

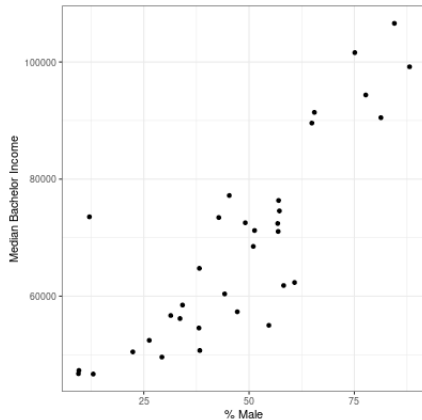
ggplot2

Grinnell College

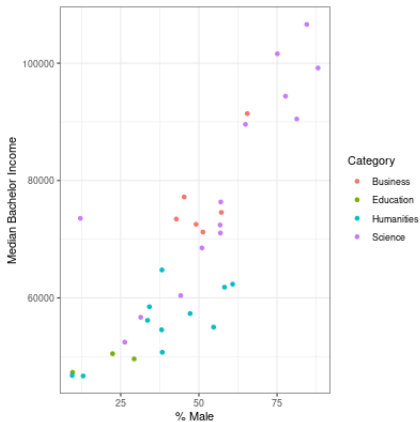
February 2, 2024

multivariate plots

```
1 ggplot(majors, aes(x = Per_Male, y = Bach_Med_Income)) +  
2   geom_point()
```

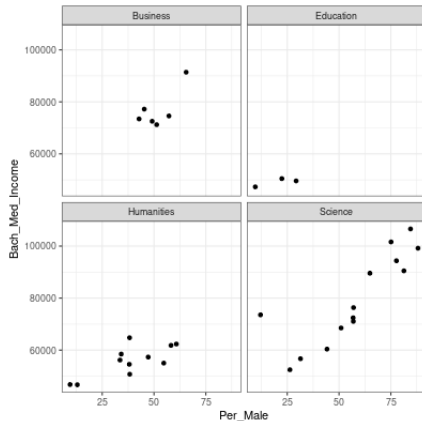


```
1 ggplot(majors, aes(Per_Male, Bach_Med_Income,  
2                   color = Category)) +  
3   geom_point()
```



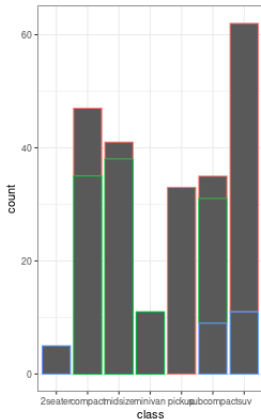
Facetting

```
1 ggplot(majors, aes(Per_Male, Bach_Med_Income)) +  
2   geom_point() +  
3   facet_wrap(~Category)
```

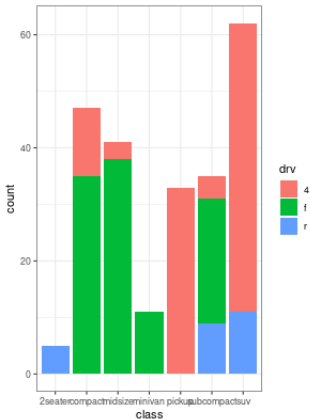


Using color aesthetic

```
1 ggplot(mpg, aes(class, color = drv)) + geom_bar()
2 ggplot(mpg, aes(class, fill = drv)) + geom_bar()
```

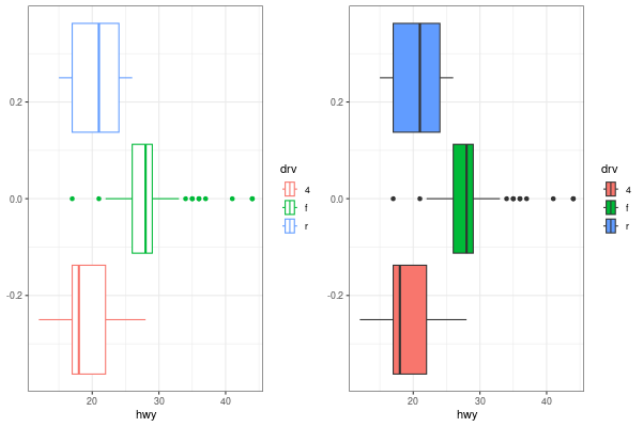


drv
4
f
r



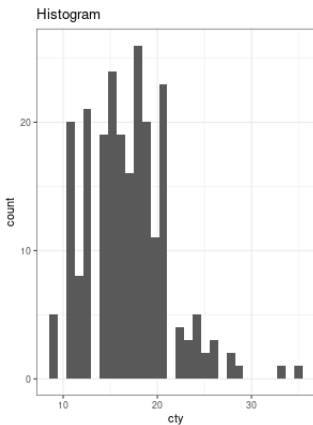
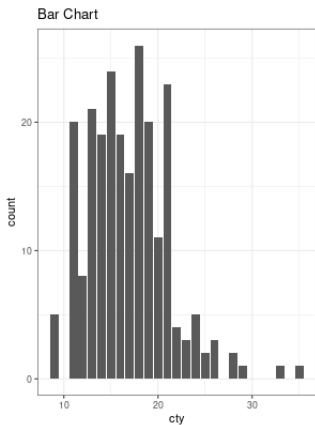
drv
4
f
r

```
1 ggplot(mpg, aes(hwy, color = drv)) + geom_boxplot()
2 ggplot(mpg, aes(hwy, fill = drv)) + geom_boxplot()
```



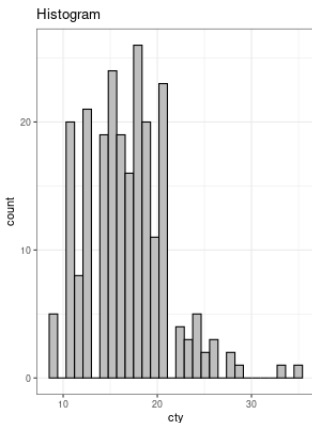
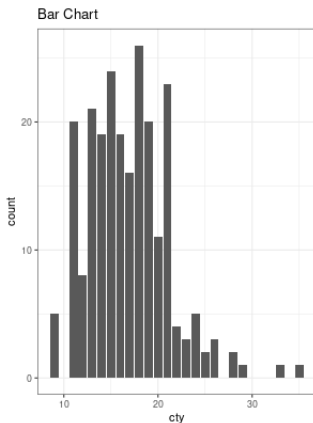
Bar vs Histogram

```
1 ggplot(mpg, aes(cty)) + geom_bar()  
2 ggplot(mpg, aes(cty)) + geom_histogram()
```



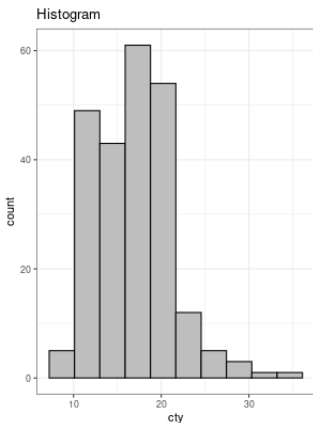
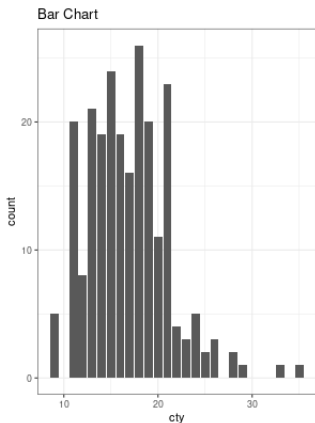
Bar vs Histogram

```
1 ggplot(mpg, aes(cty)) + geom_bar()  
2 ggplot(mpg, aes(cty)) +  
3   geom_histogram(color = 'black', fill = 'gray')
```



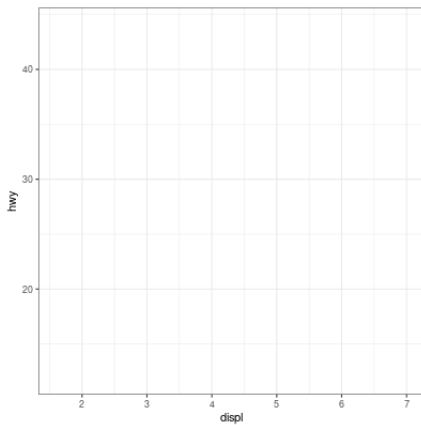
Bar vs Histogram

```
1 ggplot(mpg, aes(cty)) + geom_bar()  
2 ggplot(mpg, aes(cty)) +  
3   geom_histogram(color = 'black', fill = 'gray', bins = 10)
```

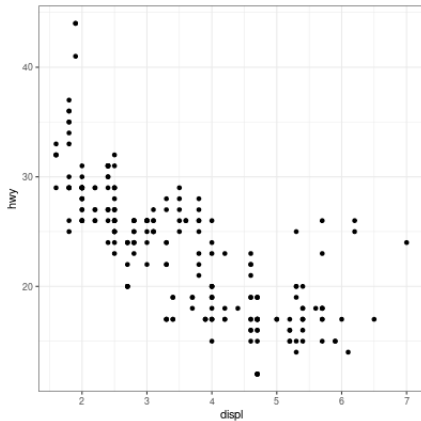


Local specification of aesthetics

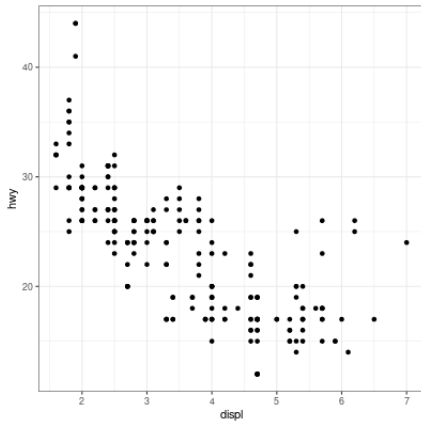
```
1 ggplot(mpg, aes(displ, hwy))
```



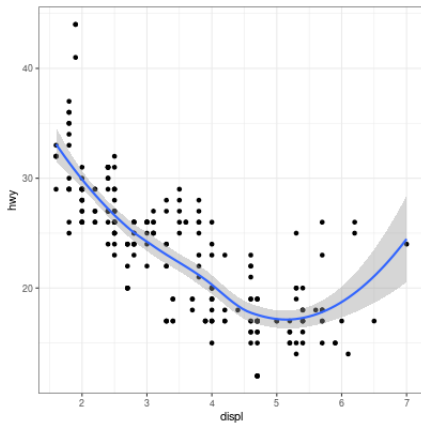
```
1 ggplot(mpg, aes(displ, hwy)) +  
2   geom_point()
```



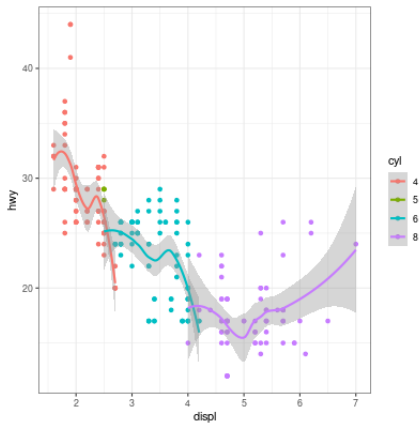
```
1 ggplot(mpg) +  
2   geom_point(aes(displ, hwy))
```



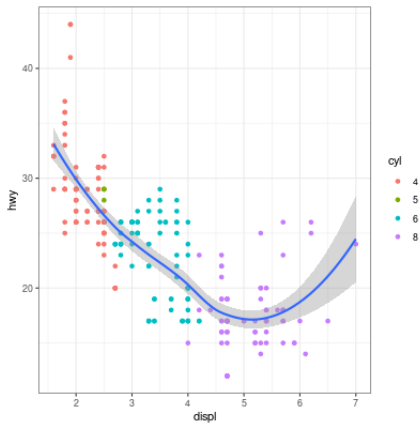
```
1 ggplot(mpg, aes(displ, hwy)) +  
2   geom_point() +  
3   geom_smooth()
```




```
1 ggplot(mpg, aes(displ, hwy, color = cyl)) +  
2   geom_point() +  
3   geom_smooth()
```



```
1 ggplot(mpg, aes(displ, hwy)) +  
2   geom_point(aes(color = cyl)) +  
3   geom_smooth()
```



```
1 ggplot(mpg, aes(displ, hwy)) +  
2   geom_point() +  
3   geom_smooth(aes(color = cyl))
```

