Hello Sweave

cyorir

September 22, 2018

The purpose of this article is to serve as an example of a Sweave document. R will be used to examine a dataset from the Denver Open Data Catalog, containing data on Denver Police stops of pedestrians and vehicles. This dataset may be found at

https://www.denvergov.org/opendata/dataset/city-and-county-of-denver-police-pedestrian-stops-and-vehicle-stops

The dataset contains 14 columns:

```
 [1] "MASTER_INCIDENT_NUMBER" "PRIORITY_DESCRIPTION"   "PROBLEM"
 [4] "ADDRESS"                "CALL_CLASS"             "TIME_PHONEPICKUP"
 [7] "CALL_DISPOSITION"       "GEO_X"                  "GEO_Y"
[10] "GEO_LON"                "GEO_LAT"                "DISTRICT_ID"
[13] "PRECINCT_ID"            "NEIGHBORHOOD_NAME"
```

It is a fair bit of information to take in. Not all of the columns are necessary for this analysis, so only data for columns of interest will be kept. Here is the structure of the reduced dataset:

```
'data.frame':        726779 obs. of  8 variables:
 $ PROBLEM          : Factor w/ 2 levels "Subject Stop",....
 $ ADDRESS          : Factor w/ 97823 levels " 11th St / "..
 $ CALL_CLASS       : int  2 2 2 2 2 2 2 2 2 2 ...
 $ TIME_PHONEPICKUP : Factor w/ 720074 levels "2010-12-31"..
 $ CALL_DISPOSITION : Factor w/ 204 levels "1 - Alarm RP "..
 $ GEO_LON          : num  -105 -105 -105 -105 -105 ...
 $ GEO_LAT          : num  39.6 39.6 39.6 39.6 39.6 ...
 $ NEIGHBORHOOD_NAME: Factor w/ 79 levels "Athmar Park",....
```

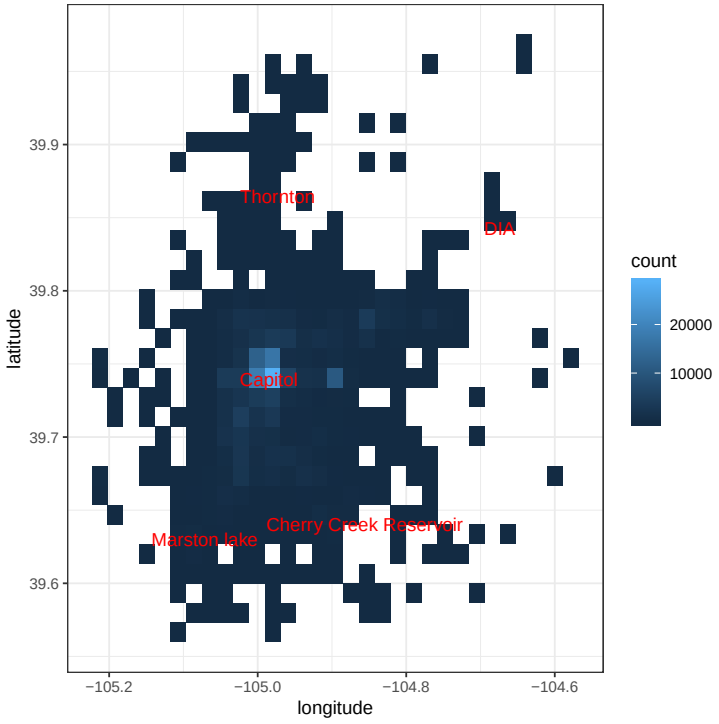
Here are the most common addresses for pedestrian stops:

16th St / Champa St	1566 N Washington St
580	651
1625 S University Blvd	E Colfax Ave / N Downing St
666	809
1499 N BROADWAY ST	1499 N Broadway St
1102	2240

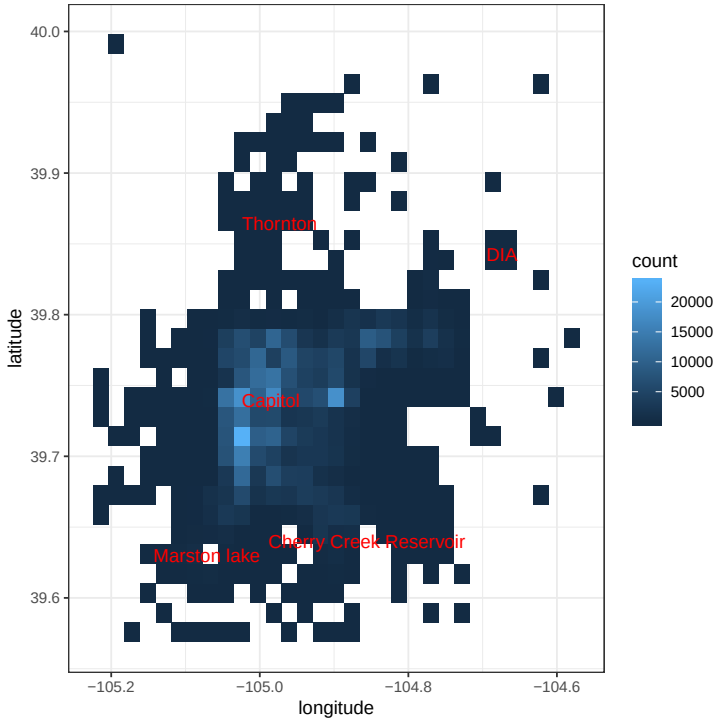
Here are the most common addresses for vehicle stops:

E 35th Ave / N Syracuse St	W Colfax Ave / N Stuart St
1624	1757
W Colfax Ave / N Tennyson St	I25 Hwy_nb / I70 Hwy_eb
1826	2316
W Colfax Ave / N Federal Blvd	Park Ave W / N Globeville Rd
2481	2781

Here the density of subject stops is mapped:



Here the density of vehicle stops is mapped:



We can view the number of stops over time: