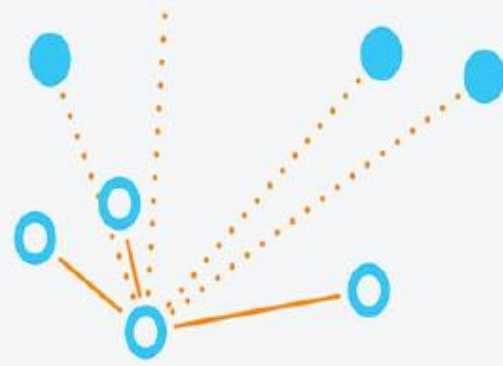


# Statistical Explorations

ENV 859 – Geospatial Data Analytics

John Fay, Fall 2023



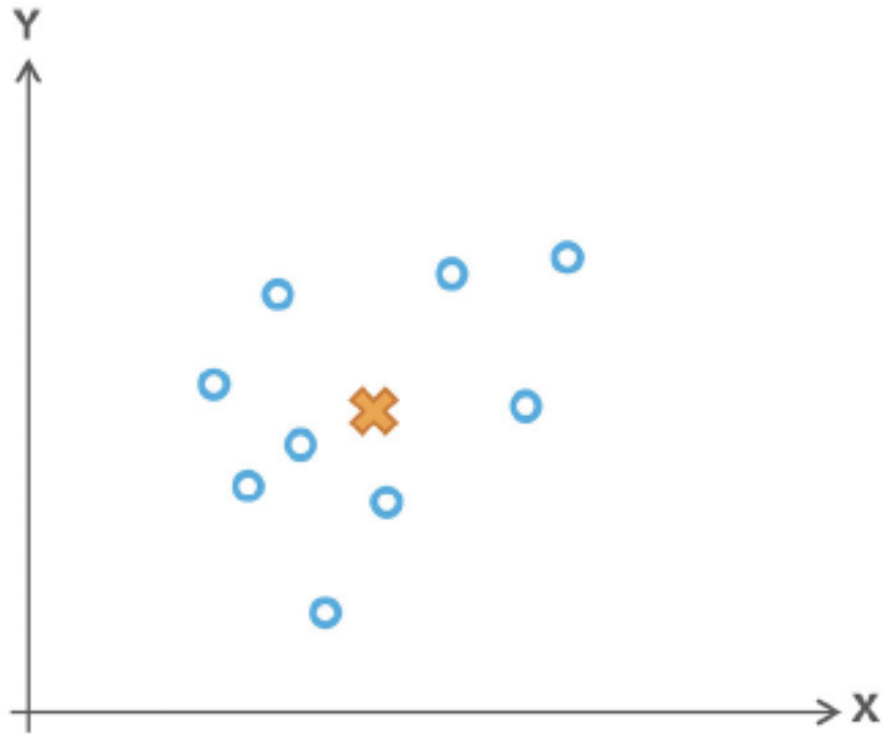
# SPATIAL STATISTICS ILLUSTRATED

WRITTEN BY  
Lauren Bennett, PhD  
Flora Vale

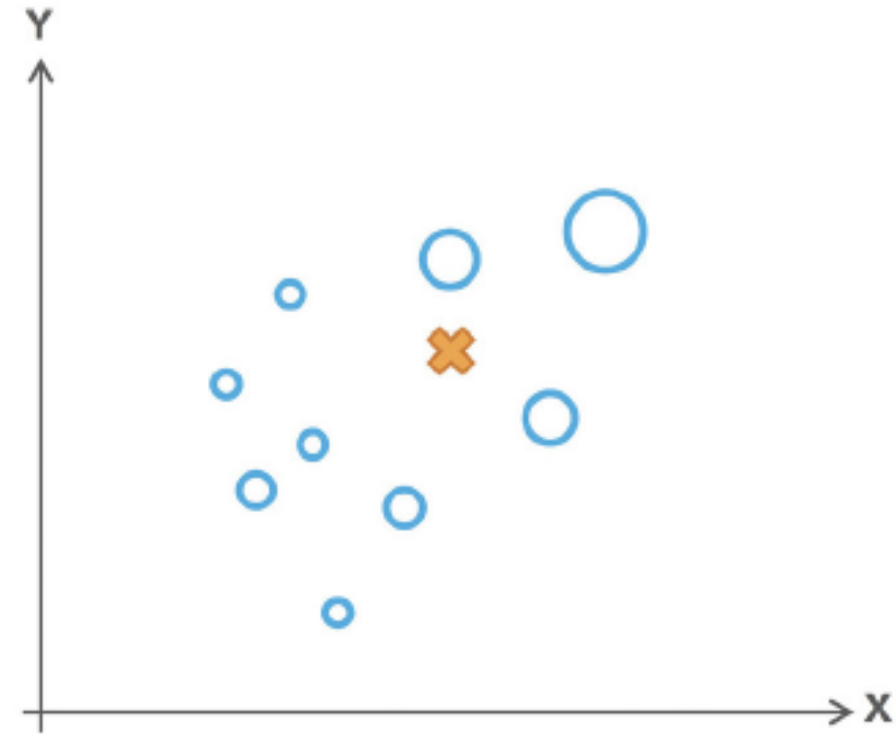
ILLUSTRATED BY  
Flora Vale

# Weighted Mean Center

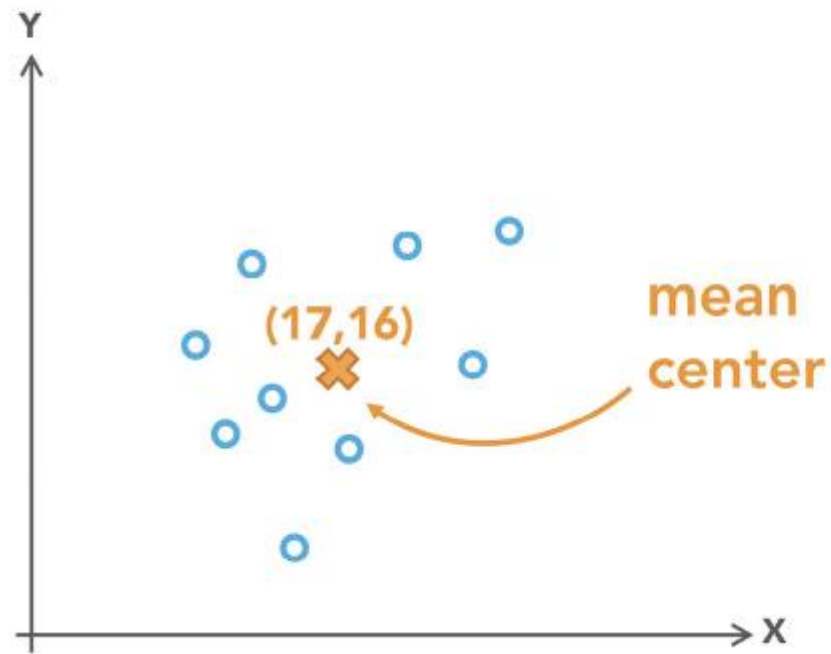
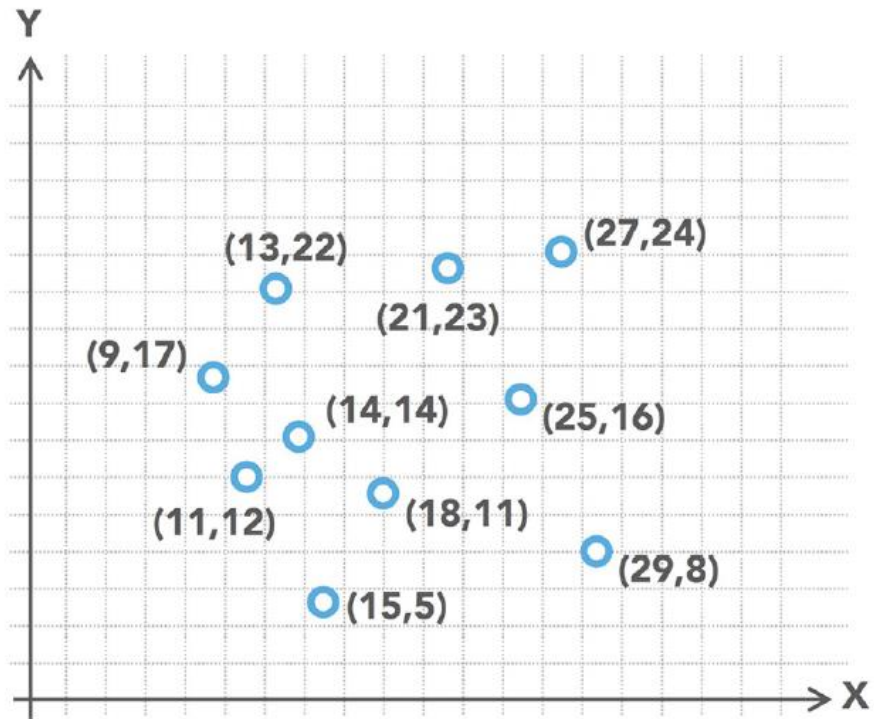
mean center



weighted mean center



# Mean Center

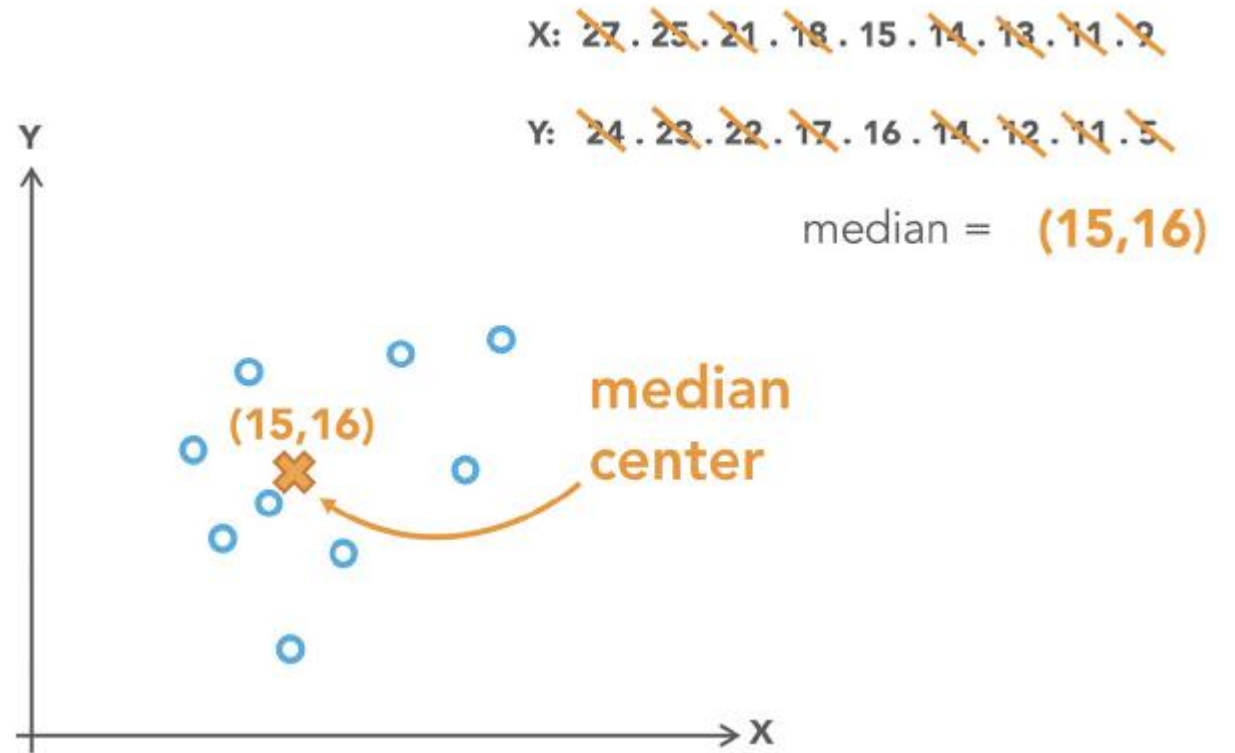
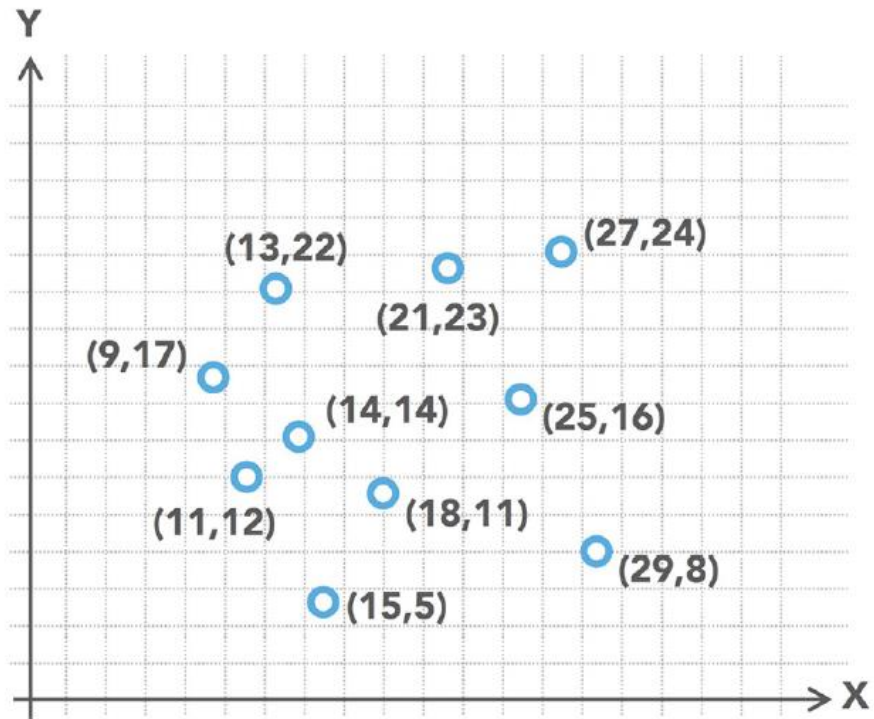


(14,14)  
(11,12)  
(27,24)  
(25,16)  
(21,23)  
(18,11)  
(13,22)  
(15,5)  
(9,17)

---

mean =  
**(17,16)**

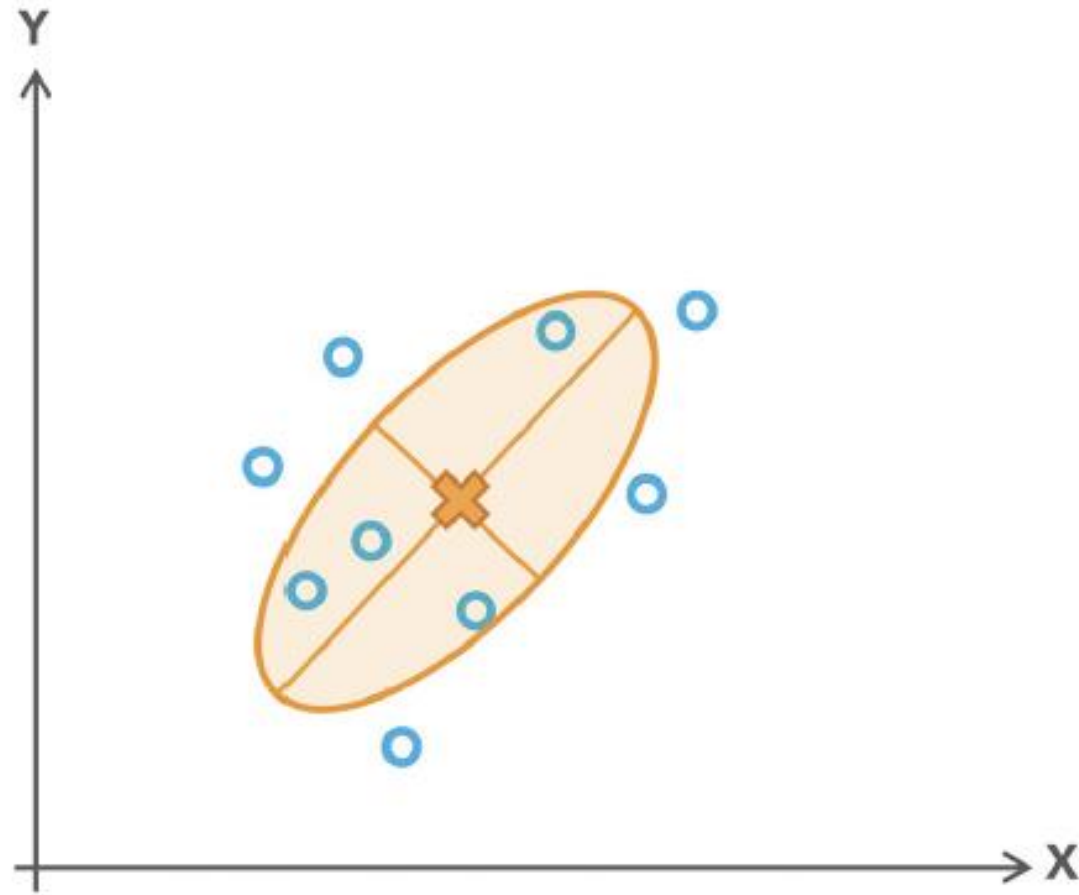
# Median Center



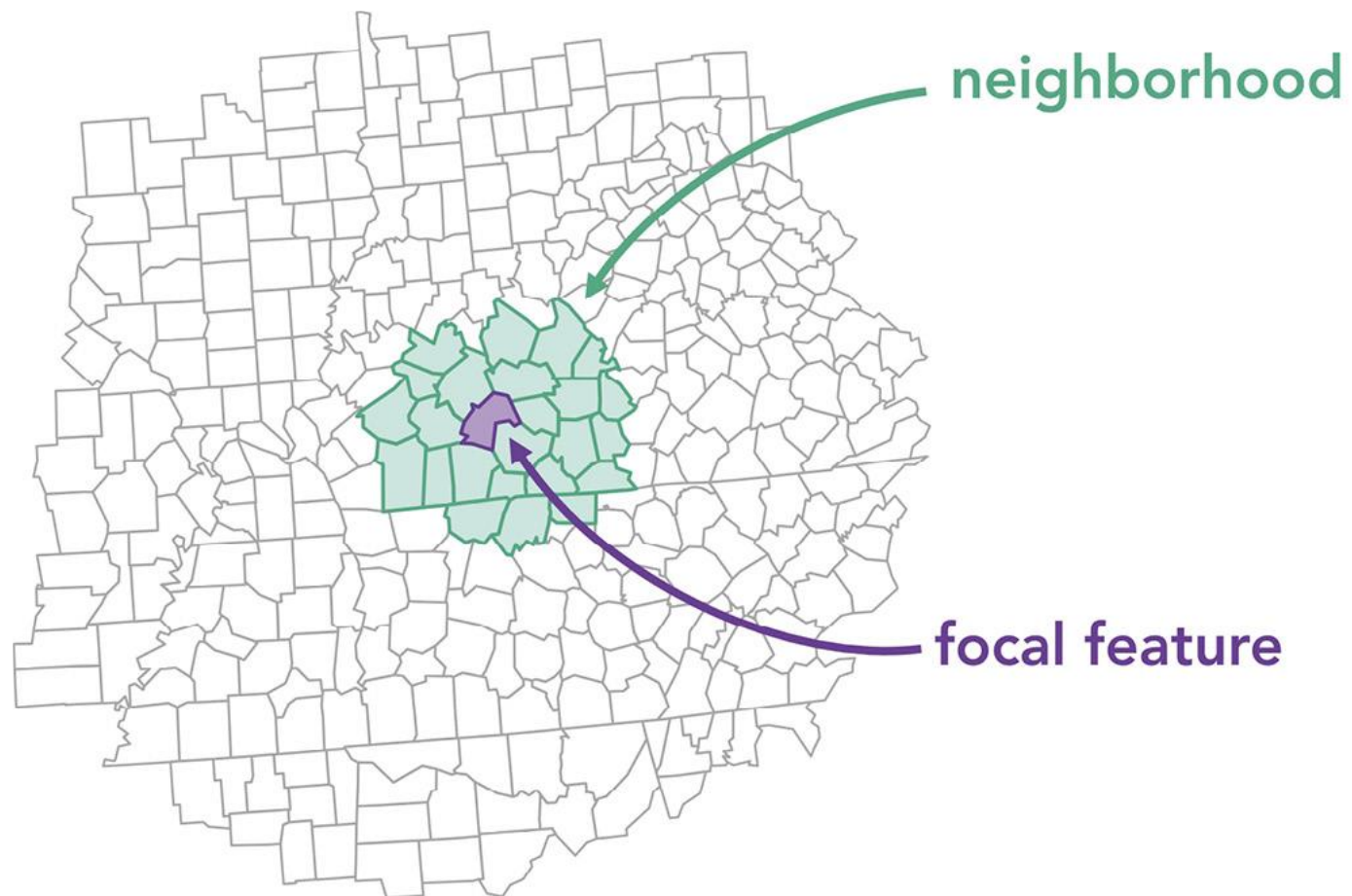
# Mean vs Median...



# Standard Deviation Ellipse



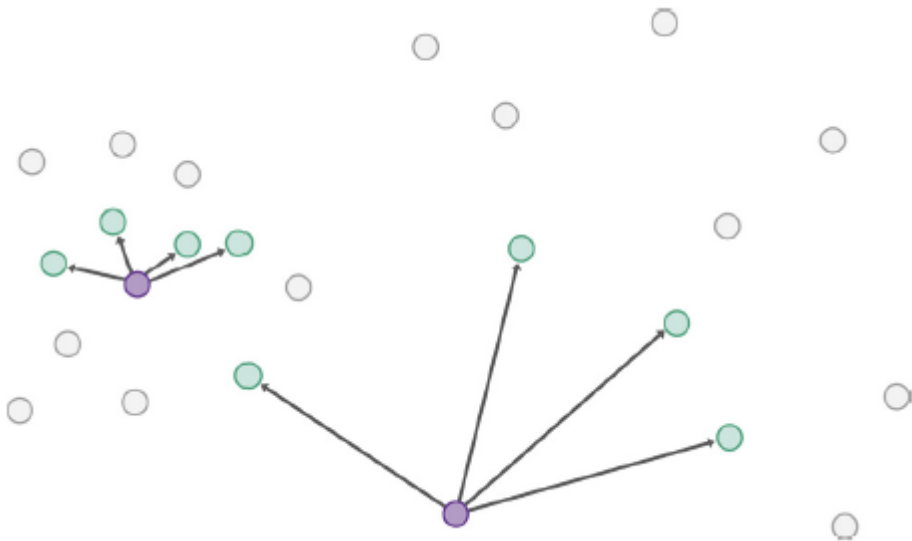
# Neighborhoods



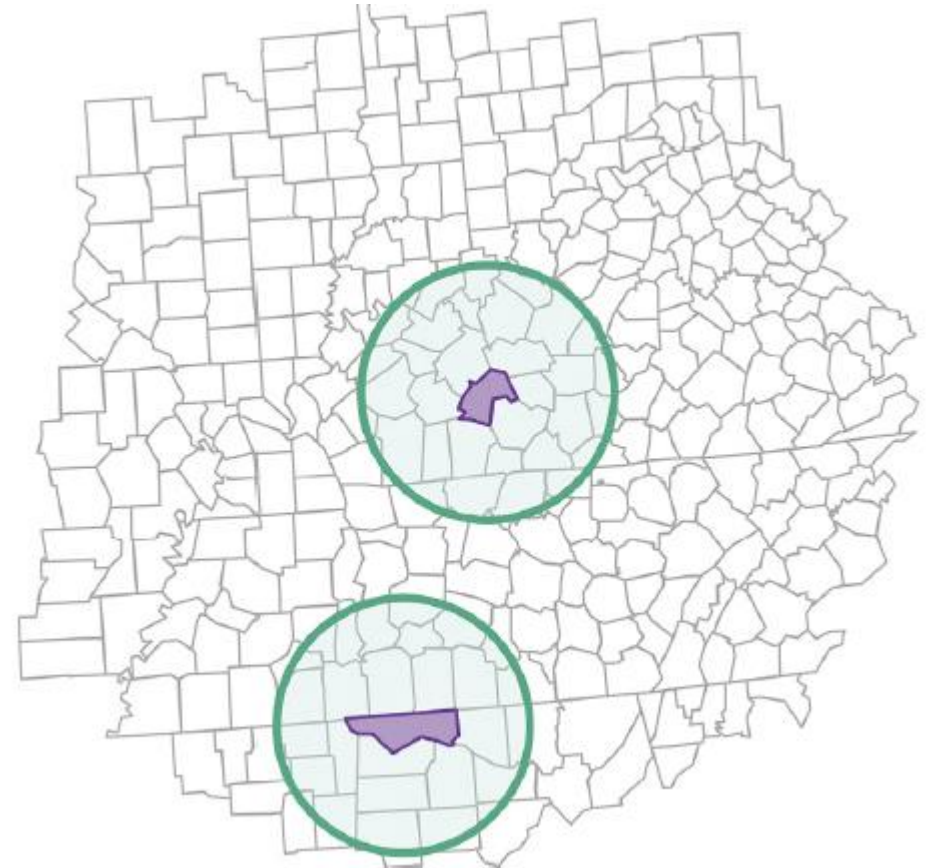


# Defining Neighborhoods:

Number of neighbors



Fixed distance





# Clustering: Multivariate (Data based)

