Montgomery County 911 calls

Members:

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# Project Outline

investigating interesting trends in 911 call data in Montgomery County, Pennsylvania between 2015 to 2020.

# Questions:

MONTGOMERY COUNTY

* What is Montgomery County (population, location, comparison with other counties)? How do they compare in terms of important metrics (e.g. obesity, excessive drinking, Chlamydia, driving alone to work)
* How many calls are from more than 1000km away from phillly?

DEPARTMENT ANALYSIS

* Which department had the most 911 calls? What is the distribution of 911 calls between departments?

TRAFFIC CALL ANALYSIS

* Which was the most common type of traffic 911 call?
* Which day of the week had the most vehicle accident calls?
* Which year had the most vehicle accident calls? / is the number increasing?

CONCERT ANALYSIS

* Is there any correlation between the number of concerts at the Filmore concert hall in a month and the number of 911 calls regarding “subject in pain”, “head injuries” and “nausea/vomiting” in a month?
* Was there any noticeable increase in “shootings” immediately following the Cypress Hill concert?

DEHYDRATION CALLS

* How many dehydration calls were there?
* Is there any relationship between distance from MC’s largest reservoir water source and number of dehydration calls?
* Is there any relationship between monthly temperature max/average and monthly dehydration calls?
* Which had a stronger correlation on dehydration? A great chance to discuss correlation vs causality

Quick questions

* Distribution of animal bites vs distance from the zoo
* Dizziness distance from phillys biggest bar?

DUMPSTER FIRES

* Is there any correlation between the dumpster fires and median income of the zipcode ????

PLANE CRASHES

* How many plane crash calls? where were they?

# DATA SOURCES

* 911 calls csv
* Filmore historical concerts data
* Monthly rainfall csv

# API’s

* Google maps
* Reverse geocoding
* Census median income data?

# Division of Labour

* Using Markdown to make the jupyter file “pretty”
* importing libraries
* maths for the haversine formula
* google api's
* importing csv's
* cleaning data / transforming data frames
* making pretty plots
* other API's
* outliers,
* finding other data
* importing libraries C
* maths for the haversine formula D
* Google API’s( finding coorindates of philly,GMAPS for vehicle incidents near philly, GMAPS for plane crashes, Text search for largest reservoir in Montgomery C, PA,) - M
* Loading in the county stats and cleaning it - D
* Loading in and cleaning 911 data, date range - M
* Adding in distance from haversine -D
* Looking at Distance from Philly and looking at outliers with box plot, plotting those far ones in GMAPS -C
* Finishing cleaning the 911 dataset – removing outliers by diustance, remove things that happen very seldom -C
* Pie chart for distribution of departments calls, breakdown of traffic type calls, plotting when vehicle accidents happen, months of the year, over the years are we seeing more accidents. SUBPLOTTING – M
* Concert analysis filtering, grouping, load in Fillmore events, cleaning, scatter, regression, cypress hill-d
* Finding csv for monthly tempterature maxs in MC, scatter of temperature vs dehydration – C
* Quick Binning distance from reservoir and creating scatterplot, dizziness and bar, animal bits and zoo - d
* Dumpster fires.- D

DANIEL

* maths for the haversine formula D
* Loading in the county stats and cleaning it – D
* Adding in distance from haversine -D
* Concert analysis filtering, grouping, load in Fillmore events, cleaning, scatter, regression, cypress hill-d
* Quick Binning distance from reservoir and creating scatterplot, dizziness and bar, animal bits and zoo - d
* Dumpster fires.- D

Claudia

* importing libraries C
* Looking at Distance from Philly and looking at outliers with box plot, plotting those far ones in GMAPS -C
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MONICA