**A Geographic Analysis of New York State Counties**

**and its population using Major Sport Venues**

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**Introduction:**

In term project we will Study New York State Counties and its Population. We will also study about Major Sport Venues in New York State and there are approximately 43 sporting Venues. This Study will investigate New York State Counties based on Number of Sporting Venues as well as population. So base layer is New York State map, context layers are NYS rails and NYS Roads. There is one demographic layer (Population) and one point layer (Major Sport Venues). On top of that I have created 1 count layer by joining the NYS Demographic layer to NYS Sporting Venues.

**Research Question:**

To understand different counites and theirs sporting venues and the populations of counites. Some detailed analysis with two research Questions:

1. Which counties have population > 250000 and the count of sporting venues < 6
2. Which counties have population < 80000 and the count of sporting venues >= 0

**Methodology:**

For this term project ESRI ArcGIS Arcmap is used as Development Environment.

To Get Precise knowledge for analysis I created count layer of major sport venues according to counties. On top of that I have created 1 count layer by joining the NYS Demographic layer to NYS Sporting Venues.

Figure 1 is a color-coded map showing the population according counites and showing Major Sport Venues

**A close up of a map

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Figure 2 is a color-coded map showing the count of Major Sport Venues in different NYS Counties

**A close up of a map

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Figure 3 is color-coded of Research Question 1

Counties have population > 250000 and the count of sporting venues < 6

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Figure 4 is color-coded of Research Question 1

Counties have population > 250000 and the count of sporting venues < 6 (Zoomed)

This Image also contains two context layers which NYS Rails and NYS Roads.

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Figure 5 is color-coded of Research Question 2

Counties have population < 80000 and the count of sporting venues >= 0

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Figure 6 is color-coded of Research Question 2

Counties have population < 80000 and the count of sporting venues >= 0 (Zoomed)

This Image also contains two context layers which NYS Rails and NYS Roads.

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Figure 7 is a color-coded of RQ1 and RQ2 using Data Frame (Zoom-Out)

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**Conclusion:**

As Per Analysis we can that Number of Major Sport Venues are more in New York City and Long Island and Population are more in south- east New York City and Long Island. With the help Context layer we can identify that connectivity of Rails which is public transportation and used more in any major events and New York City has one of the best and Oldest transportation Metro Subway. So Transportation makes very easy for public to commute.

**References:**

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6. Major Sport Venues URL: <https://hifld-geoplatform.opendata.arcgis.com/>