

Sophia Zheng

11.188 Project Proposal

Title:

Mapping Business and Population Changes to Three NYC Chinese Ethnic Enclaves in the Context of the Covid-19 Pandemic

Purpose:

The goal of this research is to analyze the inflow and outflow of Asian residents from different areas considered as “Chinatown” in New York, particularly in relation to the start of the Covid-19 pandemic. This includes Flushing, Queens; Sunset Park, Brooklyn; and Chinatown, Manhattan. I would also like to analyze if there has been a decrease in businesses in Chinatown, Manhattan, as well as an increase in businesses in the “newer” Chinatowns of Flushing and Sunset Park in this time frame. This would give insight to the decline of Manhattan’s Chinatown by measuring when such decline began and if there is spatial evidence of exacerbation from Covid-19.

Significance:

The importance of answering these questions is to gain empirical evidence towards the effect that Covid-19 had on Chinatown, New York. There have been many articles and social media posts about the harmful and racist effects that the pandemic has had on the Asian community including increased AAPI hate crimes and loss of customers for Asian businesses. By mapping out the actual decline of Chinatown through population and business, this project would analyze the harmful effects of Covid-19 from a spatial standpoint. Increased data visualization as evidence better communicates the issue to the reader about how Chinatown, Manhattan is claimed to be dying while Flushings, Queen and Sunset Park, Brooklyn are becoming newer hubs of the same population that is moving out. These results could be shared with advocates who may be trying to support these small businesses and who want to preserve the rich cultural history of Manhattan’s Chinatown. It also raises awareness to the detrimental impacts of Asian hate resulting from the pandemic.

Literature Review:

Chinatown began in the 1850s when there was a large influx of Chinese immigrants coming to the United States. However, since 2011, Chinatown has steadily seen a decrease in its Asian population as a result of gentrification. Residents have been displaced from increased rent and nearby construction of luxury towers. Since 2020, Covid-19 has been studied to exacerbate this decline as residents experience loss of business and increased anti-AAPI violence. People were afraid they would get covid just by going to businesses in Chinatown, particularly restaurants. The pandemic created a hostile

environment that resulted in more racial discrimination towards Asians because of misplaced blame for the pandemic as well as financial burden by affecting business customers. According to the 2020 Census, Manhattan's Chinatown is about 63% Asian while in 2010, it was 73% Asian. This is reflected by a study the New York Times did on disappearing street maps with Mandarin names. It found that these previously bilingual street names were being replaced by English-only names. Slowly, the Chinese culture that started this enclave is declining.

However, the overall Asian population in New York has increased, signifying that these populations are moving to other areas, namely Flushing, Queens and Sunset Park, Brooklyn. While Flushing and Sunset Park enclaves were established before increased gentrification began, they saw the most increase in population starting from when residents began moving out of Chinatown, Manhattan because of limited housing. Today, Flushing has a larger population than Manhattan's Chinatown, highlighting the shift in population throughout the years between these enclaves. The limitation of these analyses, though, is that it's difficult to define the exact borders of Chinatown. While there are official boundaries, oftentimes the true capacity of these enclaves extends beyond these boundaries as the language spoken or language on storefronts and other signs continues past the borders. One study in the past tried to map what a walkable Chinatown would look like and discovered this phenomenon by manually mapping store signs within the area. Because of this, it is difficult to say for certain that these numbers reflect Chinatown, Flushing, or Sunset Park as the territory expanse is more nuanced than just a border.

Data:

- 2010 Census data
- 2020 Census data
- ACS 5-Year Estimates data from years 2010-2020 (will probably want to condense this but I am still unsure of which years to focus on that would be best for visualizing the population/business shift)
- TIGER Shapefiles of the Queens, Manhattan, and Brooklyn (needs to be joined with above)
- ReferenceUSA businesses in Chinatown, Manhattan; Flushing, Queens; and Sunset Park, Brooklyn
- Reference USA Business Historical Data Files from MIT Libraries for years past 2022

Methodology:

First, I will need to get all the data from their sources. This includes downloading 2010 and 2020 Census data, as well as ACS 5-Year Estimates from 2010-2020 through Social Explorer. I will also need to download the TIGER Shapefiles by census tracts for Brooklyn, Manhattan, and Queens to focus on the 3 areas of Sunset Park, Chinatown, and Flushing. I chose census tracts over census block

groups to focus on accuracy rather than disaggregation. I will need to join the demographics data with the shapefiles to display choropleth maps for each year. The categories I will be focusing on will be Asian population, as well as looking into the total population if it is not too off topic/could provide greater context. If it's not too much data, it may also be worth considering examining popular languages spoken in these areas, to help contextualize the extent to which Asian culture is represented in the areas and changes in that over time.

I will also download Reference USA business data files, including current and historical, so I can geocode businesses located in Chinatown, Flushing, and Brooklyn. By examining the changes in location and number of businesses in this area, it will also give insight into the changes these areas have seen since gentrification and particularly since the pandemic began. After downloading the business data, I will have to clean it to standardize addresses. I will geocode by using OpenCage and add this layer as points through a delimited text layer as it will be exported as a csv. Once I have the points plotted, I can also create choropleth maps of the number of businesses in different census tracts through a spatial join with shapefiles to give another spatial analysis to the change in businesses within these areas to map loss/gain.

Once these maps have been created, I can compare them to analyze the effects and extract information on the changes from 2010-2020 in population and businesses and what historical and cultural events within the time period could account for such shifts.

Anticipated Results:

I expect to find that shortly after 2010, maybe around 2012, the Asian population within Chinatown, Manhattan will begin to decrease while the Asian populations in Flushing, Queens and Sunset Park, Brooklyn will consistently increase. Flushing should increase at a greater rate. I think overall the population in Chinatown will continue to increase or stay the same, but decrease with respect to the Asian population, which started as the most dominant racial group in the area when Chinatown was born. This is because of displacement as rent prices increase and wealthier residents want to move into new, luxury housing being built in surrounding areas. Because the Asian population is decreasing, I think the number of small businesses will also decrease over time, but perhaps the overall number of businesses will stay constant as there is still an influx of population, just not the Asian population. Once the 2020 data is mapped, I think there should be an exacerbated decrease in both population and business trends mentioned earlier. This would be because of increased anti-Asian sentiment and loss of business as other residents misplaced fear and blame of Covid-19 on the Asian population within NYC. These research results could help to provide more visualization to this trend previously described in articles about the effect Covid-19 had on the Chinese population in NYC. However, a limitation is that ACS data only goes until 2020. The pandemic began with a shutdown in the US in March 2020, so I am unsure if this is enough time to be able to conclude effects of Covid-19 without

more longer term data like from 2021. With only 2020, I am cautious in finding enough support for the conclusions I draw as there wouldn't be an extended trend, only changes from one year to the next.

Problems:

1. Internet sites may be down: don't procrastinate and start early so that there is buffer time in case there are internet issues before the project is due.
2. Data is unavailable: One of my data sources relies on MIT Libraries. If there is issue for any reason, I can ask the librarians to help me find other sources and if there are not any other, I can focus on just population shifts instead of businesses as well, or I can analyze in the lens of current businesses in the 3 enclaves and whether their spatial locations as standalone give insight to the effects the pandemic had on the areas.
3. The trends I expected are not seen: This is something I worry about with only 2020 data since that is the same year the pandemic started. It is unfortunate there's no possibility for extracting long term trends, but from the given trend, I could extrapolate the future trend based on how severe, if at all, the change is between 2019-2020 and how likely it is this is attributed to the pandemic. I can compare this yearly shift to shifts in the past to see if it is more extreme than usual. But also, it takes time for residents to move and I'm not sure when in 2020 the data was collected. ACS data is a 5-year estimate, so the extraction of data across multiple years may not be the most reliable in comparing data annually. If this is not possible, I can shift the focus of the project to the effects of gentrification since the beginning of the 2010s on the population and businesses across the 3 areas.

Proposed Outline:

When the pandemic began in 2020, Donald Trump, the President at the time, referred to Covid-19 as the "Chinese virus" or "Kung Flu". These racist expressions have been proven to be linked to anti-Asian hate both in real life and on the Internet. The racism faced by the Asian community during this time extended beyond just what politicians in power were saying and infused daily life with discrimination, both socially and economically, in unprecedented ways. The main framing for this project will be in the context of Covid-19 as a recent historical event in the United States that caused a great cultural shift. By analyzing the negative effects of the pandemic on three specific Chinese communities within NYC, I will gain insight into the effects that the pandemic had on the Asian/American community, within the most populated city in the country. This will contextualize the harm faced by these communities that have been inflicted for almost a decade now because of gentrification, and were even more exacerbated by the racist sentiments that followed the start of the pandemic.

Timeline:

4/19-4/25: Download all data + cleaning including only using attributes of interest in Census/ACS data and standardizing addresses of ReferenceUSA business to prepare for geocoding

4/26-5/2: Spatial joins and focus on cleaning maps so that they can clearly convey to the audience the trends found

5/2-5/9: Draw conclusions, write analyses, create presentation to prepare for presenting to the class

Bibliography:

1. [NYT: Manhattan's Chinese Street Signs Are Disappearing](#)
2. [Chinatown Rethinks Walkable Neighborhoods](#)
3. [Columbia Political Review: Cultural Displacement: Gentrification in New York City's Chinatown](#)
4. [AsAm News: Asian population declines in Manhattan's Chinatown](#)
5. [Vox: Will luxury towers edge out the last of the working-class Chinese in New York's iconic Chinatown?](#)
6. [WTHR: New York City's Chinatown fighting back against declining population and pandemic pressure](#)
7. [Chinatown Losing Its Chinese Edge To Sunset Park, Flushing](#)
8. [Inside Sunset Park, the city's largest \(and growing\) Chinatown](#)
9. [Chinatowns are struggling to survive. Grace Young is reminding Americans why they matter.](#)
10. [Covid-19: Chinatowns fighting racism and pandemic to survive](#)
11. [Measuring and mapping displacement: The problem of quantification in the battle against gentrification](#)
12. [Identifying Gentrification with GIS: Spatial Correlation between Race, Income, and Education](#)