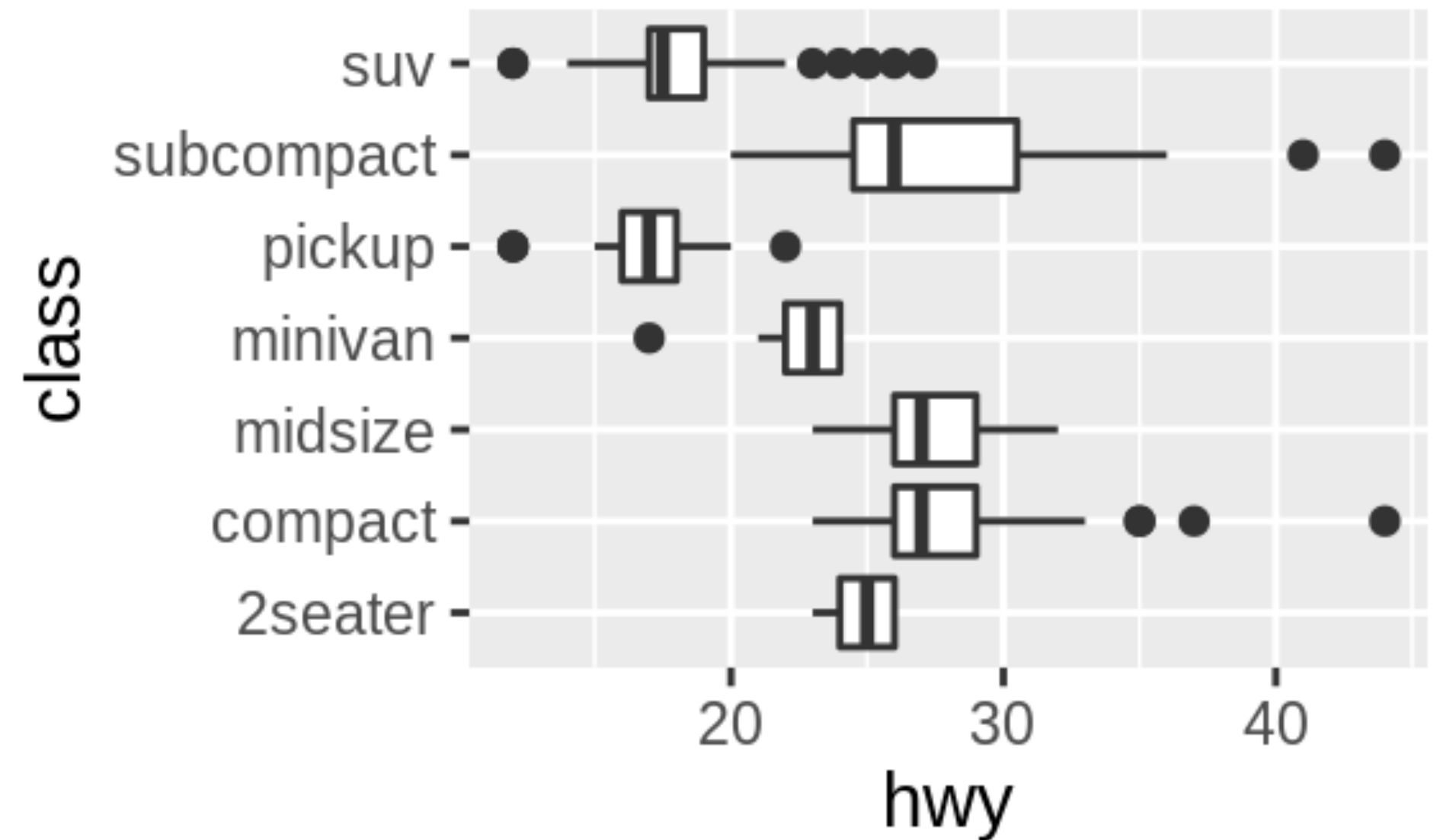


# Many plots apply statistical transformations or summaries to the input data

```
ggplot(data = mpg, mapping = aes(x = class, y = hwy)) +  
  geom_boxplot() +  
  coord_flip()
```



# Many plots apply statistical transformations or summaries to the input data

1. **geom\_bar()** begins with the **diamonds** data set

carat	cut	color	clarity	depth	table	price	x	y	z
0.23	Ideal	E	SI2	61.5	55	326	3.95	3.98	2.43
0.21	Premium	E	SI1	59.8	61	326	3.89	3.84	2.31
0.23	Good	E	VS1	56.9	65	327	4.05	4.07	2.31
0.29	Premium	I	VS2	62.4	58	334	4.20	4.23	2.63
0.31	Good	J	SI2	63.3	58	335	4.34	4.35	2.75
...	...	...	...	...	...	...	...	...	...

stat\_count()

2. **geom\_bar()** transforms the data with the "count" stat, which returns a data set of cut values and counts.

cut	count	prop
Fair	1610	1
Good	4906	1
Very Good	12082	1
Premium	13791	1
Ideal	21551	1

3. **geom\_bar()** uses the transformed data to build the plot. cut is mapped to the x axis, count is mapped to the y axis.

