

How Decarceration Affects Crime Rates

Part 1. Background

In the last ten years or so there has been a growing movement for the decarceration of non-violent prisoners in order to reduce overcrowding of the prisons. Part of this movement was due to lawsuits brought about to reduce overcrowding and part was due to a rethink in terms of how we treat non-violent offenders. Perhaps a prison sentence isn't the best long term solution for non-violent offenders despite the political actions taken in the United States in the 1980s and 1990s regarding these offenders.

In response to a federal lawsuit to reduce prison overcrowding, California produced Assembly Bill 109 in April 2011 to send repeat, nonviolent prisoners from state prisons to local jails. Subsequent Assembly and Senate bills provided funding for the local municipalities and counties to house these additional prisoners. The California electorate got in on the act with the passage of Proposition 30 for funding local jail systems, Proposition 47 to reduce certain property and drug charges to misdemeanors, and Proposition 57 to allow parole consideration for nonviolent felons and authorize sentence credits for rehabilitation and good behavior. These propositions passed in November 2012, November 2014, and November 2016, respectively.

Now a few years after some of these laws and propositions have passed, the debate rages as to whether the release of non-violent prisoners has increased crime levels. David Roodman, as explained in Reference 1 by German Lopez for Vox, performed a fairly extensive review of the effects of incarceration and decarceration on crime levels. Ultimately he decided that decarceration doesn't cause significant increases in crime. Other voices disagree. The Los Angeles County Board of Supervisors and many law enforcement officials decry the incidents that they have witnessed as a result of formerly incarcerated people committing violent criminal acts when released (Ref 2). And certainly reading the opinions of citizens on nextdoor.com, for example, gives one the impression that crime is out of control and it is entirely the result of either the homeless population or releasing prisoners early.

Part 2. Methodology

The city of Long Beach has embraced open data and provides a web portal where a plethora of data is available for ordinary citizens to use. In addition, the Long Beach Police Department (LBPD) website provides a monthly tally of crimes reported in the city. The location of these crimes is provided in one of 282 police reporting districts within the city of Long Beach.

As part of the Uniform Crime Reporting (UCR) program, Long Beach separates their crimes into Part I crimes and Part II crimes. Part I crimes consist of serious crimes such as murder, homicide, rape, robbery, aggravated assault, burglary, larceny-theft, motor vehicle theft, and arson. Part II consist of simple assault, forgery, fraud, vandalism, stolen property, prostitution and vice, drug abuse violations, gambling, and driving under the influence.

From the LBPD website monthly crime data was downloaded from 2013 through the present time (June 2018). Since the data provided is in pdf format, it had to be converted to html and then reformatted for convenient use. A Python script was written to read the data, add up the totals for each month, and plotted along with average values for specific time periods.

It should be noted that only crimes that are reported can be analyzed. If a crime is committed and no report is made by a citizen or taken by a police officer, then it is as if it never occurred.

No adjustment or correction of statistics to account for effects such as changes in population, the effects of unemployment level, and/or the changes in number of police officers in the city of Long Beach. The analysis was performed on the raw crime statistics.

Part 3: Results

Figure 1 shows the total number of monthly crimes reported in Long Beach for each month between January 2013 and June 2018. The total number of crimes consists of the sum of Part I crimes and Part II crimes. The red solid line is the monthly crime level with variations from month to month. The dashed gray line is the average of the monthly crime levels for the entire 5.5 year period.

The figure is split into three time periods. The first time period, to the left of the vertical black line in November 2014, is the period after AB 109 was passed but before either Propositions 47 or 57 were enacted. (I could not get crime data before 2013 so the effects of AB 109 passed in April 2011 could not be studied. In addition, AB 109 only transferred responsibility for housing prisoners from state prisons to local agencies – it did not reduce sentences or incarceration periods.) The second time period, starting with the vertical black line in November 2014 and ending with the vertical magenta line in November 2016, is the period after Proposition 47 was enacted. Finally the third time period, to the right of the vertical magenta line, is the period after November 2016 when Proposition 57 was enacted. Each of these time periods is approximately 24 months in length.

There is both a visual jump in crime as new decarceration propositions are enacted and an increase in the average number of monthly crime incidents. Before Proposition 47 passed, the average number of monthly crime incidents in the city of Long Beach was 2083. After Propositions 47 and 57 passed, the average number of monthly crime incidents jumped to 2303 and 2683, respectively. (The average across all time periods was 2335.)

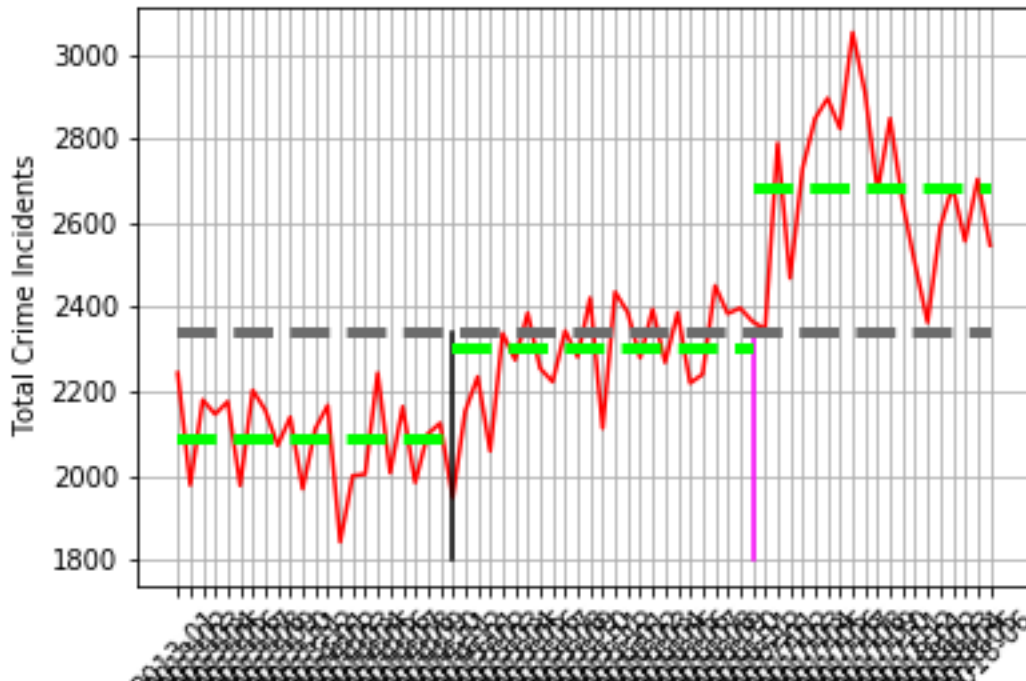


Figure 1. Monthly Reported Crime Incidents, Long Beach City, No Lag

These average monthly calculations were performed assuming that the minute a proposition passed, the effects of that proposition were seen in the crime reports. In reality there will be a time lag in enacting these propositions. For example, a proposition is enacted in November of a given year and it takes time for relevant government agencies to put procedures in place, time for prisoners and lawyers to prepare paperwork to petition the relevant government agencies, and time for a governmental review board to accept a petition and release a prisoner. For the sake of argument, let's assume this lag period is three months. Namely, a proposition is passed in November of a specific year and prisoners are starting to be released in February of the following year. This is probably too quick for the processes to work, but let's run with it.

Reperforming the calculations for average monthly crime levels including a three month lag period yields Figure 2. In this case, the average monthly crime reports are 2090, 2351, and 2710 for the Pre-Proposition 47 period, post-Proposition 47 period, and post-Proposition 57 period, respectively. (The average across all time periods was 2335.)

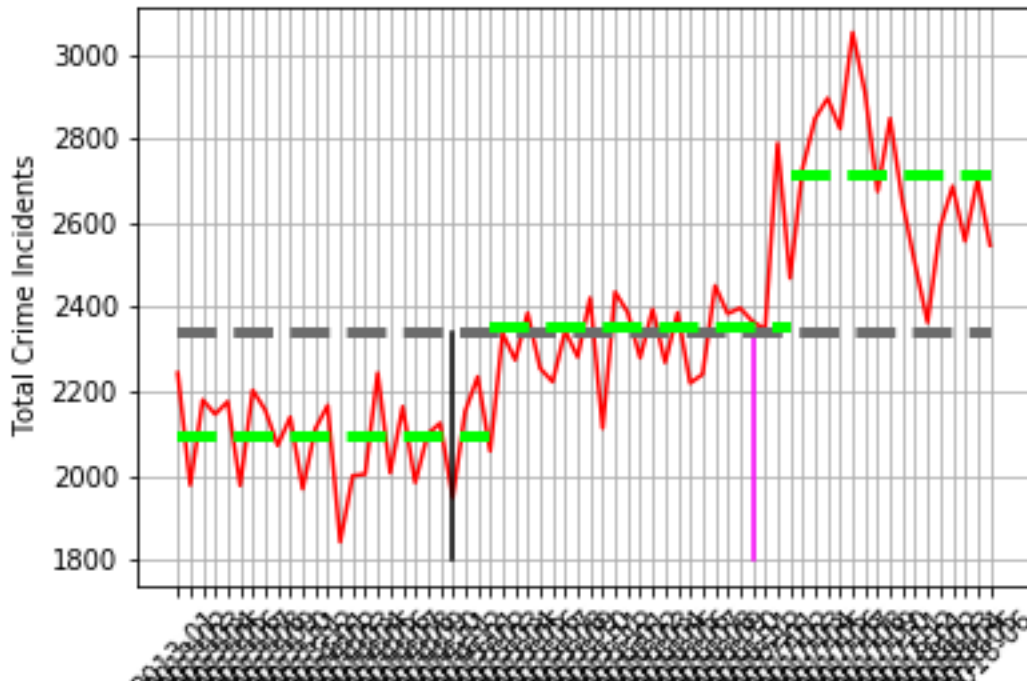


Figure 2. Monthly Reported Crime Incidents, Long Beach City, 3 Month Lag

Is there a consistent increase in both the Part I crimes and Part II crimes as a result of the various propositions? Figures 3 and 4 show the Part I crimes and Part II crimes for the same time periods as discussed above. Recall that part I crimes are the more serious crimes.

The serious crimes shown in Figure 3 showed a large increase after the passage and implementation of Proposition 47 and then a “return to the norm” following the passage of Proposition 57. Average crime levels are 1249, 1434, and 1290, for the pre-Proposition 47 time period, the post-Proposition 47 time period, and the post-Proposition 57 time period.

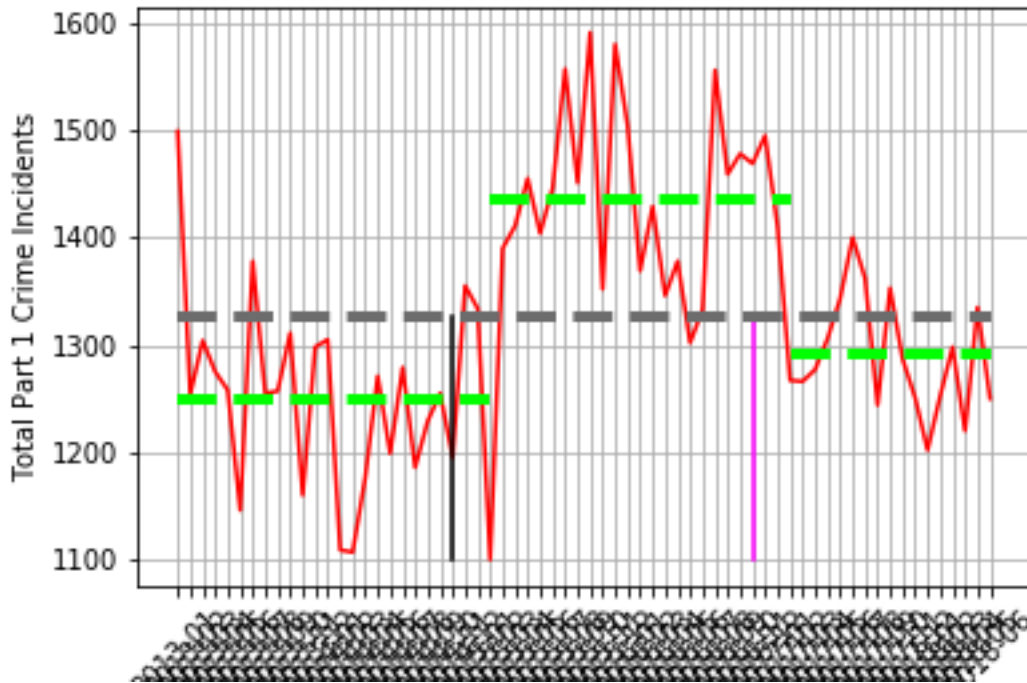


Figure 3. Monthly Reported Part I Crimes, Long Beach City, 3 Month Lag

On the other hand, the less serious crimes labeled as Part II crimes showed a moderate jump after the passage and enactment of Proposition 47 and then a large jump after the passage of Proposition 57. The average values for the three time periods are 841, 917, and 1420.

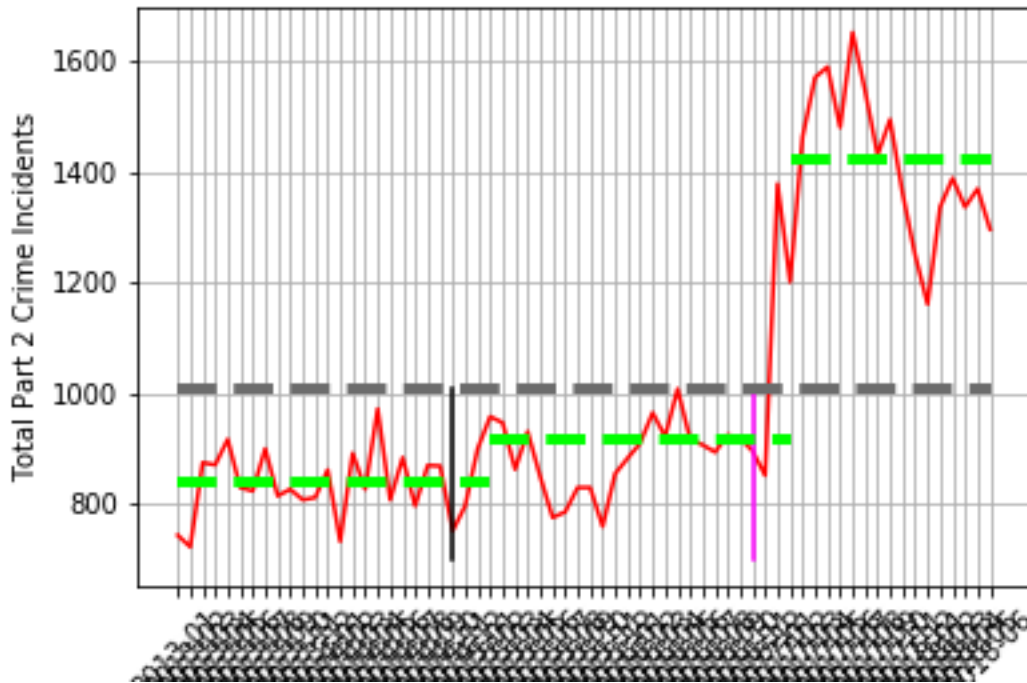


Figure 4. Monthly Reported Part II Crimes, Long Beach City, 3 Month Lag

The crime statistics and average levels presented above are city-wide crime levels. However, these conclusions do not hold uniformly throughout the city. Figure 5 and 6 show the total crime incidents per month for a two different police reporting districts. In Figure 5 the monthly crime rate is not affected by any of the Assembly Bills or voter propositions. On the other hand, Figure 6 shows the same effects as seen on a city-wide basis, namely, increasing crime incidents as each decarceration proposition is implemented.

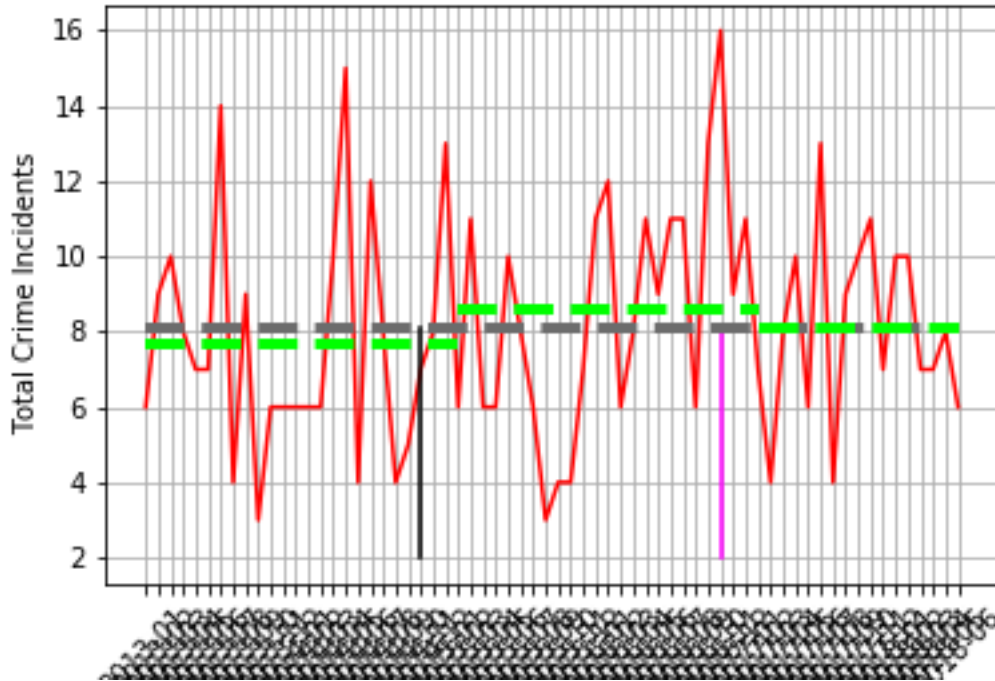


Figure 5. Monthly Reported Crime Incidents, Crime District 334, 3 Month Lag

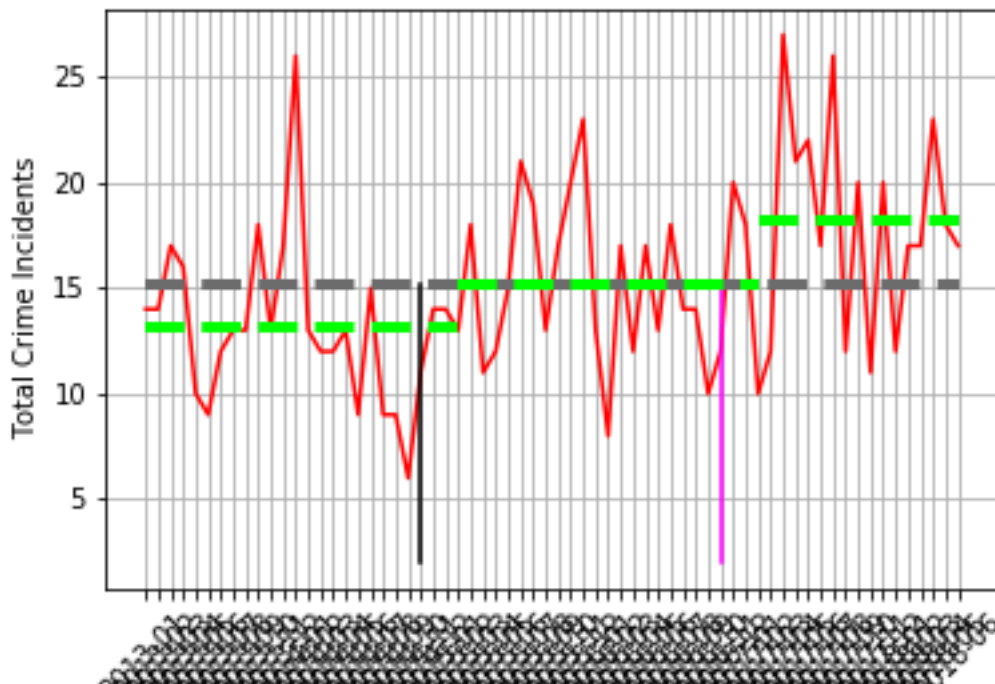


Figure 6. Monthly Reported Crime Incidents, Crime District 341, 3 Month Lag

I'll have to go back and look at the demographics of these two districts, but in general, district 334 is a lower crime rate district overall and was not affected by decarceration (as shown by an average monthly reported crime rate near 8 throughout the study period). Whereas district 341 started with an average of about 13 crimes reported per month and ended near 18 after the enactment of Propositions 47 and 57.

Part 4. Commentary

I came into this effort wanting the effects of the assembly bills and propositions to have no significant effect on crime. It looks like I was wrong.

For the city of Long Beach overall, the decarceration laws and propositions did increase the crime rate by about 30%. This increase was not uniform throughout the city as some police reporting districts showed increases and others showed flat or lowered crime rates.

These results also show how some citizens can claim that crime has jumped significantly while others have seen no effects on crime. Their perceptions are based on their local police reporting district.

References

1. "Lopez, German, "A massive review of the evidence shows letting people out of prison doesn't increase crime", Vox, 25 September 2017, <https://www.vox.com/policy-and-politics/2017/9/25/16340782/study-mass-incarceration>.
2. Henry, Jason, "Will California officer's death be a turning point for AB 109?", The Mercury News, 22 February 2017, <https://www.mercurynews.com/2017/02/22/will-california-officers-death-be-a-turning-point-for-ab-109/>.
3. AB109, passed April 2011, implemented 1 October 2011 funding for localities AB109, AB 118, SB 89, and Proposition 30 (2012).
4. Proposition 47, passed 4 November 2014, implemented 5 November 2014.
5. Proposition 57, passed 8 November 2016, implemented 9 November 2016.

Rambling Stuff

282 police reporting districts

2013-01 is Starting Month

2018-06 is Last Month

AB 109 was the California bill that realigned the state's overcrowded prison system, shifting responsibility over repeat, nonviolent offenders from state prisons to county jails. Researchers of the law say that while Mejia may have been a beneficiary, his actions do not line up with state crime trends.

Violent crime did not increase as a result of AB 109, despite law enforcement and politicians often saying otherwise, they said. Both proponents and opponents agree even

less research exists for Prop. 47, a voter initiative passed in 2014 that reduced certain property and drug charges to misdemeanors.

“As upsetting as this instance was and as problematic as it was, if we were to throw out AB 109 as a result of this incident, we would not be doing empirically based policy,” said Charis Kubrin, a professor of criminology at UC Irvine and one of the few to study the topic in depth. “There is no doubt in my mind that AB 109 had zero impact one way or another on violent crime across the state.”

UC Irvine’s findings showed that while AB 109 contributed to a small rise in property crimes — mostly auto thefts — there was no evidence of increases in assaults, rapes, murders or other violent crimes as a result of the reforms.

California’s crime trends matched up with other similar states that did not implement the changes. (Ref. 6)