# SAS Enterprise Miner Report

## Model Summary
## Data

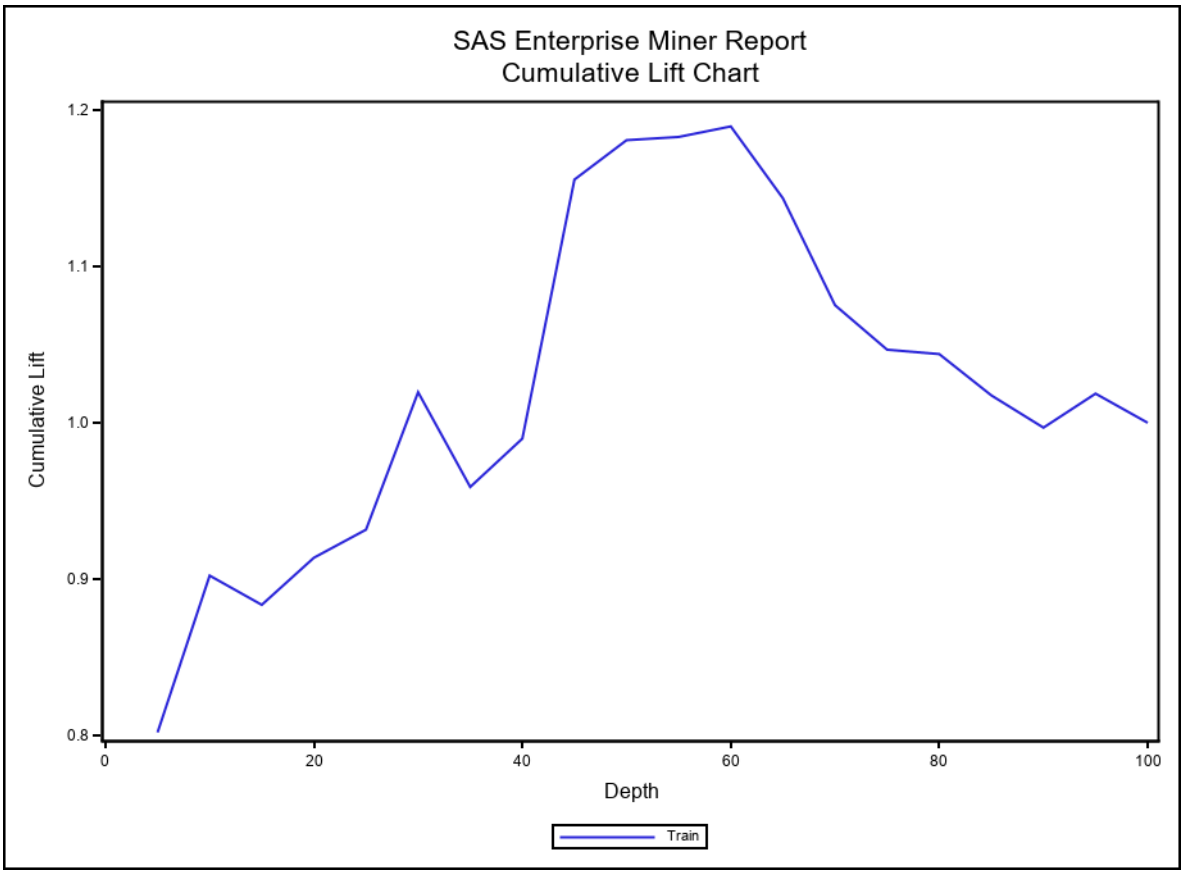
| Property | Value |
|---|---|
| Input Data Source | REFL_BAS.REFLUX_QUESTION1 |
| Target Variable | reflux subgroup |
| Event Level | TRUE_GERD |
| Observations | 393 |
| Original Variables | 113 |
| Selected Variables | 0 |

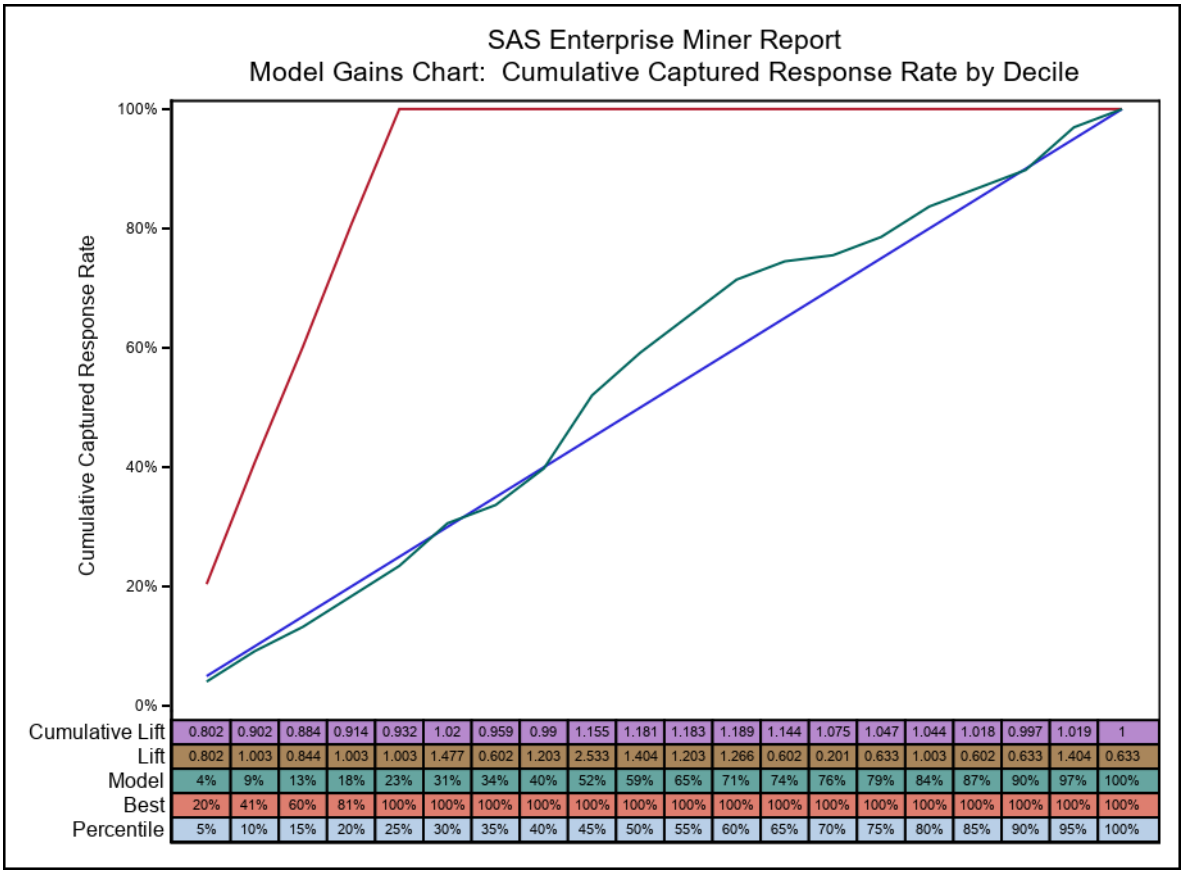
## Target: reflux subgroup

| Value | Count | Data Percentage |
|---|---|---|
| TRUE_GERD | 98 | 24.9364 |
| BORDERLINE_GERD | 85 | 21.6285 |
| RHS | 77 | 19.5929 |
| FH | 133 | 33.8422 |

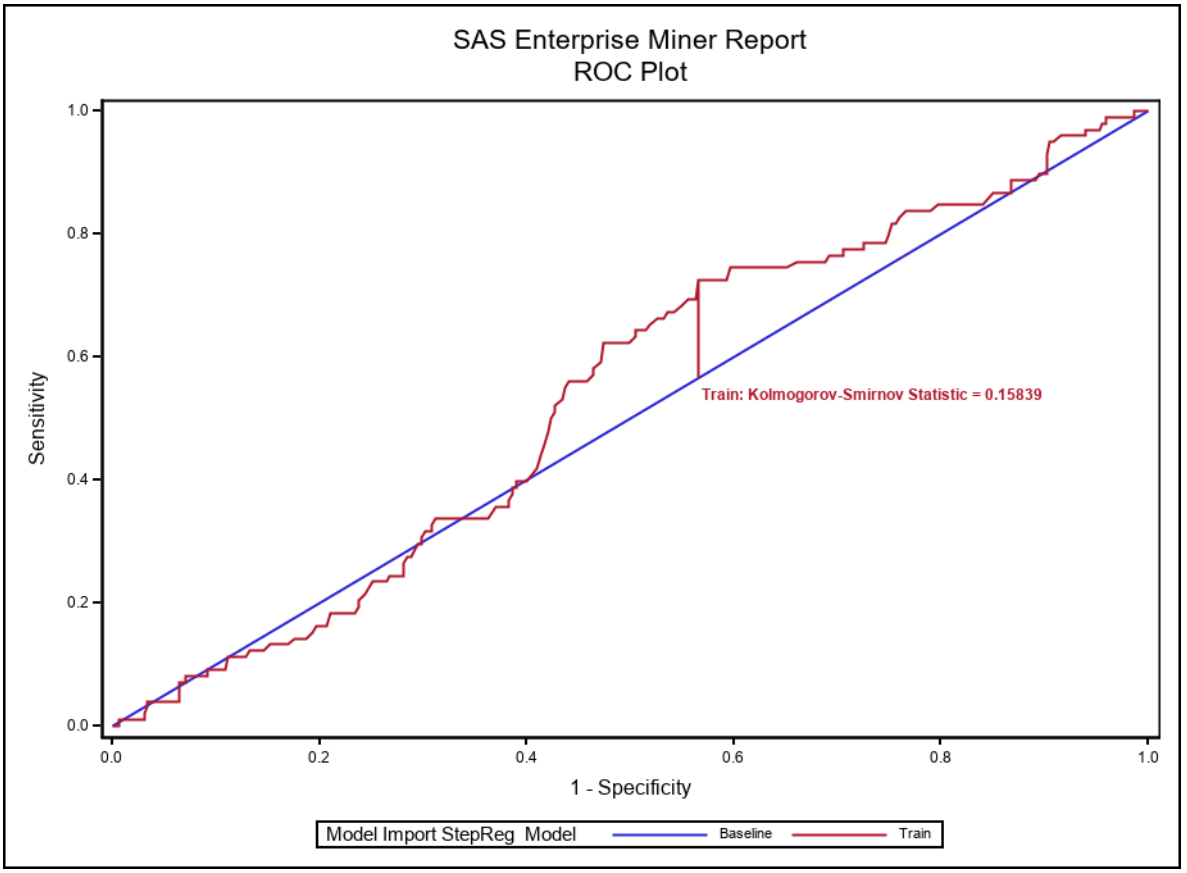
## Variable Summary

| Role | Level | Original Count | Selected Input Count |
|---|---|---|---|
| ID | Interval | 1 | 0 |
| Input | Binary | 1 | 0 |
| Input | Interval | 21 | 0 |
| Rejected | Binary | 10 | 0 |
| Rejected | Interval | 71 | 0 |
| Rejected | Nominal | 8 | 0 |
| Target | Ordinal | 1 | 0 |






| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cumulative Lift | 0.802 | 0.902 | 0.884 | 0.914 | 0.932 | 1.02 | 0.959 | 0.99 | 1.155 | 1.181 | 1.183 | 1.189 | 1.144 | 1.075 | 1.047 | 1.044 | 1.018 | 0.997 | 1.019 | 1 |
| Lift | 0.802 | 1.003 | 0.844 | 1.003 | 1.003 | 1.477 | 0.602 | 1.203 | 2.533 | 1.404 | 1.203 | 1.266 | 0.602 | 0.201 | 0.633 | 1.003 | 0.602 | 0.633 | 1.404 | 0.633 |
| Model | 4% | 9% | 13% | 18% | 23% | 31% | 34% | 40% | 52% | 59% | 65% | 71% | 74% | 76% | 79% | 84% | 87% | 90% | 97% | 100% |
| Best | 20% | 41% | 60% | 81% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Percentile | 5% | 10% | 15% | 20% | 25% | 30% | 35% | 40% | 45% | 50% | 55% | 60% | 65% | 70% | 75% | 80% | 85% | 90% | 95% | 100% |




**Classification Matrix Target=reflux subgroup**

| | Data Role | |
|---|---|---|
| | TRAIN | |
| | Predicted | |
| | FH | TRUE_GERD |
| Target | | |
| BORDERLINE_GERD | 67.06 | 32.94 |
| FH | 72.93 | 27.07 |
| RHS | 75.32 | 24.68 |
| TRUE_GERD | 71.43 | 28.57 |

## Model Fit Statistics

| Statistic | Train | Validation |
|---|---|---|
| Average Squared Error | 0.1875 | . |
| Maximum Absolute Error | 0.9195 | . |
| Sum of Frequencies | 393.0000 | . |
| Root Average Square Error | 0.4331 | . |
| Sum of Square Errors | 294.8257 | . |
| Misclassification Rate | 0.6819 | . |
| Roc Index | 0.5370 | . |
| Gini Coefficient | 0.0740 | . |
| Kolmogorov-Smirnov Statistic | 0.1580 | . |
| Kolmogorov-Smirnov Probability Cutoff | 0.2190 | . |
| Lift at 10% | 1.0026 | . |
| Cumulative Lift at 10% | 0.9023 | . |
| Captured Response at 10% | 5.1020 | . |
| Cumulative % Captured Response at 10% | 9.1837 | . |

## Model Selection based on Train: Misclassification Rate

| Selected Model | Model Node | Model Description | Target Label | Train: Lift |
|---|---|---|---|---|
| Y | MdlImp7 | Model Import StepReg | reflux subgroup | 1.00255 |
| | MdlImp8 | Model Import StepRegInt | reflux subgroup | 1.00255 |
| | MdlImp12 | Model Import AutoNeuralBlock2Inc | reflux subgroup | 0.80204 |
| | MdlImp11 | Model Import AutoNeuralSingle2Inc | reflux subgroup | 1.00255 |
| | MdlImp15 | Model Import AutoNeuralCascade2Inc | reflux subgroup | 1.20306 |
| | MdlImp14 | Model Import BayesNetTAN | reflux subgroup | 0.40102 |
| | MdlImp3 | Model Import AutoNeuralBlock | reflux subgroup | 0.40102 |
| | MdlImp10 | Model Import AutoNeuralCascade2 | reflux subgroup | 1.09803 |
| | MdlImp2 | Model Import BayesNetBAN | reflux subgroup | 1.20306 |
| | MdlImp9 | Model Import BayesNet | reflux subgroup | 1.20306 |
| | MdlImp6 | Model Import AutoNeuralBlock2 | reflux subgroup | 1.20306 |
| | MdlImp13 | Model Import BayesNetNaïve | reflux subgroup | 1.60408 |
| | MdlImp4 | Model Import AutoNeuralCascade | reflux subgroup | 1.06939 |
| | MdlImp5 | Model Import AutoNeuralSingle2 | reflux subgroup | 1.00255 |
| | MdlImp | Model Import AutoNeuralSingle | reflux subgroup | 0.60153 |

## Project Information

| Property | Value |
|---|---|
| Name | 2_classification_difference |
| Diagram | classification_ordinal |
| Path | C:\Users\u0027997\OneDrive - KU Leuven\proj-reflux-database\Analyses\SAS_analyses\2_classification_difference\2_classification_difference |
| Date Created | 18/07/2022 17:53:59 |

End of Report