Predicting Recidivism in Released Prisoners in the State of Iowa

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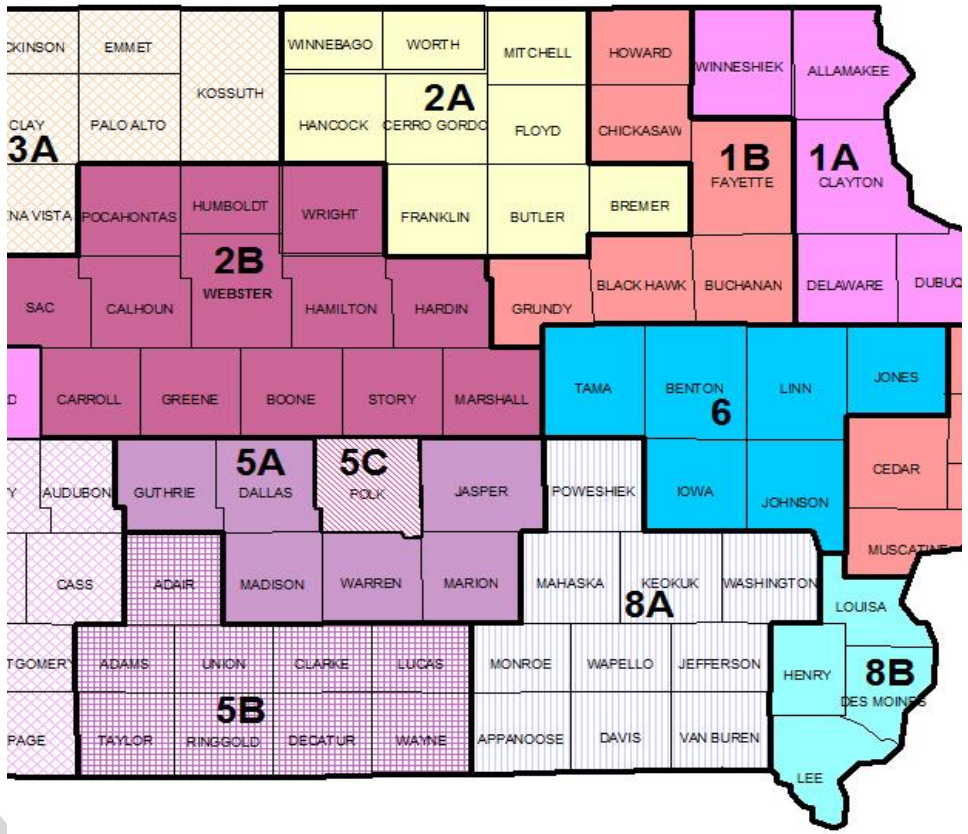
Can Iowa State use data on released prisoners to predict which prisoners will return to a life of crime?

FUNDAMENTAL QUESTION

Data Source:
Iowa Dept. of Corrections

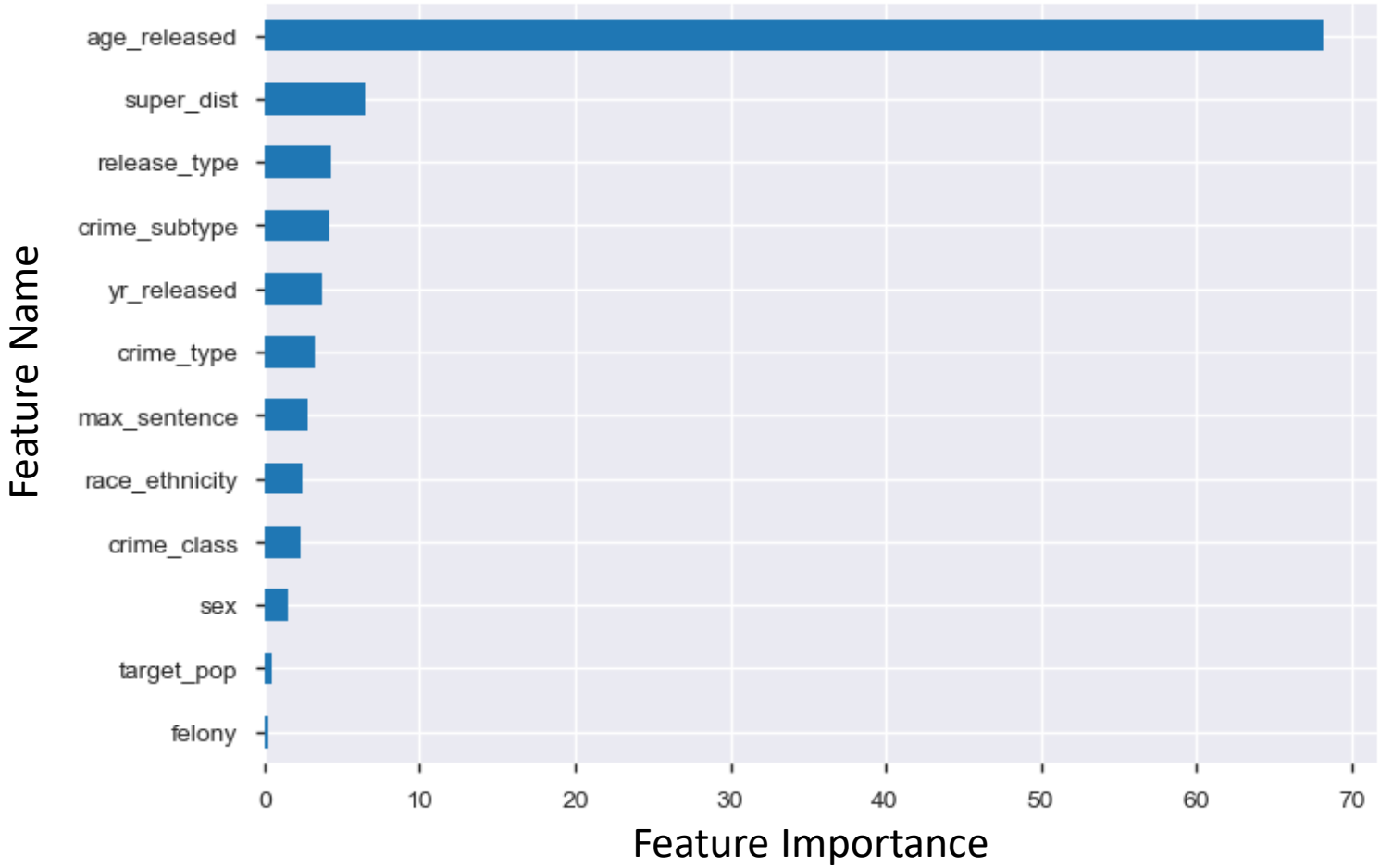
Features Analyzed:

- Fiscal Year Released
- Recidivism Reporting Year
- Race - Ethnicity
- Convicting Offense Classification
- Convicting Offense Type
- Convicting Offense Subtype
- Release Type
- Main Supervising District
- Recidivism - Return to Prison
- Part of Target Population

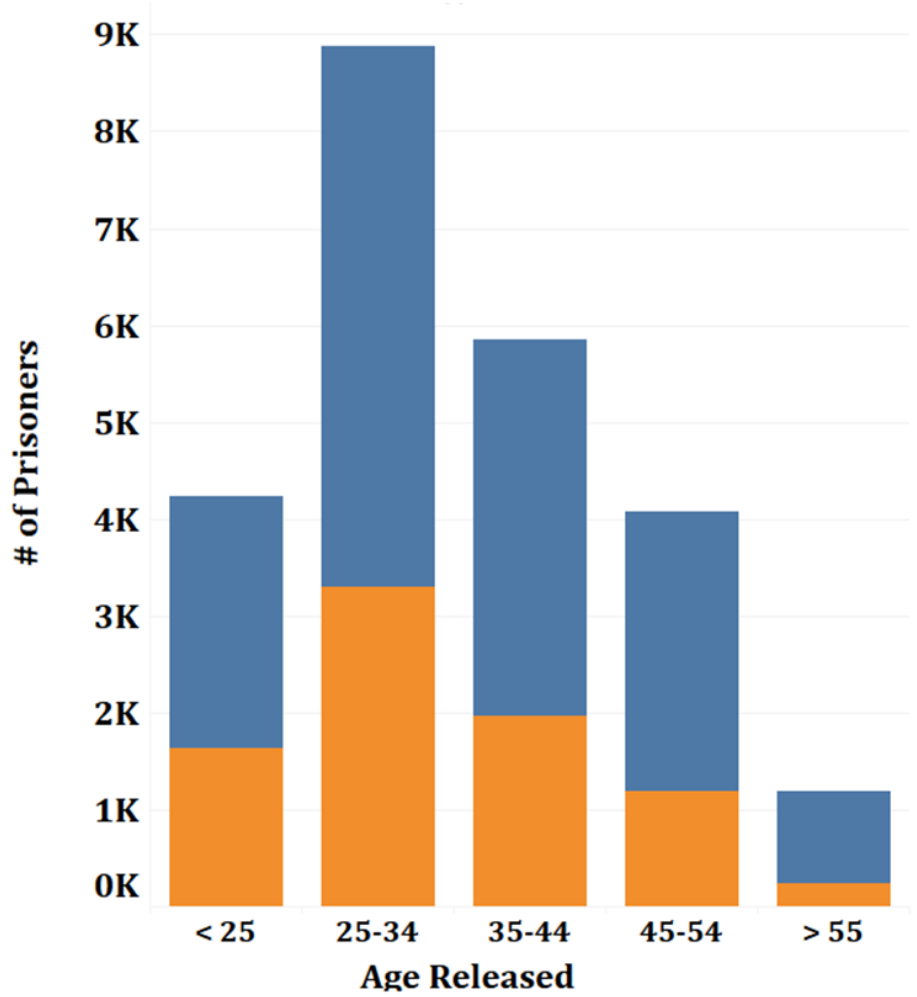


Important Features in Predicting Recidivism

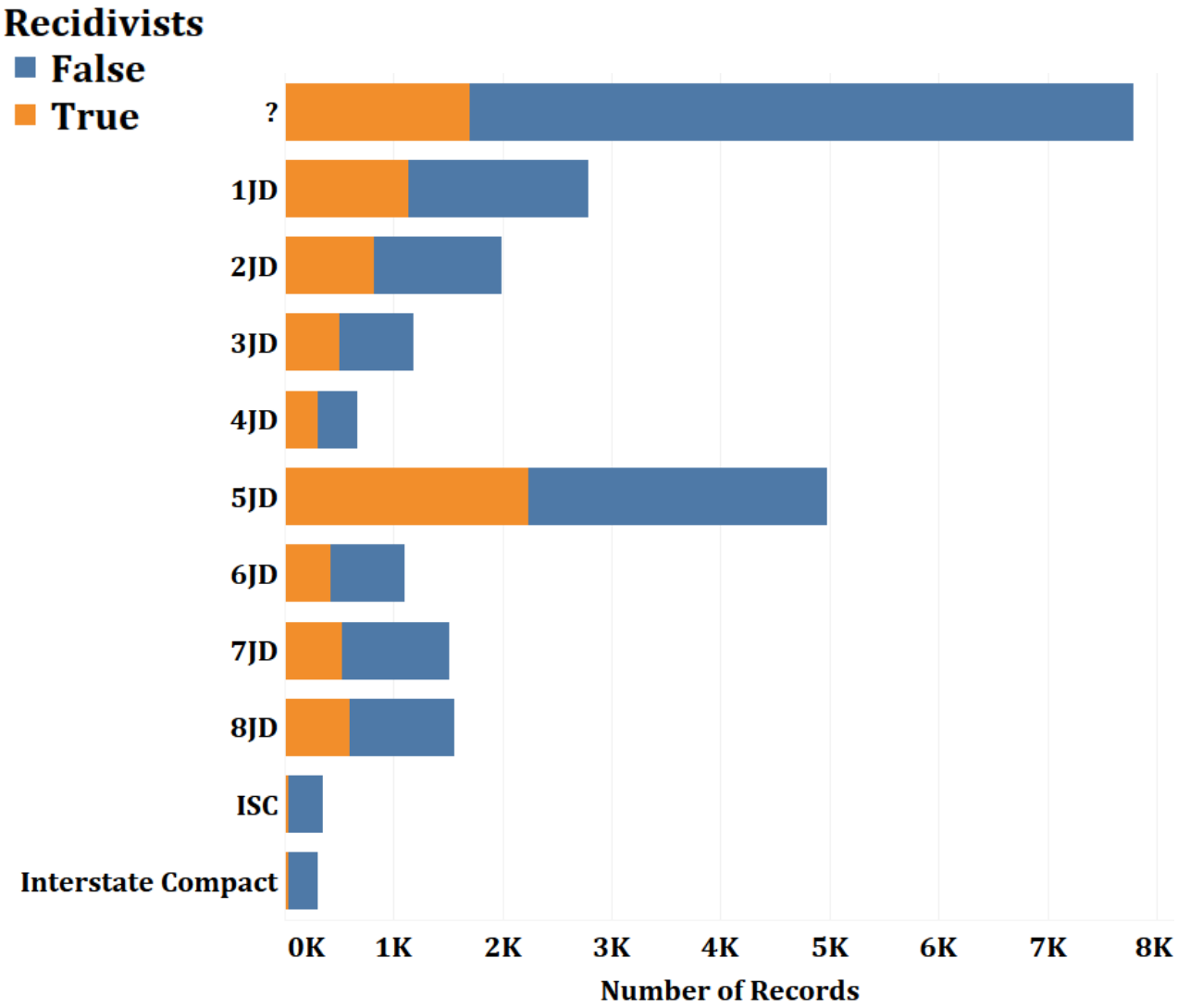
1. Age-At-Release
2. Supervising Judicial District
3. Type of Release
4. Crime Subtypes



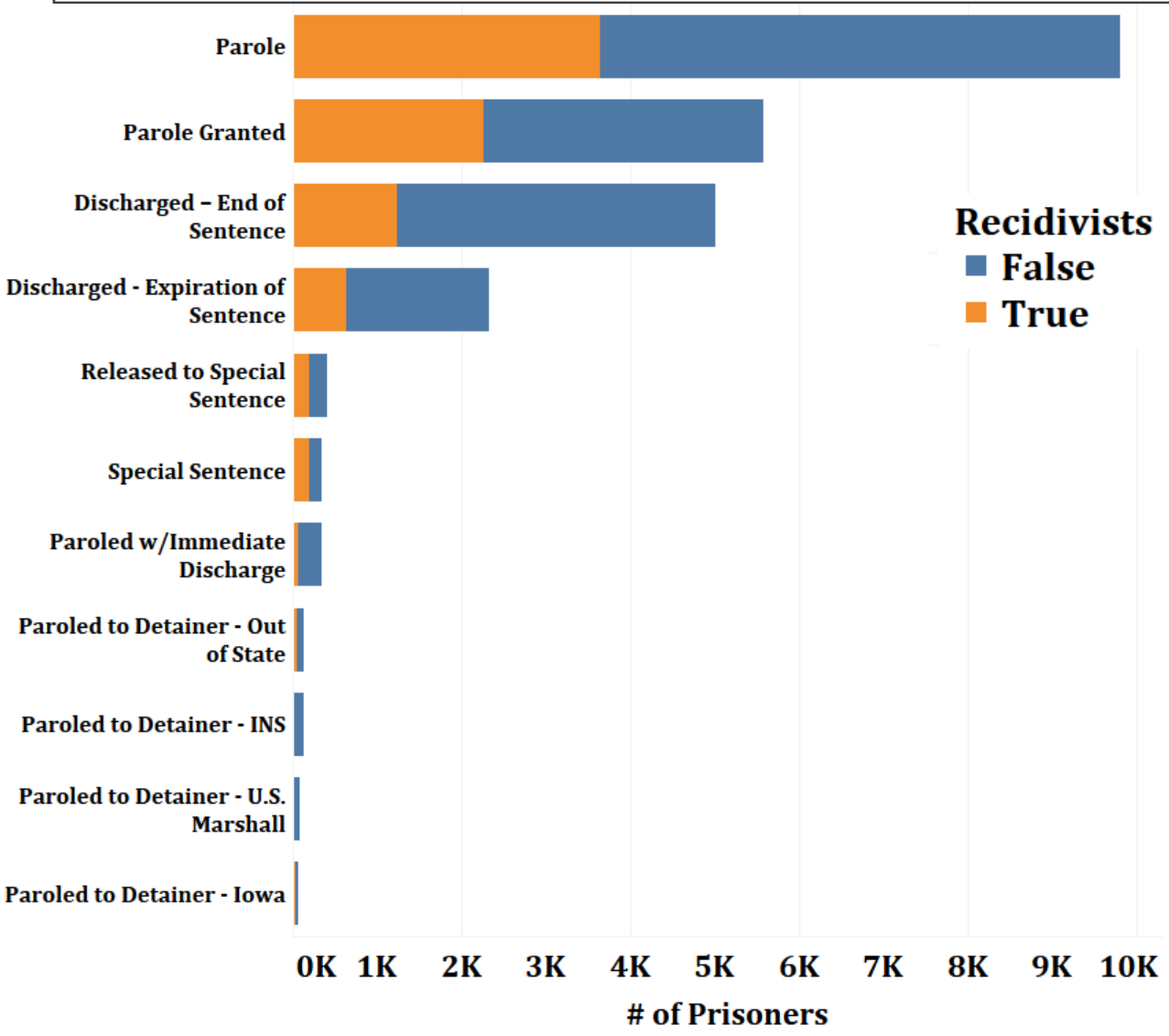
#1) Age at Release



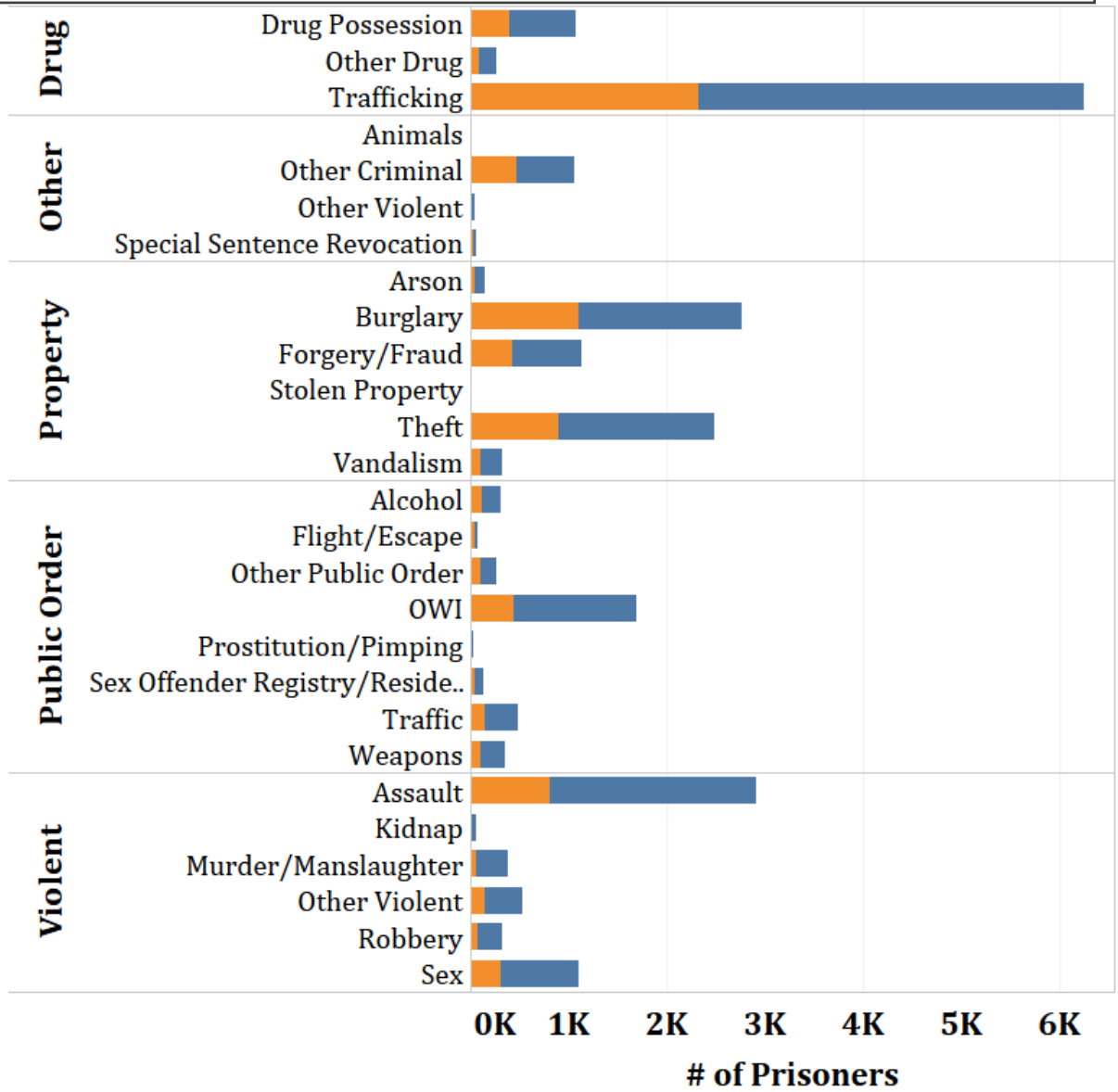
#2) Judicial District



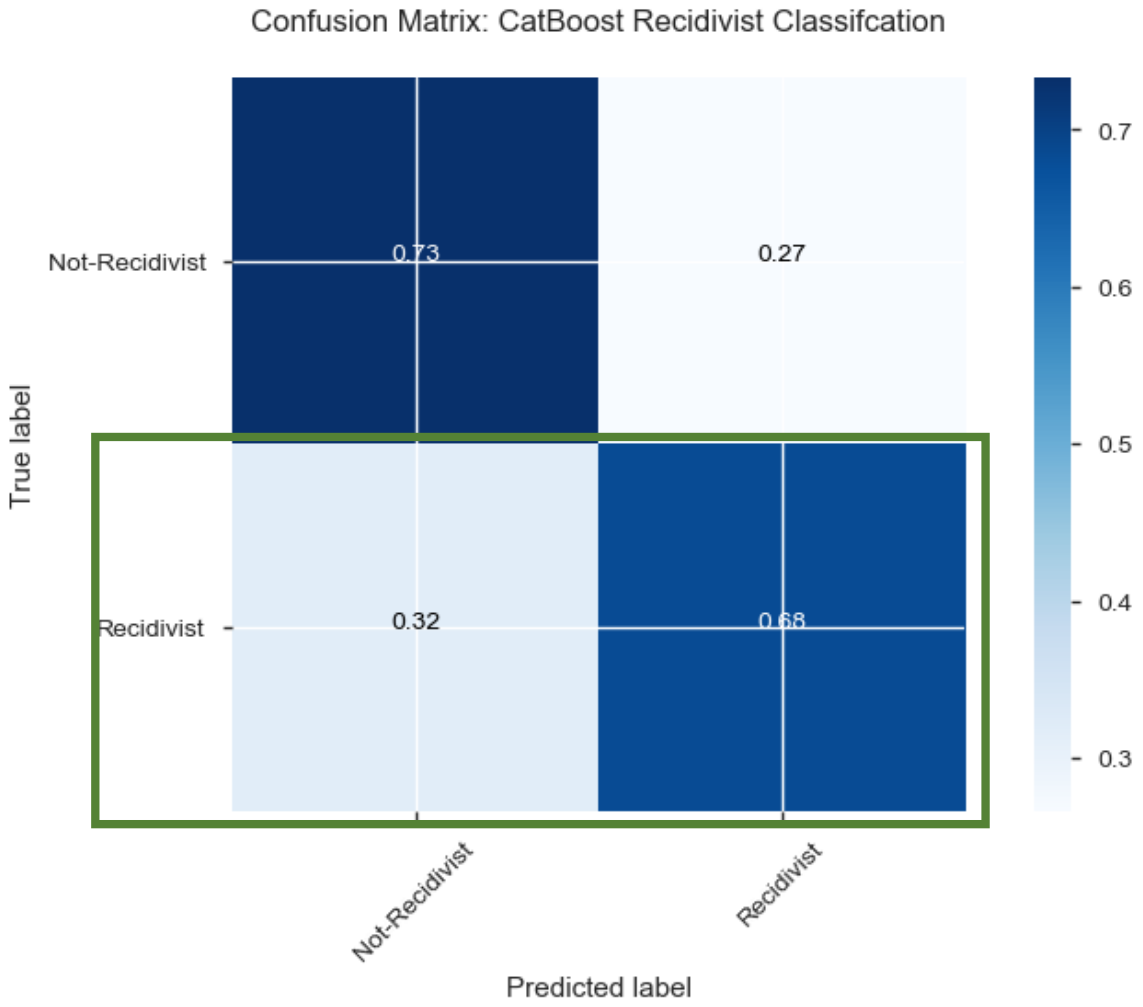
#3) Release Type

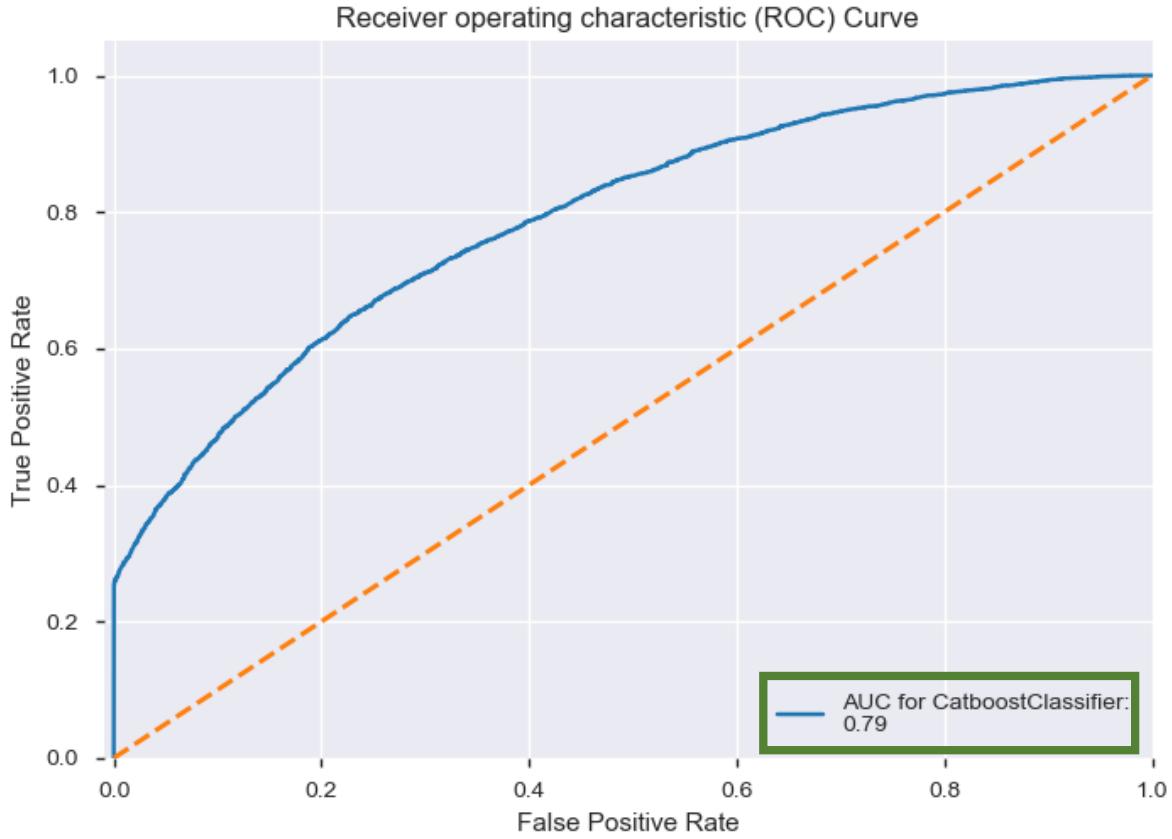


#4) Crime Type-Subtypes



Classification Model Performance





Conclusions & Recommendations

- Using our model,
  Iowa Department of corrections can predict which prisoners may become recidivist.
- Using this information, Iowa can **implement pre-release educational programs** to target at-risk prisoners.
- Following release, Iowa could also **provide post-release support and intervention** to at-risk prisoners.

THANK YOU

- Michael Moravetz – Collaborator
- Flatiron School – Data Science Bootcamp
  - Brandon Lewis – Instructor
  - Jeff Herman – Advisor
- Python Packages:
  - Cookie-Cutter Python Package
    - for Enabling BroadSteel_DataScience
    - https://cookiecutter-pypackage.readthedocs.io/en/latest/
  - CatBoost Machine Learning Package
    - Superior Modeling with categorical data.