

# Recidivism in the 2019 Release Cohort

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Nevada Department of Corrections

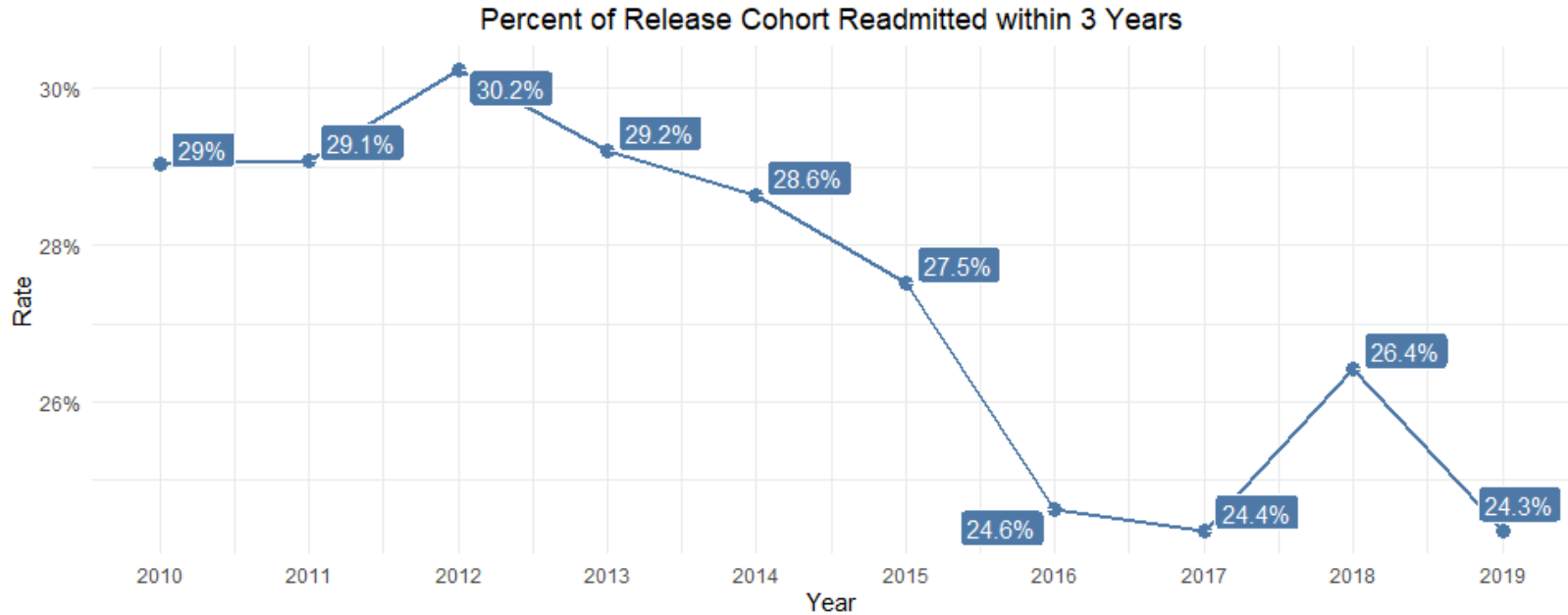




# Recidivism

- The Nevada Department of Corrections defines recidivism as a return to incarceration with NDOC within 3 years of an offender's date of release.
- The release cohort includes only offenders who were released from NDOC jurisdiction, left from an NDOC location, and who were released to the outside world or ICE are considered.
- Only the first release and readmission, if applicable, are considered in this report. Further admissions and releases are excluded from the analysis.

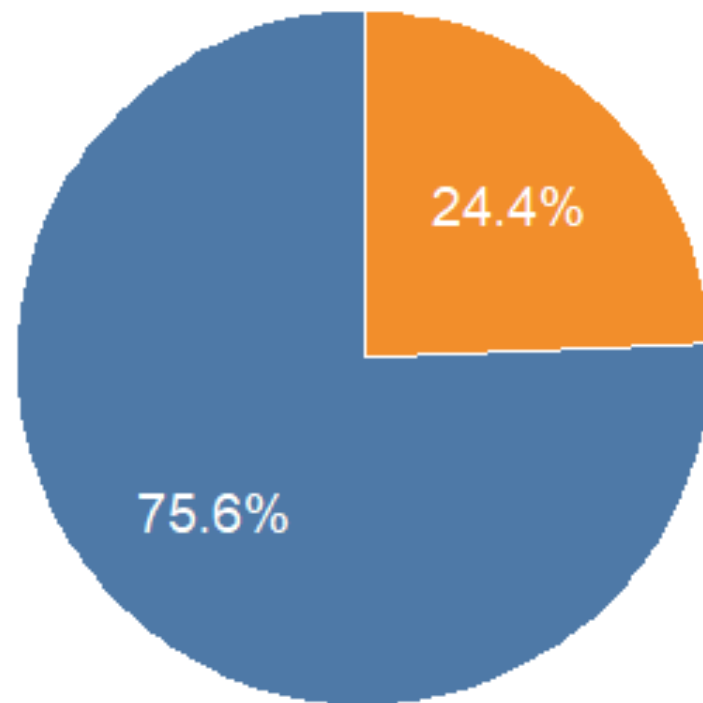
# Historical Recidivism Rates



## 2019 Release Cohort - Overview

- Released
  - Males: 5110
  - Females: 853
  - Total: 5963
- Readmitted
  - Males: 1296 (25.4%)
  - Females: 156 (18.3%)
  - Total: 1452 (24.4%)

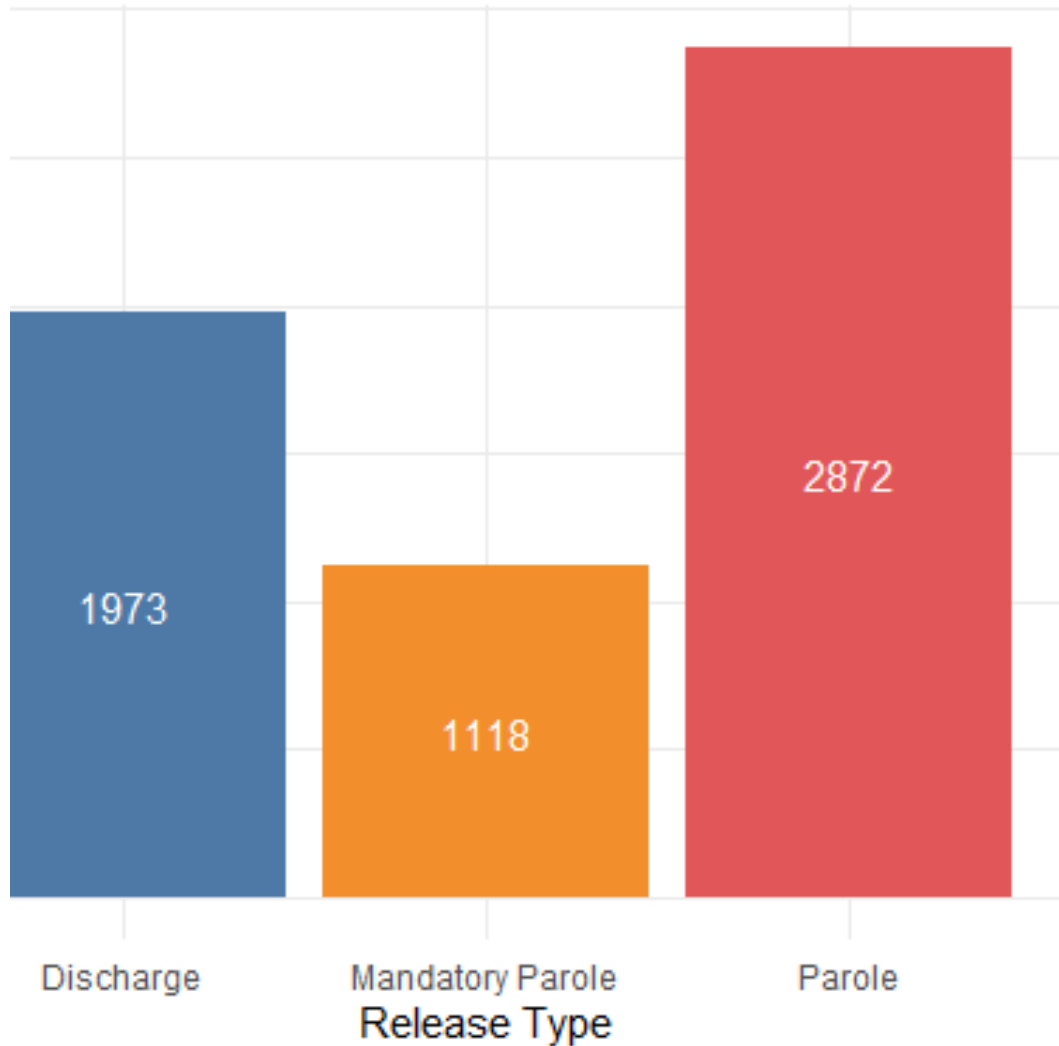
## Recidivism in the 2019 Release Cohort



Didn't Return Returned

## 2019 Release Cohort - Release Status

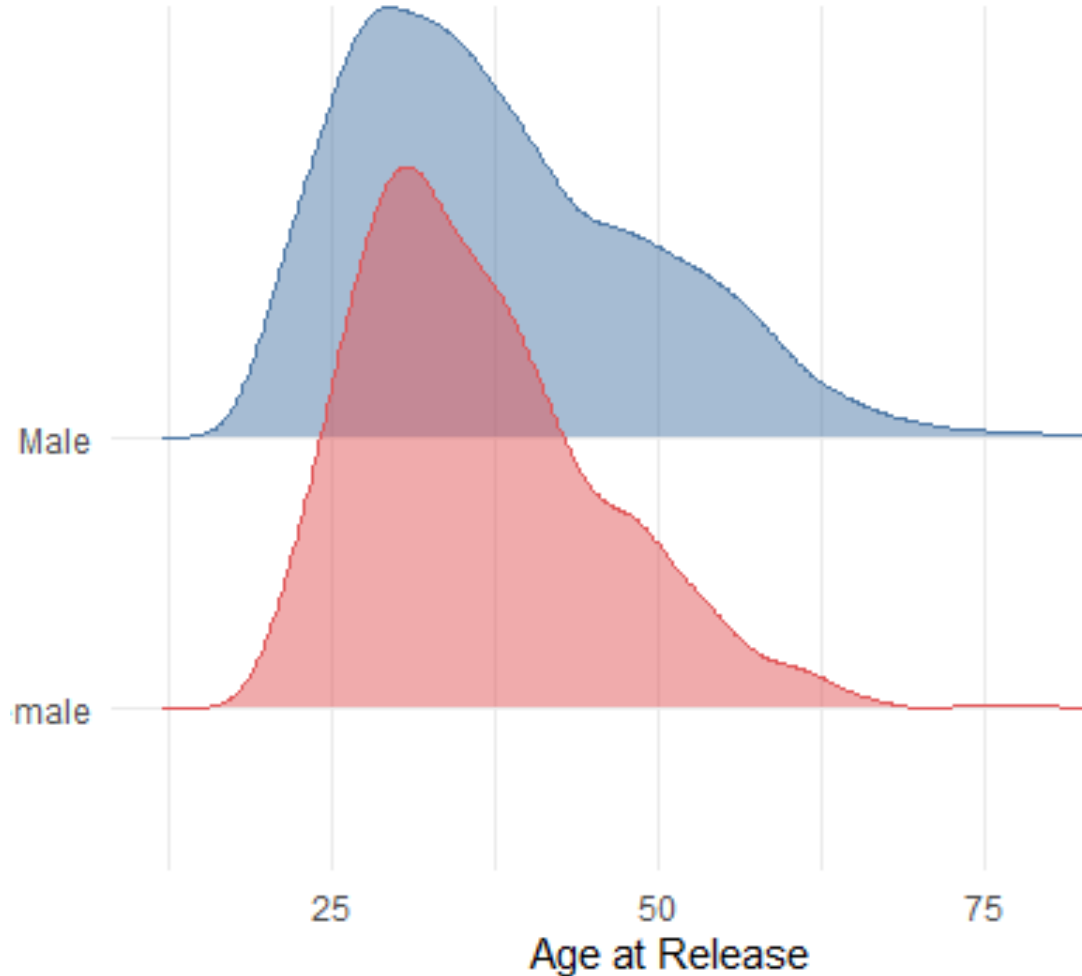
- Composition of Releases
  - Discharge: 33.1%
  - Mandatory Parole: 18.7%
  - Parole: 48.2%
- Conditional releases make up nearly two-thirds of releases.



## 2019 Release Cohort - Age at Release/Readmission

- Average Ages
  - Release: 37.48
  - Readmission: 36.26
- The average age at readmission is lower than the average at release.
  - Younger offenders recidivating at higher rates.
  - This brings down the average age for readmissions.

### Distribution of Age at Release by Gender

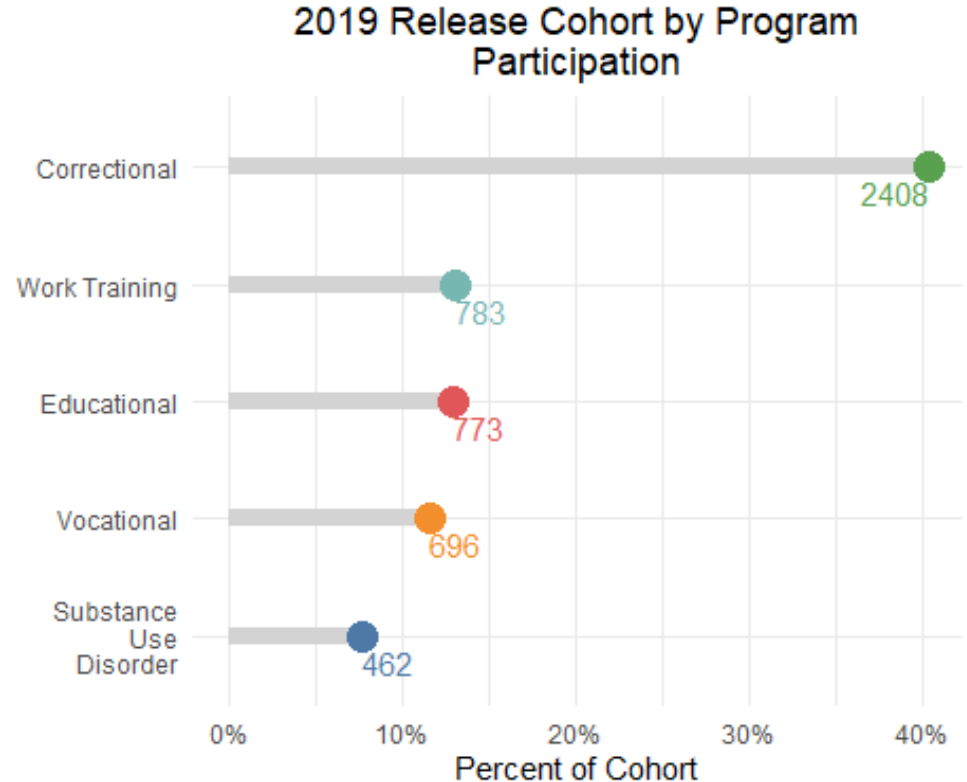


# Programming Types - Examples

- Correctional
    - Gang Awareness
    - Good Intentions, Bad Choices
  - Substance Use Disorder
    - New Light
    - Therapeutic Community
  - Educational
    - High School Diploma
    - Bachelor's Degree
- 
- Work Training
    - Horticulture (Univ. Coop. Ext.)
    - Firefighting Basic Training (NDF)
  - Vocational
    - Air Conditioning and Heating
    - Introduction to Web Design

# 2019 Release Cohort - Program Participation

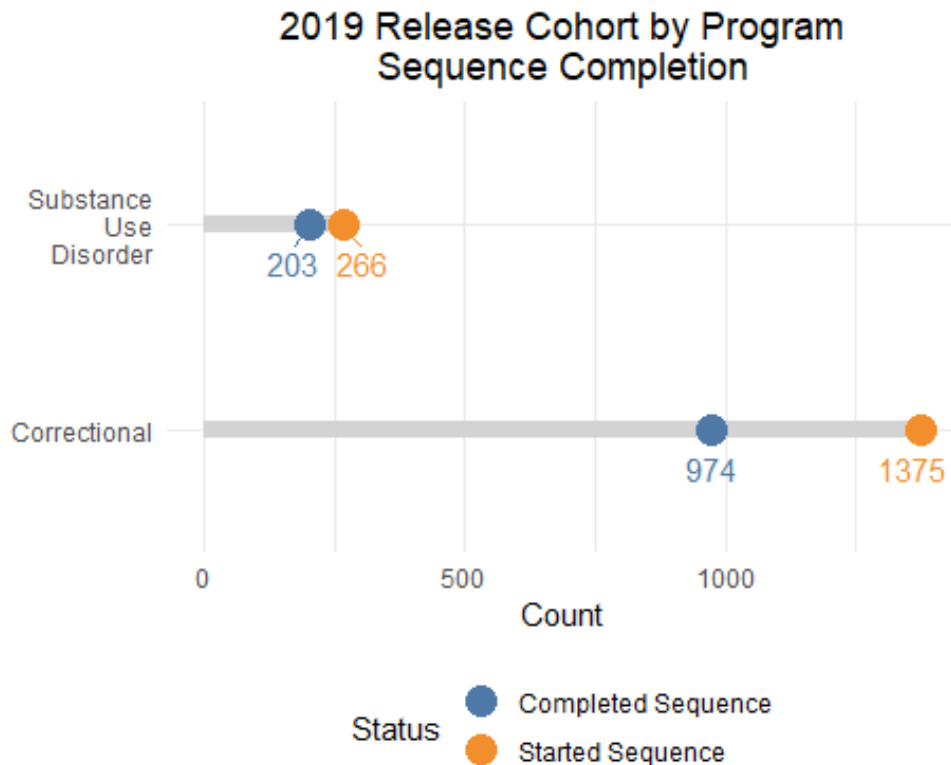
- 40% of the release cohort participated in at least one correctional program.
- 8% of this cohort participated in at least one substance use disorder program.
- Correctional and substance use disorder programs sometimes had multiple stages.





## 2019 Release Cohort - Correctional and Substance Use Disorder Programming

- 70.8% of offenders who started a correctional program sequence completed one.
- 76.3% of offenders who started a substance use disorder program sequence completed one.



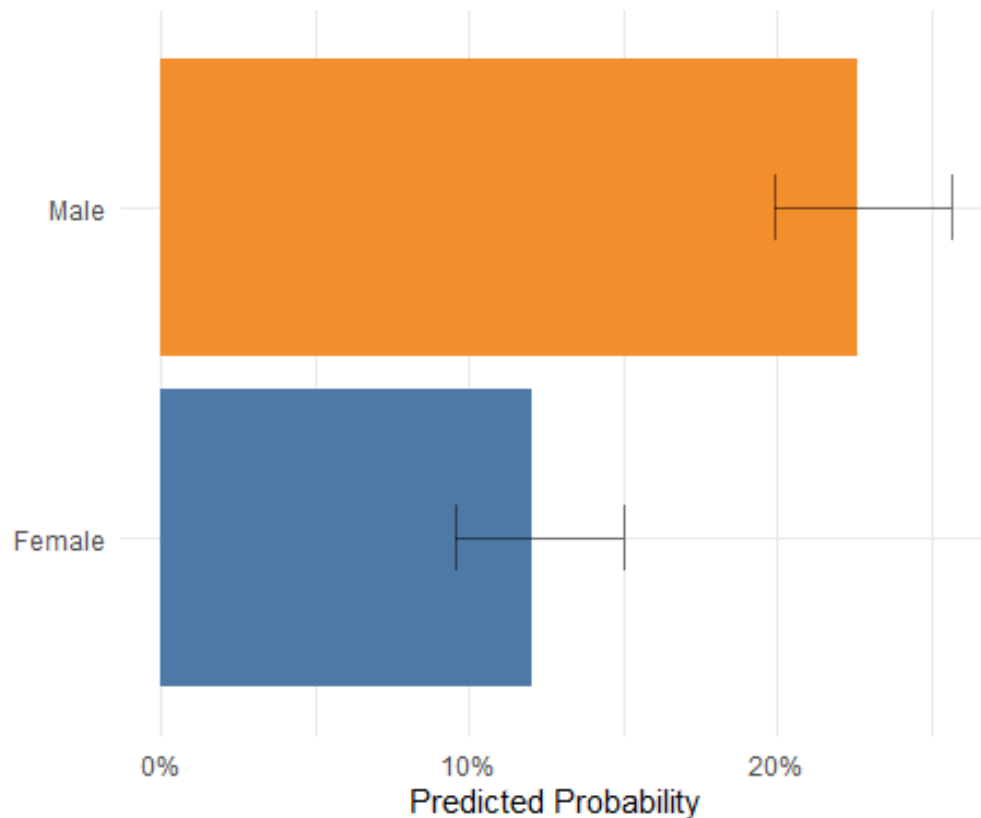
# Predictive Model

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- A predictive model was used to analyze the effects of various factors on recidivism risk.
- Separate models which mitigate selection bias were used to evaluate program efficacy.
- Potential issues:
  - Data on income/wealth was not available.
  - Data on deaths after releases was not available.
  - Selection bias may not be fully mitigated in the program models.

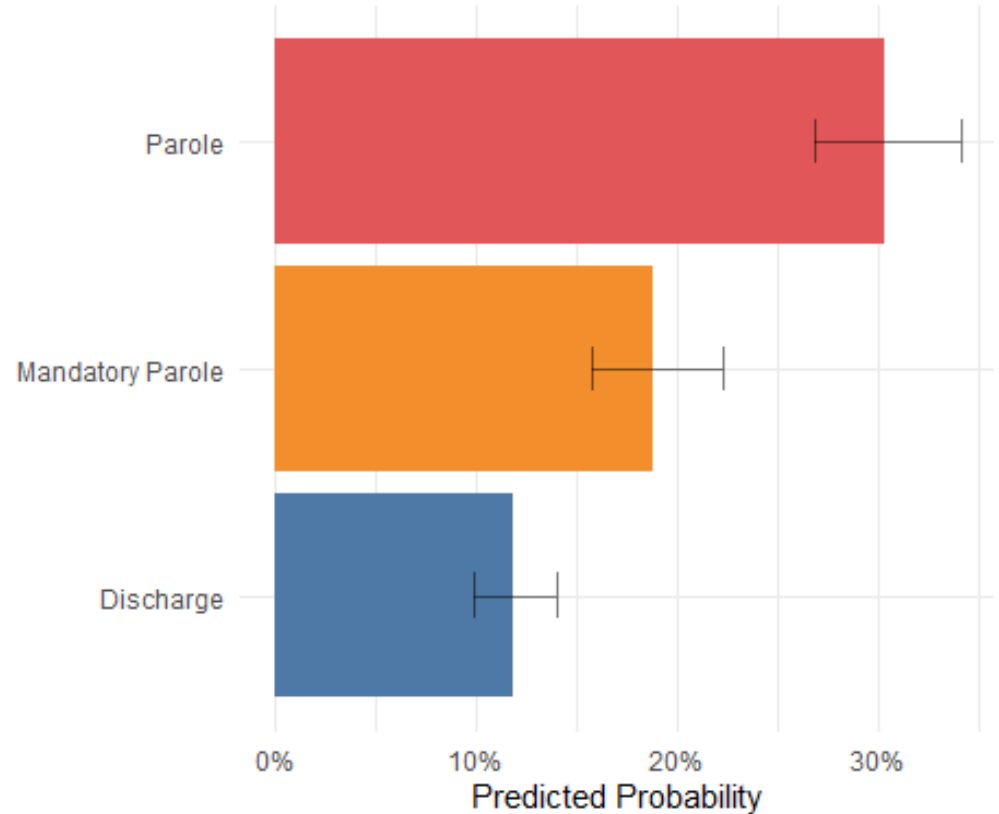
## Predictive Model - Gender

- In this case, 'twin' offenders would have the same personal history, criminal background, etc., but different genders.
- The error bars give the range of the predicted risk with 95% confidence.
  - There is only a 5% chance that the true risk is outside this range for the average offender.
  - A wider range means lower confidence in the result.



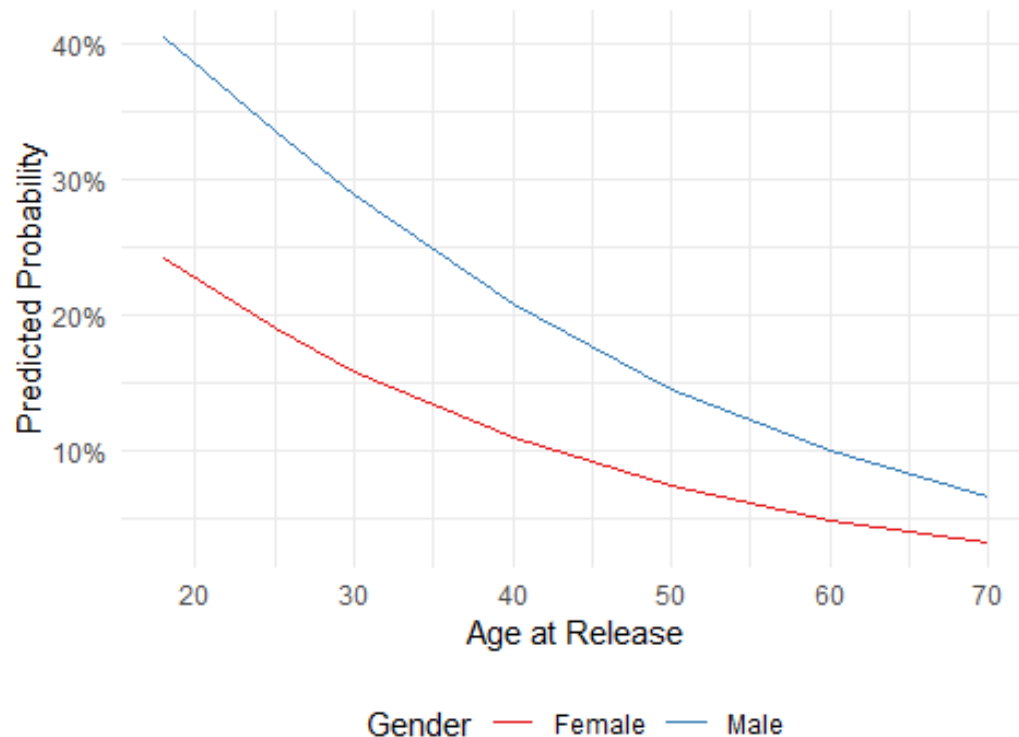
## Predictive Model - Release Status

- Discretionary and mandatory parole releases were found to have a meaningfully higher risk of recidivism than discharges.
  - This result was found with greater than 99% confidence.
- This may be due to the conditional nature of parole releases.



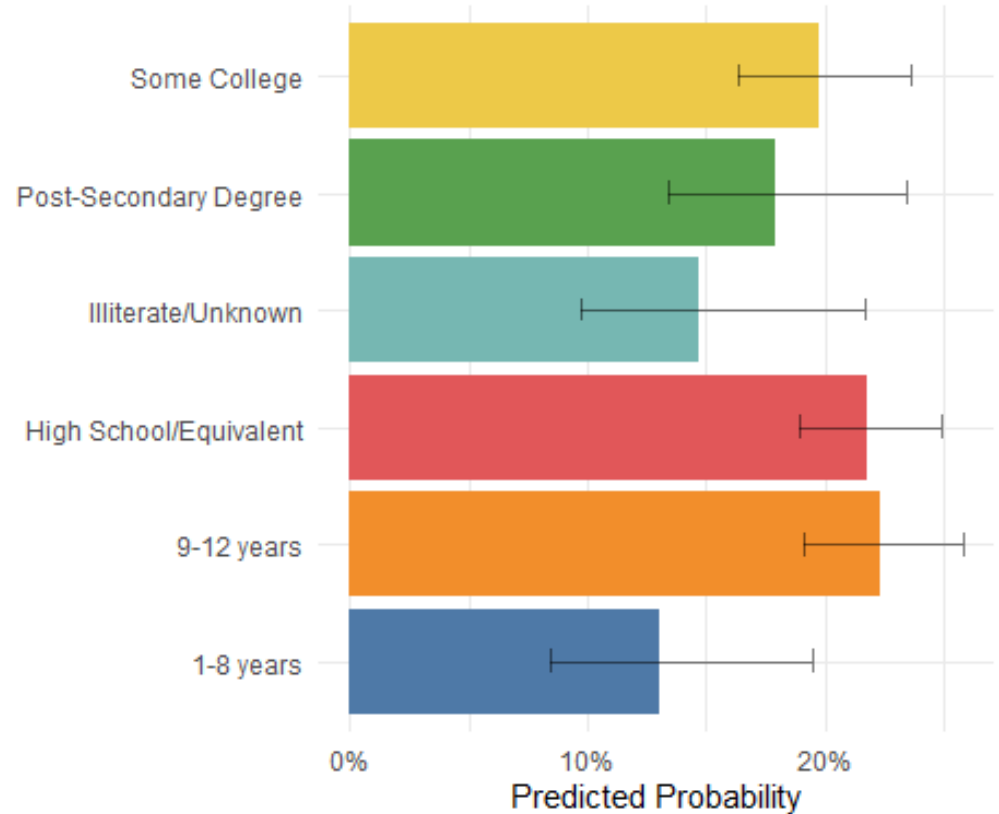
## Predictive Model - Age and Gender

- Male offenders have a higher risk of recidivism than female offenders.
- Younger offenders have a higher risk of recidivism.
  - This risk declines exponentially with age.
- Both results were found with greater than 99% confidence.



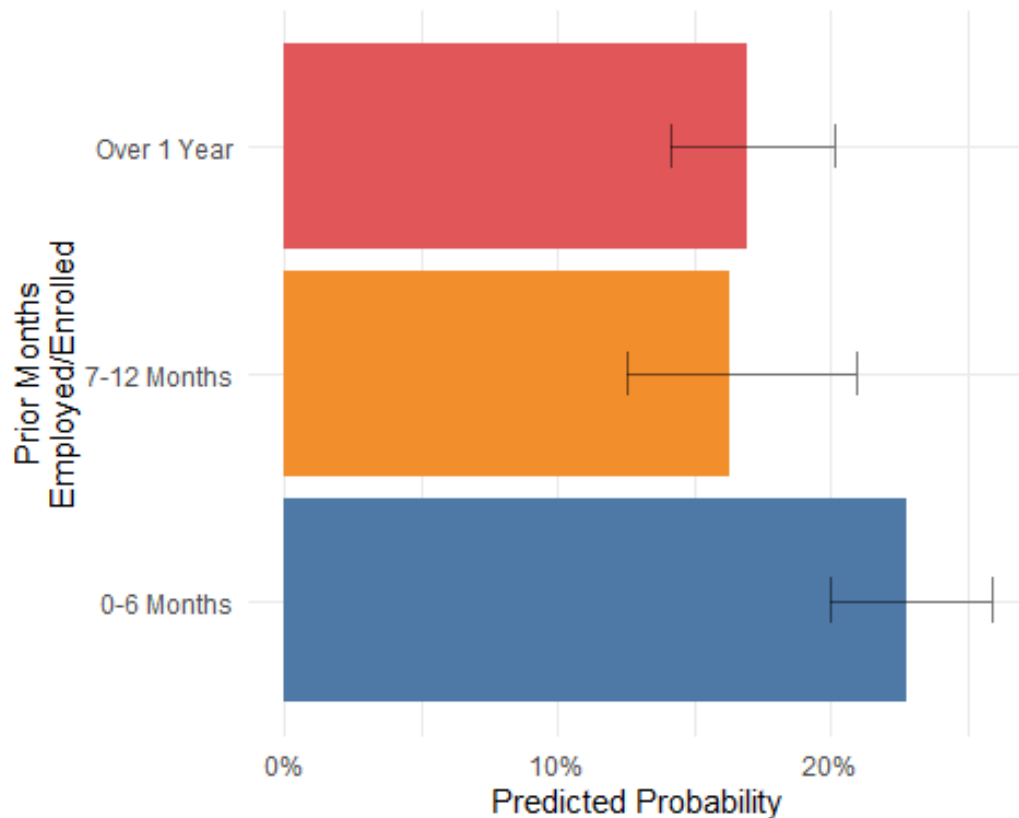
## Predictive Model - Educational Attainment

- Those who attained 1-8 years had the lowest predicted risk of recidivism.
  - This was the smallest group and has low result confidence.
- Those who attended or completed high school/equivalent had the highest recidivism risks.



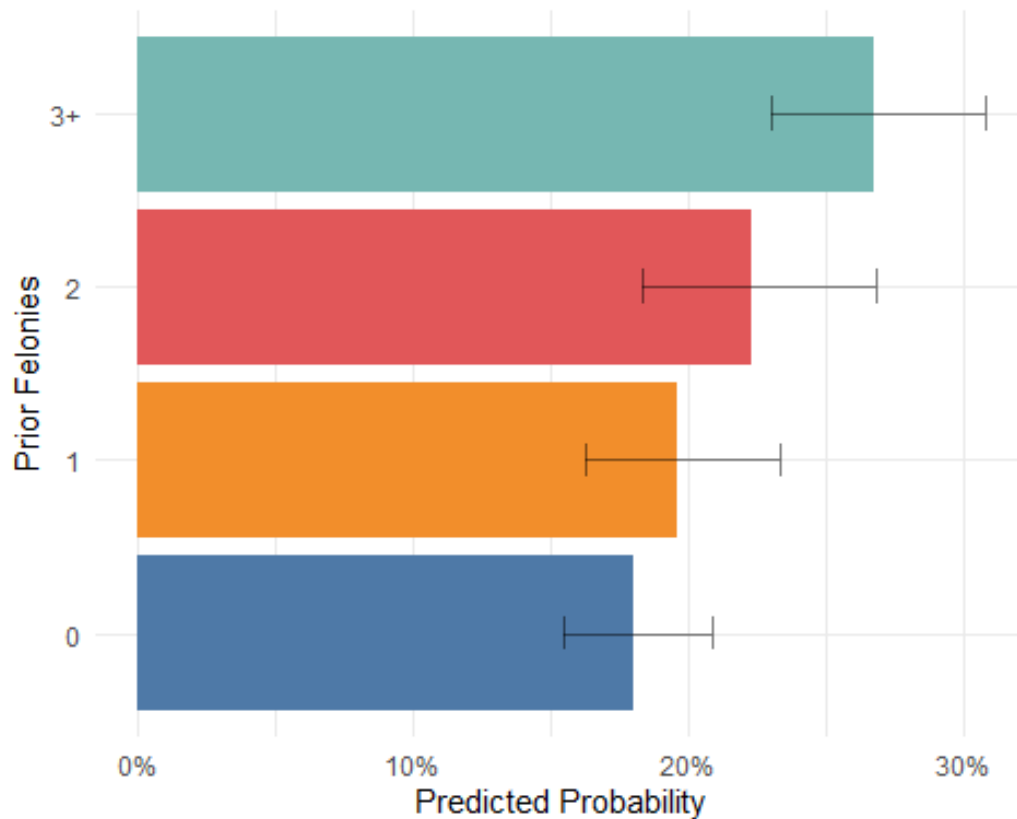
## Predictive Model - Employment

- Recidivism risk fell as tenure increased.
- Tenure of both employment and enrollment in education is counted.
- Most in the cohort had tenures of 6 months or less.



## Predictive Model - Prior Felonies

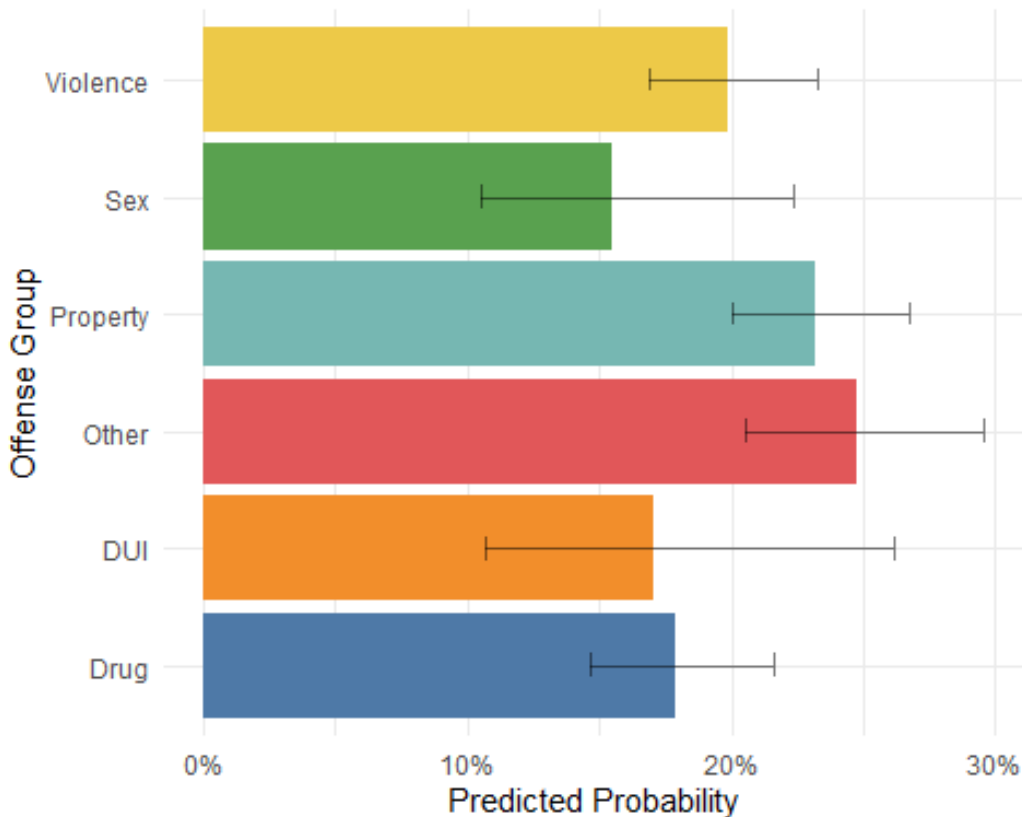
- Recidivism risk increased as the number of prior felonies rose.
- Around half the cohort had 0 prior felonies.
- Another quarter had 3 or more prior felonies.





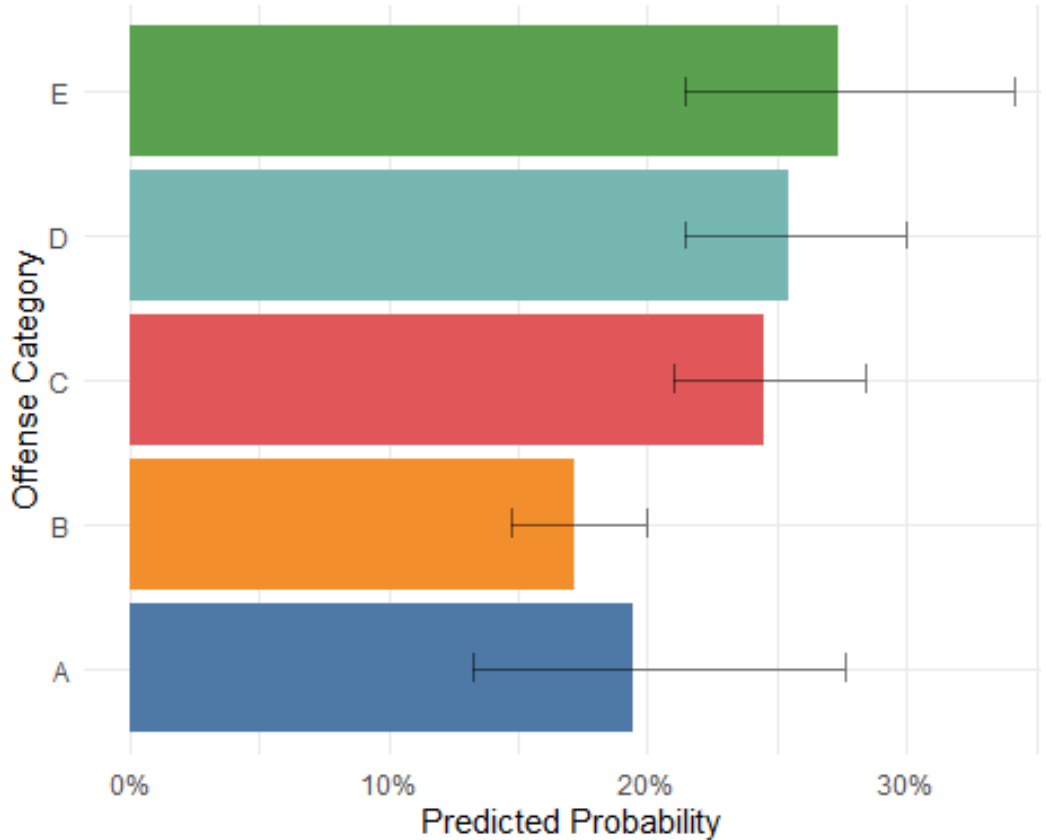
## Predictive Model - Offense Group

- Property and other offenders had the highest recidivism risk.
- Sex and DUI offenders had the lowest predicted probability of recidivism.
  - These were also the smallest groups, so these results weren't conclusive.



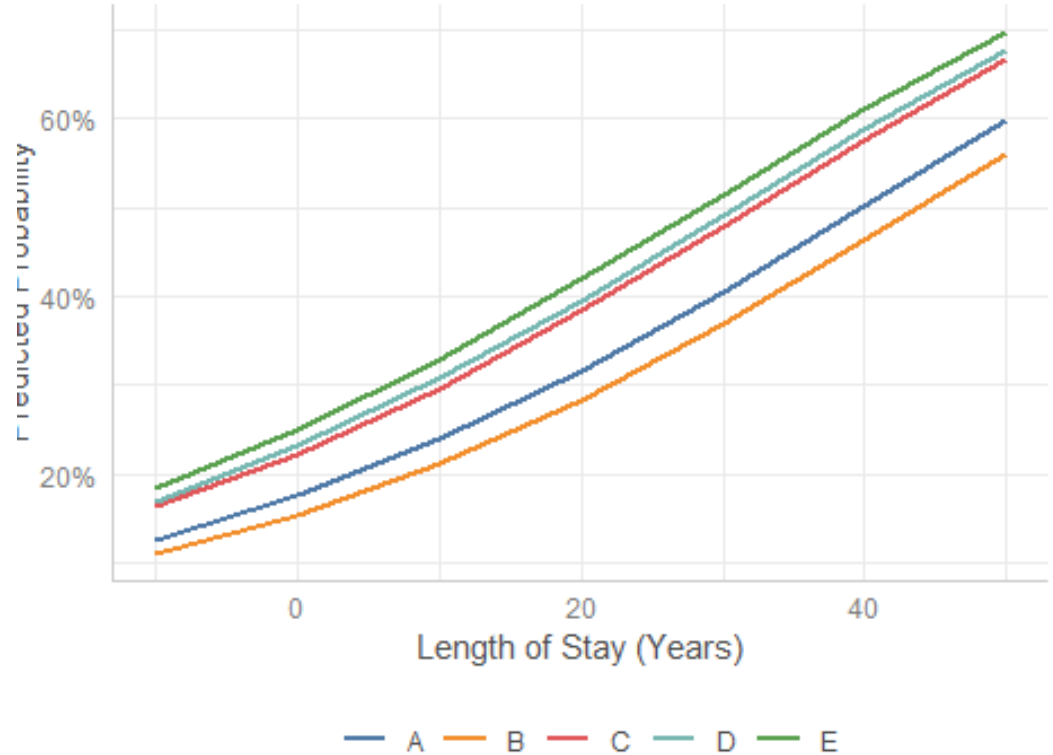
## Predictive Model - Offense Category

- Category B offenders had the lowest recidivism rate by a wide margin.
- Category C, D, and E offenders had gradually-increasing recidivism rates, respectively.



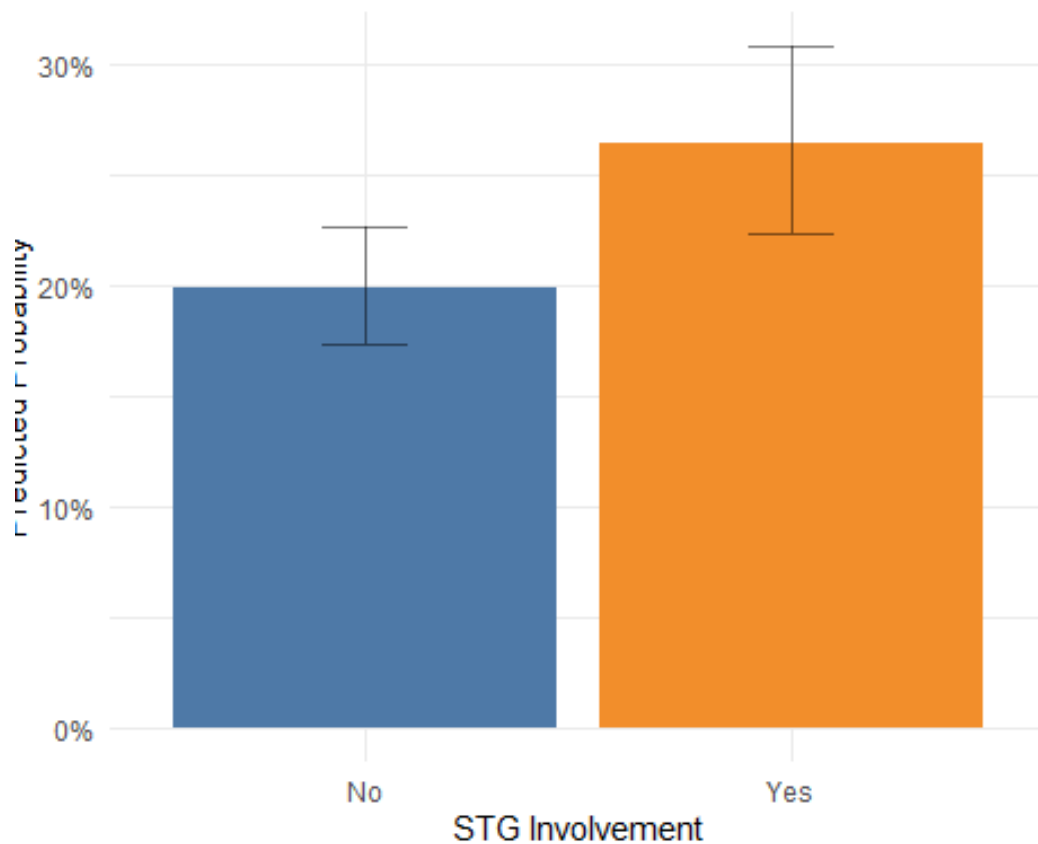
## Predictive Model - Length of Stay

- Recidivism risk increases with longer incarceration terms.
  - This result was found with greater than 99% confidence.
- On average, offenders in this cohort stayed for 3.15 years.
- Over half of the released offenders left after less than 20 months.



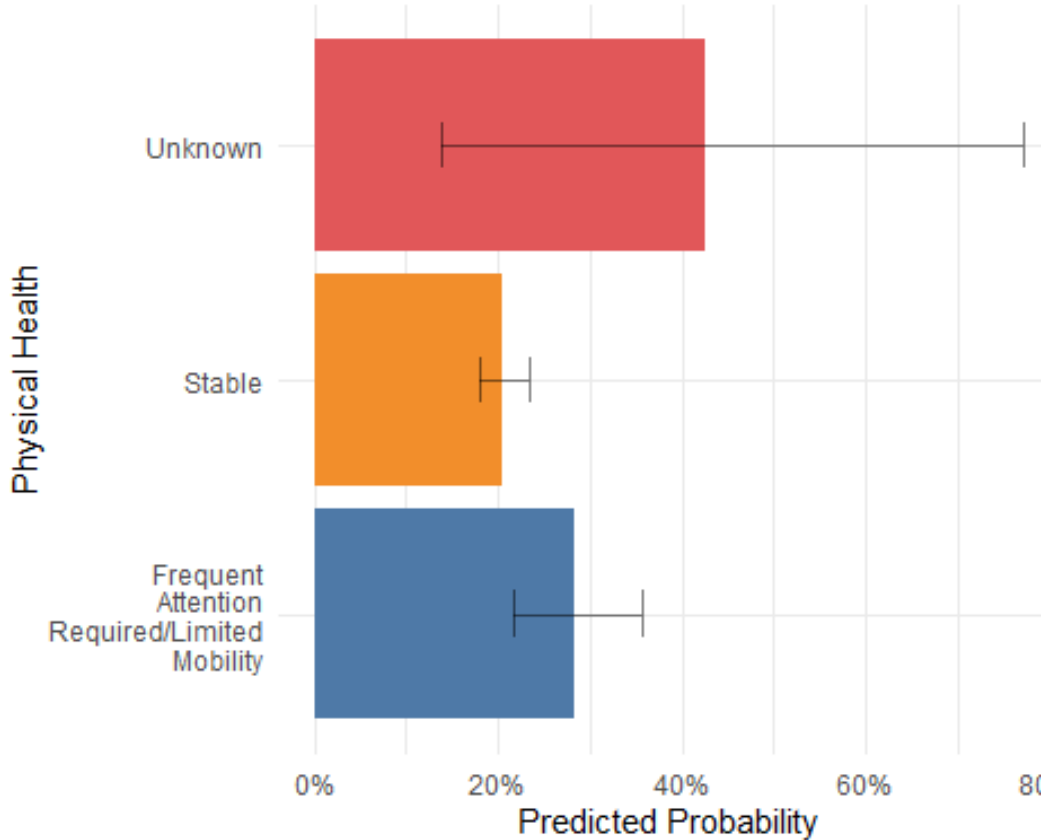
## Predictive Model - STG Involvement

- Security Threat Groups (STGs) are commonly referred to as gangs.
- STG involvement is associated with a statistically significant increase in recidivism risk.



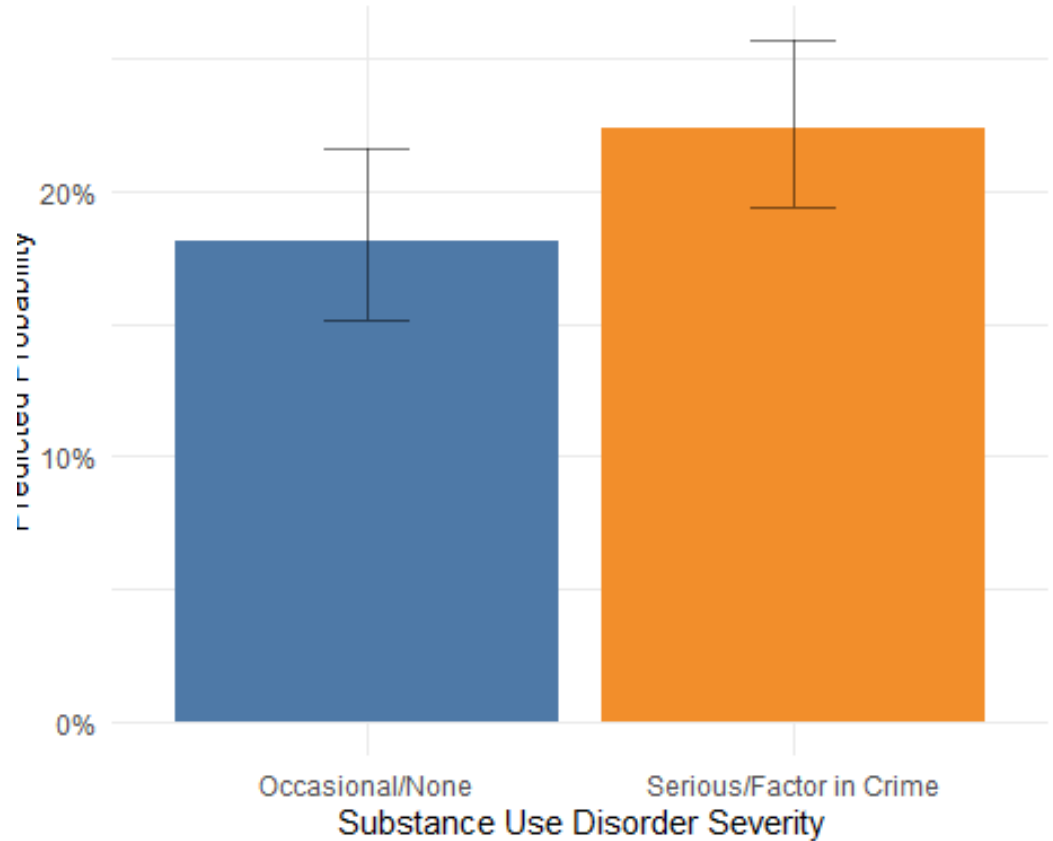
## Predictive Model - Physical/Mental Health and Substance Use Disorder

- Stable physical health was associated with a decrease in recidivism risk.
- Likewise, having no mental health impairments directly resulted in lower recidivism risk.
  - Mental health also indirectly affected recidivism through its relationship with employment/enrollment tenure.



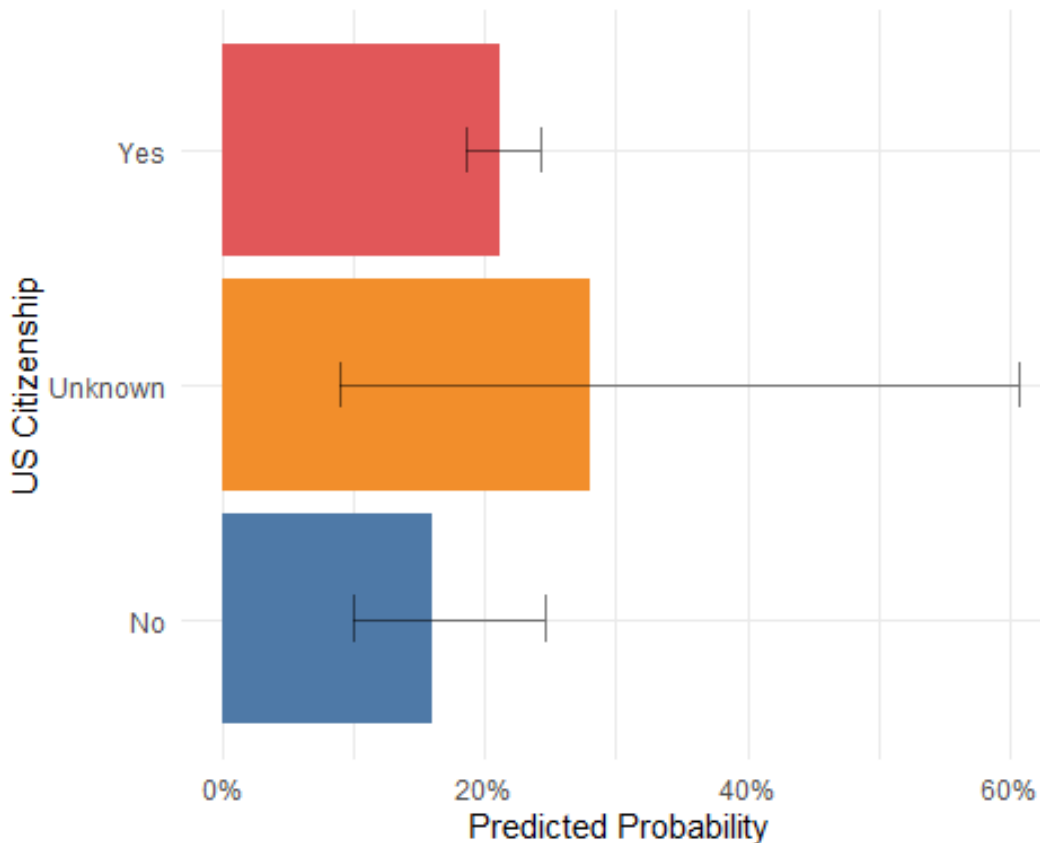
## Predictive Model - Substance Use Disorder

- Those with severe substance use disorder, or whose substance use was a factor in their crime, had a 5.2% higher risk of recidivism.
- There was no statistically significant difference in recidivism risk between users of drugs, alcohol, both, or neither after controlling for use severity.



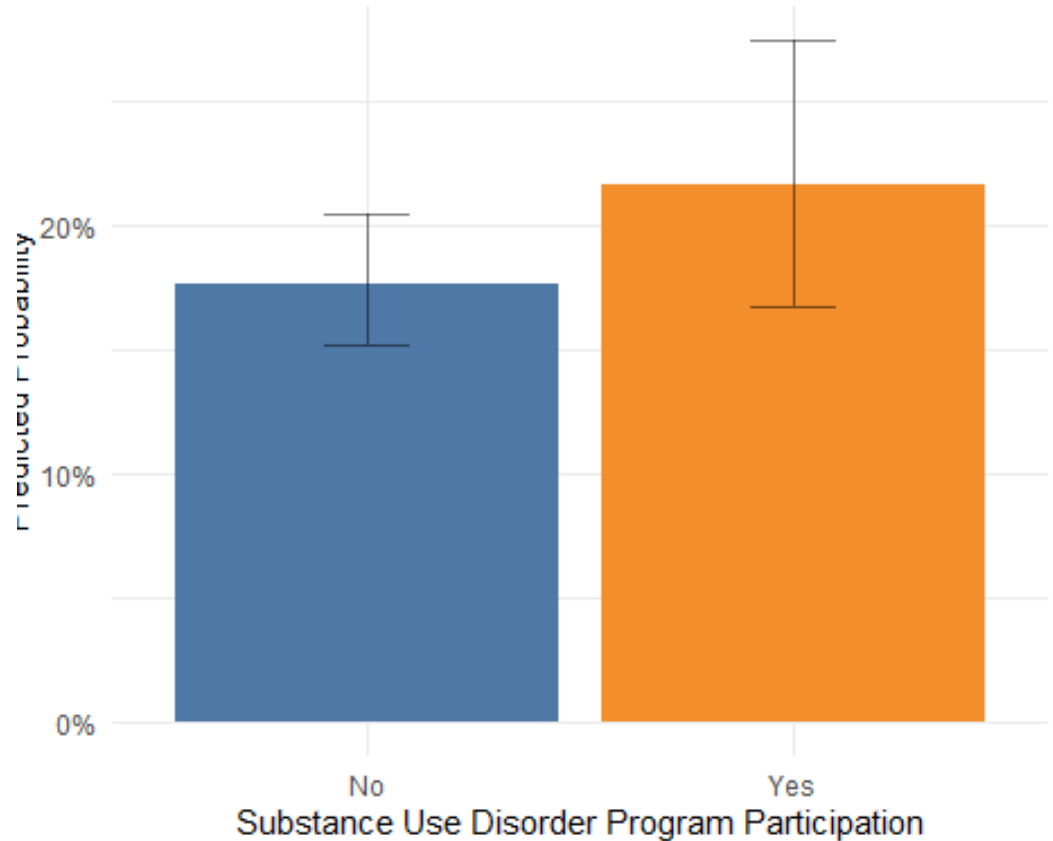
## Predictive Model - Citizenship Status

- After controlling for Immigration and Customs Enforcement (ICE) holds, there was no significant difference between citizens and non-citizens.
- Those with ICE holds were less likely to recidivate.
  - This is likely due to deportations and extraditions precluding offenders from returning.



## Predictive Model - Substance Use Disorder Program Participation

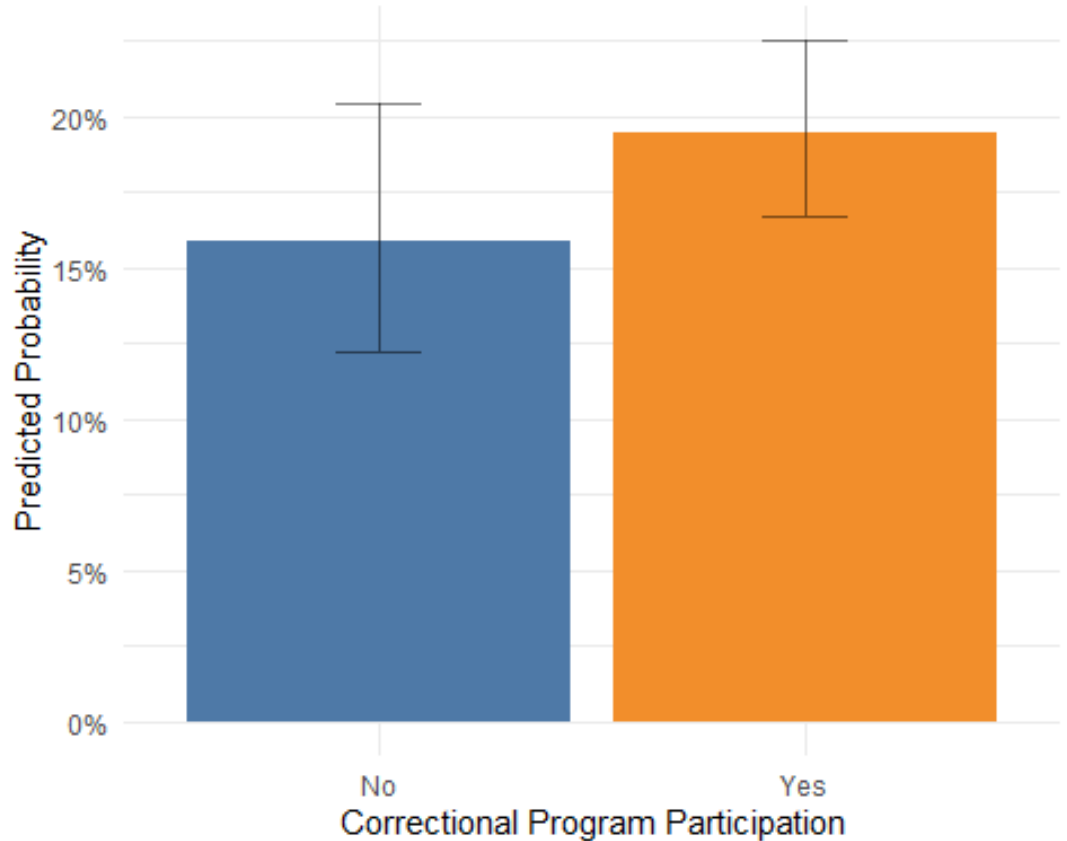
- Offenders who participated in substance use disorder programs were more likely to recidivate than non-participants.
- These negative effect disappeared for those who completed their dosage of treatment.
  - The small sample size may be causing these results.





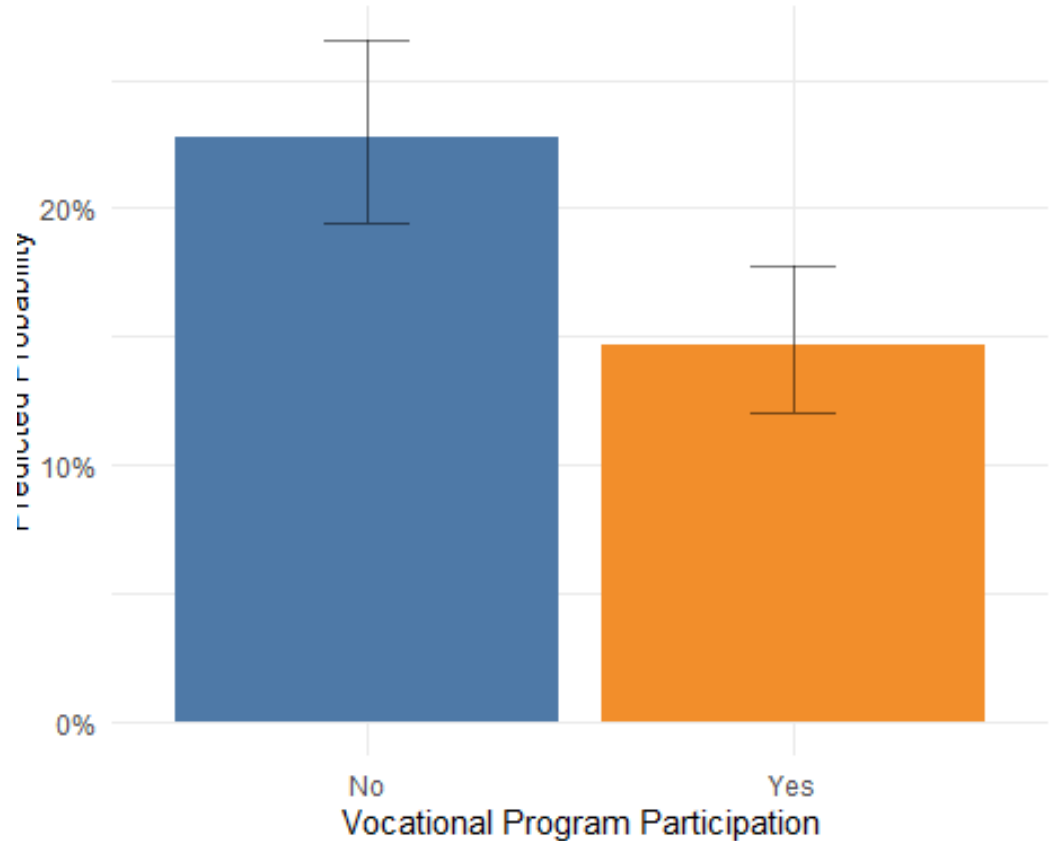
## Predictive Model - Correctional Program Participation

- Offenders who participated in correctional programs faced increased risk.
  - The method to mitigate selection bias did not perform well in this case, casting doubt on this result.
- Offenders who completed a sequence of these programs did not have a significantly different risk.



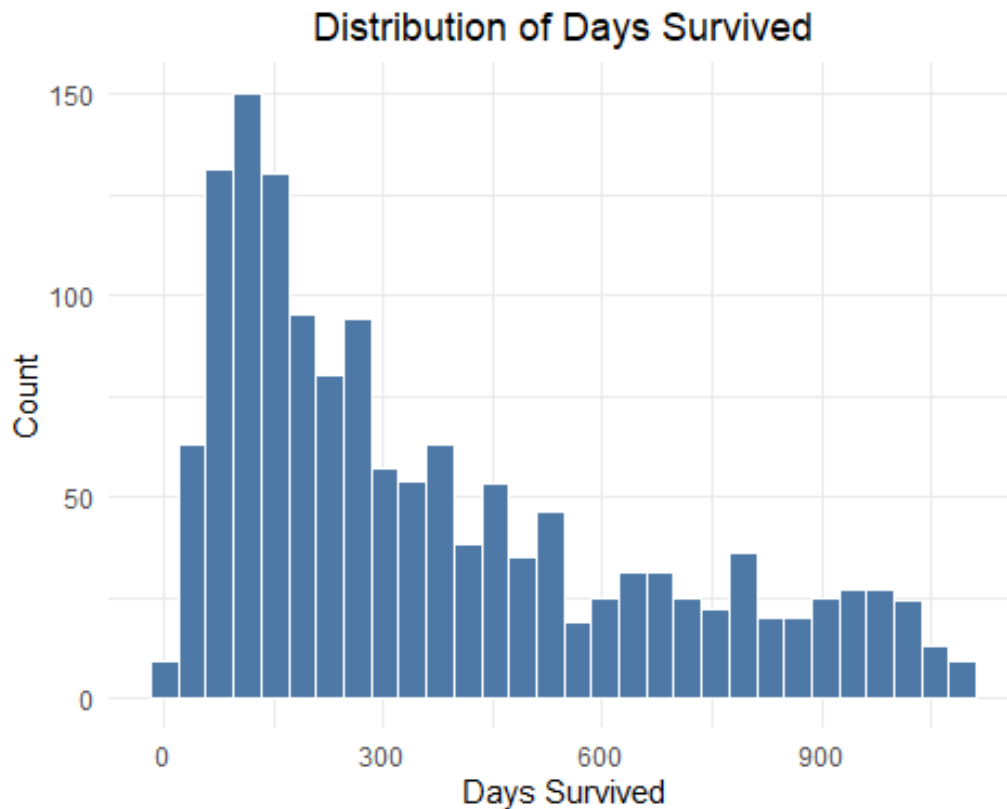
## Predictive Model - Vocational Program Participation

- Offenders who participated in vocational programs had a statistically significant, 8% lower risk of recidivism.
  - This is a larger effect than that of STG participation and is nearly as large as the male/female difference.
- Work-training and educational programs did not have a statistically significant effect.



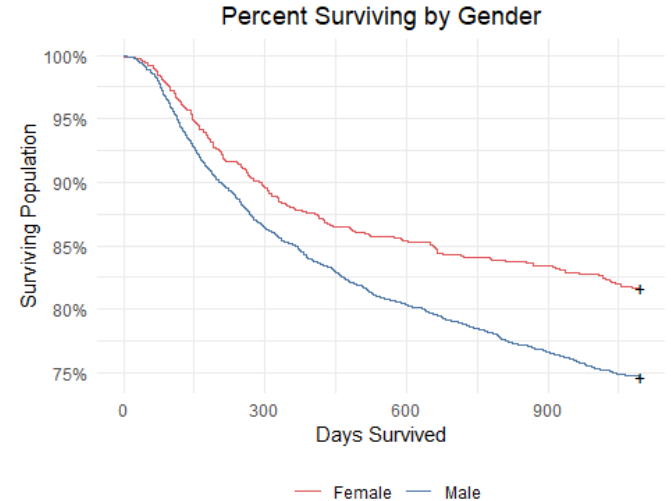
## Days Survived

- Survival refers to remaining outside, while returns are considered failures.
- On average, recidivating offenders lasted 369.3 days before returning.
- The following results do not account for other factors, only the one being reported.
  - i.e., They aren't comparing 'twins', but overall groups.



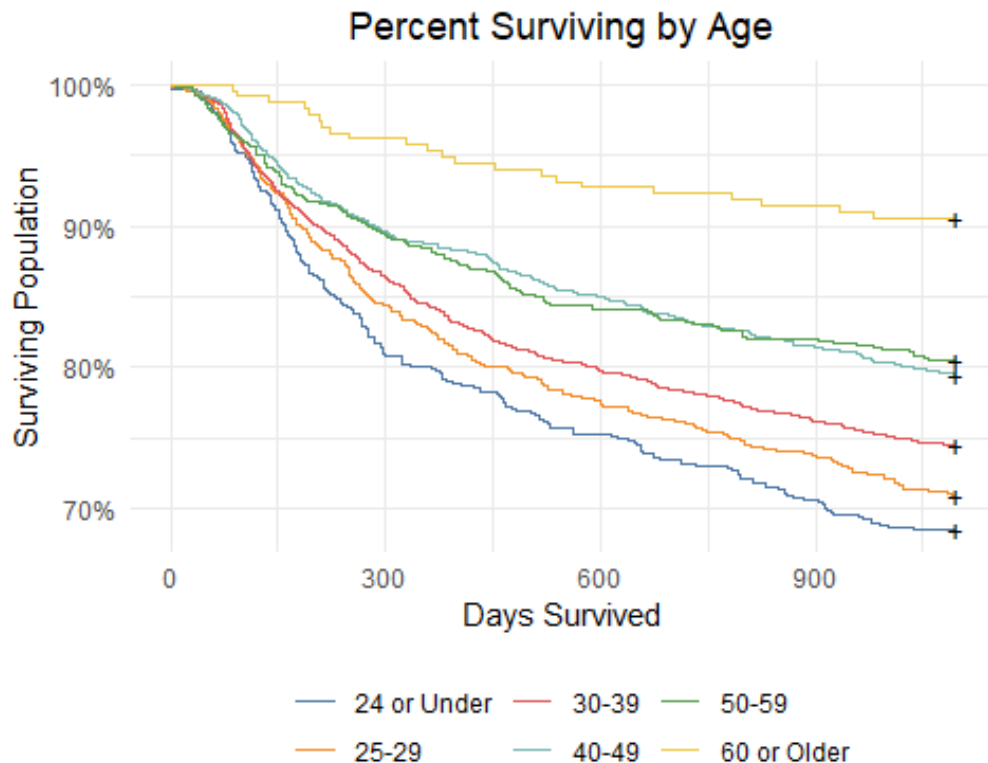
# Survival Analysis - Gender

- Female offenders return at lower rates and returns taper off more quickly after one year.
- After 3 years, roughly 75% of male offenders and over 80% of female offenders remain outside.
- Offenders are more likely to return soon after release, especially within the first year.



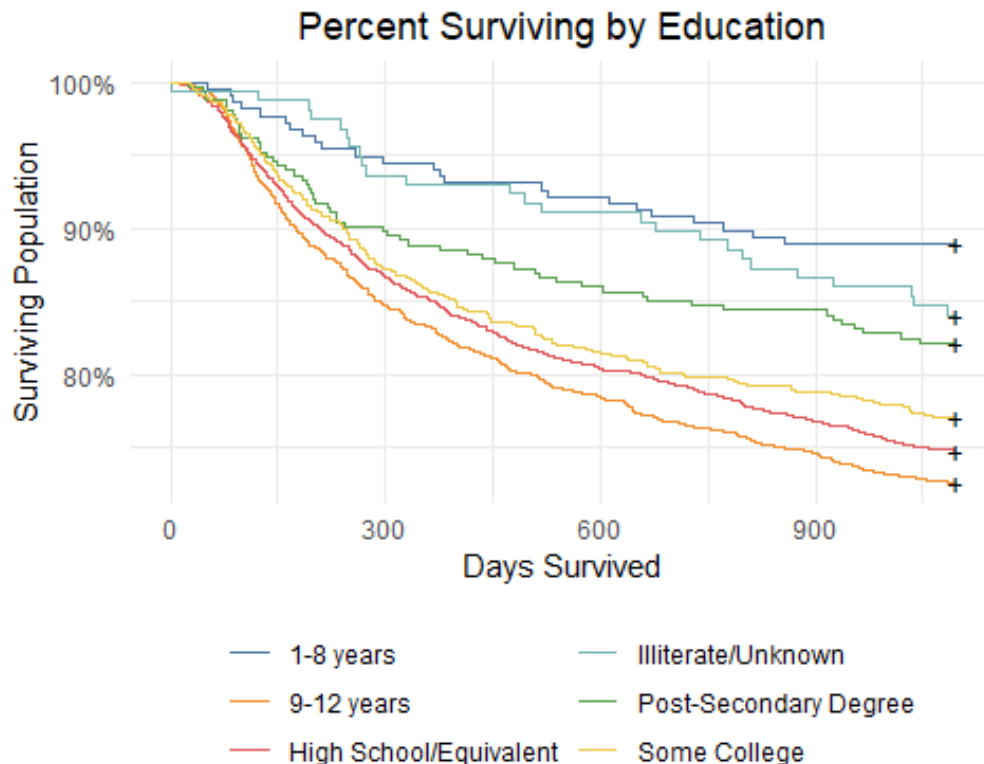
## Survival Analysis - Age

- Offenders who are older return at lower rates.
- Recidivism falls sharply for middle aged (40-59) offenders and is rare for senior (60+) offenders.
  - Senior offenders also have longer survival times among those who do recidivate.



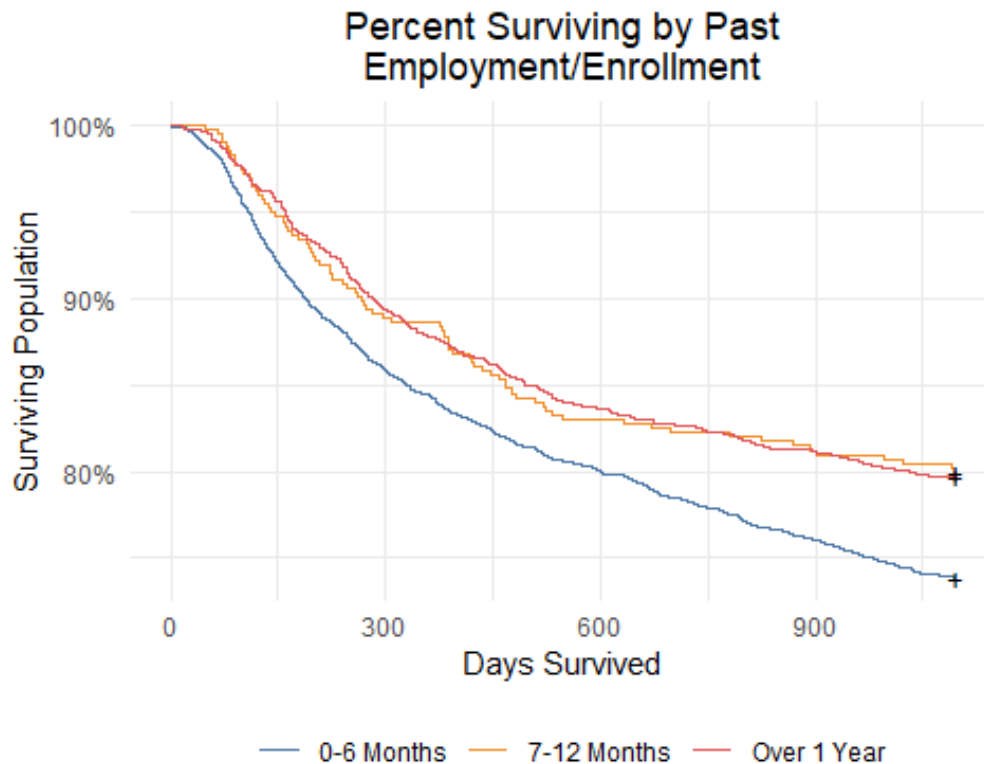
# Survival Analysis - Education

- Offenders with 9-12 years of schooling, high school or equivalent, or some college have roughly the same pattern after release.
- Post-secondary graduates follow the same trend for the first 300 days, then recidivate at a lower rate.



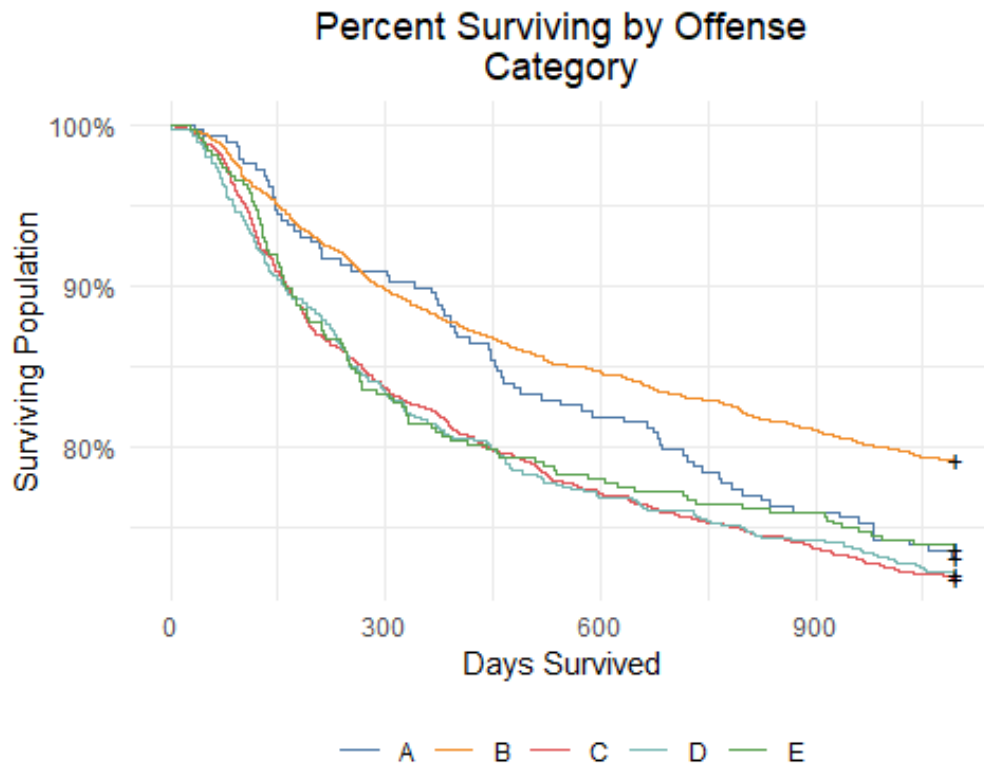
# Survival Analysis - Employment

- Offenders with more than 6 months of employment or enrollment prior to incarceration have nearly identical behavior after release.
  - While the overall rate is lower for these offenders, the pace is comparable to those within the 6 month or less group.



# Survival Analysis - Offense Category

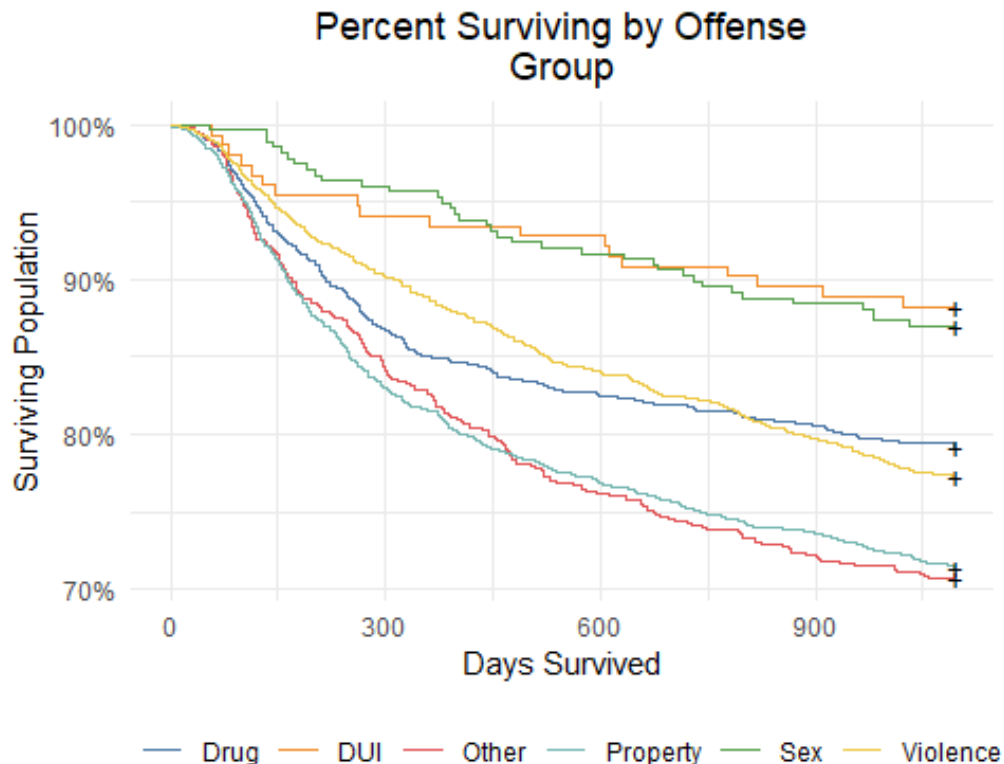
- Category B offenders consistently have lower rates of recidivism.
- Category A offenders have low recidivism for the first year, then the pace rapidly accelerates.
  - By the 900-day mark, they recidivate at roughly the same rates as C, D, and E offenders.





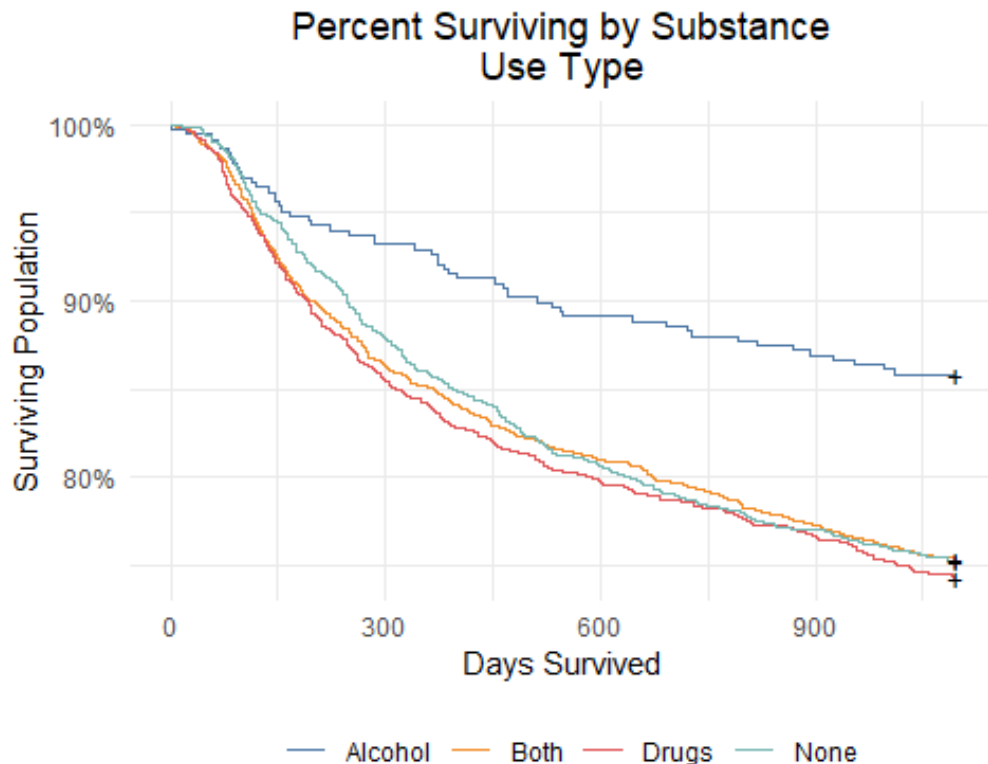
# Survival Analysis - Offense Group

- DUI and Sex offenders recidivate at lower rates than other groups.
- Property and Other offenders recidivate at relatively high rates.
- While Drug offenders initially follow Property and Other offenders, recidivism slows to match violent offenders.



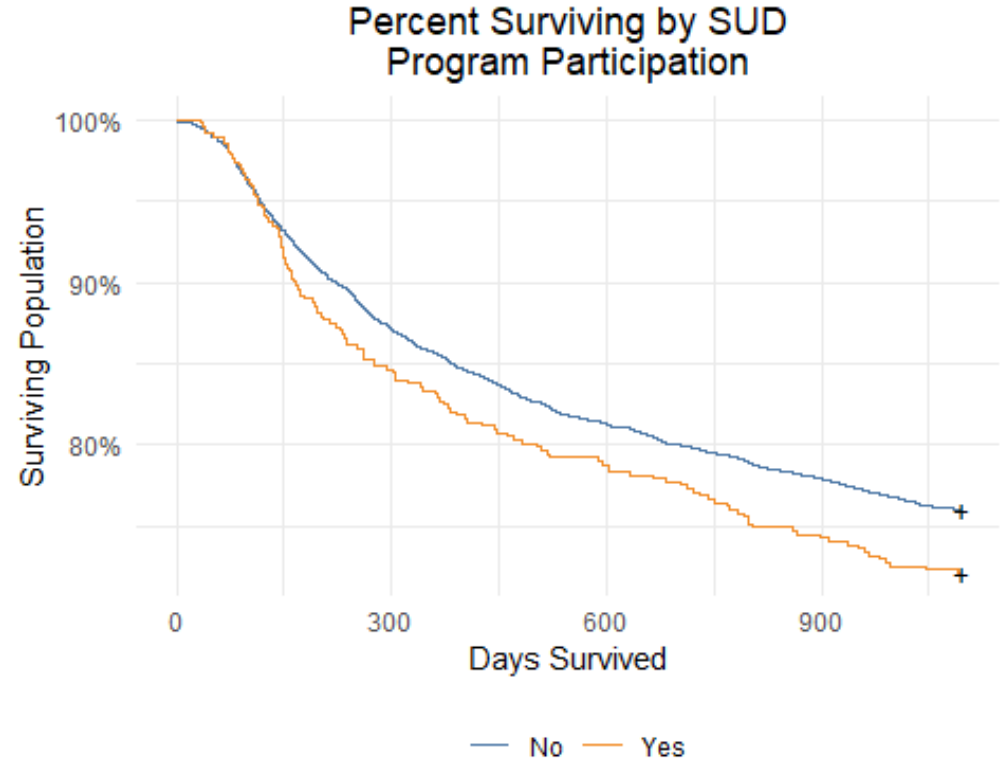
## Survival Analysis - Substance Use Disorder

- Without controlling for other factors, alcohol users recidivate at lower rates.
  - After accounting for severity and other factors, there is no significant difference.
- Other groups offenders have very similar trends among types.



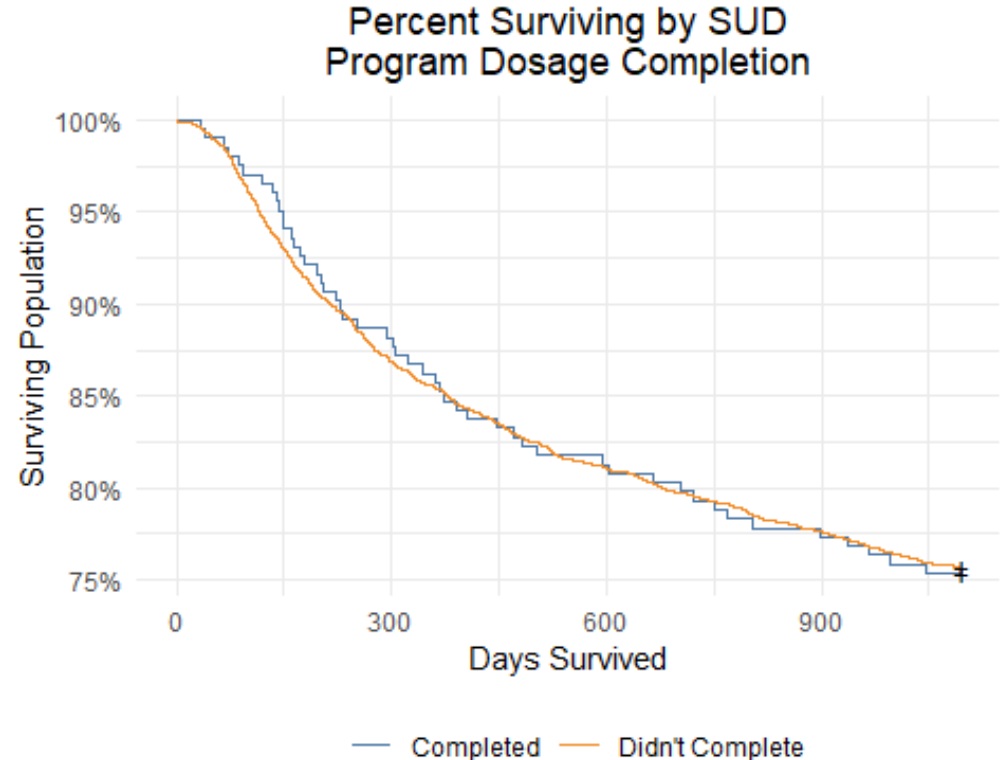
## Survival Analysis - Substance Use Disorder Program Participation

- For about 6 months, SUD program participants have near-identical recidivism to non-participants.
- After 6 months, those who participated in at least one SUD program have a higher risk of recidivism.



## Survival Analysis - Substance Use Disorder Program Dosage Completion

- For the entire three-year window, SUD program dosage completers have near identical rates of recidivism when compared to the rest of the release cohort.
- Any difference between the survival times of the two groups was not found to be statistically significant.



# Survival Analysis - Substance Use Disorder Program

## Dosage Completion

- Up until 1000 days, completers of correctional program dosage consistently recidivate at lower rates.
- This difference in survival times was found to be statistically significant with greater than 95% confidence.
  - After accounting for other factors, this result was not a statistically significant predictor.

