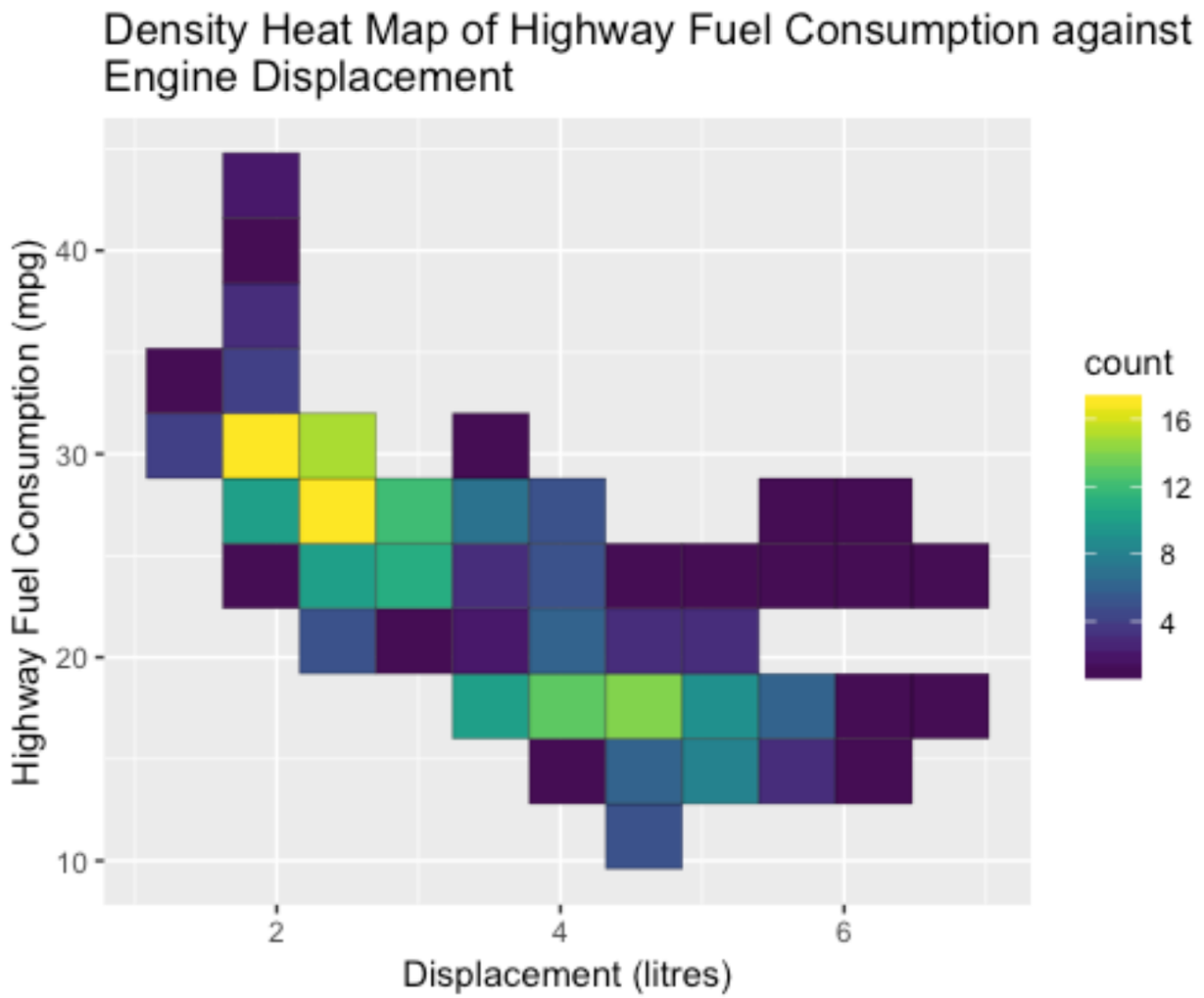


```
#2d histogram with density heatmap
ggplot(mpg, aes(displ, hwy)) +
  stat_bin2d(bins = 10, colour = "black") + scale_fill_viridis() +
  xlab("Displacement (litres)") + ylab("Highway Fuel Consumption (mpg)") +
  ggtitle ("Density Heat Map of Highway Fuel Consumption against \nEngine Displacement")
```

Plotting Time Series Data

We're going to use the in-built dataset "Economics". This contains monthly data corresponding to US population size, personal savings rate, unemployment numbers (and much more)…

```
> str(economics)
Classes ‘tbl_df’, ‘tbl’ and 'data.frame':   574 obs. of  6 variables:
 $ date    : Date, format: "1967-07-01" "1967-08-01" "1967-09-01" ...
 $ pce     : num  507 510 516 513 518 ...
 $ pop     : int  198712 198911 199113 199311 199498 199657 199808 199920 200056
200208 ...
 $ psavert : num  12.5 12.5 11.7 12.5 12.5 12.1 11.7 12.2 11.6 12.2 ...
 $ uempmed : num  4.5 4.7 4.6 4.9 4.7 4.8 5.1 4.5 4.1 4.6 ...
 $ unemploy: int  2944 2945 2958 3143 3066 3018 2878 3001 2877 2709 ...
```

We're going to plot some time series graphs revealing population size, personal savings rate, and unemployment numbers over time.