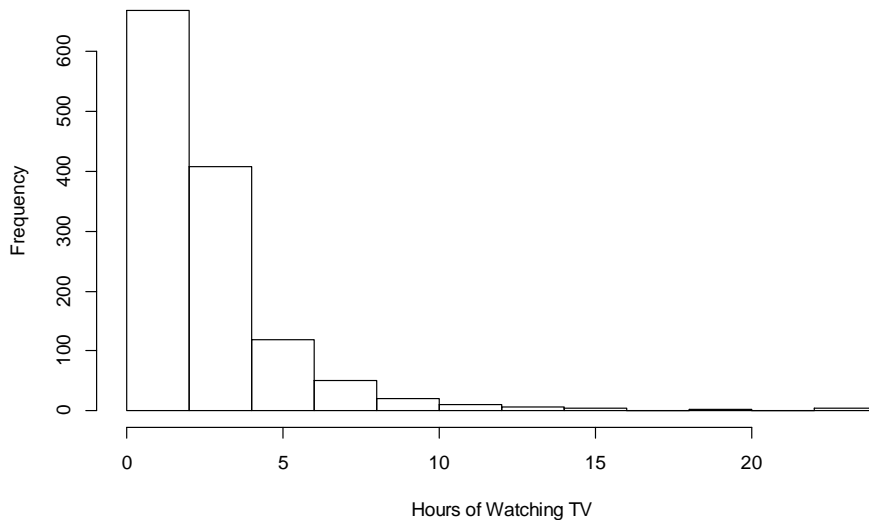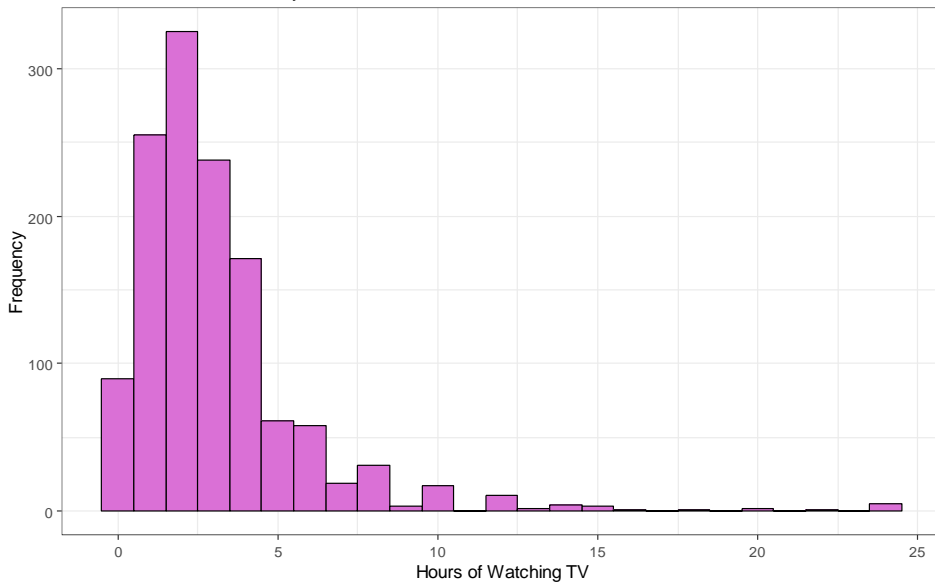# Chapter 2

Example 6: TV Watching – Histograms

```
> # Read in data from file:
> GSS <- read.csv(file='https://raw.githubusercontent.com/artofstat/data/master/Chapter2
/TVhours.csv')
>
> # Create Histogram:
> hist(GSS$tvhours, xlab="Hours of Watching TV", main="Histogram of the Numbers of Hours
 Watching TV per Day")
```

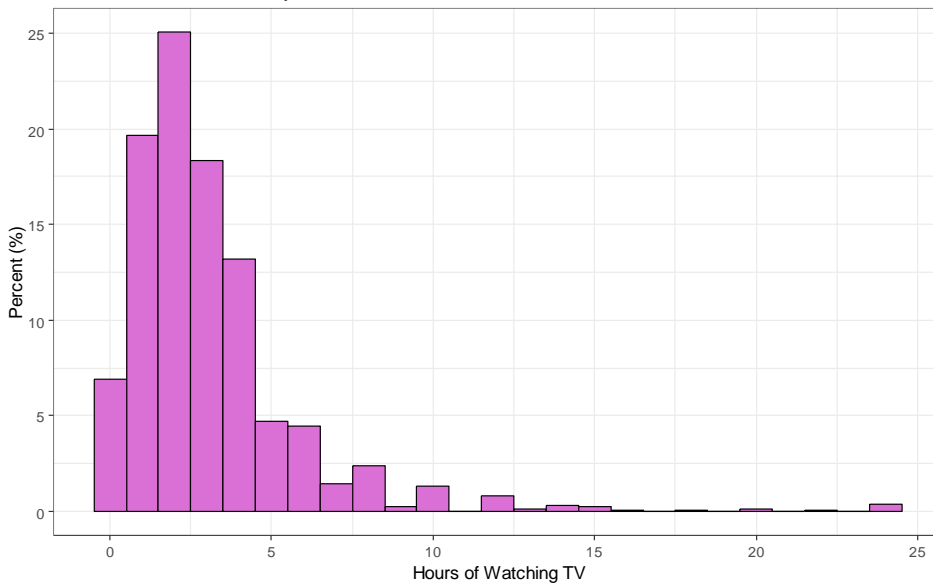**Histogram of the Numbers of Hours Watching TV per Day**


```
> # For more fine tuning, it is better to use the ggplot2 library.
> # If you haven't installed it already, first type: install.packages(ggplot2)
>
> library(ggplot2)
> # Basic plot:
> ggplot(GSS, aes(x=tvhours)) +
+     geom_histogram(binwidth=1, color="black", fill="orchid") +
+     labs(x="Hours of Watching TV", y="Frequency",
+         title="Histogram of the Numbers of Hours Watching TV per Day",
+         subtitle="Source: General Social Survey 2012") +
+     theme_bw()
```

Histogram of the Numbers of Hours Watching TV per Day
Source: General Social Survey 2012


```
> # Plotting percentages rather than counts on the y-axis:
> ggplot(GSS, aes(x=tvhours, y=100*(..count../sum(..count..)))) +
+     geom_histogram(binwidth=1, color="black", fill="orchid") +
+     labs(x="Hours of Watching TV", y="Percent (%)",
+         title="Histogram of the Numbers of Hours Watching TV per Day",
+         subtitle="Source: General Social Survey 2012") +
+     theme_bw()
```
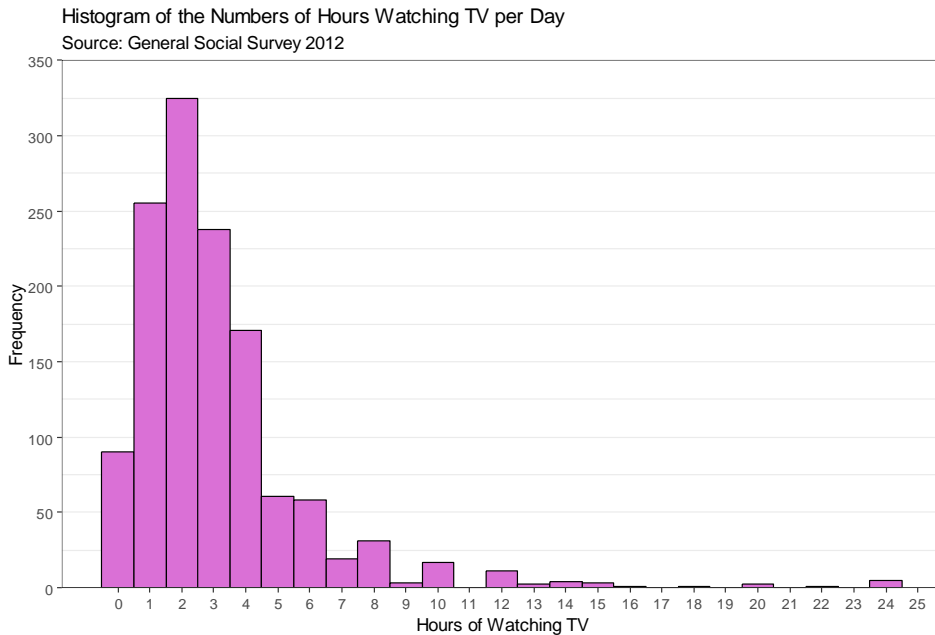
Histogram of the Numbers of Hours Watching TV per Day
Source: General Social Survey 2012

```
> # More fine-tuning such as labels on x-axis:
> ggplot(GSS, aes(x=tvhours)) +
+     geom_histogram(center=0, binwidth=1, color="black", fill="orchid") +
+     labs(x="Hours of Watching TV", y="Frequency",
+          title="Histogram of the Numbers of Hours Watching TV per Day",
+          subtitle="Source: General Social Survey 2012") +
+     theme_bw() +
+     scale_y_continuous(limits=c(0,350), breaks=seq(0,350,50), expand=c(0,0)) +
+     scale_x_continuous(breaks=seq(0,25,1)) +
+     theme(panel.grid.major.x=element_blank(), panel.grid.minor.x=element_blank())
```

Histogram of the Numbers of Hours Watching TV per Day

Source: General Social Survey 2012


```
> # with percentages rather than counts:
> ggplot(GSS, aes(x=tvhours, y=100*(..count../sum(..count..)))) +
+   geom_histogram(center=0, binwidth=1, color="black", fill="orchid") +
+   labs(x="Hours of Watching TV", y="Percent (%)",
+        title="Histogram of the Numbers of Hours Watching TV per Day",
+        subtitle="Source: General Social Survey 2012") +
+   theme_bw() +
+   scale_y_continuous(limits=c(0,26), breaks=seq(0,25,5), expand=c(0,0)) +
+   scale_x_continuous(breaks=seq(0,25,1)) +
+   theme(panel.grid.major.x=element_blank(), panel.grid.minor.x=element_blank())
```

Histogram of the Numbers of Hours Watching TV per Day
Source: General Social Survey 2012