

Establish a distribution center for book publisher in New York State

By Haamed Momeni

GitHub: <https://github.com/haamedmomeni>



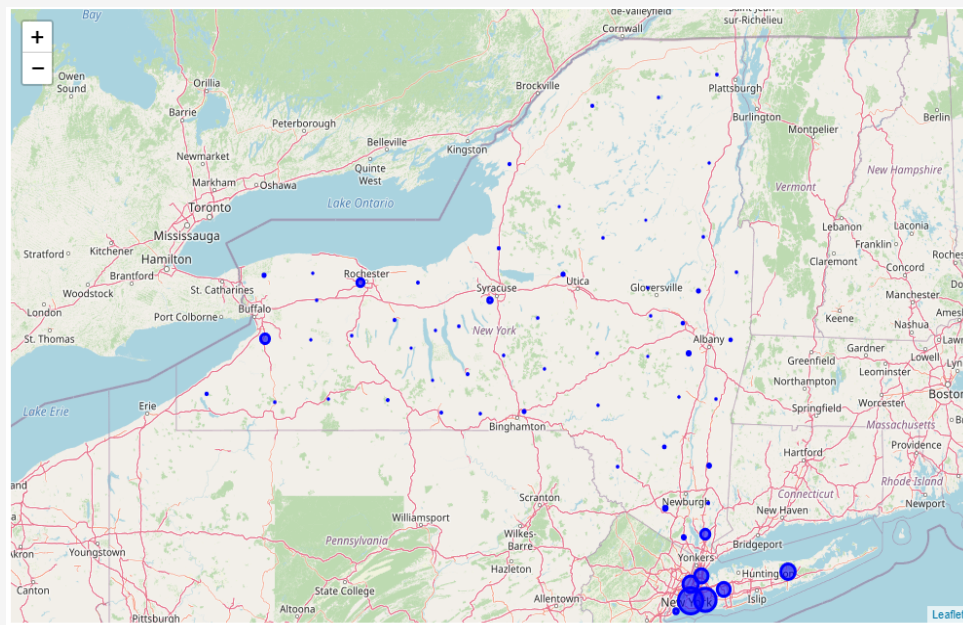
Introduction

- **NEW York State**
- **20 million people**
- **Distributed Population**
- **62 Counties**
- **One Mega City**

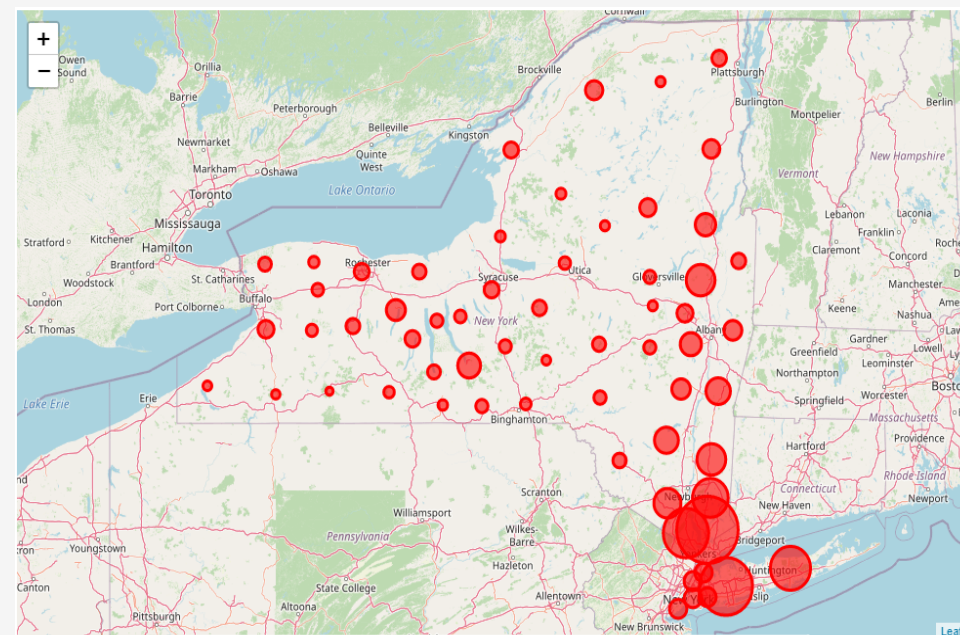


Dataset

	County	Population	Density (Pop./mi2)	Area (mi2)	Latitude	Longitude	LandPrice
0	Albany	304204	570.74	533.00	42.598690	-73.984400	217500.0
1	Allegany	48946	47.34	1033.92	42.244606	-78.041928	75500.0
2	Bronx	1385108	24118.20	57.43	40.850485	-73.840404	NaN
3	Broome	200600	280.56	715.00	42.145562	-75.840411	110000.0
4	Cattaraugus	80317	61.31	1310.01	42.223482	-78.647710	87250.0



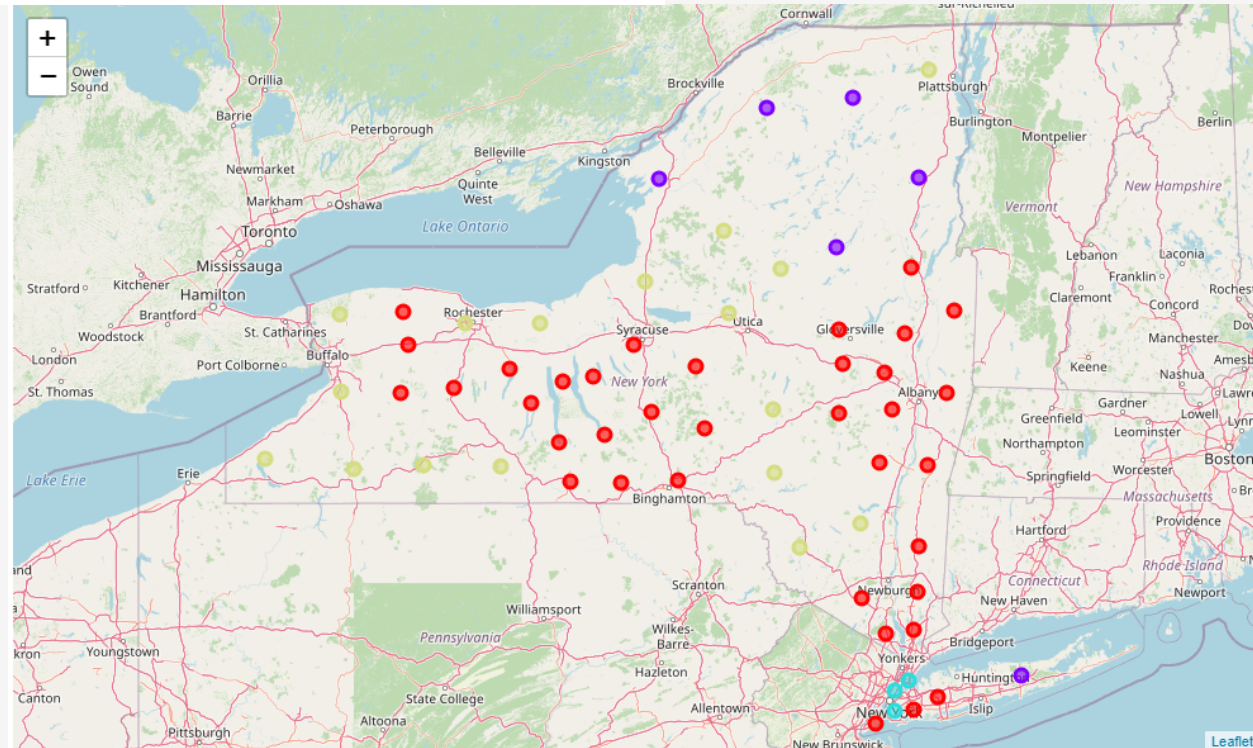
(a) distribution of population in NYS



(b) Land price in NYS

Clustering

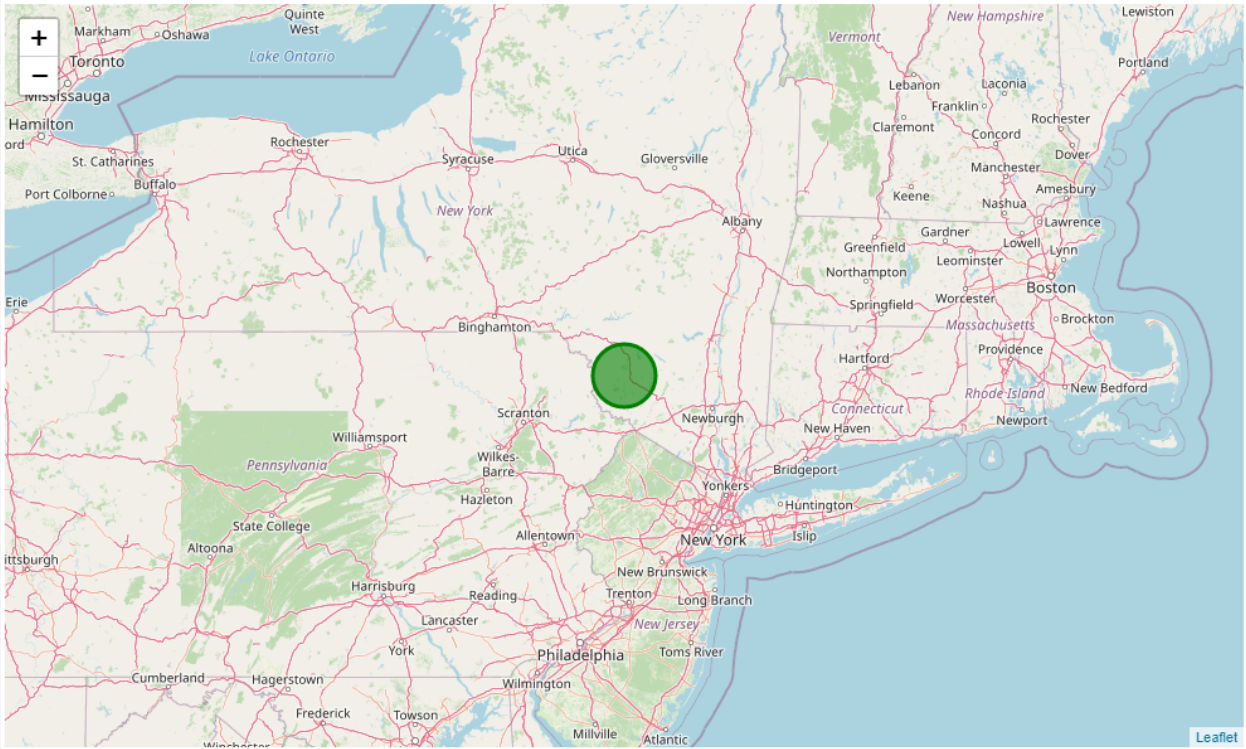
	County	Population	Density (Pop./mi2)	Area (mi2)	Latitude	Longitude	Labels	WeightedDistance
0	Albany	304204	570.74	533.00	42.598690	-73.984400	0	4.047503e+07
1	Allegany	48946	47.34	1033.92	42.244606	-78.041928	3	7.303513e+07
2	Bronx	1385108	24118.20	57.43	40.850485	-73.840404	2	2.675696e+07
3	Broome	200600	280.56	715.00	42.145562	-75.840411	0	4.474017e+07
4	Cattaraugus	80317	61.31	1310.01	42.223482	-78.647710	3	8.265323e+07



Results

	County	Population	Density (Pop./mi2)	Area (mi2)	Latitude	Longitude	Labels	WeightedDistance	Cost
52	Sullivan	77547	77.78	997.00	41.715631	-74.780432	3	3.400705e+07	3.813437e+09
30	New York	1585873	46961.00	33.77	40.781018	-73.959300	2	2.671660e+07	3.879229e+09
2	Bronx	1385108	24118.20	57.43	40.850485	-73.840404	2	2.675696e+07	3.881732e+09
28	Montgomery	50219	122.49	409.98	42.894127	-74.409975	0	4.362945e+07	3.883026e+09
8	Chenango	50477	56.16	898.81	42.478457	-75.613028	0	4.469691e+07	3.887209e+09

- Sullivan County



Discussion and Conclusion

- Two factors
- Extra parameters
- Next researchs

