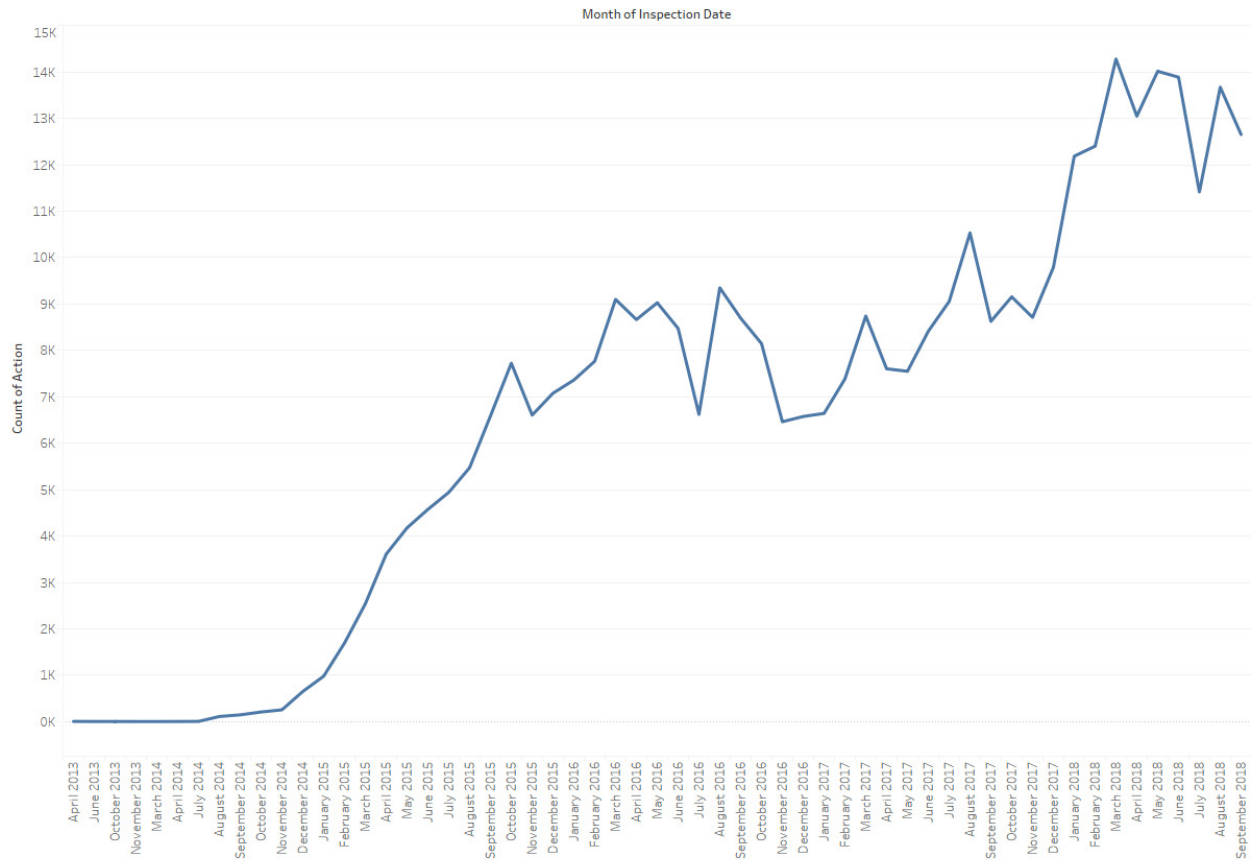


Question 1: How does the number of inspections change over time (use month as the level of temporal granularity)? Does the number of inspections increase or decrease over time?

In general, there is a trend for the number of inspections to increase over time, especially since 2018, when there was a considerable increase in the inspection number.

Sheet 1 (2)

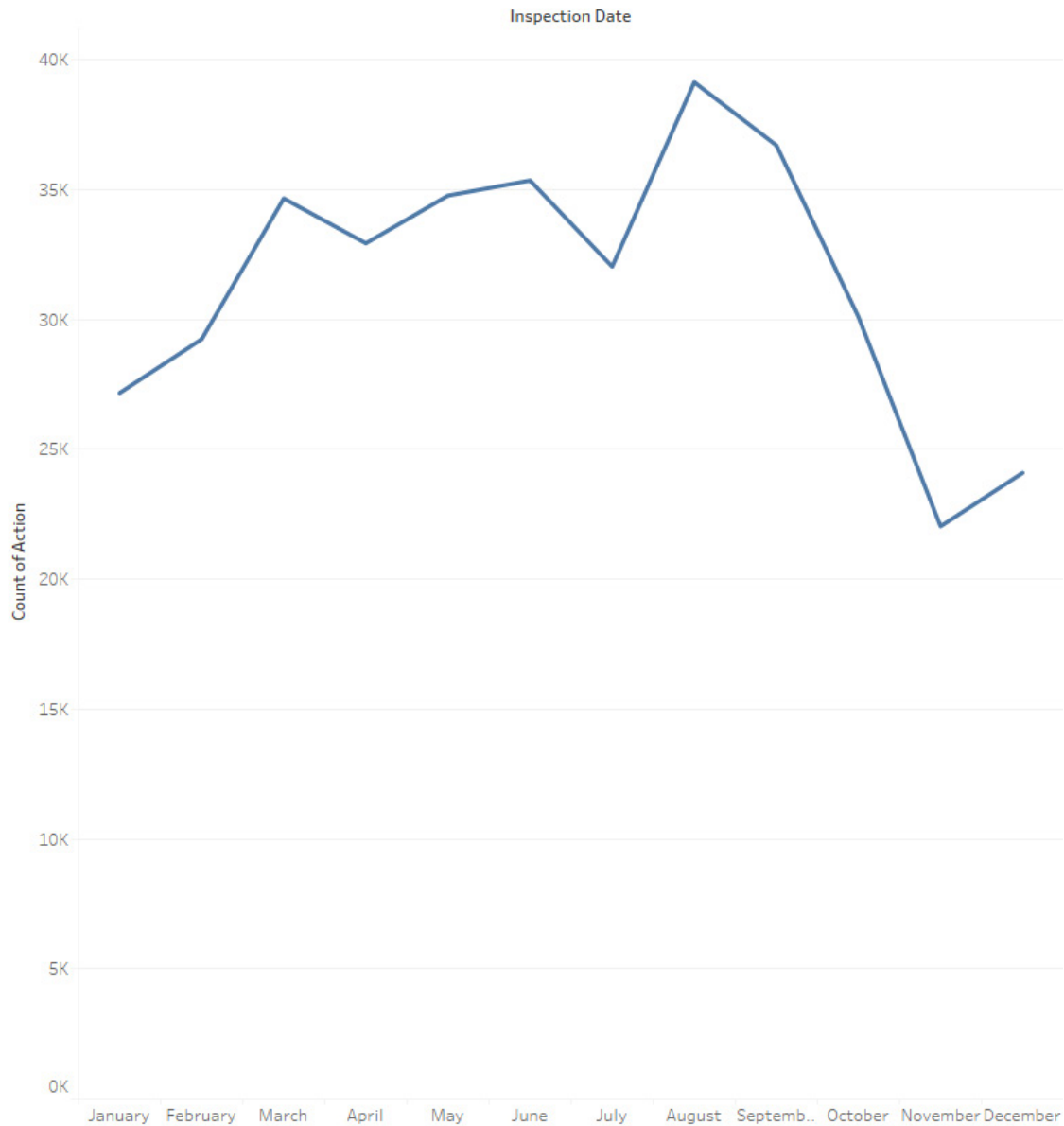


The trend of count of Action for Inspection Date Month. The data is filtered on Inspection Date Month, which includes dates on or after January 2013. The view is filtered on Inspection Date Month, which excludes January 1900, October 2011, May 2012 and October 2018.

Are there any peak times? Is there any seasonal effect (like inspections being more common during certain seasons or months)?

Analyzing the cyclic trend (seasonal effect) of the inspections, it can be seen that August is the month with more inspections (39 138 in total) followed by September (36 706) which can depict a seasonal effect at the end of summer.

Sheet 1

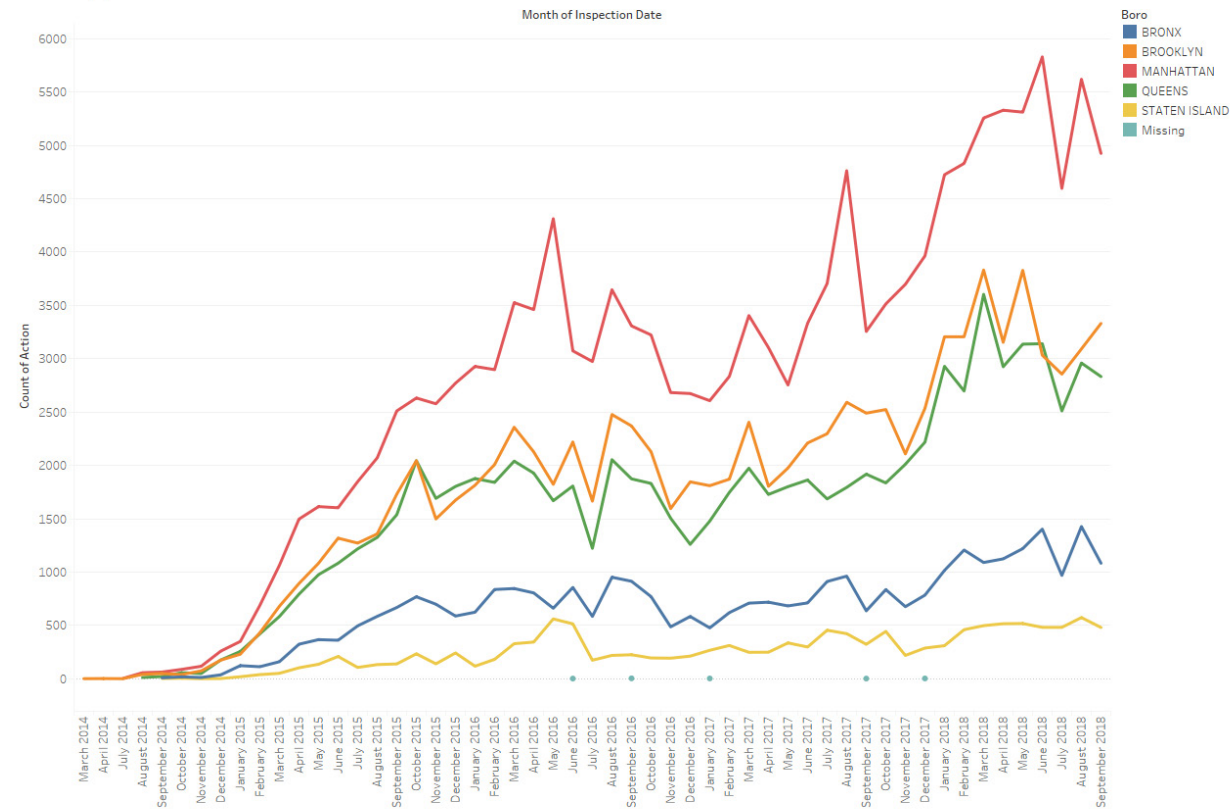


The trend of count of Action for Inspection Date Month.

Question 2: Is there any difference in how the number of inspections changes over time in the 5 different boroughs of New York City?

Apart from *Staten Island* and maybe *Bronx*, it seems that the inspections preserve the same increasing trend over time in all of the boroughs.

Sheet 1 (2)



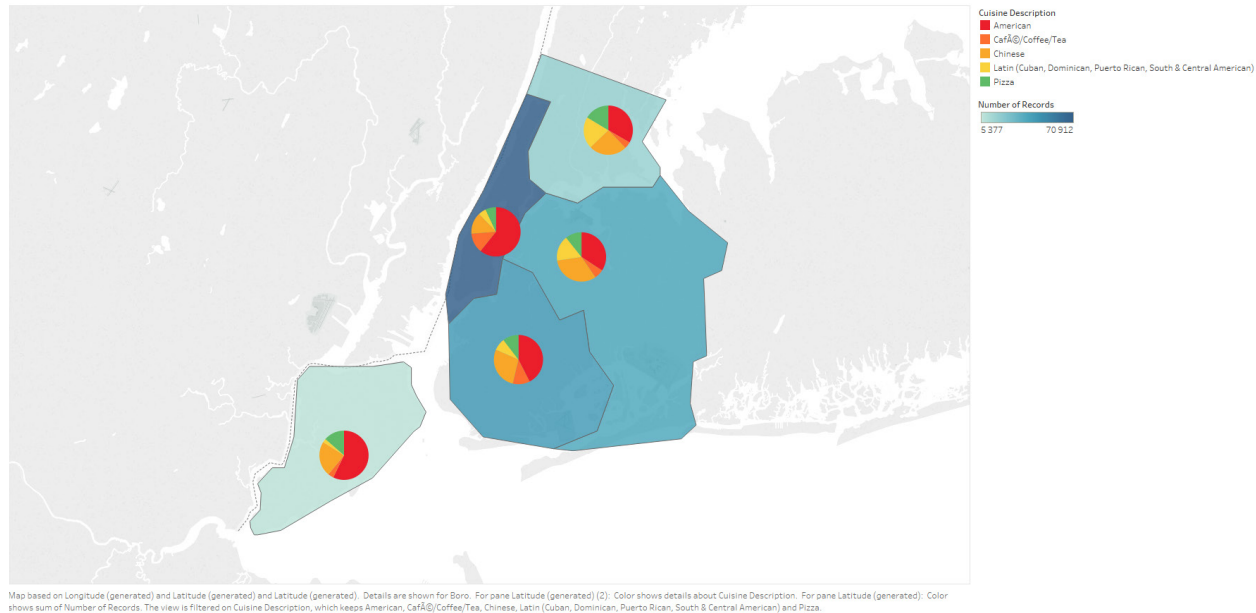
The trend of count of Action for Inspection Date Month. Color shows details about Boro. The data is filtered on Inspection Date Month, which includes dates on or after January 2013. The view is filtered on Inspection Date Month, which keeps 53 of 61 members.

Question 3: How are cuisines types distributed across the New York area? Are there geographical areas where certain cuisines tend to concentrate (that is are there any areas where certain cuisines are more prevalent than others)? NOTE: focus only on the top 5 most frequent "Cuisine Description" categories.

The choropleth map, shows the distribution of the number of restaurants across the boroughs while the pie chart illustrates the distribution of the top 5 cuisine types.

In general, American cuisine is the most popular category in all of the boroughs, followed by Chinese and Latin cuisine.

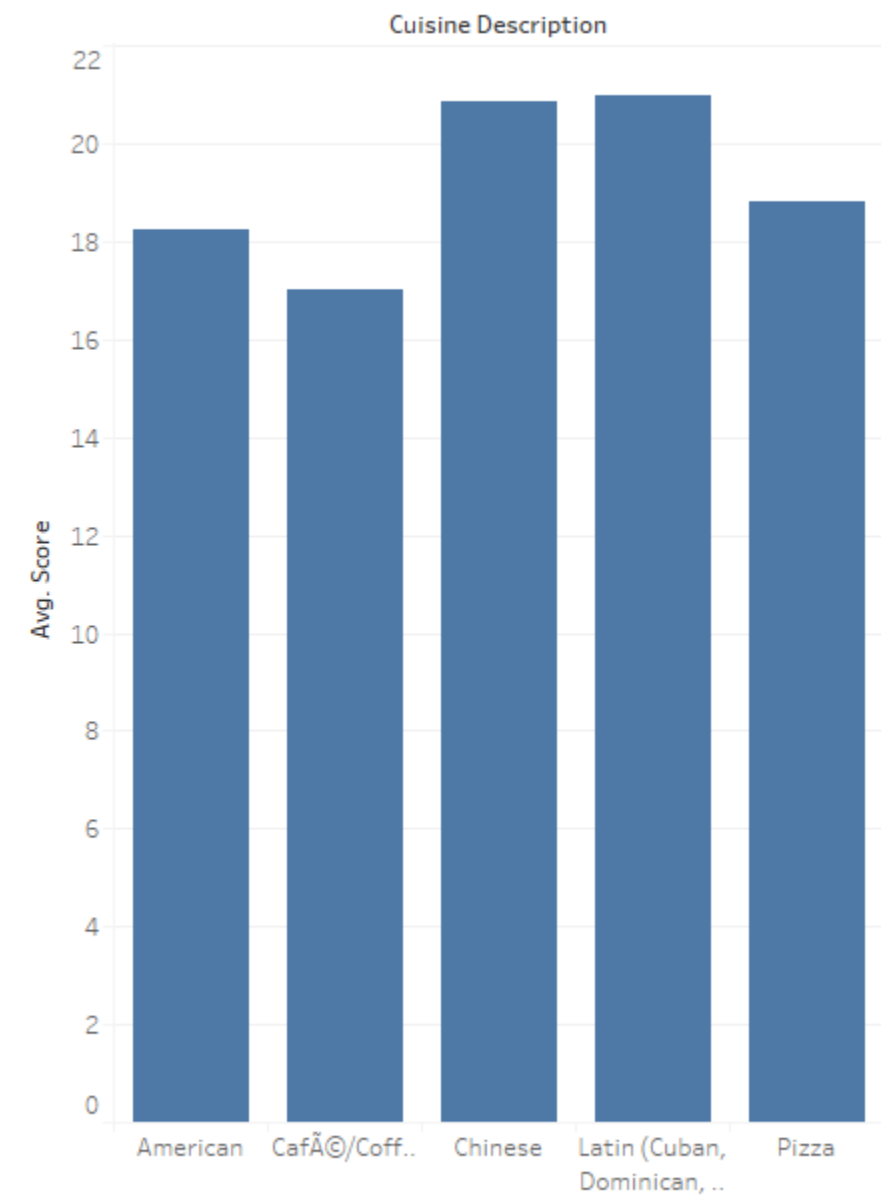
Sheet 4



Question 4: How does the average score compare across different cuisine types? Are there cuisines that tend to have consistently lower/higher average scores compared to the others? NOTE: focus only on the top 5 most frequent "Cuisine Description" categories.

The average score across the different cuisine types is pretty consistent and similar, however it seems that Latin and Chinese cuisines have the top scores ~21 while American and Pizza have an average near 18-19 while the worst average score is for Coffees with 17.

Sheet 5




Average of Score for each Cuisine Description. The view is filtered on Cuisine Description, which keeps American, Caf  /Coffee/Tea, Chinese, Latin (Cuban, Dominican, Puerto Rican, South & Central American) and Pizza.

Question 5: Is there a relationship between cuisine type and violation? For instance, do some cuisine types tend to have more of some type of violations than other cuisine types?

After the exploratory analysis using the matrix of violation type vs. cuisine type, it seems that some of the most common violations are committed in all restaurant types and there is no clear relationship between the two attributes, at least in exploring the top 20 violation types.

Sheet 5 (2)

Violation Description	Cuisine Description					Number of Records
	American	Café/Coffee/Tea	Chinese	Latin (Cuban, Dominican, Puerto Rican, South & Central American)	Pizza	
Cold food item held above 41°F (smoked fish and reduced oxygen packaged food..	5 071	931	2 824	1 016	1 047	
Evidence of mice or live mice present in facility's food and/or non-food areas.	5 165	1 006	3 217	1 094	1 524	
Facility not vermin proof. Harborage or conditions conducive to attracting vermin ..	8 527	1 600	4 228	1 921	1 980	
Filth flies or food/refuse/sewage-associated (FRSA) flies present in facility's food..	5 024	857	1 354	1 141	748	
Food contact surface not properly maintained.	1 270	199	648	287	157	
Food contact surface not properly washed, rinsed and sanitized after each use and..	7 172	1 448	1 988	946	957	
Food not cooled by an approved method whereby the internal product temperatur..	794	34	303	330	100	
Food not protected from potential source of contamination during storage, prepar..	5 297	1 128	3 266	1 038	860	
Food Protection Certificate not held by supervisor of food operations.	1 281	585	394	277	442	
Hot food item not held at or above 140°F.	2 969	274	2 936	1 243	1 356	
Live roaches present in facility's food and/or non-food areas.	1 129	89	1 328	582	345	
Non-food contact surface improperly constructed. Unacceptable material used. N..	12 057	3 059	5 600	1 997	2 419	
Personal cleanliness inadequate. Outer garment soiled with possible contaminant..	1 162	262	818	235	353	
Pesticide use not in accordance with label or applicable laws. Prohibited chemical ..	1 039	220	481	245	258	
Plumbing not properly installed or maintained; anti-siphonage or backflow preven..	5 355	1 094	1 737	998	900	
Proper sanitization not provided for utensil ware washing operation.	1 669	467	314	221	201	
Raw, cooked or prepared food is adulterated, contaminated, cross-contaminated, ..	2 619	379	517	331	205	
Sanitized equipment or utensil, including in-use food dispensing utensil, improper..	1 678	312	839	318	187	
Thawing procedures improper.	530	32	834	185	107	
Wiping cloths soiled or not stored in sanitizing solution.	1 467	331	1 072	311	244	

Sum of Number of Records broken down by Cuisine Description vs. Violation Description. Color shows sum of Number of Records. The marks are labeled by sum of Number of Records. The view is filtered on Cuisine Description and Violation Description. The Cuisine Description filter keeps American, Café/Coffee/Tea, Chinese, Latin (Cuban, Dominican, Puerto Rican, South & Central American) and Pizza. The Violation Description filter has multiple members selected.