

# Recidivism Project

By: Sierra Sikorski

## Project Link:

[https://sps126.shinyapps.io/data\\_viz\\_final/](https://sps126.shinyapps.io/data_viz_final/)

## Executive Summary:

Recidivism, the tendency for people to return to prison after release, is a severe issue in the United States. Though rehabilitation is a goal of the system, 50% of people return to prison after release. Some factors can impact this, such as employment and education level. This project uses data from the National Justice Institute to analyze recidivism and the factors that reduce it.

The criminal justice system has four goals: retribution, deterrence, incapacitation, and rehabilitation. Despite rehabilitation being a goal of the system, over half of the people released from prison return within three years. Recidivism, the tendency of a convicted criminal to re-offend, is one of the most topical issues today. The current system is failing half the people that go through it. To reimagine the system, we must analyze the factors that help an individual reenter society and not return to prison. This project aims to give people a deeper understanding of the criminal justice system. First, it looks at who is incarcerated by race and gender, then it looks at the proportion of people who go back to prison by race and gender, and then finally, it looks at two factors that are proven to lower recidivism rates.

The intended audience for this project is someone with little knowledge of the criminal justice system. I am trying to persuade them to care about recidivism and see the potential factors that can decrease recidivism. This way, more pressure will be on officials to reimagine the system since more people know some elements that help rehabilitation efforts. Since it is designed this way, it was necessary to give context as to who is incarcerated by demographic. Providing this information allows me to analyze recidivism by demographic data.

To show this, I used data from the National Justice Institute. They published data for people released from prison in Georgia between January 1, 2013, and December 31, 2015. The Georgia Department of Community Supervision provided information about demographics, and current and prior case information. This is publicly available on the National Justice Institute website by searching "recidivism challenge." One issue with this data is that it is limited to just black and white for race, so it is harder to generalize trends. Also, since it is data from Georgia, the racial breakdown is skewed due to Atlanta being a majority-black city.

The primary check I did for the data was comparing the descriptive statistics to the national average to ensure that only using data from Georgia wasn't misleading. The descriptive statistics show that the dataset is 88% male and 12% female, which is about the national average. For race, the dataset is about 57% black and 43% white, which is higher than the national average for black people. As I mentioned before, this is likely due to Atlanta. However, the recidivism rate is about 57%, which is representative of the national average.

To create this visualization, I used Rshiny. I made three tabs, one for each section of the dashboard. Within these tabs, I created two columns. One column contained the graph displayed on that tab, and the other held the input (either drop-down or radio buttons) and a brief explanation of the chart's context.

First, I put the descriptive exploration on the first tab so the viewer understood the dataset. After this, I began to analyze the data. First, I examined the proportion of people who return to prison by race and gender. Then, I explored two variables alleged to reduce recidivism: percent days employed and education level. For the percentage of days employed, I created four bins: 0-25%, 25-50%, 50-75%, and 75-100%. Then, I looked at the proportion of people who returned to prison within those bins. Education level was more straightforward since the variables were coded as either less than high school, high school diploma, or some college. I calculated the proportion of people who went back to prison in these bins. Since there was a substantial difference between gender and recidivism, I also subset the data to male and female to perform the same calculations.

From this analysis, typically, being employed for over 50% of the days of the year decreases the likelihood of recidivism. When employed from 0-50% of the year, the recidivism rate is about 72%. However, this goes down to 55% when employed 50-75% of the year and down to 42% when employed 75-100% of the year. This decrease shows a clear trend that as the percentage of days employed increases, the proportion of people who return to prison decreases. This finding shows we should prioritize ensuring people have jobs when they leave prison. Prioritizing this could be through job training while in prison or better re-entry programs that aid in job searching when they leave. Another insight was that some college education decreases the likelihood of recidivism. I found that 60% of people who did not complete high school or have a high school diploma return to prison after being released from incarceration. This percentage drops to 46% when some level of college is completed. This decrease once again shows a trend that individuals with a higher education are less likely to return to prison. In a system that genuinely rehabilitates people, this could be prioritized by providing high school and college classes for people in prison. Programs like this already exist, so it would be an expansion of current systems to ensure widespread access. The proportions in the dashboard prove the need for rehabilitation and re-entry programs that prioritize education and job training.

## References:

Nellis, A (2022, November 11). Nothing but time: Elderly Americans serving life without parole. The Sentencing Project. Retrieved April 23, 2023, from <https://www.sentencingproject.org/reports/nothing-but-time-elderly-americans-serving-life-without-parole/>

*Nij's Recidivism Challenge Full Dataset: Office of Justice Programs*. NIJ's Recidivism Challenge Full Dataset | Office of Justice Programs. (2021, July 15). Retrieved March 3, 2023, from <https://data.ojp.usdoj.gov/Courts/NIJ-s-Recidivism-Challenge-Full-Dataset/ynf5-u8nk>

*Recidivism of federal offenders released in 2010*. United States Sentencing Commission. (2022, May 9). Retrieved March 2, 2023, from <https://www.ussc.gov/research/research-reports/recidivism-federal-offenders-released-2010>