

## Q1

### 1(a): Number of reviews each property receives in each city

#### Output 1: Summarised statistics for reviews, Paris and Copenhagen

COPENHAGEN:

```
##      Min. 1st Qu.  Median      Mean 3rd Qu.      Max.
##      0.00    1.00    4.00   10.26   12.00   400.00
```

#####

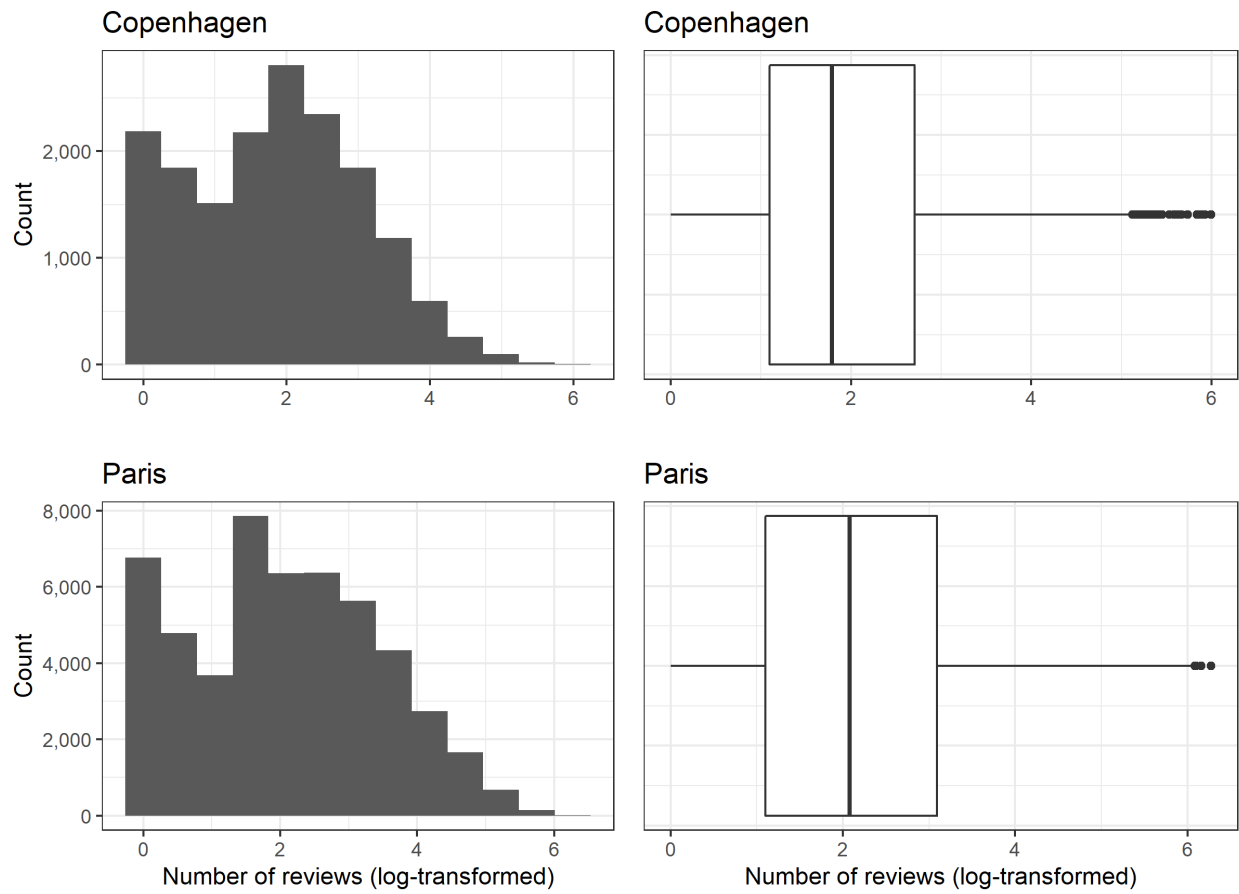
PARIS:

```
##      Min. 1st Qu.  Median      Mean 3rd Qu.      Max.
##      0.00    0.00    4.00   14.61   14.00   529.00
```

**Table 1: Number of reviews per property, Paris and Copenhagen**

Number of reviews per property	Paris total	Paris %	Copenhagen total	Copenhagen %
0	19,103	27.2%	4,421	20.8%
1 to 10	29,461	42%	11,008	51.7%
11 to 50	16,365	23.3%	5,163	24.2%
51 to 100	3,409	4.9%	534	2.5%
101 to 200	1,497	2.1%	152	0.7%
201 to 300	276	0.4%	18	0.1%
301 to 400	36	0.1%	5	0%
over 400	11	0%	0	0
<b>TOTAL</b>	<b>70,158</b>	<b>100%</b>	<b>21,301</b>	<b>100%</b>

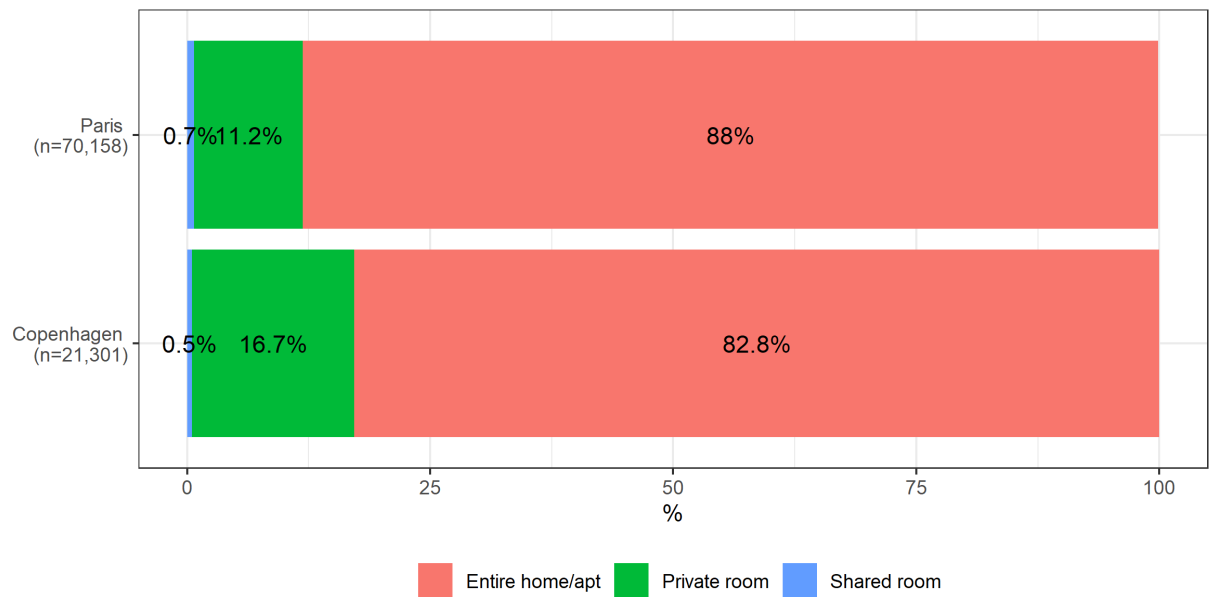
**Figure 1: Boxplots and histograms for  $\log(\text{reviews})$ , Paris and Copenhagen**



Note: All properties with no reviews have been omitted

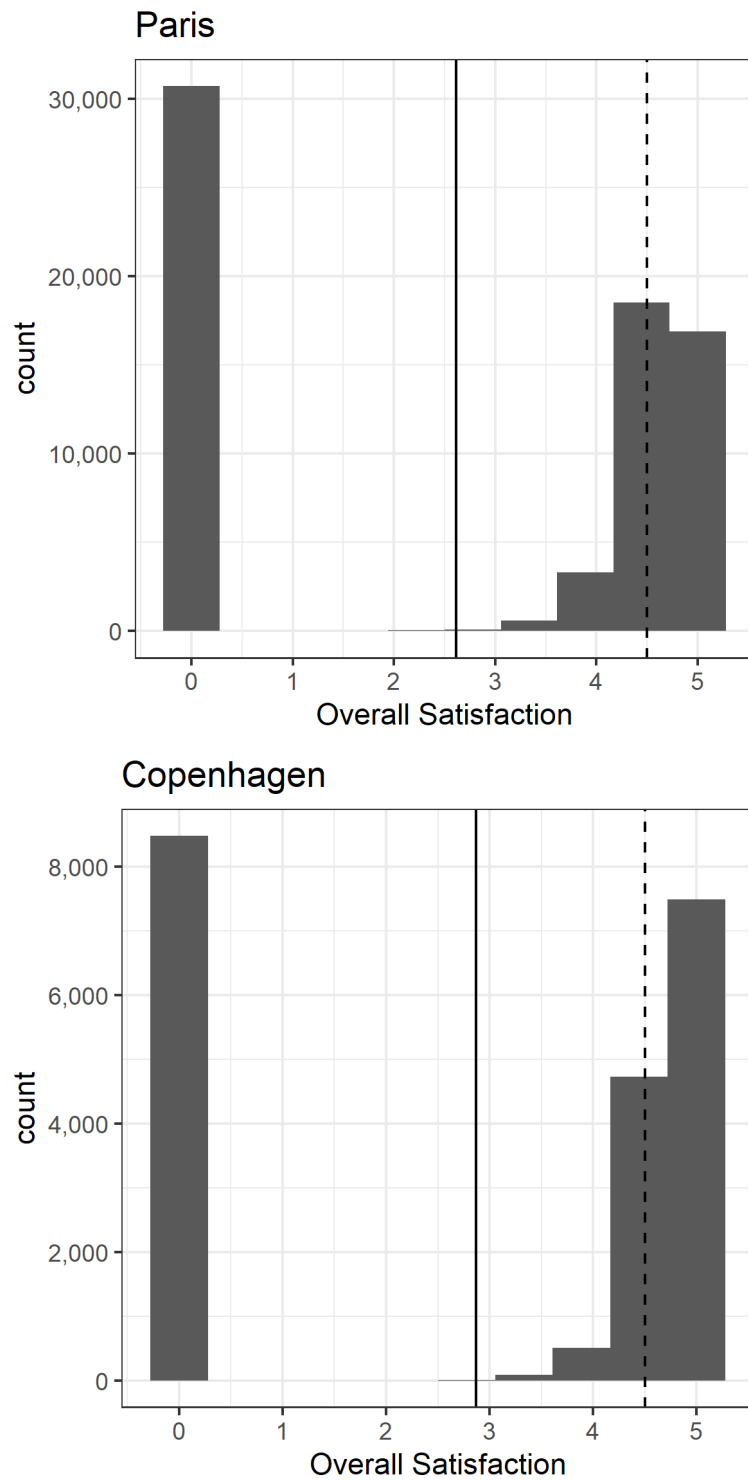
## 1(b): Room type in each property by city

Figure 2: Roomtype by city, Paris and Copenhagen



### 1(c): Satisfaction by property

Figure 3: Satisfaction by city, Paris and Copenhagen



## Output 1a: Satisfaction rating by number of reviews

PARIS:

```
## # A tibble: 846 x 5
## # Groups:   reviews [332]
##   reviews overall_satisfaction total totals      prop
##   <int>          <dbl> <int> <dbl>    <dbl>
## 1      0            0 19103  70158 27.2
## 2      1            0  6766  70158  9.64
## 3      2            0  4790  70158  6.83
## 4      3            0    25  70158  0.0356
## 5      4            0     7  70158  0.00998
## 6      5            0     3  70158  0.00428
## 7      6            0     2  70158  0.00285
## 8      7            0     2  70158  0.00285
## 9     10            0     1  70158  0.00143
## 10     3            1     5  70158  0.00713
## # ... with 836 more rows
```

#####

COPENHAGEN:

```
## # A tibble: 396 x 5
## # Groups:   reviews [186]
##   reviews overall_satisfaction total totals      prop
##   <int>          <dbl> <int> <dbl>    <dbl>
## 1      0            0  4421  21301 20.8
## 2      1            0  2187  21301 10.3
## 3      2            0  1845  21301  8.66
## 4      3            0    11  21301  0.0516
## 5      4            0     5  21301  0.0235
## 6      5            0     4  21301  0.0188
## 7      6            0     1  21301  0.00469
## 8      8            0     1  21301  0.00469
## 9      5          1.5     1  21301  0.00469
## 10     4            2     2  21301  0.00939
## # ... with 386 more rows
```