Data assignment – Get It Done

I started by looking at three areas of interest: 1. Quality of GID data on https://data.sandiego.gov/, 2. visualization of useful GID data insights, and 3. Benchmarking of GID to similar 311 programs. Accompanying this report are excel tables identifying opportunities for improving data quality (gid_QA.xlsx), commented R script used for initial data exploration (GID.R), and mini-gid.csv, a subsampled data set of GID data from 2016-2019.

Summary of suggestions:

1. The GID data (> 40k rows) released to the public is generally sound but could be cleaner
    a. There are some cases that appear to be incomplete and could be deleted
    b. There is a pattern of missing fields from internal reports, mostly from Stormwater
    c. There are opportunities to provide more specific categories at the app/web interface. This would reduce the number of *other* or *blank* service_name values (water, homelessness, and mobility categories especially)
    d. Spatial data indicated that GID may not have an accurate accounting of City boundaries, especially at the coast and piers/jetties.
    e. It was unclear to me how GID handles cases outside the City limits and if there are limited cases (trash pick-up?) that are serviced by CoSD.
2. Visualization of useful data insights
    a. https://data.sandiego.gov/ has data visualization tools that appear to be GIS based (I could be wrong). They are good but tend to appeal to those with more technical skills than the average citizen, executive mangers, or elected officials.
    b. Pittsburg, PA's *Burg's eye view* is the best 311 visualization tool I've seen.
        i. After I found the app, I stopped working to create a data visualization tool for this assignment, it seemed like wasted effort.
    c. The R code (it's a shiny app) on GitHub appears to be hard-coded, but I think app is open source so there may be a more adaptable version available. If not, converting the code to accept CoSD data would not be difficult for PandA.
    d. If not already under consideration, I recommend that PandA reach out to Pittsburg's Office of Innovation for the app.
3. See Table 1. for 311 benchmarking
    a. In my opinion, the best UI is from NYC's (bespoke?) 311 app. If moving away from SpotReporters ever becomes a consideration, I would suggest asking NYC if they would license their app.
    b. Rating on the iOS app store are mostly bi-modal, with high and low ratings, but few mid-range ratings. A review of the comments suggest that the low ratings are not necessarily from the app UI, but from whether or not the requests are addressed promptly (or at all). San Diego's ratings were the exception, skewing toward higher ratings which suggests that the back end (the actual work to complete the request) of GIT is an improvement from the old system(s).
    c. If not already in the works, collaborating with other North American cities that maintain 311 programs would provide value to CoSD. Current best practices and data standards could be developed, saving time and money and improving data quality.

Table 1. Comparison of selected 311 apps.

City	Developer	iOS app store rating (out of 5)	n
NYC	NYC	3.6	99
Baltimore	new version of SR, or recent change?	2.0	62
Washington DC	seeclickfix	4.0	57
San Diego	**Spot Reporters**	**4.0**	**42**
Dallas	new version of SR, or recent change?	2.9	29
San Francisco	Spot Reporters	2.6	24
Boston	Spot Reporters	3.4	16
Seattle	Spot Reporters	3.3	14
Pittsburg	Report2Gov	2.3	8
Chula Vista	seeclickfix	4.1	8
Austin	Spot Reporters	2.5	5
Escondido	City Sourced	4.5	4
National City	seeclickfix	5.0	3
Providence	Accela	5.0	1