

Final Model Features:

- Median Household Income
- % of 25+ with High School Degree or Higher
- % of 25+ with Bachelor Degree or Higher
- %65+ (Age)
- %White
- %Black
- %Hispanic/Latino
- (0,30] (Median Age Bin)
- (30,40] (Median Age Bin)
- (40,50] (Median Age Bin)
- (50,60] (Median Age Bin)
- (60,100] (Median Age Bin)

Dependent Variable:

Overall Hospital Rating:

- Random Forest Classifier: min_samples_leaf=10, n_estimators=1000
- Accuracy: .636, ROC-AUC Score: .691

Patient Experience National Comparison:

- Gradient Boosting Classifier: max_depth=8, max_features=0.1, min_samples_leaf=150, n_estimators=300
- Accuracy: .700, ROC-AUC Score: .682

Timeliness of Care National Comparison:

- Gradient Boosting Classifier: learning_rate=0.05, max_depth=4, max_features=0.3, min_samples_leaf=100, n_estimators=300
- Accuracy: .705, ROC-AUC Score: .733