

don't blink
RECIDIVISM

BY ASHTON MINOR

PRESENTER

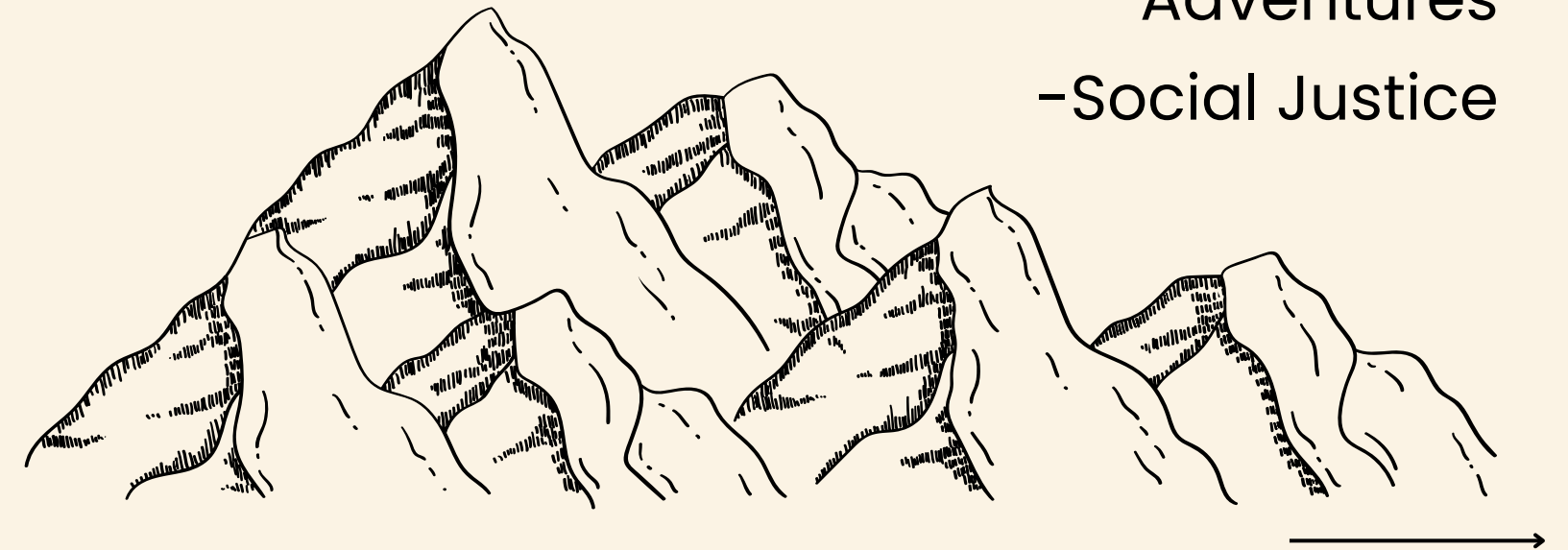
allow me to
**INTRODUCE
MYSELF**

A S H T O N M I N O R

Bachelors Degree, GMU
Government and International Politics
Magna Cum Laude
Defense Contracting
Program Analyst, defense
Consultant, private

Interests:

- Gardening
- Adventures
- Social Justice



Definitions

INCARCERATION

The state of being confined in prison, or imprisonment.

RECIDIVISM

The percentage of former prisoners who are rearrested for a similar offense.

WAR ON DRUGS

The war on drugs is a global campaign, led by the U.S. federal government aimed at reducing the illegal drug trade, beginning in 1971.

MANDATORY MINIMUM SENTENCING

Require automatic, minimum prison terms for certain crimes set by state legislature, not judges.

Incarceration rates

In a study completed by The Sentencing Project, the United States leads world incarceration rates.



<https://www.sentencingproject.org/issues/incarceration/>

Background

INCARCERATION HAS INCREASED BY 500% IN THE LAST 40 YEARS

- War on drugs
- Disparity in sentencing
- Mandatory minimum sentences

**THERE ARE CURRENTLY 2 MILLION PEOPLE IN JAIL OR PRISON IN
THE UNITED STATES.**

The population of the US is 332,915,073

<https://www.sentencingproject.org/criminal-justice-facts/>

What are the chances?

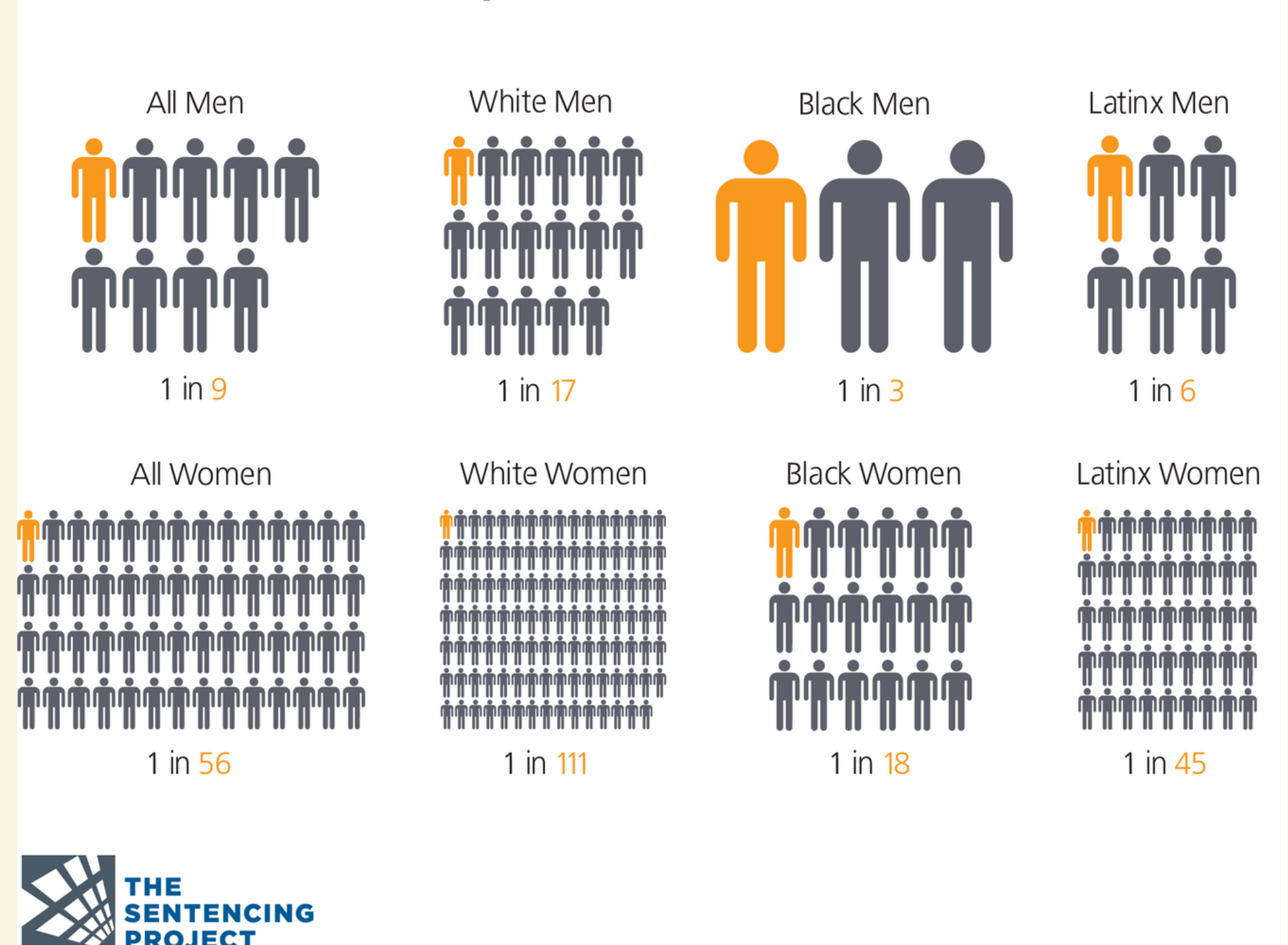
Men born in 2001: 1 in 9

Women born in 2001: 1 in 56

Black men born in 2001: 1 in 3

Black women born in 2001: 1 in 18

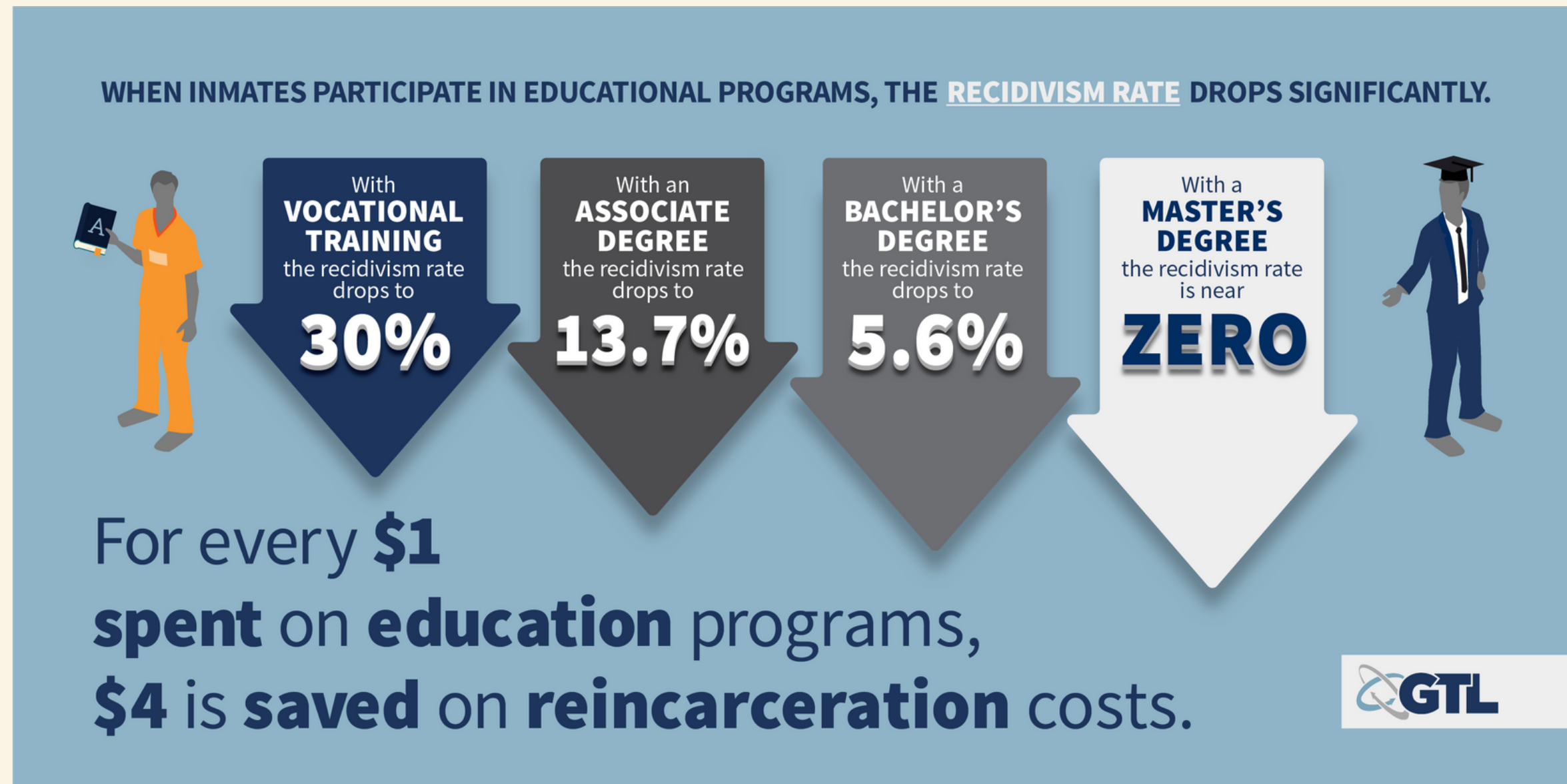
Lifetime Likelihood of Imprisonment of U.S. Residents Born in 2001



<https://www.sentencingproject.org/criminal-justice-facts/>

United Nations

- Recidivism is prevented when an offender desists from crime.
- Factors associated with desistance from crime:
 - Employment
 - Acquisition of skills
 - Significant life partnership



https://www.unodc.org/documents/justice-and-prison-reform/18-02303_ebook.pdf



- ABOUT 6 IN 10 (62%) PRISONERS RELEASED ACROSS 34 STATES IN 2012 WERE ARRESTED WITHIN 3 YEARS, AND 7 IN 10 (71%) WERE ARRESTED WITHIN 5 YEARS.
- NEARLY HALF (46%) OF PRISONERS RELEASED IN 2012 RETURNED TO PRISON WITHIN 5 YEARS FOR A PAROLE OR PROBATION VIOLATION OR A NEW SENTENCE.
- 11% PERCENT OF PRISONERS RELEASED IN 2012 WERE ARRESTED WITHIN 5 YEARS OUTSIDE OF THE STATE THAT RELEASED THEM.
- 81% OF PRISONERS AGE 24 OR YOUNGER AT RELEASE IN 2012 WERE ARRESTED WITHIN 5 YEARS OF RELEASE, COMPARED TO 74% OF THOSE AGES 25 TO 39 AND 61% OF THOSE AGE 40 OR OLDER.

Where did this come from?

- 1 THE SENTENCING PROJECT
- 2 BUREAU OF JUSTICE STATISTICS
- 3 NATIONAL CORRECTIONS REPORTING PROGRAM
- 4 KAGGLE RECIDIVISM
- 5 US BUREAU OF LABOR STATISTICS

Data Wrangling in Python

Get Startedunemployment.ipynbrecidivism.ipynb ×

Users > debfleming > Desktop > recidivism.ipynb > empty cell

+ Code + Markdown | ▶ Run All ≡ Clear Outputs of All Cells ↺ Restart □ Interrupt | 📄 Variables ≡ Outline ...

base (Python 3.9.7)

[24] ✓ 0.7sPython

```
df1 = dfrecidivism.rename(columns = {'Recidivism Reporting Year' : 'Recidivism_Year'})
```

▶ ▾

[25] ✓ 0.1sPython

```
values = [2013, 2014, 2018]
df2 = df1[df1.Recidivism_Year.isin(values) == False]
```

[26] ✓ 0.9sPython

```
display(df2)
```

...

	Recidivism_Year	Fiscal Year Admitted	Convicting Offense Classification	Convicting Offense Type	Convicting Offense Subtype	Race - Ethnicity	Sex	Level of Supervision	Recidivism - Prison Admission	Recidivism Type	Days to Recidivism
32274	2015	2012	Aggravated Misdemeanor	Violent	Assault	American Indian or Alaska Native - Hispanic	Male	Low Normal	No	No Recidivism	NaN
32275	2015	2012	Simple Misdemeanor	Property	Theft	American Indian or Alaska Native - Hispanic	Male	Low Risk Probation	No	No Recidivism	NaN
32276	2015	2012	Aggravated Misdemeanor	Violent	Assault	American Indian or Alaska Native - Hispanic	Male	Intensive	No	No Recidivism	NaN
32277	2015	2012	Serious Misdemeanor	Violent	Assault	American Indian or Alaska Native - Hispanic	Male	Intensive	No	No Recidivism	NaN
32278	2015	2012	Aggravated Misdemeanor	Violent	Sex	American Indian or Alaska Native - Hispanic	Male	Intensive	No	No Recidivism	NaN
...
80442	2017	2014	Aggravated Misdemeanor	Violent	Assault	White - Non-Hispanic	Male	Not Available for Supervision	No	No Recidivism	NaN
80443	2017	2014	D Felony	Property	Theft	White - Non-Hispanic	Male	Not Available for Supervision	No	No Recidivism	NaN
80444	2017	2014	D Felony	Violent	Assault	White - Non-Hispanic	Male	Not Available for Supervision	No	No Recidivism	NaN
80445	2017	2014	C Felony	Violent	Sex	White - Non-Hispanic	Male	Not Available for Supervision	No	No Recidivism	NaN
80446	2017	2014	Serious Misdemeanor	Drug	Drug Possession	White - Non-Hispanic	Male	Not Available for Supervision	No	No Recidivism	NaN

48173 rows × 11 columns

Data wrangling in Python

```
Get Started | unemployment.ipynb | recidivism.ipynb
Users > debfleming > Desktop > unemployment.ipynb > empty cell
+ Code + Markdown | ▶ Run All | ☰ Clear Outputs of All Cells | ↺ Restart | ☐ Interrupt | 📄 Variables | 📖 Outline | ⋮
[1] ✓ 7.6s
import pandas as pd
import numpy as np
import seaborn as sns
import matplotlib.pyplot as plt

[2] ✓ 0.1s
unemployment = pd.read_csv('/Users/debfleming/Desktop/unemployment.csv')
unemployment.head()

...
  Year  Jan  Feb  Mar  Apr  May  Jun  Jul  Aug  Sep  Oct  Nov  Dec
0  2012  8.3  8.3  8.2  8.2  8.2  8.2  8.2  8.1  7.8  7.8  7.7  7.9
1  2013  8.0  7.7  7.5  7.6  7.5  7.5  7.3  7.2  7.2  7.2  6.9  6.7
2  2014  6.6  6.7  6.7  6.2  6.3  6.1  6.2  6.1  5.9  5.7  5.8  5.6
3  2015  5.7  5.5  5.4  5.4  5.6  5.3  5.2  5.1  5.0  5.0  5.1  5.0
4  2016  4.8  4.9  5.0  5.1  4.8  4.9  4.8  4.9  5.0  4.9  4.7  4.7

[4] ✓ 0.7s
dfunemployment = pd.DataFrame(unemployment)
df1 = dfunemployment.drop(dfunemployment.index[[0, 1, 2, 6, 7, 8, 9, 10]])
print(df1)

...
  Year  Jan  Feb  Mar  Apr  May  Jun  Jul  Aug  Sep  Oct  Nov  Dec
3  2015  5.7  5.5  5.4  5.4  5.6  5.3  5.2  5.1  5.0  5.0  5.1  5.0
4  2016  4.8  4.9  5.0  5.1  4.8  4.9  4.8  4.9  5.0  4.9  4.7  4.7
5  2017  4.7  4.6  4.4  4.4  4.4  4.3  4.3  4.4  4.3  4.2  4.2  4.1

[5] ✓ 0.9s
display(df1)

...
  Year  Jan  Feb  Mar  Apr  May  Jun  Jul  Aug  Sep  Oct  Nov  Dec
3  2015  5.7  5.5  5.4  5.4  5.6  5.3  5.2  5.1  5.0  5.0  5.1  5.0
```

final_project.R x df_recidivism4 x df_recidivism3 x df_combined2 x

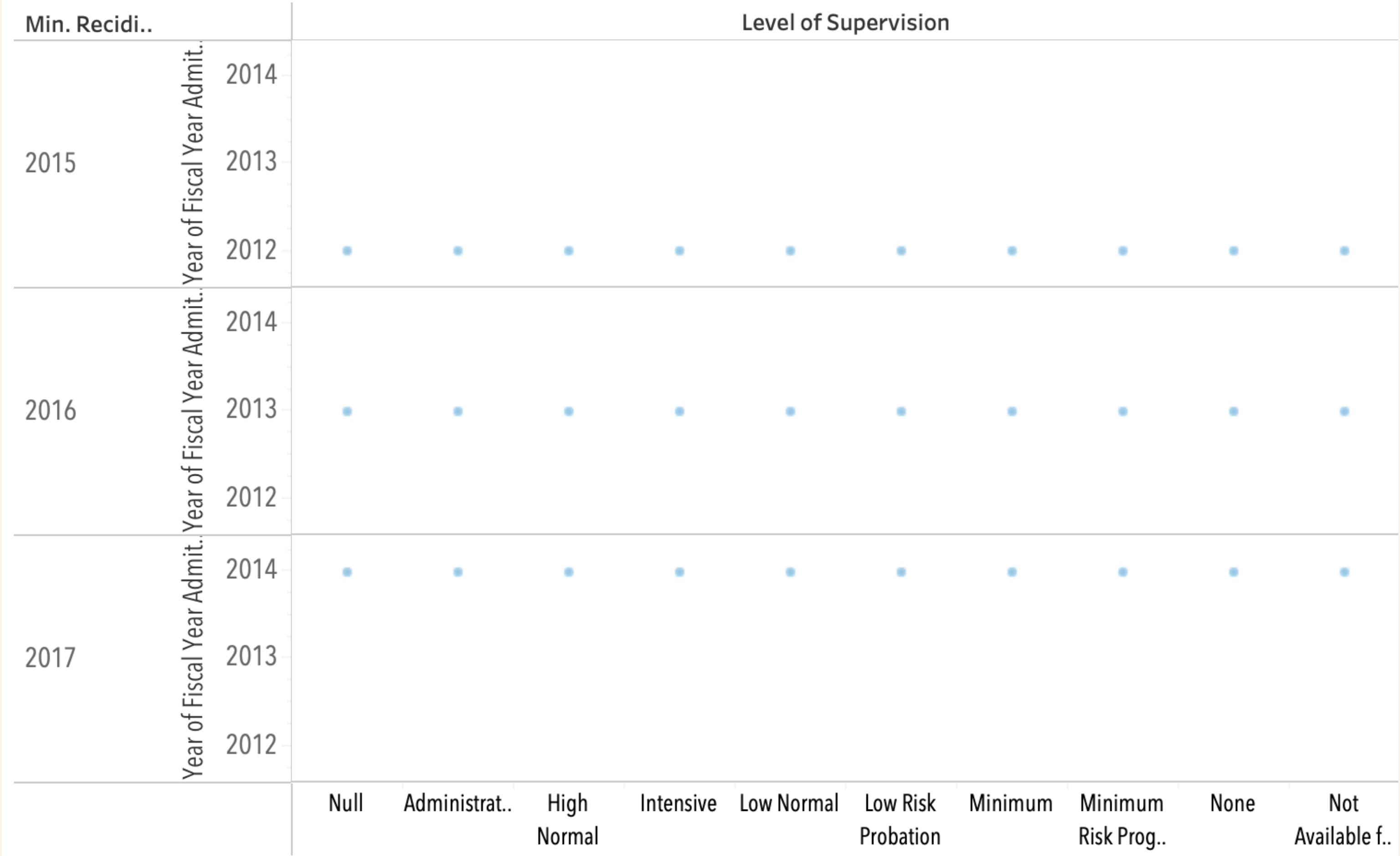
Source on Save Run

```
1 install.packages("ggplot2")
2 install.packages("dplyr")
3 install.packages("tidyverse")
4 install.packages("tidyr")
5 install.packages("lattice")
6 install.packages("gmodels")
7 install.packages("rcompanion")
8 install.packages("corrplot")
9 install.packages("PerformanceAnalytics")
10
11 library(ggplot2)
12 library(dplyr)
13 library(tidyverse)
14 library(tidyr)
15 library(lattice)
16 library(gmodels)
17 library(rcompanion)
18 library(corrplot)
19 library(PerformanceAnalytics)
20
21 rv<- c(5.7, 5.5, 5.4, 5.4, 5.6, 5.3, 5.2, 5.1, 5.0, 5.0, 5.1, 5.0)
22 mean(rv)
23
24 rv1 <- c(4.8, 4.9, 5.0, 5.1, 4.8,4.9, 4.8, 4.9, 5.0, 4.9, 4.7, 4.7)
25 mean(rv1)
26
27 rv2 <- c(4.7, 4.6, 4.4, 4.4, 4.4, 4.3, 4.3, 4.4, 4.3, 4.2, 4.2, 4.1)
28 mean(rv2)
29 ##calculate average unemployment by year
30
31 df_unemployment = as.data.frame.matrix(unemployment)
32 ##Turn unemployment data into data frame
33
```



```
final_project.R x df_recidivism4 x df_recidivism3 x df_combined2 x
Source on Save Run Source
34 Avg <- c(5.275, 4.875, 4.358)
35 df_unemployment$Avg <- Avg
36 ##Add unemployment average by year to dataframe
37
38 str(df_unemployment)
39 ##Examining data
40
41 str(df_recidivism4)
42 ##Examining data
43
44 df_combined = data.frame(df_unemployment$Year, df_unemployment$Avg)
45 ##Dataframe for consolidated unemployment and recidivism data
46
47 df_recidivism = as.data.frame.matrix(recidivism)
48 ##Turn recidivism data into data frame
49
50 na.omit(df_recidivism)
51 ##Remove NA
52
53 df_recidivism1 <- rename(df_recidivism, c(year_admitted = Fiscal.Year.Admitted, conviction_classification = Conviction.Subtype))
54 ##Renaming columns
55
56 df_recidivism2 = data.frame(df_recidivism1$Recidivism_Year, df_recidivism1$conviction_subtype, df_recidivism1$race, df_recidivism1$sex)
57 ##Create new data frame for specific variables
58
59 df_recidivism3 <- rename(df_recidivism2, c(Year = df_recidivism1.Recidivism_Year, Conviction_Subtype = df_recidivism1.conviction_subtype))
60 ##Rename columns
61 df_combined1 <- rename(df_combined, c(Year = df_unemployment.Year, Average_Unemployment_Rate = df_unemployment.Avg))
62
63 df_recidivism3$Prison_Admission <- ifelse(df_recidivism3$Prison_Admission == "Yes", 1, 0)
64 df_recidivism3
65 ##Recoded data
66
67 df_recidivism4 <- df_recidivism3[df_recidivism3$Prison_Admission != 0]
```

Recidivism by Level of Supervision



Recidivism by Convicting Offense

	Year of Fiscal Year A..		Year of Fiscal Year A..		Year of Fiscal Year A..		Convicting Offense Subtype
	2013	2015	2013	2015	2013	2015	
Alcohol	2014	2014	2013	2013	2012	2015	Convicting Offense Subtype
Animals	2014	2014	2013	2013	2012	2015	
Arson	2014	2014	2013	2013	2012	2015	
Assault	2014	2014	2013	2013	2012	2015	
Burglary	2014	2014	2013	2013	2012	2015	
Business					2012	2015	
Drug Possession	2014	2014	2013	2013	2012	2015	
Flight/Escape	2014	2014	2013	2013	2012	2015	
Forgery/Fraud	2014	2014	2013	2013	2012	2015	
Gambling			2013	2013	2012	2015	
Health/Medical	2014	2014	2013	2013	2012	2015	
Kidnap	2014	2014	2013	2013	2012	2015	
Murder/Mansla..	2014	2014	2013	2013	2012	2015	
Natural Resour..			2013	2013		2015	
Other Criminal	2014	2014	2013	2013	2012	2015	
Other Drug	2014	2014	2013	2013	2012	2015	
Other Governm..			2013	2013	2012	2015	
Other Property	2014	2014	2013	2013	2012	2015	
Other Public Or..	2014	2014	2013	2013	2012	2015	
Other Violent	2014	2014	2013	2013	2012	2015	
OWI	2014	2014	2013	2013	2012	2015	
Prostitution/Pi..	2014	2014	2013	2013	2012	2015	
Robbery	2014	2014	2013	2013	2012	2015	
Sex	2014	2014	2013	2013	2012	2015	
Stolen Property	2014	2014	2013	2013	2012	2015	
Tax Laws	2014	2014			2012	2015	
Theft	2014	2014	2013	2013	2012	2015	
Traffic	2014	2014	2013	2013	2012	2015	
Trafficking	2014	2014	2013	2013	2012	2015	
Vandalism	2014	2014	2013	2013	2012	2015	
Weapons	2014	2014	2013	2013	2012	2015	

Race - Ethnicity	Measure Names	Recidivism - Prison Admission	Count of Recidivism - Prison Admission
White – Non-Hispanic	Count of Recidivism – Prison Admission	Yes	3,872
White – Hispanic	Count of Recidivism – Prison Admission	Yes	295
Black – Non-Hispanic	Count of Recidivism – Prison Admission	Yes	1,144
Black – Hispanic	Count of Recidivism – Prison Admission	Yes	13
Asian or Pacific Islander – Non-Hispanic	Count of Recidivism – Prison Admission	Yes	39
Asian or Pacific Islander – Hispanic	Count of Recidivism – Prison Admission	Yes	4
American Indian or Alaska Native – Non-Hispanic	Count of Recidivism – Prison Admission	Yes	109
American Indian or Alaska Native – Hispanic	Count of Recidivism – Prison Admission	Yes	7
White – Non-Hispanic	Count of Recidivism – Prison Admission	No	33,506
White – Hispanic	Count of Recidivism – Prison Admission	No	2,512
Unknown – Non-Hispanic	Count of Recidivism – Prison Admission	No	249
Unknown	Count of Recidivism – Prison Admission	No	160
Black – Non-Hispanic	Count of Recidivism – Prison Admission	No	5,135
Black – Hispanic	Count of Recidivism – Prison Admission	No	55
Asian or Pacific Islander – Non-Hispanic	Count of Recidivism – Prison Admission	No	622
Asian or Pacific Islander – Hispanic	Count of Recidivism – Prison Admission	No	5
American Indian or Alaska Native – Non-Hispanic	Count of Recidivism – Prison Admission	No	432
American Indian or Alaska Native – Hispanic	Count of Recidivism – Prison Admission	No	14
Add a little bit of body text			
Summary	Full Data	18 rows	

WHITE: 3872 OUT OF 37,378

BLACK: 1144 OUT OF 6,279

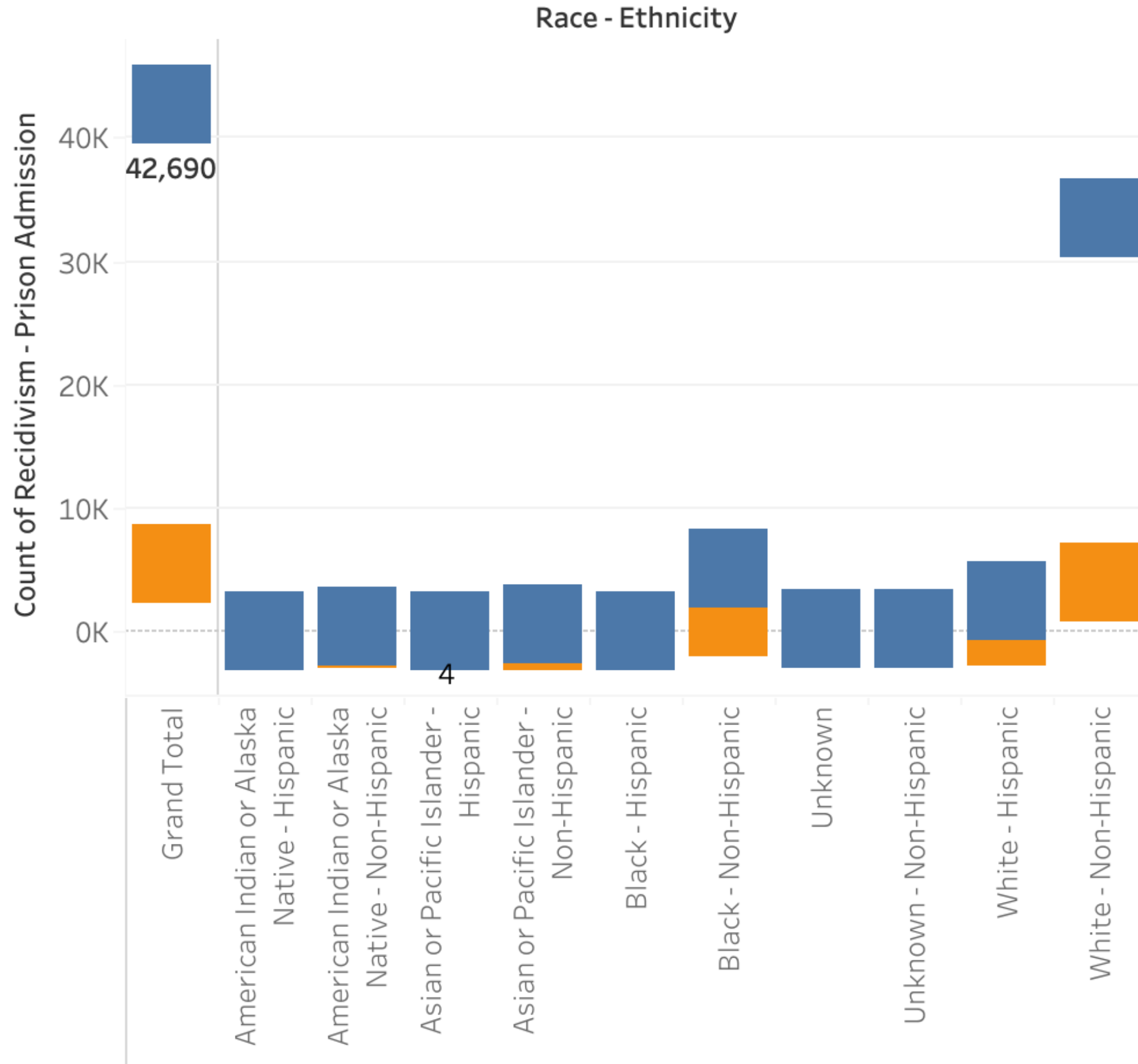
HISPANIC: 319 OUT OF 2,905

WHITE: 10%

BLACK: 18%

HISPANIC: 11%

Recidivism by Race

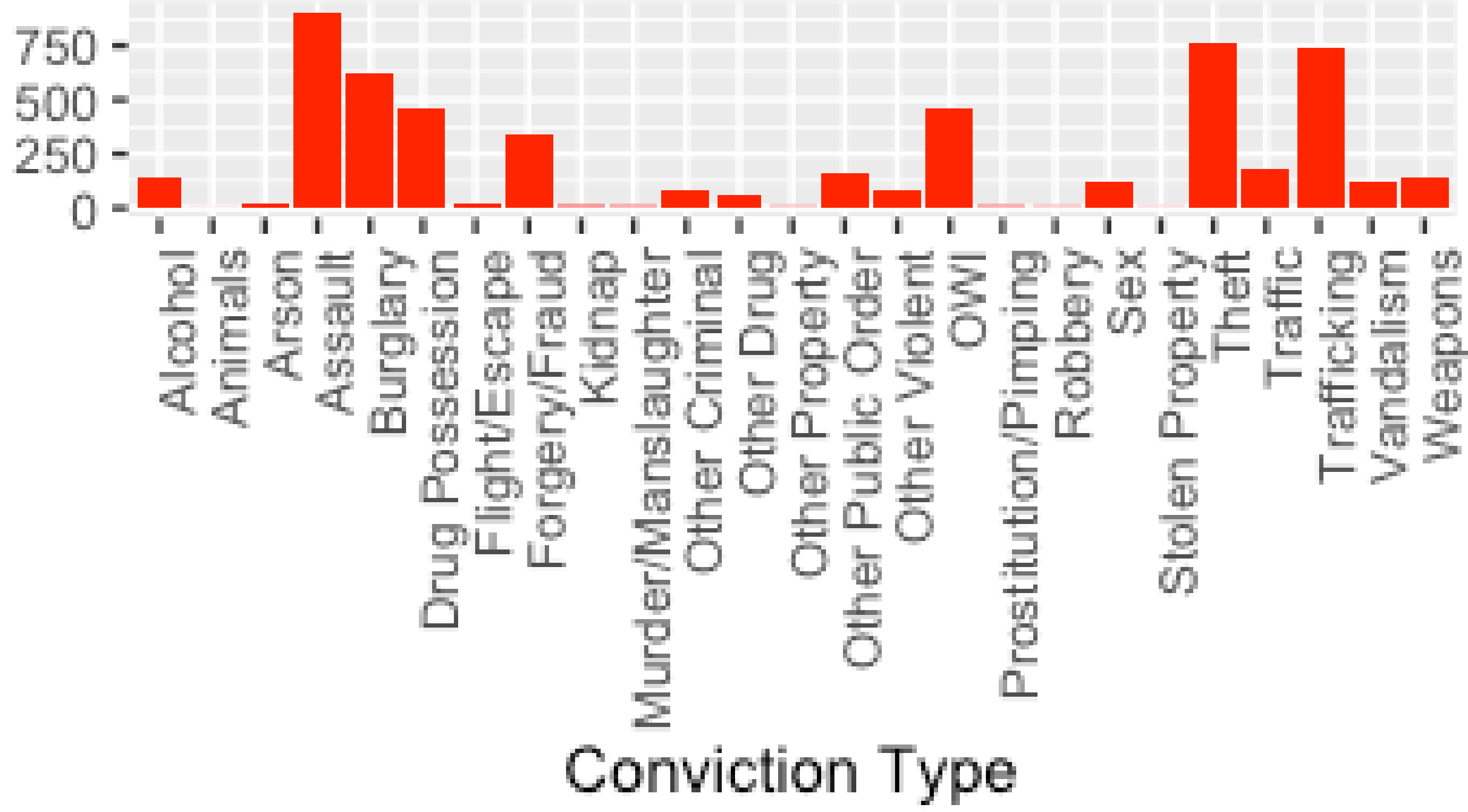


Recidivism - Prison Ad...

No

Yes

Prison Admissions



In a Nut Shell...

Age

Education

Opportunity

Criminal Justice
Reform

How can we make a change?

- ELIMINATING MANDATORY MINIMUM SENTENCES AND CUTTING BACK ON EXCESSIVELY LENGTHY SENTENCES; FOR EXAMPLE, BY IMPOSING A 20-YEAR MAXIMUM ON PRISON TERMS.
- SHIFTING RESOURCES TO COMMUNITY-BASED PREVENTION AND TREATMENT FOR SUBSTANCE ABUSE.
- INVESTING IN INTERVENTIONS TO THAT PROMOTE STRONG YOUTH DEVELOPMENT AND RESPOND TO DELINQUENCY IN AGE-APPROPRIATE AND EVIDENCE-BASED WAYS
- EXAMINING AND ADDRESSING THE POLICIES AND PRACTICES, CONSCIOUS OR NOT, THAT CONTRIBUTE TO RACIAL INEQUITY AT EVERY STAGE OF THE JUSTICE SYSTEM
- REMOVING BARRIERS THAT MAKE IT HARDER FOR INDIVIDUALS WITH CRIMINAL RECORDS TO TURN THEIR LIVES AROUND.

Questions?

THANK YOU