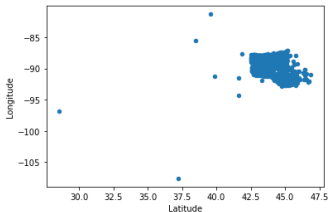


# Piggly Wiggly and Walmart

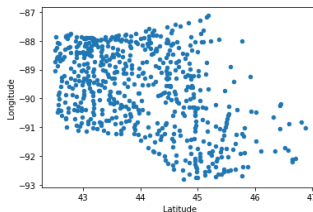
Juan Berón

August 2020

# Visual Validation



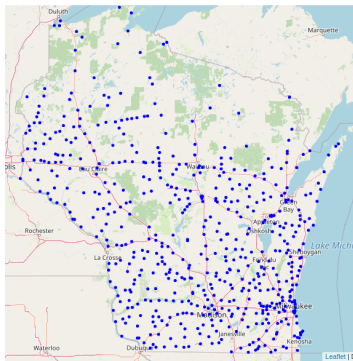
(a) Scatter plot showing that some problematic latitude and longitude



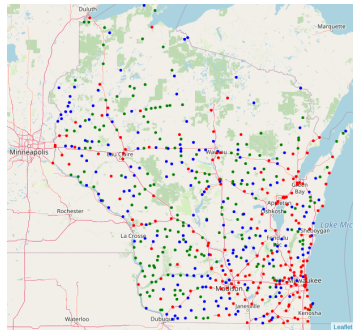
(b) Scatter plot after the problematic latitude and longitude were changed.

Figure 1

# Locations and Population Distribution



(a) Places included in the study showing a visual validation of the values of latitude and longitude



(b) Population distribution.  
Green: between 61 and 757 people. Blue: between 762 and 2580 people. Red: between 2584 and 37920 people.

Figure 2

# Counts of Locations with food provider

Venue	
Piggly Wiggly	96
Walmart	95
Pick 'n Save	84
ALDI	76
Festival Foods	31
Metro Market	18
Sendik's Food Market	18
Fresh Thyme Farmers Market	14
Meijer	13
Save-A-Lot	11
Copps	9
Whole Foods Market	8
Trader Joe's	7
Gordy's Market	7

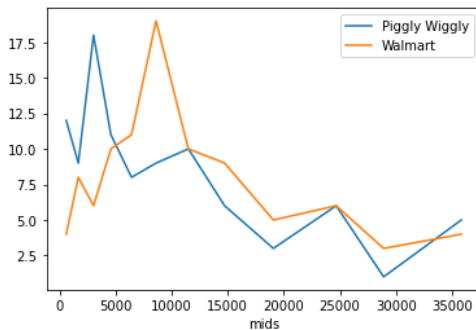
Figure 3: Most common food providers in Wisconsin

## Counts of per clusters

	count	Piggly Wiggly	Walmart	Piggly Wiggly P	Walmart P
mids					
584	121.0	12	4	0.099174	0.033058
1664	86.0	9	8	0.104651	0.093023
3020	63.0	18	6	0.285714	0.095238
4568	30.0	11	10	0.366667	0.333333
6408	20.0	8	11	0.400000	0.550000
8597	26.0	9	19	0.346154	0.730769
11478	24.0	10	10	0.416667	0.416667
14713	15.0	6	9	0.400000	0.600000
19060	11.0	3	5	0.272727	0.454545
24664	8.0	6	6	0.750000	0.750000
28898	4.0	1	3	0.250000	0.750000
35828	7.0	5	4	0.714286	0.571429

**Figure 4:** Mids is the middle value of the range of the cluster. Counts is the number of locations in this cluster. Piggly Wiggly column indicates the number of locations in the cluster with a Piggly Wiggly. Walmart indicates the number of locations in the cluster with a Walmart. The last two columns is the number of locations with either a Piggly Wiggly or a Walmart over the total count of locations in the cluster

# Distribution of stores accross the population



**Figure 5:** Distribution of the number of location with the food provider according to the population in the location.