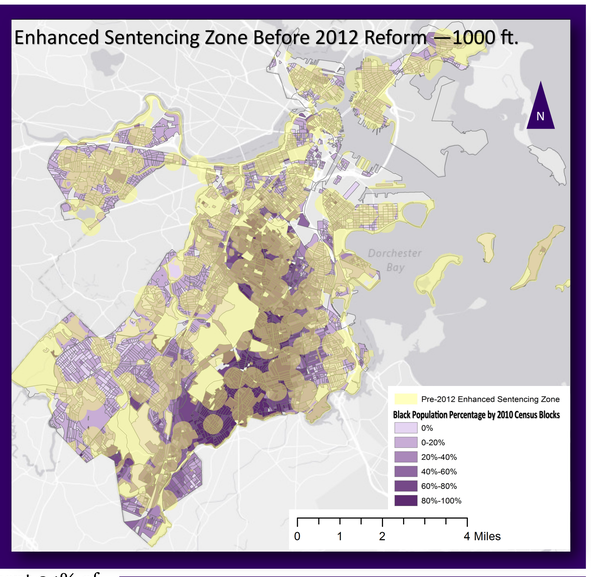
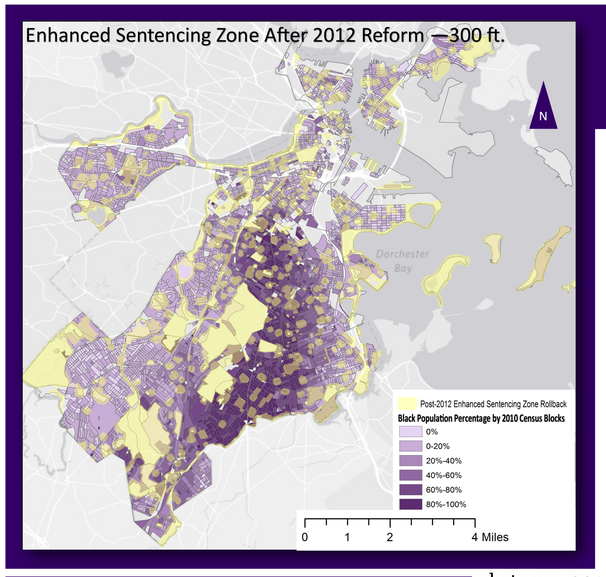
THE 700 FOOT DIFFERENCE

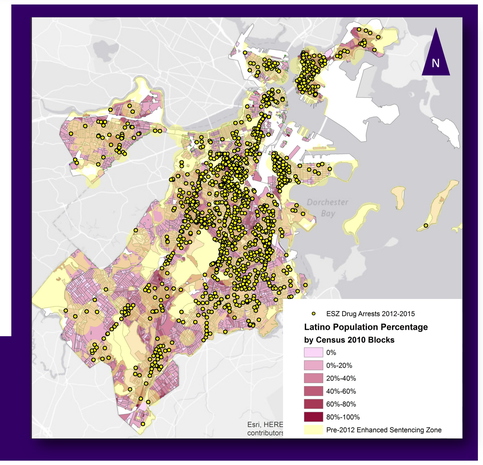
Enhanced Sentencing Zones for Drug Violations Near Schools and Parks in Boston

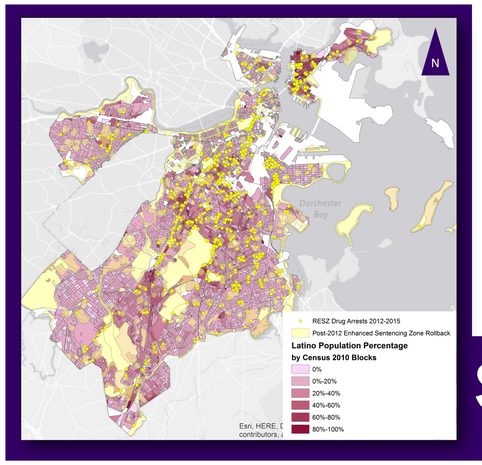
Introduction

The United States prison population continues to grow at an astonishing rate—with only 5 percent of the world population, the United States holds 25 percent of the world's incarcerated population.[3] In Massachusetts there were 10, 813 prisoners as of January 1st, 2015.[2] Inconsistent with national trends the population of Massachusetts prisons has declined since 2012. How much of this decline is thanks to a 2012 decision to decrease areas known as "Enhanced Sentencing Zones" (ESZ)? From 1989-2012 Massachusetts has required mandatory minimum sentences of two years' incarceration for drug offenses that occur within 1,000 feet of a school or Head Start day care, and within 100 feet of a public park or playground.[2] Though the goal is to protect children from drugs, the enhanced sentencing zones don't work. They contribute to mass incarceration and disproportionately target Black and Latino populations in dense urban areas. In Massachusetts, Blacks represent a quarter of the prison population while making up only 5% of the state population. Latinos make up 10% of the state population but represent 24% of state prison populations.[2] Police profiling, racial discrimination and structural legacies of White supremacy have ensured that Whites are underrepresented in prison populations. In 2012 Massachusetts General Law 32j was revised to reduce these zones around schools from 1000 ft to 300 ft. In this project I illustrate how urban Latino and Black populations in Boston are incorporated into the ESZ. This project builds on the Prison Policy Initiative's GIS analysis in a report entitled "The Geography of Punishment," which had a large role in reforming the law. Here I consider how the decrease in area of the enhanced sentencing zones changes the racial makeup of the population living within the zones. I also compare drug crime data from the city of Boston since the law has been changed to determine how many mandatory minimum sentences were avoided by reducing the size of the ESZ.









Conclusions

The reduction of Enhanced Sentencing Zones around schools and day cares from 1000 feet to 300 feet has dramatically decreased the number of people, especially the percentage of Black and Latino residents living within these zones. Here are several tables of the results of my spatial analysis. Due to the error introduced by the methods described they are rough estimates:

Before 2012

	Population living in the pre-2012 ESZ	Percentage of population by Race in ESZ
Black	105,573	70.17%
Latino	80,109	74.23%
White	222,222	66.73%
Total	405,175	65.61%

After 2012 Reduction of ESZ:

	Population living in the post-2012 ESZ	Percentage of population by Race in ESZ
Black	35,583	23.65%
Latino	30,060	27.86%
White	85,723	25.74%
Total	150,835	37.24%

Total Boston Population:

	Population of Boston by Race	Percent of City Population
Black	150,437	24.4%
Latino	107,917	17.5%
White	333,033	53.9%
Total	617,594	100%

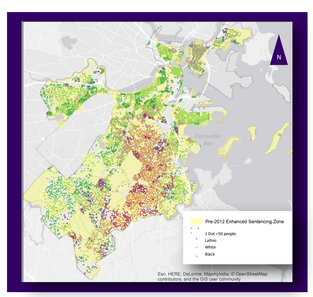
Geography of Boston:

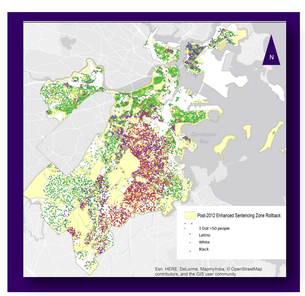
	Square feet	Percentage of City's Area
Pre-2012:	920345483.68	67.50%
Post-2012:	545694595.70	40.02%
Total:	1363611989.70	100%

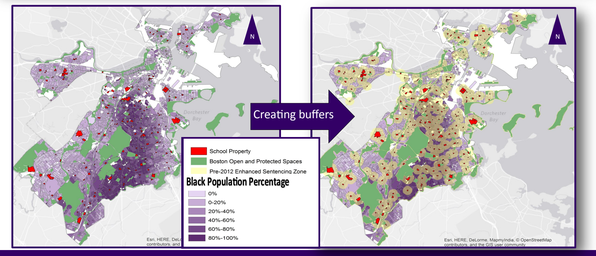
The analysis also showed 1,833 drug arrests within the pre-2012 ESZ between 2012-2015. There were 823 drug arrests within the reduced ESZ between 2012-2015. This means that the policy change potentially eliminated 1010 arrests that held mandatory minimums of 2 years. The average cost of incarcerating offenders in MA is $43,000 per person per year[1], so this policy change could have potentially saved up to $86,860,000. While this analysis shows that the post-2012 ESZ entails a more equal punitive geographic distribution (1 in 4 residents of Boston live in the new zones regardless of their race), the Boston Latino population lives disproportionately within both ESZ, while Whites are underrepresented in the new ESZ. Because racial disparities in Boston are high and the city is extremely geographically segregated (see left), more work must be done to understand how these zones contribute to mass incarceration of People of Color in Boston. However, the 2012 reduction in the Enhanced Sentencing Zone is one important step. More work could be done to map the effects of a change from 300 feet around schools and daycares, to 100 feet, as suggested by the Prison Policy Initiative.

Methods

To do my analysis I first worked to create layers for the ESZ or Enhances Sentencing Zones before and after 2012. I used Mass GIS data for Open and Protected Spaces, which includes parks in the City of Boston. Because I did not have parcel data for Boston schools, I joined Mass GIS vector point data for Boston schools along with Head Start vector point data from a geocoded layer I built, to parcel data from the city of Boston. Then I created a new polygon layer out of the just the school/Head Start parcels. Error was introduced with the assumption that schools only occupied the parcels containing the Mass GIS school vector points. Then I created buffers of 100 ft. for the parks and 1000 and 300 ft. for the school parcels. Merging and dissolving these resulting buffers allowed for the creation of two single polygon shapefiles for "pre-2012 ESZ" and "post-2012 ESZ." I then went about calculating how many people, by race could be approximated to live within the two zones. Using the Calculate Geometry function I calculated the new square footage of the 2010 census blocks within the two ESZ, and the Field Calculator to calculate the demographic makeup of the two ESZ. Data for Black, Latino and White inhabitants as well as the total population were roughly estimated based on the assumption that population is evenly distributed across the spatial unit of the census block. Other racial identities were omitted for the purposes of this study. I used dot density symbology to represent the different racial populations in the city and their overlap with the ESZ for before and after 2012 (see left). I geocoded crime data from the City of Boston, excluding all data except drug arrests, and plotted those on the map, against the two ESZ. Then I was able to visualize and count how many drug arrests have intersected the two ESZ before and after the law was reformed.







Sources

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2. Kajstura, Aleks , Wagner, Peter , and Goldberg, William. "The Geography of Punishment: How Huge Sentencing Enhancement Zones Harm Communities, Fail to Protect Children," Prison Policy Initiative, July 2008. Online.
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4. City of Boston: Boston Parcels (2014); Crime data (2012-2015) https://data.cityofboston.gov/
5. Mass GIS: Boston Schools (2015), Open and Protected Spaces (2015), US Census data (2010)
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Info:

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