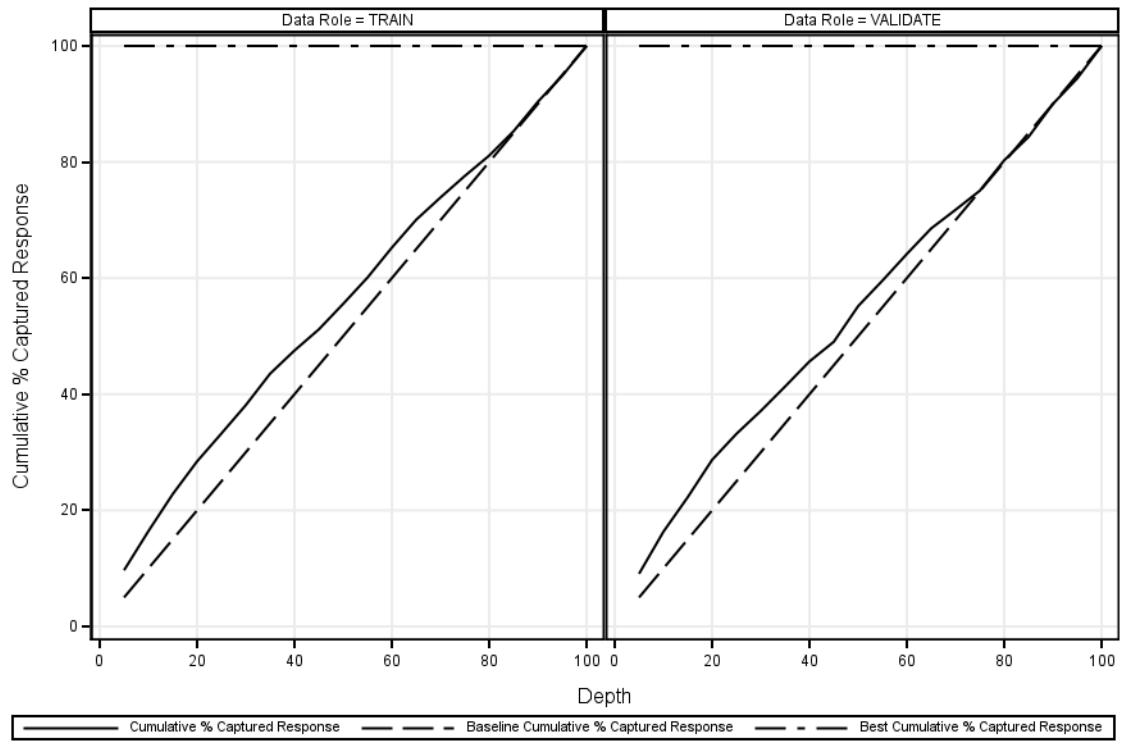
Model Assessment Scores where TARGET='Diabetes\_Prediction'



### SAS Enterprise Miner Report

Node=NNet 3HUBP

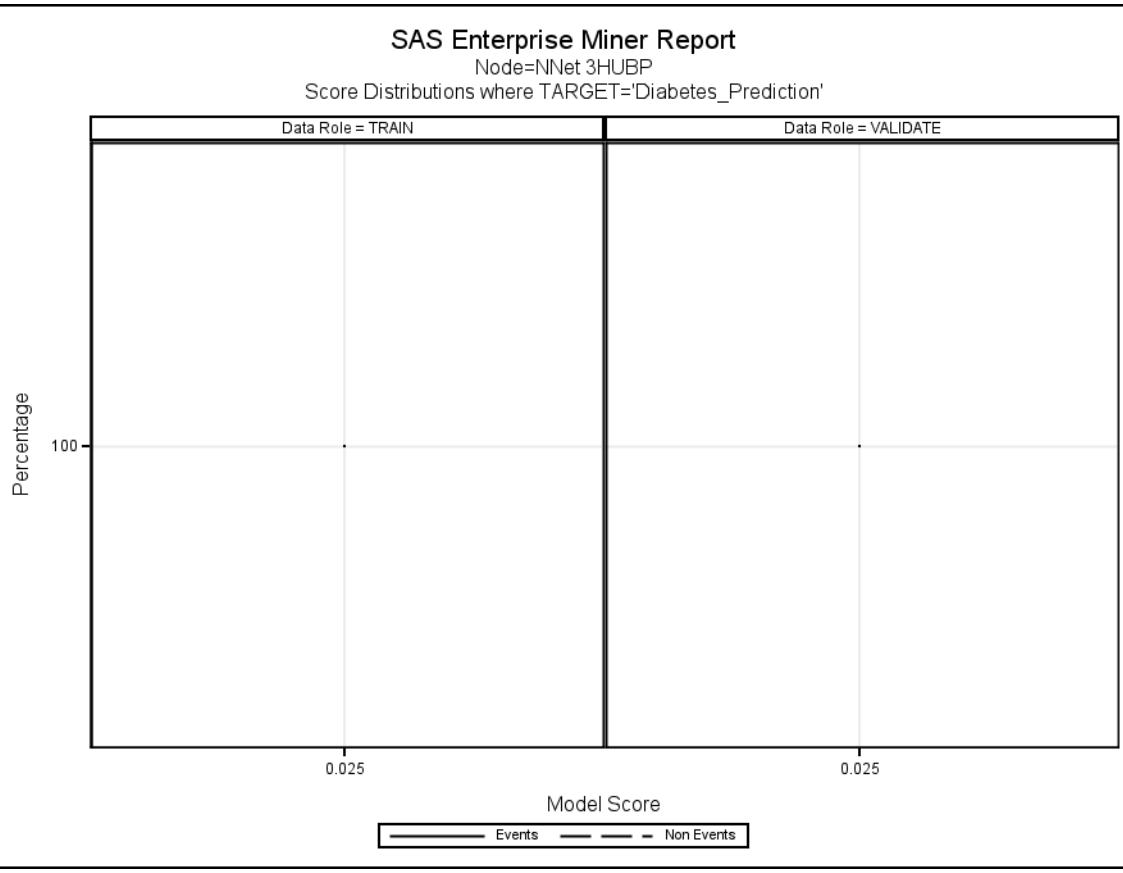
Model Assessment Scores where TARGET='Diabetes\_Prediction'

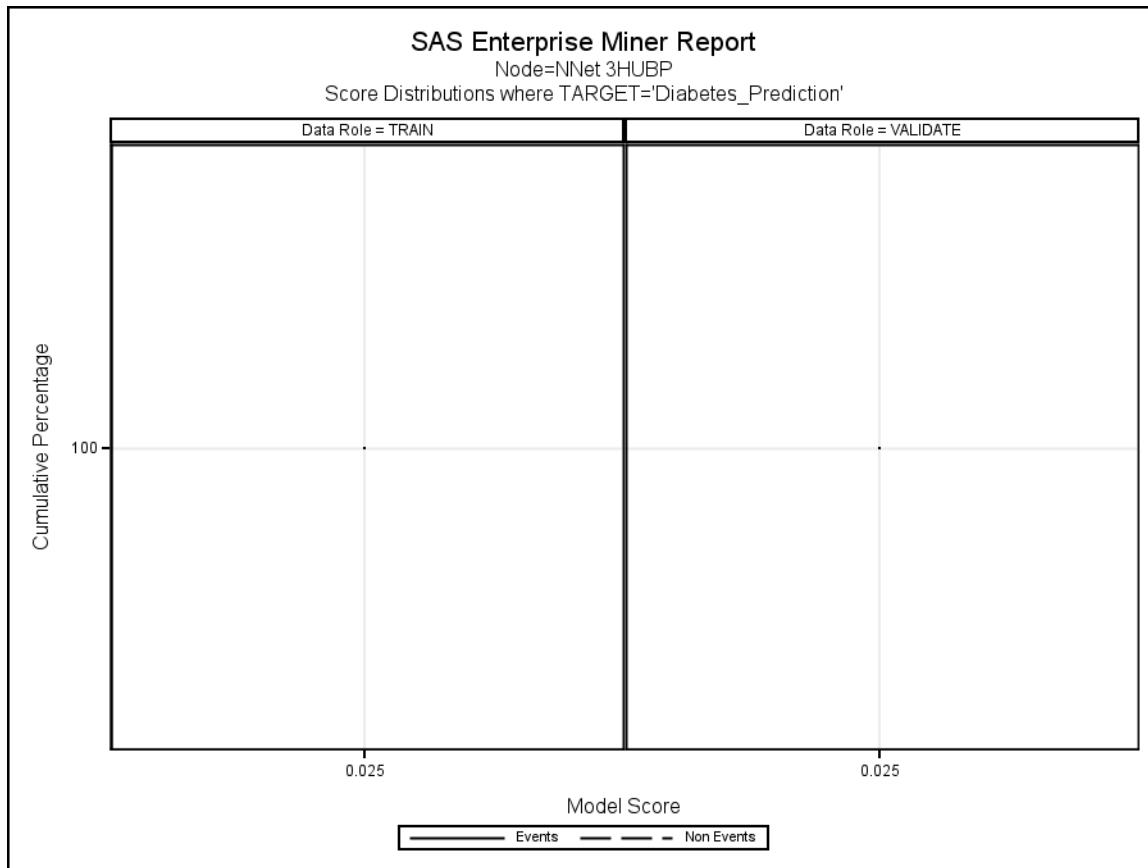


### SAS Enterprise Miner Report

Node=NNet 3HUBP

Score Distributions where TARGET='Diabetes\_Prediction'





#### **Node=NNet 3HUBP**

#### **Score Distributions**

Target Variable=Diabetes\_Prediction Data Role=TRAIN

Posterior Probability Range	Number of Events	Percentage of Events	Cumulative Percentage		
			Percentage of Nonevents	Cumulative Percentage of Events	Cumulative Percentage of Nonevents
0.00-0.05	1456	100	100	100	100

Target Variable=Diabetes\_Prediction Data Role=VALIDATE

Posterior Probability Range	Number of Events	Percentage of Events	Cumulative Percentage		
			Percentage of Nonevents	Cumulative Percentage of Events	Cumulative Percentage of Nonevents
0.00-0.05	1091	100	100	100	100

## SAS Enterprise Miner Report

### Node=NNet 5HUBP Summary

Node id = Neural7  
 Node label = NNet 5HUBP  
 Meta path = lds5 => Part => Neural7  
 Notes =

### Node=NNet 5HUBP Properties

Property	Value	Default	Property	Value	Default	Property	Value	Default
Component	NeuralNetwork		Hidden	5	3	Prelim	N	Y
AbsConvValue	-1.34078E154	-7.237006E75	HiddenActivation	DEFAULT		PrelimMaxTime	1 HOUR	
AbsFTime	1		HiddenBias	Y		PrelimMaxiter	10	
AbsFValue	0		HiddenCombFunction	DEFAULT		PrelimOutest		
AbsGTime	1		HiddenUnits	N		PreliminaryRuns	5	
AbsGValue	1E-5	0.00001	InitialDs			RandDist	NORMAL	
AbsXTime	1		InitialSeed	12345		RandLoc	0	
AbsXValue	1E-8		InputStandardization	STD		RandScale	0.1	
Accelerate	1.2		Learn	0.1		Residuals	Y	
AddHidden	Y		MaxLearn	50		Standardizations	N	
CodefileNoRes			MaxMomentum	1.75		SuppressOutput	N	
CodefileRes			Maxiter	50		TargetActivation	DEFAULT	
ConvDefaults	Y		Maxtime	4 HOURS		TargetBias	Y	
Decelerate	0.5		MinLearn	1E-5	0.00001	TargetCombFunction	DEFAULT	
DirectConnection	N		ModelSelectionCriterion	PROFIT/LOSS		TargetError	DEFAULT	
FConvTime	1		Momentum	0		Tilt	0	
FConvValue	0		NetworkArchitecture	MLP		TrainCode		
GConvTime	1		Outest			TrainingTechnique	BPROP	DEFAULT
GConvValue	1E-6		Outfit			UseEstimates	N	

### Node=NNet 5HUBP Variable Summary

Role	Level	Frequency		Name
		Count	Name	
TARGET	NOMINAL	1	Diabetes_Prediction	
INPUT	BINARY	14	AnyHealthcare CholCheck DiffWalk Fruits HeartDiseaseorAttack HighBP HighChol HwyAlcoholConsump NoDocbcCost PhysActivity Sex Smoker Stroke Veggies	
INPUT	INTERVAL	2	Age BMI	
INPUT	ORDINAL	5	Education GenHlth Income MentHlth PhysHlth	

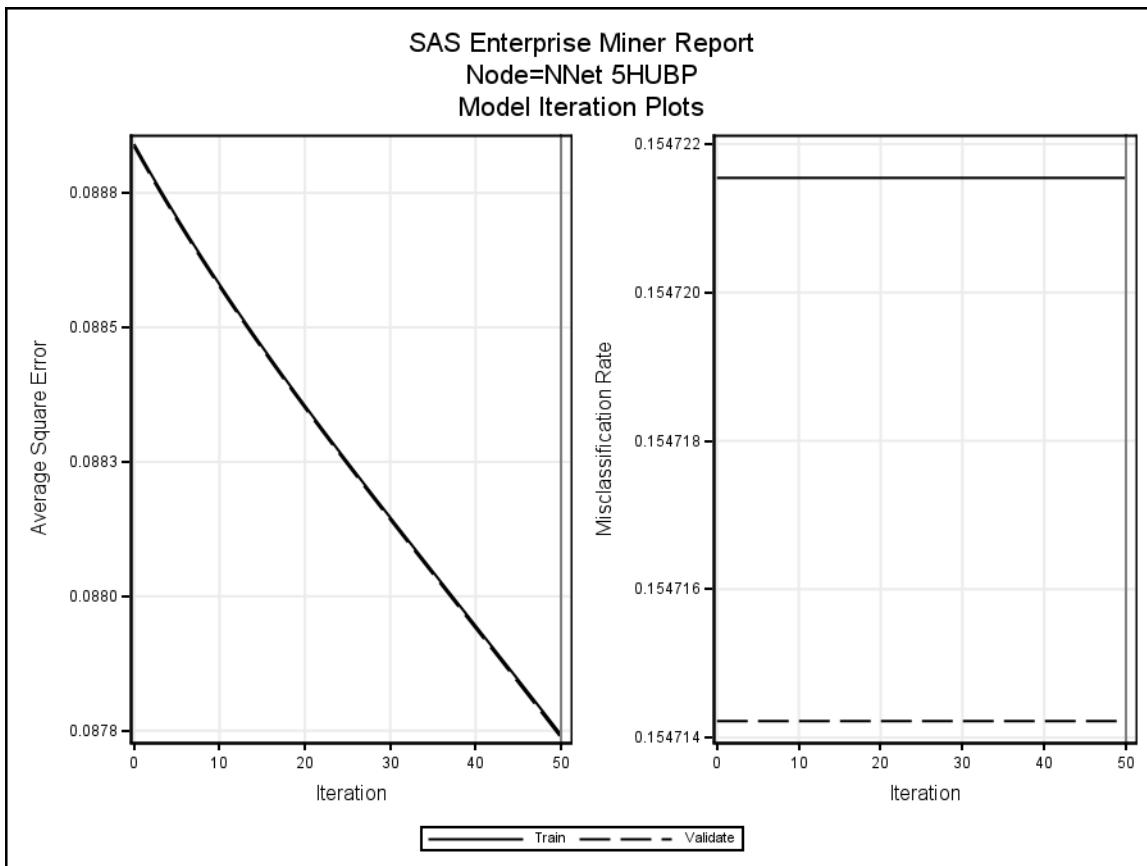
### Node=NNet 5HUBP Model Fit Statistics

Target=Diabetes\_Prediction Target Label=Diabetes Prediction

Label of Statistic	Train	Validation	Test
Total Degrees of Freedom	160456.00	.	.
Degrees of Freedom for Error	159979.00	.	.
Model Degrees of Freedom	477.00	.	.
Number of Estimated Weights	477.00	.	.

Target=Diabetes\_Prediction Target Label=Diabetes Prediction

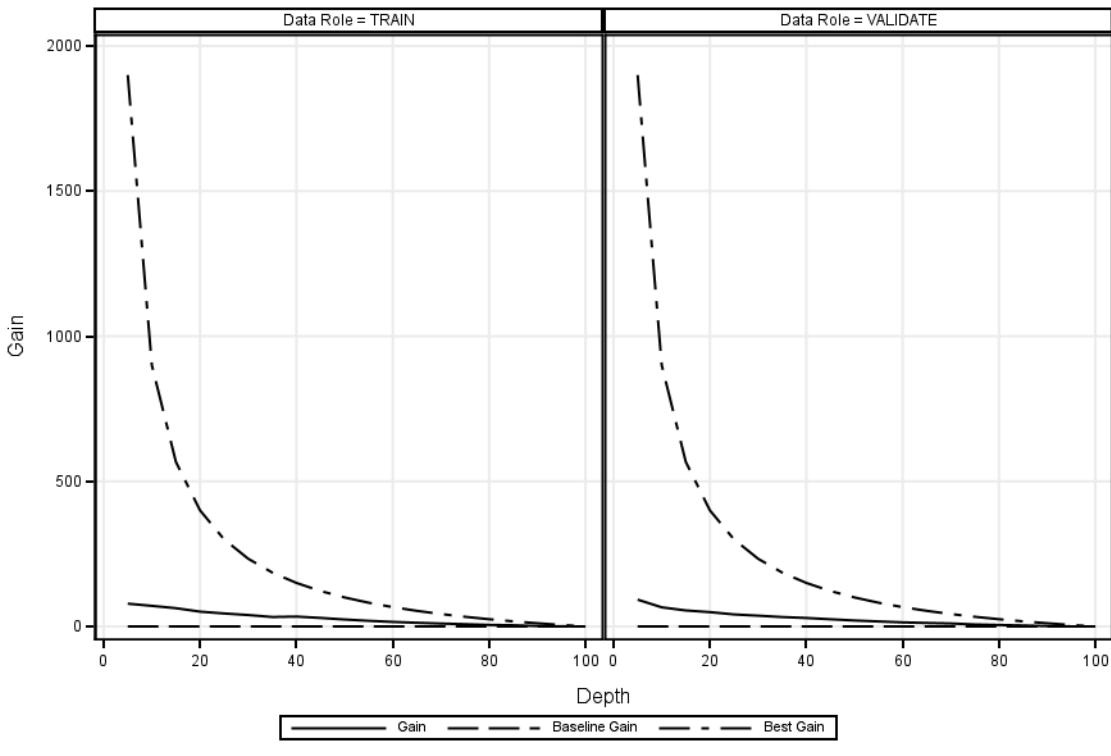
Label of Statistic	Train	Validation	Test
Akaike's Information Criterion	77961.29		
Schwarz's Bayesian Criterion	82724.50		
Average Squared Error	0.09	0.09	0.09
Maximum Absolute Error	0.99	0.99	0.99
Divisor for ASE	240684.00	180507.00	180528.00
Sum of Frequencies	80228.00	60169.00	60176.00
Root Average Squared Error	0.30	0.30	0.30
Sum of Squared Errors	21118.18	15837.17	15838.81
Sum of Case Weights Times Freq	240684.00	180507.00	180528.00
Final Prediction Error	0.09		
Mean Squared Error	0.09	0.09	0.09
Root Final Prediction Error	0.30		
Root Mean Squared Error	0.30	0.30	0.30
Average Error Function	0.32	0.32	0.32
Error Function	77007.29	57749.00	57761.66
Misclassification Rate	0.15	0.15	0.15
Number of Wrong Classifications	12413.00	9309.00	9313.00



### SAS Enterprise Miner Report

Node=NNet 5HUBP

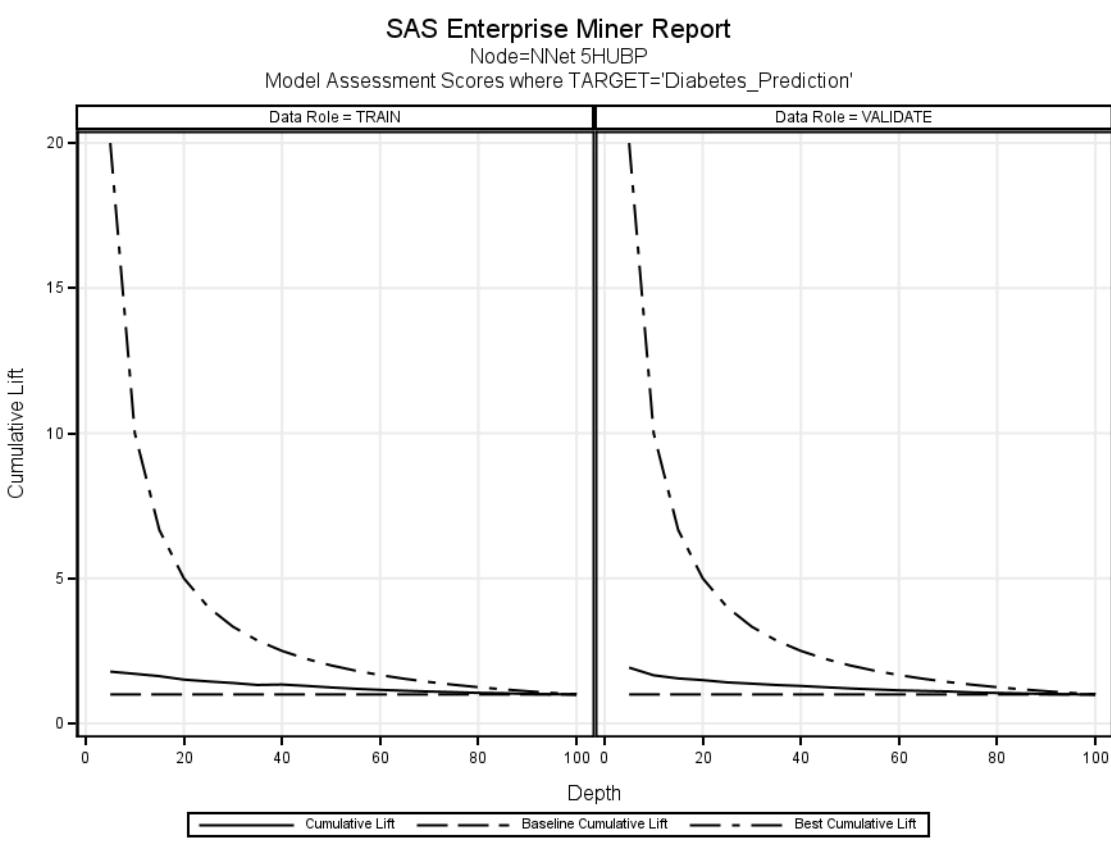
Model Assessment Scores where TARGET='Diabetes\_Prediction'



### SAS Enterprise Miner Report

Node=NNet 5HUBP

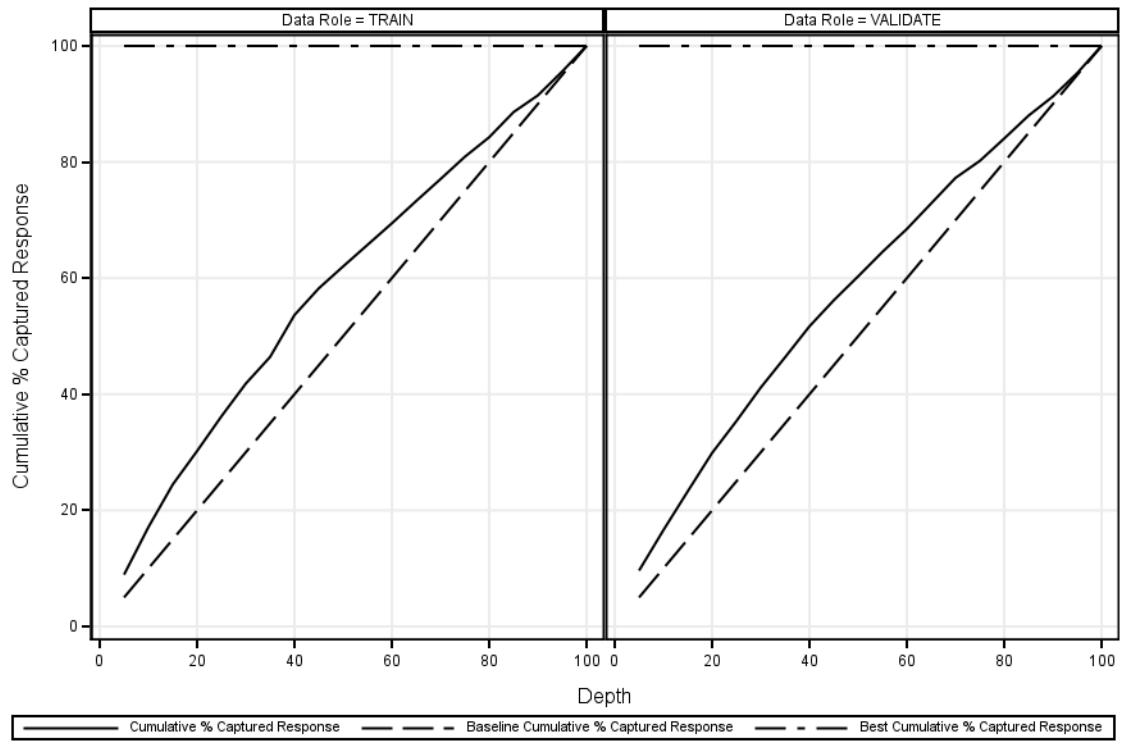
Model Assessment Scores where TARGET='Diabetes\_Prediction'



### SAS Enterprise Miner Report

Node=NNet 5HUBP

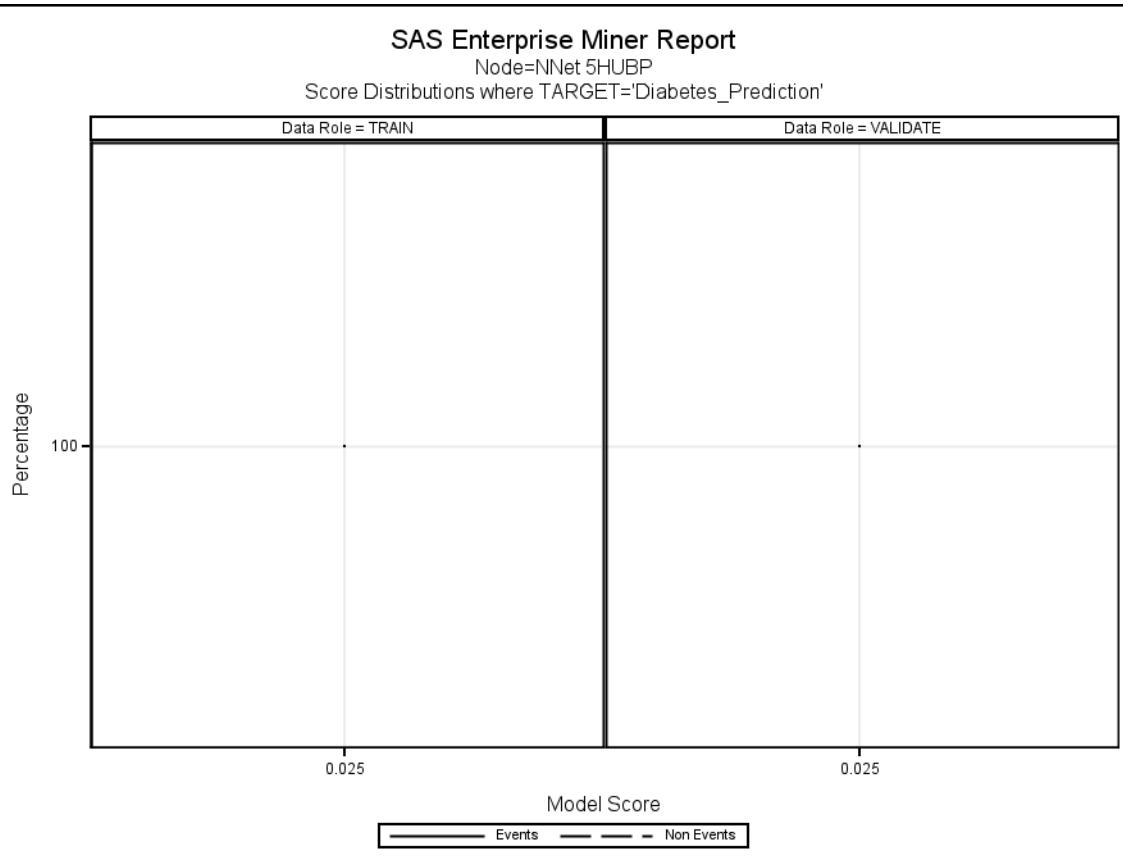
Model Assessment Scores where TARGET='Diabetes\_Prediction'

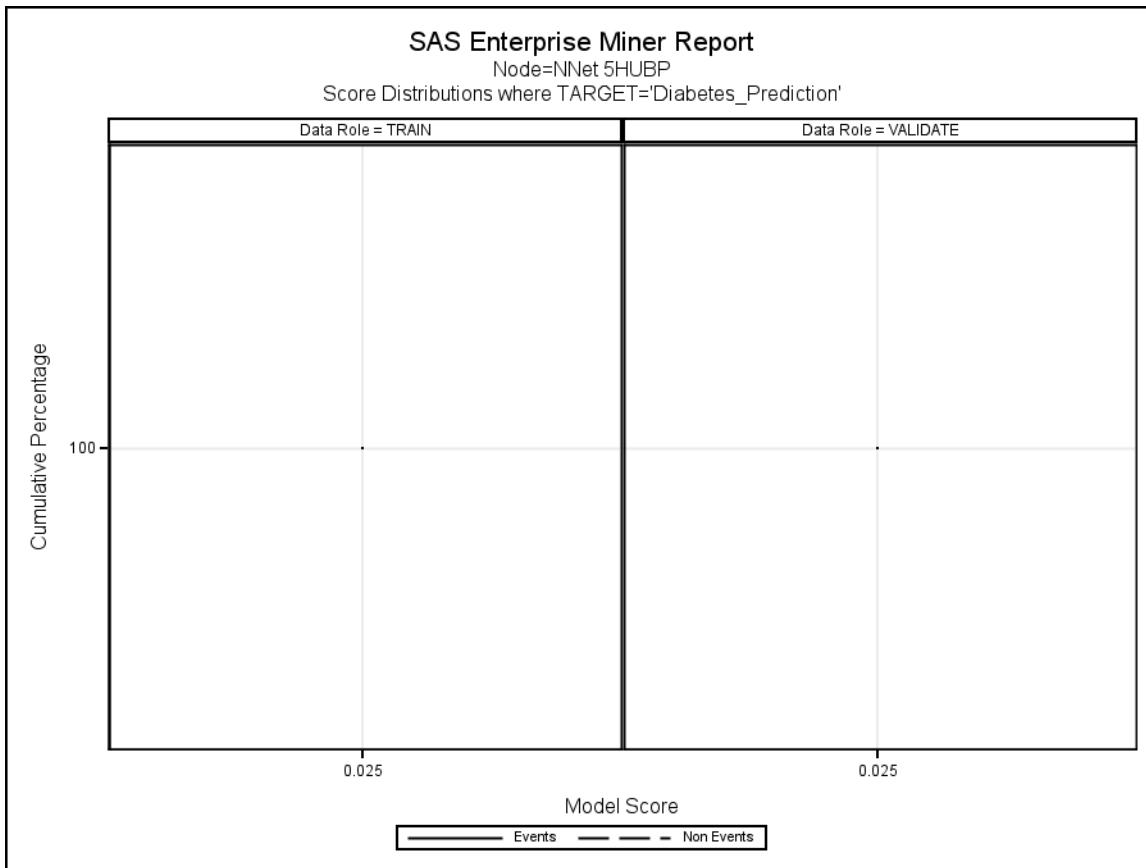


### SAS Enterprise Miner Report

Node=NNet 5HUBP

Score Distributions where TARGET='Diabetes\_Prediction'





#### **Node=NNet 5HUBP**

#### **Score Distributions**

Target Variable=Diabetes\_Prediction Data Role=TRAIN

Posterior Probability Range	Number of Events	Percentage of Events	Cumulative Percentage		
			Percentage of Nonevents	Cumulative Percentage of Events	Cumulative Percentage of Nonevents
0.00-0.05	1456	100	100	100	100

Target Variable=Diabetes\_Prediction Data Role=VALIDATE

Posterior Probability Range	Number of Events	Percentage of Events	Cumulative Percentage		
			Percentage of Nonevents	Cumulative Percentage of Events	Cumulative Percentage of Nonevents
0.00-0.05	1091	100	100	100	100

## SAS Enterprise Miner Report

### Node=ClassDec Tree B3D6 Summary

Node id = Tree4  
 Node label = ClassDec Tree B3D6  
 Meta path = lds5 => Part => Tree4  
 Notes =

### Node=ClassDec Tree B3D6 Properties

Property	Value	Default	Property	Value	Default	Property	Value	Default
Component	DecisionTree		Kass	Y		Pred	N	
AVG	Y		KassApply	BEFORE		Predict	Y	
AssessMeasure	PROFIT/LOSS		LeafSize	5		ProfitLoss	NONE	
AssessPercentage	0.25		Leafid	Y		RASE	N	
CV	N		Maxbranch	3	2	SampleMethod	RANDOM	
CVNIter	10		Maxdepth	6		SampleSeed	12345	
CVRepeat	1		MinCatSize	5		SampleSize	10000	
CVSeed	12345		MissingValue	USEINSEARCH		ShowNodeld	Y	
ClassColorBy	PERCENTCORRECT		NSubtree	1		ShowValid	Y	
Count	Y		NodeRole	SEGMENT		SigLevel	0.2	
CreateSample	DEFAULT		NodeSample	20000		SplitPrecision	4	
Criterion	DEFAULT		NominalCriterion	PROBCHISQ		Splitsize	.	
Depth	Y		Nrules	5		Subtree	ASSESSMENT	
Dummy	N		Nsurrs	0		Target	ALL	
Exhaustive	5000		NumInputs	1		ToolType	MODEL	
Freeze	N		NumSingleImp	5		TrainMode	BATCH	
ImportModel	N		ObsImportance	N		UseDecision	N	
ImportedTreeData			OrdinalCriterion	ENTROPY		UseMultipleTarget	N	
Inputs	N		PercentCorrect	N		UsePriors	N	
IntColorBy	AVG		Performance	DISK		UseVarOnce	N	
IntervalCriterion	PROBF		Precision	4		VarSelection	Y	

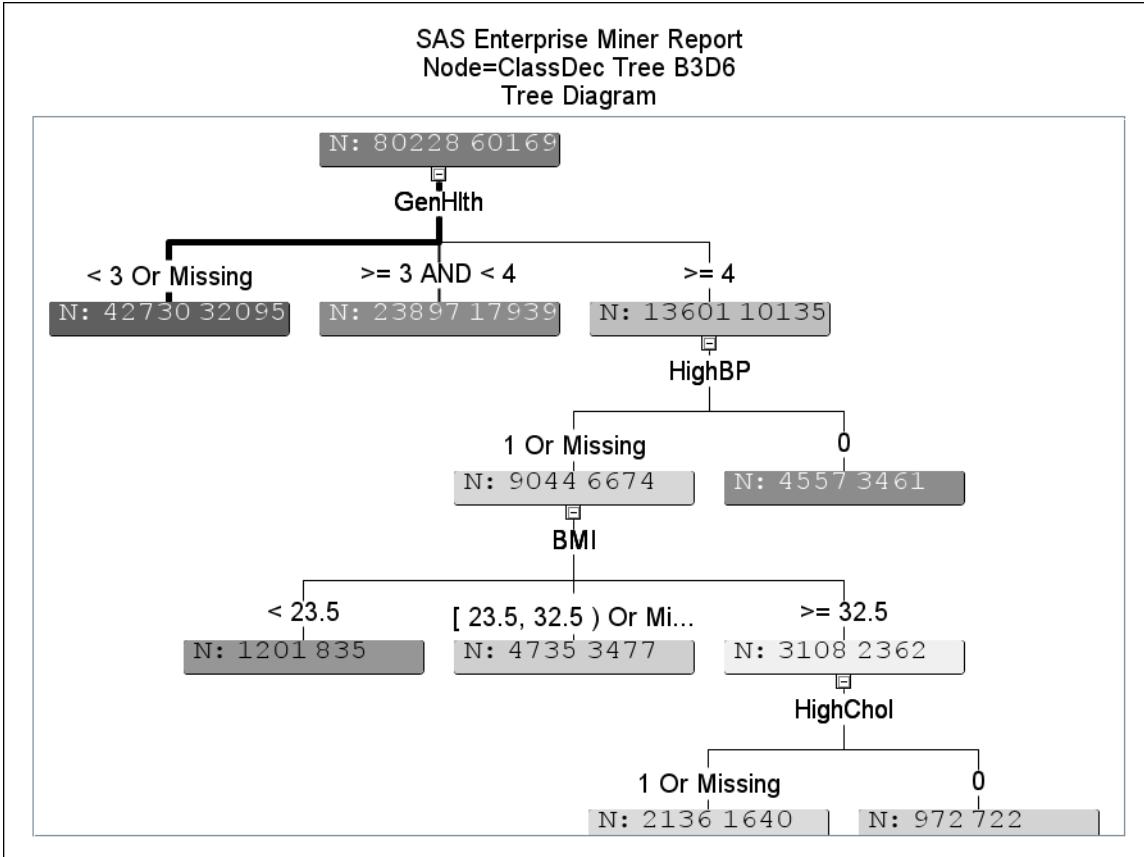
### Node=ClassDec Tree B3D6 Variable Summary

Role	Level	Frequency	
		Count	Name
TARGET	NOMINAL	1	Diabetes_Prediction
INPUT	BINARY	14	AnyHealthcare CholCheck DiffWalk Fruits HeartDiseaseorAttack HighBP HighChol HvyAlcoholConsump NoDocbcCost PhysActivity Sex Smoker Stroke Veggies
INPUT	INTERVAL	2	Age BMI
INPUT	ORDINAL	5	Education GenHlth Income MentHlth PhysHlth
ID	INTERVAL	1	_dataobs_

### Node=ClassDec Tree B3D6 Model Fit Statistics

Target=Diabetes\_Prediction Target Label=Diabetes Prediction

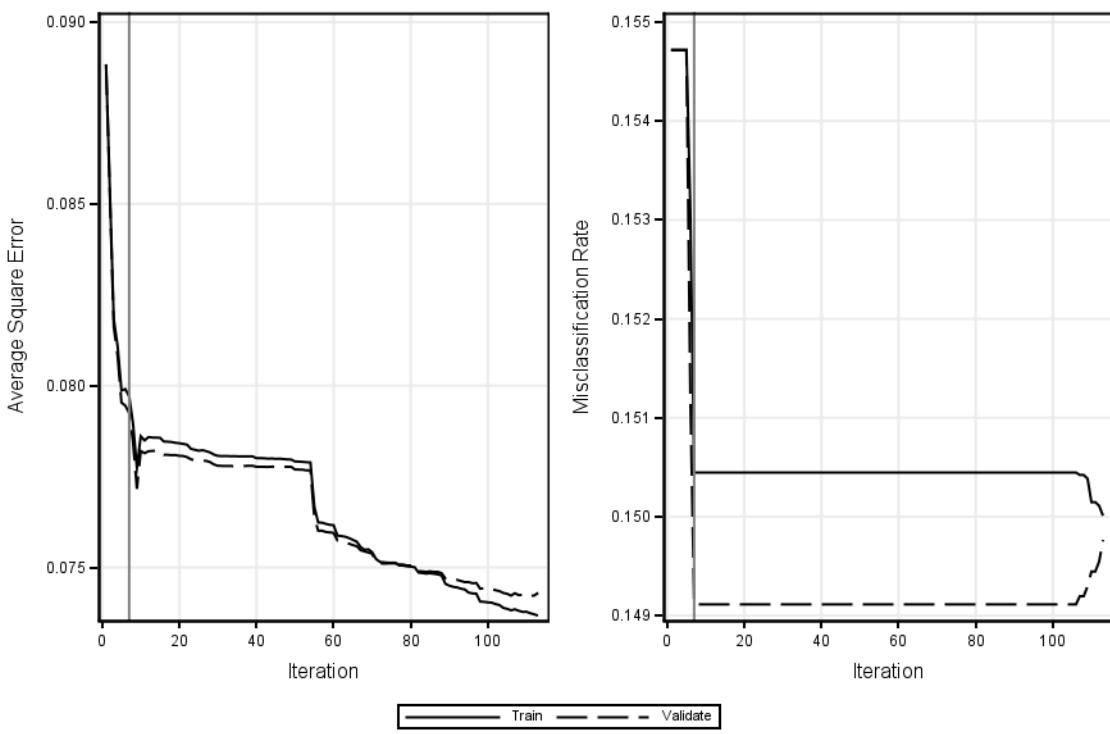
Label of Statistic	Train	Validation	Test
Sum of Frequencies	80228.00	60169.00	60176.00
Misclassification Rate	0.15	0.15	0.15
Maximum Absolute Error	0.99	0.99	0.99
Sum of Squared Errors	19183.43	14304.81	14384.08
Average Squared Error	0.08	0.08	0.08
Root Average Squared Error	0.28	0.28	0.28
Divisor for ASE	240684.00	180507.00	180528.00
Total Degrees of Freedom	160456.00	.	.



SAS Enterprise Miner Report  
Node=ClassDec Tree B3D6  
Treemap



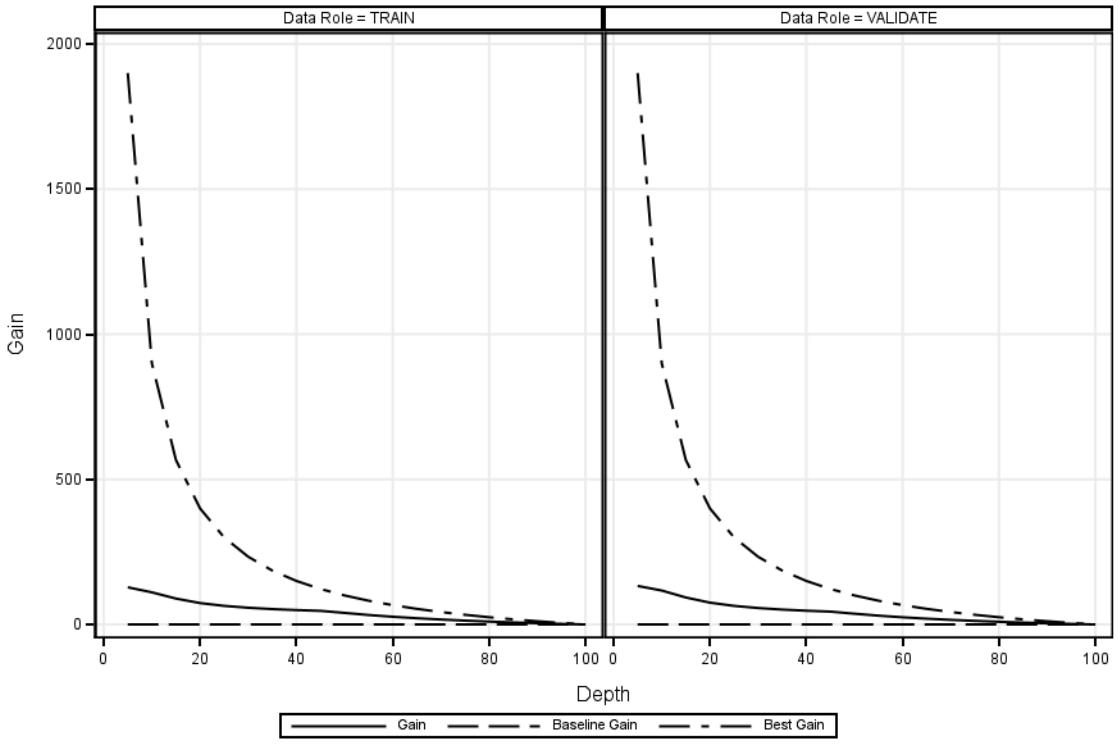
SAS Enterprise Miner Report  
Node=ClassDec Tree B3D6  
Model Iteration Plots



### SAS Enterprise Miner Report

Node=ClassDec Tree B3D6

Model Assessment Scores where TARGET='Diabetes\_Prediction'



### SAS Enterprise Miner Report

Node=ClassDec Tree B3D6

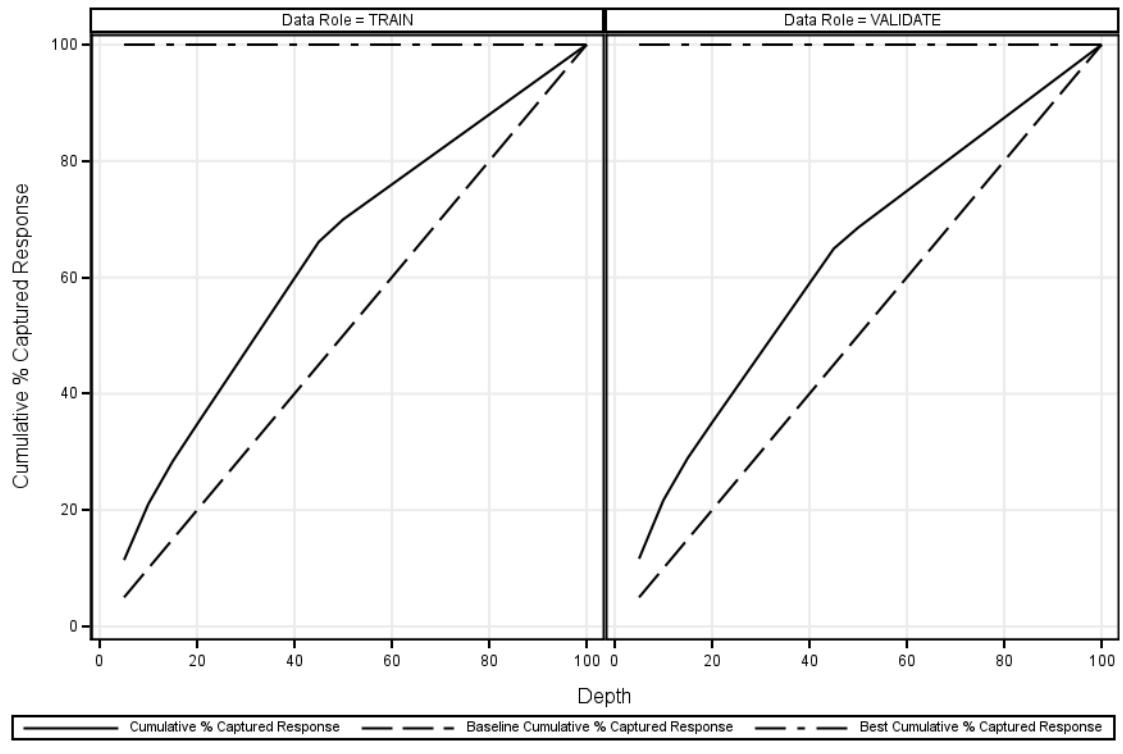
Model Assessment Scores where TARGET='Diabetes\_Prediction'



### SAS Enterprise Miner Report

Node=ClassDec Tree B3D6

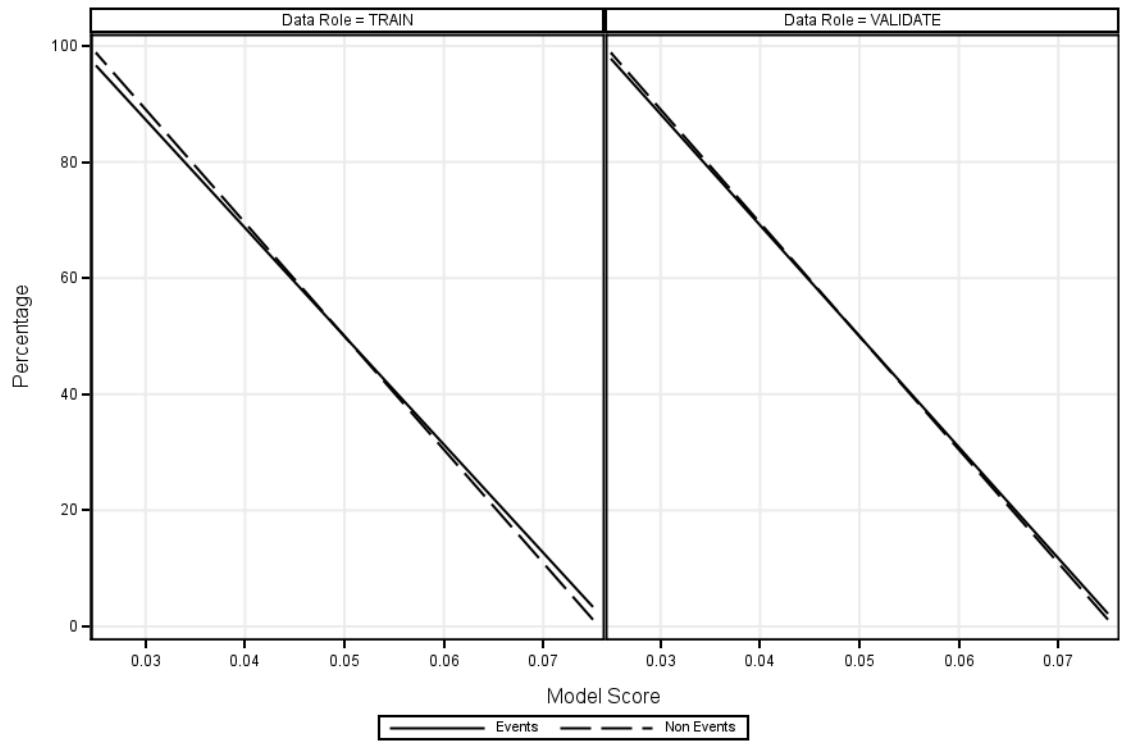
Model Assessment Scores where TARGET='Diabetes\_Prediction'

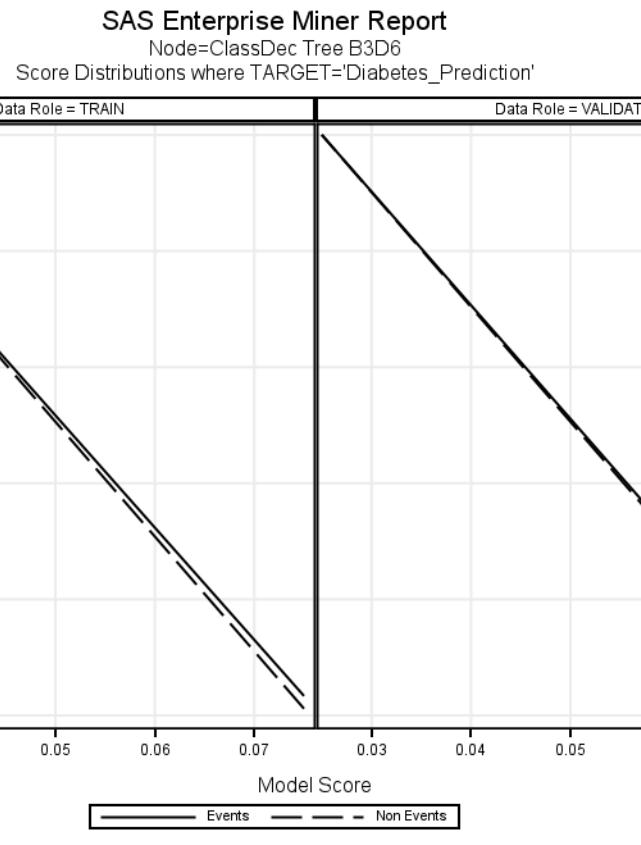


### SAS Enterprise Miner Report

Node=ClassDec Tree B3D6

Score Distributions where TARGET='Diabetes\_Prediction'





### Node=ClassDec Tree B3D6

#### Score Distributions

Target Variable=Diabetes\_Prediction Data Role=TRAIN

Posterior Probability Range	Number of Events	Percentage of Events	Cumulative Percentage		
			Percentage of Nonevents	Cumulative Percentage of Events	Cumulative Percentage of Nonevents
0.05-0.10	49	3.3654	1.1717	3.365	1.172
0.00-0.05	1407	96.6346	98.8283	100.000	100.000

Target Variable=Diabetes\_Prediction Data Role=VALIDATE

Posterior Probability Range	Number of Events	Percentage of Events	Cumulative Percentage		
			Percentage of Nonevents	Cumulative Percentage of Events	Cumulative Percentage of Nonevents
0.05-0.10	24	2.1998	1.1815	2.200	1.181
0.00-0.05	1067	97.8002	98.8185	100.000	100.000

## SAS Enterprise Miner Report

### Node=ClassDec Tree B2D2 Summary

Node id = Tree3  
 Node label = ClassDec Tree B2D2  
 Meta path = lds5 => Part => Tree3  
 Notes =

### Node=ClassDec Tree B2D2 Properties

Property	Value	Default	Property	Value	Default	Property	Value	Default
Component	DecisionTree		Kass	Y		Pred	N	
AVG	Y		KassApply	BEFORE		Predict	Y	
AssessMeasure	PROFIT/LOSS		LeafSize	5		ProfitLoss	NONE	
AssessPercentage	0.25		Leafid	Y		RASE	N	
CV	N		Maxbranch	2		SampleMethod	RANDOM	
CVNIter	10		Maxdepth	2	6	SampleSeed	12345	
CVRepeat	1		MinCatSize	5		SampleSize	10000	
CVSeed	12345		MissingValue	USEINSEARCH		ShowNodeld	Y	
ClassColorBy	PERCENTCORRECT		NSubtree	1		ShowValid	Y	
Count	Y		NodeRole	SEGMENT		SigLevel	0.2	
CreateSample	DEFAULT		NodeSample	20000		SplitPrecision	4	
Criterion	DEFAULT		NominalCriterion	PROBCHISQ		Splitsize	.	
Depth	Y		Nrules	5		Subtree	ASSESSMENT	
Dummy	N		Nsurrs	0		Target	ALL	
Exhaustive	5000		NumInputs	1		ToolType	MODEL	
Freeze	N		NumSingleImp	5		TrainMode	BATCH	
ImportModel	N		ObsImportance	N		UseDecision	N	
ImportedTreeData			OrdinalCriterion	ENTROPY		UseMultipleTarget	N	
Inputs	N		PercentCorrect	N		UsePriors	N	
InitColorBy	AVG		Performance	DISK		UseVarOnce	N	
IntervalCriterion	PROBF		Precision	4		VarSelection	Y	

### Node=ClassDec Tree B2D2 Variable Summary

Role	Level	Frequency	
		Count	Name
TARGET	NOMINAL	1	Diabetes_Prediction
INPUT	BINARY	14	AnyHealthcare CholCheck DiffWalk Fruits HeartDiseaseorAttack HighBP HighChol HvyAlcoholConsump NoDocbcCost PhysActivity Sex Smoker Stroke Veggies
INPUT	INTERVAL	2	Age BMI
INPUT	ORDINAL	5	Education GenHlth Income MentHlth PhysHlth
ID	INTERVAL	1	_dataobs_

### Node=ClassDec Tree B2D2 Model Fit Statistics

Target=Diabetes\_Prediction Target Label=Diabetes Prediction

Label of Statistic	Train	Validation	Test
Sum of Frequencies	80228.00	60169.00	60176.00
Misclassification Rate	0.15	0.15	0.15
Maximum Absolute Error	0.98	0.98	0.98
Sum of Squared Errors	21382.58	16035.55	16042.23
Average Squared Error	0.09	0.09	0.09
Root Average Squared Error	0.30	0.30	0.30
Divisor for ASE	240684.00	180507.00	180528.00
Total Degrees of Freedom	160456.00		

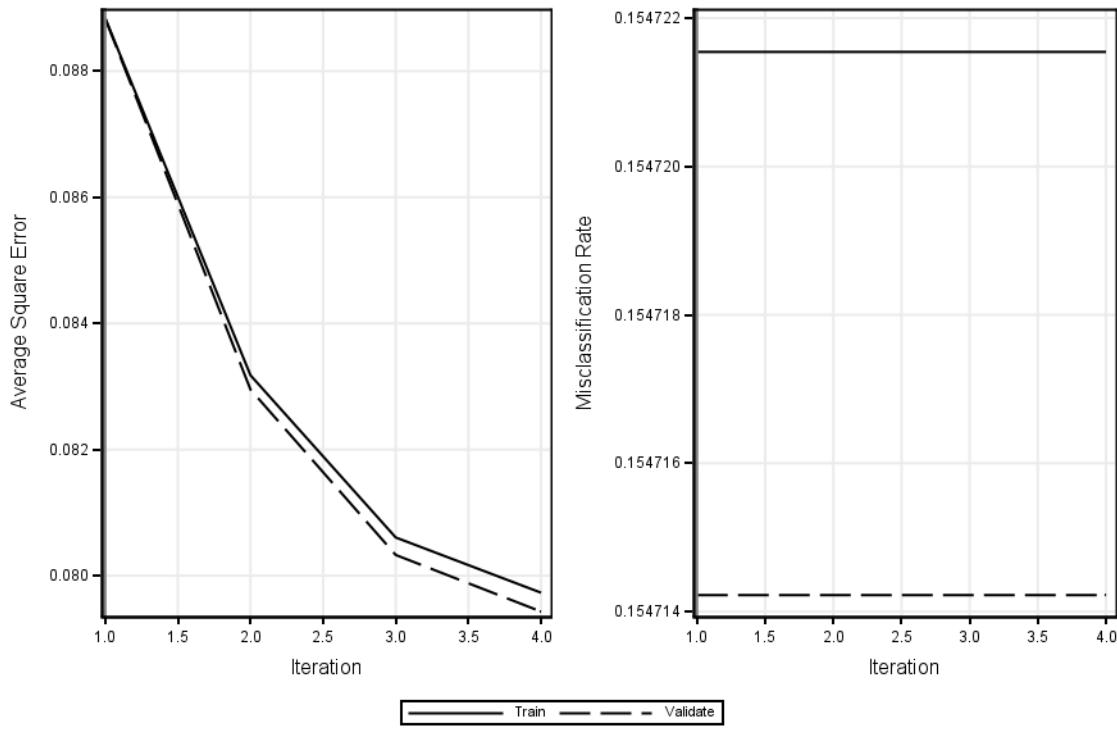
SAS Enterprise Miner Report  
Node=ClassDec Tree B2D2  
Tree Diagram

N: 80228 60169

SAS Enterprise Miner Report  
Node=ClassDec Tree B2D2  
Treemap



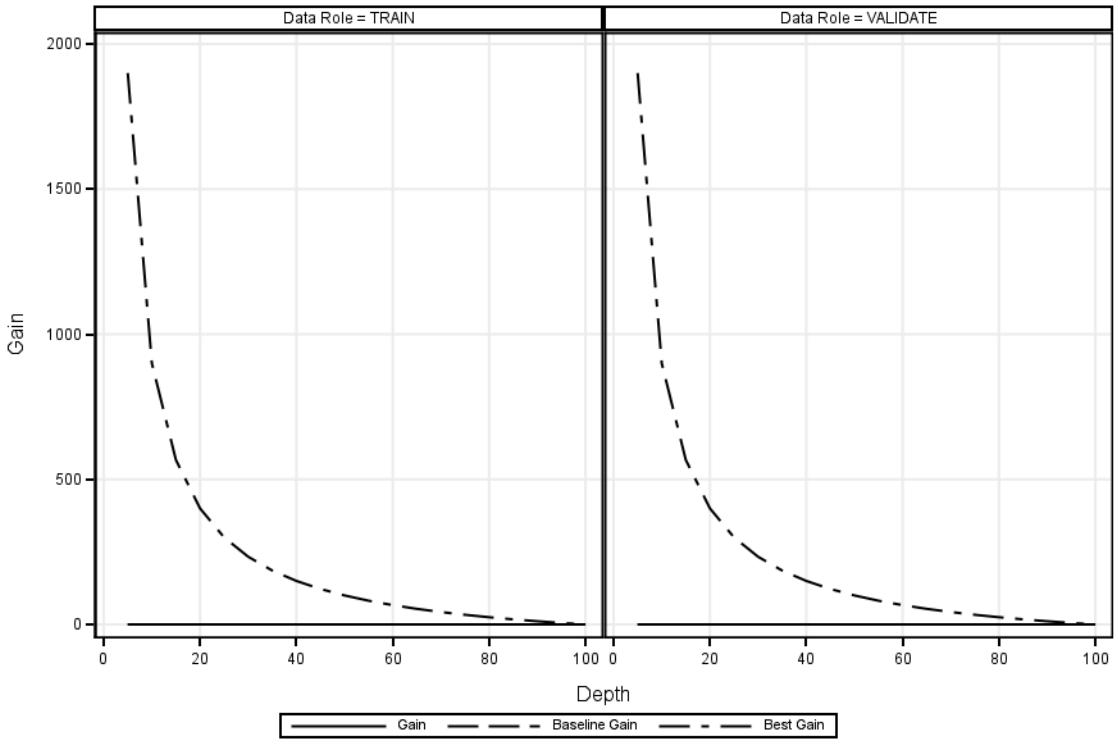
SAS Enterprise Miner Report  
Node=ClassDec Tree B2D2  
Model Iteration Plots



### SAS Enterprise Miner Report

Node=ClassDec Tree B2D2

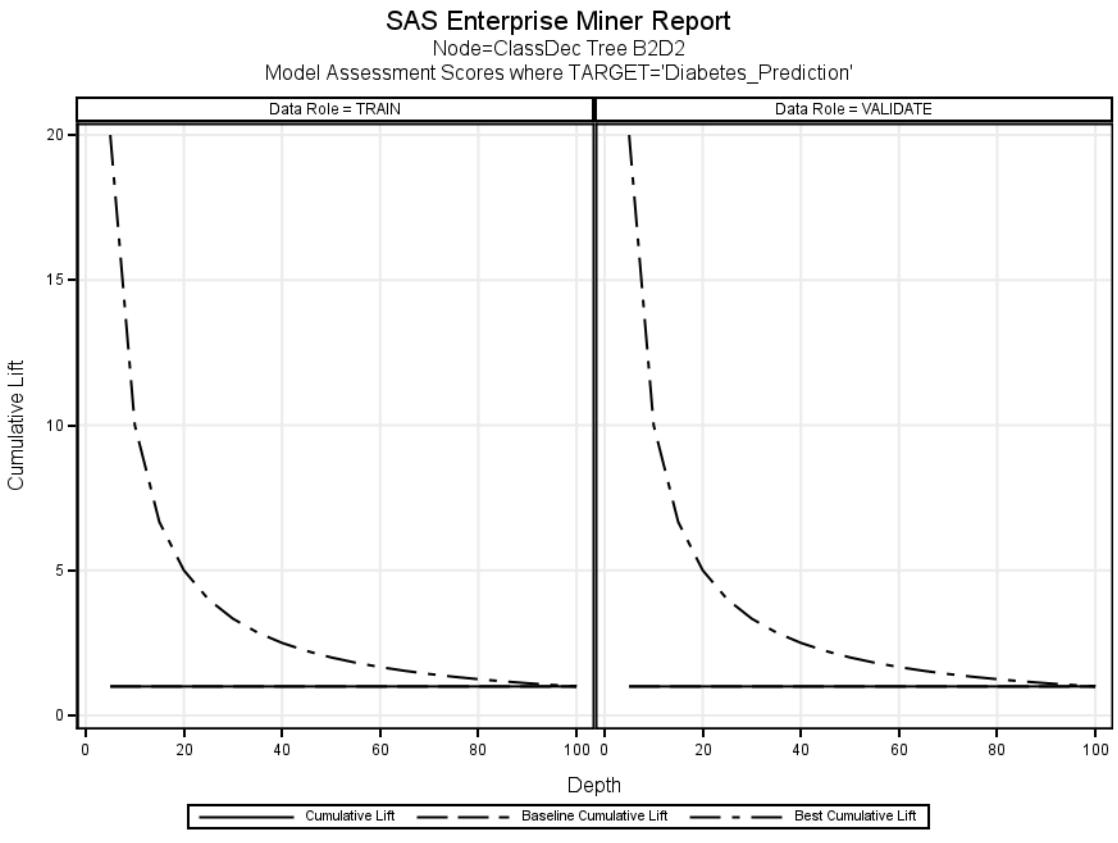
Model Assessment Scores where TARGET='Diabetes\_Prediction'



### SAS Enterprise Miner Report

Node=ClassDec Tree B2D2

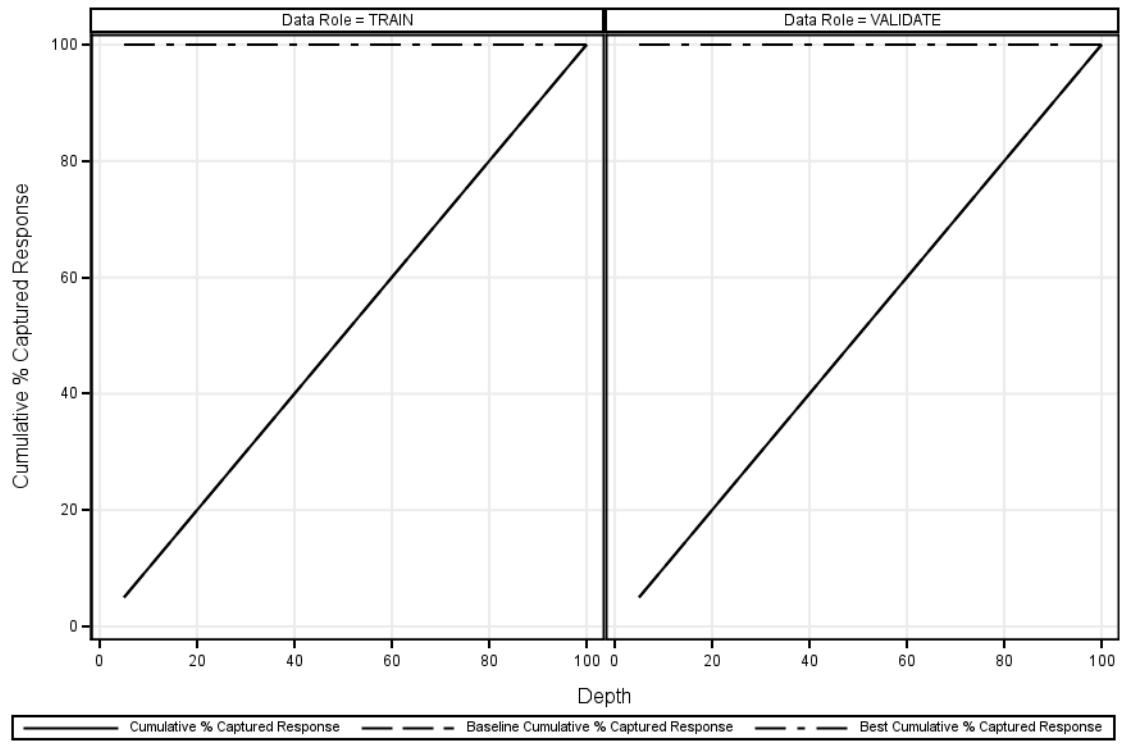
Model Assessment Scores where TARGET='Diabetes\_Prediction'



### SAS Enterprise Miner Report

Node=ClassDec Tree B2D2

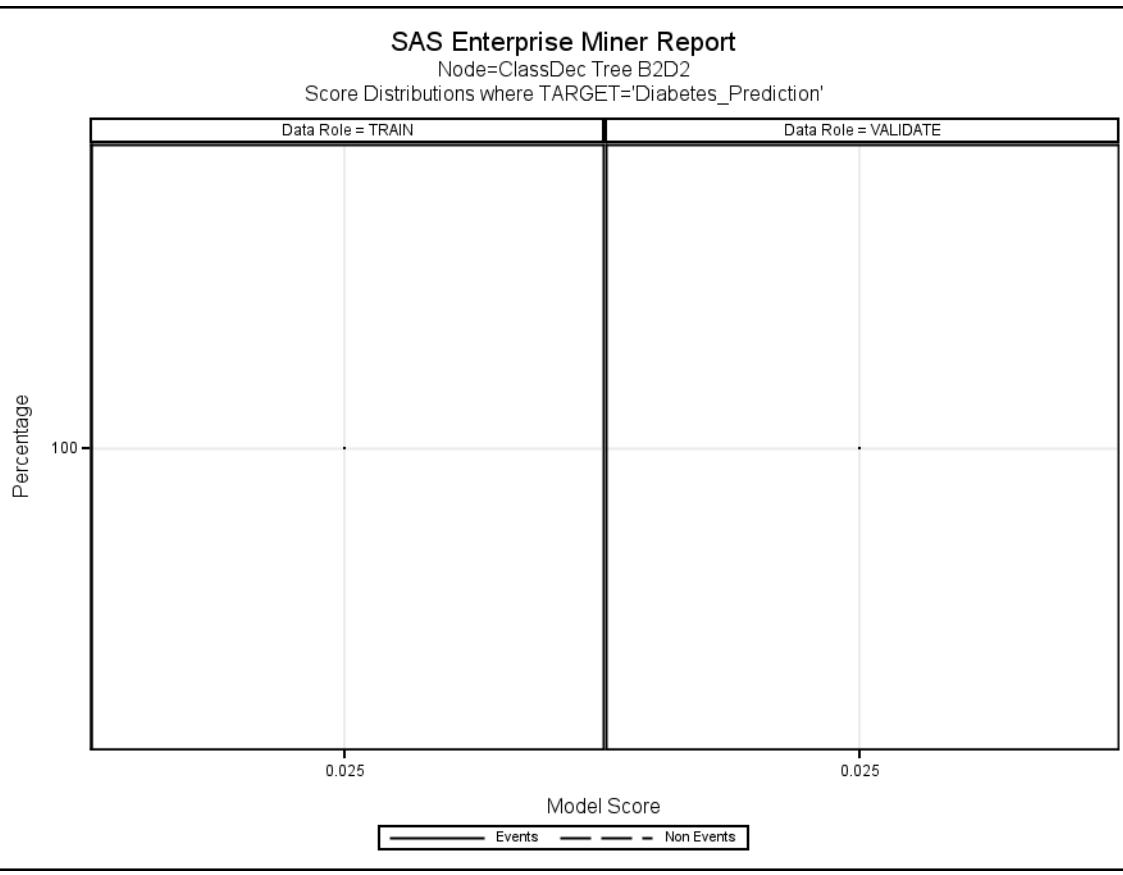
Model Assessment Scores where TARGET='Diabetes\_Prediction'

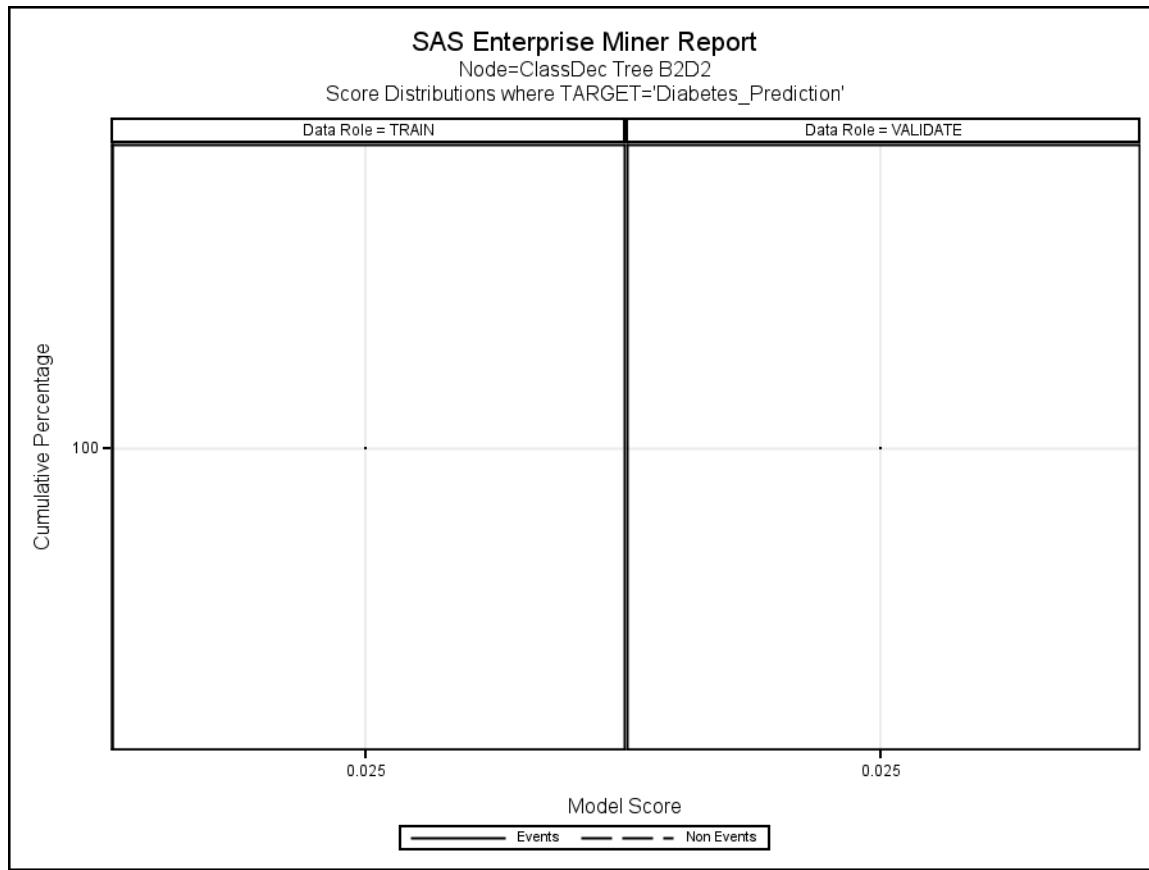


### SAS Enterprise Miner Report

Node=ClassDec Tree B2D2

Score Distributions where TARGET='Diabetes\_Prediction'





### **Node=ClassDec Tree B2D2**

#### **Score Distributions**

Target Variable=Diabetes\_Prediction Data Role=TRAIN

Posterior Probability Range	Number of Events	Percentage of Events	Cumulative Percentage		
			Percentage of Nonevents	Cumulative Percentage of Events	Cumulative Percentage of Nonevents
0.00-0.05	1456	100	100	100	100

Target Variable=Diabetes\_Prediction Data Role=VALIDATE

Posterior Probability Range	Number of Events	Percentage of Events	Cumulative Percentage		
			Percentage of Nonevents	Cumulative Percentage of Events	Cumulative Percentage of Nonevents
0.00-0.05	1091	100	100	100	100

## SAS Enterprise Miner Report

### Node=ClassDec Tree B2D4 Summary

Node id = Tree2  
 Node label = ClassDec Tree B2D4  
 Meta path = lds5 => Part => Tree2  
 Notes =

### Node=ClassDec Tree B2D4 Properties

Property	Value	Default	Property	Value	Default	Property	Value	Default
Component	DecisionTree		Kass	Y		Pred	N	
AVG	Y		KassApply	BEFORE		Predict	Y	
AssessMeasure	PROFIT/LOSS		LeafSize	5		ProfitLoss	NONE	
AssessPercentage	0.25		Leafid	Y		RASE	N	
CV	N		Maxbranch	2		SampleMethod	RANDOM	
CVNIter	10		Maxdepth	4	6	SampleSeed	12345	
CVRepeat	1		MinCatSize	5		SampleSize	10000	
CVSeed	12345		MissingValue	USEINSEARCH		ShowNodeld	Y	
ClassColorBy	PERCENTCORRECT		NSubtree	1		ShowValid	Y	
Count	Y		NodeRole	SEGMENT		SigLevel	0.2	
CreateSample	DEFAULT		NodeSample	20000		SplitPrecision	4	
Criterion	DEFAULT		NominalCriterion	PROBCHISQ		Splitsize	.	
Depth	Y		Nrules	5		Subtree	ASSESSMENT	
Dummy	N		Nsurrs	0		Target	ALL	
Exhaustive	5000		NumInputs	1		ToolType	MODEL	
Freeze	N		NumSingleImp	5		TrainMode	BATCH	
ImportModel	N		ObsImportance	N		UseDecision	N	
ImportedTreeData			OrdinalCriterion	ENTROPY		UseMultipleTarget	N	
Inputs	N		PercentCorrect	N		UsePriors	N	
InitColorBy	AVG		Performance	DISK		UseVarOnce	N	
IntervalCriterion	PROBF		Precision	4		VarSelection	Y	

### Node=ClassDec Tree B2D4 Variable Summary

Role	Level	Frequency	
		Count	Name
TARGET	NOMINAL	1	Diabetes_Prediction
INPUT	BINARY	14	AnyHealthcare CholCheck DiffWalk Fruits HeartDiseaseorAttack HighBP HighChol HvyAlcoholConsump NoDocbcCost PhysActivity Sex Smoker Stroke Veggies
INPUT	INTERVAL	2	Age BMI
INPUT	ORDINAL	5	Education GenHlth Income MentHlth PhysHlth
ID	INTERVAL	1	_dataobs_

### Node=ClassDec Tree B2D4 Model Fit Statistics

Target=Diabetes\_Prediction Target Label=Diabetes Prediction

Label of Statistic	Train	Validation	Test
Sum of Frequencies	80228.00	60169.00	60176.00
Misclassification Rate	0.15	0.15	0.15
Maximum Absolute Error	0.98	0.98	0.98
Sum of Squared Errors	21382.58	16035.55	16042.23
Average Squared Error	0.09	0.09	0.09
Root Average Squared Error	0.30	0.30	0.30
Divisor for ASE	240684.00	180507.00	180528.00
Total Degrees of Freedom	160456.00	.	.

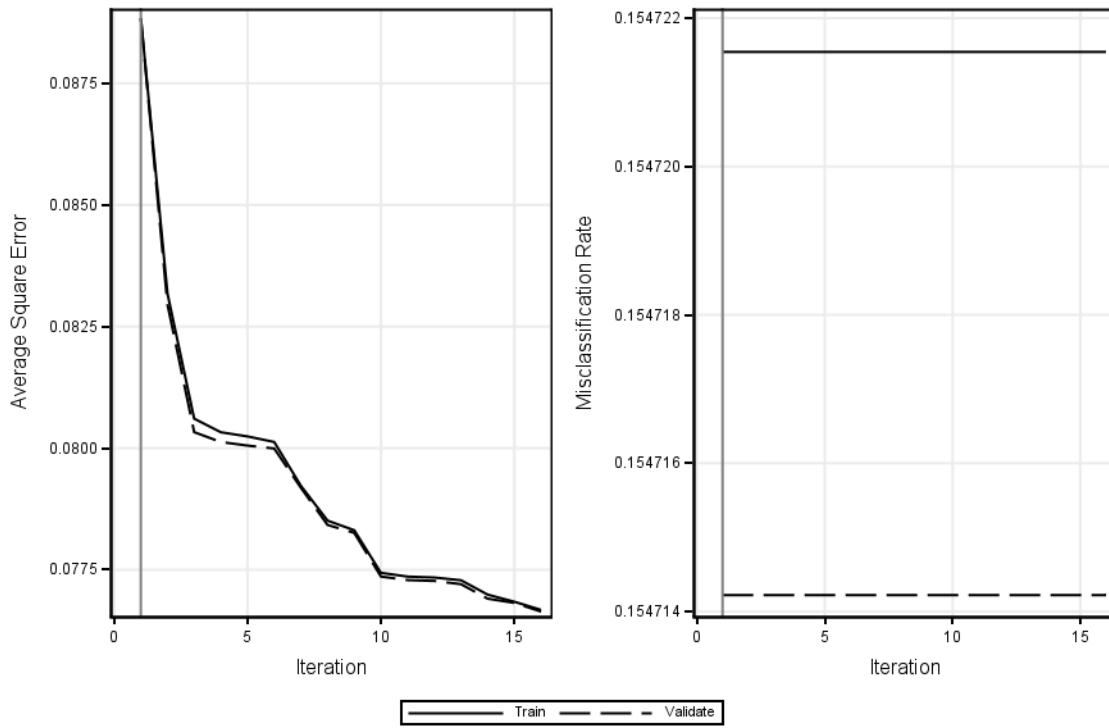
SAS Enterprise Miner Report  
Node=ClassDec Tree B2D4  
Tree Diagram

N: 80228 60169

SAS Enterprise Miner Report  
Node=ClassDec Tree B2D4  
Treemap



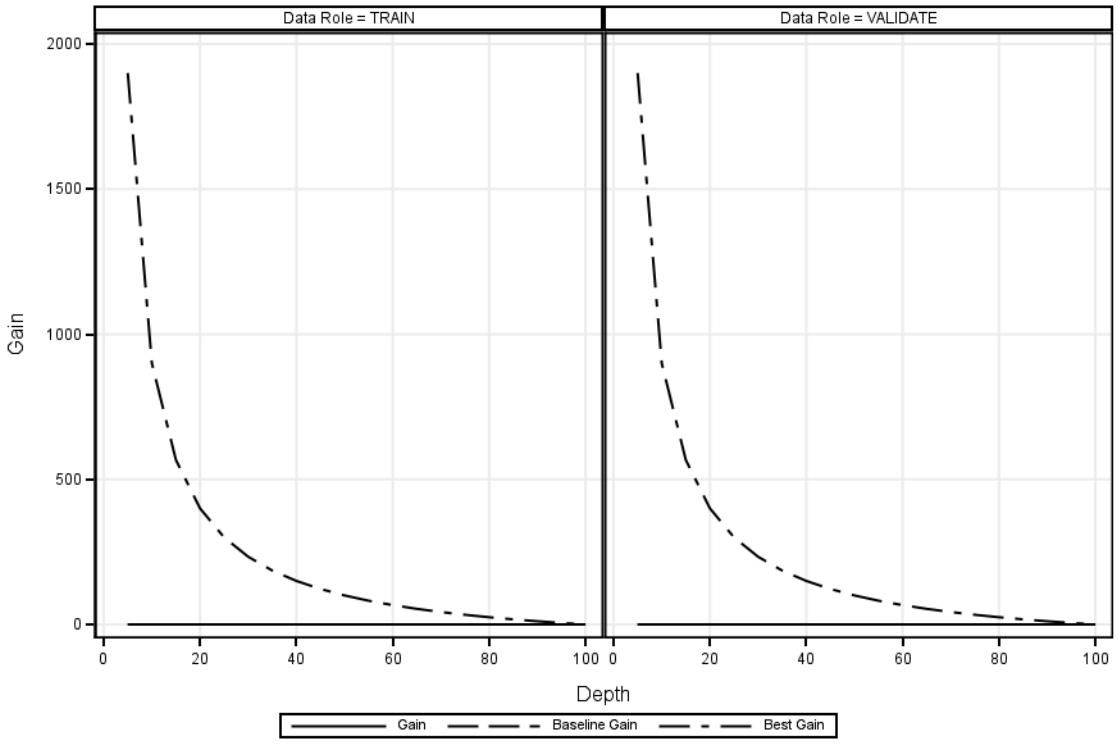
SAS Enterprise Miner Report  
Node=ClassDec Tree B2D4  
Model Iteration Plots



### SAS Enterprise Miner Report

Node=ClassDec Tree B2D4

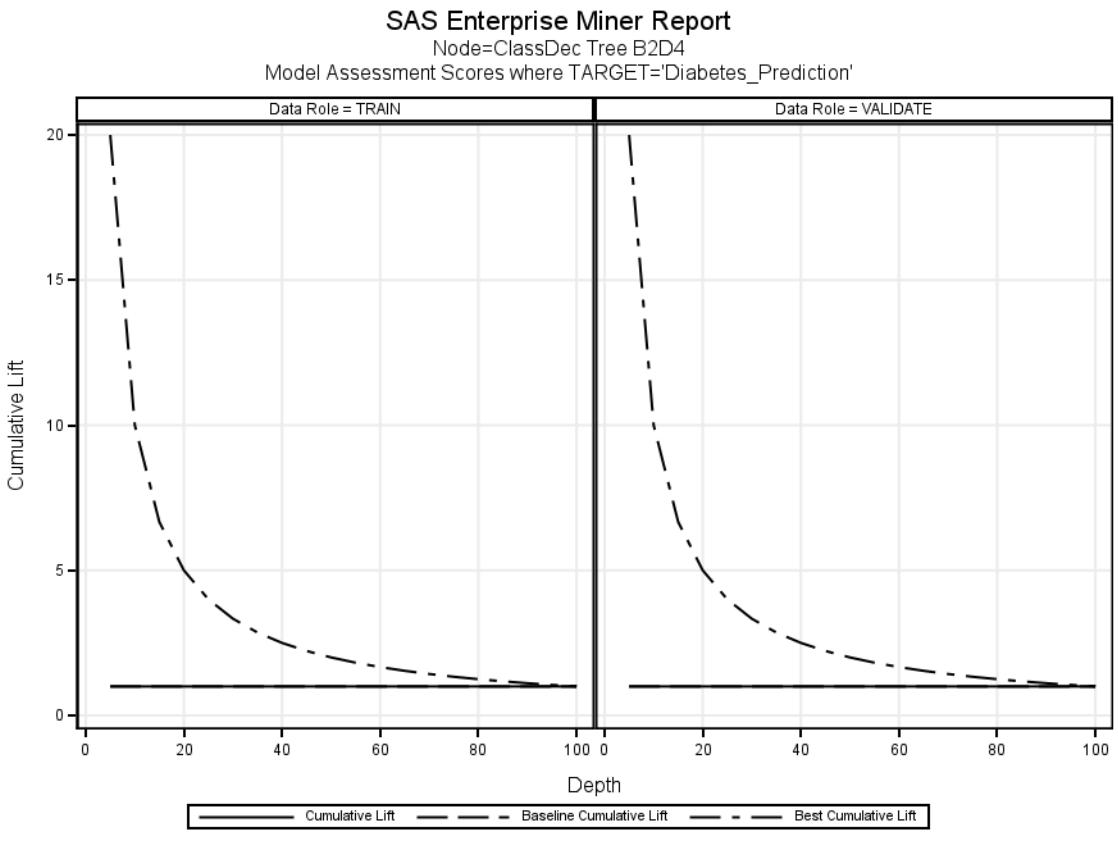
Model Assessment Scores where TARGET='Diabetes\_Prediction'



### SAS Enterprise Miner Report

Node=ClassDec Tree B2D4

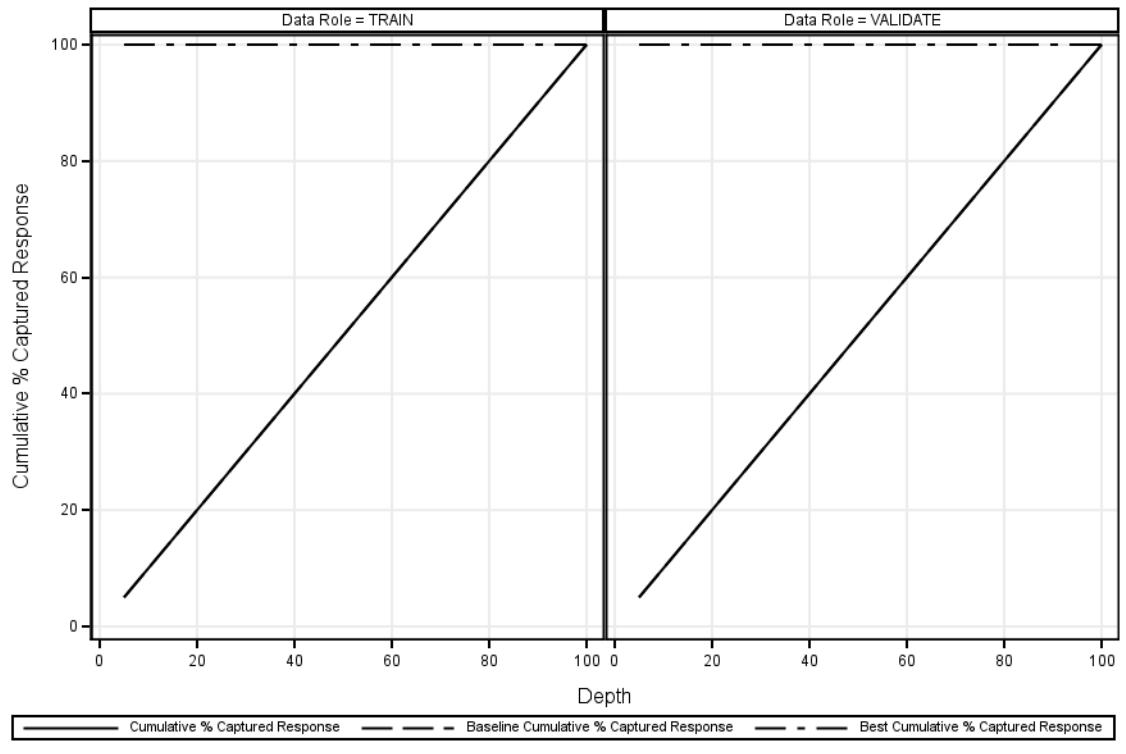
Model Assessment Scores where TARGET='Diabetes\_Prediction'



### SAS Enterprise Miner Report

Node=ClassDec Tree B2D4

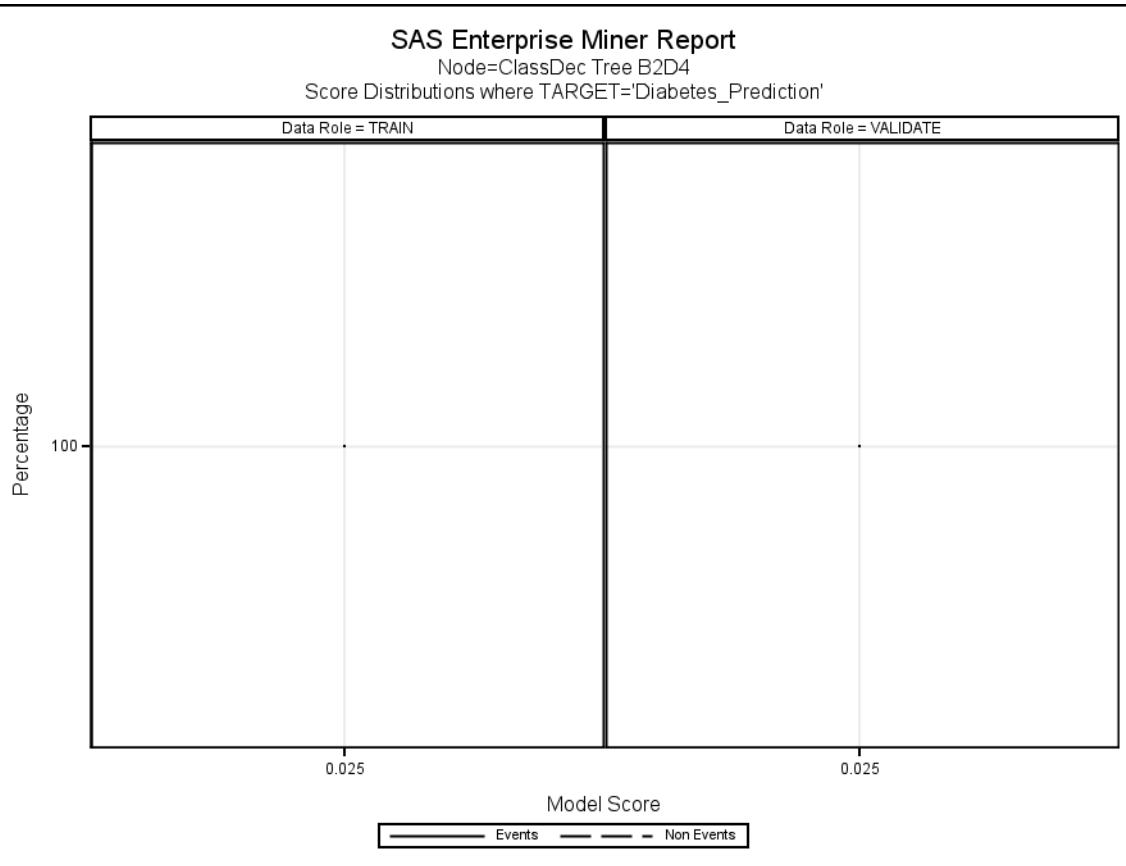
Model Assessment Scores where TARGET='Diabetes\_Prediction'

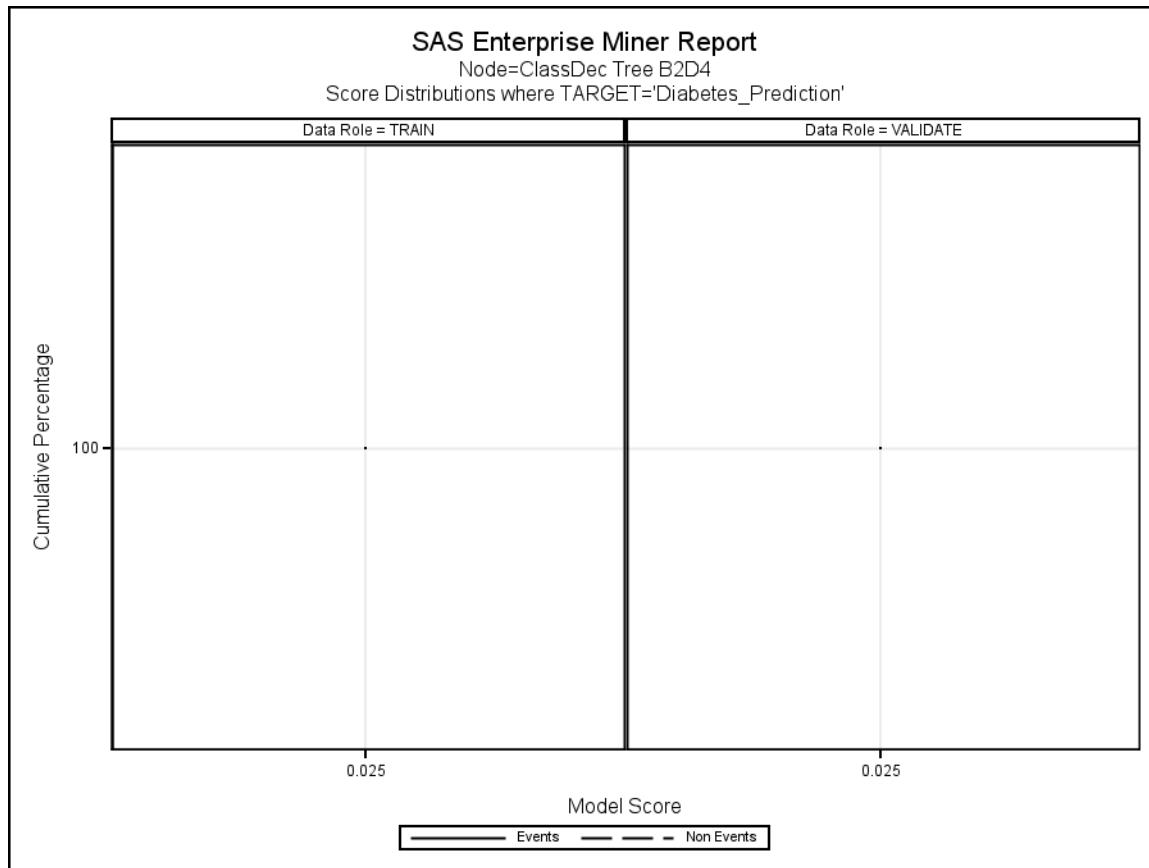


### SAS Enterprise Miner Report

Node=ClassDec Tree B2D4

Score Distributions where TARGET='Diabetes\_Prediction'





#### **Node=ClassDec Tree B2D4**

#### **Score Distributions**

Target Variable=Diabetes\_Prediction Data Role=TRAIN

Posterior Probability Range	Number of Events	Percentage of Events	Cumulative Percentage		
			Percentage of Nonevents	Cumulative Percentage of Events	Cumulative Percentage of Nonevents
0.00-0.05	1456	100	100	100	100

Target Variable=Diabetes\_Prediction Data Role=VALIDATE

Posterior Probability Range	Number of Events	Percentage of Events	Cumulative Percentage		
			Percentage of Nonevents	Cumulative Percentage of Events	Cumulative Percentage of Nonevents
0.00-0.05	1091	100	100	100	100

## SAS Enterprise Miner Report

### Node=ClassDecTree B2D6 Summary

Node id = Tree  
 Node label = ClassDecTree B2D6  
 Meta path = lds5 => Part => Tree  
 Notes =

### Node=ClassDecTree B2D6 Properties

Property	Value	Default	Property	Value	Default	Property	Value	Default
Component	DecisionTree		Kass	Y		Pred	N	
AVG	Y		KassApply	BEFORE		Predict	Y	
AssessMeasure	PROFIT/LOSS		LeafSize	5		ProfitLoss	NONE	
AssessPercentage	0.25		Leafid	Y		RASE	N	
CV	N		Maxbranch	2		SampleMethod	RANDOM	
CVNIter	10		Maxdepth	6		SampleSeed	12345	
CVRepeat	1		MinCatSize	5		SampleSize	10000	
CVSeed	12345		MissingValue	USEINSEARCH		ShowNodeld	Y	
ClassColorBy	PERCENTCORRECT		NSubtree	1		ShowValid	Y	
Count	Y		NodeRole	SEGMENT		SigLevel	0.2	
CreateSample	DEFAULT		NodeSample	20000		SplitPrecision	4	
Criterion	DEFAULT		NominalCriterion	PROBCHISQ		Splitsize	.	
Depth	Y		Nrules	5		Subtree	ASSESSMENT	
Dummy	N		Nsurrs	0		Target	ALL	
Exhaustive	5000		NumInputs	1		ToolType	MODEL	
Freeze	N		NumSingleImp	5		TrainMode	BATCH	
ImportModel	N		ObsImportance	N		UseDecision	N	
ImportedTreeData			OrdinalCriterion	ENTROPY		UseMultipleTarget	N	
Inputs	N		PercentCorrect	N		UsePriors	N	
InitColorBy	AVG		Performance	DISK		UseVarOnce	N	
IntervalCriterion	PROBF		Precision	4		VarSelection	Y	

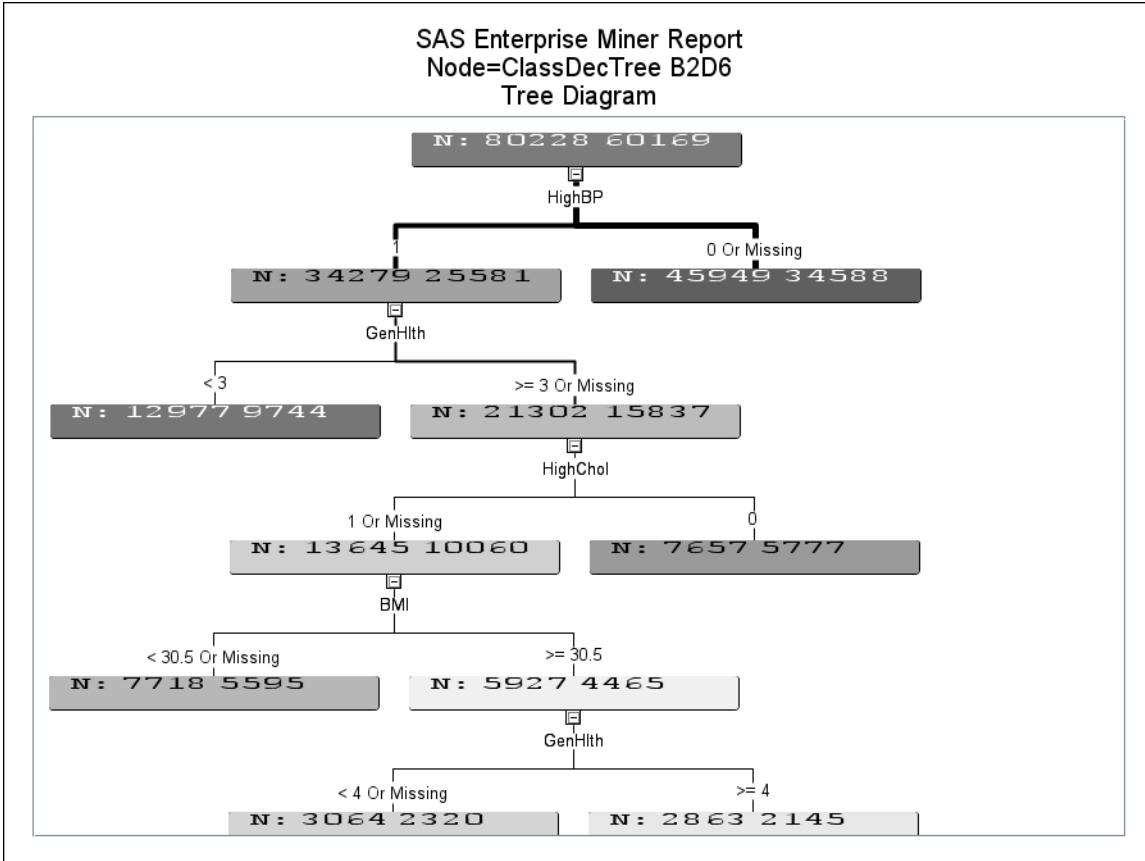
### Node=ClassDecTree B2D6 Variable Summary

Role	Level	Frequency	
		Count	Name
TARGET	NOMINAL	1	Diabetes_Prediction
INPUT	BINARY	14	AnyHealthcare CholCheck DiffWalk Fruits HeartDiseaseorAttack HighBP HighChol HvyAlcoholConsump NoDocbcCost PhysActivity Sex Smoker Stroke Veggies
INPUT	INTERVAL	2	Age BMI
INPUT	ORDINAL	5	Education GenHlth Income MentHlth PhysHlth
ID	INTERVAL	1	_dataobs_

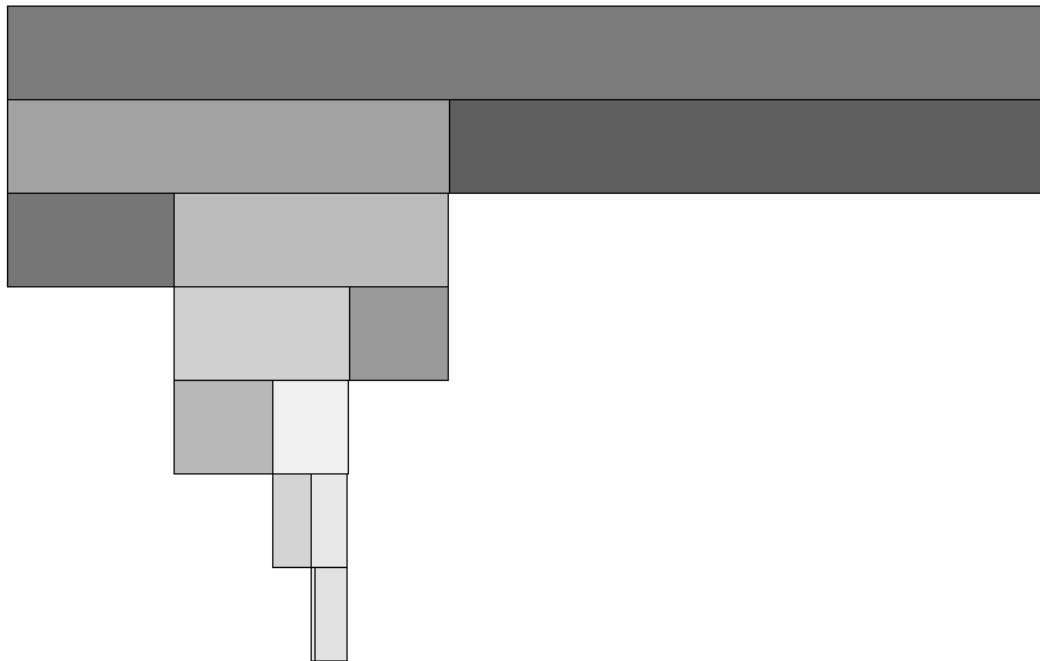
### Node=ClassDecTree B2D6 Model Fit Statistics

Target=Diabetes\_Prediction Target Label=Diabetes Prediction

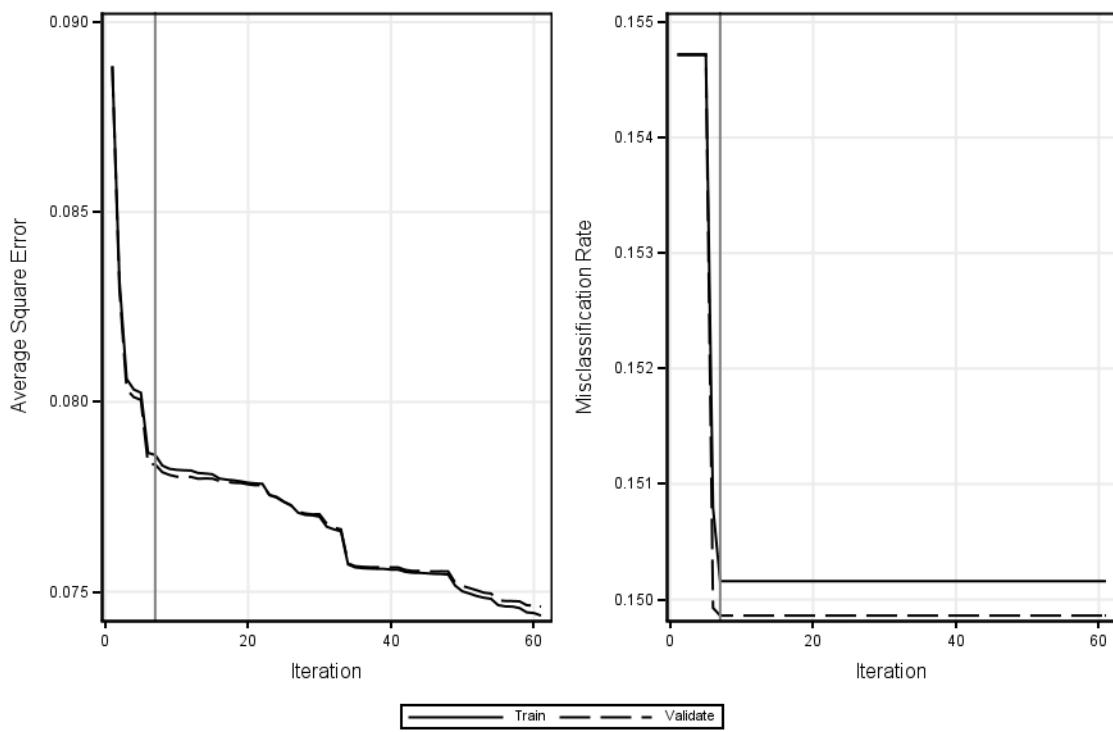
Label of Statistic	Train	Validation	Test
Sum of Frequencies	80228.00	60169.00	60176.00
Misclassification Rate	0.15	0.15	0.15
Maximum Absolute Error	0.99	0.99	0.99
Sum of Squared Errors	18918.39	14143.11	14139.47
Average Squared Error	0.08	0.08	0.08
Root Average Squared Error	0.28	0.28	0.28
Divisor for ASE	240684.00	180507.00	180528.00
Total Degrees of Freedom	160456.00	.	.



SAS Enterprise Miner Report  
Node=ClassDecTree B2D6  
Treemap



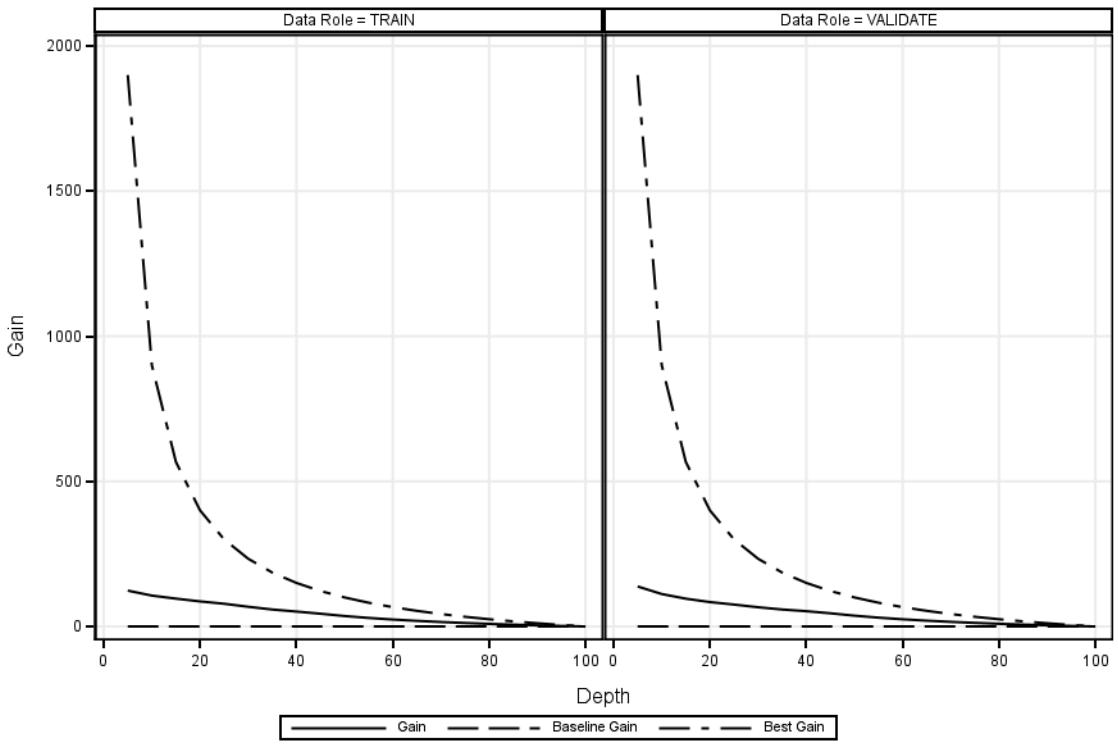
SAS Enterprise Miner Report  
Node=ClassDecTree B2D6  
Model Iteration Plots



### SAS Enterprise Miner Report

Node=ClassDecTree B2D6

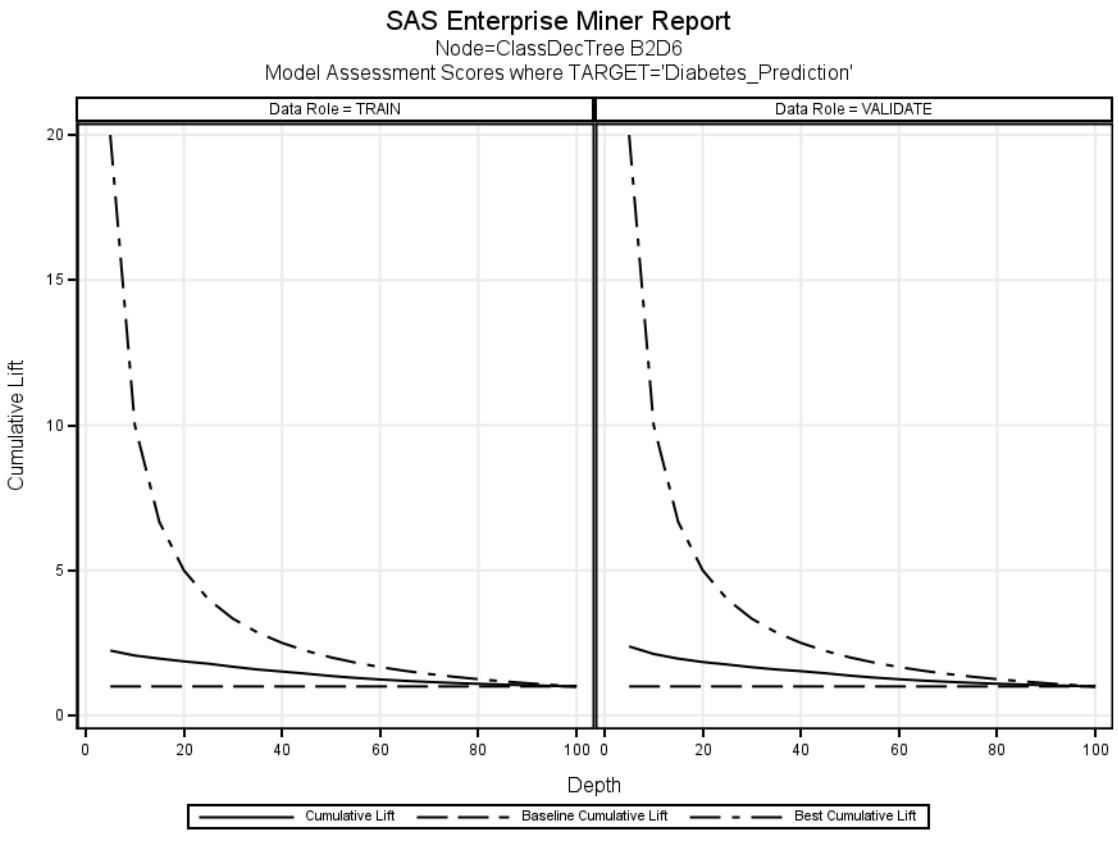
Model Assessment Scores where TARGET='Diabetes\_Prediction'



### SAS Enterprise Miner Report

Node=ClassDecTree B2D6

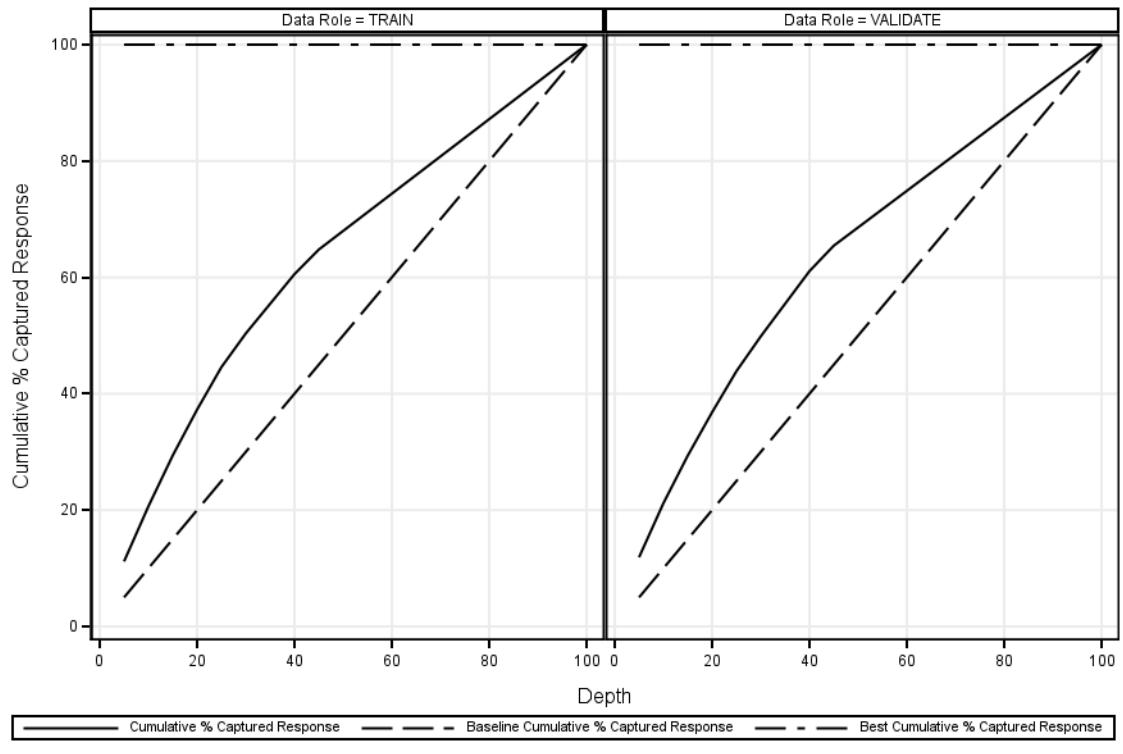
Model Assessment Scores where TARGET='Diabetes\_Prediction'



### SAS Enterprise Miner Report

Node=ClassDecTree B2D6

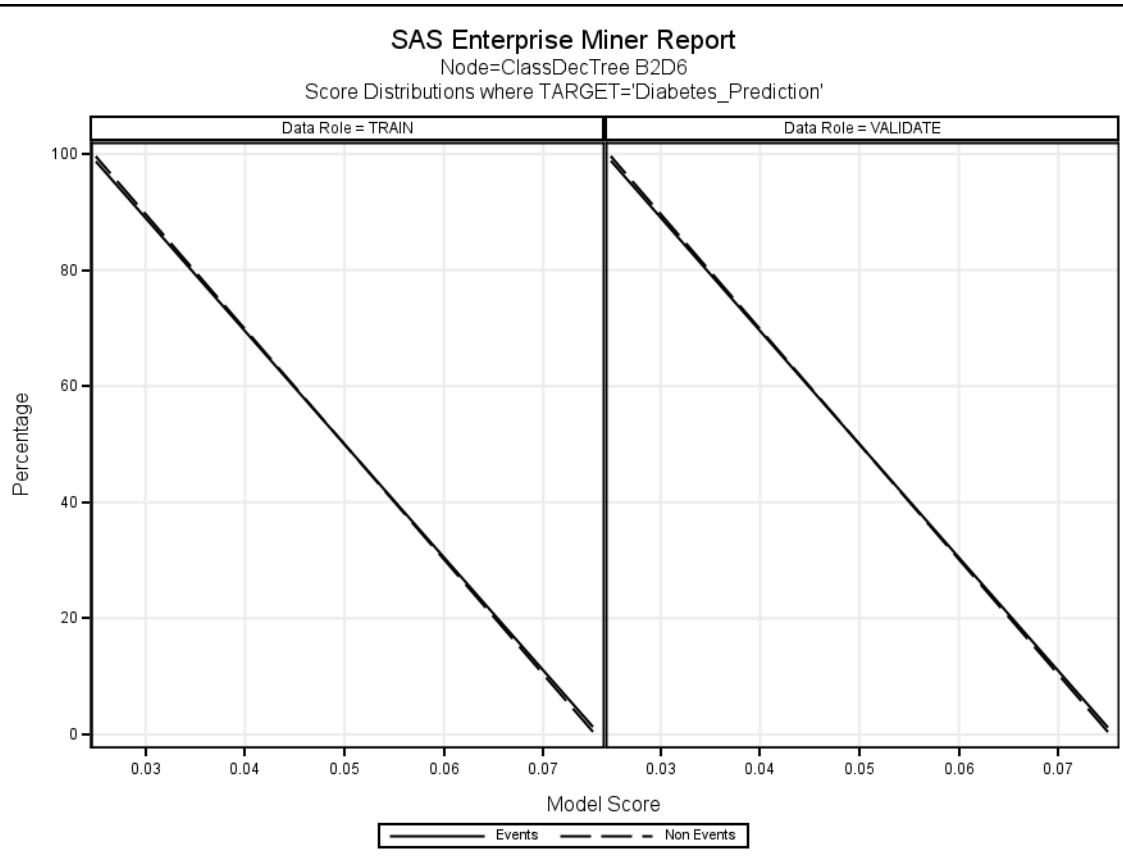
Model Assessment Scores where TARGET='Diabetes\_Prediction'

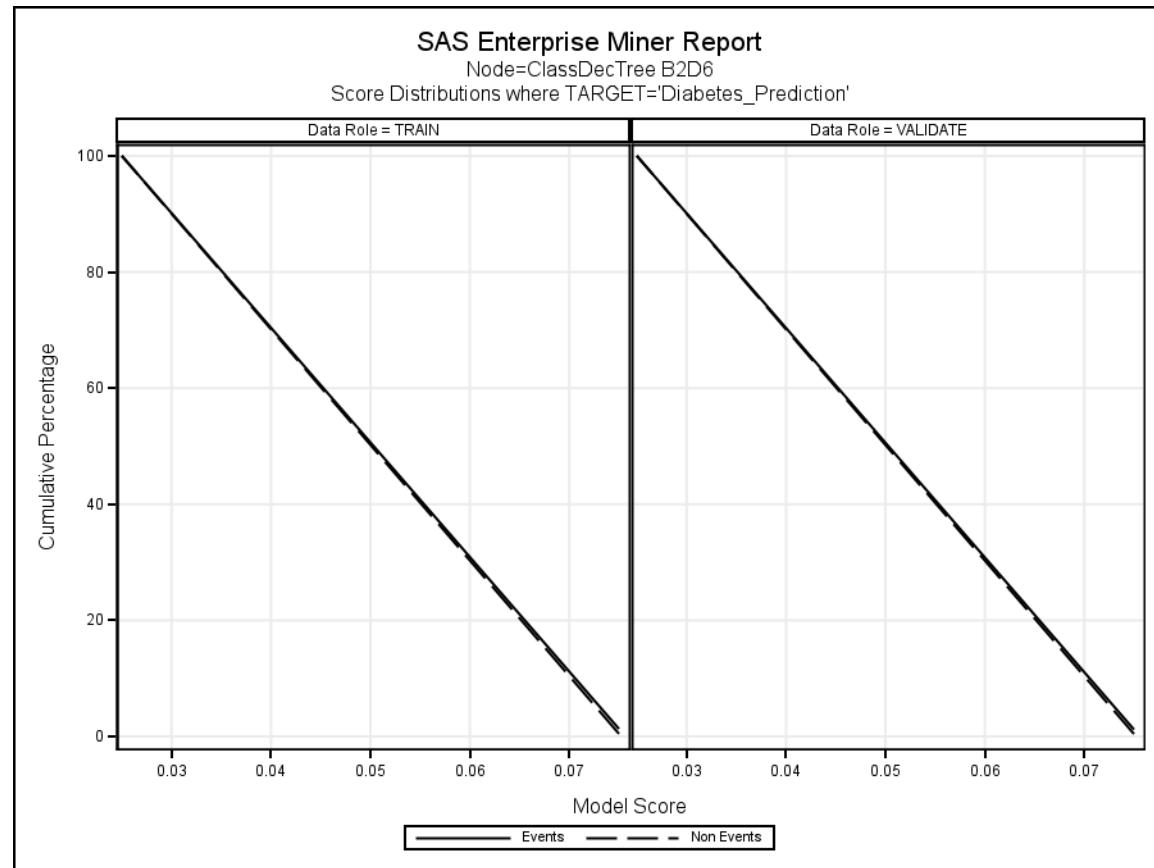


### SAS Enterprise Miner Report

Node=ClassDecTree B2D6

Score Distributions where TARGET='Diabetes\_Prediction'





### Node=ClassDecTree B2D6

#### Score Distributions

Target Variable=Diabetes\_Prediction Data Role=TRAIN

Posterior Probability Range	Number of Events	Percentage of Events	Cumulative Percentage		
			Percentage of Nonevents	Cumulative Percentage of Events	Percentage of Nonevents
0.05-0.10	19	1.3049	0.4532	1.305	0.453
0.00-0.05	1437	98.6951	99.5468	100.000	100.000

Target Variable=Diabetes\_Prediction Data Role=VALIDATE

Posterior Probability Range	Number of Events	Percentage of Events	Cumulative Percentage		
			Percentage of Nonevents	Cumulative Percentage of Events	Percentage of Nonevents
0.05-0.10	13	1.1916	0.4198	1.192	0.420
0.00-0.05	1078	98.8084	99.5802	100.000	100.000

## SAS Enterprise Miner Report

### Node=Stepwise Regression Summary

Node id = Reg4  
 Node label = Stepwise Regression  
 Meta path = lds5 => Part => Reg4  
 Notes =

### Node=Stepwise Regression Properties

Property	Value	Default	Property	Value	Default	Property	Value	Default
Component	Regression		Force	0		PolynomialDegree	2	
AbsConvValue	-1.34078E154	-7.237006E75	GConvTimes	1		PrintDesignMatrix	N	
AbsFTime	1		GConvValue	1E-6		Rule	NONE	
AbsFValue	0		Hierarchy	CLASS		SASSPDS	N	
AbsGTime	1		InputCoding	DEVIATION		SelectionCriterion	DEFAULT	
AbsGValue	0.00001		Interactions			SelectionDefault	Y	
AbsXTime	1		LinkFunction	LOGIT		Sequential	N	
AbsXValue	1E-8		MainEffect	Y		Simple	N	
CIParam	N		MaxCPUTime	1 HOUR		SIEntry	0.05	
ConvDefaults	Y		MaxFunctionCalls	.		SISStay	0.05	
CorB	N		MaxIterations	.		Start	0	
CovB	N		MaxStep	.		StepOutput	N	
Covout	N		MinResourceUse	N		Stop	0	
Details	N		ModelDefaults	Y		SuppressIntercept	N	
Error	LOGISTIC		ModelSelection	STEPWISE	NONE	SuppressOutput	N	
ExcludedVariable	REJECT		OptimizationTechnique	DEFAULT		Terms	N	
FConvTimes	1		Performance	N		TwoFactor	N	
FConvValue	0		Polynomial	N				

### Node=Stepwise Regression Variable Summary

Role	Level	Frequency		Name
		Count	Name	
TARGET	NOMINAL	1	Diabetes_Prediction	
INPUT	BINARY	14	AnyHealthcare CholCheck DiffWalk Fruits HeartDiseaseorAttack HighBP HighChol HwyAlcoholConsump NoDocbcCost PhysActivity Sex Smoker Stroke Veggies	
INPUT	INTERVAL	2	Age BMI	
INPUT	ORDINAL	5	Education GenHlth Income MentHlth PhysHlth	

### Node=Stepwise Regression Model Fit Statistics

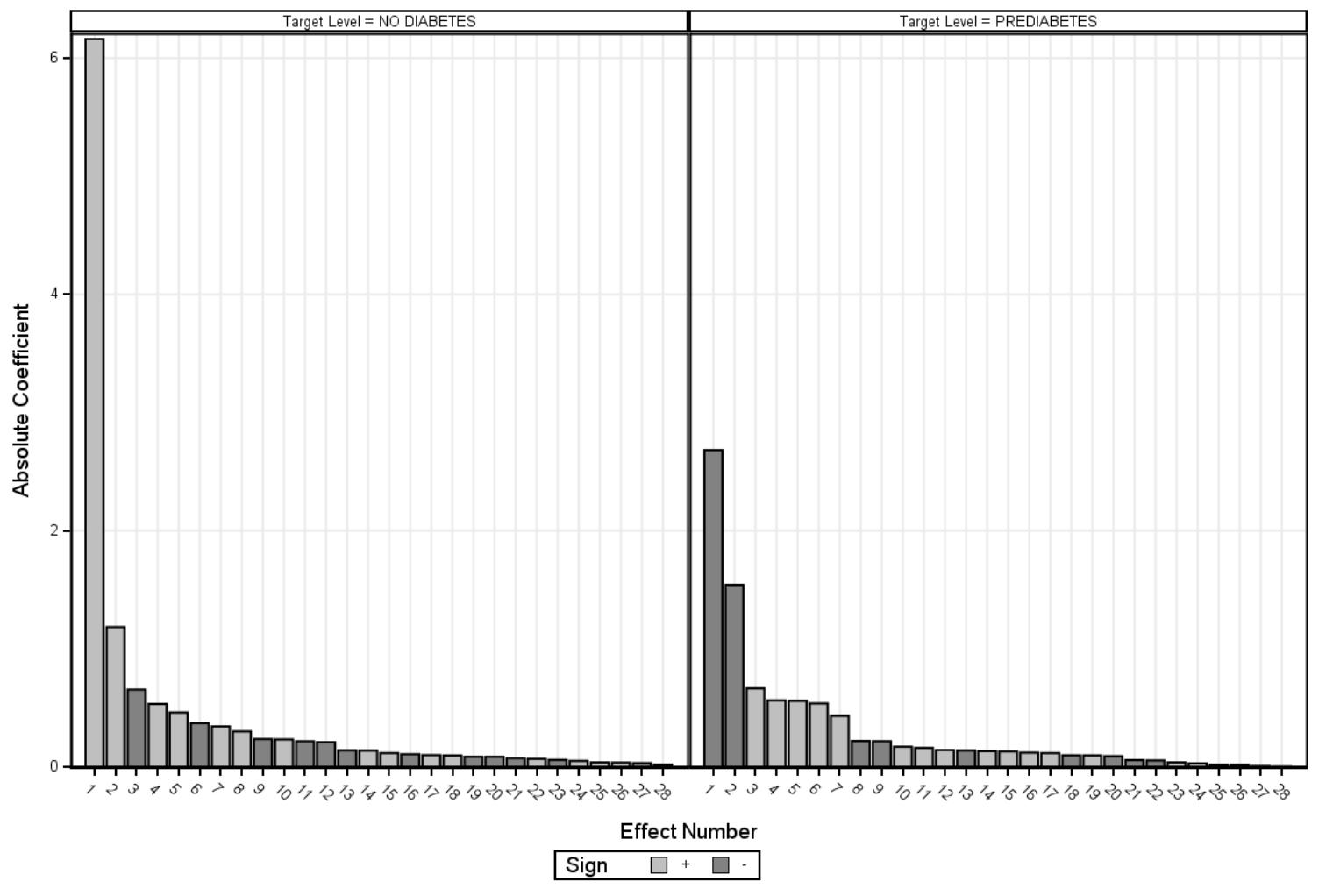
Target=Diabetes\_Prediction Target Label=Diabetes Prediction

Label of Statistic	Train	Validation	Test
Akaike's Information Criterion	63598.69	.	.
Average Squared Error	0.07	0.07	0.07
Average Error Function	0.26	0.26	0.26
Degrees of Freedom for Error	160400.00	.	.
Model Degrees of Freedom	56.00	.	.

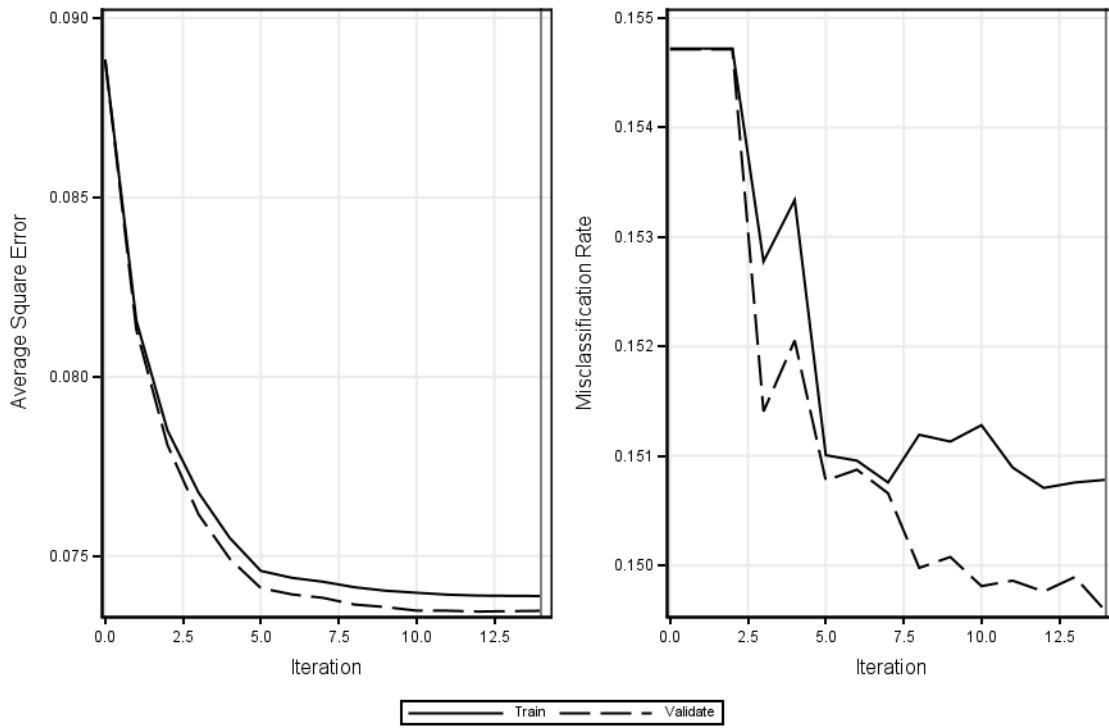
Target=Diabetes\_Prediction Target Label=Diabetes Prediction

Label of Statistic	Train	Validation	Test
Total Degrees of Freedom	160456.00		
Divisor for ASE	240684.00	180507.00	180528.00
Error Function	63486.69	47288.47	47321.97
Final Prediction Error	0.07		
Maximum Absolute Error	1.00	1.00	1.00
Mean Square Error	0.07	0.07	0.07
Sum of Frequencies	80228.00	60169.00	60176.00
Number of Estimate Weights	56.00		
Root Average Sum of Squares	0.27	0.27	0.27
Root Final Prediction Error	0.27		
Root Mean Squared Error	0.27	0.27	0.27
Schwarz's Bayesian Criterion	64157.90		
Sum of Squared Errors	17783.49	13262.82	13237.69
Sum of Case Weights Times Freq	240684.00	180507.00	180528.00
Misclassification Rate	0.15	0.15	0.15

**SAS Enterprise Miner Report**  
**Node=Stepwise Regression**  
**Regression Model Effects**

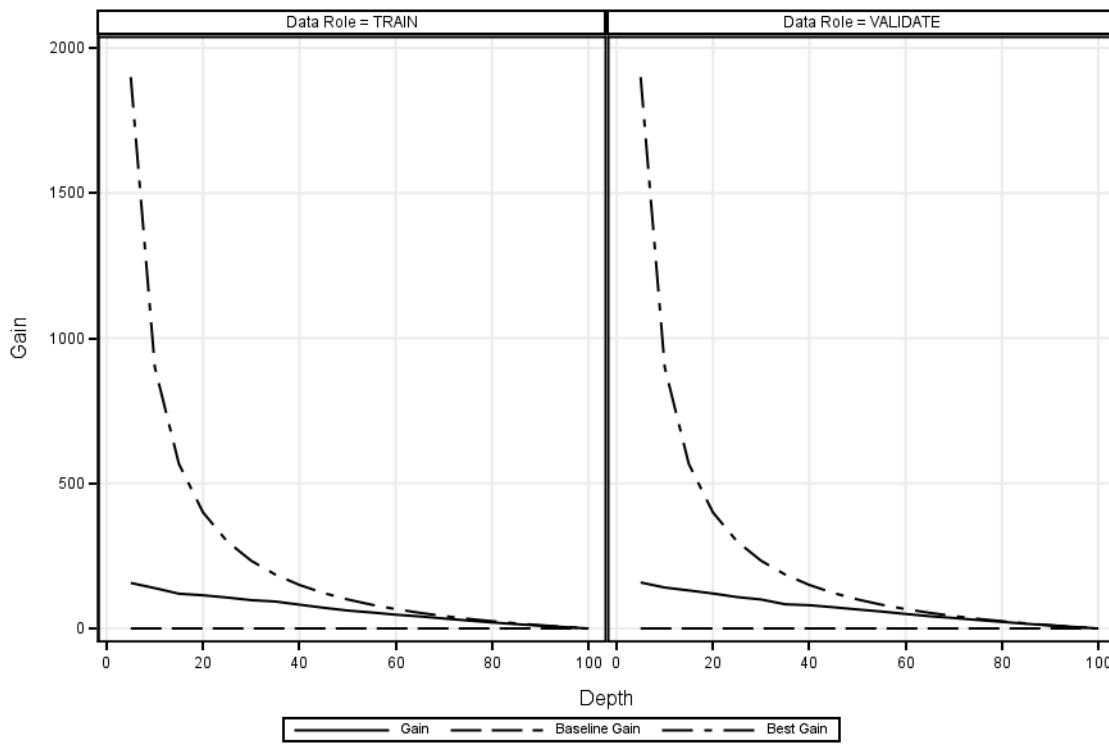


SAS Enterprise Miner Report  
Node=Stepwise Regression  
Model Iteration Plots



SAS Enterprise Miner Report

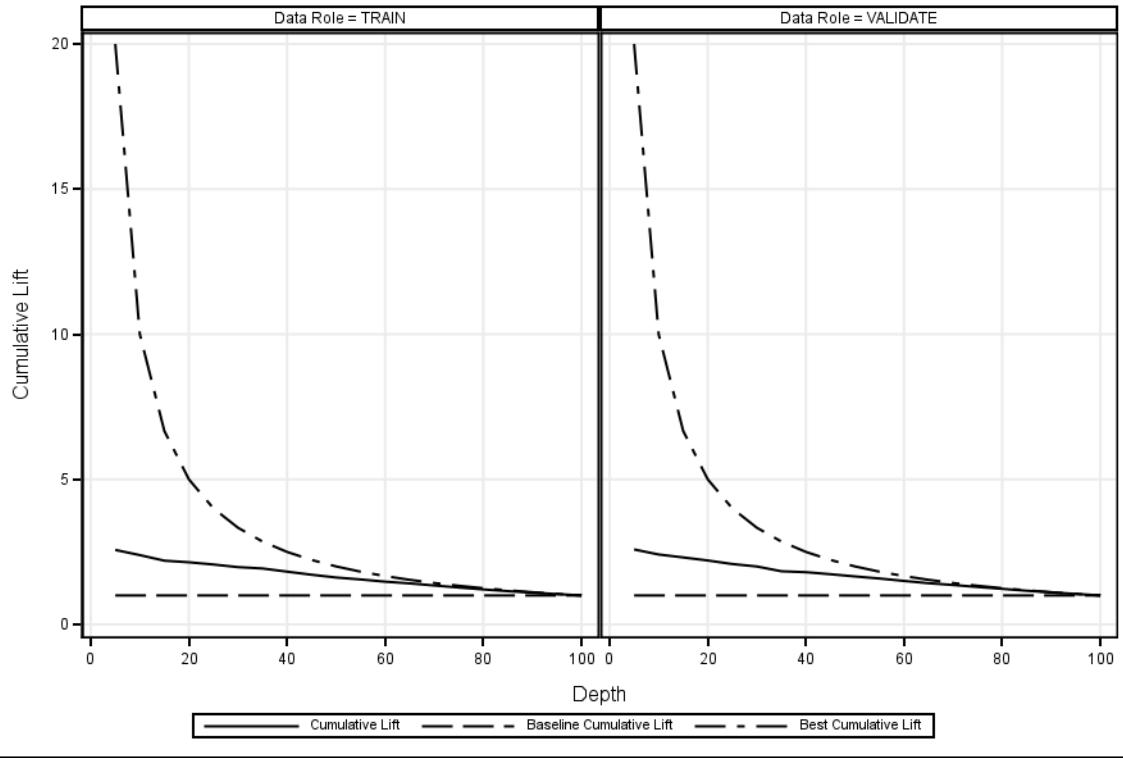
Node=Stepwise Regression  
Model Assessment Scores where TARGET='Diabetes\_Prediction'



### SAS Enterprise Miner Report

Node=Stepwise Regression

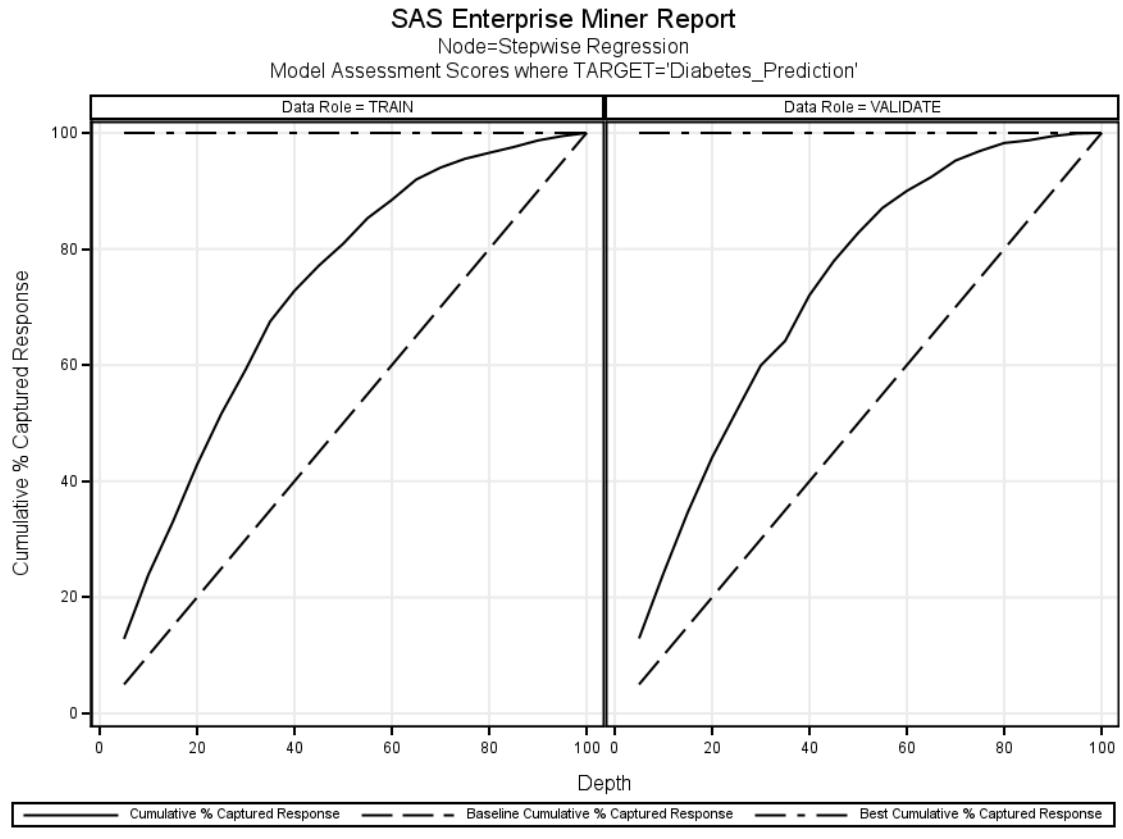
Model Assessment Scores where TARGET='Diabetes\_Prediction'



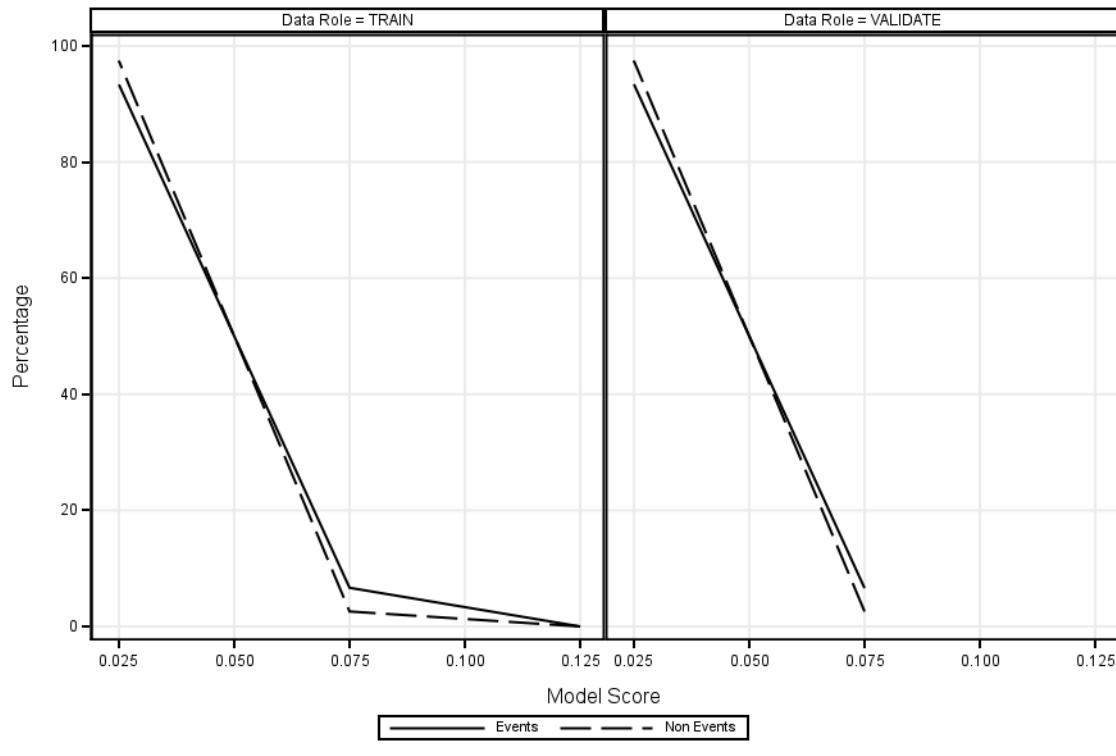
### SAS Enterprise Miner Report

Node=Stepwise Regression

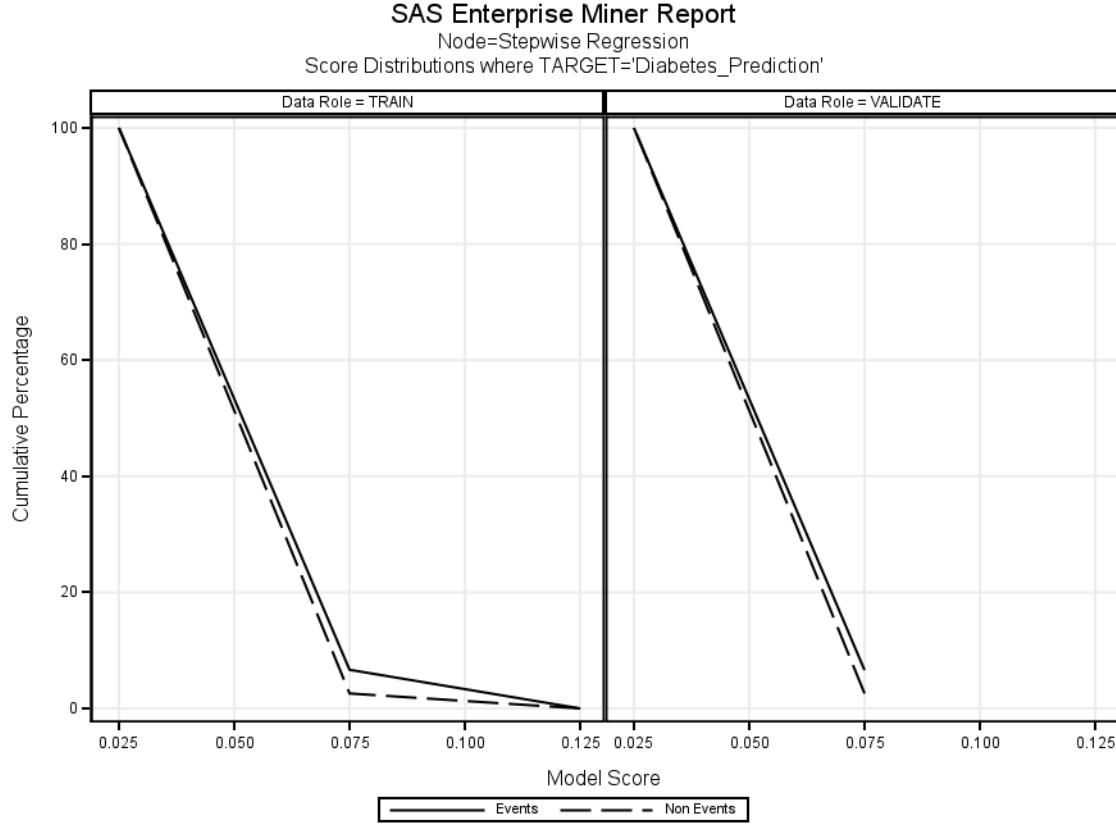
Model Assessment Scores where TARGET='Diabetes\_Prediction'



**SAS Enterprise Miner Report**  
 Node=Stepwise Regression  
 Score Distributions where TARGET='Diabetes\_Prediction'



**SAS Enterprise Miner Report**  
 Node=Stepwise Regression  
 Score Distributions where TARGET='Diabetes\_Prediction'



**Node=Stepwise Regression**  
**Score Distributions**

Target Variable=Diabetes\_Prediction Data Role=TRAIN

Posterior Probability Range	Number of Events	Percentage of Events	Percentage of Nonevents	Cumulative Percentage of Events	Cumulative Percentage of Nonevents
0.10-0.15	0	0.0000	0.0025	0.000	0.003
0.05-0.10	97	6.6621	2.5796	6.662	2.582
0.00-0.05	1359	93.3379	97.4179	100.000	100.000

Target Variable=Diabetes\_Prediction Data Role=VALIDATE

Posterior Probability Range	Number of Events	Percentage of Events	Percentage of Nonevents	Cumulative Percentage of Events	Cumulative Percentage of Nonevents
0.05-0.10	72	6.5995	2.5729	6.599	2.573
0.00-0.05	1019	93.4005	97.4271	100.000	100.000

## SAS Enterprise Miner Report

### Node=Backward Regression Summary

Node id = Reg3  
 Node label = Backward Regression  
 Meta path = lds5 => Part => Reg3  
 Notes =

### Node=Backward Regression Properties

Property	Value	Default	Property	Value	Default	Property	Value	Default
Component	Regression		Force	0		PolynomialDegree	2	
AbsConvValue	-1.34078E154	-7.237006E75	GConvTimes	1		PrintDesignMatrix	N	
AbsFTime	1		GConvValue	1E-6		Rule	NONE	
AbsFValue	0		Hierarchy	CLASS		SASSPDS	N	
AbsGTime	1		InputCoding	DEVIATION		SelectionCriterion	DEFAULT	
AbsGValue	0.00001		Interactions			SelectionDefault	Y	
AbsXTime	1		LinkFunction	LOGIT		Sequential	N	
AbsXValue	1E-8		MainEffect	Y		Simple	N	
CIParam	N		MaxCPUTime	1 HOUR		SIEntry	0.05	
ConvDefaults	Y		MaxFunctionCalls	.		SISStay	0.05	
CorB	N		MaxIterations	.		Start	0	
CovB	N		MaxStep	.		StepOutput	N	
Covout	N		MinResourceUse	N		Stop	0	
Details	N		ModelDefaults	Y		SuppressIntercept	N	
Error	LOGISTIC		ModelSelection	BACKWARD	NONE	SuppressOutput	N	
ExcludedVariable	REJECT		OptimizationTechnique	DEFAULT		Terms	N	
FConvTimes	1		Performance	N		TwoFactor	N	
FConvValue	0		Polynomial	N				

### Node=Backward Regression Variable Summary

Role	Level	Frequency		Name
		Count	Name	
TARGET	NOMINAL	1	Diabetes_Prediction	
INPUT	BINARY	14	AnyHealthcare CholCheck DiffWalk Fruits HeartDiseaseorAttack HighBP HighChol HwyAlcoholConsump NoDocbcCost PhysActivity Sex Smoker Stroke Veggies	
INPUT	INTERVAL	2	Age BMI	
INPUT	ORDINAL	5	Education GenHlth Income MentHlth PhysHlth	

### Node=Backward Regression Model Fit Statistics

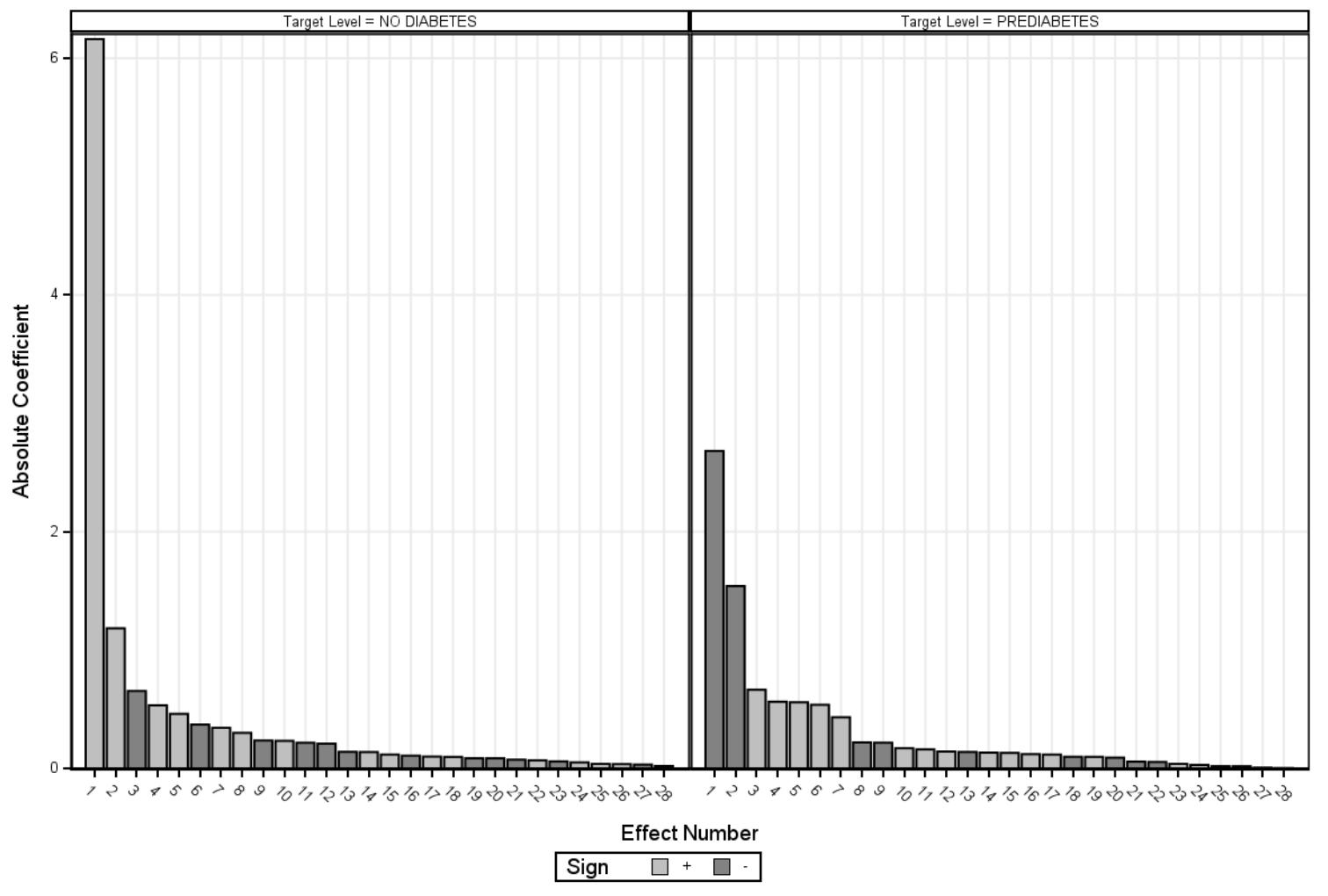
Target=Diabetes\_Prediction Target Label=Diabetes Prediction

Label of Statistic	Train	Validation	Test
Akaike's Information Criterion	63598.69	.	.
Average Squared Error	0.07	0.07	0.07
Average Error Function	0.26	0.26	0.26
Degrees of Freedom for Error	160400.00	.	.
Model Degrees of Freedom	56.00	.	.

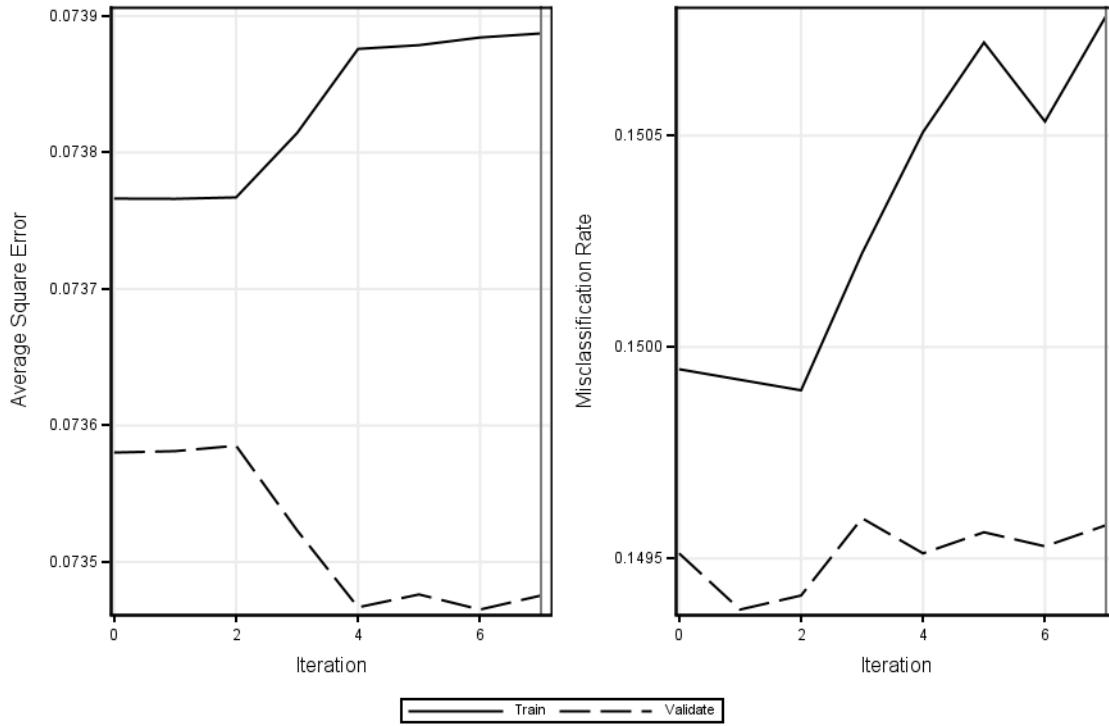
Target=Diabetes\_Prediction Target Label=Diabetes Prediction

Label of Statistic	Train	Validation	Test
Total Degrees of Freedom	160456.00		
Divisor for ASE	240684.00	180507.00	180528.00
Error Function	63486.69	47288.47	47321.97
Final Prediction Error	0.07		
Maximum Absolute Error	1.00	1.00	1.00
Mean Square Error	0.07	0.07	0.07
Sum of Frequencies	80228.00	60169.00	60176.00
Number of Estimate Weights	56.00		
Root Average Sum of Squares	0.27	0.27	0.27
Root Final Prediction Error	0.27		
Root Mean Squared Error	0.27	0.27	0.27
Schwarz's Bayesian Criterion	64157.90		
Sum of Squared Errors	17783.49	13262.82	13237.69
Sum of Case Weights Times Freq	240684.00	180507.00	180528.00
Misclassification Rate	0.15	0.15	0.15

SAS Enterprise Miner Report  
Node=Backward Regression  
Regression Model Effects

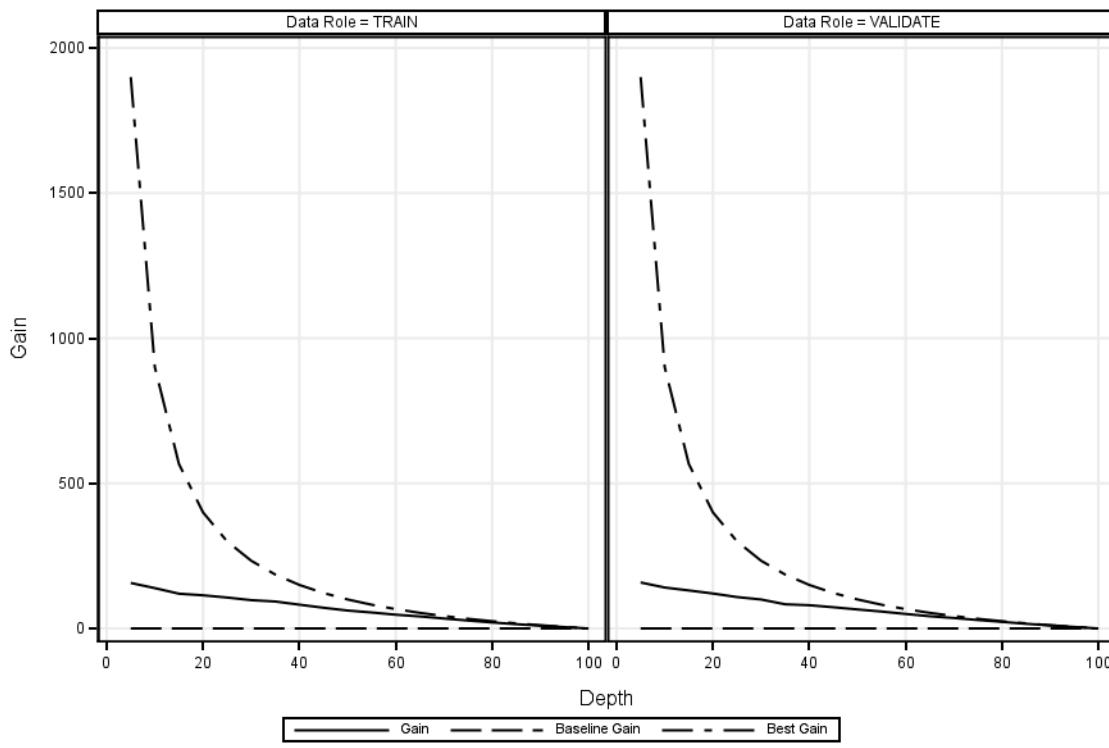


SAS Enterprise Miner Report  
Node=Backward Regression  
Model Iteration Plots



SAS Enterprise Miner Report

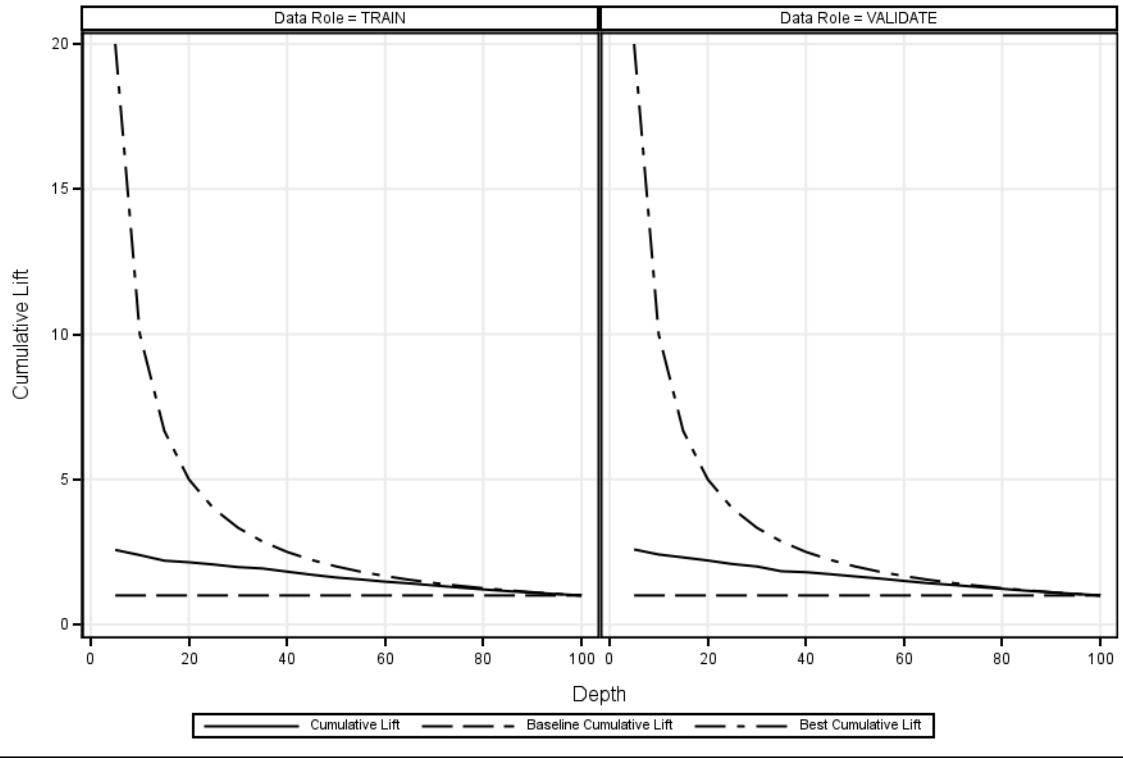
Node=Backward Regression  
Model Assessment Scores where TARGET='Diabetes\_Prediction'



### SAS Enterprise Miner Report

Node=Backward Regression

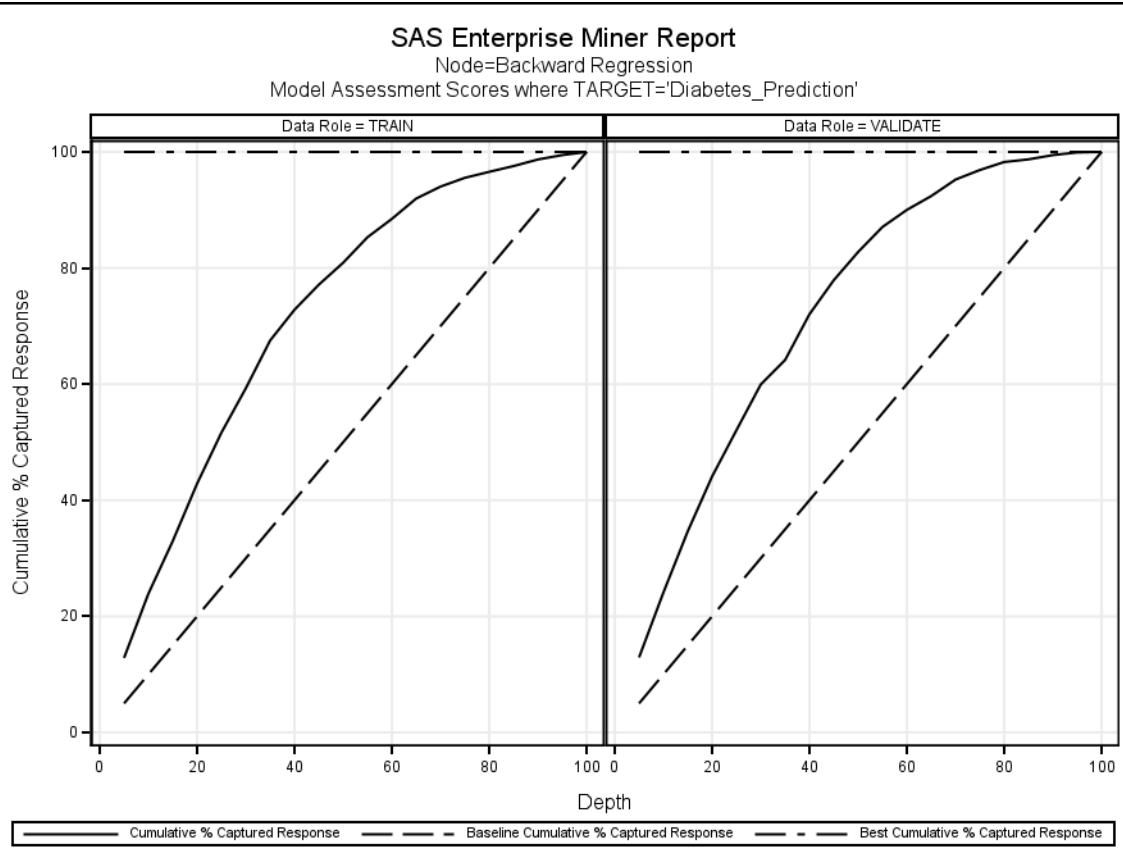
Model Assessment Scores where TARGET='Diabetes\_Prediction'

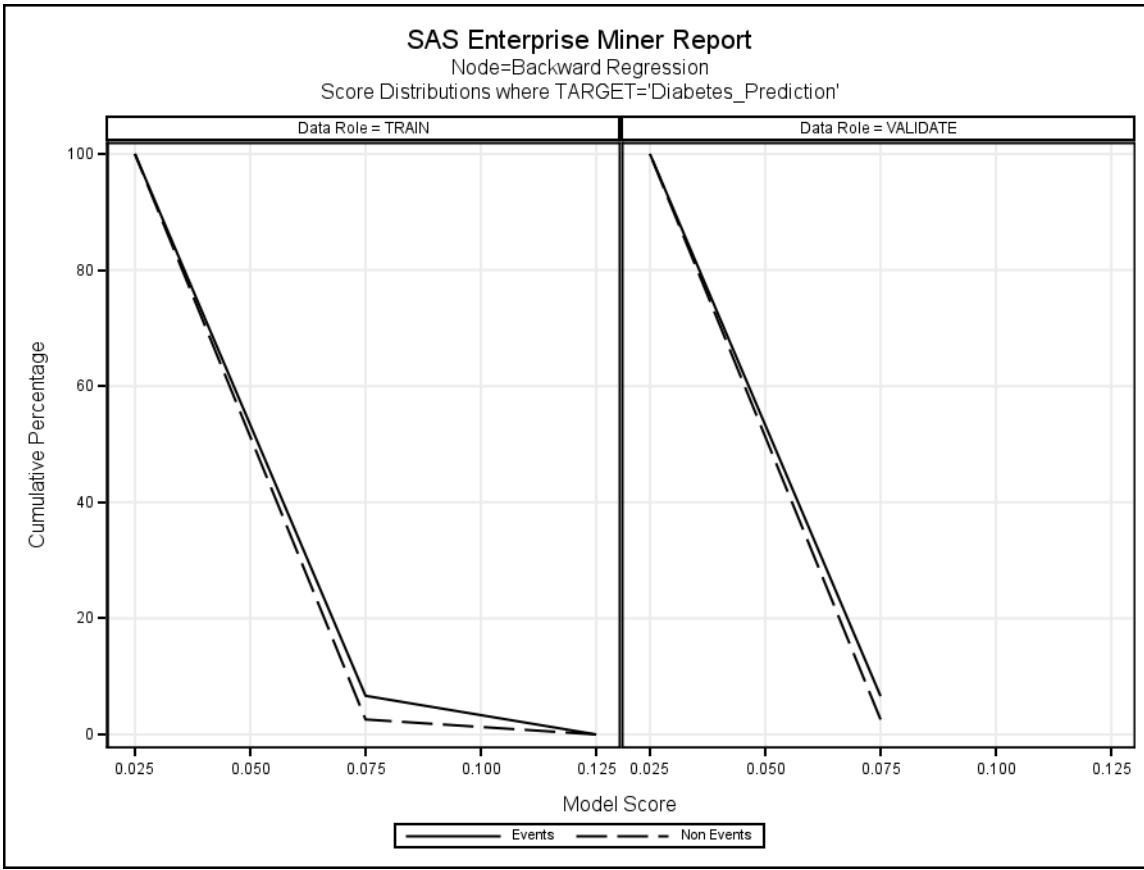
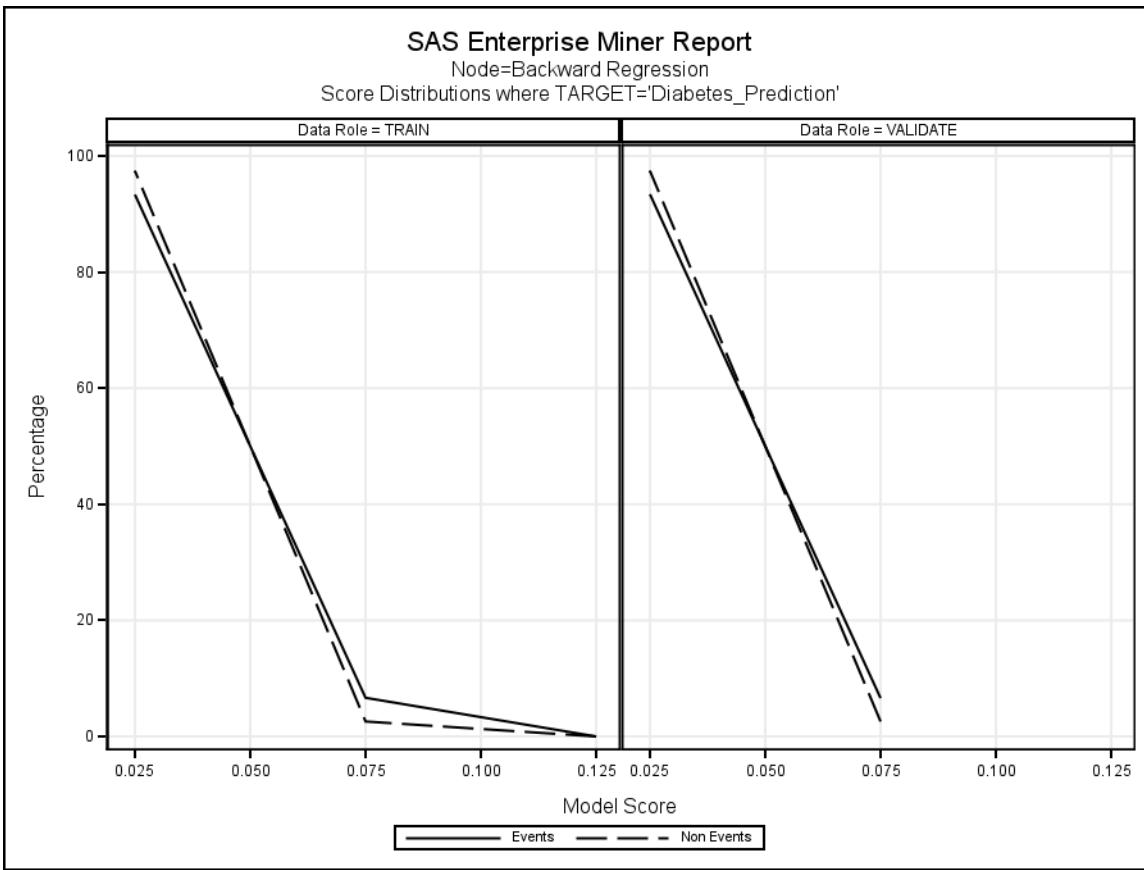


### SAS Enterprise Miner Report

Node=Backward Regression

Model Assessment Scores where TARGET='Diabetes\_Prediction'





**Node=Backward Regression**  
**Score Distributions**

Target Variable=Diabetes\_Prediction Data Role=TRAIN

Posterior Probability Range	Number of Events	Percentage of Events	Percentage of Nonevents	Cumulative Percentage of Events	Cumulative Percentage of Nonevents
0.10-0.15	0	0.0000	0.0025	0.000	0.003
0.05-0.10	97	6.6621	2.5796	6.662	2.582
0.00-0.05	1359	93.3379	97.4179	100.000	100.000

Target Variable=Diabetes\_Prediction Data Role=VALIDATE

Posterior Probability Range	Number of Events	Percentage of Events	Percentage of Nonevents	Cumulative Percentage of Events	Cumulative Percentage of Nonevents
0.05-0.10	72	6.5995	2.5729	6.599	2.573
0.00-0.05	1019	93.4005	97.4271	100.000	100.000

## SAS Enterprise Miner Report

### Node=Forward Regression Summary

Node id = Reg2  
 Node label = Forward Regression  
 Meta path = lds5 => Part => Reg2  
 Notes =

### Node=Forward Regression Properties

Property	Value	Default	Property	Value	Default	Property	Value	Default
Component	Regression		Force	0		PolynomialDegree	2	
AbsConvValue	-1.34078E154	-7.237006E75	GConvTimes	1		PrintDesignMatrix	N	
AbsFTime	1		GConvValue	1E-6		Rule	NONE	
AbsFValue	0		Hierarchy	CLASS		SASSPDS	N	
AbsGTime	1		InputCoding	DEVIATION		SelectionCriterion	DEFAULT	
AbsGValue	0.00001		Interactions			SelectionDefault	Y	
AbsXTime	1		LinkFunction	LOGIT		Sequential	N	
AbsXValue	1E-8		MainEffect	Y		Simple	N	
CIParam	N		MaxCPUTime	1 HOUR		SIEntry	0.05	
ConvDefaults	Y		MaxFunctionCalls	.		SISStay	0.05	
CorB	N		MaxIterations	.		Start	0	
CovB	N		MaxStep	.		StepOutput	N	
Covout	N		MinResourceUse	N		Stop	0	
Details	N		ModelDefaults	Y		SuppressIntercept	N	
Error	LOGISTIC		ModelSelection	FORWARD	NONE	SuppressOutput	N	
ExcludedVariable	REJECT		OptimizationTechnique	DEFAULT		Terms	N	
FConvTimes	1		Performance	N		TwoFactor	N	
FConvValue	0		Polynomial	N				

### Node=Forward Regression Variable Summary

Role	Level	Frequency		Name
		Count	Name	
TARGET	NOMINAL	1	Diabetes_Prediction	
INPUT	BINARY	14	AnyHealthcare CholCheck DiffWalk Fruits HeartDiseaseorAttack HighBP HighChol HwyAlcoholConsump NoDocbcCost PhysActivity Sex Smoker Stroke Veggies	
INPUT	INTERVAL	2	Age BMI	
INPUT	ORDINAL	5	Education GenHlth Income MentHlth PhysHlth	

### Node=Forward Regression Model Fit Statistics

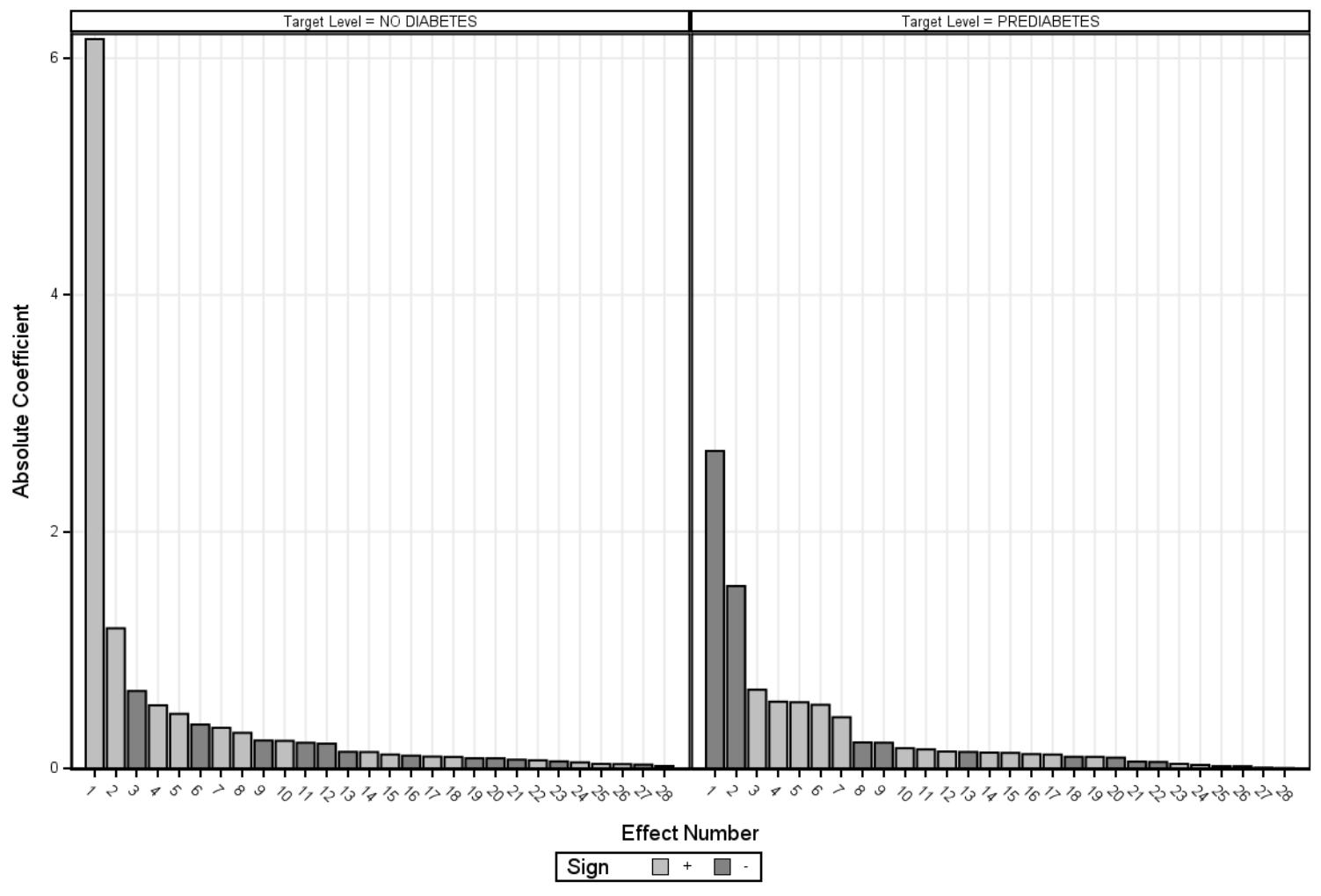
Target=Diabetes\_Prediction Target Label=Diabetes Prediction

Label of Statistic	Train	Validation	Test
Akaike's Information Criterion	63598.69	.	.
Average Squared Error	0.07	0.07	0.07
Average Error Function	0.26	0.26	0.26
Degrees of Freedom for Error	160400.00	.	.
Model Degrees of Freedom	56.00	.	.

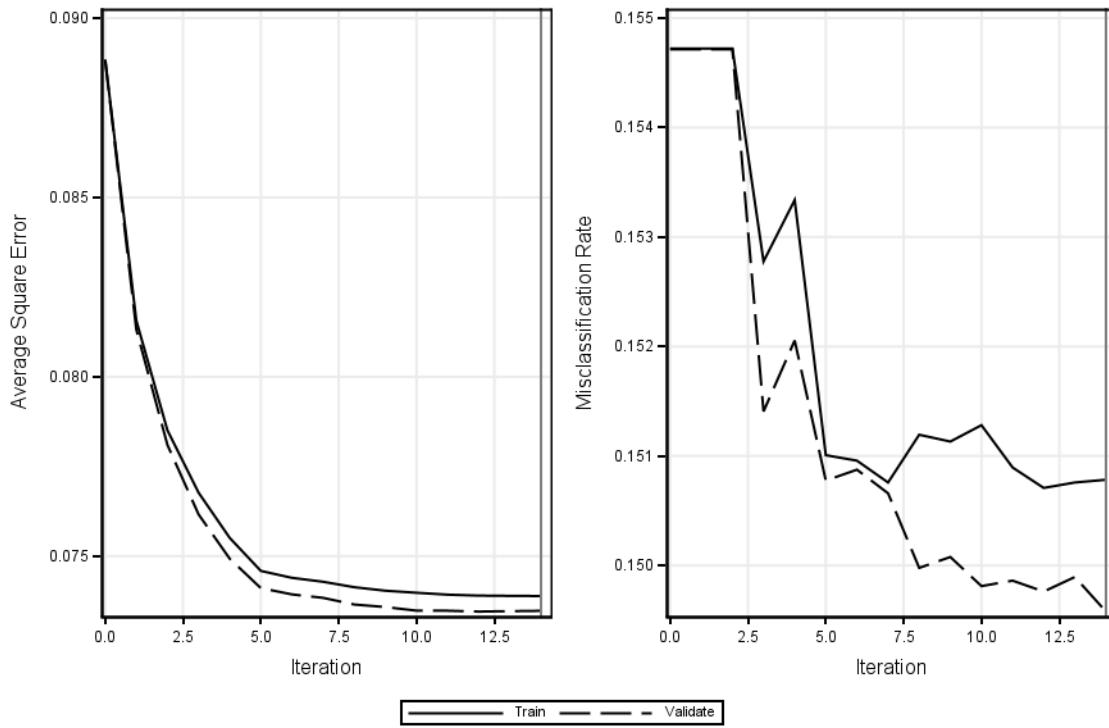
Target=Diabetes\_Prediction Target Label=Diabetes Prediction

Label of Statistic	Train	Validation	Test
Total Degrees of Freedom	160456.00		
Divisor for ASE	240684.00	180507.00	180528.00
Error Function	63486.69	47288.47	47321.97
Final Prediction Error	0.07		
Maximum Absolute Error	1.00	1.00	1.00
Mean Square Error	0.07	0.07	0.07
Sum of Frequencies	80228.00	60169.00	60176.00
Number of Estimate Weights	56.00		
Root Average Sum of Squares	0.27	0.27	0.27
Root Final Prediction Error	0.27		
Root Mean Squared Error	0.27	0.27	0.27
Schwarz's Bayesian Criterion	64157.90		
Sum of Squared Errors	17783.49	13262.82	13237.69
Sum of Case Weights Times Freq	240684.00	180507.00	180528.00
Misclassification Rate	0.15	0.15	0.15

**SAS Enterprise Miner Report**  
**Node=Forward Regression**  
**Regression Model Effects**



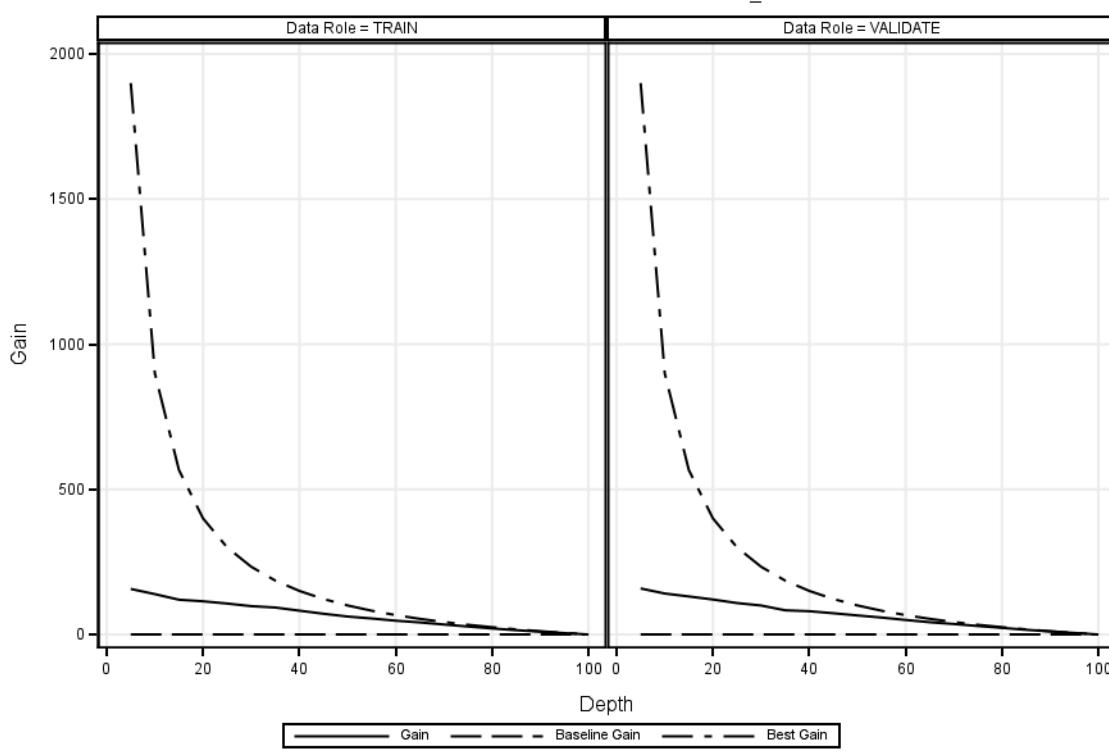
SAS Enterprise Miner Report  
Node=Forward Regression  
Model Iteration Plots



SAS Enterprise Miner Report

Node=Forward Regression

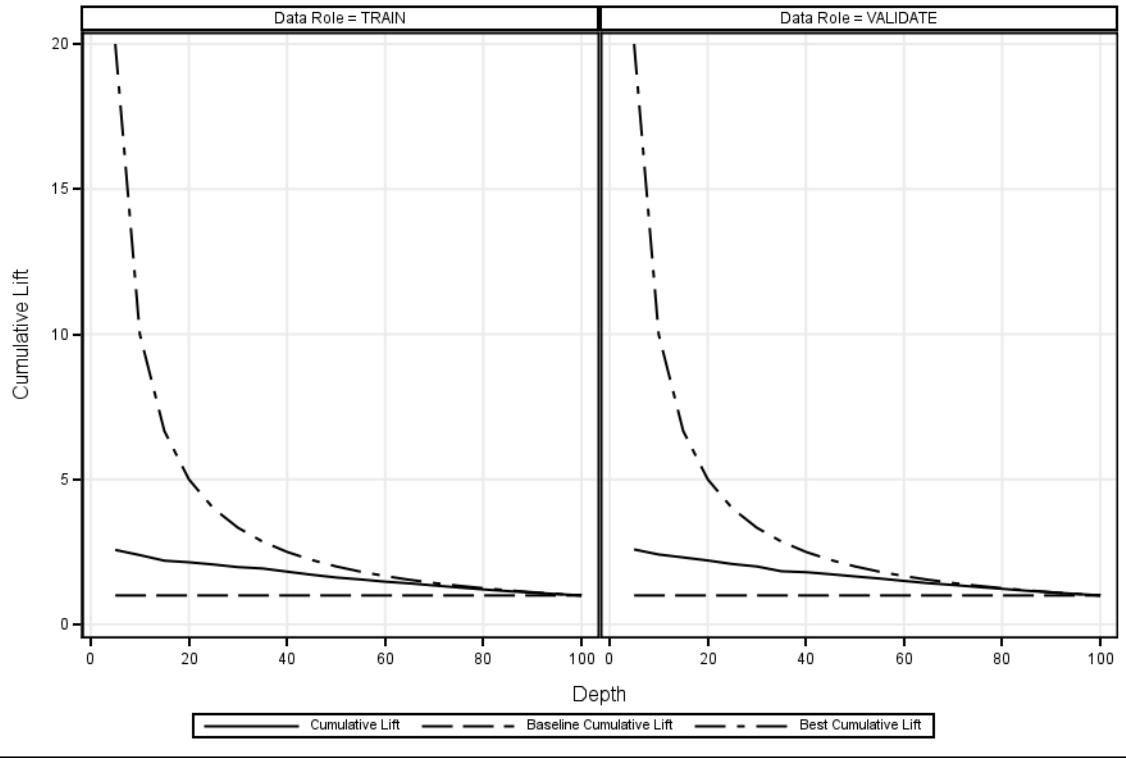
Model Assessment Scores where TARGET='Diabetes\_Prediction'



### SAS Enterprise Miner Report

Node=Forward Regression

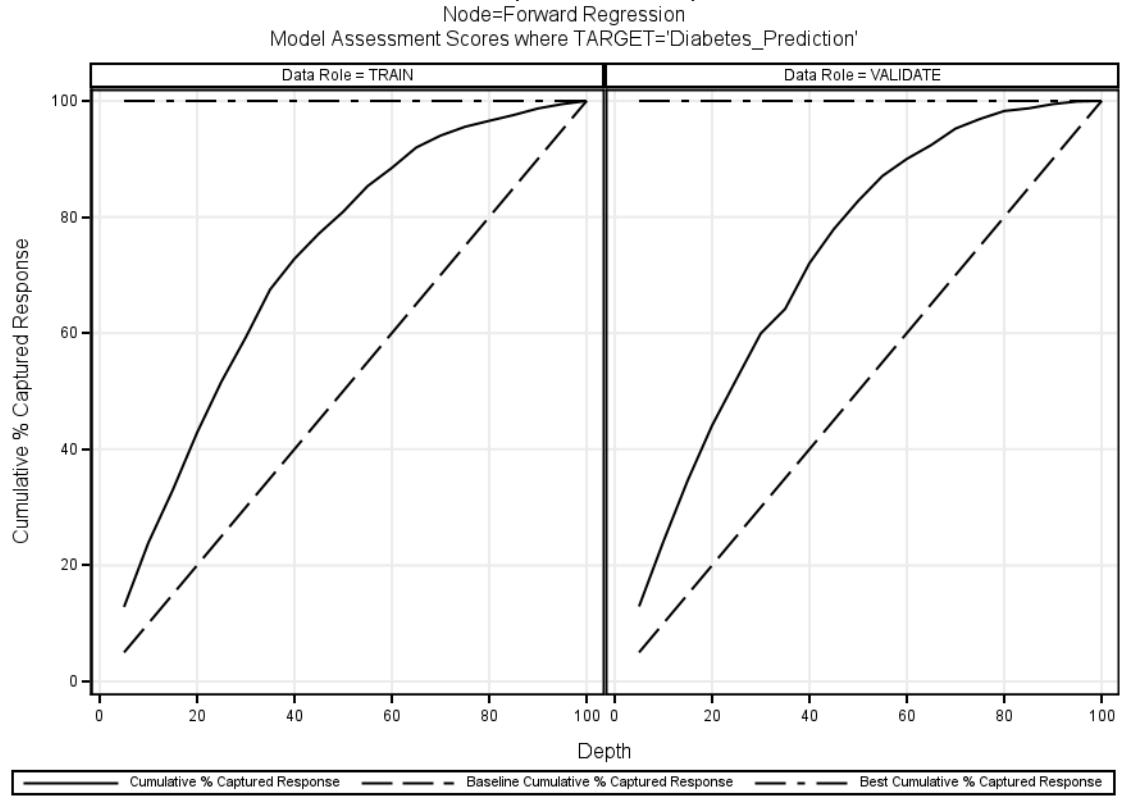
Model Assessment Scores where TARGET='Diabetes\_Prediction'

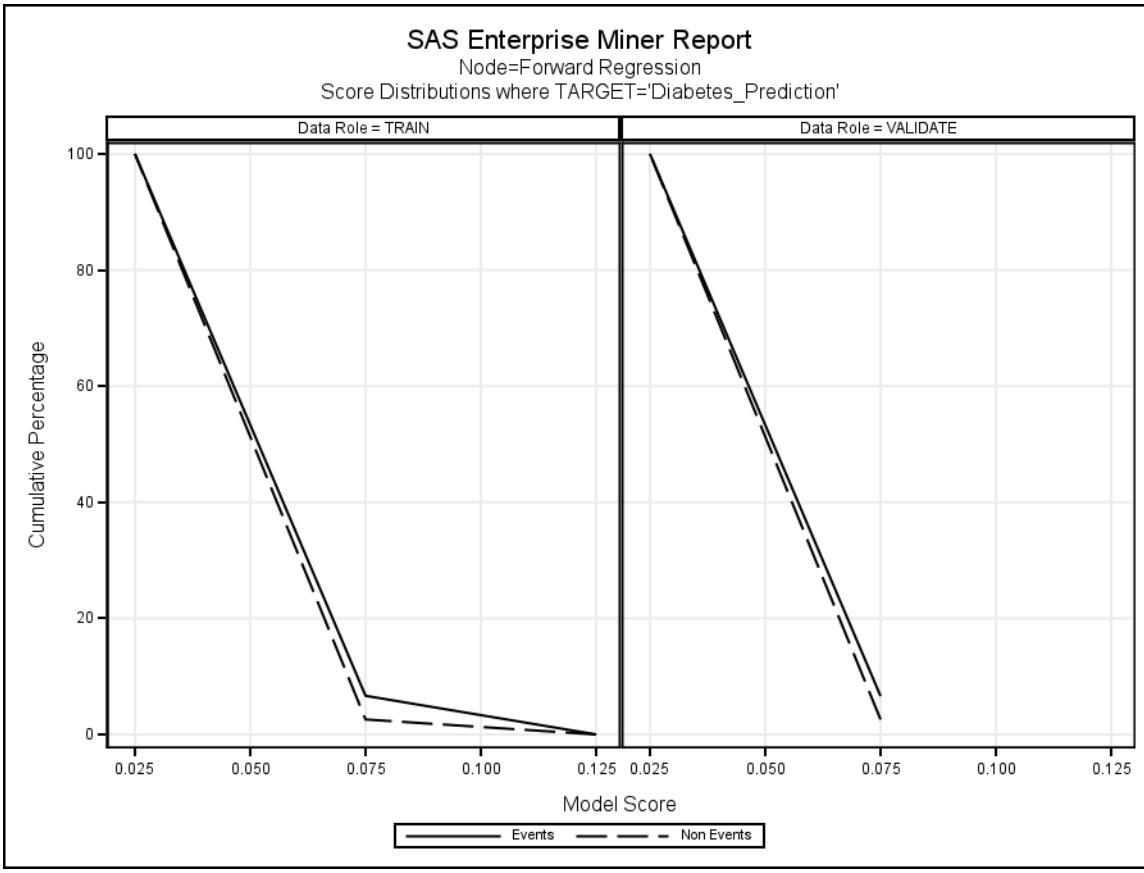
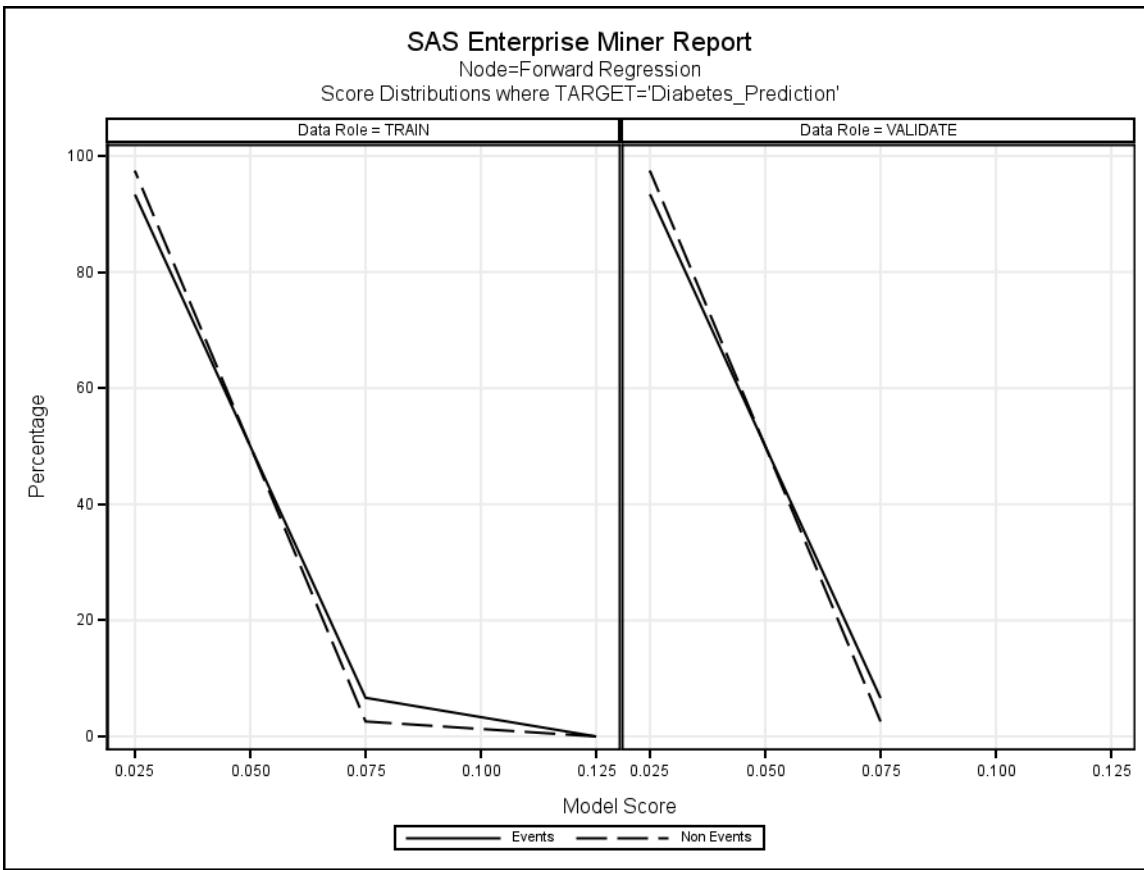


### SAS Enterprise Miner Report

Node=Forward Regression

Model Assessment Scores where TARGET='Diabetes\_Prediction'





**Node=Forward Regression**  
**Score Distributions**

Target Variable=Diabetes\_Prediction Data Role=TRAIN

Posterior Probability Range	Number of Events	Percentage of Events	Percentage of Nonevents	Cumulative Percentage of Events	Cumulative Percentage of Nonevents
0.10-0.15	0	0.0000	0.0025	0.000	0.003
0.05-0.10	97	6.6621	2.5796	6.662	2.582
0.00-0.05	1359	93.3379	97.4179	100.000	100.000

Target Variable=Diabetes\_Prediction Data Role=VALIDATE

Posterior Probability Range	Number of Events	Percentage of Events	Percentage of Nonevents	Cumulative Percentage of Events	Cumulative Percentage of Nonevents
0.05-0.10	72	6.5995	2.5729	6.599	2.573
0.00-0.05	1019	93.4005	97.4271	100.000	100.000

## SAS Enterprise Miner Report

### Node=Exhaustive Regression Summary

Node id = Reg  
 Node label = Exhaustive Regression  
 Meta path = lds5 => Part => Reg  
 Notes =

### Node=Exhaustive Regression Properties

Property	Value	Default	Property	Value	Default	Property	Value	Default
Component	Regression		Force	0		PolynomialDegree	2	
AbsConvValue	-1.34078E154	-7.237006E75	GConvTimes	1		PrintDesignMatrix	N	
AbsFTime	1		GConvValue	1E-6		Rule	NONE	
AbsFValue	0		Hierarchy	CLASS		SASSPDS	N	
AbsGTime	1		InputCoding	DEVIATION		SelectionCriterion	DEFAULT	
AbsGValue	0.00001		Interactions			SelectionDefault	Y	
AbsXTime	1		LinkFunction	LOGIT		Sequential	N	
AbsXValue	1E-8		MainEffect	Y		Simple	N	
CIParam	N		MaxCPUTime	1 HOUR		SIEntry	0.05	
ConvDefaults	Y		MaxFunctionCalls	.		SISStay	0.05	
CorB	N		MaxIterations	.		Start	0	
CovB	N		MaxStep	.		StepOutput	N	
Covout	N		MinResourceUse	N		Stop	0	
Details	N		ModelDefaults	Y		SuppressIntercept	N	
Error	LOGISTIC		ModelSelection	NONE		SuppressOutput	N	
ExcludedVariable	REJECT		OptimizationTechnique	DEFAULT		Terms	N	
FConvTimes	1		Performance	N		TwoFactor	N	
FConvValue	0		Polynomial	N				

### Node=Exhaustive Regression Variable Summary

Role	Level	Frequency		Name
		Count	Name	
TARGET	NOMINAL	1	Diabetes_Prediction	
INPUT	BINARY	14	AnyHealthcare CholCheck DiffWalk Fruits HeartDiseaseorAttack HighBP HighChol HwyAlcoholConsump NoDocbcCost PhysActivity Sex Smoker Stroke Veggies	
INPUT	INTERVAL	2	Age BMI	
INPUT	ORDINAL	5	Education GenHlth Income MentHlth PhysHlth	

### Node=Exhaustive Regression Model Fit Statistics

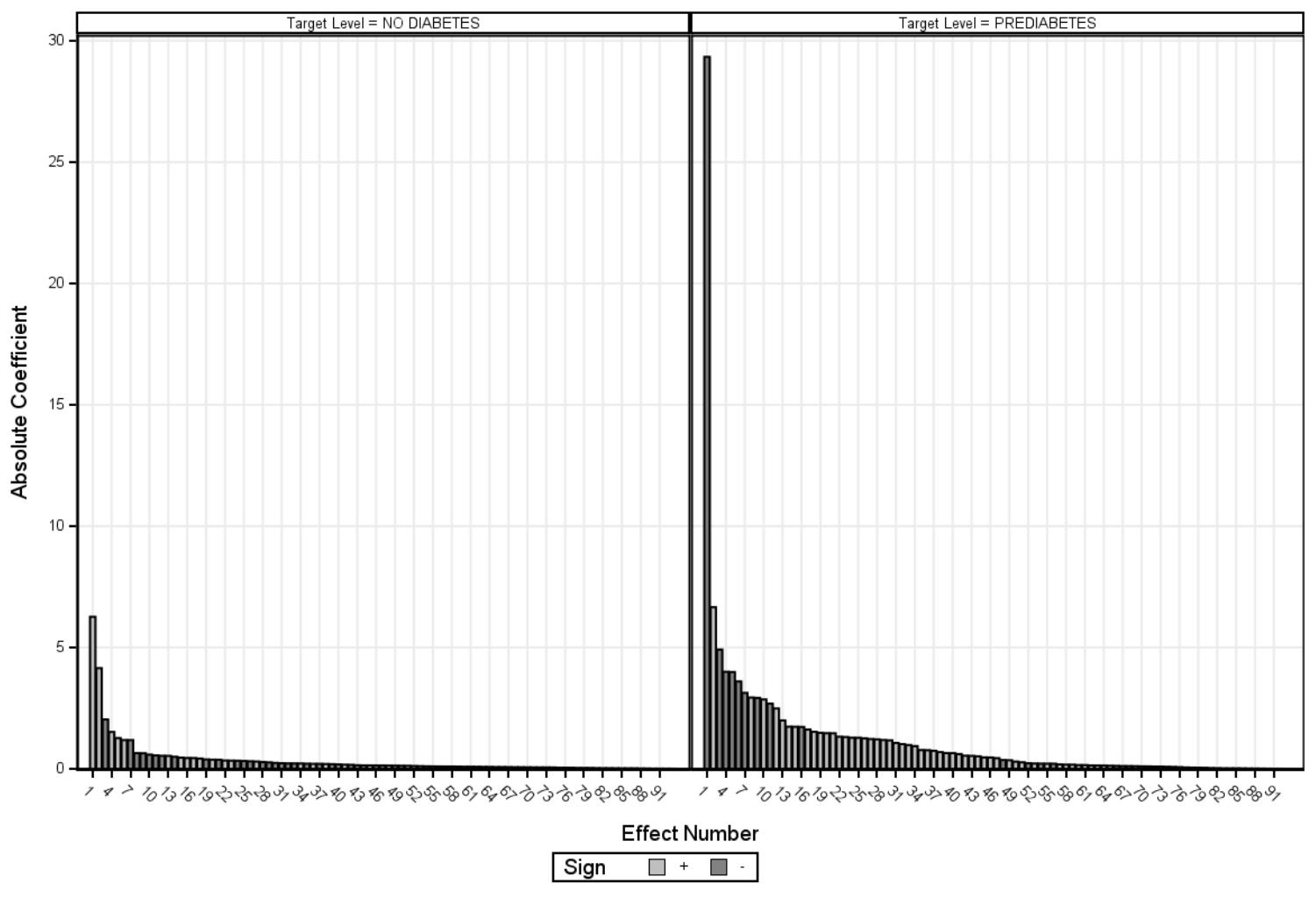
Target=Diabetes\_Prediction Target Label=Diabetes Prediction

Label of Statistic	Train	Validation	Test
Akaike's Information Criterion	63714.62	.	.
Average Squared Error	0.07	0.07	0.07
Average Error Function	0.26	0.26	0.26
Degrees of Freedom for Error	160270.00	.	.
Model Degrees of Freedom	186.00	.	.

Target=Diabetes\_Prediction Target Label=Diabetes Prediction

Label of Statistic	Train	Validation	Test
Total Degrees of Freedom	160456.00		
Divisor for ASE	240684.00	180507.00	180528.00
Error Function	63342.62	47431.90	47387.22
Final Prediction Error	0.07		
Maximum Absolute Error	1.00	1.00	1.00
Mean Square Error	0.07	0.07	0.07
Sum of Frequencies	80228.00	60169.00	60176.00
Number of Estimate Weights	186.00		
Root Average Sum of Squares	0.27	0.27	0.27
Root Final Prediction Error	0.27		
Root Mean Squared Error	0.27	0.27	0.27
Schwarz's Bayesian Criterion	65571.97		
Sum of Squared Errors	17754.36	13281.74	13247.56
Sum of Case Weights Times Freq	240684.00	180507.00	180528.00
Misclassification Rate	0.15	0.15	0.15

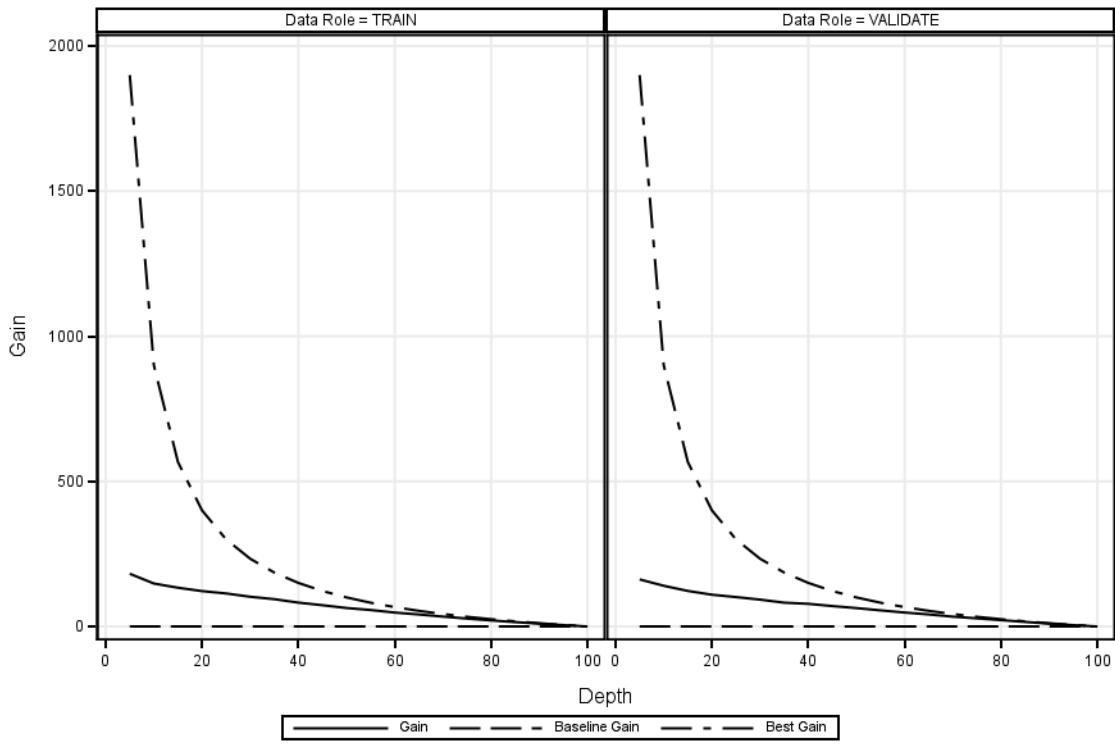
**SAS Enterprise Miner Report**  
**Node=Exhaustive Regression**  
**Regression Model Effects**



### SAS Enterprise Miner Report

Node=Exhaustive Regression

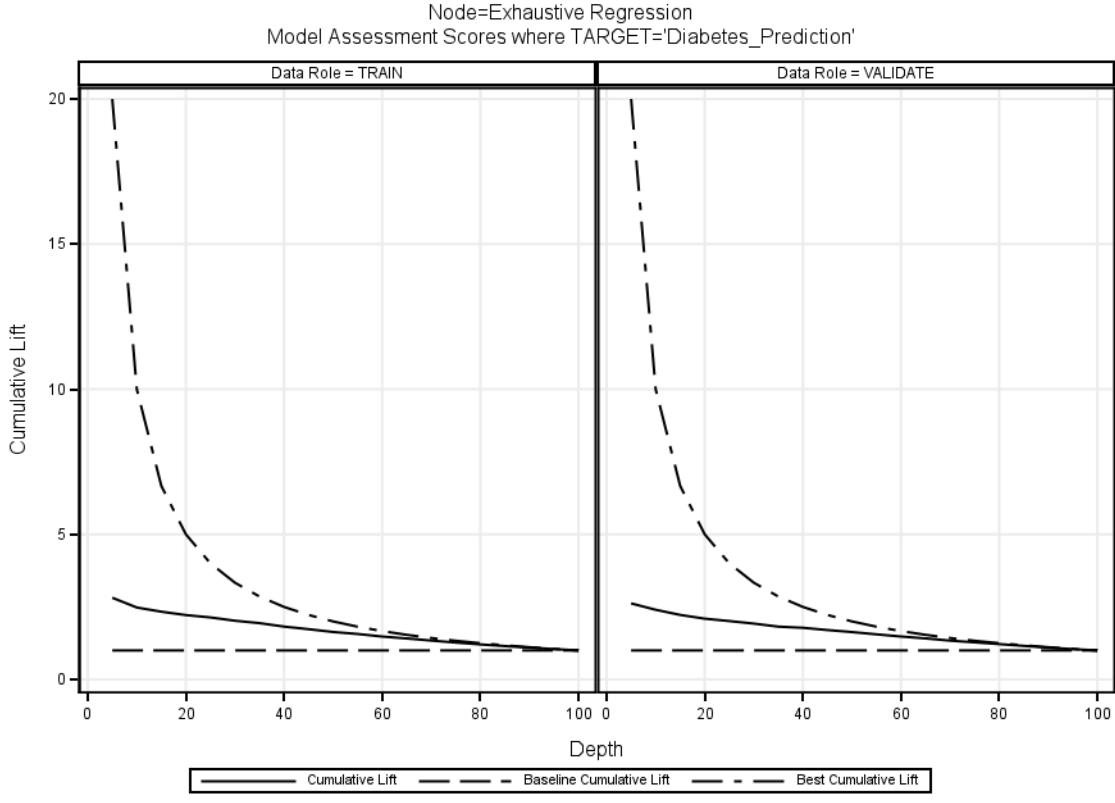
Model Assessment Scores where TARGET='Diabetes\_Prediction'



### SAS Enterprise Miner Report

Node=Exhaustive Regression

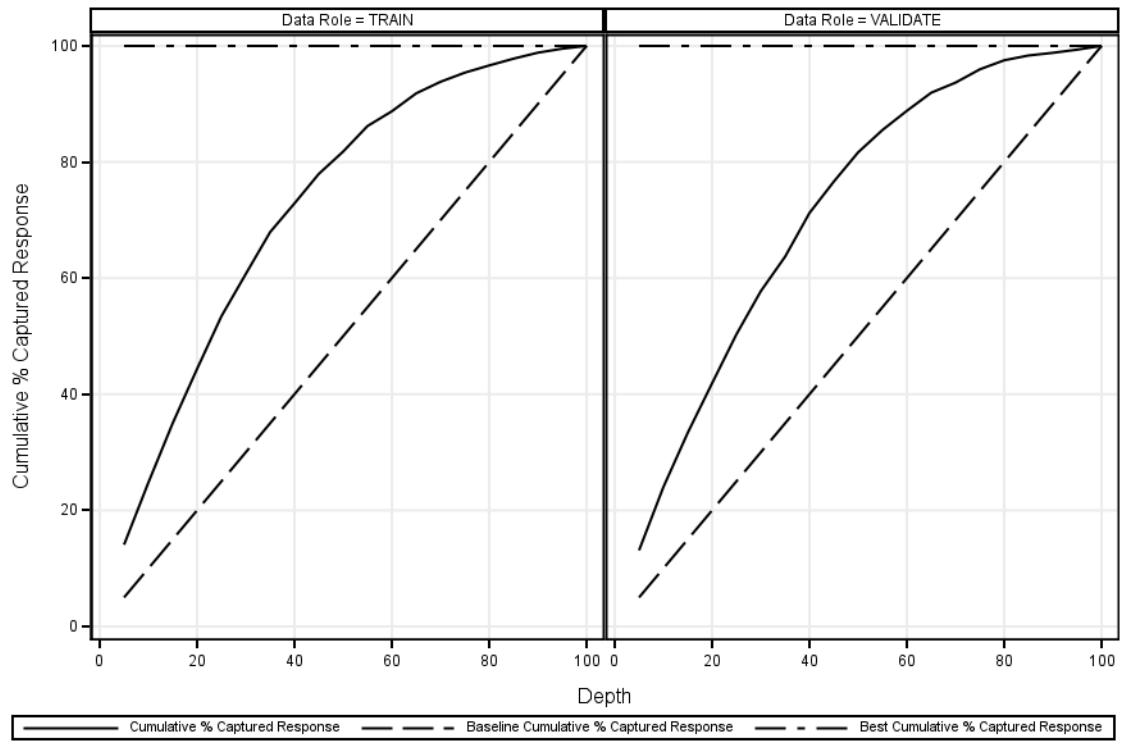
Model Assessment Scores where TARGET='Diabetes\_Prediction'



### SAS Enterprise Miner Report

Node=Exhaustive Regression

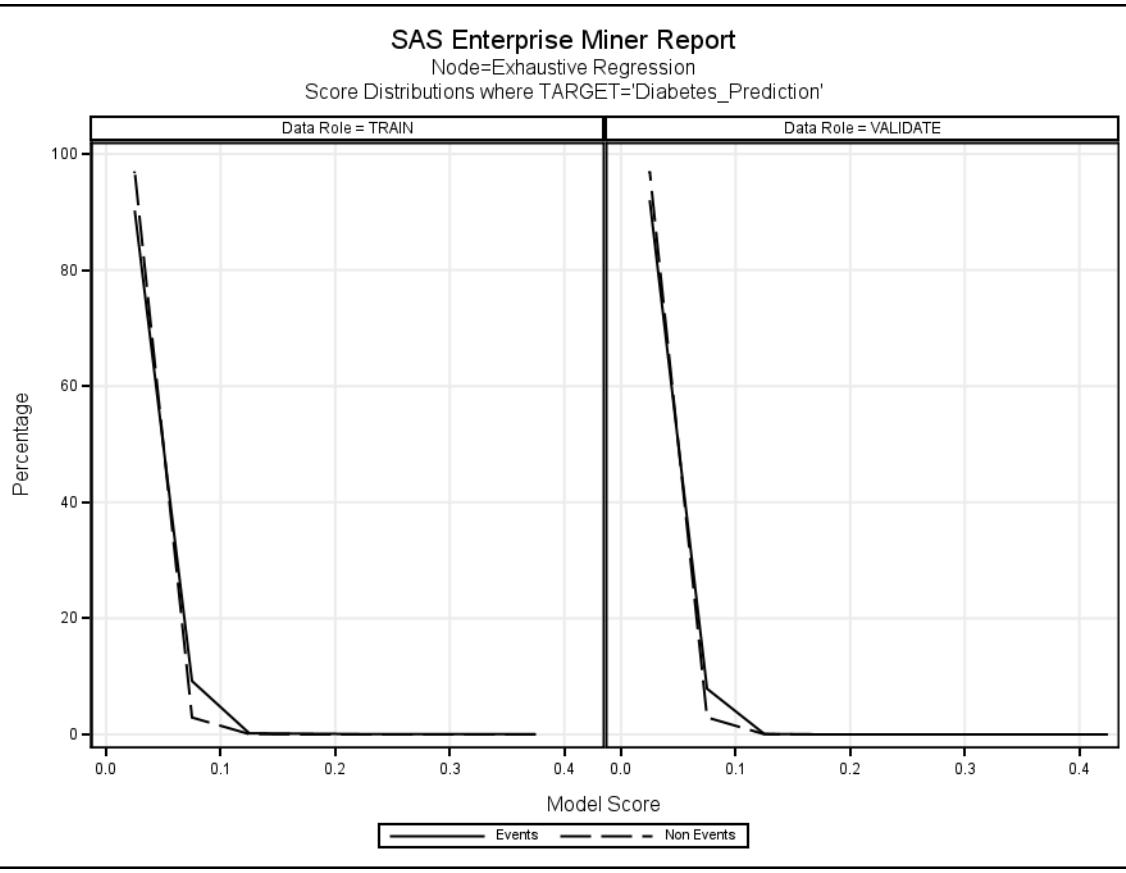
Model Assessment Scores where TARGET='Diabetes\_Prediction'



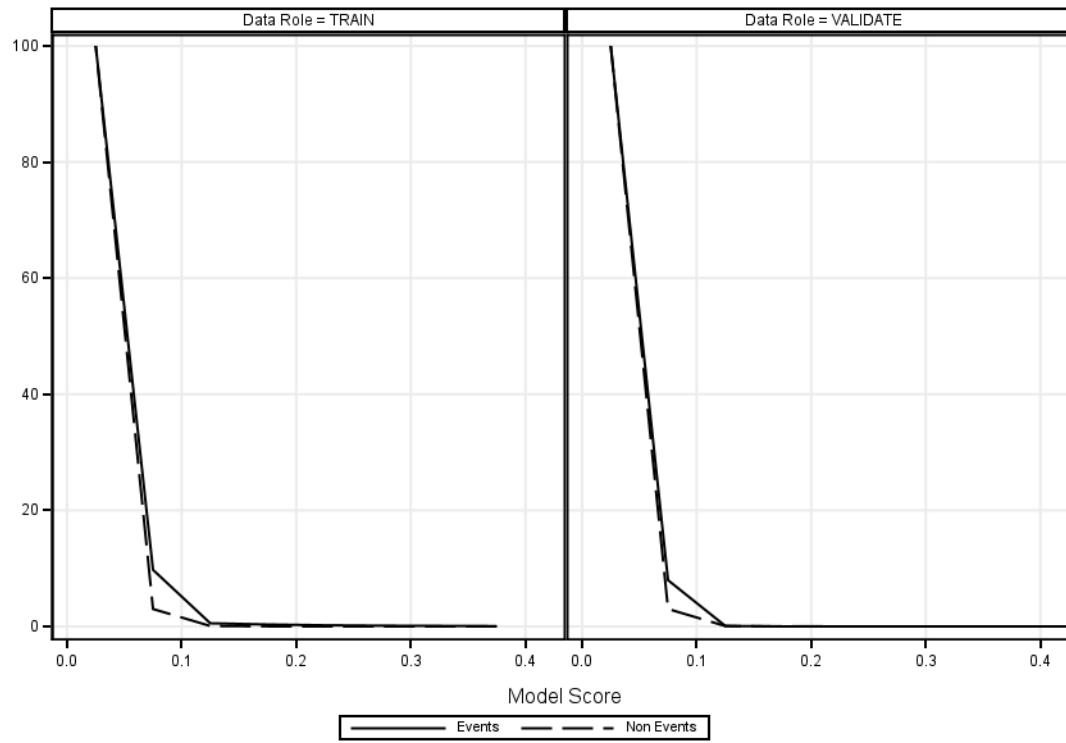
### SAS Enterprise Miner Report

Node=Exhaustive Regression

Score Distributions where TARGET='Diabetes\_Prediction'



**SAS Enterprise Miner Report**  
 Node=Exhaustive Regression  
 Score Distributions where TARGET='Diabetes\_Prediction'



**Node=Exhaustive Regression**  
**Score Distributions**

Target Variable=Diabetes\_Prediction Data Role=TRAIN

Posterior Probability Range	Number of Events	Percentage of Events	Percentage of Nonevents	Cumulative Percentage of Events	Cumulative Percentage of Nonevents
0.35-0.40	1	0.0687	0.0013	0.069	0.001
0.25-0.30	1	0.0687	0.0013	0.137	0.003
0.20-0.25	1	0.0687	0.0038	0.206	0.006
0.15-0.20	2	0.1374	0.0127	0.343	0.019
0.10-0.15	3	0.2060	0.0686	0.549	0.088
0.05-0.10	134	9.2033	2.9198	9.753	3.007
0.00-0.05	1314	90.2473	96.9926	100.000	100.000

Target Variable=Diabetes\_Prediction Data Role=VALIDATE

Posterior Probability Range	Number of Events	Percentage of Events	Percentage of Nonevents	Cumulative Percentage of Events	Cumulative Percentage of Nonevents
0.40-0.45	0	0.0000	0.0017	0.000	0.002
0.30-0.35	0	0.0000	0.0034	0.000	0.005
0.25-0.30	0	0.0000	0.0051	0.000	0.010
0.20-0.25	0	0.0000	0.0051	0.000	0.015
0.15-0.20	0	0.0000	0.0135	0.000	0.029
0.10-0.15	1	0.0917	0.0491	0.092	0.078
0.05-0.10	86	7.8827	2.9334	7.974	3.011
0.00-0.05	1004	92.0257	96.9887	100.000	100.000

## SAS Enterprise Miner Report

### Node=NNet Model Comparison Summary

Node id = MdlComp4  
 Node label = NNet Model Comparison  
 Meta path = lds5 => Part => Neural7 => MdlComp4  
 Notes =

### Node=NNet Model Comparison Properties

Property	Value	Default	Property	Value	Default	Property	Value	Default
Component	ModelCompare		NumberOfReportedLevels	1E-6		SelectionData	DEFAULT	
AssessAllTargetLevels	N		NumberofBins	20		SelectionDepth	10	
DecileBin	20		ProfitEpsilon	1E-6		SelectionTable	TRAIN	TABLE
HPCriteria	DEFAULT		RecomputeAssess	N		StatisticUsed	_VMISC_	
LiftEpsilon	1E-6		RocChart	Y		TargetLabel	Diabetes_Prediction	
ModelCriteria	Valid: Misclassification Rate		RocEpsilon	0.01		TargetName	Diabetes_Prediction	
ModelDescription	NNet 5HUBP		RoiEpsilon	1E-6		classViyaCriteria	DEFAULT	
ModelId	Neural7		ScoreDistBin	20		intervalViyaCriteria	DEFAULT	
NormalizeReportingVariables	Y		SelectionCriteria	DEFAULT				

### Node=NNet Model Comparison Variable Summary

Role	Level	Frequency	
		Count	Name
TARGET	NOMINAL	1	Diabetes_Prediction

### Node=NNet Model Comparison Fit Statistics Table

Selected Model	Predecessor Node	Model Node	Model Description	Target Variable	Target Label	Selection		Train:		Kolmogorov-Smirnov Statistic
						Criterion:	Valid:	Average	Misclassification	
Y	Neural7	Neural7	NNet 5HUBP	Diabetes_Prediction	Diabetes Prediction	0.15471	0.087742	0.15472	0.118	
	Neural4	Neural4	NNet 3HUBP	Diabetes_Prediction	Diabetes Prediction	0.15471	0.088773	0.15472	0.080	
	Neural2	Neural2	NNet 5HU	Diabetes_Prediction	Diabetes Prediction	0.15737	0.078027	0.15940	0.295	
	Neural	Neural	NNet 3HU	Diabetes_Prediction	Diabetes Prediction	0.15812	0.076585	0.15862	0.310	

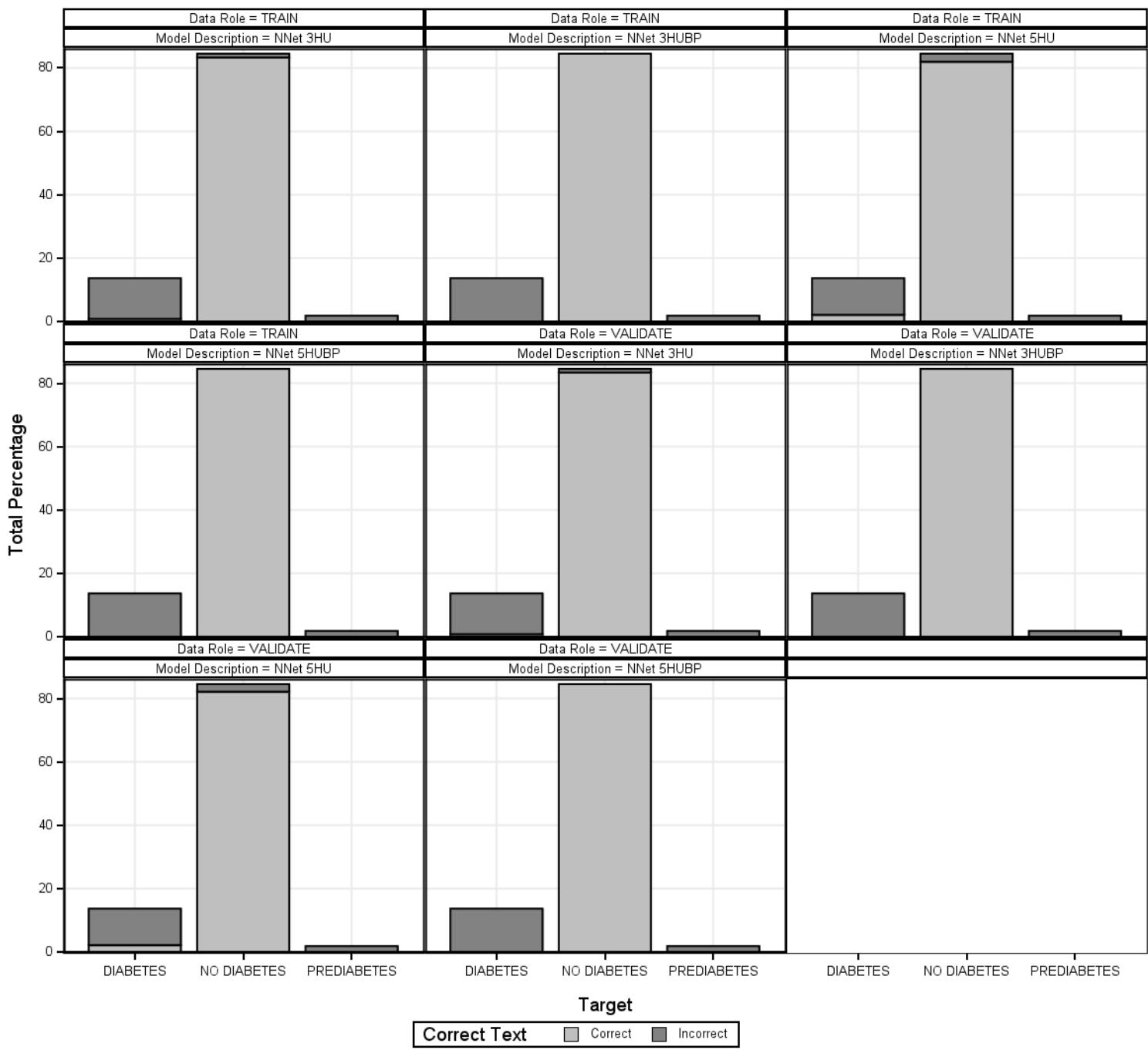
Selected Model	Predecessor Node	Model Node	Model Description	Target Variable	Target Label	Selection		Valid:		Kolmogorov-Smirnov Statistic
						Criterion:	Valid:	Average	Misclassification	
Y	Neural7	Neural7	NNet 5HUBP	Diabetes_Prediction	Diabetes Prediction	0.15471	0.087737	0.15471	0.117	
	Neural4	Neural4	NNet 3HUBP	Diabetes_Prediction	Diabetes Prediction	0.15471	0.088770	0.15471	0.071	
	Neural2	Neural2	NNet 5HU	Diabetes_Prediction	Diabetes Prediction	0.15737	0.077669	0.15737	0.299	
	Neural	Neural	NNet 3HU	Diabetes_Prediction	Diabetes Prediction	0.15812	0.076279	0.15812	0.314	

# SAS Enterprise Miner Report

Node=NNNet Model Comparison

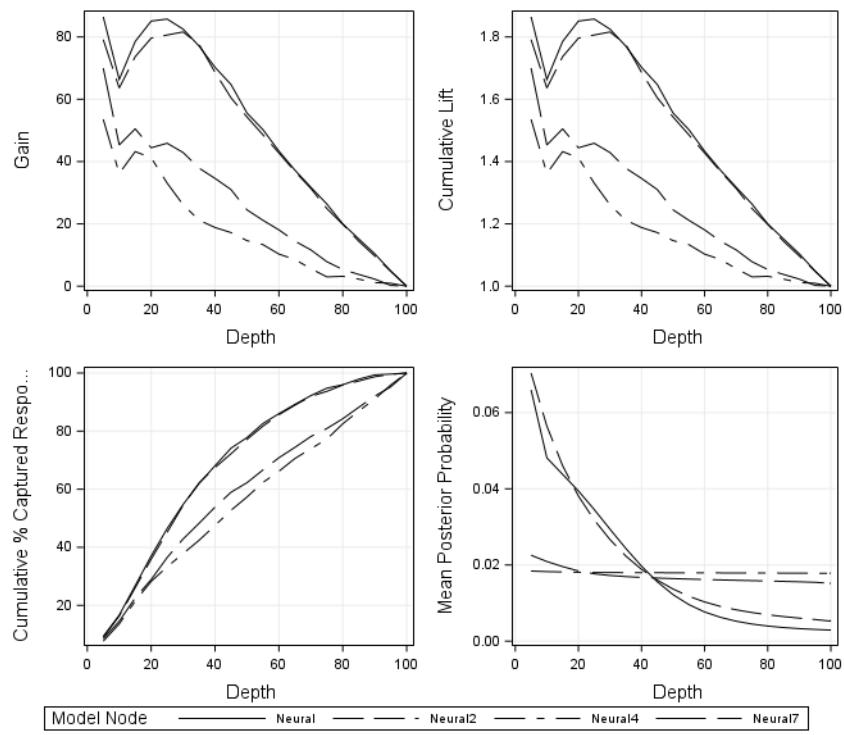
Classification Chart

TARGET='Diabetes\_Prediction' and \_TYPE\_='PREDICTION'



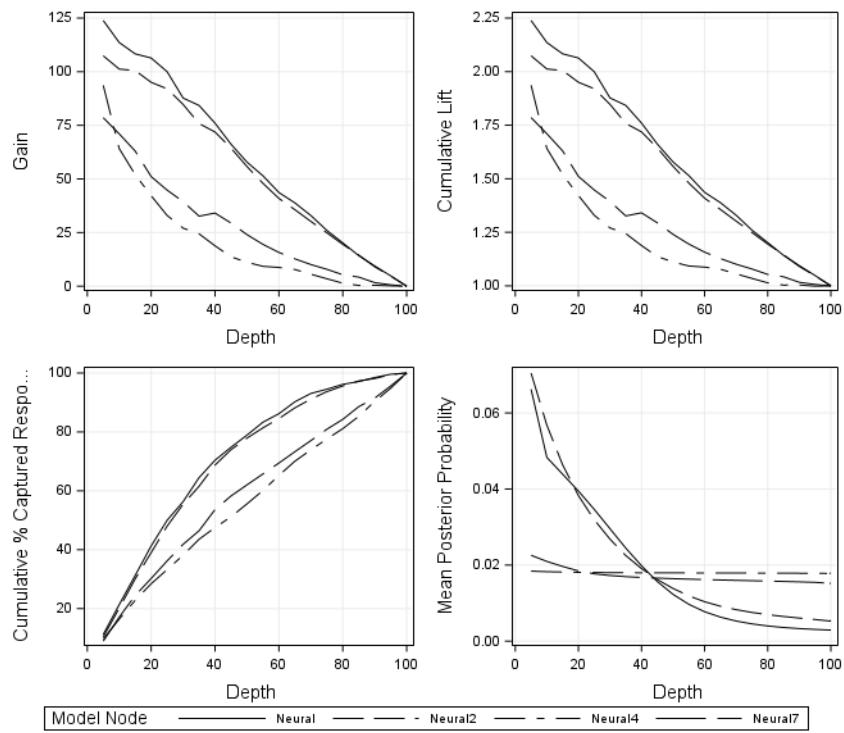
## SAS Enterprise Miner Report

Node=NNet Model Comparison  
 Multiple Model Assessment Scores where DataRole=TEST  
 TARGET='Diabetes\_Prediction'



## SAS Enterprise Miner Report

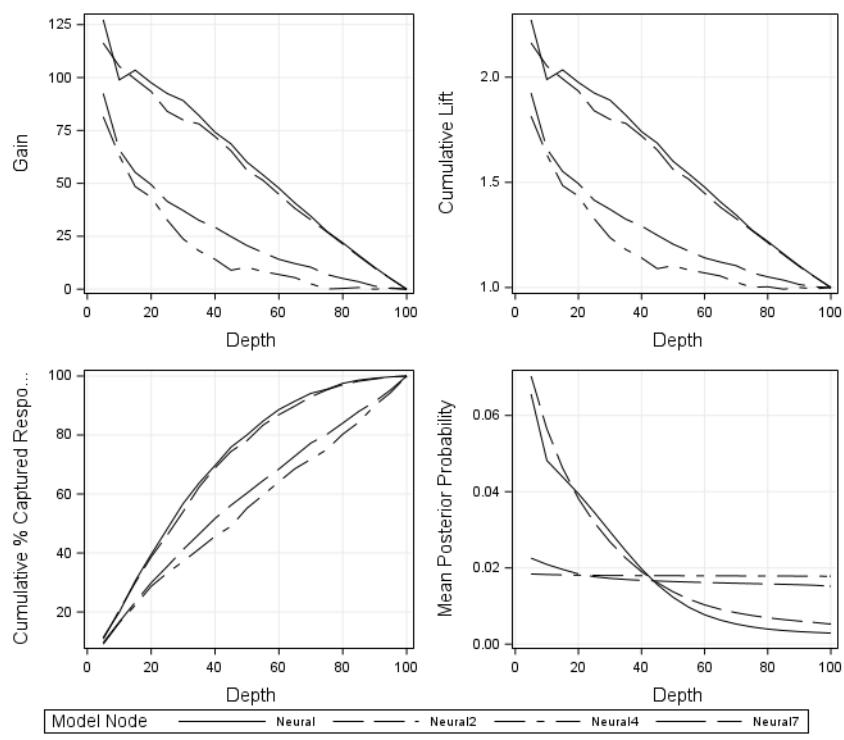
Node=NNet Model Comparison  
 Multiple Model Assessment Scores where DataRole=TRAIN  
 TARGET='Diabetes\_Prediction'



## SAS Enterprise Miner Report

Node=NNet Model Comparison

Multiple Model Assessment Scores where DataRole=VALIDATE  
TARGET='Diabetes\_Prediction'



## SAS Enterprise Miner Report

### Node=DecisionTree Model Comparison Summary

Node id = MdlComp  
 Node label = DecisionTree Model Comparison  
 Meta path = lds5 => Part => Tree4 => MdlComp  
 Notes =

### Node=DecisionTree Model Comparison Properties

Property	Value	Default	Property	Value	Default	Property	Value	Default
Component	ModelCompare		NumberOfReportedLevels	1E-6		SelectionData	DEFAULT	
AssessAllTargetLevels	N		NumberofBins	20		SelectionDepth	10	
DecileBin	20		ProfitEpsilon	1E-6		SelectionTable	TRAIN	TABLE
HPCriteria	DEFAULT		RecomputeAssess	N		StatisticUsed	_VMISC_	
LiftEpsilon	1E-6		RocChart	Y		TargetLabel	Diabetes Prediction	
ModelCriteria	Valid: Misclassification Rate		RocEpsilon	0.01		TargetName	Diabetes_Prediction	
ModelDescription	ClassDec Tree B3D6		RoiEpsilon	1E-6		classViyaCriteria	DEFAULT	
ModelId	Tree4		ScoreDistBin	20		intervalViyaCriteria	DEFAULT	
NormalizeReportingVariables	Y		SelectionCriteria	DEFAULT				

### Node=DecisionTree Model Comparison Variable Summary

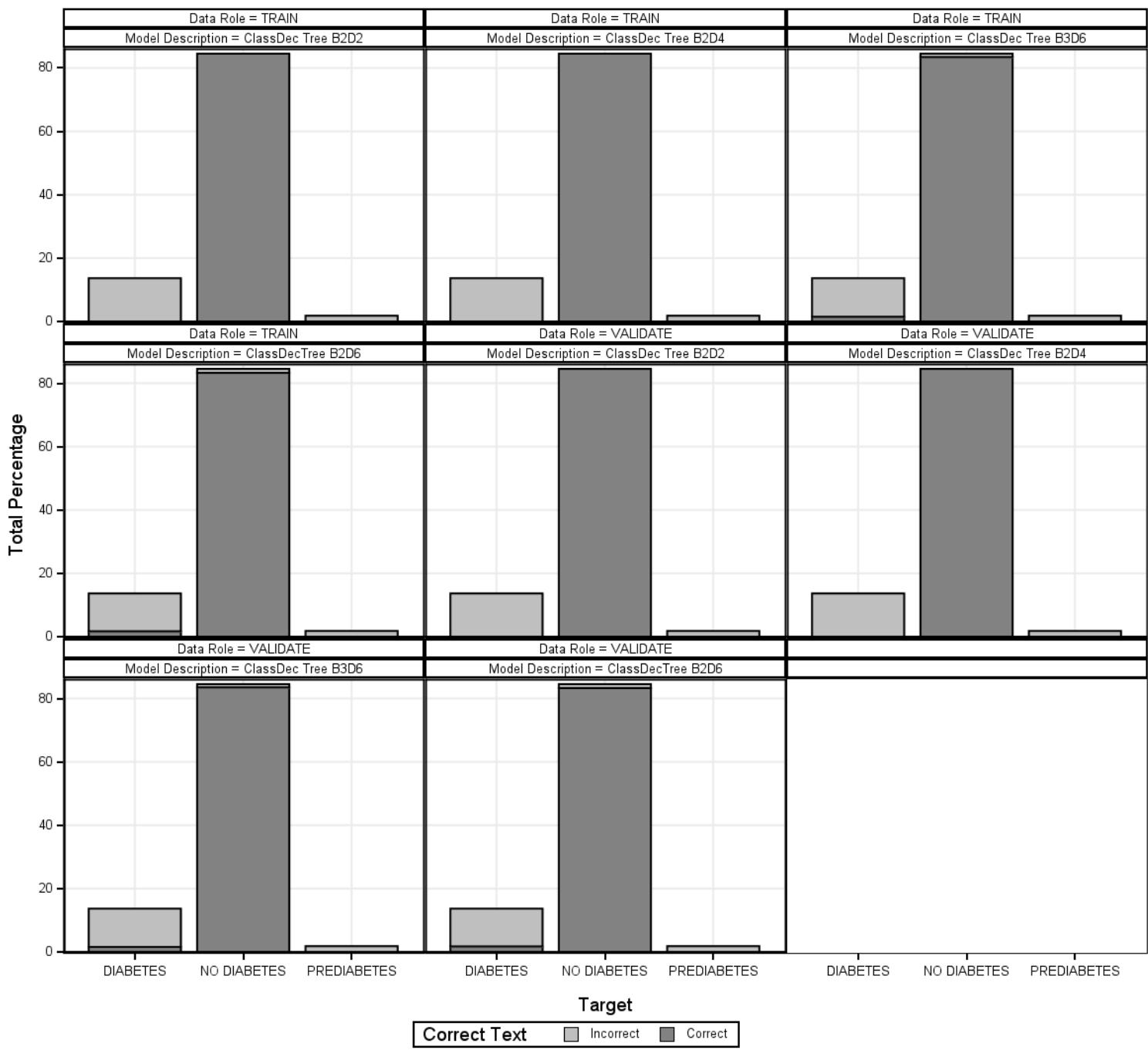
Role	Level	Frequency	
		Count	Name
TARGET	NOMINAL	1	Diabetes_Prediction

### Node=DecisionTree Model Comparison Fit Statistics Table

Selected Model	Predecessor Node	Model Node	Model Description	Target Variable	Target Label	Selection Criterion:		Train: Average Squared Error	Train: Misclassification Rate	Train: Kolmogorov-Smirnov Statistic	Train: Average Squared Error	Valid: Average Squared Error
						Valid: Misclassification Rate	Selection Criterion:					
Y	Tree4	Tree4	ClassDec Tree B3D6	Diabetes_Prediction	Diabetes Prediction	0.14911	0.079704	0.15045			0.216	0.079248
	Tree	Tree	ClassDecTree B2D6	Diabetes_Prediction	Diabetes Prediction	0.14986	0.078603	0.15016			0.210	0.078352
	Tree2	Tree2	ClassDec Tree B2D4	Diabetes_Prediction	Diabetes Prediction	0.15471	0.088841	0.15472			0.000	0.088836
	Tree3	Tree3	ClassDec Tree B2D2	Diabetes_Prediction	Diabetes Prediction	0.15471	0.088841	0.15472			0.000	0.088836

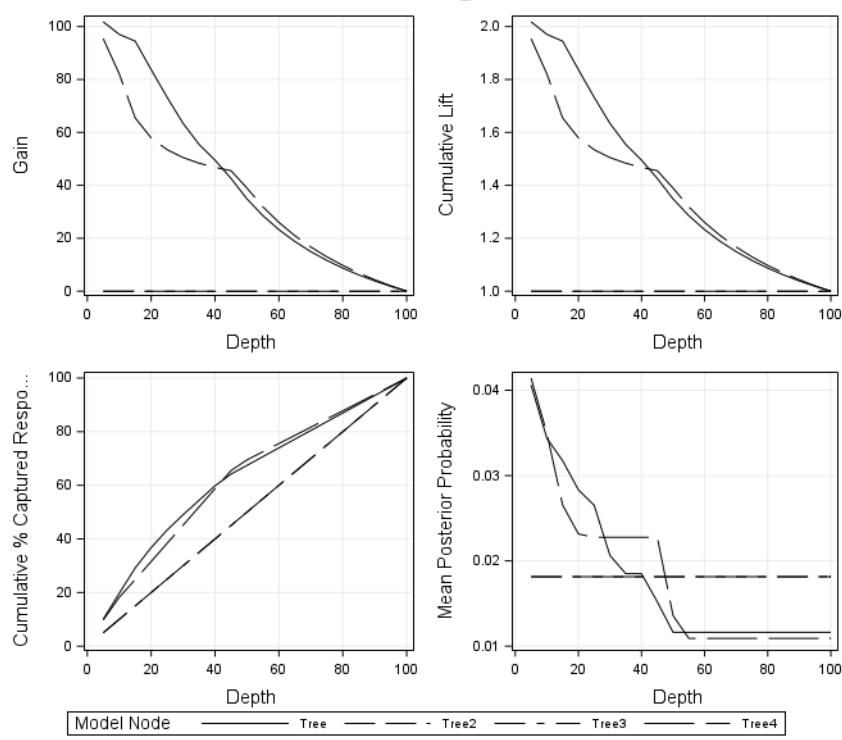
Selected Model	Predecessor Node	Model Node	Model Description	Target Variable	Target Label	Selection Criterion:		Valid: Misclassification Rate	Valid: Kolmogorov-Smirnov Statistic	Valid: Kolmogorov-Smirnov Statistic
						Valid: Misclassification Rate	Selection Criterion:			
Y	Tree4	Tree4	ClassDec Tree B3D6	Diabetes_Prediction	Diabetes Prediction	0.14911	0.14911	0.14911		0.204
	Tree	Tree	ClassDecTree B2D6	Diabetes_Prediction	Diabetes Prediction	0.14986	0.14986	0.14986		0.218
	Tree2	Tree2	ClassDec Tree B2D4	Diabetes_Prediction	Diabetes Prediction	0.15471	0.15471	0.15471		0.000
	Tree3	Tree3	ClassDec Tree B2D2	Diabetes_Prediction	Diabetes Prediction	0.15471	0.15471	0.15471		0.000

**SAS Enterprise Miner Report**  
**Node=DecisionTree Model Comparison**  
**Classification Chart**  
**TARGET='Diabetes\_Prediction' and \_TYPE\_='PREDICTION'**



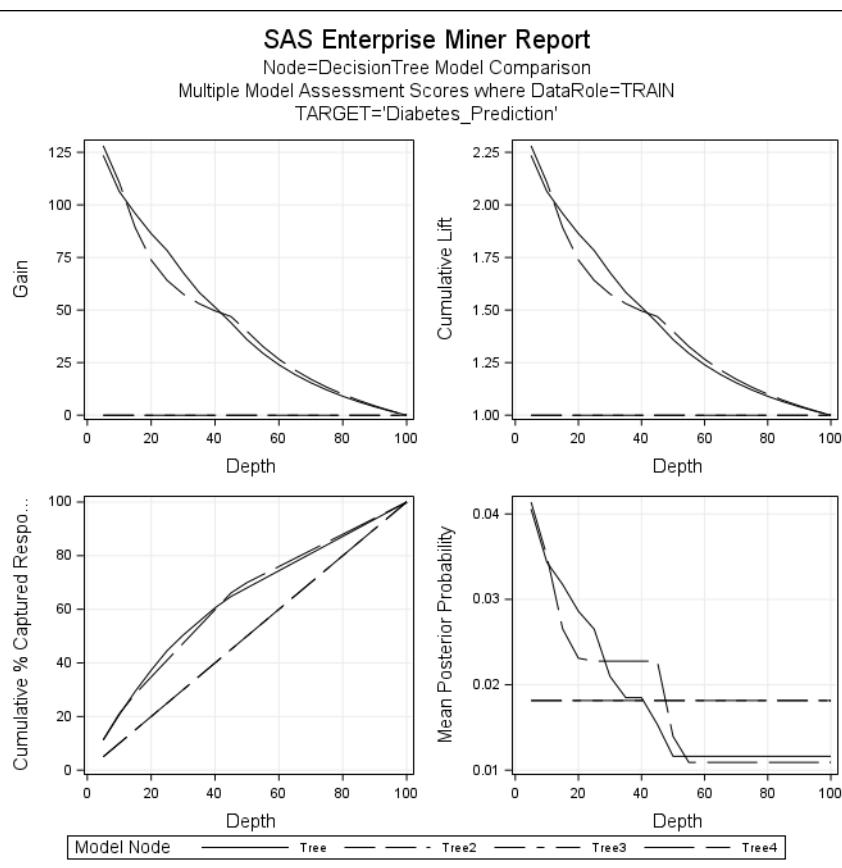
### SAS Enterprise Miner Report

Node=DecisionTree Model Comparison  
 Multiple Model Assessment Scores where DataRole=TEST  
 TARGET='Diabetes\_Prediction'



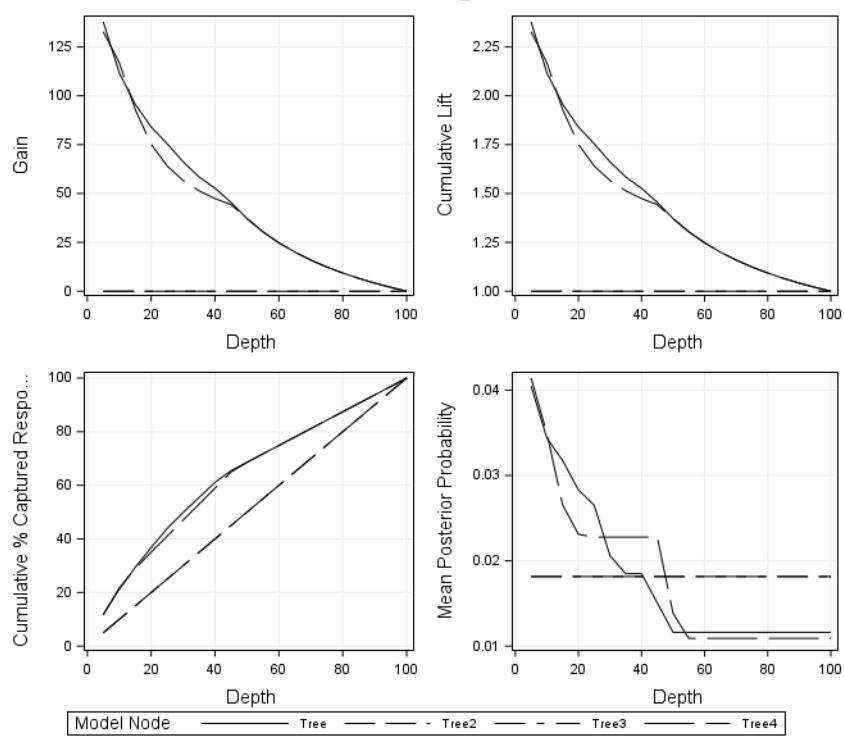
### SAS Enterprise Miner Report

Node=DecisionTree Model Comparison  
 Multiple Model Assessment Scores where DataRole=TRAIN  
 TARGET='Diabetes\_Prediction'



**SAS Enterprise Miner Report**

Node=DecisionTree Model Comparison

Multiple Model Assessment Scores where DataRole=VALIDATE  
TARGET='Diabetes\_Prediction'

## SAS Enterprise Miner Report

### Node=LogisticReg ModelComparison Summary

Node id = MdlComp2  
 Node label = LogisticReg ModelComparison  
 Meta path = Ids5 => Part => Reg => MdlComp2  
 Notes =

### Node=LogisticReg ModelComparison Properties

Property	Value	Default	Property	Value	Default	Property	Value	Default
Component	ModelCompare		NumberOfReportedLevels	1E-6		SelectionData	DEFAULT	
AssessAllTargetLevels	N		NumberofBins	20		SelectionDepth	10	
DecileBin	20		ProfitEpsilon	1E-6		SelectionTable	TRAIN	TABLE
HPCriteria	DEFAULT		RecomputeAssess	N		StatisticUsed	_VMISC_	
LiftEpsilon	1E-6		RocChart	Y		TargetLabel	Diabetes Prediction	
ModelCriteria	Valid: Misclassification Rate		RocEpsilon	0.01		TargetName	Diabetes_Prediction	
ModelDescription	Exhaustive Regression		RoiEpsilon	1E-6		classViyaCriteria	DEFAULT	
ModelId	Reg		ScoreDistBin	20		intervalViyaCriteria	DEFAULT	
NormalizeReportingVariables	Y		SelectionCriteria	DEFAULT				

### Node=LogisticReg ModelComparison Variable Summary

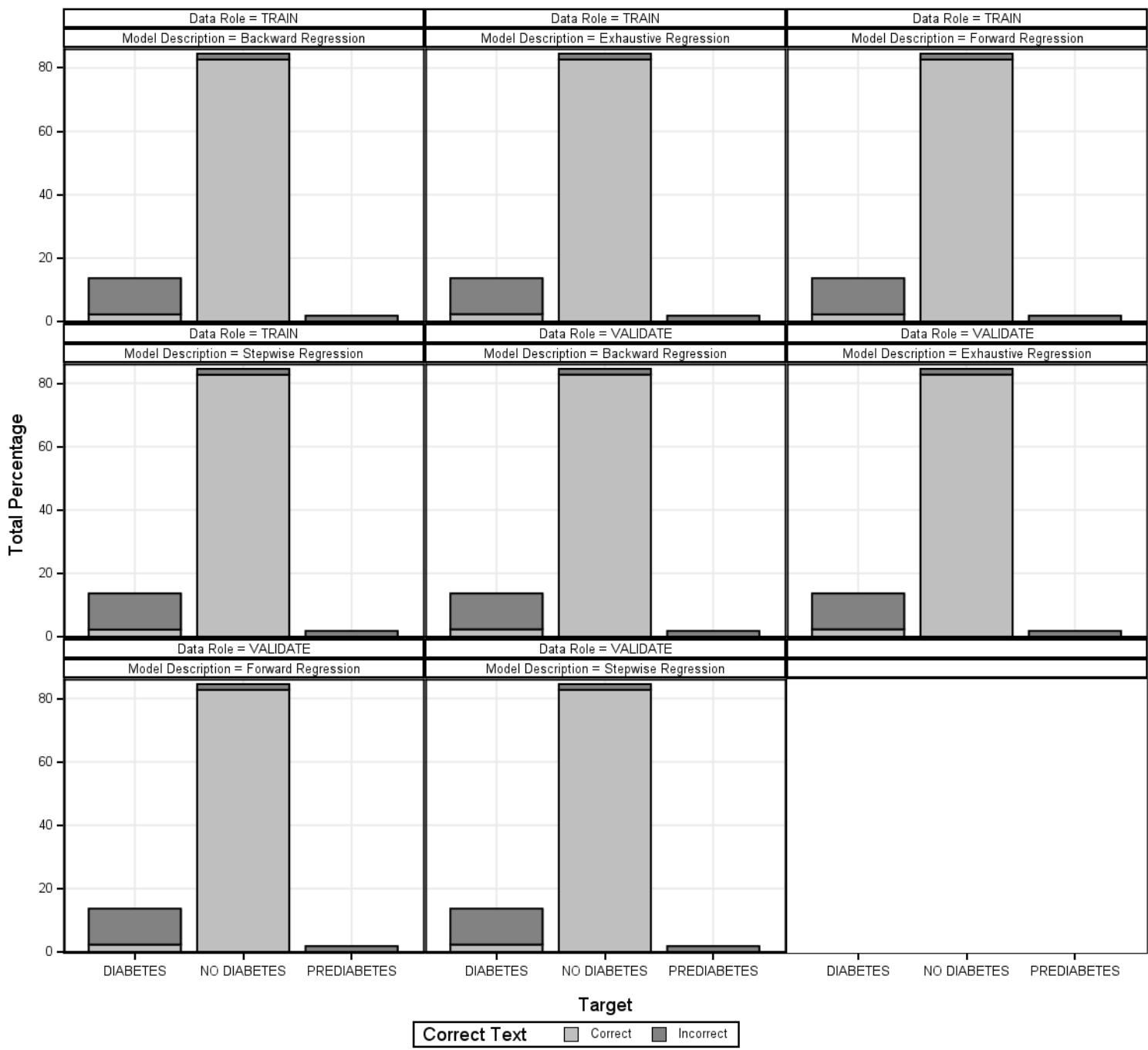
Role	Level	Frequency	
		Count	Name
TARGET	NOMINAL	1	Diabetes_Prediction

### Node=LogisticReg ModelComparison Fit Statistics Table

Selected Model	Predecessor Node	Model Node	Model Description	Target Variable	Target Label	Selection Criterion:		Train: Average Squared Error	Train: Misclassification Rate	Train: Kolmogorov-Smirnov Statistic	Train: Average Squared Error	Valid: Average Squared Error
						Valid: Misclassification Rate	Selection Criterion:					
Y	Reg	Reg	Exhaustive Regression	Diabetes_Prediction	Diabetes Prediction	0.14951	0.073766	0.14995	0.340	0.073580		
	Reg2	Reg2	Forward Regression	Diabetes_Prediction	Diabetes Prediction	0.14958	0.073887	0.15078	0.336	0.073475		
	Reg3	Reg3	Backward Regression	Diabetes_Prediction	Diabetes Prediction	0.14958	0.073887	0.15078	0.336	0.073475		
	Reg4	Reg4	Stepwise Regression	Diabetes_Prediction	Diabetes Prediction	0.14958	0.073887	0.15078	0.336	0.073475		

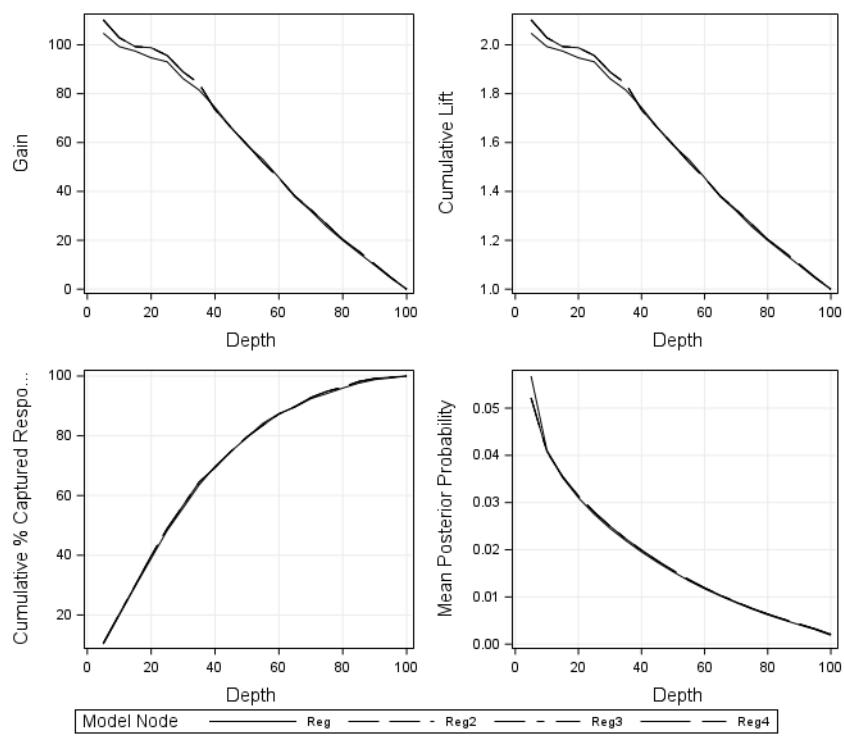
Selected Model	Predecessor Node	Model Node	Model Description	Target Variable	Target Label	Selection Criterion:		Valid: Misclassification Rate	Valid: Kolmogorov-Smirnov Statistic	Valid: Kolmogorov-Smirnov Statistic
						Valid: Misclassification Rate	Selection Criterion:			
Y	Reg	Reg	Exhaustive Regression	Diabetes_Prediction	Diabetes Prediction	0.14951	0.14951	0.14951	0.327	
	Reg2	Reg2	Forward Regression	Diabetes_Prediction	Diabetes Prediction	0.14958	0.14958	0.14958	0.335	
	Reg3	Reg3	Backward Regression	Diabetes_Prediction	Diabetes Prediction	0.14958	0.14958	0.14958	0.335	
	Reg4	Reg4	Stepwise Regression	Diabetes_Prediction	Diabetes Prediction	0.14958	0.14958	0.14958	0.335	

**SAS Enterprise Miner Report**  
**Node=LogisticReg ModelComparison**  
**Classification Chart**  
**TARGET='Diabetes\_Prediction' and \_TYPE\_='PREDICTION'**



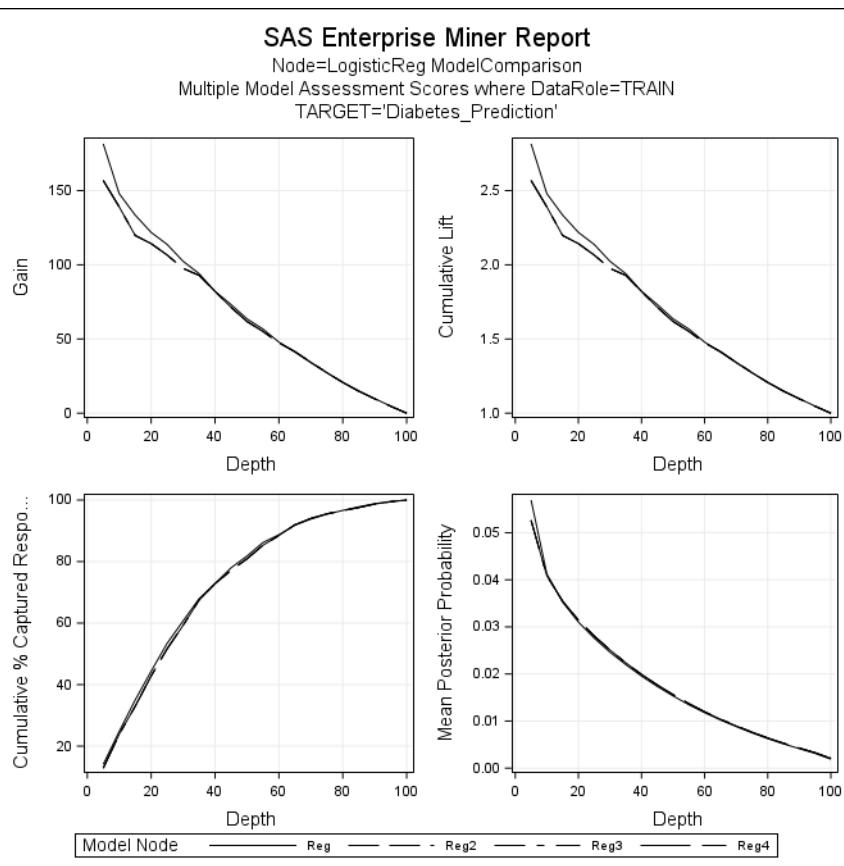
### SAS Enterprise Miner Report

Node=LogisticReg ModelComparison  
 Multiple Model Assessment Scores where DataRole=TEST  
 TARGET='Diabetes\_Prediction'



### SAS Enterprise Miner Report

Node=LogisticReg ModelComparison  
 Multiple Model Assessment Scores where DataRole=TRAIN  
 TARGET='Diabetes\_Prediction'

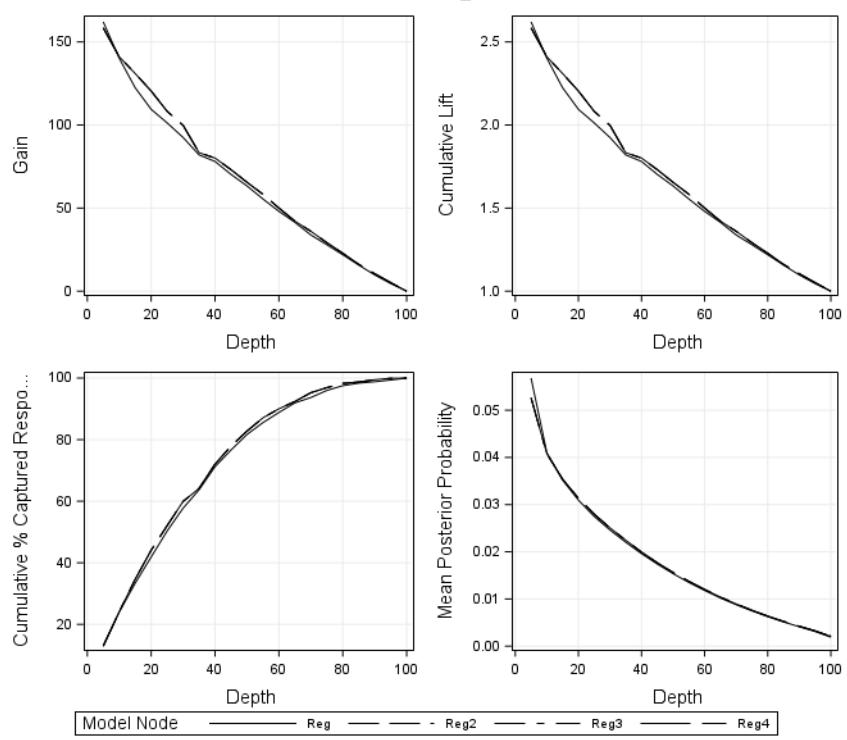


**SAS Enterprise Miner Report**

Node=LogisticReg ModelComparison

Multiple Model Assessment Scores where DataRole=VALIDATE

TARGET='Diabetes\_Prediction'



## SAS Enterprise Miner Report

### Node=SCOREZETA\_TRAIN Summary

Node id = lds6  
 Node label = SCOREZETA\_TRAIN  
 Meta path = lds6  
 Notes =

### Node=SCOREZETA\_TRAIN Properties

Property	Value	Default	Property	Value	Default	Property	Value	Default
Component	DataSource		DsCreatedBy	shre2		NBytes	9700352	.
ApplyIntervalLevelLowerLimit	Y		DsId	scorezetastrain		NCols	23	.
ApplyMaxClassLevels	Y		DsModifiedBy	shre2		NObs	50143	.
ApplyMaxPercentMissing	Y		DsModifyDate	2025170996.3		NewTable		
CMeta	WORK.M3LIOYUC		DsSampleName			NewVariableRole	REJECT	
ComputeStatistics	N		DsSampleSize			OutputType	VIEW	
DBPassThrough	Y		DsSampleSizeType			Role	RAW	TRAIN
Data	ZETADATA.SCOREZETA_TRAIN		DsScope	LOCAL		Sample	D	
DataSelection	DATASOURCE		IdentifyEmptyColumns	Y		SampleSizeObs	10000	
DataSource	scorezetastrain		IntervalLowerLimit	20		SampleSizePercent	20	
DataSourceRole	RAW		Library	ZETADATA		SampleSizeType	PERCENT	
Description			MaxClassLevels	20		Scope	LOCAL	
DropMapVariables	Y		MaxPercentMissing	50		Segment		
DsCreateDate	2025170996		MetaAdvisor	BASIC		Table	SCOREZETA_TRAIN	

### Node=SCOREZETA\_TRAIN Data Attributes

Attribute	Value	Attribute	Value	Attribute	Value
Data Name	SCOREZETA_TRAIN	Date Created	04Mar2024:11:27:20	Data Size	9700352
Data Type	DATA	Date Modified	04Mar2024:11:27:20	Role	RAW
Data Label		Number Rows	50143	Segment	
Engine	BASE	Number Columns	23	Data Library	ZETADATA

### Node=SCOREZETA\_TRAIN Variables List

Name	Label	Role	Level	Type	Length	Format	Creator
Age		INPUT	INTERVAL	N	8	BEST12.0	
AnyHealthcare		INPUT	BINARY	N	8	BEST12.0	
BMI		INPUT	INTERVAL	N	8	BEST12.0	
CholCheck		INPUT	BINARY	N	8	BEST12.0	
Diabetes_Prediction	Diabetes Prediction	TARGET	NOMINAL	C	11		
DiffWalk		INPUT	BINARY	N	8	BEST12.0	
Education		INPUT	ORDINAL	N	8	BEST12.0	
Fruits		INPUT	BINARY	N	8	BEST12.0	
GenHlth		INPUT	ORDINAL	N	8	BEST12.0	
HeartDiseaseorAttack		INPUT	BINARY	N	8	BEST12.0	
HighBP		INPUT	BINARY	N	8	BEST12.0	

Name	Label	Role	Level	Type	Length	Format	Creator
HighChol		INPUT	BINARY	N	8	BEST12.0	
HvyAlcoholConsump		INPUT	BINARY	N	8	BEST12.0	
Income		INPUT	ORDINAL	N	8	BEST12.0	
MentHlth		INPUT	ORDINAL	N	8	BEST12.0	
NoDocbcCost		INPUT	BINARY	N	8	BEST12.0	
PhysActivity		INPUT	BINARY	N	8	BEST12.0	
PhysHlth		INPUT	ORDINAL	N	8	BEST12.0	
Sex		INPUT	BINARY	N	8	BEST12.0	
Smoker		INPUT	BINARY	N	8	BEST12.0	
Stroke		INPUT	BINARY	N	8	BEST12.0	
Veggies		INPUT	BINARY	N	8	BEST12.0	
_dataobs_	Observation Number	REJECTED	INTERVAL	N	8		

## SAS Enterprise Miner Report

### Node=Class Model Comparison Summary

Node id = MdlComp3  
 Node label = Class Model Comparison  
 Meta path = Ids5 => Part => Tree4 => MdlComp => MdlComp3  
 Notes =

### Node=Class Model Comparison Properties

Property	Value	Default	Property	Value	Default	Property	Value	Default
Component	ModelCompare		NumberOfReportedLevels	1E-6		SelectionData	DEFAULT	
AssessAllTargetLevels	N		NumberofBins	20		SelectionDepth	10	
DecileBin	20		ProfitEpsilon	1E-6		SelectionTable	TRAIN	TABLE
HPCriteria	DEFAULT		RecomputeAssess	N		StatisticUsed	_VMISC_	
LiftEpsilon	1E-6		RocChart	Y		TargetLabel	Diabetes_Prediction	
ModelCriteria	Valid: Misclassification Rate		RocEpsilon	0.01		TargetName	Diabetes_Prediction	
ModelDescription	ClassDec Tree B3D6		RoiEpsilon	1E-6		classViyaCriteria	DEFAULT	
ModelId	Tree4		ScoreDistBin	20		intervalViyaCriteria	DEFAULT	
NormalizeReportingVariables	Y		SelectionCriteria	DEFAULT				

### Node=Class Model Comparison Variable Summary

Role	Level	Frequency	
		Count	Name
TARGET	NOMINAL	1	Diabetes_Prediction

### Node=Class Model Comparison Fit Statistics Table

Selected Model	Predecessor Node	Model Node	Model Description	Target Variable	Target Label	Selection		Train: Average Squared Error	Train: Misclassification Rate	Train: Kolmogorov-Smirnov Statistic	Valid: Average Squared Error
						Criterion:	Valid:				
Y	MdlComp	Tree4	ClassDec Tree B3D6	Diabetes_Prediction	Diabetes Prediction	0.14911	0.079704	0.15045	0.216	0.079248	
	MdlComp2	Reg	Exhaustive Regression	Diabetes_Prediction	Diabetes Prediction	0.14951	0.073766	0.14995	0.340	0.073580	
	MdlComp4	Neural7	NNNet 5HUBP	Diabetes_Prediction	Diabetes Prediction	0.15471	0.087742	0.15472	0.118	0.087737	

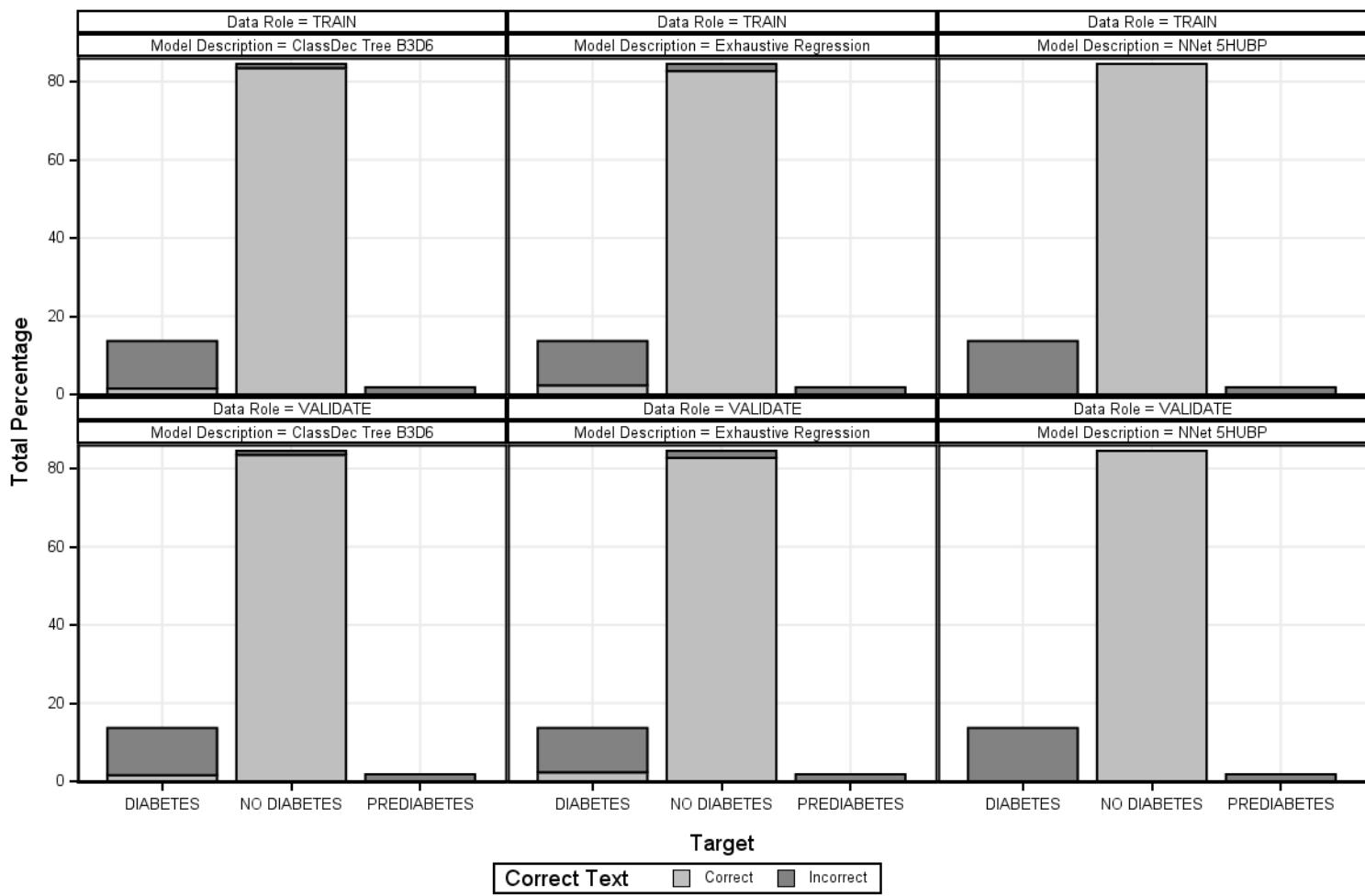
Selected Model	Predecessor Node	Model Node	Model Description	Target Variable	Target Label	Selection		Valid: Misclassification Rate	Kolmogorov-Smirnov Statistic	Valid:
						Criterion:	Valid:			
Y	MdlComp	Tree4	ClassDec Tree B3D6	Diabetes_Prediction	Diabetes Prediction	0.14911	0.14911	0.204		
	MdlComp2	Reg	Exhaustive Regression	Diabetes_Prediction	Diabetes Prediction	0.14951	0.14951	0.327		
	MdlComp4	Neural7	NNNet 5HUBP	Diabetes_Prediction	Diabetes Prediction	0.15471	0.15471	0.117		

# SAS Enterprise Miner Report

Node=Class Model Comparison

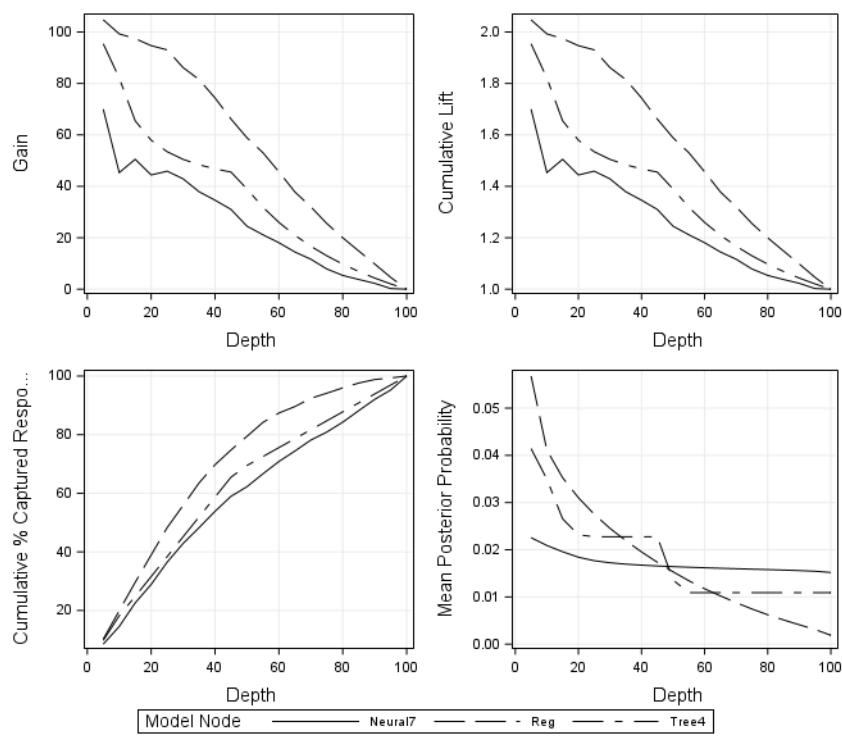
Classification Chart

TARGET='Diabetes\_Prediction' and \_TYPE\_='PREDICTION'



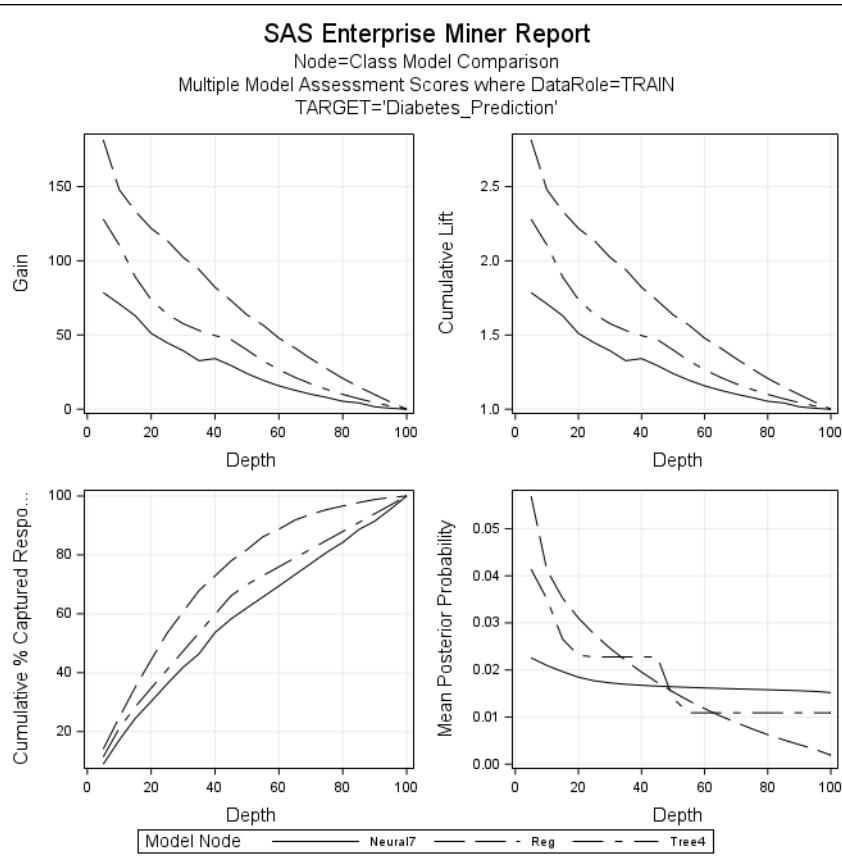
## SAS Enterprise Miner Report

Node=Class Model Comparison  
 Multiple Model Assessment Scores where DataRole=TEST  
 TARGET='Diabetes\_Prediction'



## SAS Enterprise Miner Report

Node=Class Model Comparison  
 Multiple Model Assessment Scores where DataRole=TRAIN  
 TARGET='Diabetes\_Prediction'

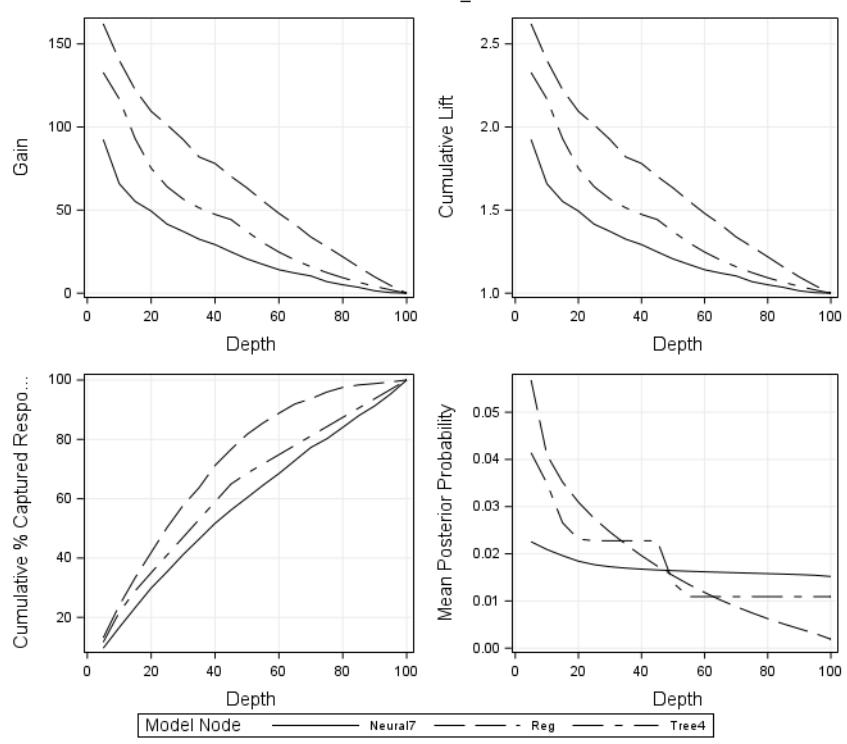


**SAS Enterprise Miner Report**

Node=Class Model Comparison

Multiple Model Assessment Scores where DataRole=VALIDATE

TARGET='Diabetes\_Prediction'



## SAS Enterprise Miner Report

### Node=Score Summary

Node id = Score  
 Node label = Score  
 Meta path = Ids5 => Part => Tree4 => MdlComp => MdlComp3 => Score  
 Notes =

### Node=Score Properties

Property	Value	Default	Property	Value	Default	Property	Value	Default
Component	Score		HideInput	Y		JScore	N	
CScore	N		HideOther	Y		OptimizedCode	Y	
FixedOutputNames	Y		HidePredict	Y		OutputType	VIEW	
GraphReports	Y		HideRejected	Y		PackageName	DEFAULT	
HideAssess	Y		HideResidual	Y		PreferenceName		
HideClassification	Y		HideTarget	Y		ScoreTest	N	
HideFreq	Y		HideVariables	N		ScoreValidate	N	

### Node=Score Variable Summary

Role	Level	Frequency		Name
		Count	Name	
TARGET	NOMINAL	1	Diabetes_Prediction	
SEGMENT	NOMINAL	1	_NODE_	

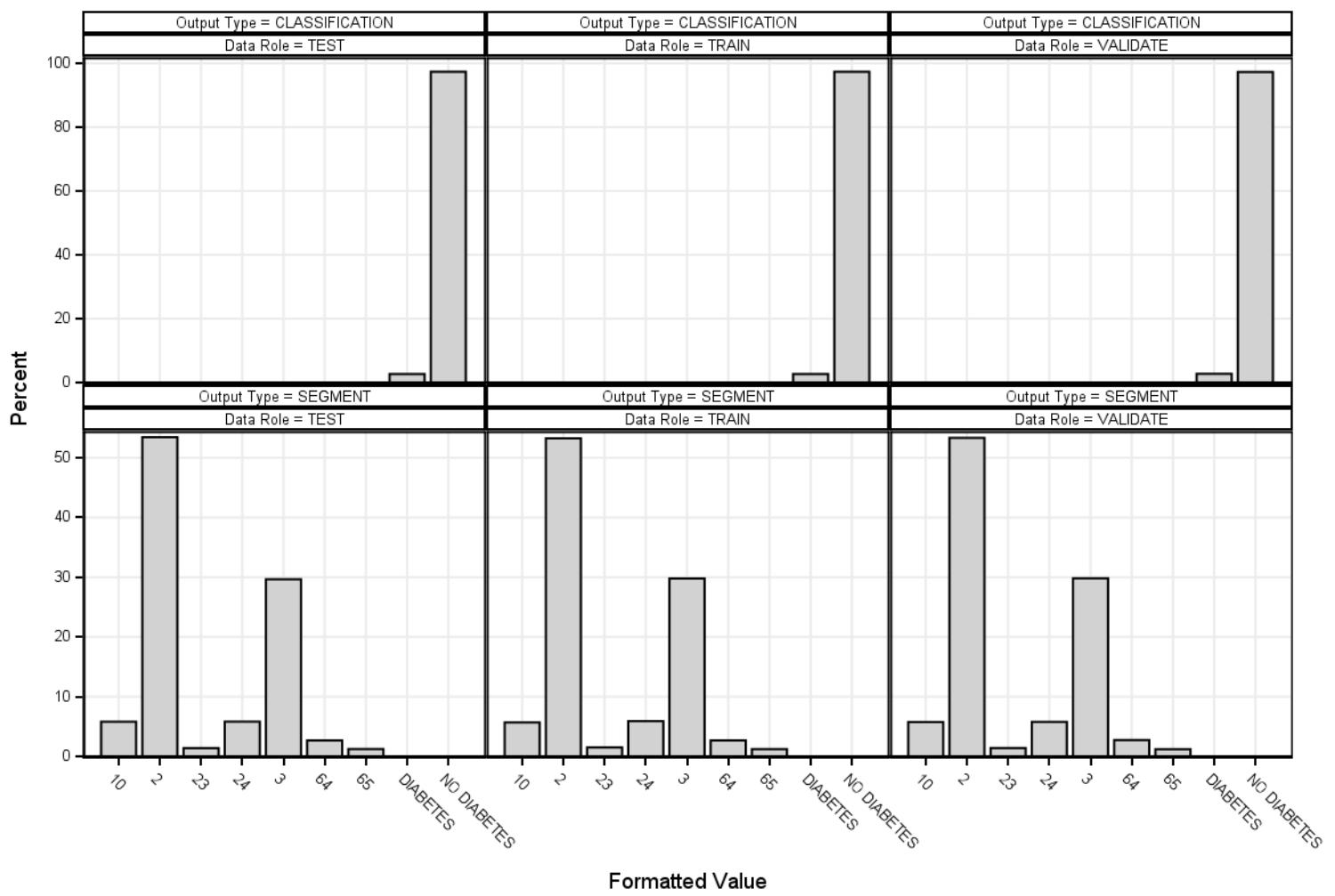
### Node=Score Output Variables

Variable Name	Creator	Variable Label	Function	Type
EM_CLASSIFICATION	Score	Prediction for Diabetes_Prediction	CLASSIFICATION	C
EM_EVENTPROBABILITY	Score	Probability for level PREDIABETES of Diabetes_Prediction	PREDICT	N
EM_PROBABILITY	Score	Probability of Classification	PREDICT	N
EM_SEGMENT	Score	Node	TRANSFORM	N
I_Diabetes_Prediction	Tree4	Into: Diabetes_Prediction	CLASSIFICATION	C
P_Diabetes_Predictiondiabetes	Tree4	Predicted: Diabetes_Prediction=diabetes	PREDICT	N
P_Diabetes_Predictionno_diabetes	Tree4	Predicted: Diabetes_Prediction=no diabetes	PREDICT	N
P_Diabetes_Predictionprediabetes	Tree4	Predicted: Diabetes_Prediction=prediabetes	PREDICT	N
Q_Diabetes_Predictiondiabetes	Tree4	Unadjusted P: Diabetes_Prediction=diabetes	TRANSFORM	N
Q_Diabetes_Predictionno_diabetes	Tree4	Unadjusted P: Diabetes_Prediction=no diabetes	TRANSFORM	N
Q_Diabetes_Predictionprediabetes	Tree4	Unadjusted P: Diabetes_Prediction=prediabetes	TRANSFORM	N
U_Diabetes_Prediction	Tree4	Unnormalized Into: Diabetes_Prediction	CLASSIFICATION	C
V_Diabetes_Predictiondiabetes	Tree4	Validated: Diabetes_Prediction=diabetes	PREDICT	N
V_Diabetes_Predictionno_diabetes	Tree4	Validated: Diabetes_Prediction=no diabetes	PREDICT	N
V_Diabetes_Predictionprediabetes	Tree4	Validated: Diabetes_Prediction=prediabetes	PREDICT	N
_NODE_	Tree4	Node	TRANSFORM	N
_WARN_	Tree4	Warnings	ASSESS	C

# SAS Enterprise Miner Report

Node=Score

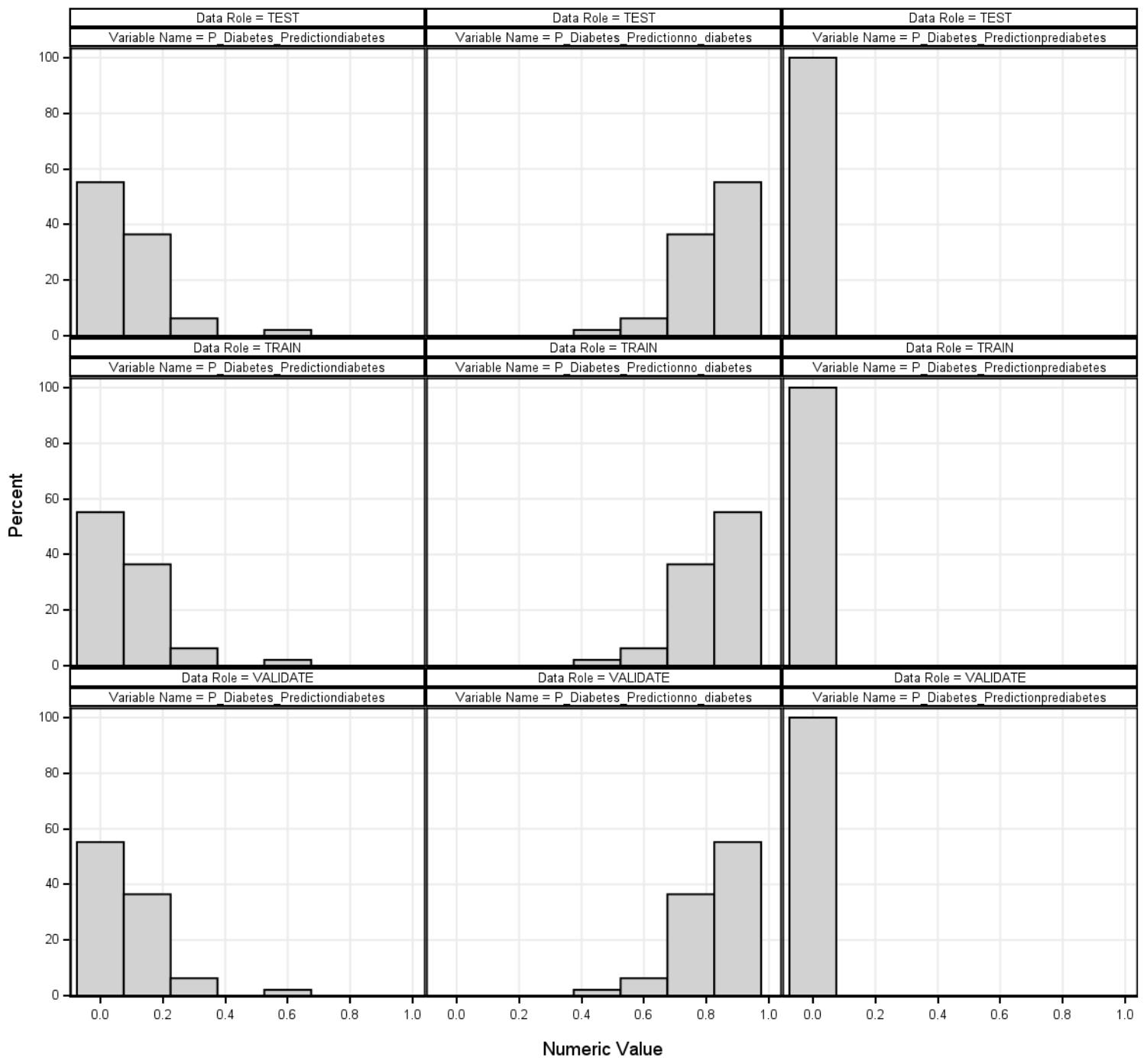
Bar Chart



# SAS Enterprise Miner Report

Node=Score

Histogram



End of Report