crimes-boston

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August 15, 2019

```
library(dplyr)
```

```
##
## Attaching package: 'dplyr'
```

```
## The following objects are masked from 'package:stats':
##
##     filter, lag
```

```
## The following objects are masked from 'package:base':
##
##     intersect, setdiff, setequal, union
```

```
library(ggplot2)
library(tidyverse)
```

```
## -- Attaching packages ---------------------------------------------------------------------------
```

```
## v tibble  1.4.2     v purrr   0.2.5
## v tidyr   0.8.2     v stringr 1.3.1
## v readr   1.3.1     v forcats 0.3.0
```

```
## -- Conflicts ------------------------------------------------------------------------------------
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
```

```
library(maps)
```

```
##
## Attaching package: 'maps'
```

```
## The following object is masked from 'package:purrr':
##
##     map
```

```
crime1<-read.csv("C:/Users/garim/OneDrive/Desktop/NEU/Introduction to Data Management and Processing/da
crime1<-drop_na(crime1)

sort <- crime1 %>% group_by(STREET) %>% summarise(complaints=n()) %>% arrange(desc(complaints)) %>% top
```

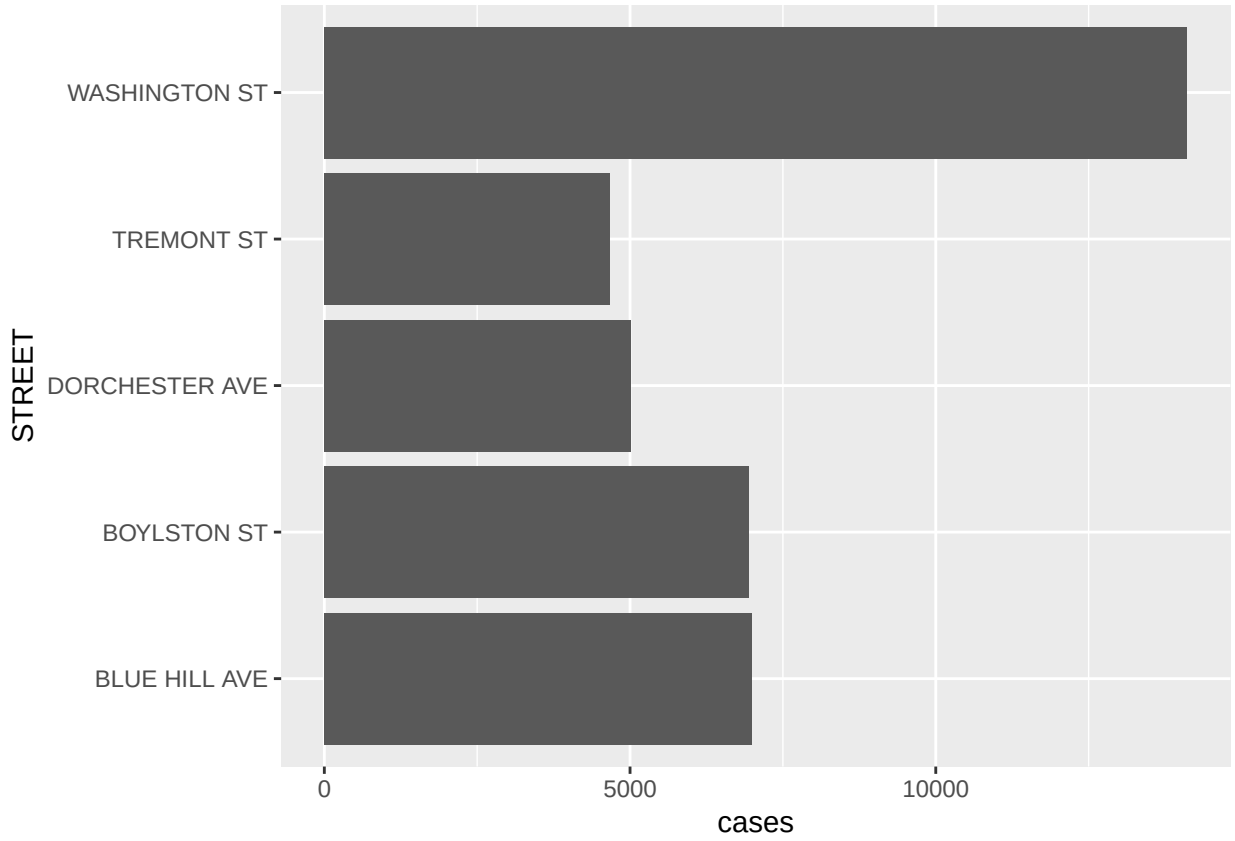
```
## Selecting by complaints
```

```
crime<-left_join(sort,crime1)
```

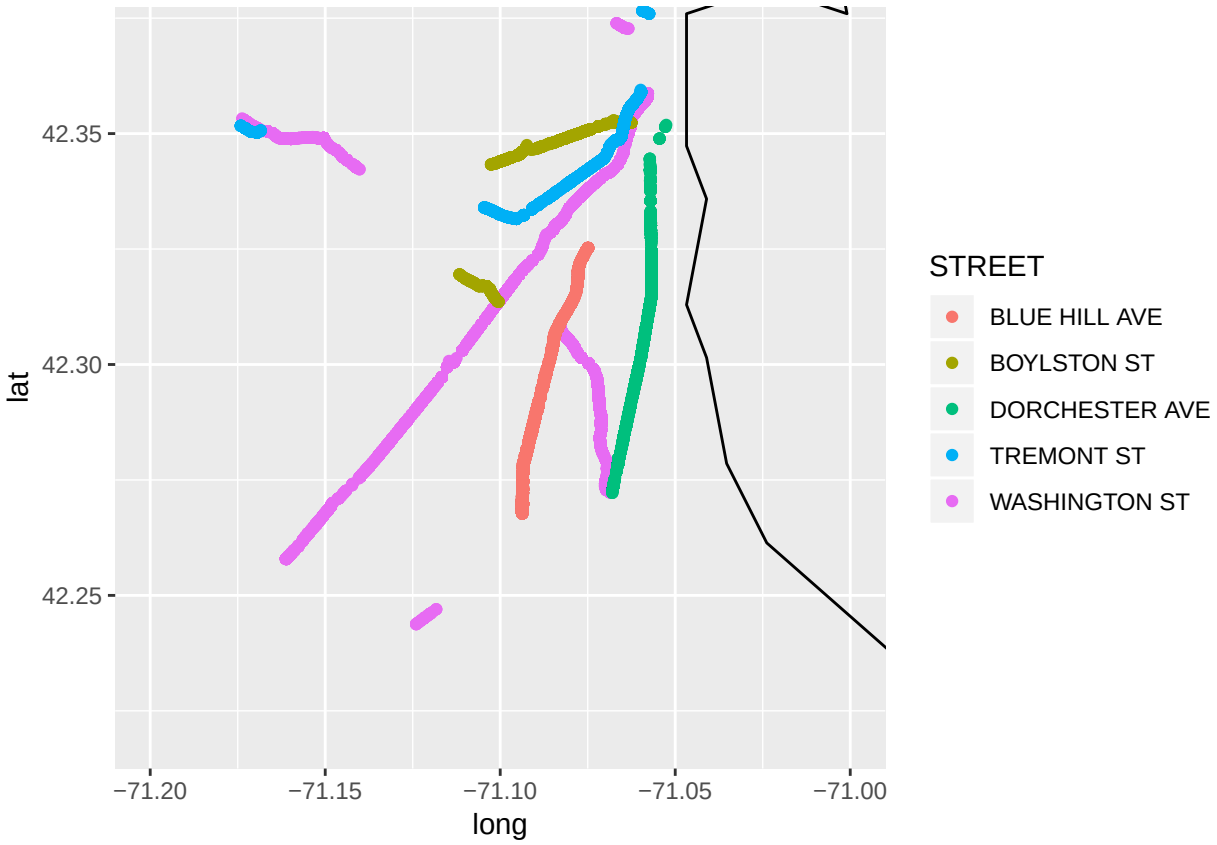
```
## Joining, by = "STREET"
```

```
one<-crime %>% group_by(STREET) %>% summarise(cnt=n())

#per Street
crime %>% group_by(STREET) %>% summarise(cases=n()) %>% ggplot(mapping = aes(x=STREET,y=cases))+geom_ba
```



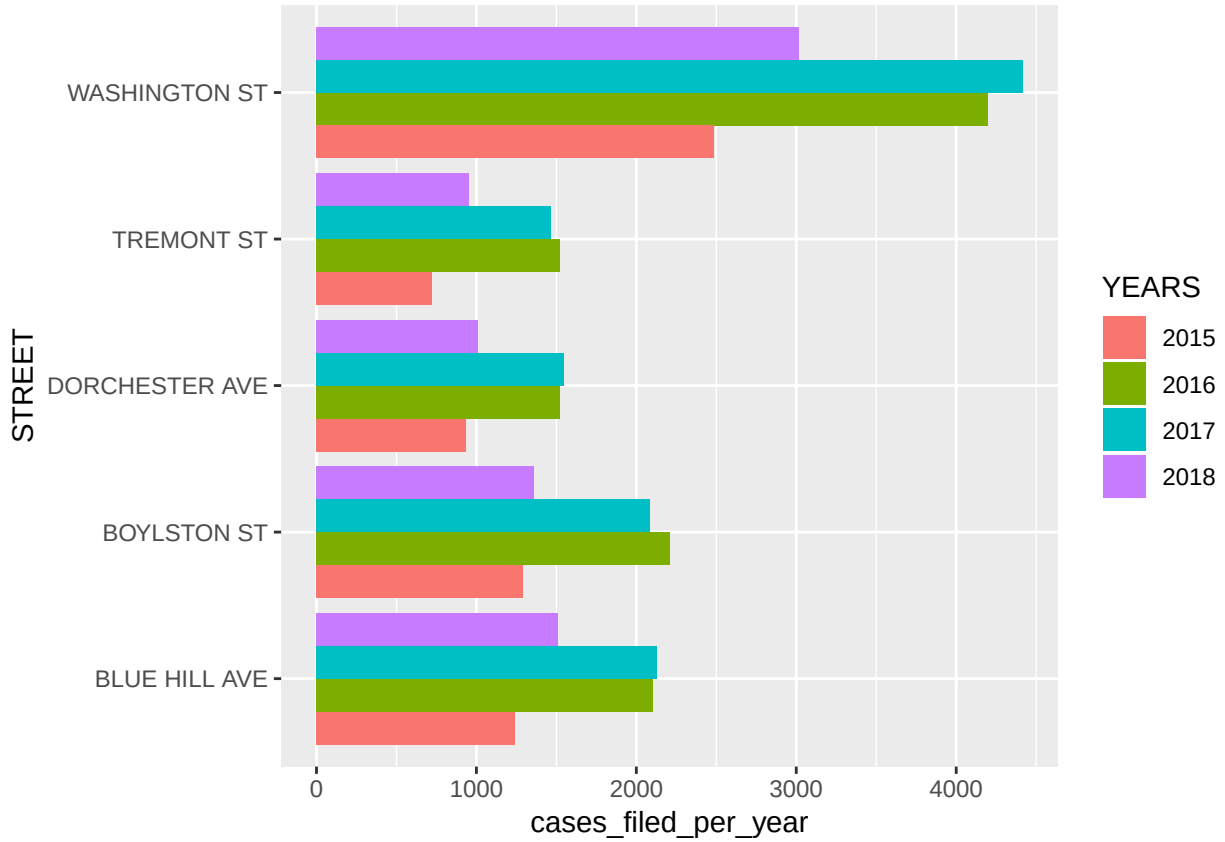

```
#locations
corners<-map_data('state',region='massachusetts')
ggplot(corners)+geom_polygon(mapping = aes(x=long,y=lat),fill=NA,color="black") +geom_point(data=crime,
```




```
#offnese per year
yearr <-crime %>% group_by(STREET,YEAR) %>% summarise(cases_filed_per_year=n())

left_join(one,yearr) %>% ggplot(mapping = aes(x=STREET,y=cases_filed_per_year,fill=as.factor(YEAR)))+ge
```

```
## Joining, by = "STREET"
```

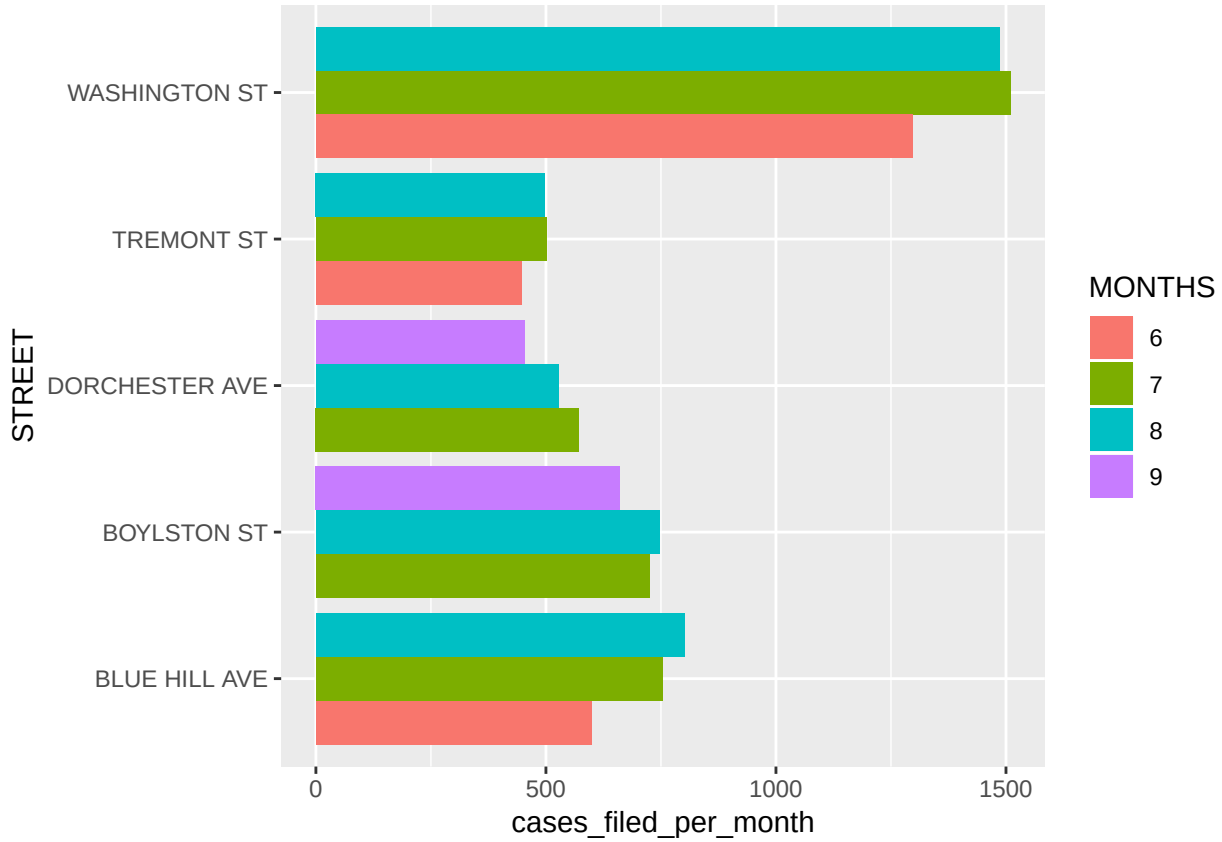



```
#oofense per month
month<-crime %>% group_by(STREET,MONTH) %>% summarise(cases_filed_per_month=n()) %>% arrange(desc(cases
```

```
## Selecting by cases_filed_per_month
```

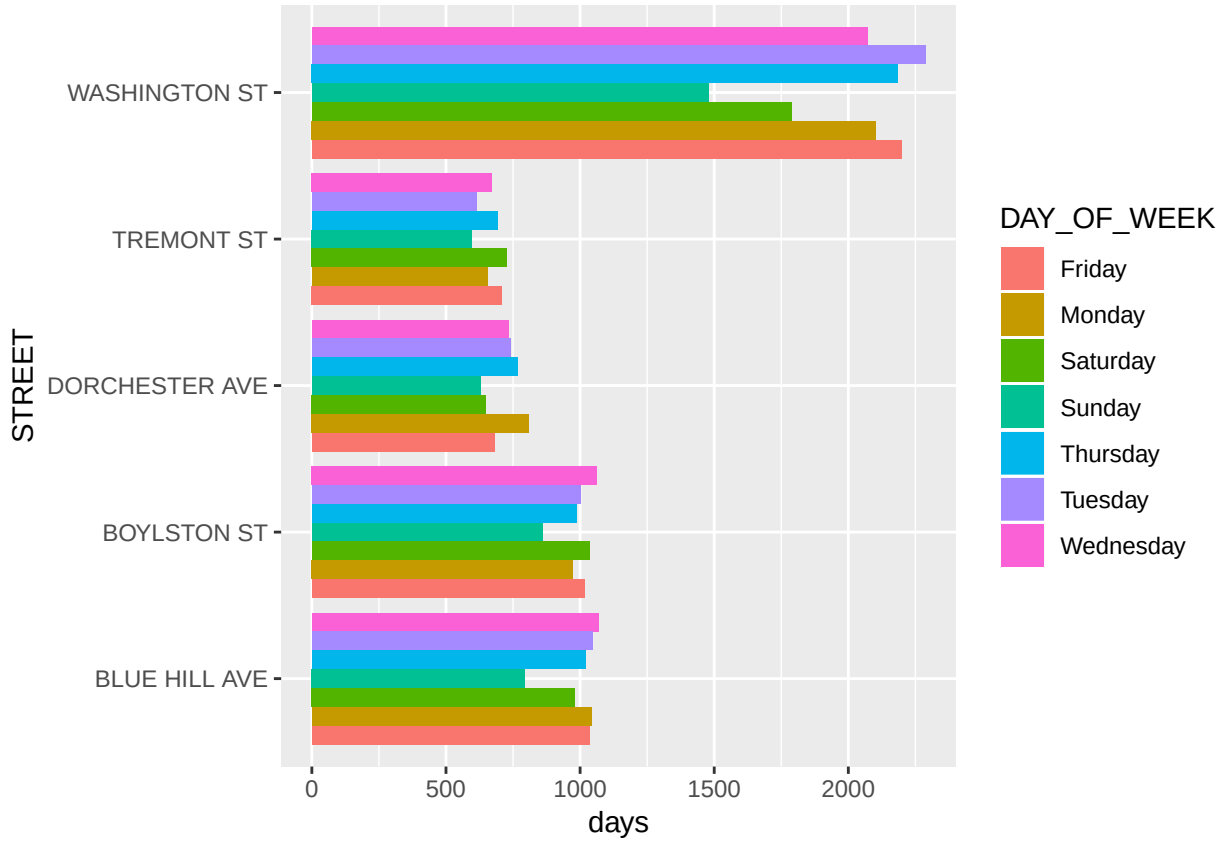
```
left_join(one,month) %>% ggplot(mapping = aes(x=STREET,y=cases_filed_per_month,fill=as.factor(MONTH)))+g
```

```
## Joining, by = "STREET"
```




```
#offense code group per day of week
day<-crime %>% group_by(STREET,DAY_OF_WEEK) %>% summarise(days=n())
left_join(one,day) %>% ggplot(mapping = aes(x=STREET,y=days,fill=DAY_OF_WEEK))+geom_bar(stat = 'identity
```

```
## Joining, by = "STREET"
```

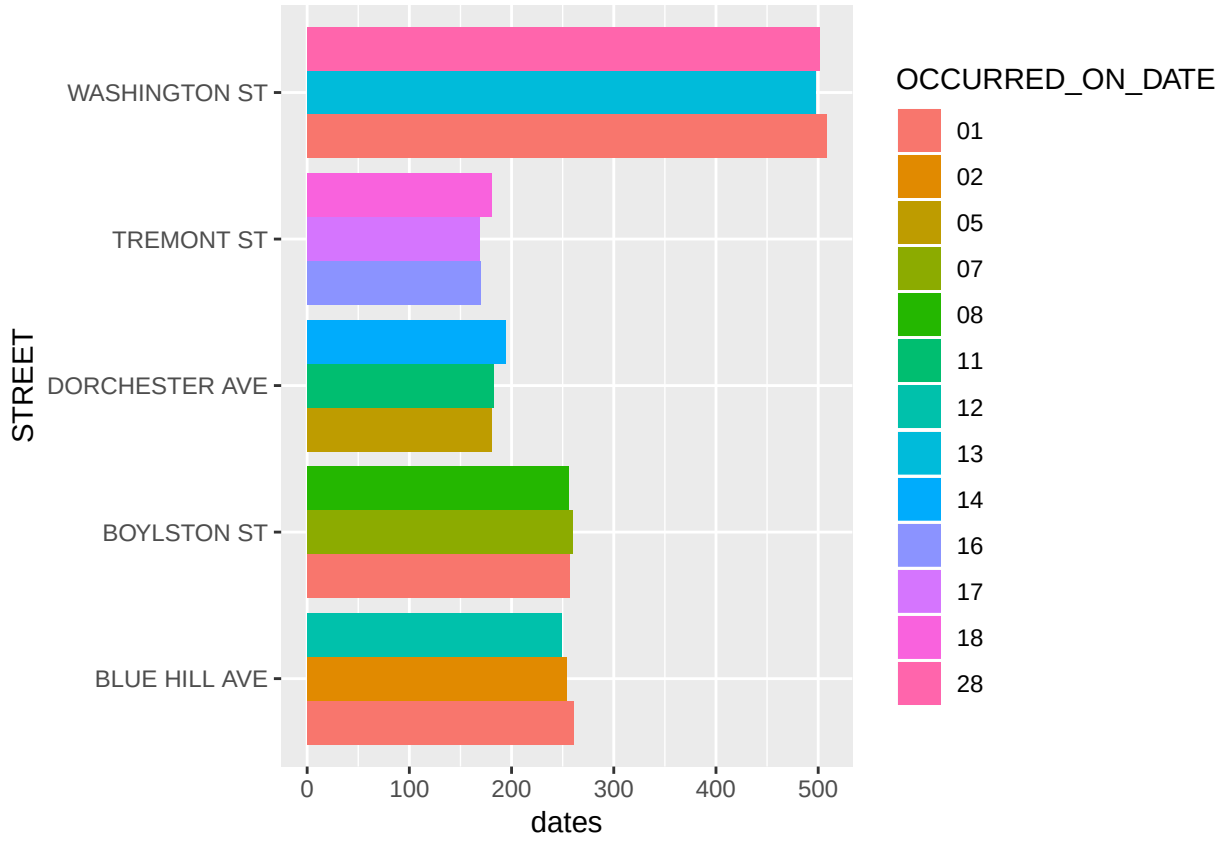



```
#crime on date
crime[['OCCURRED_ON_DATE']]<-crime[['OCCURRED_ON_DATE']] %>% str_sub(9,10)
dates_occurred<- crime %>% group_by(STREET,OCCURRED_ON_DATE) %>% summarise(dates=n()) %>% arrange(desc(
```

```
## Selecting by dates
```

```
left_join(one,dates_occurred) %>% ggplot(mapping = aes(x=STREET,y=dates,fill=OCCURRED_ON_DATE))+geom_ba
```

```
## Joining, by = "STREET"
```

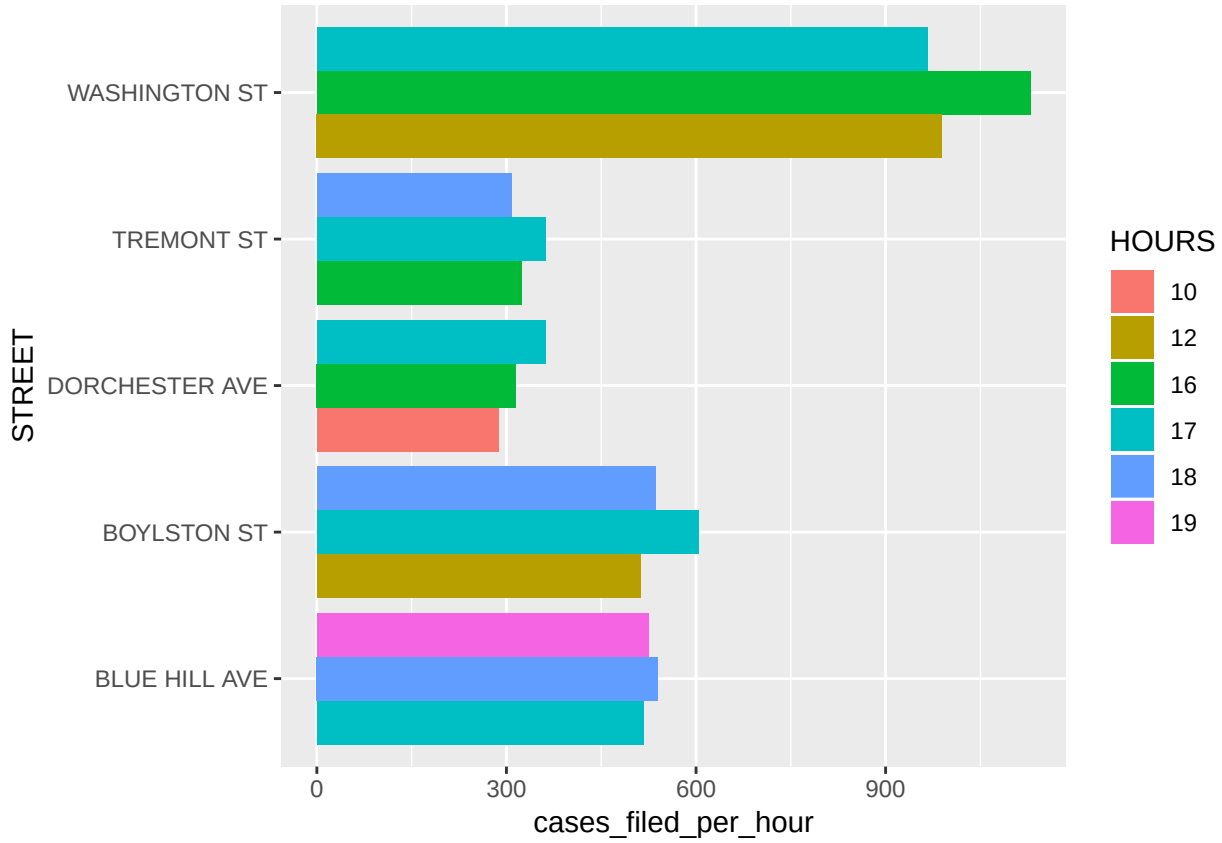



```
#offense per hour
hour<-crime %>% group_by(STREET,HOUR) %>% summarise(cases_filed_per_hour=n()) %>% arrange(desc(cases_fi
```

```
## Selecting by cases_filed_per_hour
```

```
left_join(one,hour) %>% ggplot(mapping = aes(x=STREET,y=cases_filed_per_hour,fill=as.factor(HOUR)))+geo
```

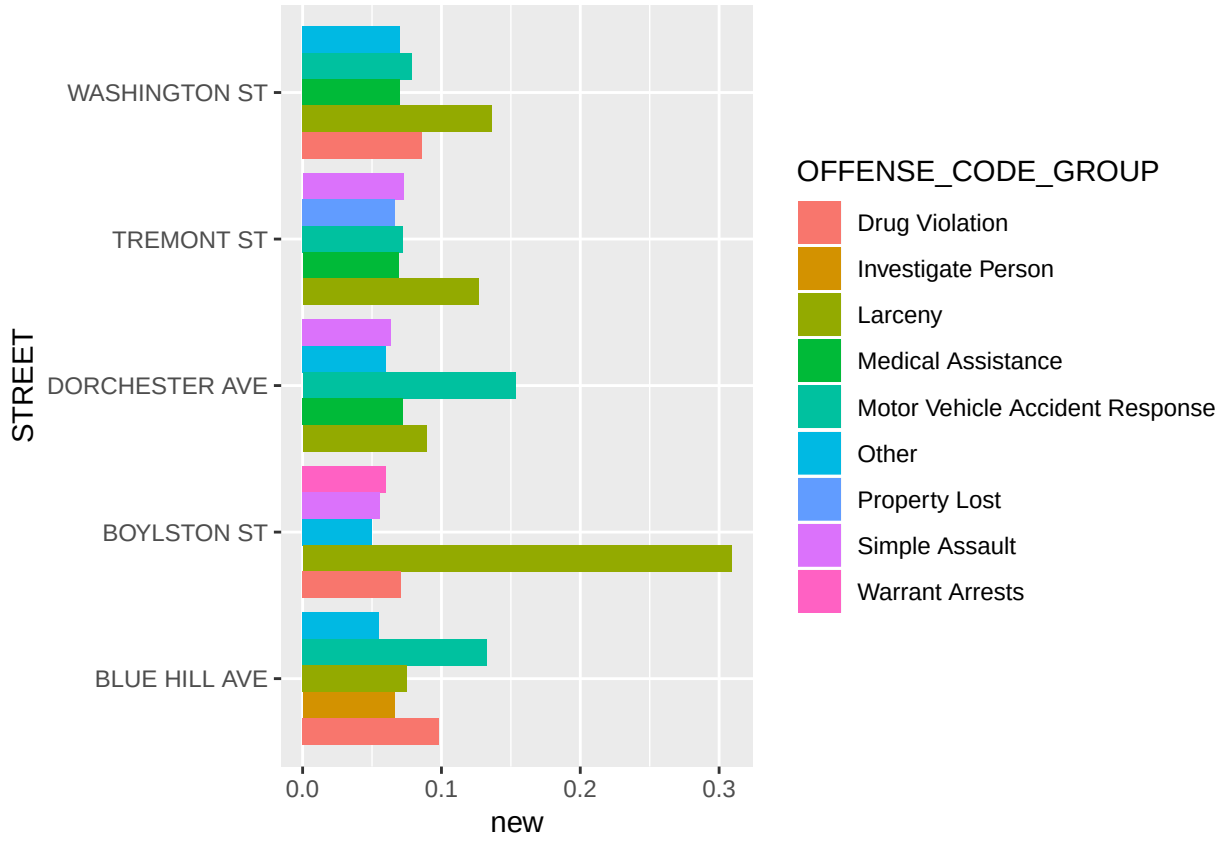
```
## Joining, by = "STREET"
```




```
#OFFENSE CODE GROUP per street
two<-crime %>% group_by(STREET,OFFENSE_CODE_GROUP) %>% summarise(tot=n())

left_join(one,two) %>% mutate(new=tot/cnt) %>% arrange(desc(tot)) %>% group_by(STREET) %>% top_n(5) %>%
```

```
## Joining, by = "STREET"
## Selecting by new
```

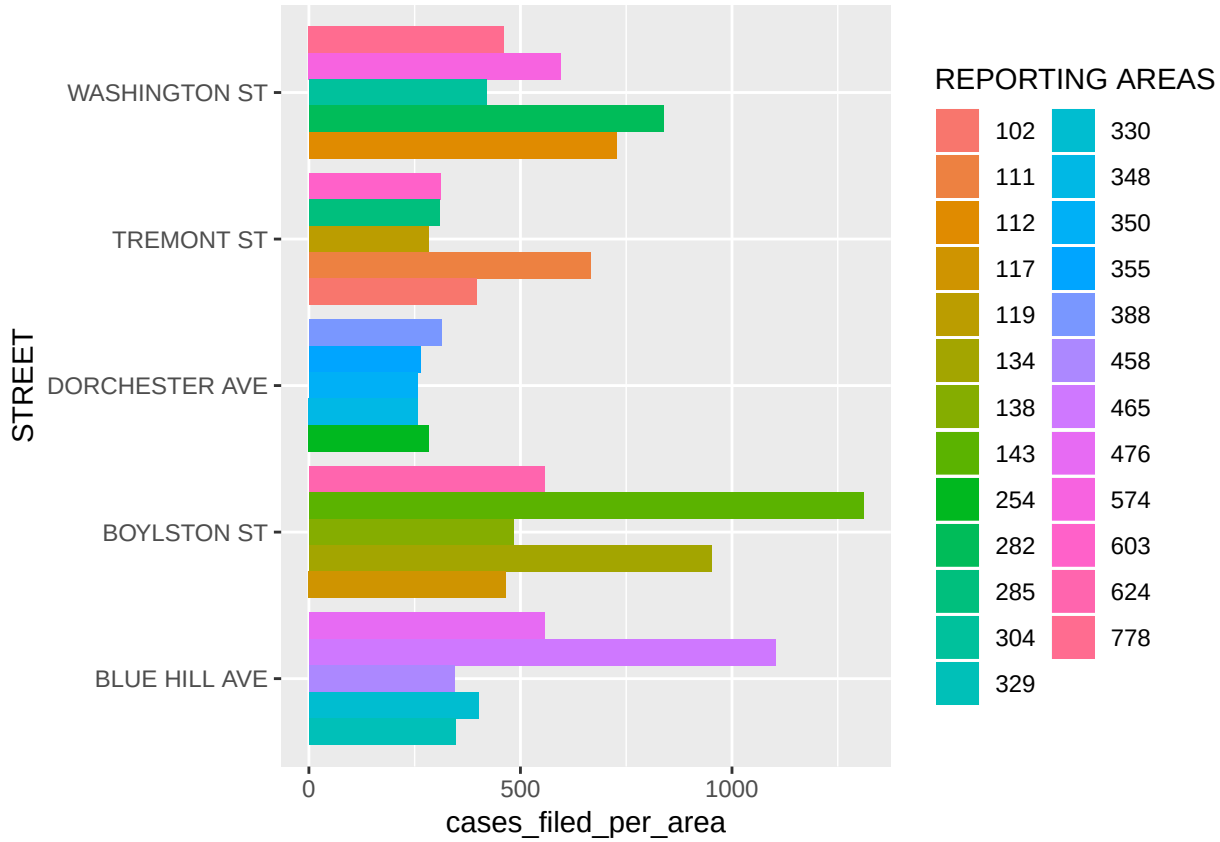



```
#offense code group per reporting area
area<-crime %>% group_by(STREET,REPORTING_AREA) %>% summarise(cases_filed_per_area=n()) %>% arrange(des
```

```
## Selecting by cases_filed_per_area
```

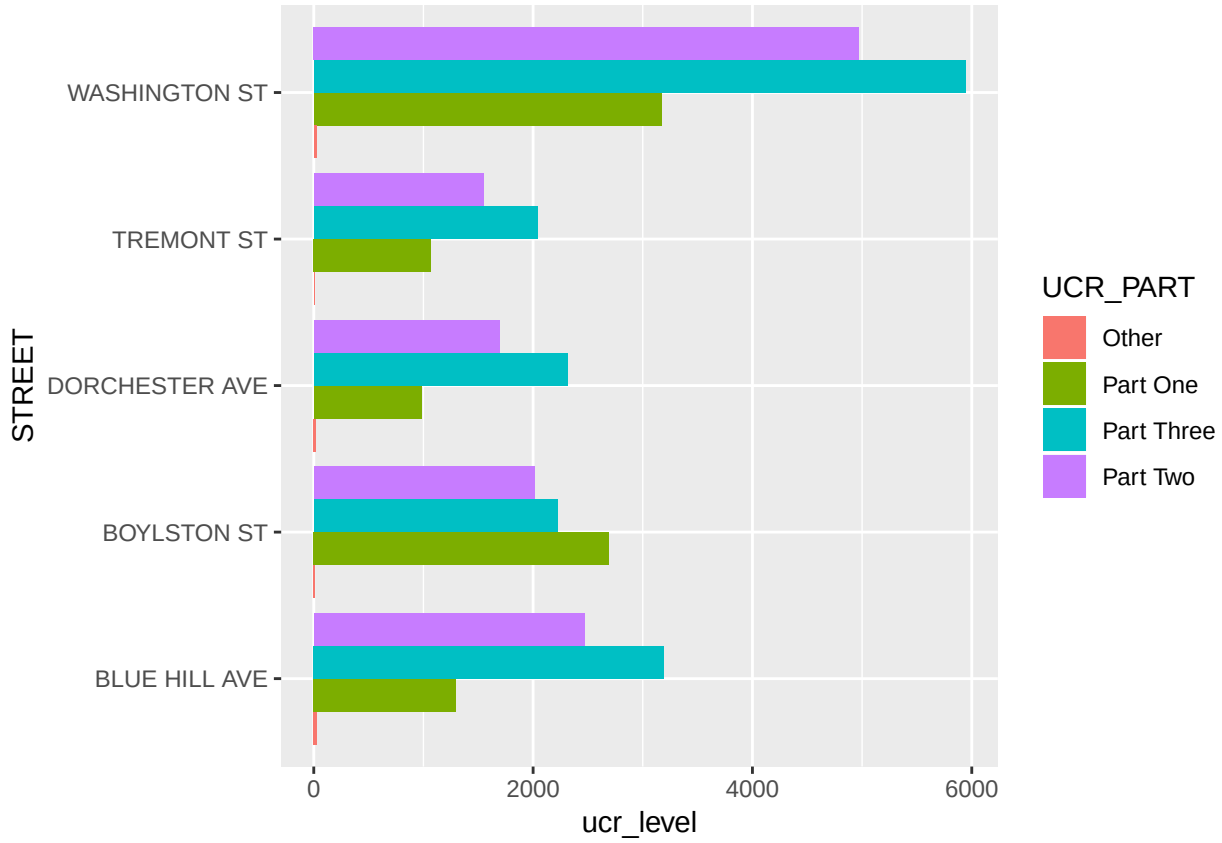
```
left_join(one,area) %>% ggplot(mapping = aes(x=STREET,y=cases_filed_per_area,fill=as.factor(REPORTING_A
```

```
## Joining, by = "STREET"
```




```
#ucr noted per street
uucr<-crime %>% group_by(STREET,UCR_PART) %>% summarise(ucr_level=n())
left_join(one,uucr) %>% filter(UCR_PART!="")%>% ggplot(mapping = aes(x=STREET,y=ucr_level,fill=UCR_PART
```

```
## Joining, by = "STREET"
```


WASHINGTON ST
TREMONT ST
DORCHESTER AVE
BOYLSTON ST
BLUE HILL AVE
STREET
0
2000
4000
6000
ucr_level
UCR_PART
Other
Part One
Part Three
Part Two