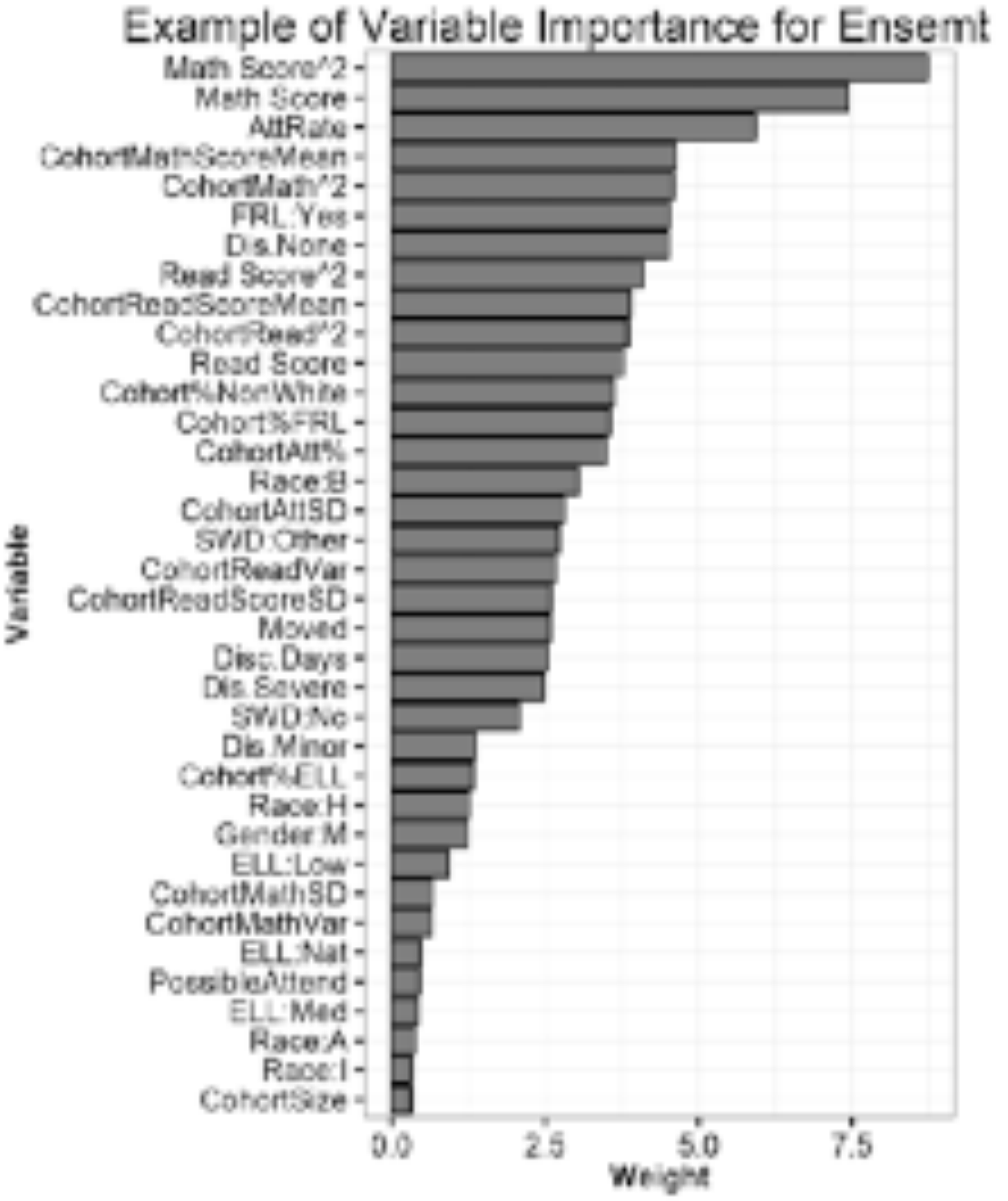
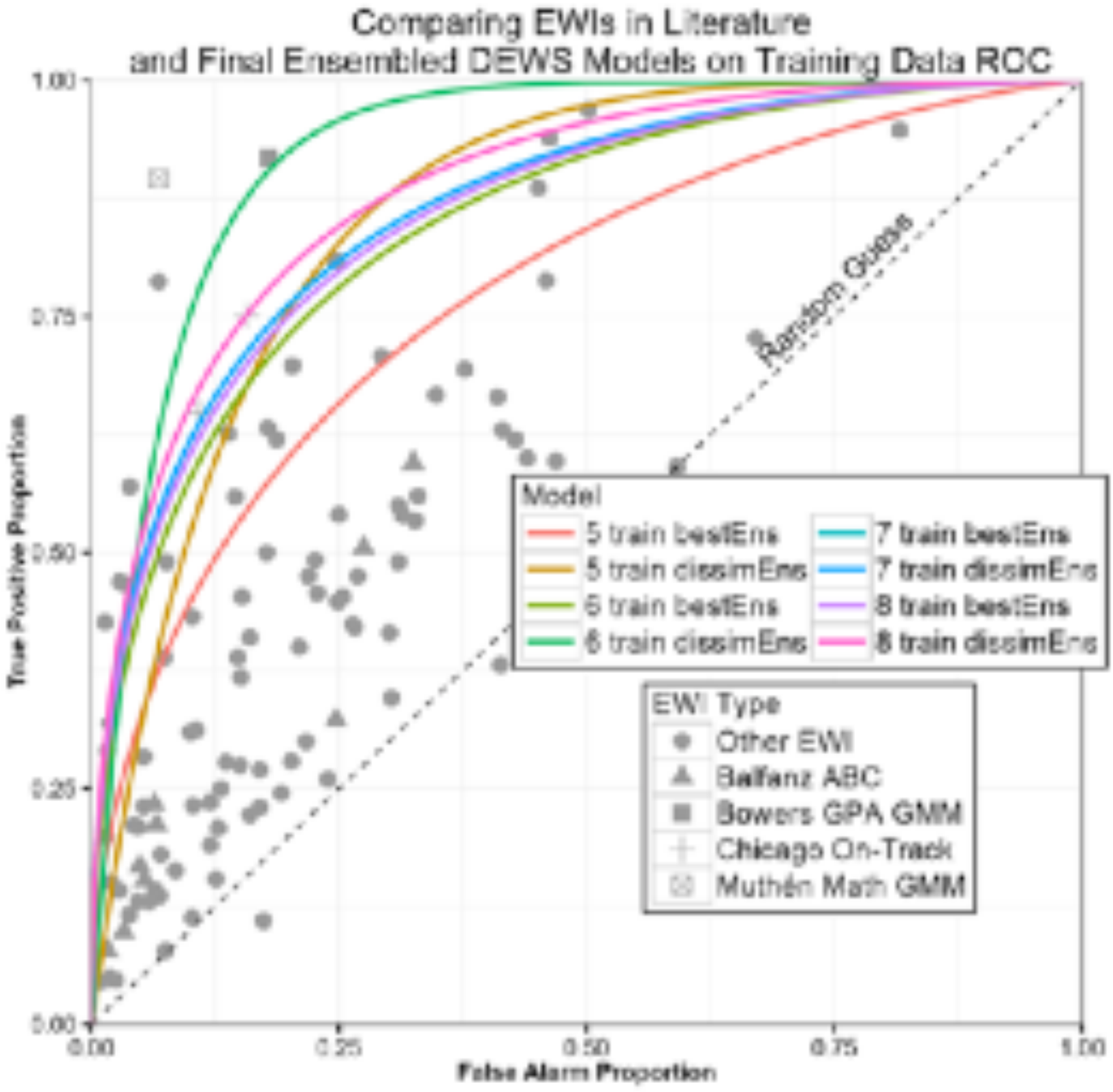
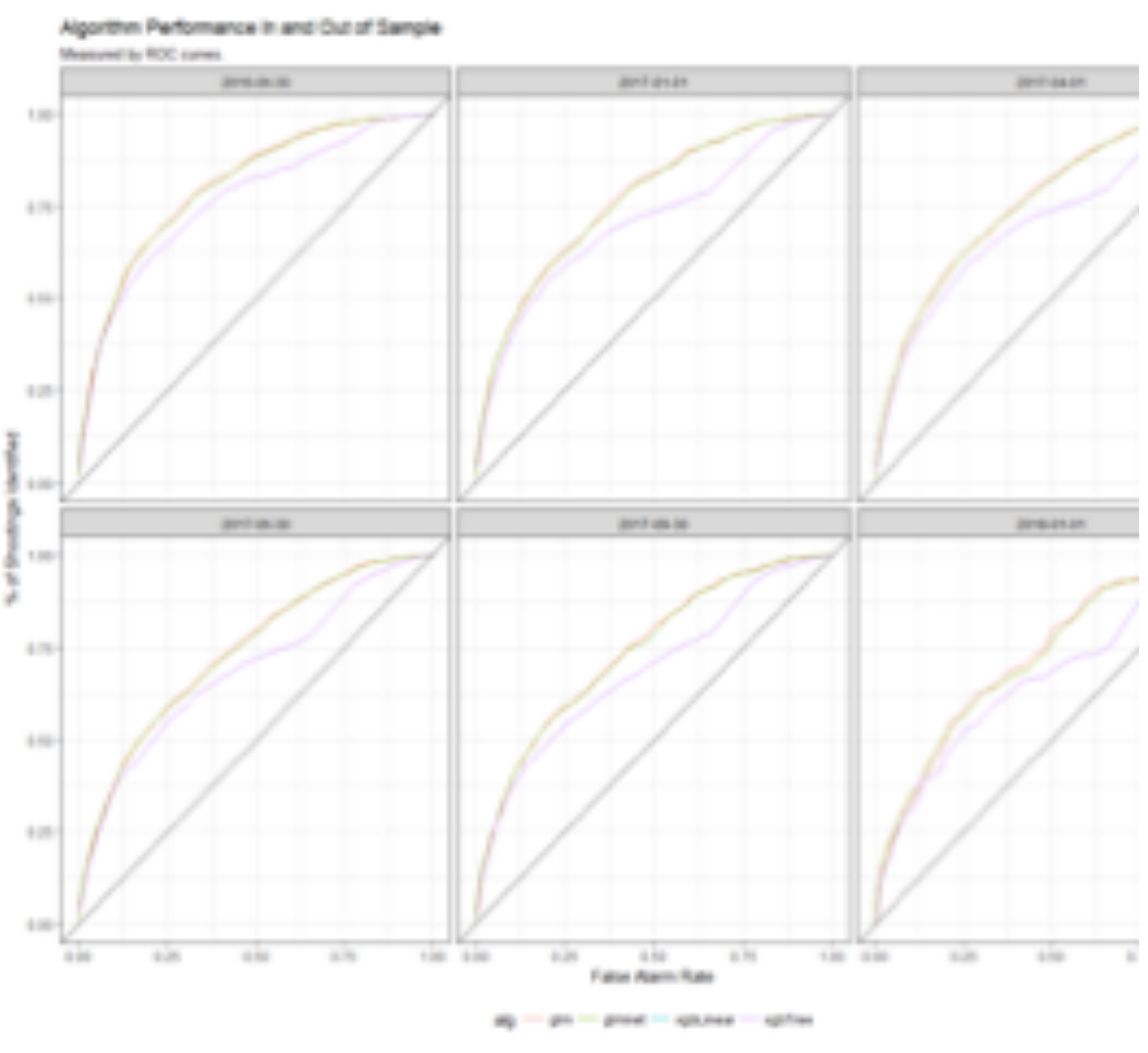


Figure 9: Variable Importance in Ensembled Model


Comparing EWIs in Literature
and Final Ensembled DEWS Models on Training Data ROC
True Positive Proportion
False Alarm Proportion
0.00
0.25
0.50
0.75
1.00
Random Guess
Model
5 train bestEns
5 train dissimEns
6 train bestEns
6 train dissimEns
7 train bestEns
7 train dissimEns
8 train bestEns
8 train dissimEns
EWI Type
Other EWI
Balfanz ABC
Bowers GPA GMM
Chicago On-Track
Muthén Math GMM


Algorithm Performance in and Out of Sample
Measured by ROC curves
2016.06.30
2017.01.01
2017.04.01
2017.06.30
2017.09.30
2018.01.01
% of Shootings Identified
0.00
0.25
0.50
0.75
1.00
False Alarm Rate
alg
gbm
glmnet
xgbLinear
xgbTree

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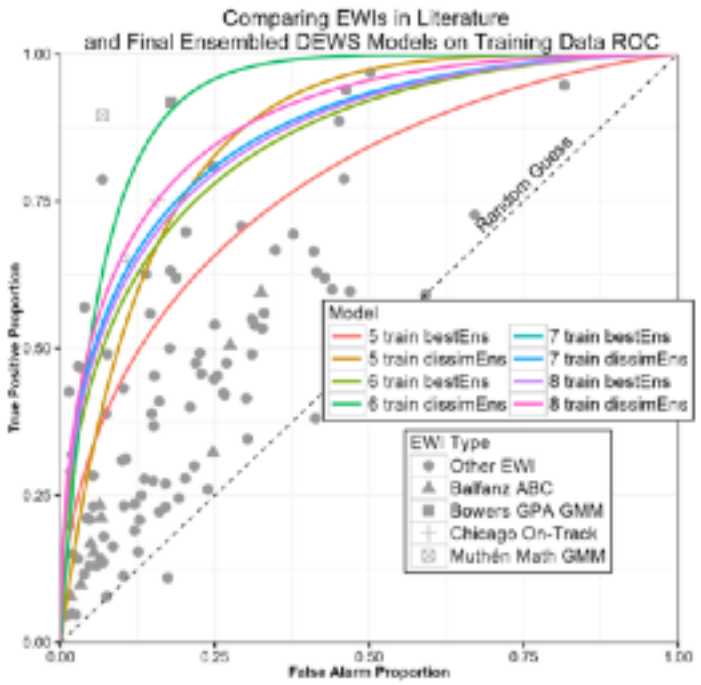
Civilytics Consulting

Public, transparent, open source analytics



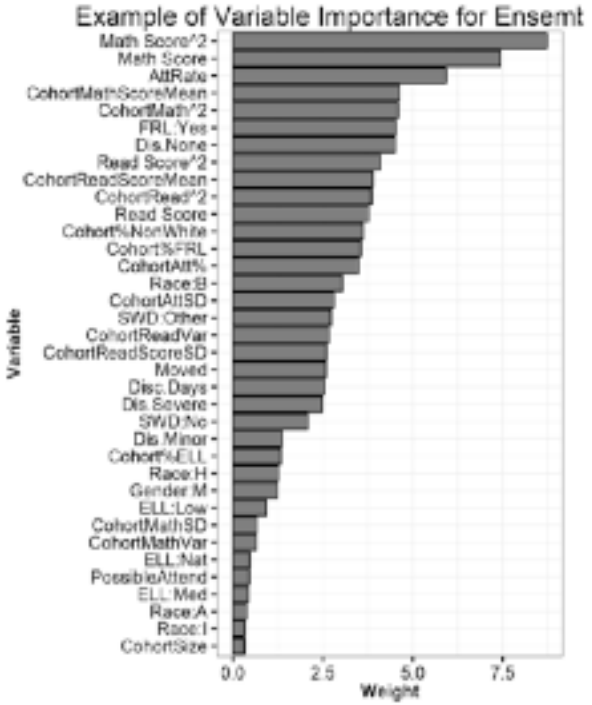
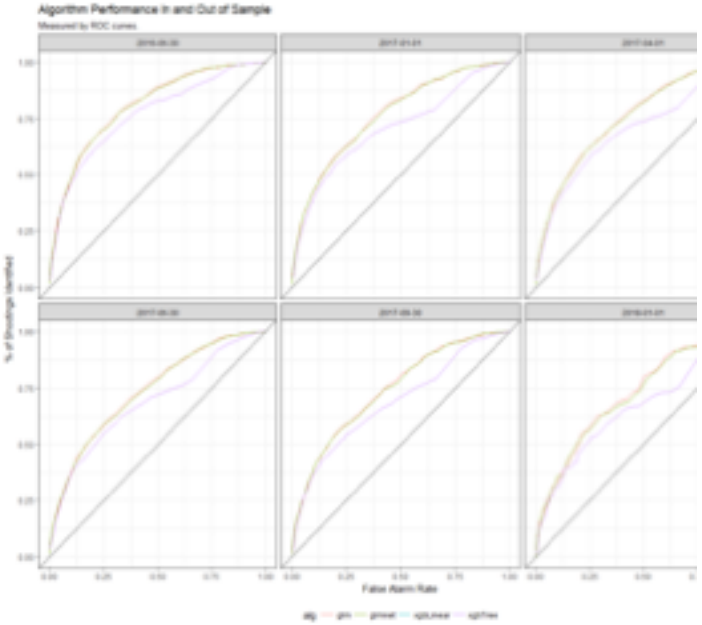


Figure 9: Variable Importance in Ensembled Model



Wisconsin Dropout Early Warning System (DEWS)

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