

# ***Corrections?***

Predicting recidivism in American prisons





# RECIDIVISM

- the tendency of a convicted criminal to reoffend.

..... OxfordDictionaries.com

**37%** More than a third (36.8%) of all prisoners who were arrested within 5 years of release were arrested within the first 6 months after release.

**57%** Of this number, more than half (56.7%) are arrested by the end of the first year.

.....

SOURCE:

Recidivism Of Prisoners Released In 30 States In 2005:  
Patterns From 2005 To 2010 - Update  
BUREAU OF JUSTICE STATISTICS, [www.bjs.gov](http://www.bjs.gov)

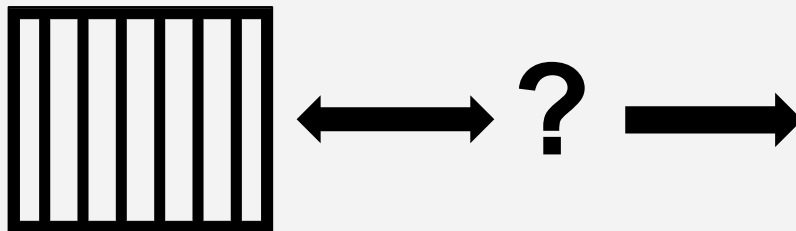
ROBERT F.  
KENNEDY  
HUMAN  
RIGHTS

YOUNG LEADERS

**Will a released  
prisoner  
successfully  
complete  
parole?**

# Data & Context

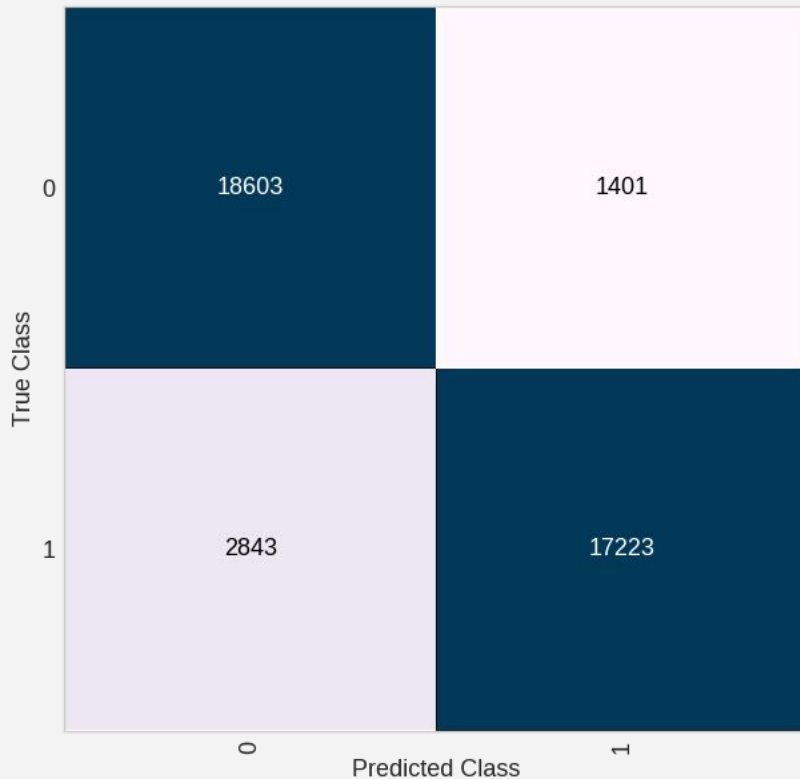
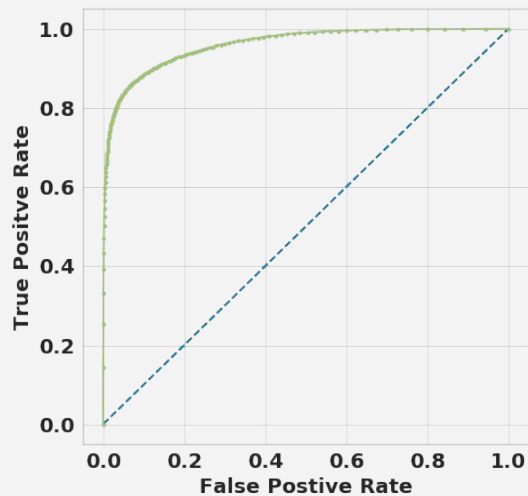
- **ISPCR National Corrections Reporting Program - Parole Releases (2004)**
  - **Questionnaire**
  - **33 State and Federal Corrections + California Youth Authority**
  - **160,279 cases**
  - **21 predictors (e.g. Age, State, Offence, Sentence Time, % Sentence Served)**



# Model Results

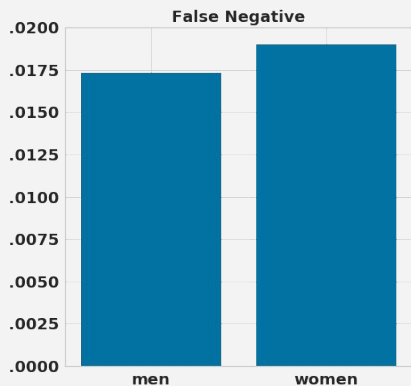
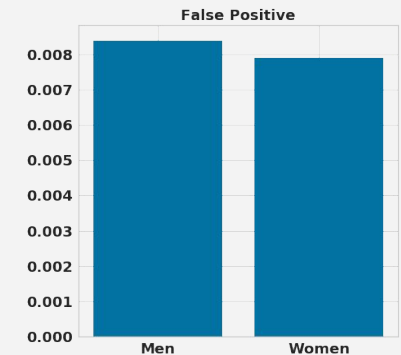
# 89.3%

## Accuracy Rate

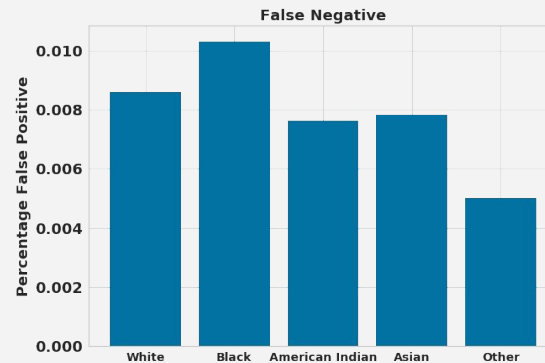
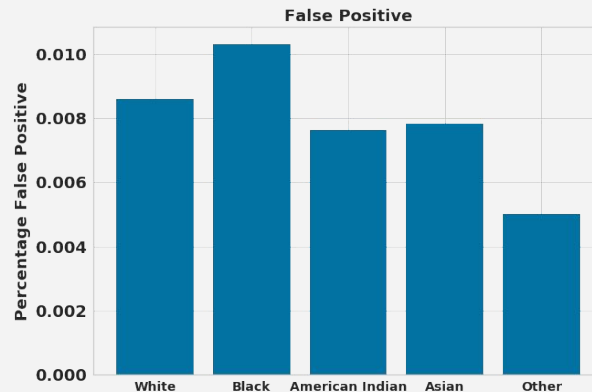


# Model Bias

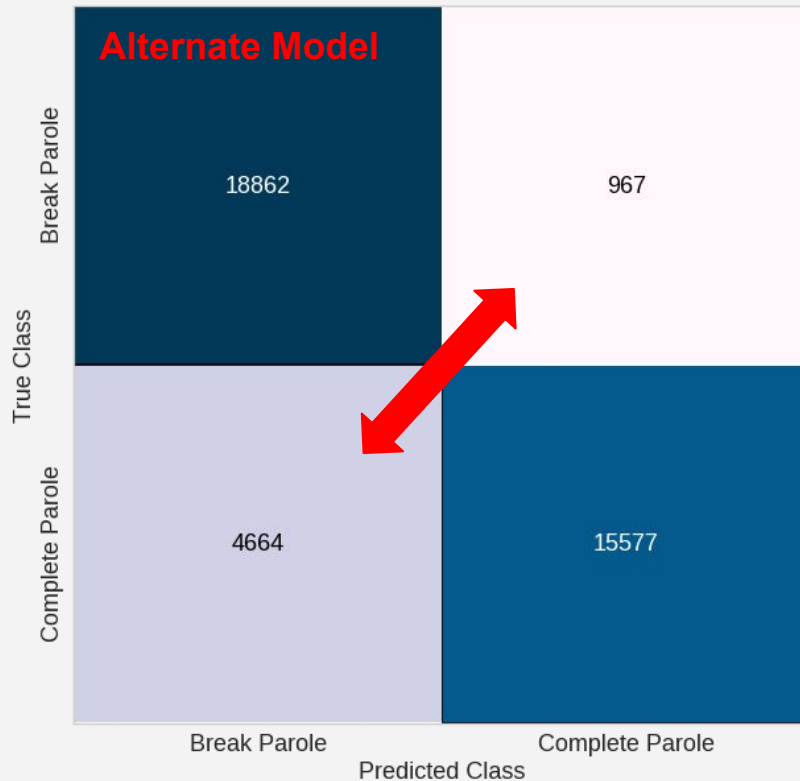
## Gender



## Race



# Alternate Model Results



# Recommendations & Limitations

- **Limitations:**
  - ◆ Outdated data
  - ◆ Measurement error
  - ◆ Racial/gender implicit bias
- **Recommendations:**
  - ◆ Replicate COMPAS study before use
  - ◆ Consulting tool for parole boards

MINORITY  
REPORT



# **Further Research and Next Steps**

- 1. Investigate driving predictors**
- 2. Optimize alternate models (SVM/Logistic Regression)**



***Thank You!***