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Graffiti, defined by the New York City police, is “the etching, painting, covering or otherwise placing a mark upon public or private property, with the intent to damage such property.” For a city like NYC, graffiti remains a significant problem, and is legally recognized as a form of vandalism.

As graffiti is often perpetrated by youth, I wondered if perhaps having youth engaged in activities after school would decrease the amount of graffiti; giving youth a place to spend their time, providing them with safety and support, and giving them better outlets with their free time – I believe all of these may factor in to decreasing graffiti.

This data project attempted to answer the question: **Can the amount, and number of available after school activities contribute to a lower number of graffiti complaints in that region?**

To answer this question I used: “Department of Youth and Community Development after school activities” – a dataset available from NYC Open Data. The set contains all the city government’s after-school programs made available, including programs for Family Literacy, Runaway Youth, and Youth Educational Support. From here, I extracted the number of programs available per zipcode region.

I also used “311 Service Requests from 2010 to Present”, also available from NYC Open Data; from here I extracted all 311 complaints made regarding graffiti, and was able to see the number of graffiti complaints per zipcode region.

In analyzing my data, I looked at the number of after school activities in a zipcode region, compared to the normalized number of graffiti calls: using estimated populations from the US 2010 Census, I divided the number of graffiti calls by the estimated population of the region, to give normalized results. (This is stored in ‘norm\_count\_comparison.pdf’)

I also wanted to look, separately, at the number of after school activities normalized – seeing how the amount of after school activities per person per region, compared to number of graffiti calls per person, per region. So I “divided both” data counts, by dividing neither of them, by the estimated population. (This is stored in ‘total\_count\_comparison.pdf’).

My results were, inconclusive. I did see a positive correlation in the total count comparison (i.e. both the number of after school activities and the number of graffiti calls are normalized), but not strong enough to be conclusive. This correlation may also indicate that normalizing both data sets may not have been an accurate means of computing. I found a slightly weaker positive correlation in the normalized comparisons (where the graffiti calls count was normalized but not the number of after school activities). Thus neither of my data findings showed a definite decrease in graffiti complaints based on after school activities available.

I believe this is an important area of further research; graffiti is problematic in and of itself – damaging a community and costing time and resources to fix. However, it also indicates lapses in care for those committing the crimes. For future study, I’d like to attempt to find similar datasets for larger geographical areas. NYC is a great region to study due to its large population and high levels of both graffiti, and government provided after school resources – however, studying a larger region may lead to different results.

Another angle I’d also like to approach this question with – examining the amount of arts funding in NYC schools, and seeing if this affects the amount of graffiti for a region. “The Annual Arts in Schools Reports” is a good place to start, as its NYC’s survey of over 90% of public schools in the region about the school’s quality and quantity of art programming. However, while I’ve spent a lot of time with this data, I’ve found it immensely difficult to work with, and this data would need more “cleaning up” to be used in future projects.