Nodo=CONTRACEPTIVE1_DIFCHISQ
Elenco delle variabili

Nome	Etichetta	Ruolo	Livello	Tipo	Lunghezza	Formato	Autore
Children		INPUT	INTERVAL	N	8		
Exposure		INPUT	BINARY	N	8		
Hedu		INPUT	ORDINAL	N	8		
Hoccupation		INPUT	ORDINAL	N	8		
Living		INPUT	ORDINAL	N	8		
Wage		INPUT	INTERVAL	N	8		
Wedu		INPUT	ORDINAL	N	8		
Wrel		INPUT	BINARY	N	8		
Wwork		INPUT	BINARY	N	8		
Y		TARGET	BINARY	N	8		
difchisq	Change in Pearson Chi Square	INPUT	INTERVAL	N	8		

Nodo=FILTRO: DFCHISQ<4
Limiti per le variabili continue

Variabile	Ruolo	Minimo	Massimo	Metodo per il filtro	Mantieni valori mancanti	Etichetta
difchisq	INPUT	.	4	MANUAL	Y	Change in Pearson Chi Square

Escluse 39 osservazioni

Nodo=Partizione dei dati difchisq
Proprietà

Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito
Component	Partition		Method	DEFAULT		TestPct	0	30
ClassDistribution	Y		OutputType	DATA		TrainPct	70	40
IntervalDistribution	Y		RandomSeed	12345		ValidatePct	30	

Training: 900 obs
Validation: 385 obs

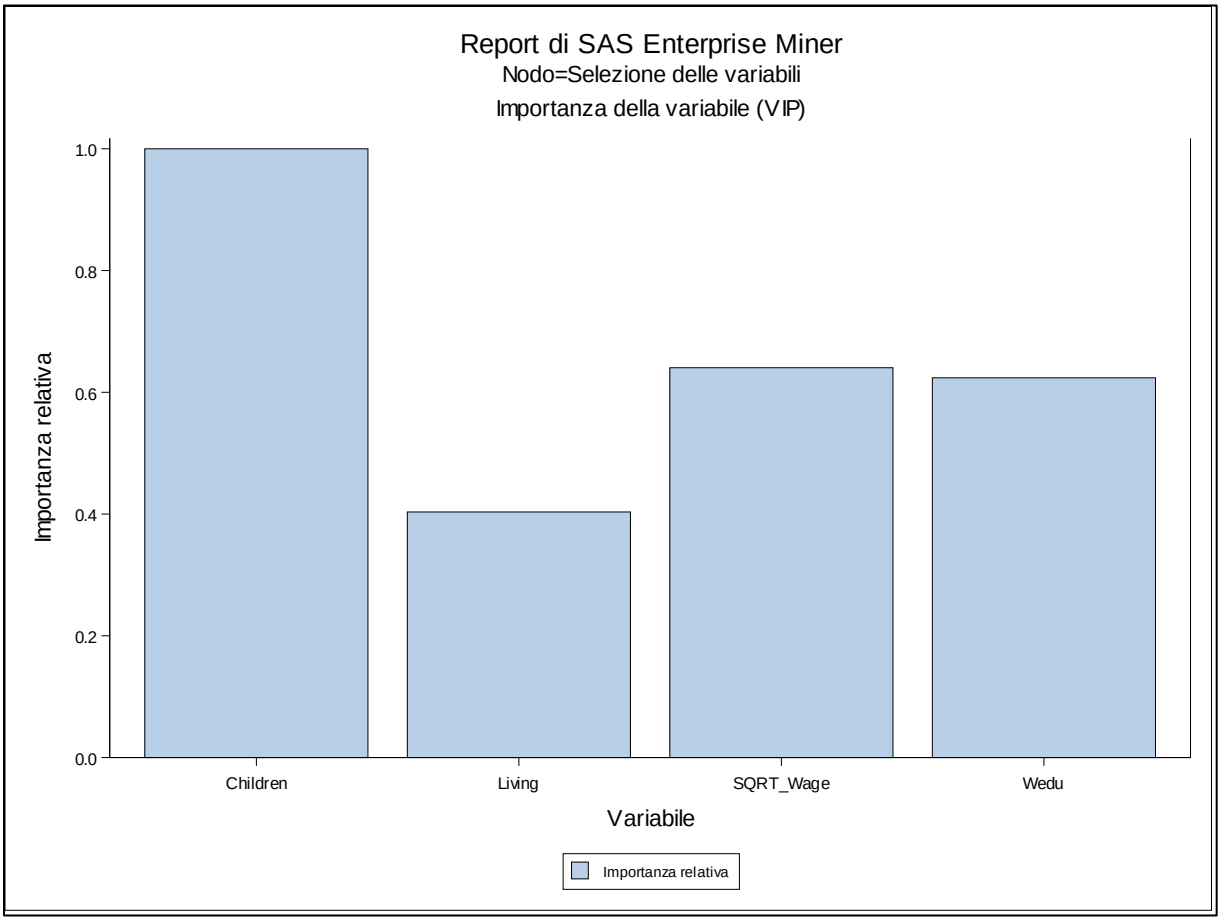
Nodo=Trasformazione delle variabili
Statistiche delle trasformazioni

Origine	Metodo	Nome variabile	Formula	Numero di livelli	Non mancanti	Mancanti	Minimo	Massimo	Etichetta
Input	Original	Children		.	904	0	0	12	
Input	Original	Wage		.	904	0	16	49	
Output	Computed	SQRT_Children	sqrt(max(Children-0, 0.0)/12)	.	904	0	0	1	Transformed Children
Output	Computed	SQRT_Wage	sqrt(max(Wage-16, 0.0)/33)	.	904	0	0	1	Transformed Wage

Le variabili continue sono trasformate con ‘NORMALE MASSIMA’

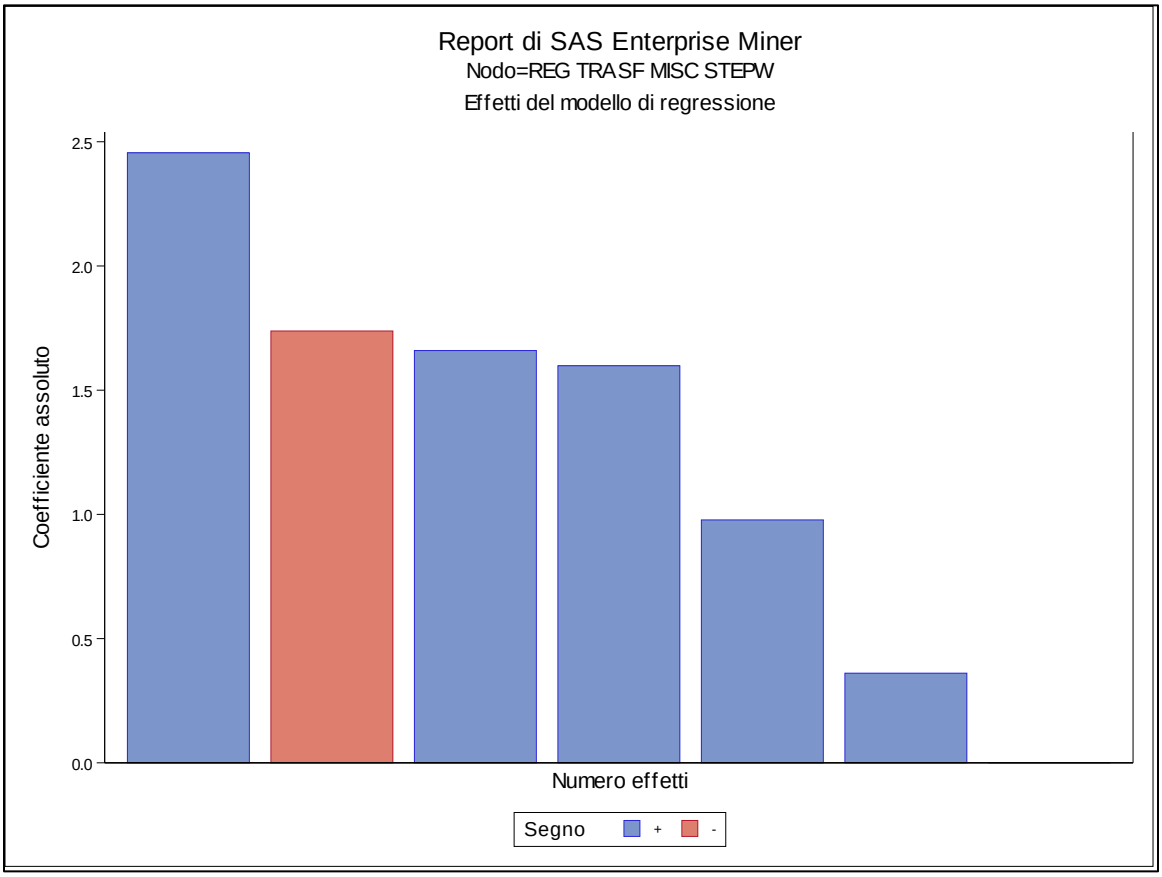
Nodo=Selezione delle variabili trasformate
Selezione delle variabili

Nome variabile	Ruolo	Livello di misurazione	Tipo	Etichetta	Motivi del rifiuto
Children	INPUT	INTERVAL	N		
Exposure	REJECTED	BINARY	N		Varsel:valore chi-quadrato piccolo
Hedu	REJECTED	ORDINAL	N		Varsel:valore chi-quadrato piccolo
Hoccupation	REJECTED	ORDINAL	N		Varsel:valore chi-quadrato piccolo
Living	INPUT	ORDINAL	N		
SQRT_Children	REJECTED	INTERVAL	N	Transformed Children	Varsel:valore chi-quadrato piccolo
SQRT_Wage	INPUT	INTERVAL	N	Transformed Wage	
Wage	REJECTED	INTERVAL	N		Varsel:valore chi-quadrato piccolo
Wedu	INPUT	ORDINAL	N		
Wrel	REJECTED	BINARY	N		Varsel:valore chi-quadrato piccolo
Wwork	REJECTED	BINARY	N		Varsel:valore chi-quadrato piccolo



Nodo=REG TRASF MISC STEPW
Proprietà

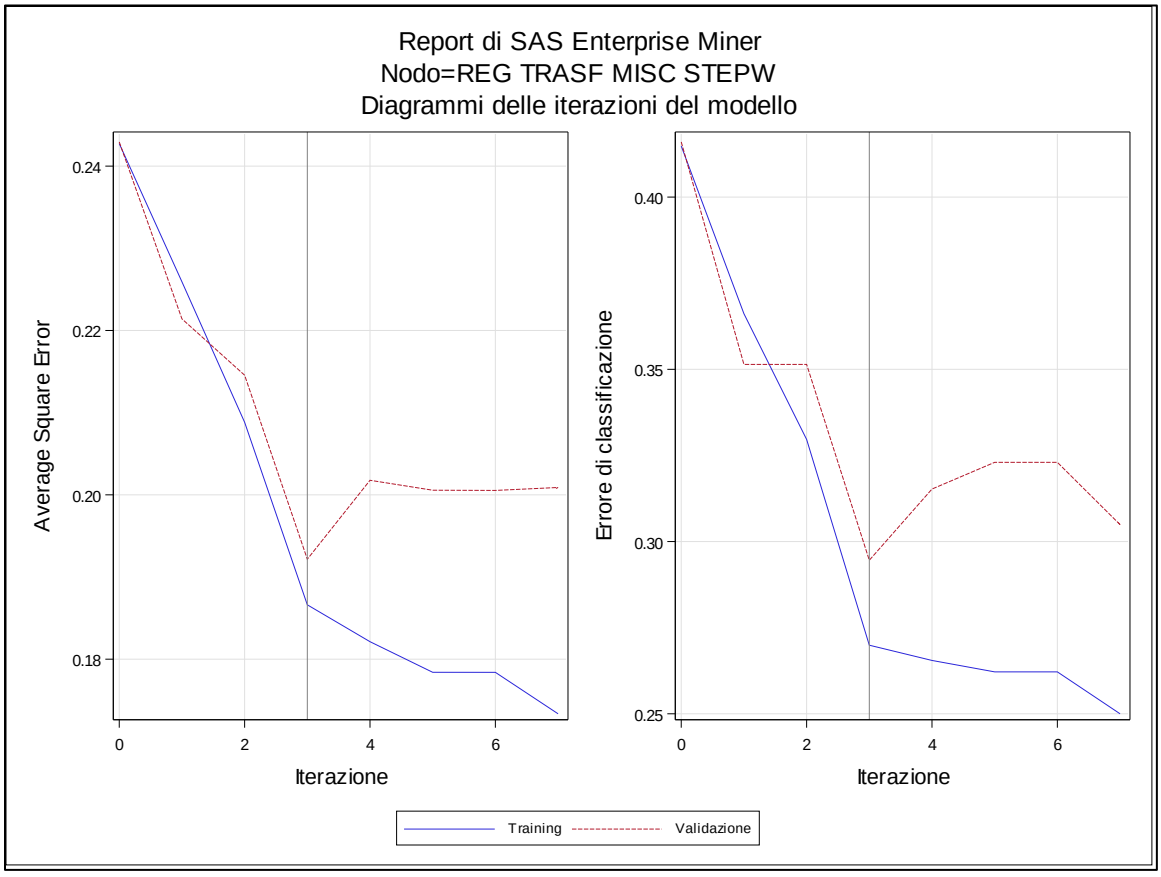
Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito
Component	Regression		Force	0		PolynomialDegree	2	
AbsConvValue	-1.34078E154	-7.237006E75	GConvTimes	1		PrintDesignMatrix	N	
AbsFTime	1		GConvValue	1E-6		Rule	NONE	
AbsFValue	0		Hierarchy	CLASS		SASSPDS	N	
AbsGTime	1		InputCoding	GLM	DEVIATION	SelectionCriterion	VMISC	DEFAULT
AbsGValue	0.00001		Interactions			SelectionDefault	Y	
AbsXTime	1		LinkFunction	LOGIT		Sequential	N	
AbsXValue	1E-8		MainEffect	Y		Simple	N	
ClParm	N		MaxCPUTime	1 HOUR		SlEntry	0.05	
ConvDefaults	Y		MaxFunctionCalls	.		SlStay	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	Y	N			



Nodo=REG TRASF MISC STEPW
Effetti del modello di regressione

Numero effetti	Variabile	Livello	Coefficiente	Valore t	P-value	Numero effetti	Variabile	Livello	Coefficiente	Valore t	P-value
1	Wedu	1	2.45549	8.3310	8.0135E-17	5	Wedu	3	0.97780	4.98091	0.000001
2	Children		-1.73833	-10.1500	3.3145E-24	6	Intercept	1	0.36084	2.17114	0.029920
3	Wedu	2	1.65958	7.7679	7.9825E-15	7	Wedu	4	0.00000	.	.
4	Children*SQRT_Wage		1.59836	8.9481	3.6156E-19	.			.	.	.

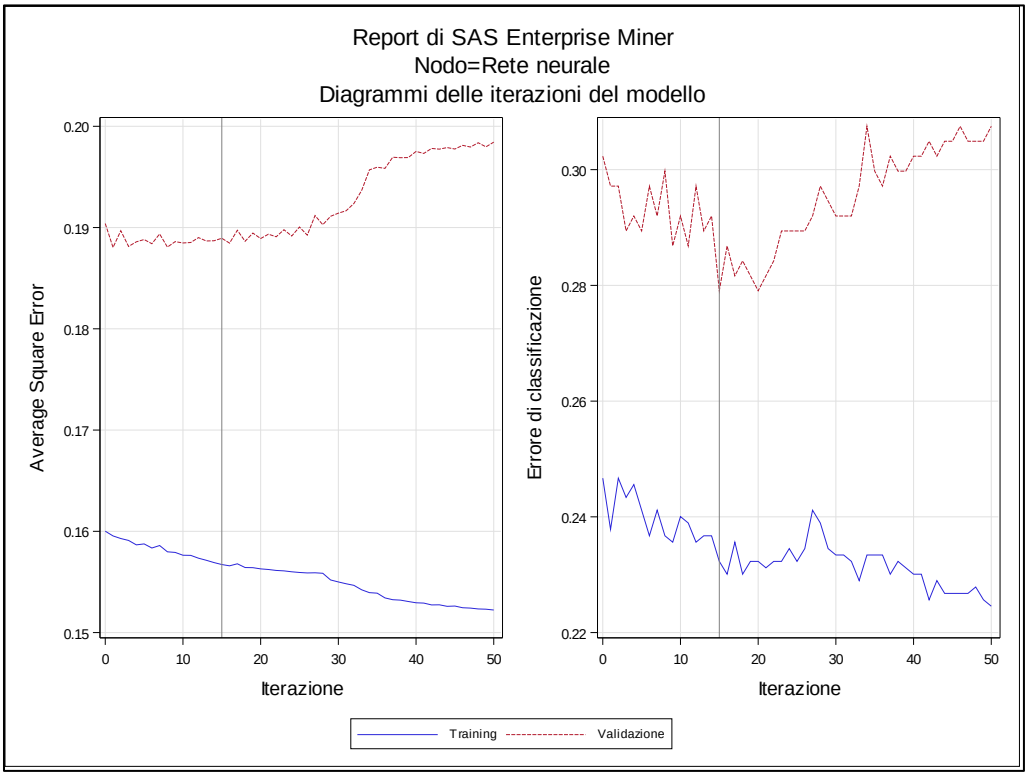
Report di SAS Enterprise Miner
Nodo=REG TRASF MISC STEPW
Diagrammi delle iterazioni del modello



Nodo=Rete neurale
Proprietà

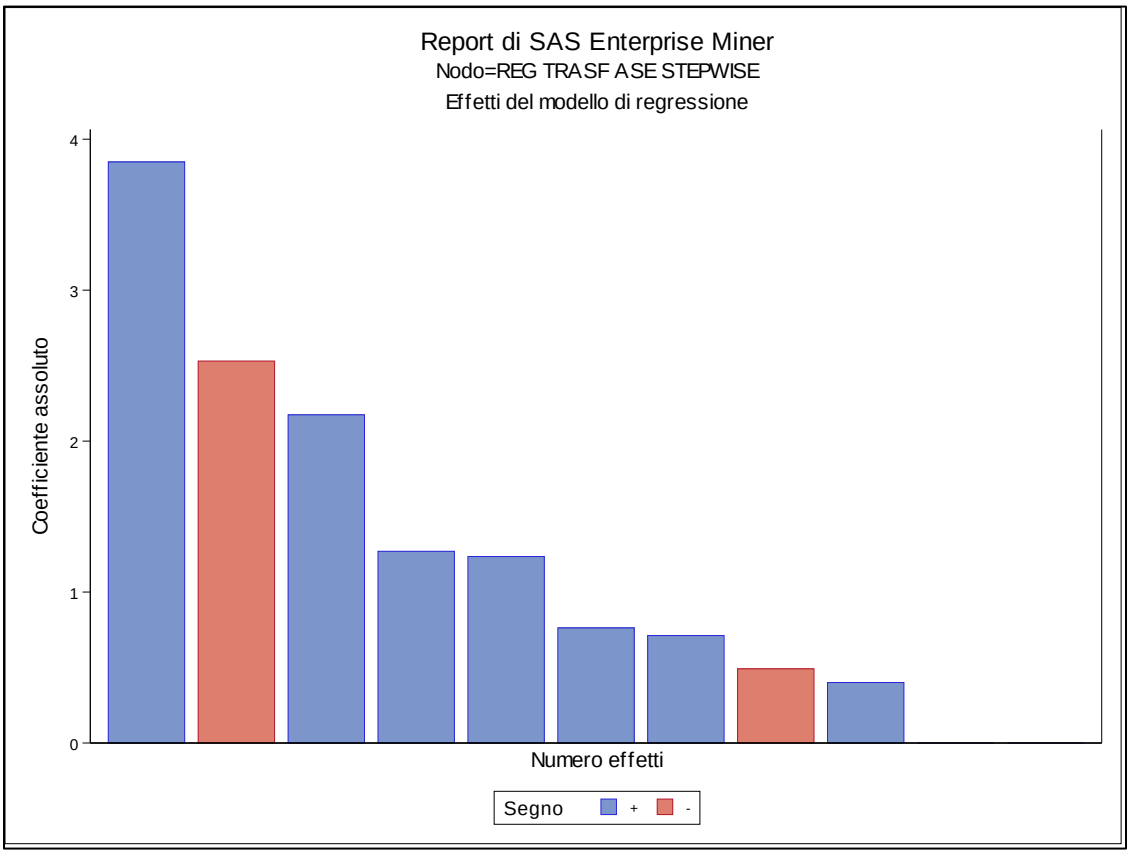
Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito
Component	NeuralNetwork		Hidden	5	3	Prelim	Y	
AbsConvValue	-1.34078E154	-7.237006E75	HiddenActivation	DEFAULT		PrelimMaxTime	1 HOUR	
AbsFTime	1		HiddenBias	Y		PrelimMaxiter	10	
AbsFValue	0		HiddenCombFunction	DEFAULT		PrelimOutest		
AbsGTime	1		HiddenUnits	N		PreliminaryRuns	5	
AbsGValue	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	0.00001		TargetCombFunction	DEFAULT	
DirectConnection	Y	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	

Report di SAS Enterprise Miner
Nodo=Rete neurale
Diagrammi delle iterazioni del modello



Nodo=REG TRASF ASE STEPWISE
Proprietà

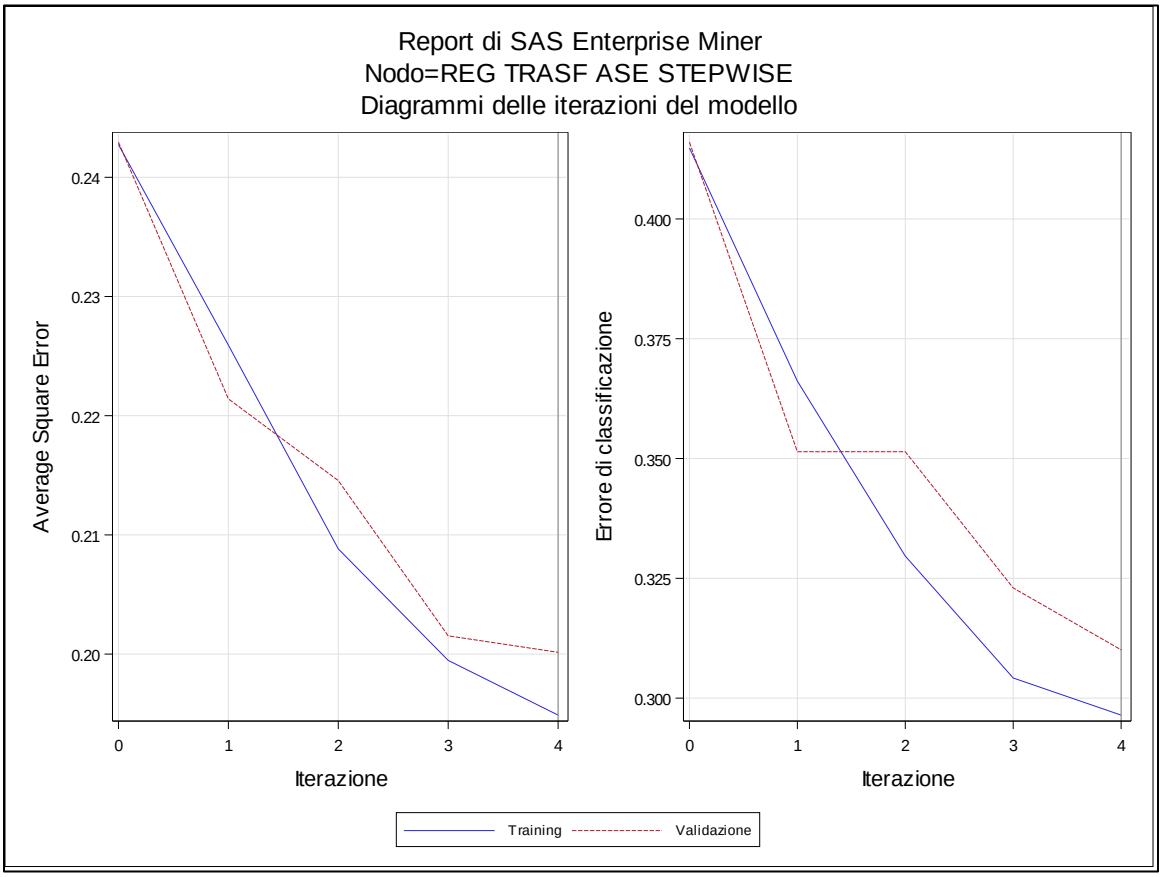
Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito
Component	Regression		Force	0		PolynomialDegree	2	
AbsConvValue	-1.34078E154	-7.237006E75	GConvTimes	1		PrintDesignMatrix	N	
AbsFTime	1		GConvValue	1E-6		Rule	NONE	
AbsFValue	0		Hierarchy	CLASS		SASSPDS	N	
AbsGTime	1		InputCoding	GLM	DEVIATION	SelectionCriterion	VERROR	DEFAULT
AbsGValue	0.00001		Interactions			SelectionDefault	Y	
AbsXTime	1		LinkFunction	LOGIT		Sequential	N	
AbsXValue	1E-8		MainEffect	Y		Simple	N	
ClParm	N		MaxCPUTime	1 HOUR		SlEntry	0.05	
ConvDefaults	Y		MaxFunctionCalls	.		SlStay	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				



Report di SAS Enterprise Miner
Nodo=REG TRASF ASE STEPWISE
Effetti del modello di regressione

Numero effetti	Variabile	Livello	Coefficiente	Valore t	P-value	Numero effetti	Variabile	Livello	Coefficiente	Valore t	P-value
1	SQRT_Wage		3.84921	6.97532	3.0517E-12	7	Wedu	3	0.71181	3.57473	0.000351
2	Intercept	1	-2.53046	-6.87769	6.083E-12	8	Children		-0.49144	-9.49995	0.000000
3	Wedu	1	2.17408	7.21616	5.3477E-13	9	Living	3	0.40081	2.16159	0.030650
4	Living	1	1.27014	4.32331	.000015371	10	Living	4	0.00000	.	.
5	Wedu	2	1.23533	5.74890	.000000009	11	Wedu	4	0.00000	.	.
6	Living	2	0.76250	3.23185	.001229899	.			.	.	.

Report di SAS Enterprise Miner
Nodo=REG TRASF ASE STEPWISE
Diagrammi delle iterazioni del modello

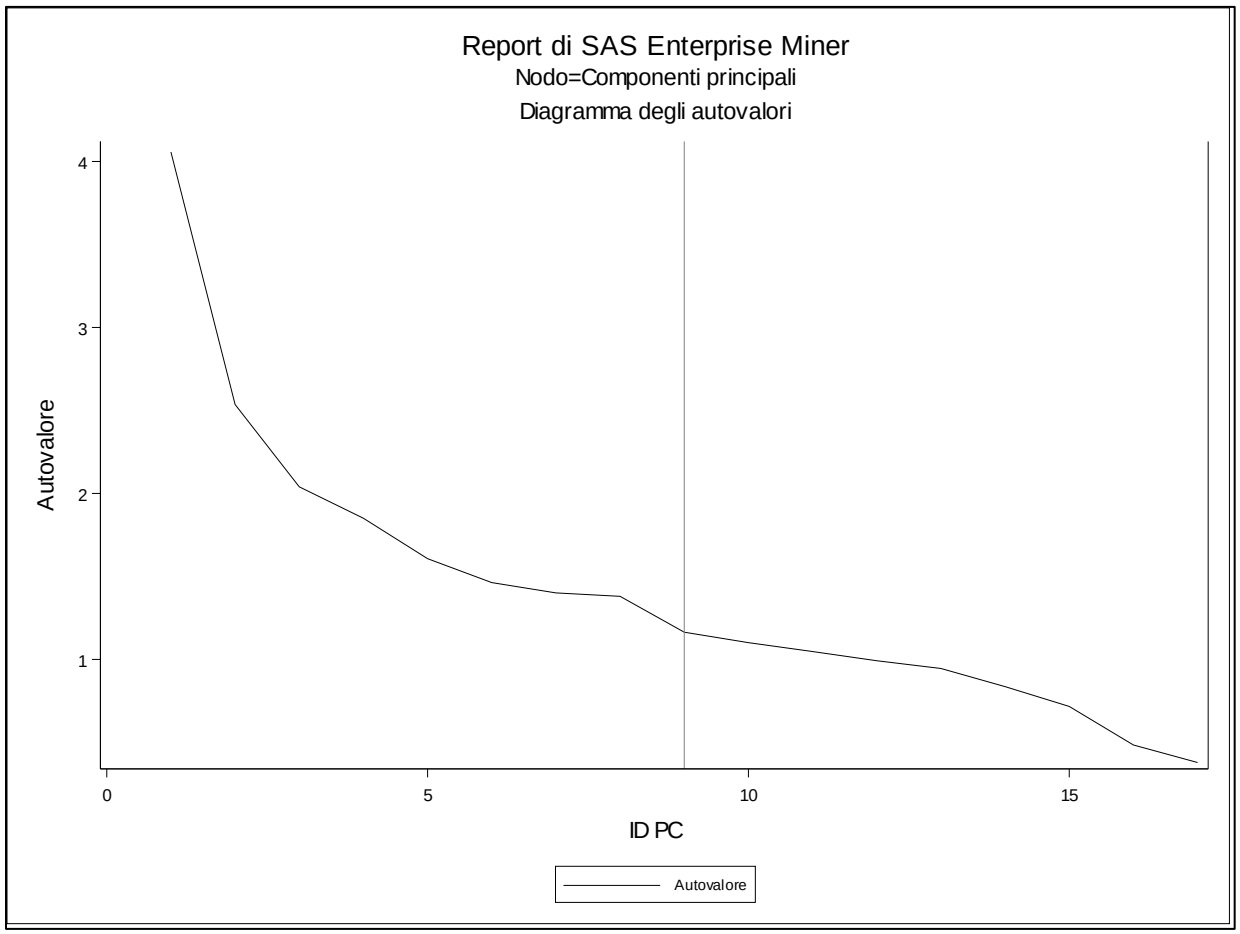


Nodo=Componenti principali
Proprietà

Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito
Component	PrinComp		EigenSource	CORR		PrincompLabel	PRINCOMPLABEL	
ApplyMaxPrincomp	Y		HideOriginalInputVariables	Y		PrincompPrefix	PC	
CumEigenCutoff	0.95	0.99	MaxPrincomp	20		PrintEigenSourceMatrix	N	
EigenIncreCutoff	0.001		NUserSelectedPrincomp	9	1	RejectOriginalInputVariables	Y	

Nodo=Componenti principali
Riepilogo delle variabili create

Ruolo	Livello	Conteggio di frequenza	Nome
INPUT	INTERVAL	9	PC_1 PC_2 PC_3 PC_4 PC_5 PC_6 PC_7 PC_8 PC_9

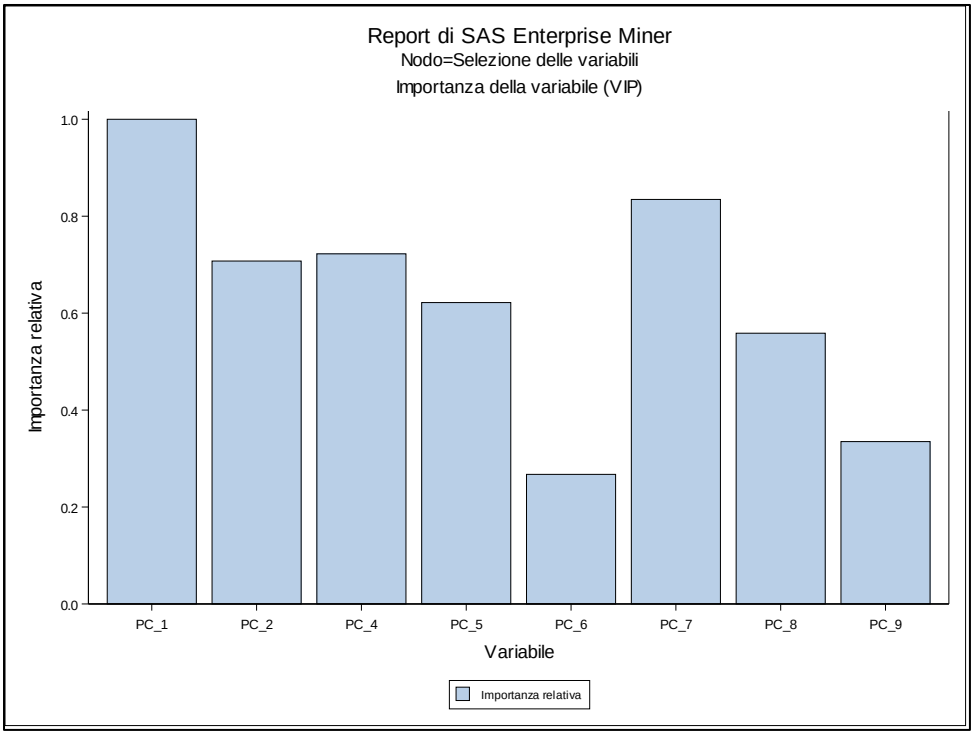


Nodo=Selezione delle 9 PC
Proprietà

Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito
Component	VariableSelection		MaxLevel	100		RoleUnusedVars	DEFAULT	
Bins	50		MaxMissingPercent	50		SASSPDS	Y	
ByPassVars	NONE		MaxRows	3000		StopR2	0.0005	
ByPassVarsRole	INPUT		MinR2	0.005		TargetModel	BOTH	DEFAULT
ChiSquare	3.84		Passes	6		UseAov16	N	
HideRejectedVars	Y		PrintOption	DEFAULT		UseGroups	N	Y
HideUnusedInputVars	Y		RejectUnusedInputVars	Y		UseInteractions	N	

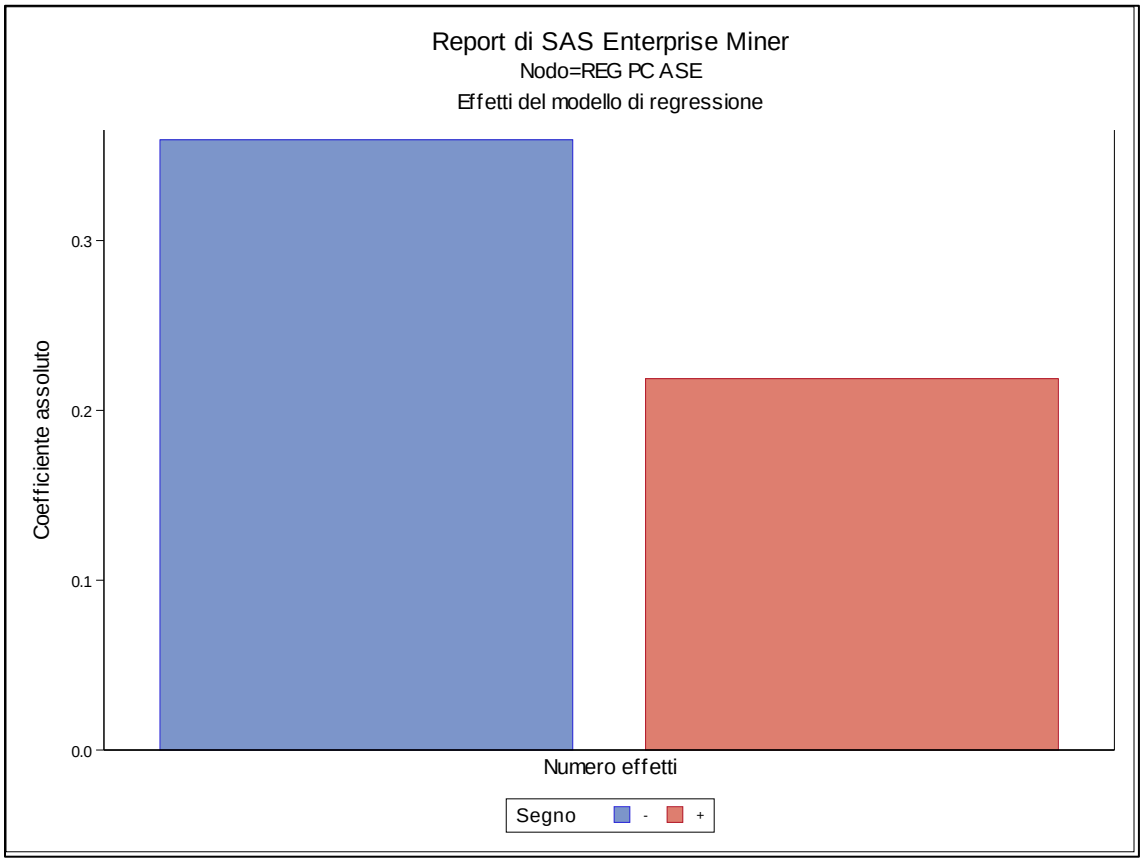
Nodo=Selezione delle 9 PC
Selezione delle variabili

Nome variabile	Ruolo	Livello di misurazione	Tipo	Etichetta	Motivi del rifiuto
PC_1	INPUT	INTERVAL	N	Componente principale 1	
PC_2	REJECTED	INTERVAL	N	Componente principale 2	Varsel3:valore R-quadro piccolo
PC_3	REJECTED	INTERVAL	N	Componente principale 3	Varsel3:valore chi-quadrato piccolo
PC_4	INPUT	INTERVAL	N	Componente principale 4	
PC_5	REJECTED	INTERVAL	N	Componente principale 5	Varsel3:valore R-quadro piccolo
PC_6	REJECTED	INTERVAL	N	Componente principale 6	Varsel3:valore R-quadro piccolo
PC_7	INPUT	INTERVAL	N	Componente principale 7	
PC_8	REJECTED	INTERVAL	N	Componente principale 8	Varsel3:valore R-quadro piccolo
PC_9	REJECTED	INTERVAL	N	Componente principale 9	Varsel3:valore R-quadro piccolo



Nodo=REG PC ASE
Proprietà

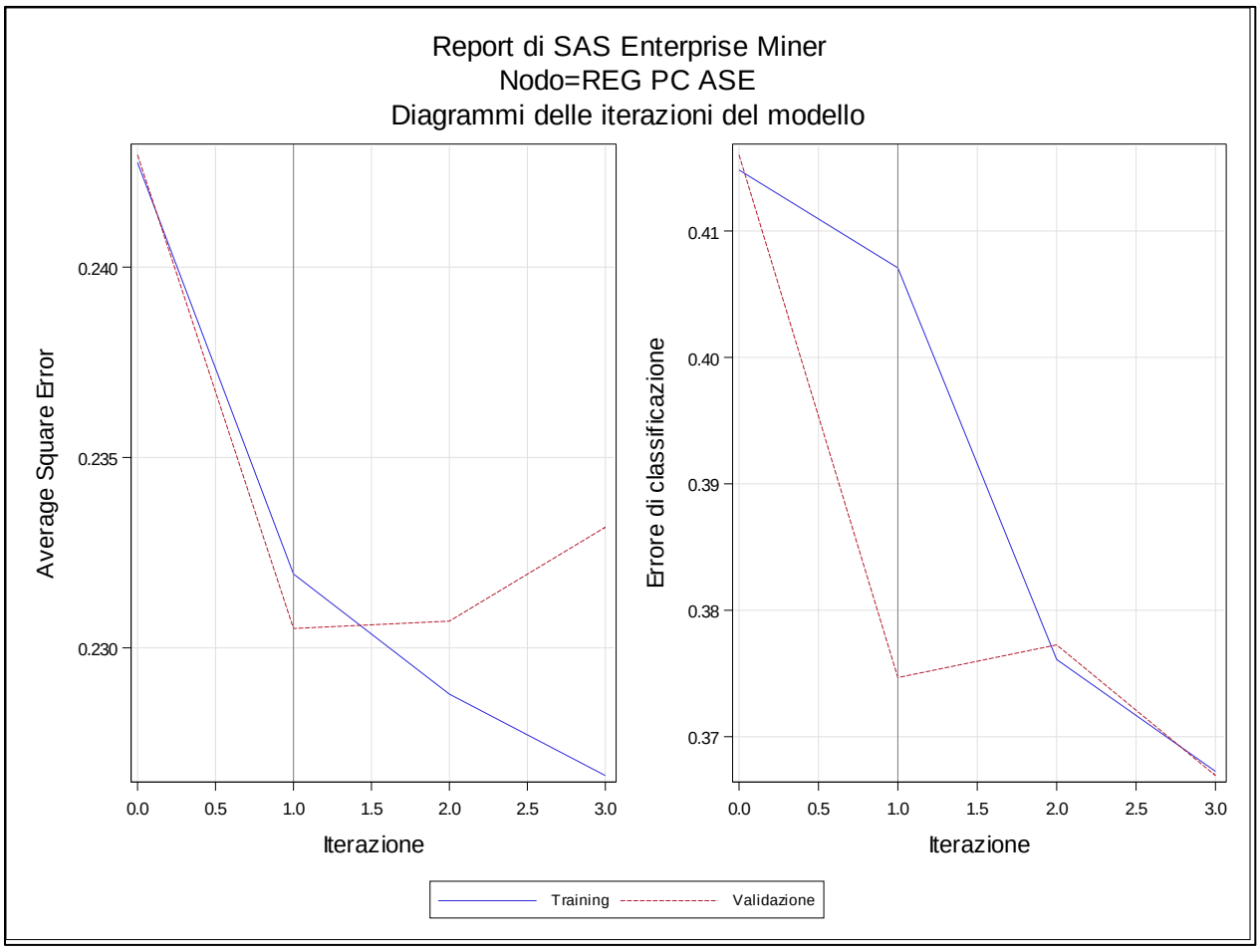
Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito
Component	Regression		Force	0		PolynomialDegree	2	
AbsConvValue	-1.34078E154	-7.237006E75	GConvTimes	1		PrintDesignMatrix	N	
AbsFTime	1		GConvValue	1E-6		Rule	NONE	
AbsFValue	0		Hierarchy	CLASS		SASSPDS	N	
AbsGTime	1		InputCoding	GLM	DEVIATION	SelectionCriterion	VERROR	DEFAULT
AbsGValue	0.00001		Interactions			SelectionDefault	Y	
AbsXTime	1		LinkFunction	LOGIT		Sequential	N	
AbsXValue	1E-8		MainEffect	Y		Simple	N	
ClParm	N		MaxCPUTime	1 HOUR		SlEntry	0.05	
ConvDefaults	Y		MaxFunctionCalls	.		SlStay	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				



Report di SAS Enterprise Miner
Nodo=REG PC ASE
Effetti del modello di regressione

Numero effetti	Variabile	Livello	Coefficiente	Valore t	P-value	Numero effetti	Variabile	Livello	Coefficiente	Valore t	P-value
1	Intercept	1	-0.35934	-5.19147	.000000209	2	PC_1		0.21869	6.22638	4.7733E-10

Report di SAS Enterprise Miner
Nodo=REG PC ASE
Diagrammi delle iterazioni del modello

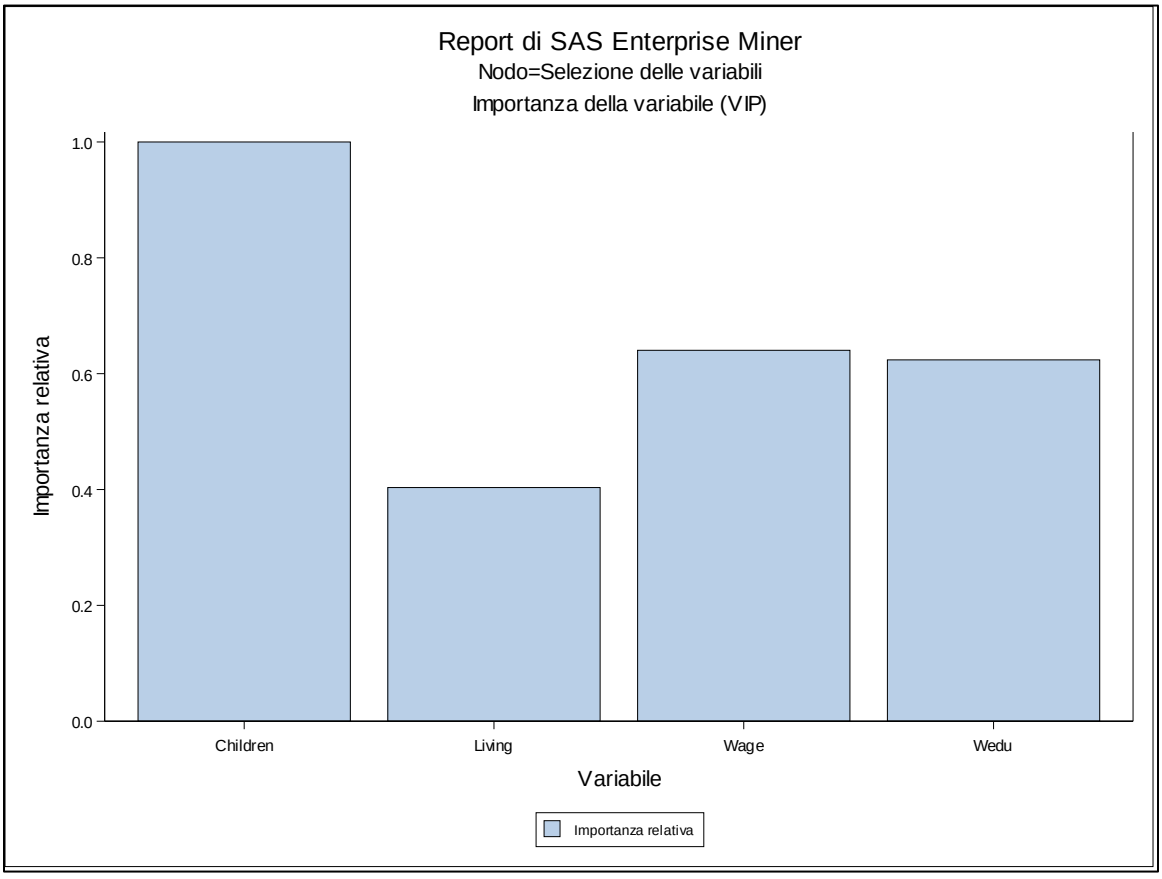


Nodo=MBR Nearest neighbour con PC
Proprietà

Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito
Component	MBR		Method	SCAN	RDTREE	ShowNodes	N	
Buckets	8		Neighbors	Y		Weighted	Y	
Epsilon	0		NumberOfNeighbors	10	16			

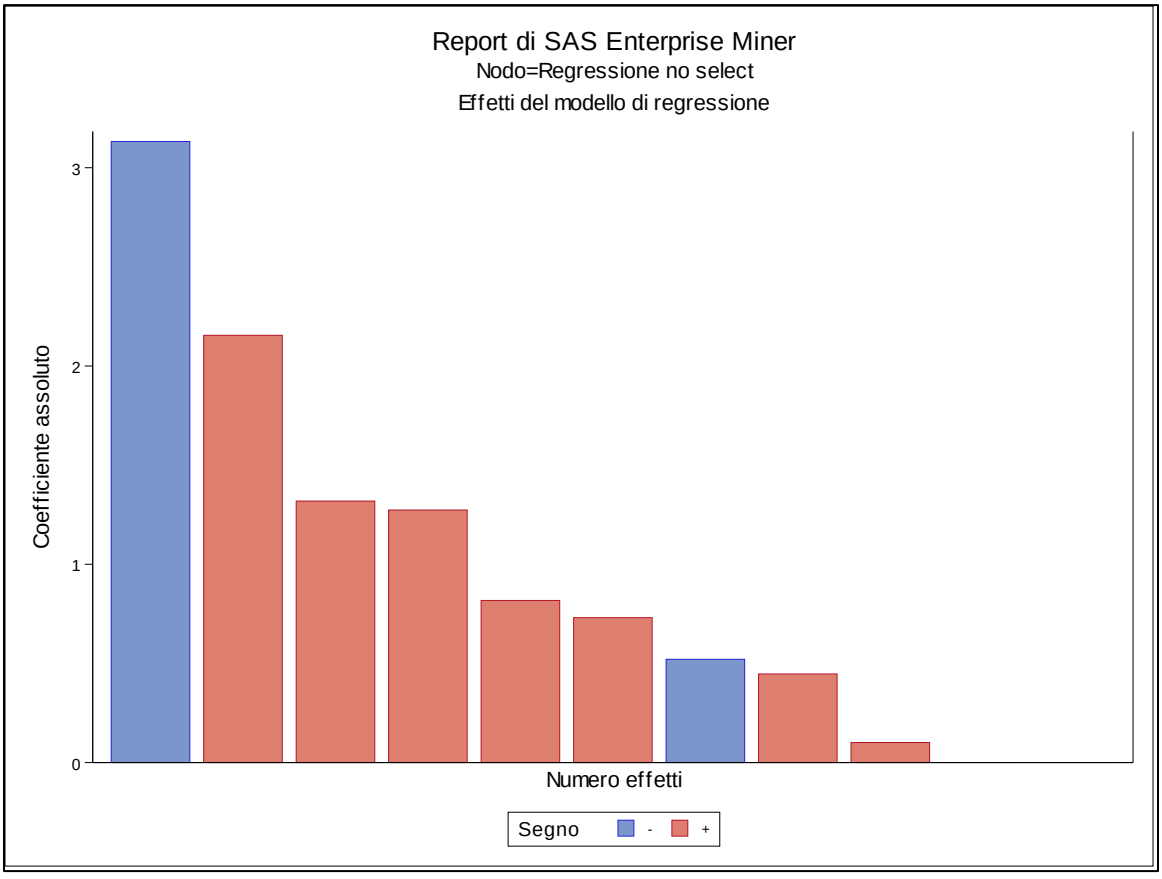
Nodo=Selezione delle variabili senza trasformazioni
Selezione delle variabili

Nome variabile	Ruolo	Livello di misurazione	Tipo	Etichetta	Motivi del rifiuto
Children	INPUT	INTERVAL	N		
Exposure	REJECTED	BINARY	N		Varsel2:valore chi-quadrato piccolo
Hedu	REJECTED	ORDINAL	N		Varsel2:valore chi-quadrato piccolo
Hoccupation	REJECTED	ORDINAL	N		Varsel2:valore chi-quadrato piccolo
Living	INPUT	ORDINAL	N		
Wage	INPUT	INTERVAL	N		
Wedu	INPUT	ORDINAL	N		
Wrel	REJECTED	BINARY	N		Varsel2:valore chi-quadrato piccolo
Wwork	REJECTED	BINARY	N		Varsel2:valore chi-quadrato piccolo



Nodo=Regressione no select
Proprietà

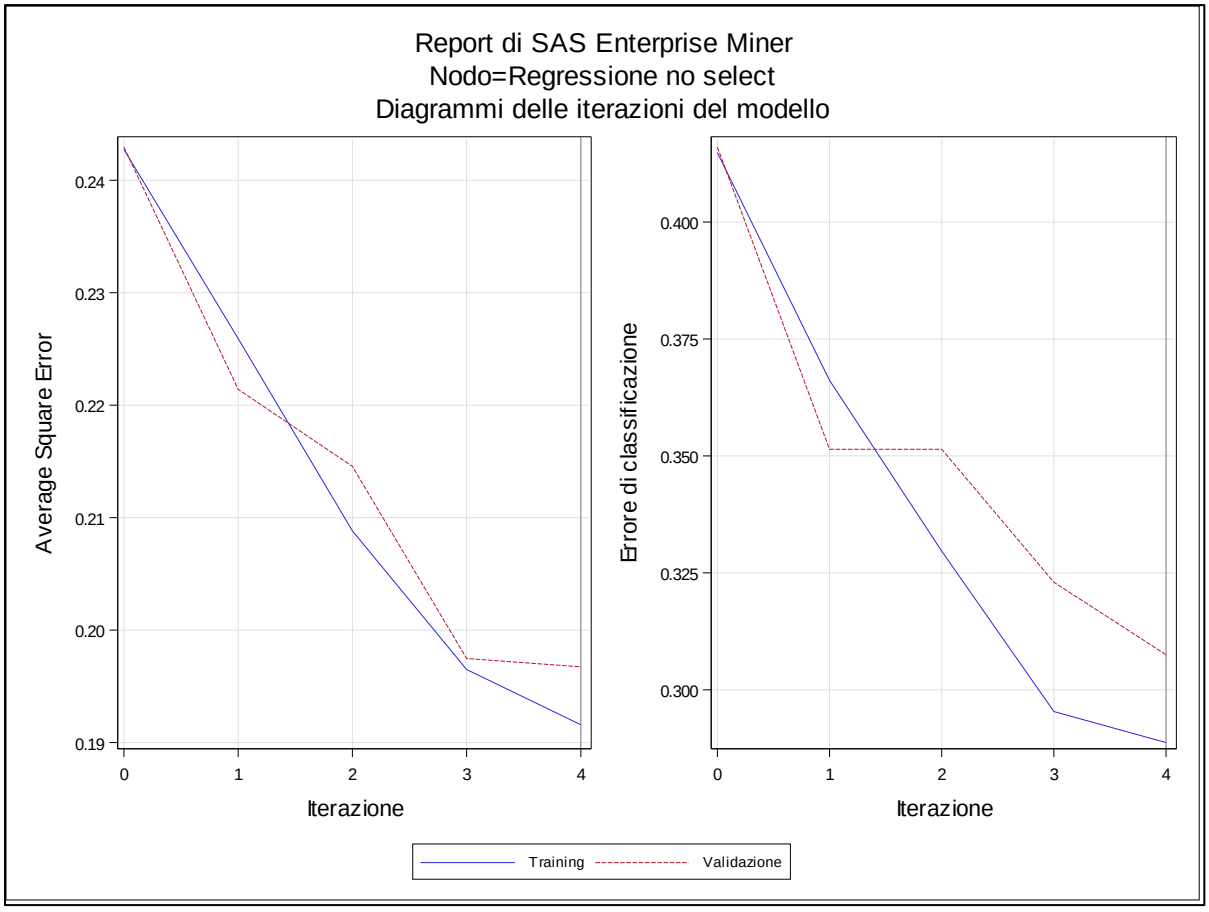
Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito
Component	Regression		Force	0		PolynomialDegree	2	
AbsConvValue	-1.34078E154	-7.237006E75	GConvTimes	1		PrintDesignMatrix	N	
AbsFTime	1		GConvValue	1E-6		Rule	NONE	
AbsFValue	0		Hierarchy	CLASS		SASSPDS	N	
AbsGTime	1		InputCoding	GLM	DEVIATION	SelectionCriterion	NONE	DEFAULT
AbsGValue	0.00001		Interactions			SelectionDefault	Y	
AbsXTime	1		LinkFunction	LOGIT		Sequential	N	
AbsXValue	1E-8		MainEffect	Y		Simple	N	
ClParm	N		MaxCPUTime	1 HOUR		SlEntry	0.05	
ConvDefaults	Y		MaxFunctionCalls	.		SlStay	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				



Report di SAS Enterprise Miner
Nodo=Regressione no select
Effetti del modello di regressione

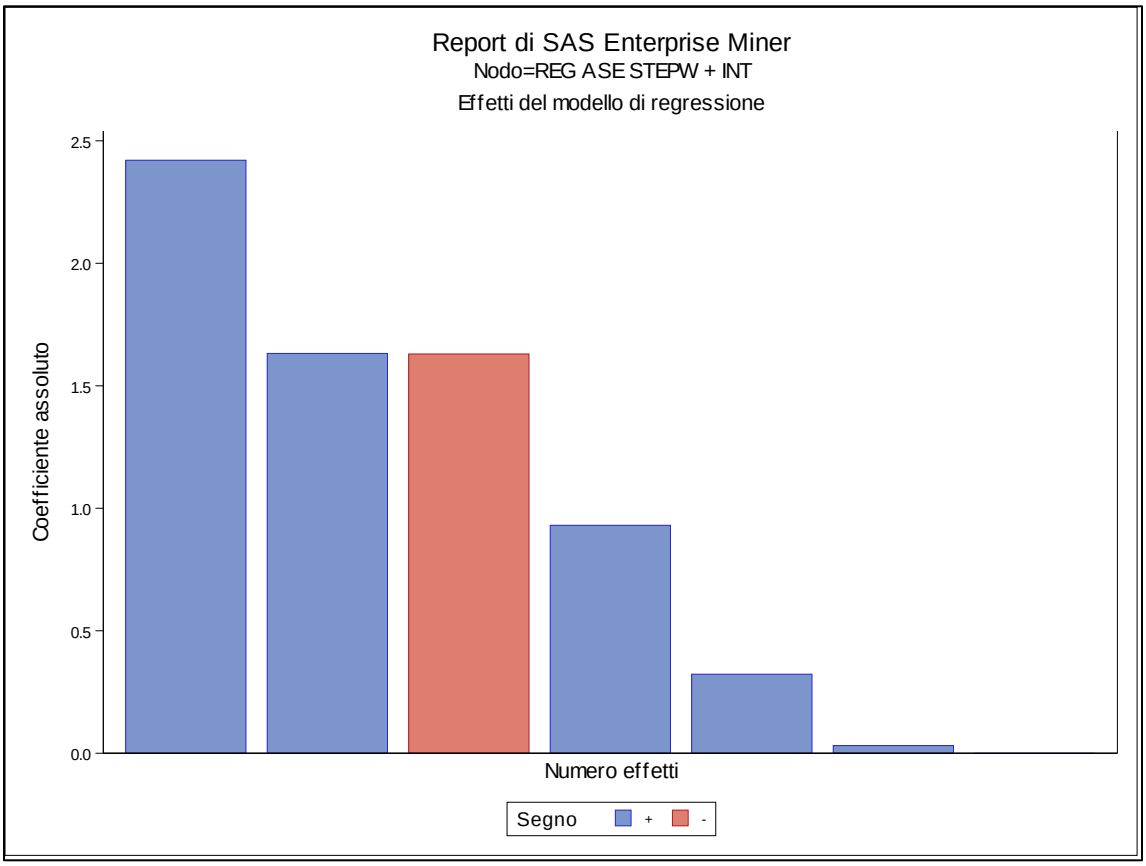
Numero effetti	Variabile	Livello	Coefficiente	Valore t	P-value	Numero effetti	Variabile	Livello	Coefficiente	Valore t	P-value
1	Intercept	1	-3.13224	-7.70939	1.2642E-14	7	Children		-0.52084	-9.84581	0.000000
2	Wedu	1	2.15484	7.10743	1.1822E-12	8	Living	3	0.44696	2.37502	0.017548
3	Living	1	1.31871	4.46622	.000007961	9	Wage		0.10105	7.78352	0.000000
4	Wedu	2	1.27368	5.85965	.000000005	10	Living	4	0.00000	.	.
5	Living	2	0.81757	3.43600	.000590372	11	Wedu	4	0.00000	.	.
6	Wedu	3	0.73097	3.64266	.000269832	.			.	.	.

Report di SAS Enterprise Miner
Nodo=Regressione no select
Diagrammi delle iterazioni del modello



Nodo=REG ASE STEPW + INT
Proprietà

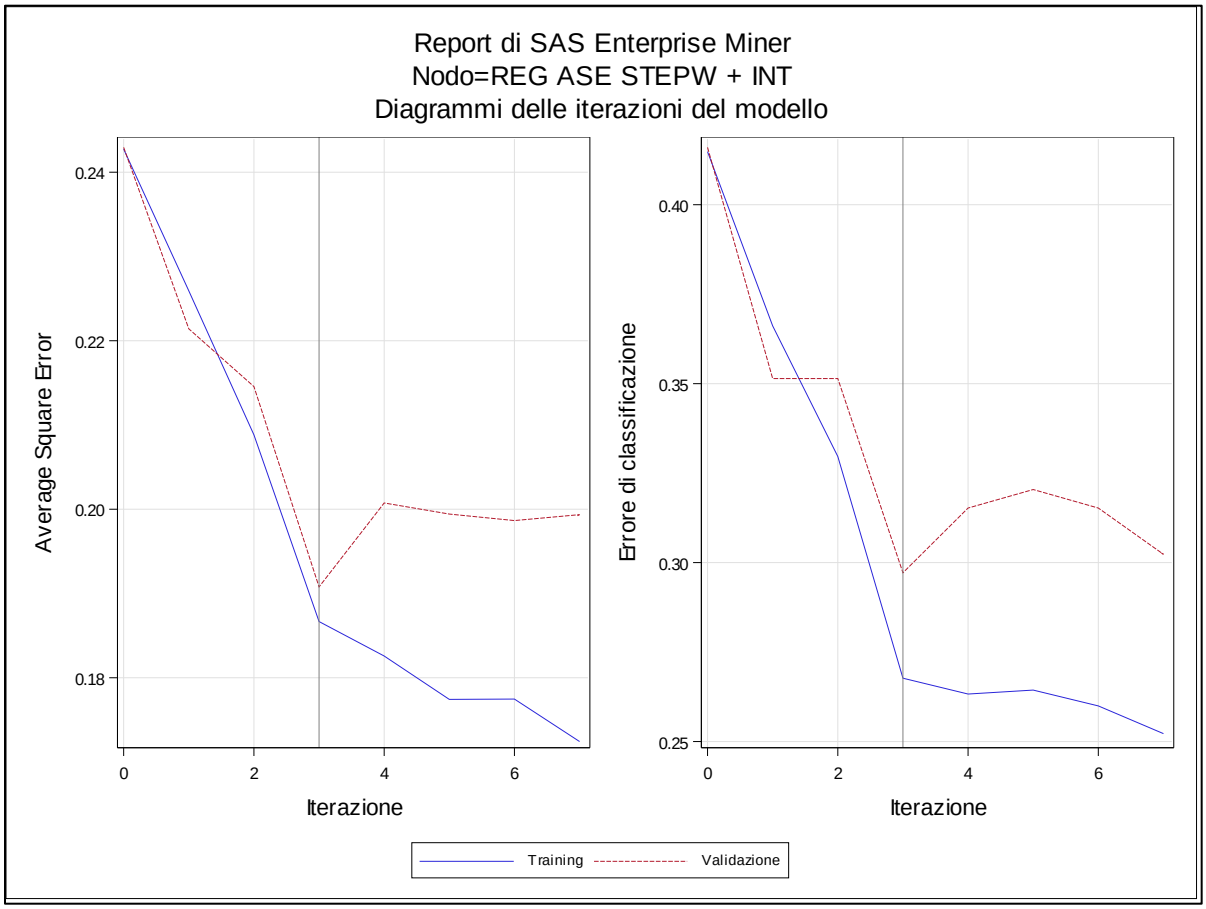
Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito
Component	Regression		Force	0		PolynomialDegree	2	
AbsConvValue	-1.34078E154	-7.237006E75	GConvTimes	1		PrintDesignMatrix	N	
AbsFTime	1		GConvValue	1E-6		Rule	NONE	
AbsFValue	0		Hierarchy	CLASS		SASSPDS	N	
AbsGTime	1		InputCoding	GLM	DEVIATION	SelectionCriterion	VERROR	DEFAULT
AbsGValue	0.00001		Interactions			SelectionDefault	Y	
AbsXTime	1		LinkFunction	LOGIT		Sequential	N	
AbsXValue	1E-8		MainEffect	Y		Simple	N	
ClParm	N		MaxCPUTime	1 HOUR		SlEntry	0.05	
ConvDefaults	Y		MaxFunctionCalls	.		SlStay	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	Y	N
FConvValue	0		Polynomial	Y	N			



Report di SAS Enterprise Miner
Nodo=REG ASE STEPW + INT
Effetti del modello di regressione

Numero effetti	Variabile	Livello	Coefficiente	Valore t	P-value	Numero effetti	Variabile	Livello	Coefficiente	Valore t	P-value
1	Wedu	1	2.42080	8.2210	2.0187E-16	5	Intercept	1	0.32273	1.95991	0.050006
2	Wedu	2	1.63216	7.6753	1.6505E-14	6	Children*Wage		0.03128	8.96411	0.000000
3	Children		-1.62998	-10.2325	1.4176E-24	7	Wedu	4	0.00000	.	.
4	Wedu	3	0.93058	4.7765	.000001784	.			.	.	.

Report di SAS Enterprise Miner
Nodo=REG ASE STEPW + INT
Diagrammi delle iterazioni del modello



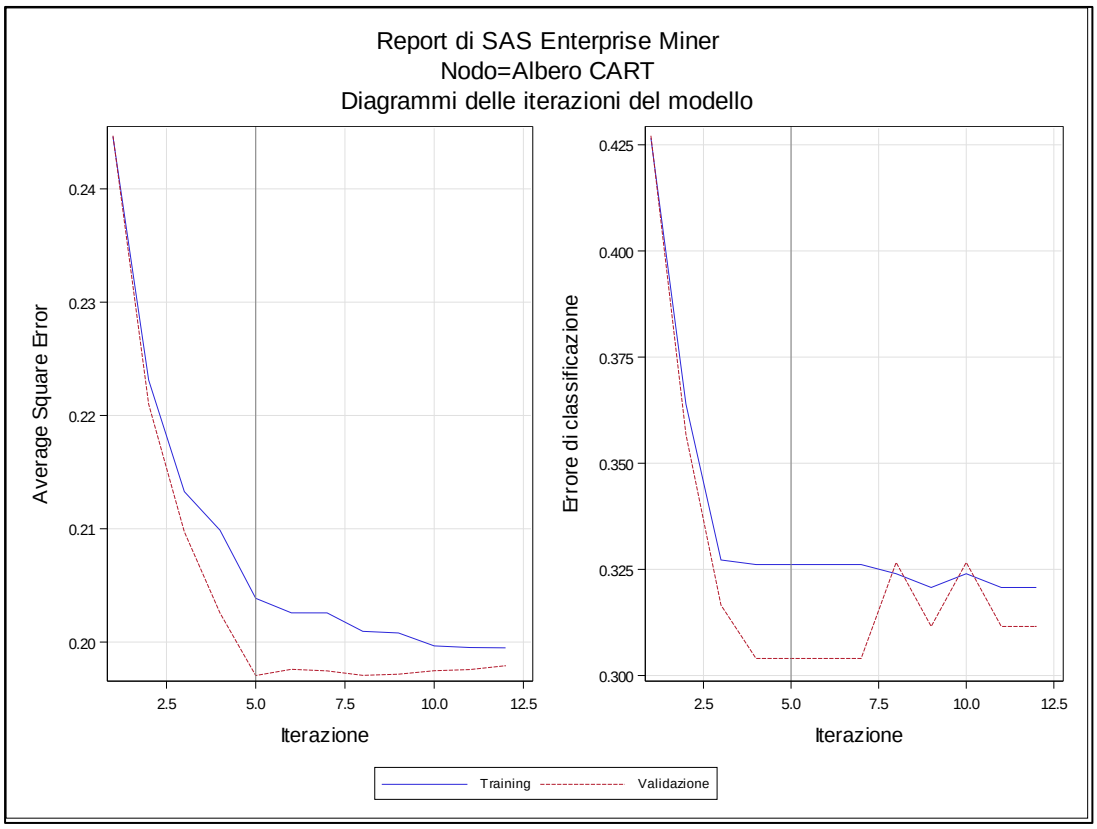
Nodo=Partizione dei dati
Proprietà

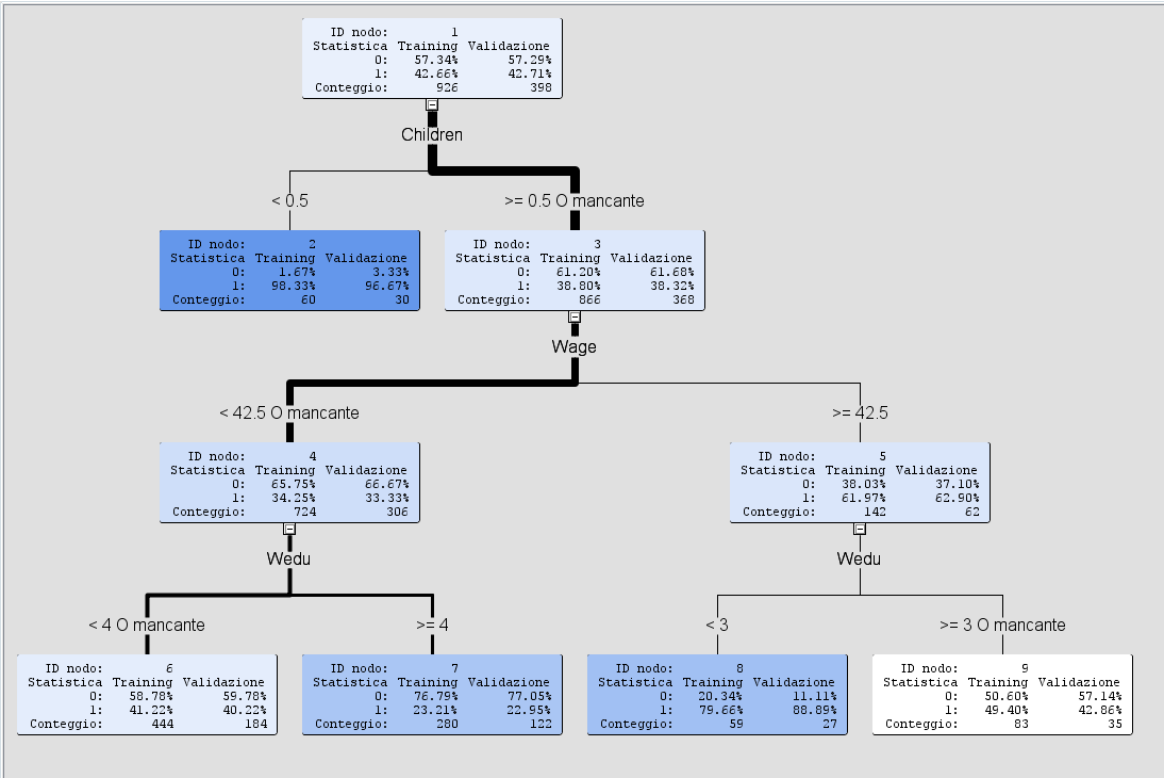
Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito
Component	Partition		Method	DEFAULT		TestPct	0	30
ClassDistribution	Y		OutputType	DATA		TrainPct	70	40
IntervalDistribution	Y		RandomSeed	12345		ValidatePct	30	

Training: 926 obs
Validation: 398 obs

Nodo=Albero CART
Proprietà

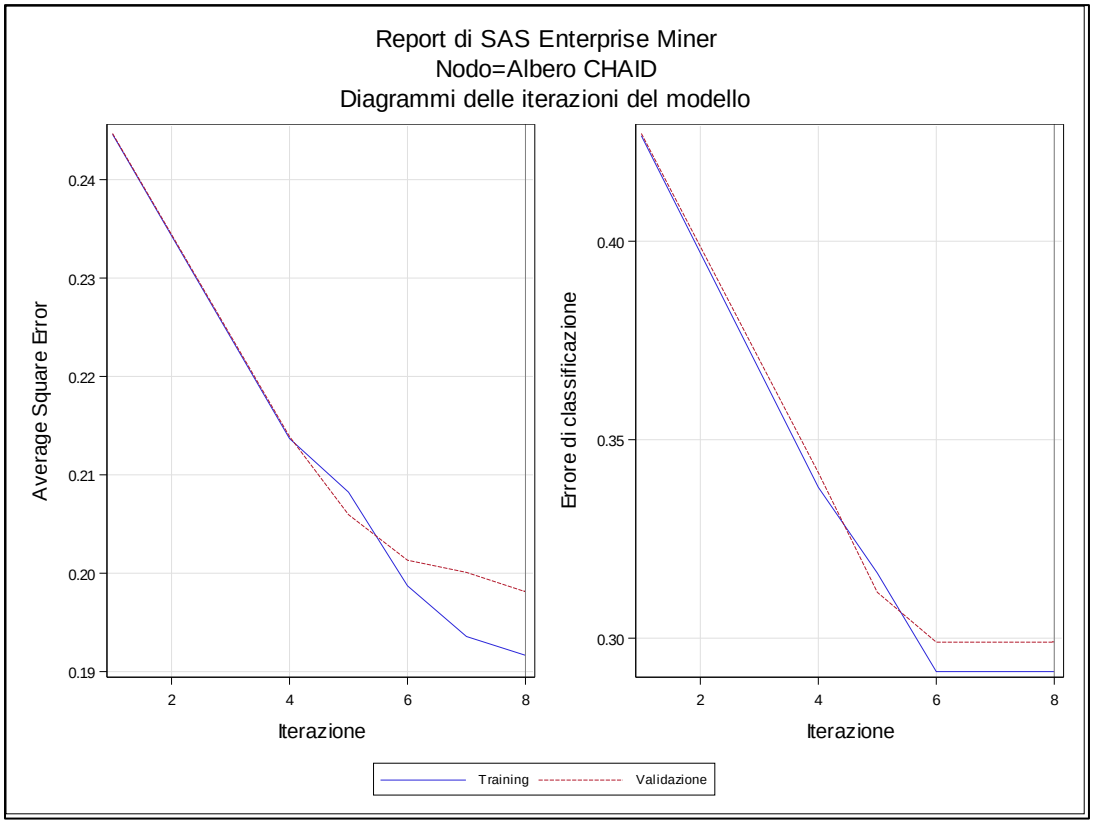
Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito
Component	DecisionTree		Kass	Y		Pred	N	
AVG	Y		KassApply	BEFORE		Predict	Y	
AssessMeasure	ASE	PROFIT/LOSS	LeafSize	50	5	ProfitLoss	NONE	
AssessPercentage	0.25		Leafid	Y		RASE	N	
CV	N		Maxbranch	2		SampleMethod	RANDOM	
CVNIter	10		Maxdepth	6		SampleSeed	12345	
CVRepeat	1		MinCatSize	5		SampleSize	10000	
CVSeed	12345		MissingValue	USEINSEARCH		ShowNodeId	Y	
ClassColorBy	PERCENTCORRECT		NSubtree	1		ShowValid	Y	
Count	Y		NodeRole	SEGMENT		SigLevel	0.2	
CreateSample	DEFAULT		NodeSample	20000		SplitPrecision	4	
Criterion	DEFAULT		NominalCriterion	GINI	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	Y	N
IntervalCriterion	VARIANCE	PROBF	Precision	4		VarSelection	Y	

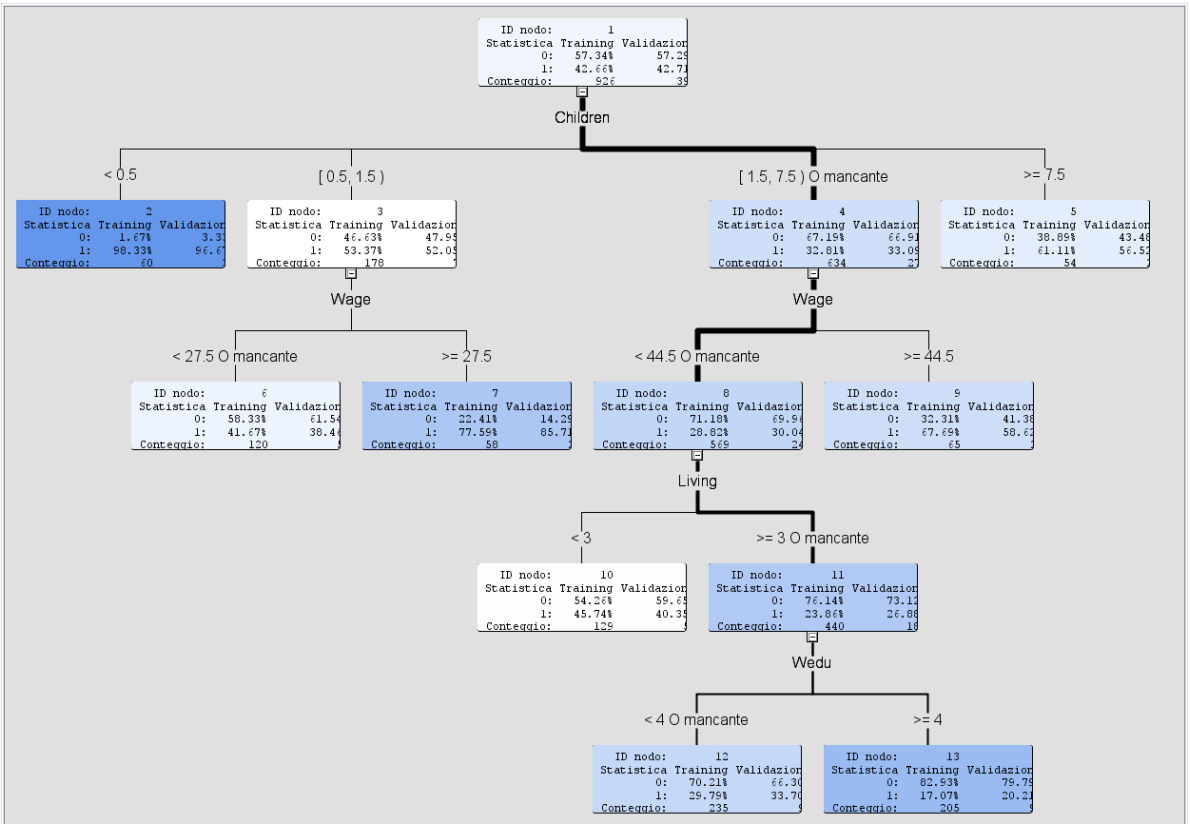

Report di SAS Enterprise Miner
Nodo=Albero CART
Diagrammi delle iterazioni del modello
Average Square Error
0.24
0.23
0.22
0.21
0.20
2.5
5.0
7.5
10.0
12.5
Iterazione
Errore di classificazione
0.425
0.400
0.375
0.350
0.325
0.300
2.5
5.0
7.5
10.0
12.5
Iterazione
Training
Validazione


ID nodo: 1
Statistica Training Validazione
0: 57.34% 57.29%
1: 42.66% 42.71%
Conteggio: 926 398
Children
< 0.5
>= 0.5 O mancante
ID nodo: 2
Statistica Training Validazione
0: 1.67% 3.33%
1: 98.33% 96.67%
Conteggio: 60 30
ID nodo: 3
Statistica Training Validazione
0: 61.20% 61.68%
1: 38.80% 38.32%
Conteggio: 866 368
Wage
< 42.5 O mancante
>= 42.5
ID nodo: 4
Statistica Training Validazione
0: 65.75% 66.67%
1: 34.25% 33.33%
Conteggio: 724 306
ID nodo: 5
Statistica Training Validazione
0: 38.03% 37.10%
1: 61.97% 62.90%
Conteggio: 142 62
Wedu
Wedu
< 4 O mancante
>= 4
< 3
>= 3 O mancante
ID nodo: 6
Statistica Training Validazione
0: 58.78% 59.78%
1: 41.22% 40.22%
Conteggio: 444 184
ID nodo: 7
Statistica Training Validazione
0: 76.79% 77.05%
1: 23.21% 22.95%
Conteggio: 280 122
ID nodo: 8
Statistica Training Validazione
0: 20.34% 11.11%
1: 79.66% 88.89%
Conteggio: 59 27
ID nodo: 9
Statistica Training Validazione
0: 50.60% 57.14%
1: 49.40% 42.86%
Conteggio: 83 35

Nodo=Albero CHAID
Proprietà

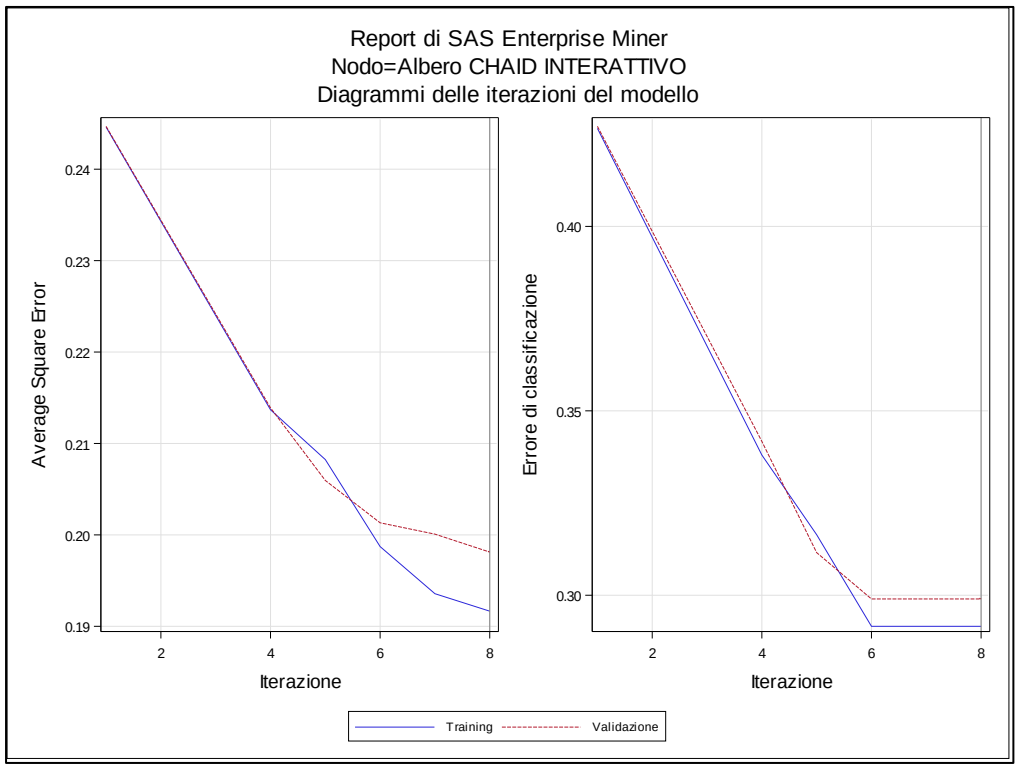
Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito
Component	DecisionTree		Kass	Y		Pred	N	
AVG	Y		KassApply	BEFORE		Predict	Y	
AssessMeasure	ASE	PROFIT/LOSS	LeafSize	50	5	ProfitLoss	NONE	
AssessPercentage	0.25		Leafid	Y		RASE	N	
CV	N		Maxbranch	5	2	SampleMethod	RANDOM	
CVNIter	10		Maxdepth	6		SampleSeed	12345	
CVRepeat	1		MinCatSize	5		SampleSize	10000	
CVSeed	12345		MissingValue	USEINSEARCH		ShowNodeId	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	

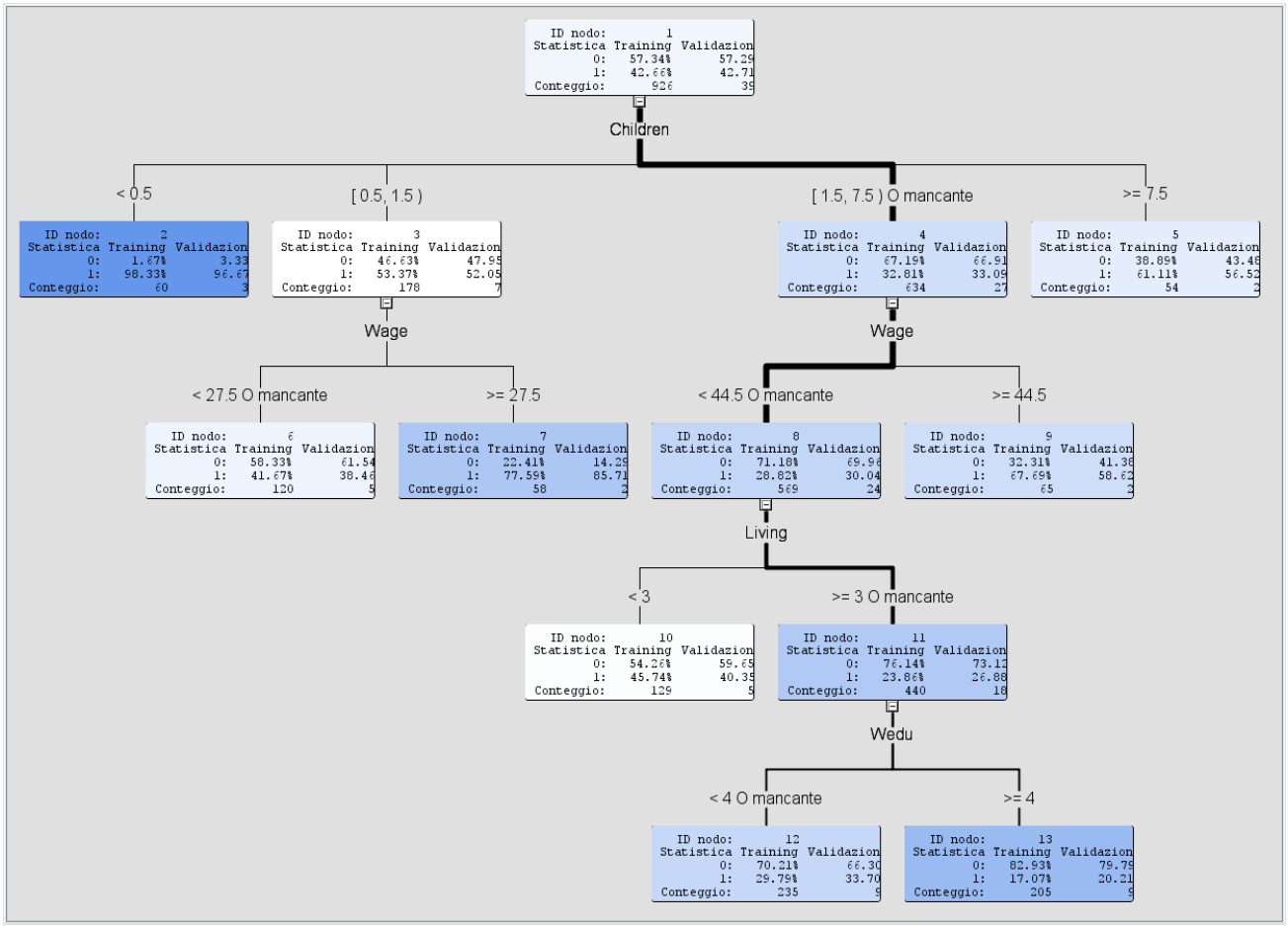




Nodo=Albero CHAID INTERATTIVO
Proprietà

Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito
Component	DecisionTree		Kass	Y		Pred	N	
AVG	Y		KassApply	BEFORE		Predict	Y	
AssessMeasure	ASE	PROFIT/LOSS	LeafSize	50	5	ProfitLoss	NONE	
AssessPercentage	0.25		Leafid	Y		RASE	N	
CV	N		Maxbranch	5	2	SampleMethod	RANDOM	
CVNIter	10		Maxdepth	6		SampleSeed	12345	
CVRepeat	1		MinCatSize	5		SampleSize	10000	
CVSeed	12345		MissingValue	USEINSEARCH		ShowNodeId	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	


Report di SAS Enterprise Miner
Nodo=Albero CHAID INTERATTIVO
Diagrammi delle iterazioni del modello
Average Square Error
0.24
0.23
0.22
0.21
0.20
0.19
2
4
6
8
Iterazione
Errore di classificazione
0.40
0.35
0.30
2
4
6
8
Iterazione
Training
Validazione


ID nodo: 1
Statistica Training Validazion
0: 57.34% 57.29
1: 42.66% 42.71
Conteggio: 926 39
Children
< 0.5
[0.5, 1.5)
[1.5, 7.5) O mancante
>= 7.5
ID nodo: 2
Statistica Training Validazion
0: 1.67% 3.33
1: 98.33% 96.67
Conteggio: 60 3
ID nodo: 3
Statistica Training Validazion
0: 46.63% 47.95
1: 53.37% 52.05
Conteggio: 178 7
ID nodo: 4
Statistica Training Validazion
0: 67.19% 66.91
1: 32.81% 33.09
Conteggio: 634 27
ID nodo: 5
Statistica Training Validazion
0: 38.89% 43.48
1: 61.11% 56.52
Conteggio: 54 2
Wage
Wage
< 27.5 O mancante
>= 27.5
< 44.5 O mancante
>= 44.5
ID nodo: 6
Statistica Training Validazion
0: 58.33% 61.54
1: 41.67% 38.46
Conteggio: 120 5
ID nodo: 7
Statistica Training Validazion
0: 22.41% 14.29
1: 77.59% 85.71
Conteggio: 58 2
ID nodo: 8
Statistica Training Validazion
0: 71.18% 69.96
1: 28.82% 30.04
Conteggio: 569 24
ID nodo: 9
Statistica Training Validazion
0: 32.31% 41.38
1: 67.69% 58.62
Conteggio: 65 2
Living
< 3
>= 3 O mancante
ID nodo: 10
Statistica Training Validazion
0: 54.26% 59.65
1: 45.74% 40.35
Conteggio: 129 5
ID nodo: 11
Statistica Training Validazion
0: 76.14% 73.12
1: 23.86% 26.88
Conteggio: 440 18
Wedu
< 4 O mancante
>= 4
ID nodo: 12
Statistica Training Validazion
0: 70.21% 66.30
1: 29.79% 33.70
Conteggio: 235 9
ID nodo: 13
Statistica Training Validazion
0: 82.93% 79.79
1: 17.07% 20.21
Conteggio: 205 9

Nodo=Ensemble TREE
Proprietà

Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito
Component	Ensemble		Posterior	AVERAGE		Predicted	AVERAGE	

Nodo=Ensemble TREE
Riepilogo delle variabili

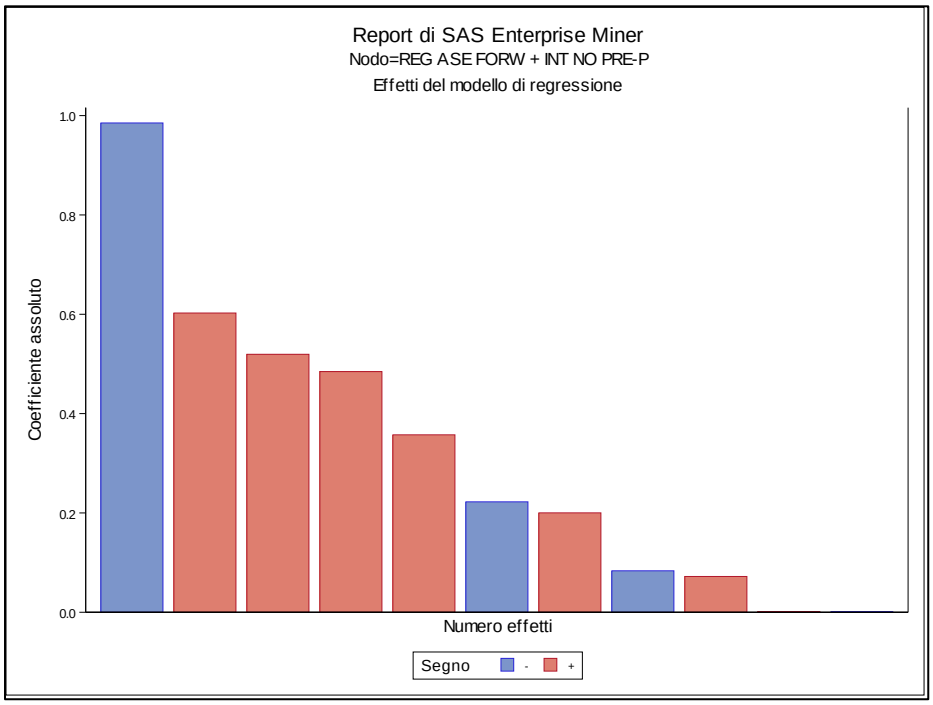
Ruolo	Livello	Conteggio di frequenza	Nome
TARGET	BINARY	1	Y
INPUT	INTERVAL	2	Children Wage
INPUT	ORDINAL	1	Wedu

Nodo=REG ASE FORW + INT NO PRE-P
Proprietà

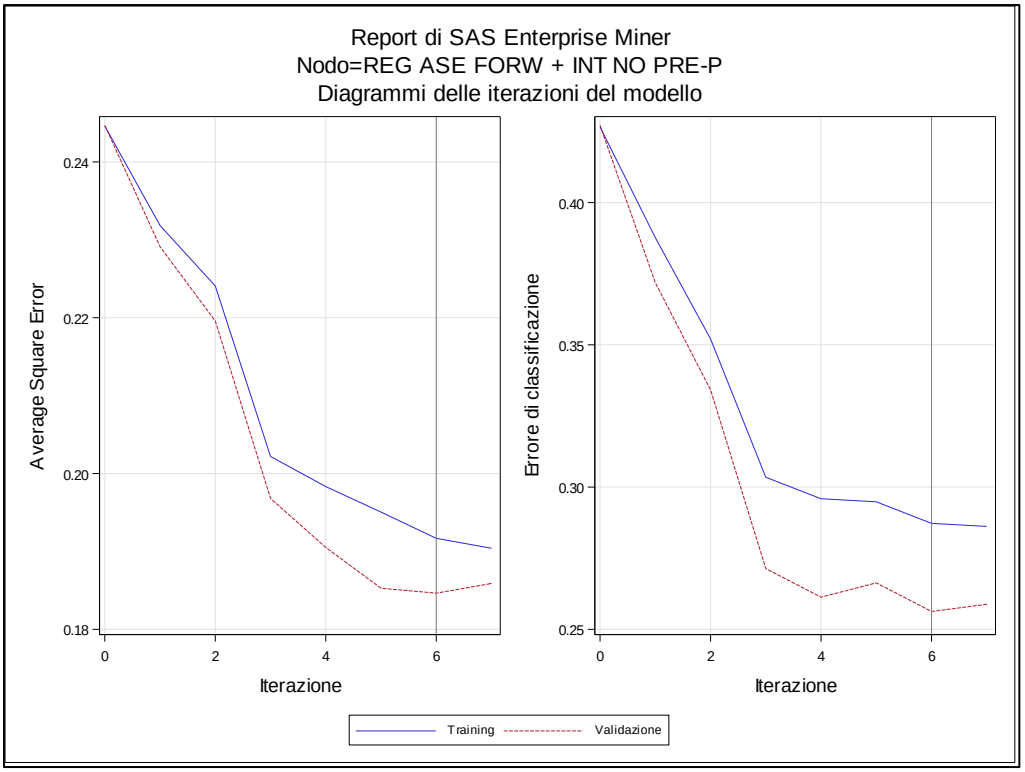
Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito
Component	Regression		Force	0		PolynomialDegree	2	
AbsConvValue	-1.34078E154	-7.237006E75	GConvTimes	1		PrintDesignMatrix	N	
AbsFTime	1		GConvValue	1E-6		Rule	NONE	
AbsFValue	0		Hierarchy	CLASS		SASSPDS	N	
AbsGTime	1		InputCoding	DEVIATION		SelectionCriterion	VERROR	DEFAULT
AbsGValue	1E-5	0.00001	Interactions			SelectionDefault	Y	
AbsXTime	1		LinkFunction	LOGIT		Sequential	N	
AbsXValue	1E-8		MainEffect	Y		Simple	N	
ClParm	N		MaxCPUTime	1 HOUR		SlEntry	0.05	
ConvDefaults	Y		MaxFunctionCalls	.		SlStay	0.05	
CorB	N		MaxIterations	.		Start	0	
CovB	N		MaxStep	0	.	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	Y	N			

Report di SAS Enterprise Miner
Nodo=REG ASE FORW + INT NO PRE-P
Effetti del modello di regressione

Numero effetti	Variabile	Livello	Coefficiente	Valore t	P-value	Numero effetti	Variabile	Livello	Coefficiente	Valore t	P-value
1	Children		-0.98523	-5.33460	0.000000	7	Living	2	0.20018	1.28175	0.19993
2	Wedu	1	0.60252	3.12147	0.001799	8	Wedu	3	-0.08352	-0.64553	0.51859
3	Intercept	1	0.51940	1.70022	0.089089	9	Children*Children		0.07206	5.12500	0.00000
4	Living	1	0.48459	2.39061	0.016820	10	Wage*Wage		0.00153	4.33799	0.00001
5	Wedu	2	0.35731	2.51984	0.011741	11	Children*Wage		-0.00090	-0.14011	0.88857
6	Living	3	-0.22237	-1.67342	0.094245	.			.	.	.

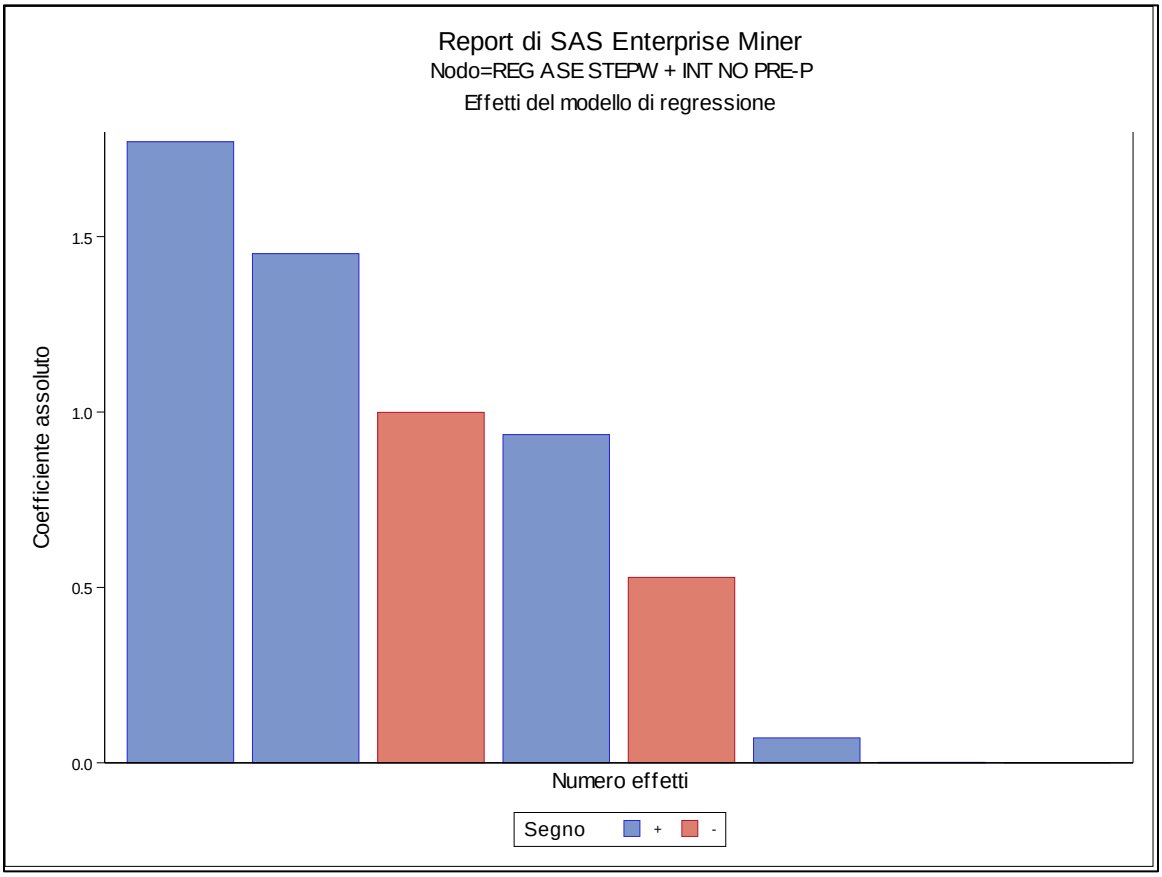


Report di SAS Enterprise Miner
Nodo=REG ASE FORW + INT NO PRE-P
Diagrammi delle iterazioni del modello



Nodo=REG ASE STEPW + INT NO PRE-P
Proprietà

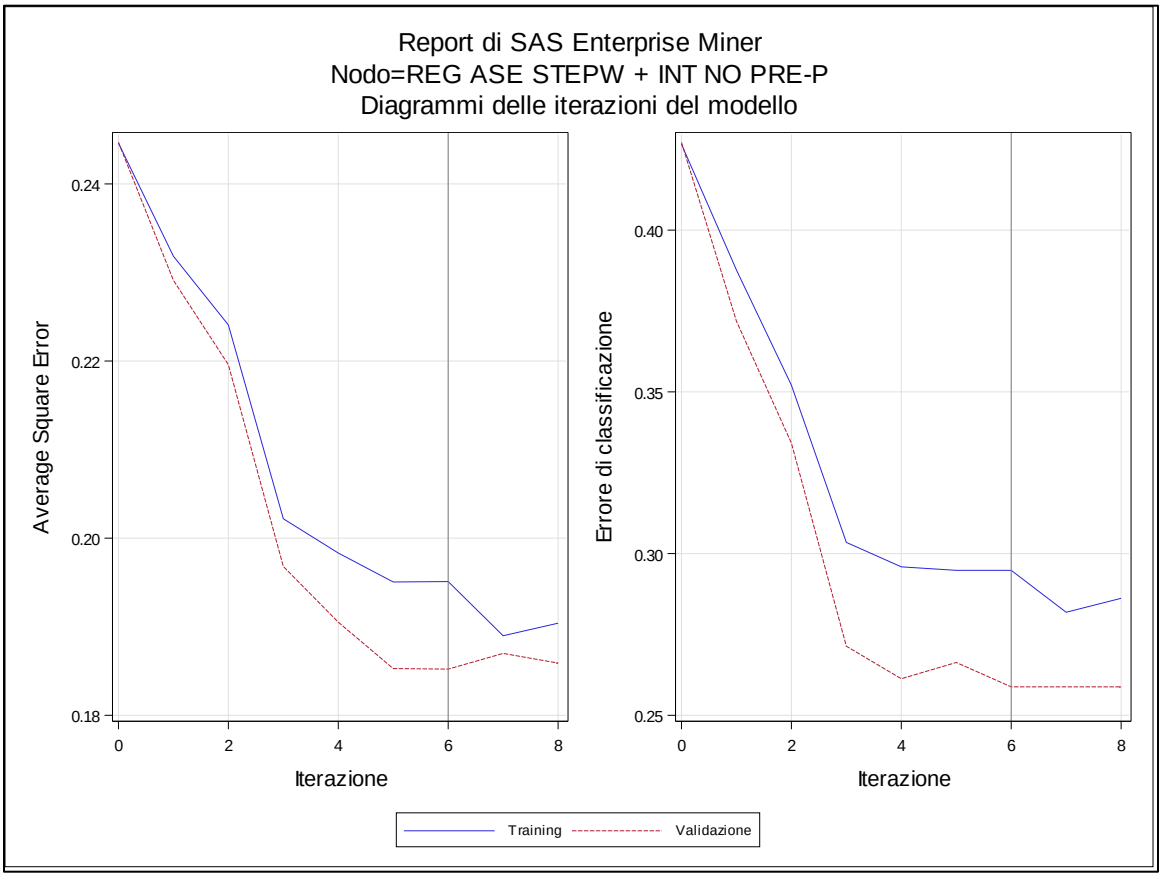
Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito
Component	Regression		Force	0		PolynomialDegree	2	
AbsConvValue	-1.34078E154	-7.237006E75	GConvTimes	1		PrintDesignMatrix	N	
AbsFTime	1		GConvValue	1E-6		Rule	NONE	
AbsFValue	0		Hierarchy	CLASS		SASSPDS	N	
AbsGTime	1		InputCoding	GLM	DEVIATION	SelectionCriterion	VERROR	DEFAULT
AbsGValue	0.00001		Interactions			SelectionDefault	Y	
AbsXTime	1		LinkFunction	LOGIT		Sequential	N	
AbsXValue	1E-8		MainEffect	Y		Simple	N	
ClParm	N		MaxCPUTime	1 HOUR		SlEntry	0.05	
ConvDefaults	Y		MaxFunctionCalls	.		SlStay	0.05	
CorB	N		MaxIterations	.		Start	0	
CovB	N		MaxStep	0	.	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	Y	N
FConvValue	0		Polynomial	Y	N			



Report di SAS Enterprise Miner
Nodo=REG ASE STEPW + INT NO PRE-P
Effetti del modello di regressione

Numero effetti	Variabile	Livello	Coefficiente	Valore t	P-value	Numero effetti	Variabile	Livello	Coefficiente	Valore t	P-value
1	Wedu	1	1.77041	6.41004	1.4548E-10	5	Intercept	1	-0.52862	-2.30821	0.020988
2	Wedu	2	1.45143	6.90524	5.0118E-12	6	Children*Children		0.07109	6.66529	0.000000
3	Children		-0.99908	-9.36173	7.844E-21	7	Wage*Wage		0.00136	7.74900	0.000000
4	Wedu	3	0.93570	4.92497	.000000844	8	Wedu	4	0.00000	.	.

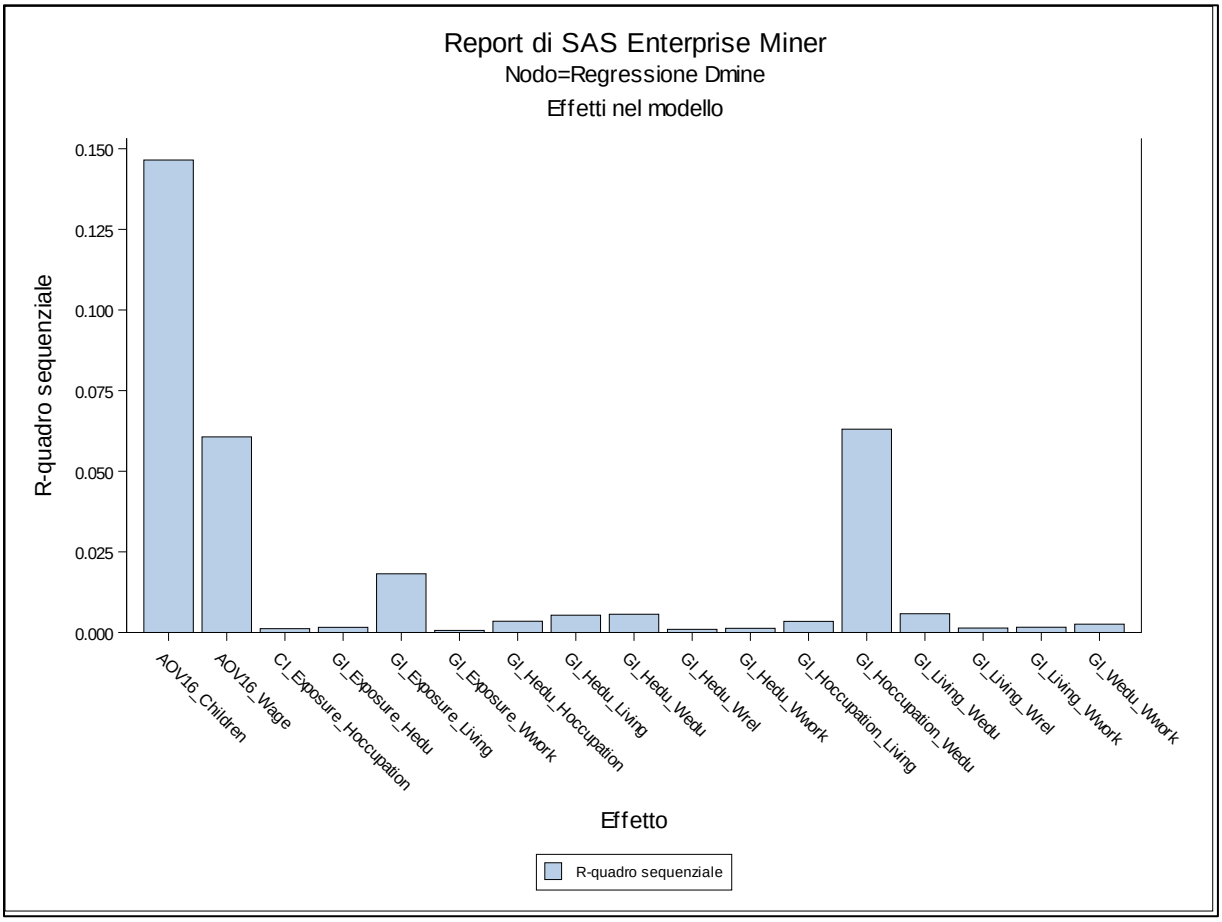
Report di SAS Enterprise Miner
Nodo=REG ASE STEPW + INT NO PRE-P
Diagrammi delle iterazioni del modello



Nodo=Regressione Dmine
Proprietà

Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito
Component	DmineReg		MinR2	0.005		StatusMonitor	N	
Cutoff	0.5		PrintOption	DEFAULT		StopR2	0.0005	
FastRegLabel	FastRegLABEL		SASSPDS	Y		UseAov16	Y	
MaxRows	3000		ScoreVarSuffix			UseGroups	Y	

Con interazioni tra le qualitative

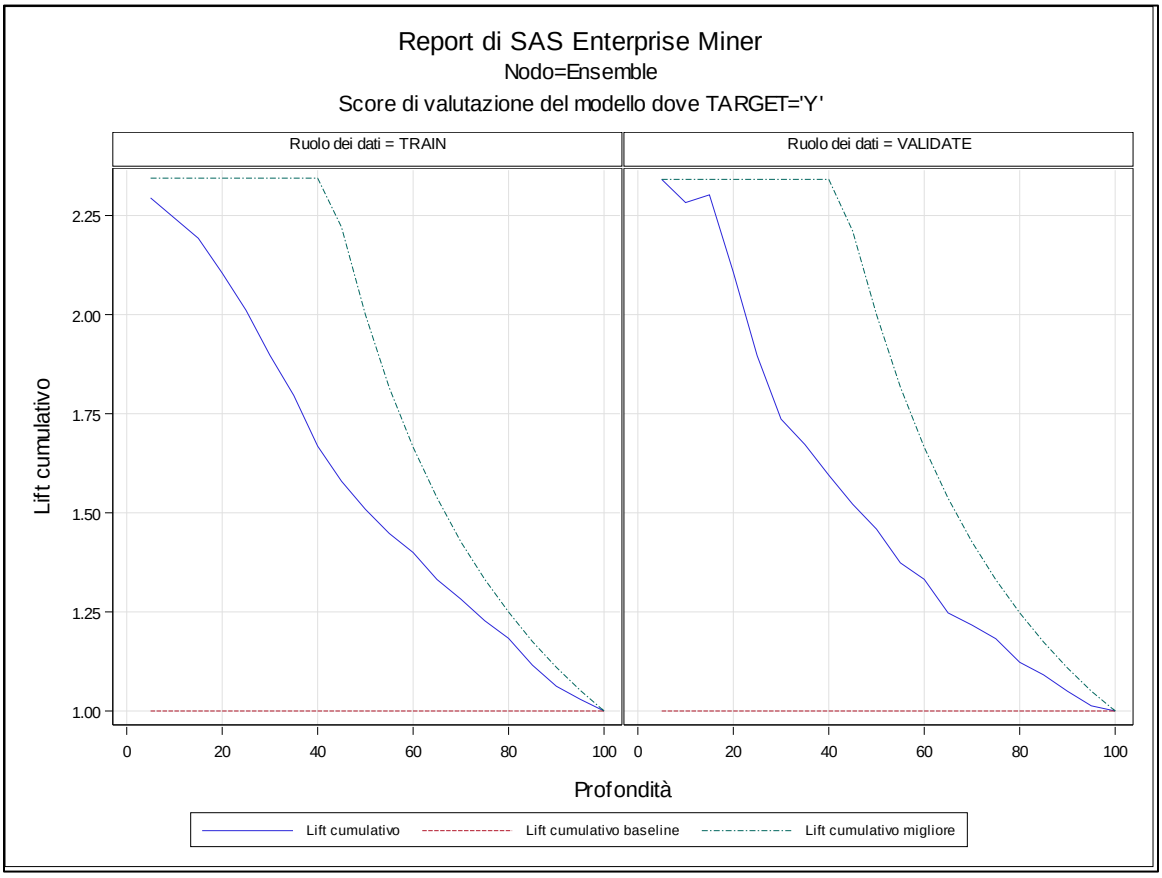


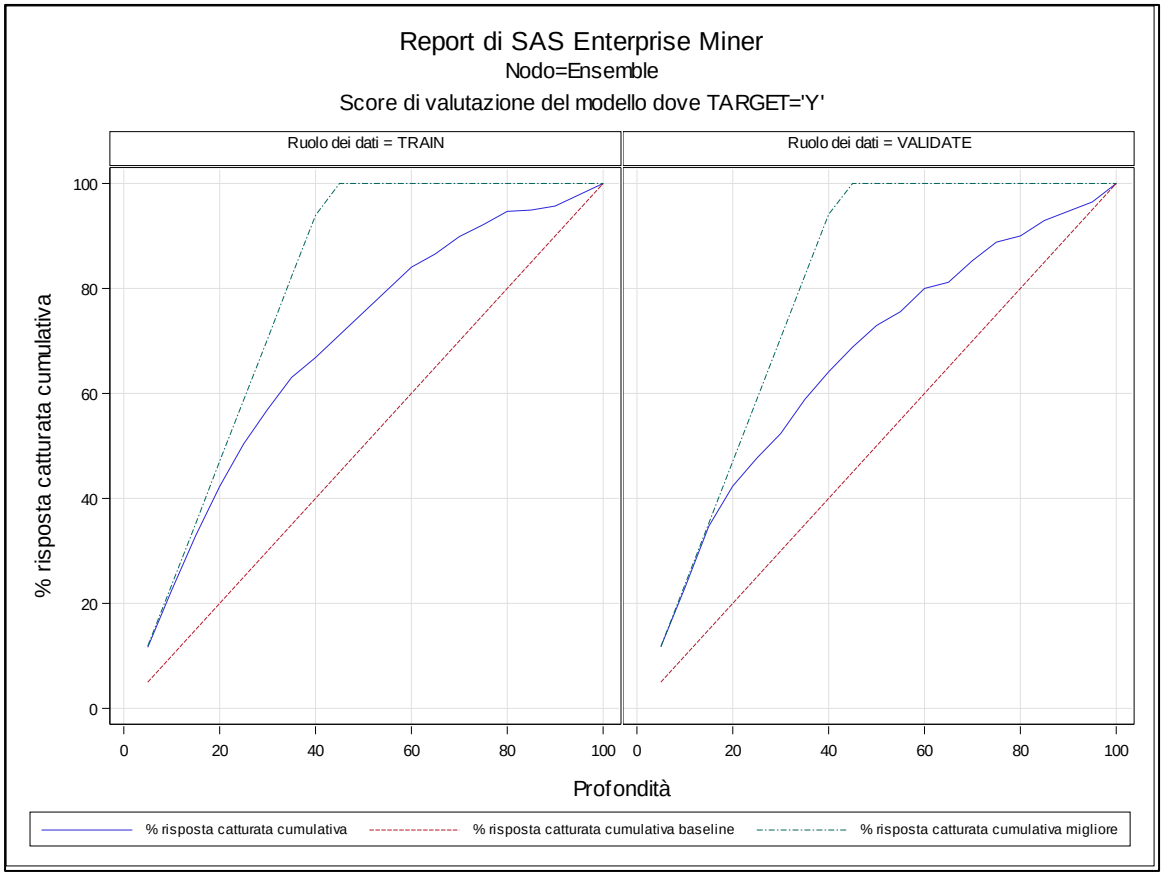
Nodo=Ensemble
Proprietà

Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito
Component	Ensemble		Posterior	AVERAGE		Predicted	AVERAGE	

Nodo=Ensemble
Riepilogo delle variabili

Ruolo	Livello	Conteggio di frequenza	Nome
TARGET	BINARY	1	Y
INPUT	INTERVAL	2	Children Wage
INPUT	ORDINAL	1	Wedu





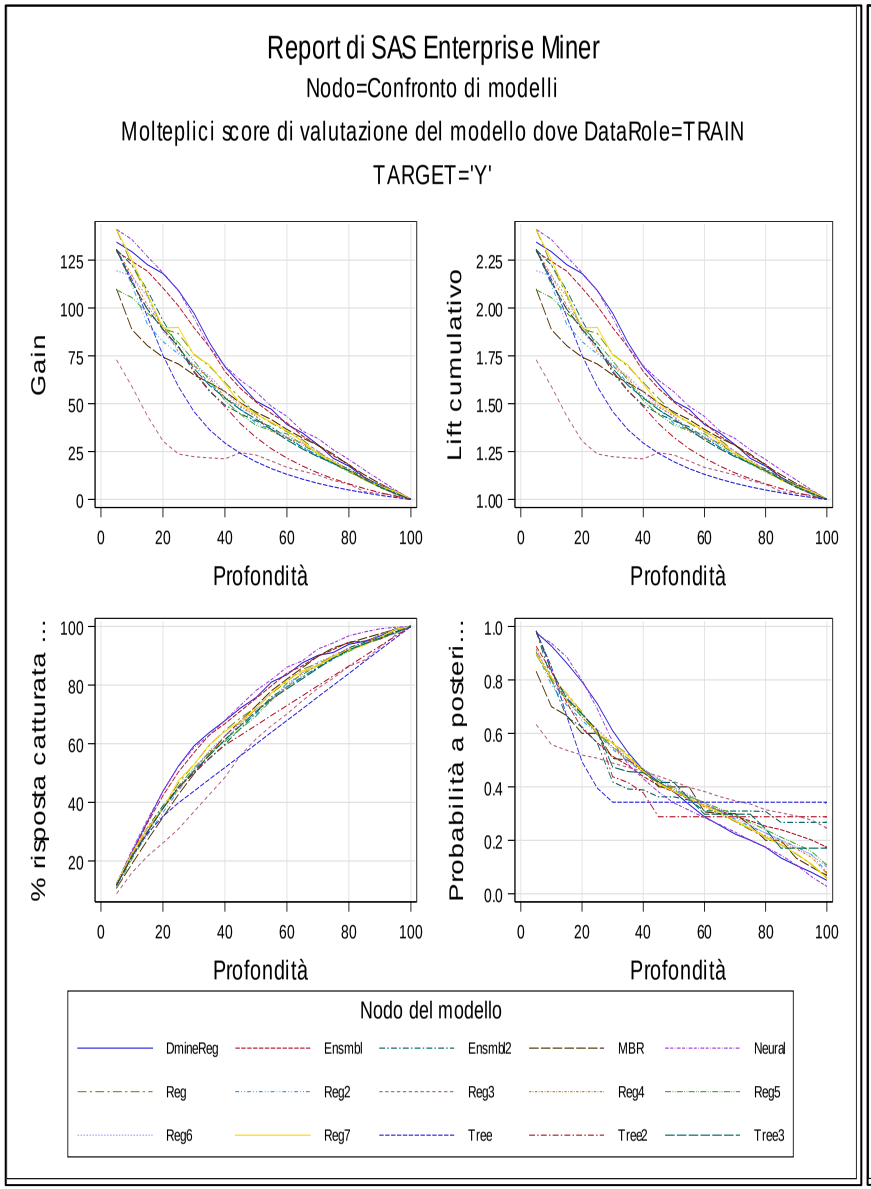
Nodo=Confronto di modelli
Proprietà

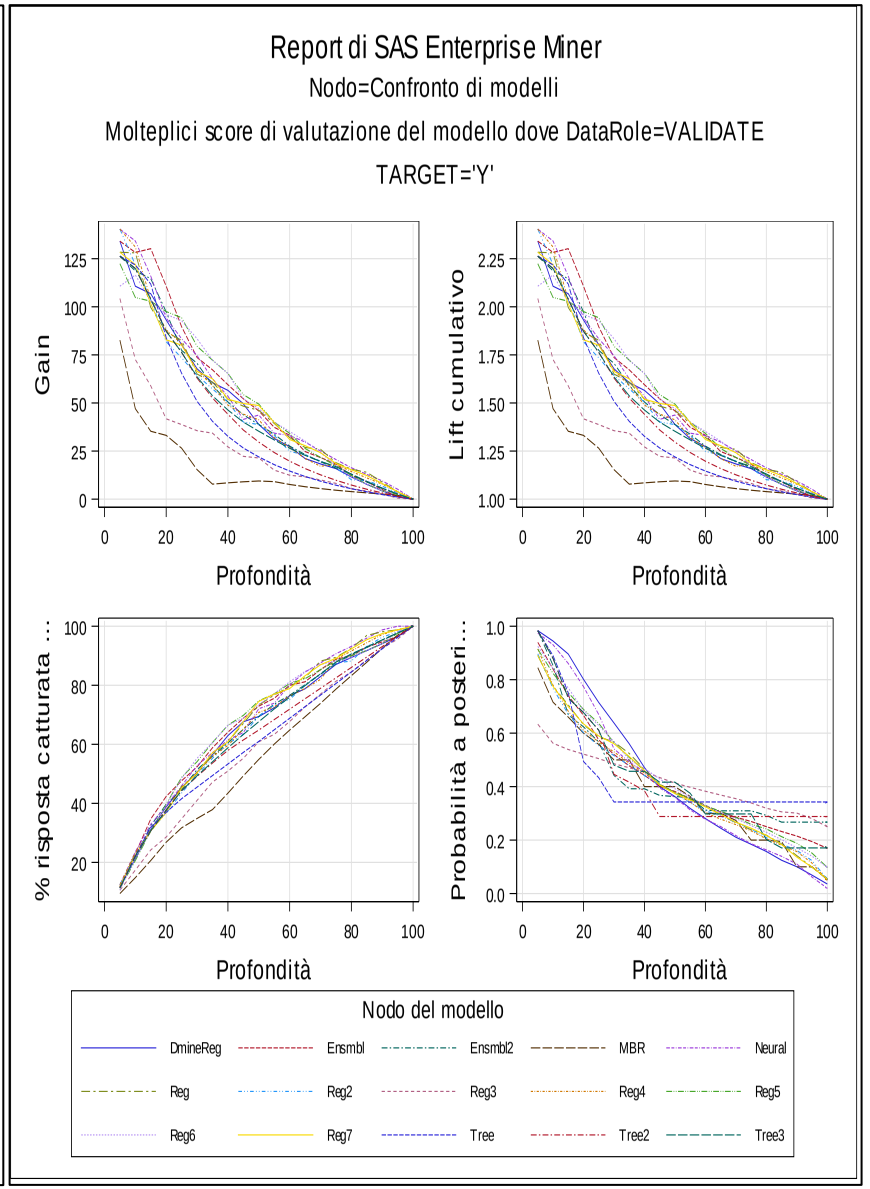
Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito	Proprietà	Valore	Predefinito
Component	ModelCompare		NormalizeReportingVariables	Y		ScoreDistBin	20	
AssessAllTargetLevels	N		NumberOfReportedLevels	1E-6		SelectionCriteria	_LIFTC_	DEFAULT
DecileBin	20		NumberofBins	20		SelectionData	DEFAULT	
HPCriteria	C_LIFT_	DEFAULT	ProfitEpsilon	1E-6		SelectionDepth	20	10
LiftEpsilon	1E-6		RecomputeAssess	N		SelectionTable	VALIDATE	TABLE
ModelCriteria	Valid: Lift cumulativo		RocChart	Y		StatisticUsed	_VLIFTC_	
ModelDescription	Ensemble		RocEpsilon	0.01		TargetLabel		
ModelId	Ensmbl		RoiEpsilon	1E-6		TargetName	Y	

Nodo=Confronto di modelli
Tabella delle statistiche di stima

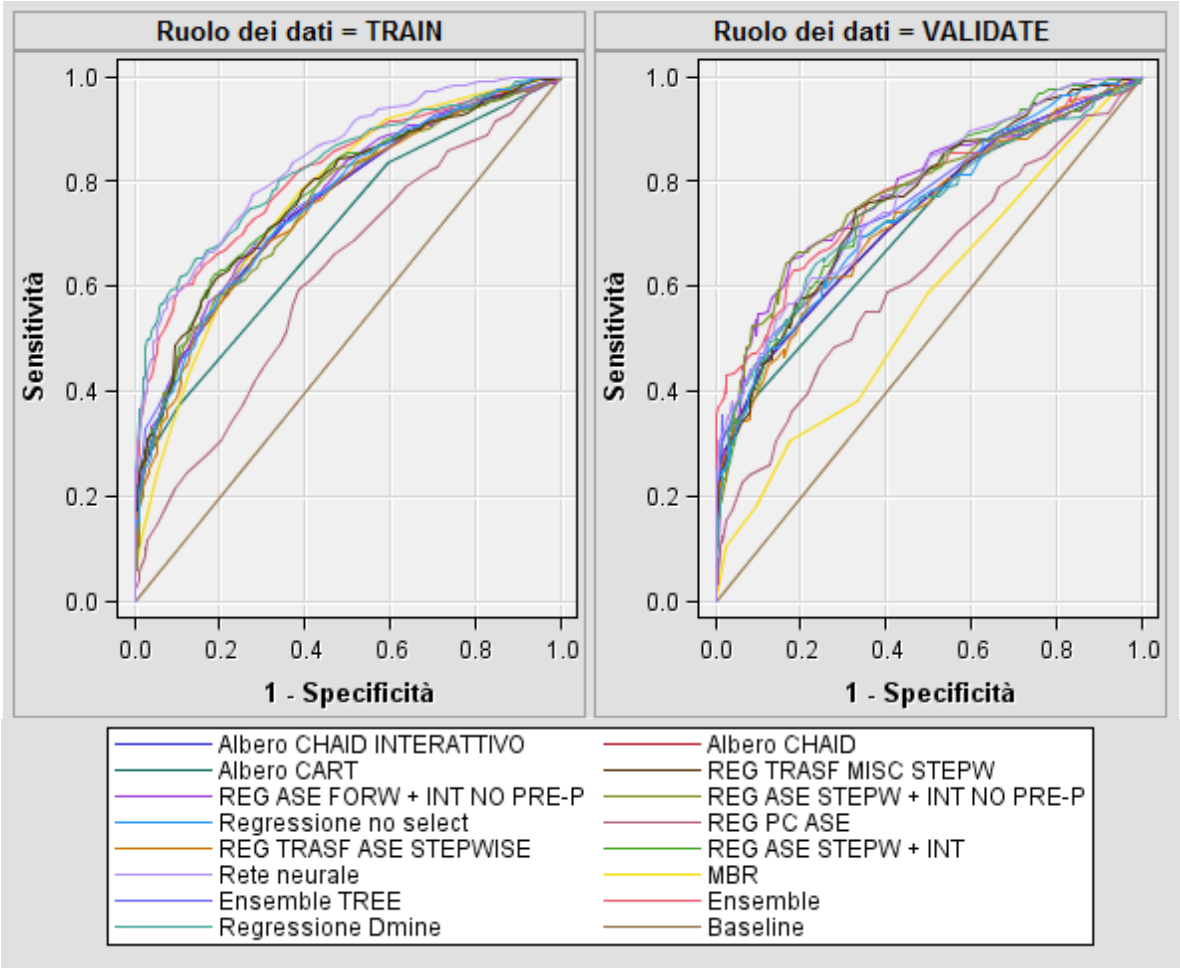
Modello selezionato	Nodo predecessore	Nodo del modello	Descrizione del modello	Variabile target	Criterio di selezione: Valid: Lift cumulativo	Train: Average Square Error	Train: Tasso di errore di classificazione	Train: Statistica di Kolmogorov-Smirnov
Y	Ensmbl	Ensmbl	Ensemble	Y	2.10706	0.17396	0.23974	0.489
	Reg5	Reg5	REG ASE STEPW + INT NO PRE-P	Y	1.97537	0.19510	0.29482	0.388
	Ensmbl2	Ensmbl2	Ensemble TREE	Y	1.97374	0.19414	0.28942	0.369
	Reg6	Reg6	REG ASE FORW + INT NO PRE-P	Y	1.96074	0.19168	0.28726	0.397
	Neural	Neural	Rete neurale	Y	1.94147	0.15672	0.23230	0.494
	DmineReg	DmineReg	Regressione Dmine	Y	1.93147	0.16030	0.23326	0.508
	Reg4	Reg4	Regressione no select	Y	1.87984	0.19158	0.28872	0.384
	Tree3	Tree3	Albero CHAID INTERATTIVO	Y	1.87294	0.19166	0.29158	0.370
	Tree2	Tree2	Albero CHAID	Y	1.87294	0.19872	0.29158	0.353
	Reg	Reg	REG ASE STEPW + INT	Y	1.86957	0.18667	0.26770	0.434
	Tree	Tree	Albero CART	Y	1.83950	0.20987	0.32613	0.269
	Reg7	Reg7	REG TRASF MISC STEPW	Y	1.82848	0.18662	0.26991	0.421
	Reg2	Reg2	REG TRASF ASE STEPWISE	Y	1.81820	0.19488	0.29646	0.377
	Reg3	Reg3	REG PC ASE	Y	1.41758	0.23194	0.40708	0.204
	MBR	MBR	MBR	Y	1.33162	0.19288	0.29314	0.393

Modello selezionato	Nodo predecessore	Nodo del modello	Descrizione del modello	Variabile target	Criterio di selezione: Valid: Lift cumulativo	Valid: Average Square Error	Valid: Errore di classificazione	Valid: Statistica di Kolmogorov-Smirnov
Y	Ensmbl	Ensmbl	Ensemble	Y	2.10706	0.18269	0.27889	0.434
	Reg5	Reg5	REG ASE STEPW + INT NO PRE-P	Y	1.97537	0.18521	0.25879	0.476
	Ensmbl2	Ensmbl2	Ensemble TREE	Y	1.97374	0.19442	0.29397	0.380
	Reg6	Reg6	REG ASE FORW + INT NO PRE-P	Y	1.96074	0.18464	0.25628	0.472
	Neural	Neural	Rete neurale	Y	1.94147	0.18894	0.27907	0.393
	DmineReg	DmineReg	Regressione Dmine	Y	1.93147	0.20459	0.29648	0.404
	Reg4	Reg4	Regressione no select	Y	1.87984	0.19674	0.30749	0.354
	Tree3	Tree3	Albero CHAID INTERATTIVO	Y	1.87294	0.19812	0.29899	0.339
	Tree2	Tree2	Albero CHAID	Y	1.87294	0.20132	0.29899	0.339
	Reg	Reg	REG ASE STEPW + INT	Y	1.86957	0.19078	0.29716	0.397
	Tree	Tree	Albero CART	Y	1.83950	0.20256	0.30402	0.295
	Reg7	Reg7	REG TRASF MISC STEPW	Y	1.82848	0.19217	0.29457	0.418
	Reg2	Reg2	REG TRASF ASE STEPWISE	Y	1.81820	0.20015	0.31008	0.358
	Reg3	Reg3	REG PC ASE	Y	1.41758	0.23051	0.37468	0.206
	MBR	MBR	MBR	Y	1.33162	0.25995	0.45220	0.127

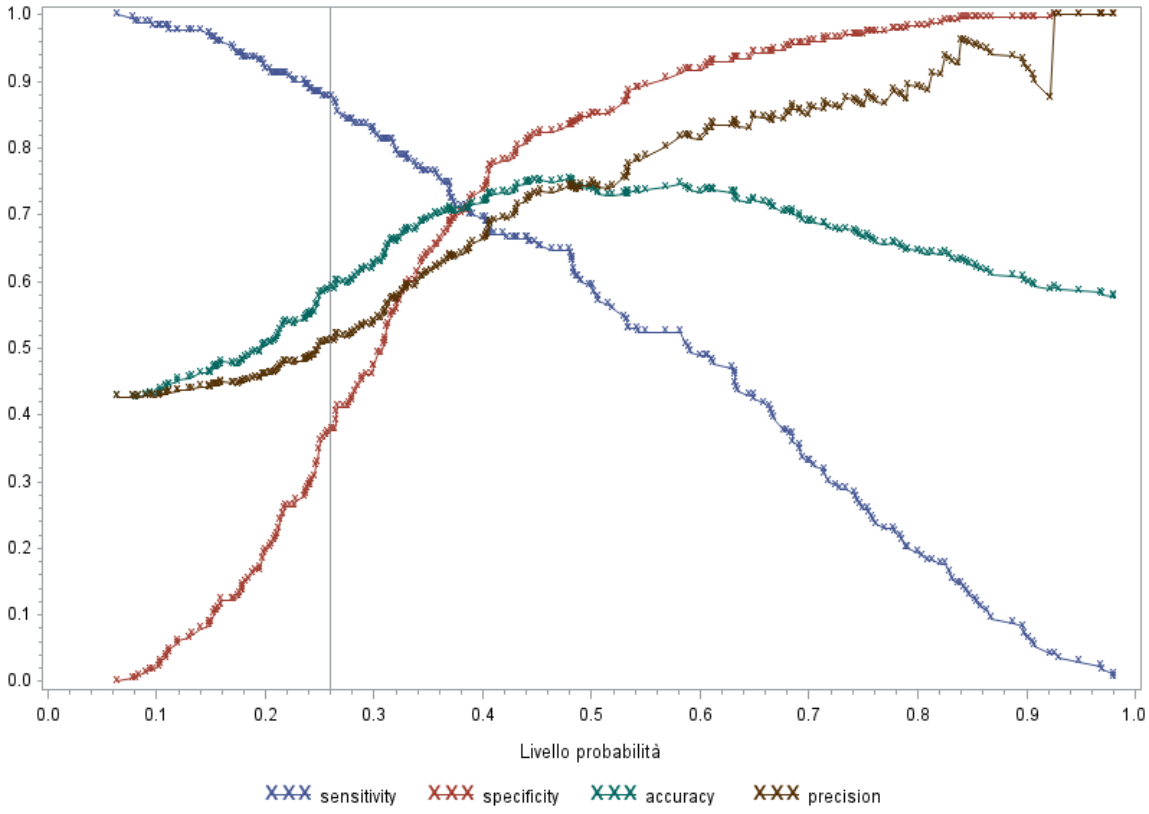

Report di SAS Enterprise Miner
Nodo=Confronto di modelli
Molteplici score di valutazione del modello dove DataRole=TRAIN
TARGET='Y'
Gain
Lift cumulativo
% risposta catturata ...
Probabilità a posteri...
Profondità
Nodo del modello
DmineReg
Ensmbl
Ensmbl2
MBR
Neural
Reg
Reg2
Reg3
Reg4
Reg5
Reg6
Reg7
Tree
Tree2
Tree3

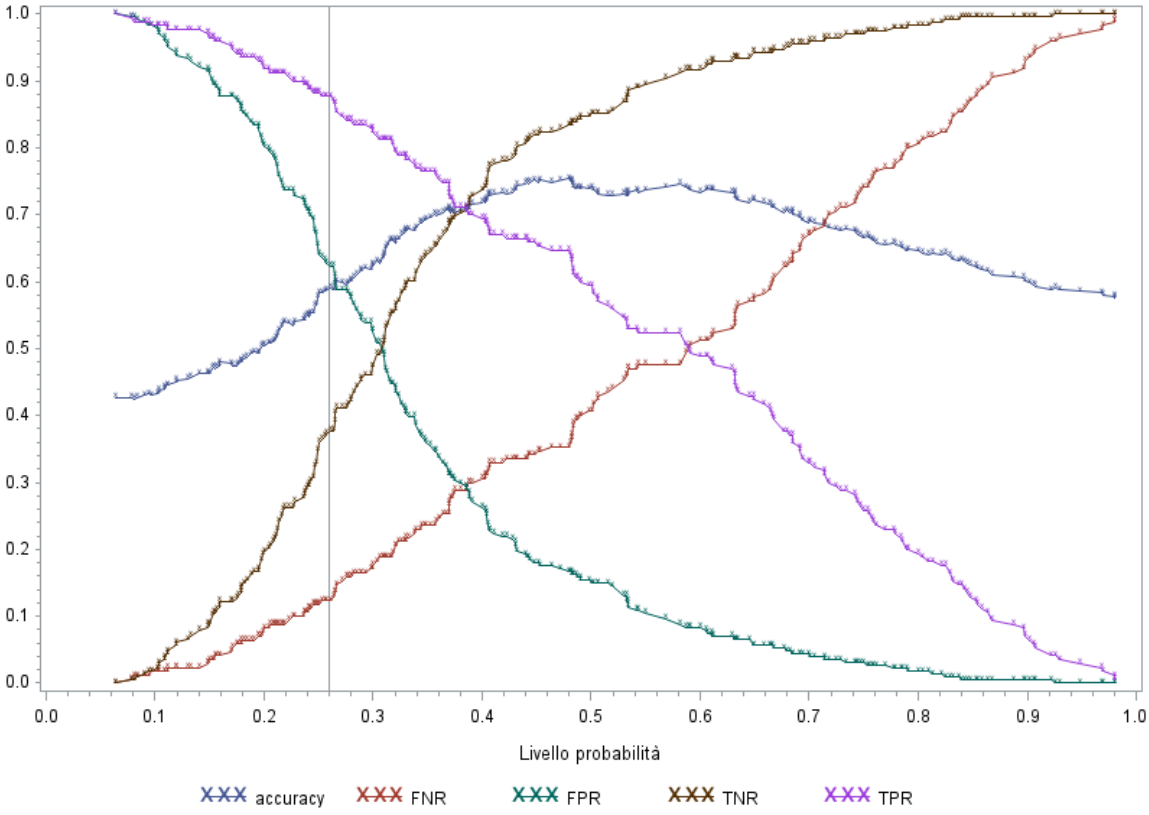

Report di SAS Enterprise Miner
Nodo=Confronto di modelli
Molteplici score di valutazione del modello dove DataRole=VALIDATE
TARGET='Y'
Gain
Lift cumulativo
% risposta catturata ...
Probabilità a posteri...
Profondità
Nodo del modello
DmineReg
Ensmbl
Ensmbl2
MBR
Neural
Reg
Reg2
Reg3
Reg4
Reg5
Reg6
Reg7
Tree
Tree2
Tree3

Nodo=Confronto di modelli
Grafico ROC- TARGET='Y' and EVENT='1'



Scelta della soglia sul Validation (SAS Stat)





Score Validation soglia scelta 0.26

Frequenza Percentuale Pct riga Pct col

Tabella di Y per prev_y			
	prev_y		
Y	0	1	Totale
0	79 19.85% 34.65% 80.61%	149 37.44% 65.35% 49.67%	228 57.29% 100,00%
1	19 4.77% 11.18% 19.39%	151 37.94% 88.82% 50.33%	170 42.71% 100,00%
Totale	98 24.62%	300 75.38%	398 100.00%

Accuracy 57,79% Error rate 38,26% Sensitivity 88,82% Specificy 34,65% Precision 50,33%

Score nuovi casi soglia 0.26

Y	PREDICT		
Frequenza Percentuale Pct riga	0	1	Totale
0	31 20.81 36.47	54 36.24 63.53	85 57.05
1	8 5.37 12.50	56 37.58 87.50	64 42.95
Totale	39 26.17	110 73.83	149 100.00

Score nuovi casi soglia 0.26

Oss	_dataobs_	F_Y	P_Y1	PREDICT
1	29	1	0.83119	1
2	34	1	0.62690	1
3	50	1	0.81572	1
4	67	1	0.54530	1
5	69	1	0.28614	1
6	88	1	0.21101	0
7	96	1	0.63071	1
8	117	1	0.25082	0
9	126	1	0.51394	1
10	128	1	0.61900	1
11	134	1	0.68815	1
12	158	1	0.45069	1
13	159	1	0.83497	1
14	180	1	0.83737	1
15	183	1	0.66890	1
		...		
134	1291	0	0.22062	0
135	1295	0	0.34514	1
136	1322	0	0.19175	0
137	1325	0	0.17420	0
138	1359	0	0.22480	0
139	1369	0	0.34053	1
140	1378	0	0.27417	1
141	1396	0	0.26364	1
142	1405	0	0.30313	1
143	1415	0	0.19834	0
144	1420	0	0.58632	1
145	1445	0	0.19071	0
146	1458	0	0.24005	0
147	1469	0	0.26258	1
148	1470	0	0.21586	0
149	1473	0	0.43360	1

Score validation soglia 0.26

Oss	_dataobs_	F_Y	P_Y1	PREDICT
1	2	1	0.79062	1
2	3	1	0.56005	1
3	6	1	0.75708	1
4	8	1	0.46459	1
5	9	1	0.33599	1
6	10	1	0.82037	1
7	16	1	0.72002	1
8	24	1	0.58378	1
9	33	1	0.94662	1
10	39	1	0.44476	1
11	41	1	0.40663	1
12	42	1	0.98660	1
13	46	1	0.71480	1
14	47	1	0.28502	1
15	48	1	0.95474	1
		...		
383	1427	0	0.30579	1
384	1428	0	0.19366	0
385	1430	0	0.15751	0
386	1431	0	0.29029	1
387	1440	0	0.21523	0
388	1444	0	0.61561	1
389	1446	0	0.20911	0
390	1447	0	0.69509	1
391	1449	0	0.28778	1
392	1452	0	0.47283	1
393	1456	0	0.36778	1
394	1459	0	0.46129	1
395	1460	0	0.19048	0
396	1461	0	0.30663	1
397	1463	0	0.26014	1
398	1467	0	0.37371	1