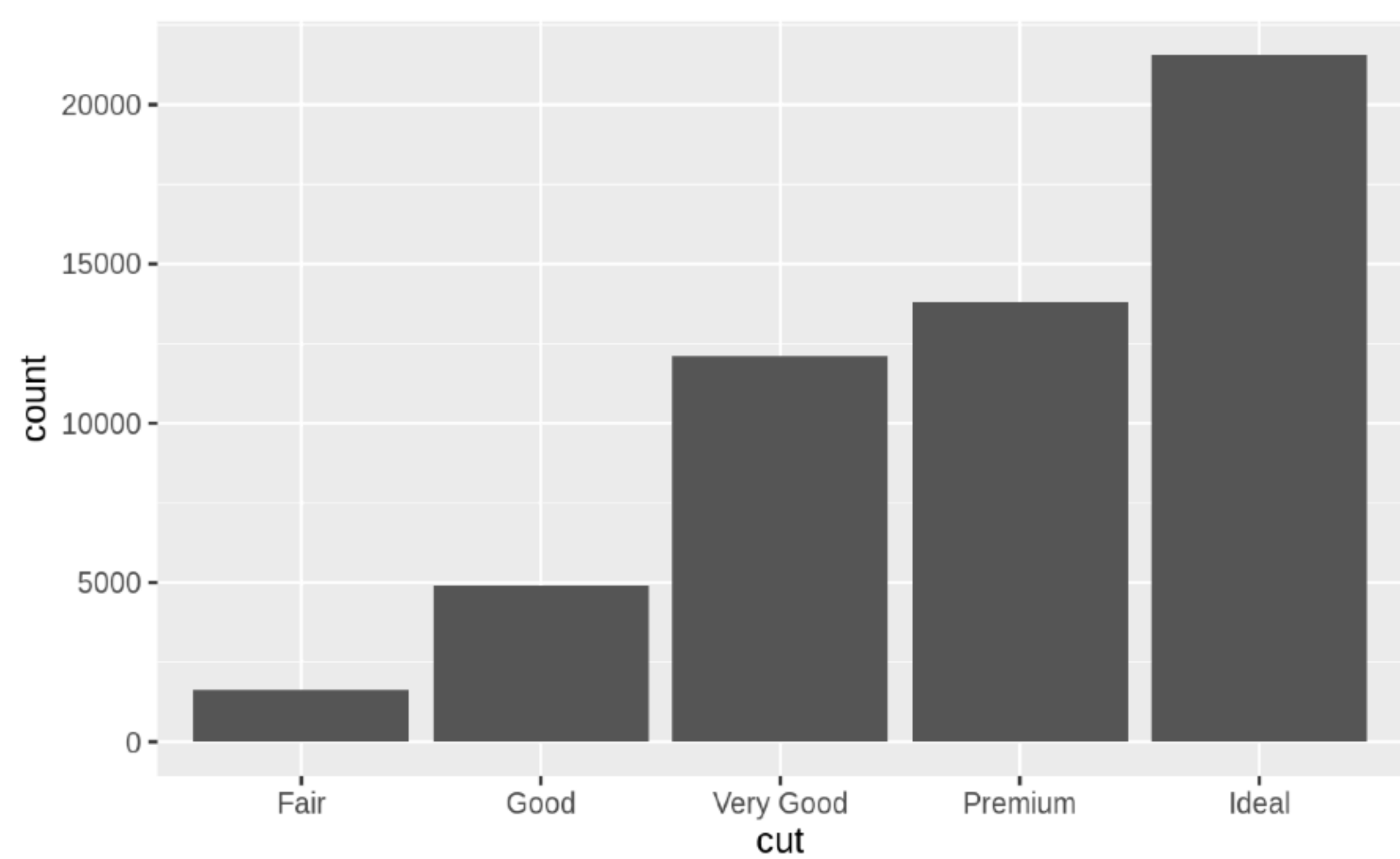




Many plots apply statistical transformations or summaries to the input data

```
ggplot(data = diamonds) +  
  geom_bar(mapping = aes(x = cut))
```



```

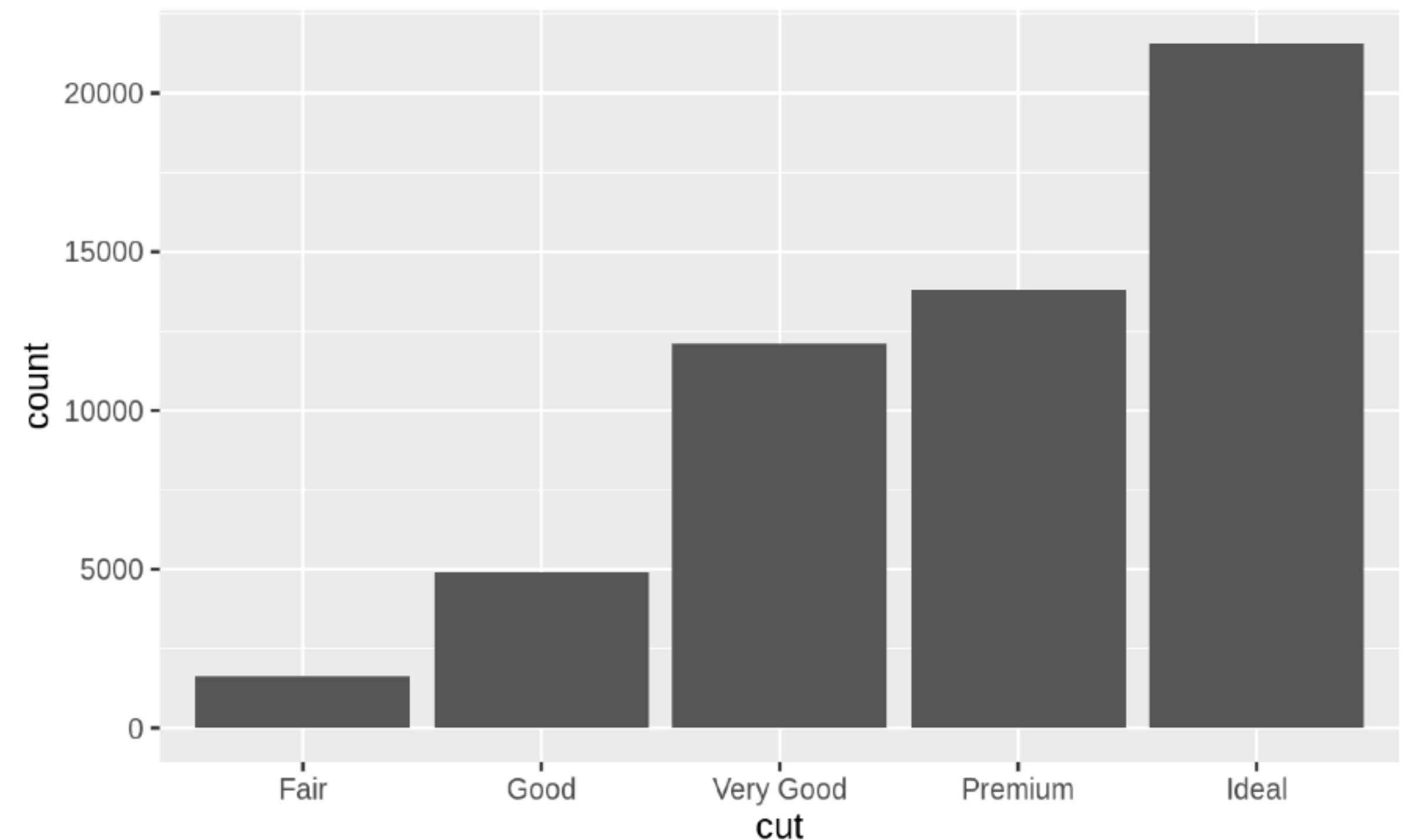
# A tibble: 53,940 x 10
  carat cut          color clarity depth table price      x      y      z
  <dbl> <ord>          <ord> <ord>    <dbl> <dbl> <int> <dbl> <dbl> <dbl>
1  0.23 Ideal        E      SI2     61.5    55    326  3.95  3.98  2.43
2  0.21 Premium      E      SI1     59.8    61    326  3.89  3.84  2.31
3  0.23 Good         E      VS1     56.9    65    327  4.05  4.07  2.31
4  0.290 Premium      I      VS2     62.4    58    334  4.2   4.23  2.63
5  0.31 Good         J          SI2     63.3    58    335  4.34  4.35  2.75
6  0.24 Very Good    J      VVS2     62.8    57    336  3.94  3.96  2.48
7  0.24 Very Good    I      VVS1     62.3    57    336  3.95  3.98  2.47
8  0.26 Very Good    H      SI1     61.9    55    337  4.07  4.11  2.53
9  0.22 Fair         E      VS2     65.1    61    337  3.87  3.78  2.49
10 0.23 Very Good    H      VS1     59.4    61    338  4     4.05  2.39
# ... with 53,930 more rows

```

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

```
ggplot(data = diamonds) +  
  geom_bar(mapping = aes(x = cut))
```

```
# A tibble: 53,940 x 10  
  carat cut      color clarity depth table price      x      y      z  
  <dbl> <ord>    <ord> <ord>  <dbl> <dbl> <int> <dbl> <dbl> <dbl>  
1  0.23 Ideal      E    SI2    61.5   55   326  3.95  3.98  2.43  
2  0.21 Premium    E    SI1    59.8   61   326  3.89  3.84  2.31  
3  0.23 Good      E    VS1    56.9   65   327  4.05  4.07  2.31  
4  0.290 Premium    I    VS2    62.4   58   334  4.2   4.23  2.63  
5  0.31 Good      J    SI2    63.3   58   335  4.34  4.35  2.75  
6  0.24 Very Good J    VVS2    62.8   57   336  3.94  3.96  2.48  
7  0.24 Very Good I    VVS1    62.3   57   336  3.95  3.98  2.47  
8  0.26 Very Good H    SI1    61.9   55   337  4.07  4.11  2.53  
9  0.22 Fair      E    VS2    65.1   61   337  3.87  3.78  2.49  
10 0.23 Very Good H    VS1    59.4   61   338  4     4.05  2.39  
# ... with 53,930 more rows
```



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

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

