**Nelson Foster**

**DATS 6401-11: Visualization of Complex Data**

**Mid-Term Project: Fall 2017**

For my mid-term Data Visualization Project, I utilized [NYC Open Data](https://opendata.cityofnewyork.us/), an open data site curated by the government of the City of New York.

The following datasets were used:

* [School Safety Report](https://data.cityofnewyork.us/Education/School-Safety-Report/qybk-bjjc)
* [Times Square Entertainment Venues](https://data.cityofnewyork.us/Education/School-Safety-Report/qybk-bjjc)
* [NYC WiFI Hotspots](https://data.cityofnewyork.us/Social-Services/NYC-Wi-Fi-Hotspot-Locations/a9we-mtpn)
* [Legally Operating businesses](https://data.cityofnewyork.us/Business/Legally-Operating-Businesses/w7w3-xahh)
* [NYC Job Postings](https://data.cityofnewyork.us/City-Government/NYC-Jobs/kpav-sd4t)

From there, I developed the following Tableau Charts, combining them all into a series of interactive dashboards:

* [School Safety Dashboard](https://public.tableau.com/profile/nelson.foster#!/vizhome/SeeNYCInteractiveDashboard/SchoolSafetyDashboard)
* [Times Square Entertainment Dashboard](https://public.tableau.com/profile/nelson.foster#!/vizhome/SeeNYCInteractiveDashboard/TimesSquareEntertainmentDashboard)
* [Public WiFi Service Dashboard](https://public.tableau.com/profile/nelson.foster#!/vizhome/SeeNYCInteractiveDashboard/PublicWiFiServiceDashboard)
* [Legally-Owned Businesses by Type](https://public.tableau.com/profile/nelson.foster#!/vizhome/SeeNYCInteractiveDashboard/Legally-OwnedBusinessesbyType)
* [Civil Service Position by Agency](https://public.tableau.com/profile/nelson.foster#!/vizhome/SeeNYCInteractiveDashboard/CivilServicePositionbyAgency)

After developing the Tableau charts and dashboards, I created five charts using d3.js and related web-based visualization formats:

* Horizontal column chart of public wifi locations by service provider
* Bubble chart of legally owned businesses by license type
* Run (line) chart of civil service job postings from 2012 through 2017
* Bubble chart of school safety (incidents of violence reported in schools) by zip code
* Pie chart of school safety by borough
* Bar chart of Times Square entertainment by category/venue type.

Using the bootstrap example provided in class, I developed a “SeeNYC!” web page as a repository for the charts I developed using the various web technologies we’ve covered in class. In addition, I created a Tableau Public account in order to publish my Tableau charts and dashboards, so that I could embed them directly in the web page. Many of the Tableau charts I built are interactive and searchable. Though I had some difficulty with node server.js, the [Atom-Live-Server](https://atom.io/packages/atom-live-server) package gave me the ability to view changes to my code in near real-time.