

```

> # --Statistical Parity for baseline model-----
> #Rate at which characterized "High Risk:"
> (nrow(otdata[otdata$model == "High", ]) / .... [TRUNCATED]
[1] -0.1737939

> #Rate at which characterized "Low Risk:"
> (nrow(otdata[otdata$model == "Low", ]) / nrow(otdata)) - (n
[1] 0.3857626

> # --Statistical Parity for Compas model-----
> #Rate at which characterized "High Risk:"
> (nrow(otdata[otdata$score_text = .... [TRUNCATED]
[1] -0.1899479

> #Rate at which characterized "Low Risk:"
> (nrow(otdata[otdata$score_text == "Low", ]) / nrow(otdata))
[1] 0.295901

> # GLM Model-----
> # Before Reweighing
> # Rate at which characterized "High Risk:"
> (nrow(otdata[otdata$gbm = .... [TRUNCATED]
[1] -0.1648693

> #Rate at which characterized "Low Risk:"
> (nrow(otdata[otdata$gbm == "Low", ]) / nrow(otdata)) - (nro
[1] 0.2227192

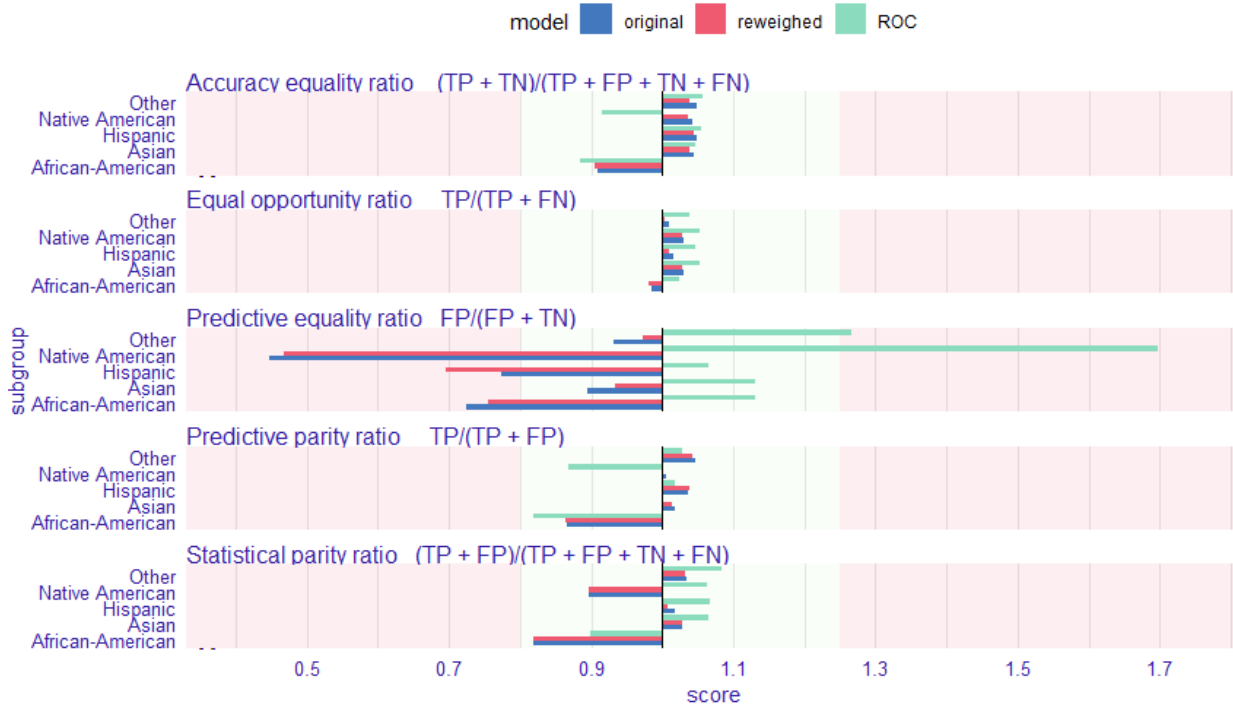
> #After Reweighing---
> #Rate at which characterized "High Risk:"
> (nrow(otdata[otdata$weighted == "High", ]) / nrow(otdata))
[1] -0.150968

> #Rate at which characterized "Low Risk:"
> (nrow(otdata[otdata$weighted == "Low", ]) / nrow(otdata)) -
[1] 0.224889

```

## Fairness check

Created with ROC, reweighed, original



## Output for Z-test

```
> nrow(aadata[aadata$model == "High", ])
[1] 196

> nrow(aadata)
[1] 930


> nrow(aadata[aadata$model == "High", ]) / nrow(aadata)
[1] 0.2107527

> nrow(cdata[cdata$model == "High", ])
[1] 25

> nrow(cdata)
[1] 648

> nrow(cdata[cdata$model == "High", ]) / nrow(cdata)
[1] 0.03858025
> |
```

## Accuracy Measure:



```
Compas High 0.5348189  
Baseline High 0.5714286  
GBM High 0.58  
Weighted High 0.5762712
```

```
Compas Low 0.7667638  
Baseline Low 0.7364048  
GBM Low 0.752883  
Weighted Low 0.7603306
```