

Stat 479-Final Report

COVID-19 Effects on Prison Incarceration

By Catherine Seymour, Alexander Hertadi, Ruhani Arora

Introduction:

Prison overcrowding is a huge problem in the United States today. Overcrowding can lead to an increase in violence, inability to provide proper medical care, poor working conditions, and degrading practices within the prison. This issue was easy to overlook during the COVID-19 pandemic, which has only increased the severity of the situation.

The Prison Policy Initiative is an organization made to expose and reform the prison system in the United States. This organization has been researching the effects of overcrowding in prisons during the COVID-19 pandemic. Their findings show that nine state prisons were in operation at 100% or more capacity before the pandemic started in January of 2020. This is compared to 10 months after the pandemic started with at least nine state prisons still operating at 100% or more, and 41 state prisons operating at 75% or more. (Widra)

The CDC (Centers for Disease Control) recommends social distancing as a practice for preventing the spread of COVID-19. Social distancing leaves at least 6 feet between yourself and others in public places. With overcrowding, keeping 6 feet apart is impossible in these prisons that are operating at full or over-full capacities. The inability to practice correct social distancing in overcrowded prisons has increased the risk of contracting COVID-19. As of July 2020, people who are incarcerated are infected with COVID-19 at a rate of five times higher than the national's average rate (Equal Justice Initiative).

Thesis:

United States Prisons were not designed to handle more than 100% capacity or a global pandemic. With the help of this data, we will bring forward the issue of overcrowding of prisons and its failure to provide adequate facilities for the safety of our prisoners during the COVID-19 pandemic. Exposing this data to the correct audience will lead to the necessary changes in prison policies and highlight the safety issues that overcrowding has brought.

Methods:

In our project, we are hoping to explore the incarceration and COVID-19 rates among United States prisons. We will do this by answering the following questions:

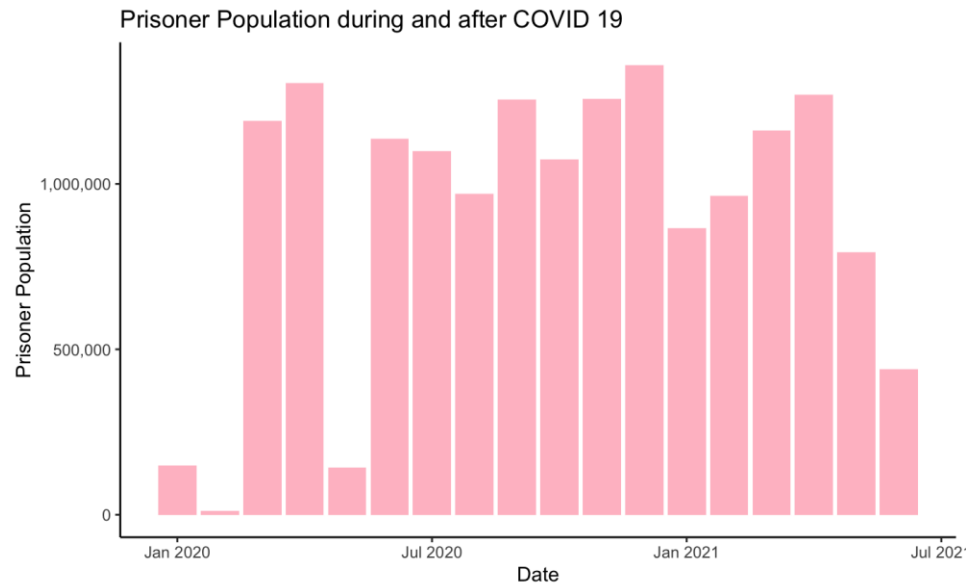
1. What is the incarceration rate before, during, and after the peak of the pandemic?
2. How different are the covid cases in prisons versus national covid cases in country?
3. What is the number of prisoners who were infected and died due to COVID-19?
4. What are the vaccination rates of the incarcerated people?

Dataset:

We will answer these questions through data analysis and visualizations from the Marshall Project COVID Cases in Prisons dataset. This dataset contains information about the COVID-19 infection rates in US (United States) prisons starting in March 2020.

Results and Discussion:

Q1. Figure-1: the prisoner population during and after Covid-19



Prisoner population dropped during the beginning of the pandemic (May 2021), mostly due to the lockdowns and prisons being ill-prepared for pandemic. However, as the pandemic peaked the prison population went back to the pre-pandemic levels.

Q2. Figure-2: Prison covid cases and New Death cases per day

Figure-3: National covid cases and New Death cases per day

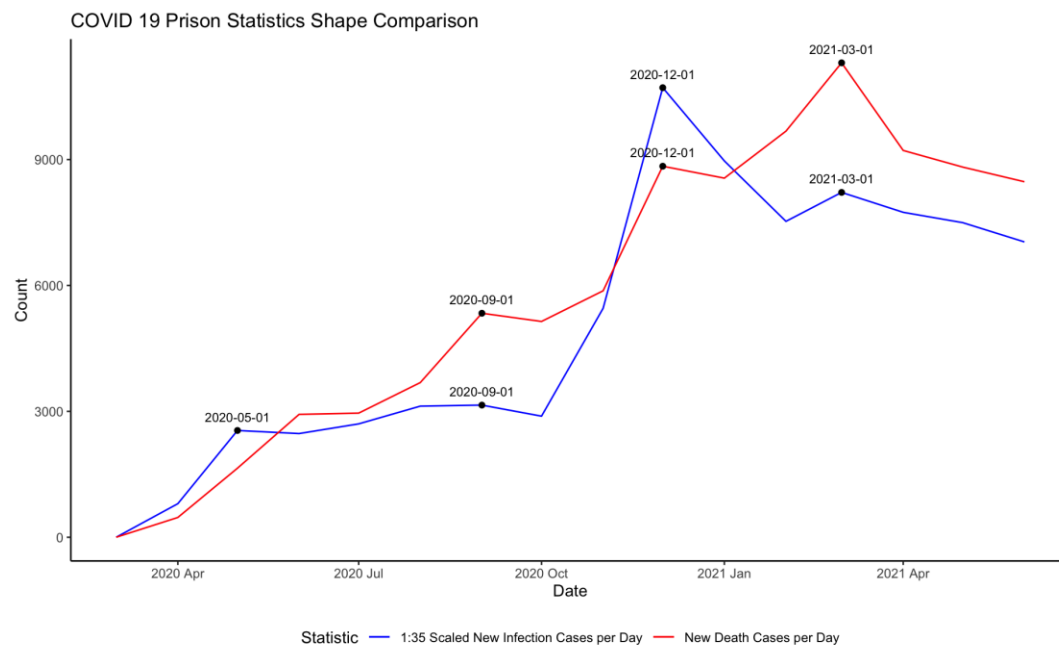
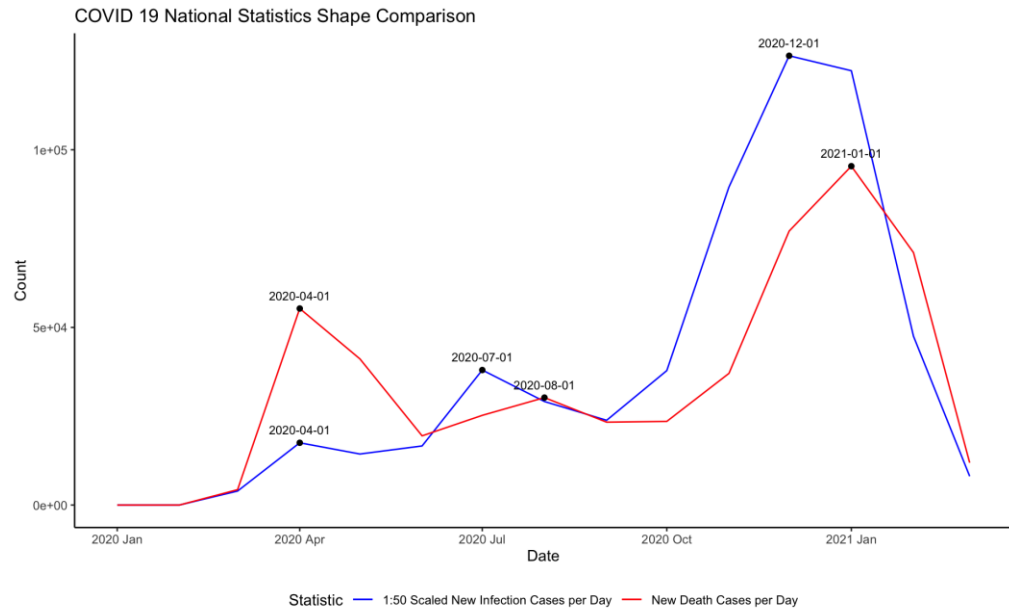
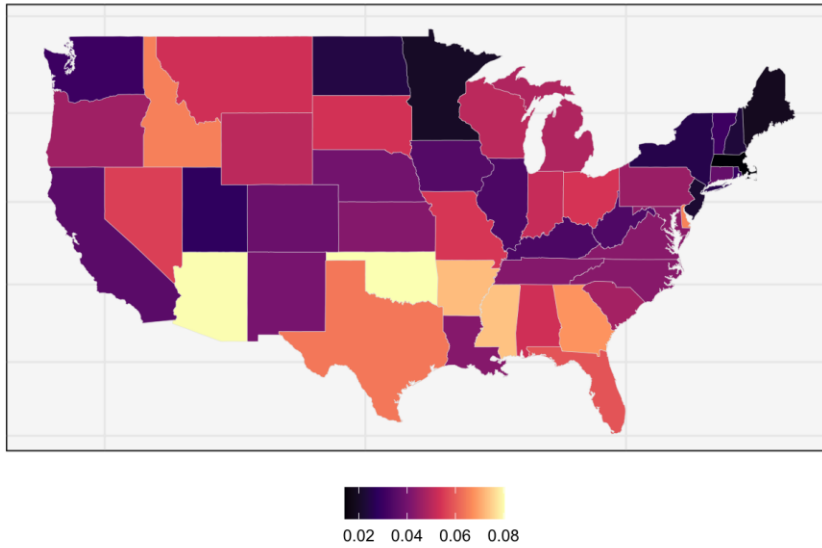


Figure-2 and Figure-3 create a comparison between the prison covid cases vs national covid cases in country. As the covid started peaking at a national level, we can see that the covid cases in prison gradually increased at a high rate contributing significantly to the nationwide covid cases (estimating around 13% of the total covid cases in the US).

Q3. Fig-4: Prison Population per capita and Fig-5: Prison Covid cases per capita

Prisoner population per capita



Prisoner covid cases per capita

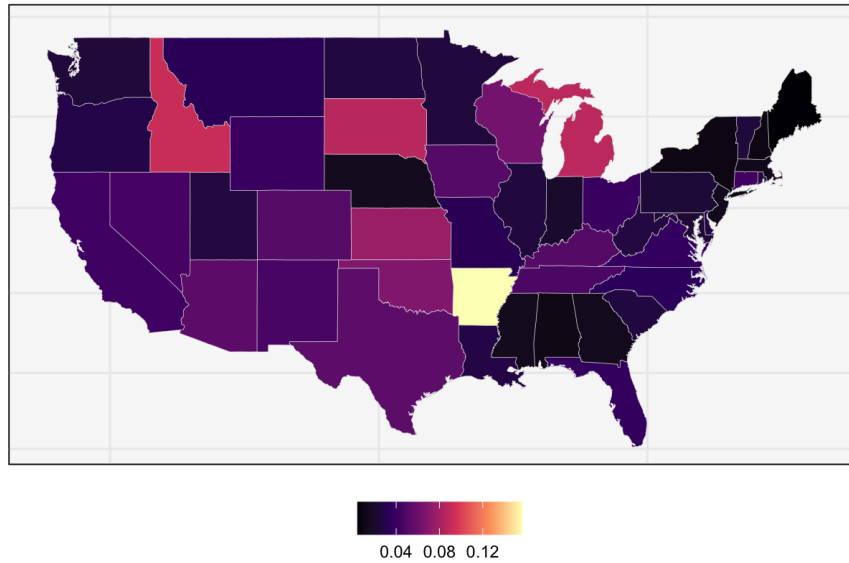


Fig-6: Total prison covid cases per state

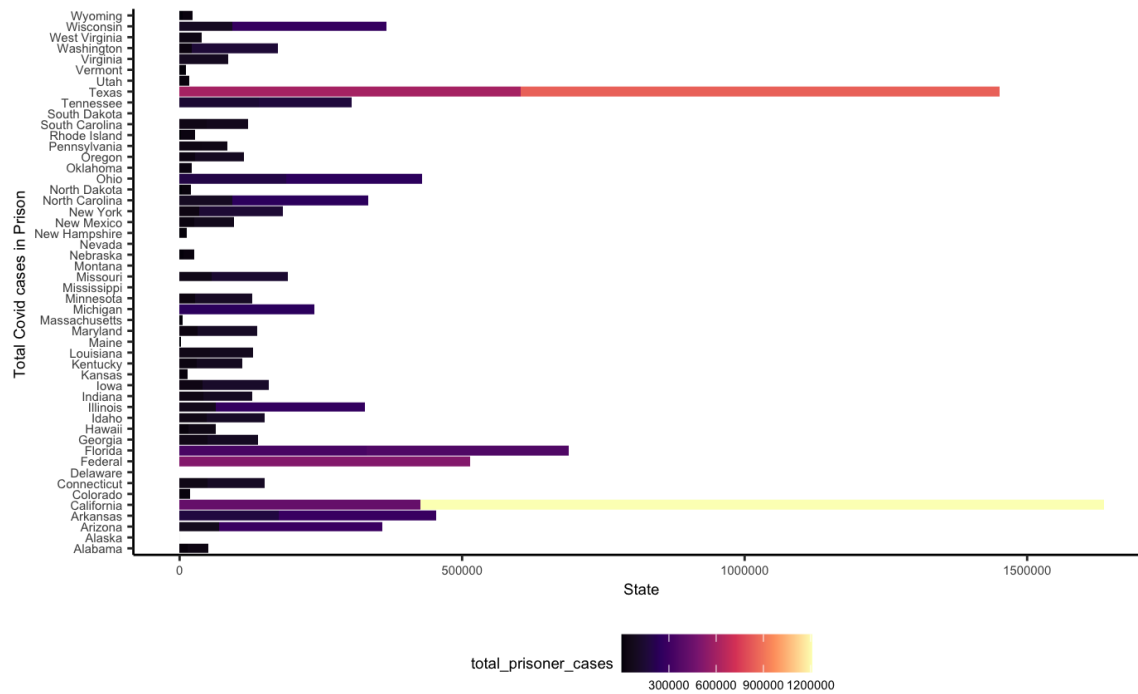


Fig-7: Total Prisoners recovered

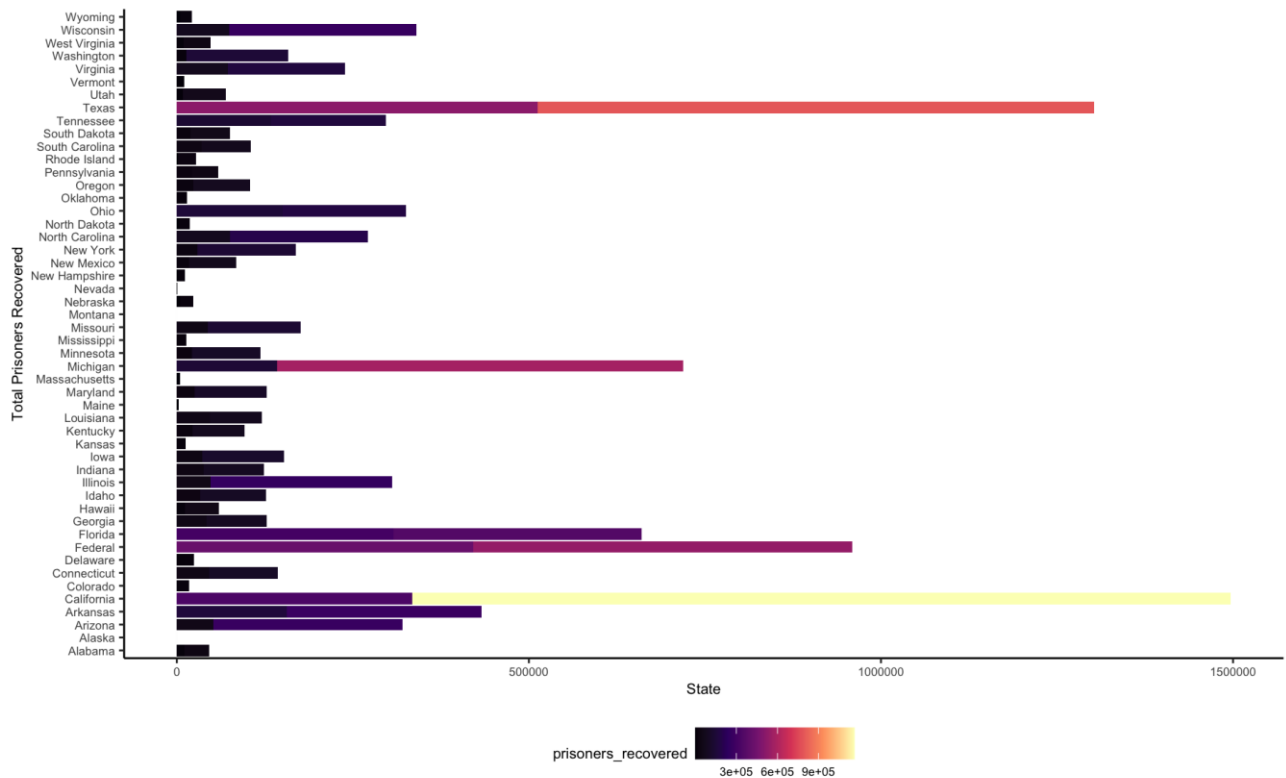
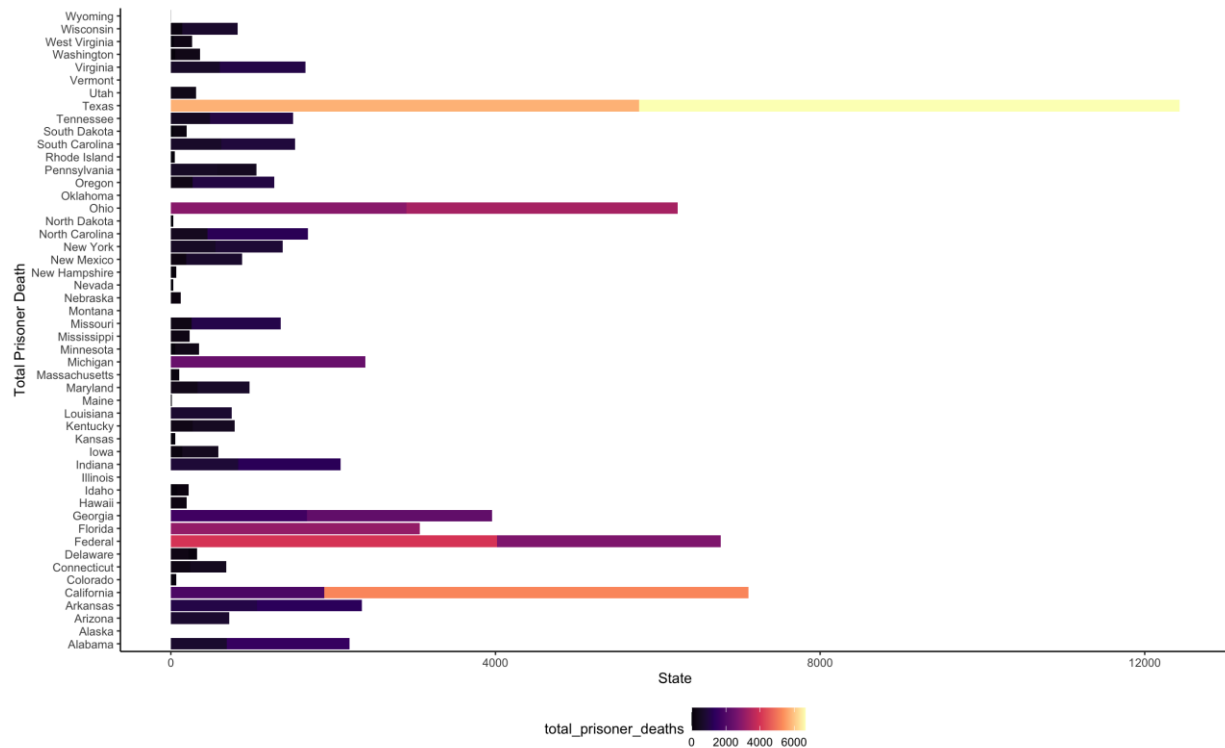


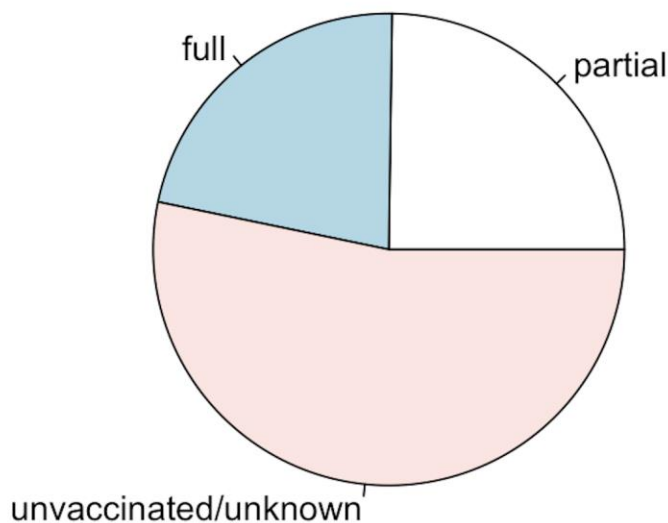
Fig-8: Total Prisoner Deaths due to Covid-19



The figures provide the total covid cases in prisons, prisoners recovered and deaths due to covid-19 from March 2020 till June 2021. The geographical map shows that the prisons with high population had higher covid rates. Further, the bar graph shows the total covid cases, prisoners recovered and the total deaths per states.

Q4. Figure-9: Vaccination Rates of Prisoners as of March 2021

Vaccination status of Prisoners as of Mar 2021



The pie chart shows that not even the half of prison population is vaccinated which continuously puts the prisoners at a risk of contracting Covid-19. Further, most of the state prisons have failed to provide proper data and regular update this data due to which it is hard to find the true number of vaccinated prisoners.

Conclusion:

Based on our analysis we can see that despite the pandemic the incarcerations stayed at the same rate as the pre-pandemic rate. Most of the prisons were still running at a 100 percent or higher capacity and this mass incarceration rate led to overcrowding of prisons. With so many people behind bars, and not having adequate facilities and policies to deal with the pandemic, Covid-19 spread at a higher rate in the prison. From fig-2 and fig-3 we can see that number of prisons covid cases significantly added to the nationwide covid cases (estimating around 13% of the total covid cases in the US). With the increase rate at which covid-19 was spreading in the prison, we can see from fig-8 the death rate peaked to 12,000 in some states as of June 2021. With the lack of proper medical facilities and the state prison's failure to provide accurate data, we can see from the pie chart that not even half of the prison population is fully vaccinated. In conclusion, we strongly believe that the Department of Corrections needs to reform the prison policies for the safety of the prisoners.

References:

"Covid-19's Impact on People in Prison." *Equal Justice Initiative*, Equal Justice Initiative, 16 Apr. 2021, <https://eji.org/news/covid-19s-impact-on-people-in-prison/>.

"Guidance and Tips for Tribal Community Living during COVID-19." *Centers for Disease Control and Prevention*, Centers for Disease Control and Prevention, 25 Oct. 2021,

<https://www.cdc.gov/coronavirus/2019-ncov/community/tribal/social-distancing.html#SocialDistancing>.

Widra, Emily. "Since You Asked: Just How Overcrowded Were Prisons before the Pandemic, and at This Time of Social Distancing, How Overcrowded Are They Now?" *Prison Policy Initiative*, 21 Dec. 2021, <https://www.prisonpolicy.org/blog/2020/12/21/overcrowding/>.