Feb2_stat123

Koki Itagaki

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```
#Chapter 11-Lecture Notes-Feb 2
#The header = TRUE argument tells R that the first row of your. file contains
the variable names.
MH.data= read.csv("/Users/itagakikouki/stat123/MentalHealthData.csv",
header=TRUE)
#MH.data=read.csv(file.choose(), header = TRUE)
head(MH.data)
```

```
##                             Population.Group Percentage
## 1         Living in single-person household       31.2
## 2          Living in multi-person household       31.9
## 3                          Non-immigrants 7       32.6
## 4 Immigrant, less than 10 years in Canada 7       28.4
## 5   Immigrant, 10 or more years in Canada 7       30.1
## 6       Total visible minority population 8       27.6
```

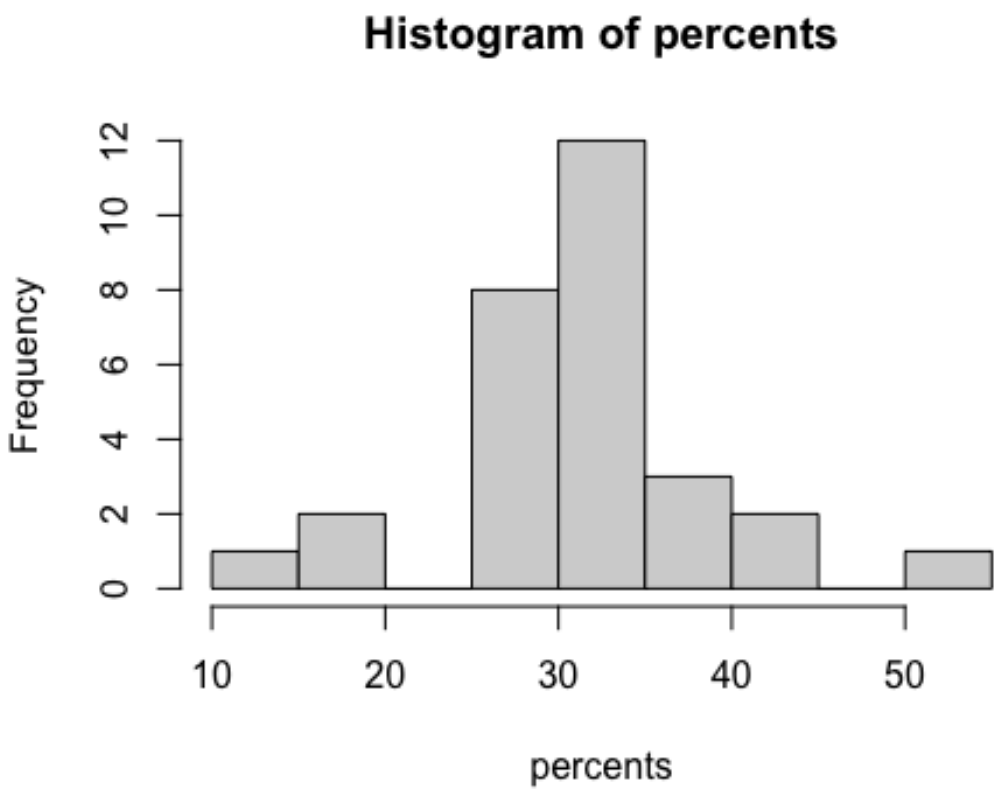
```
percents = MH.data$Percentage
percents
```

```
##  [1] 31.2 31.9 32.6 28.4 30.1 27.6 26.2 28.1 36.2 10.6 18.9 29.0 32.2 27.2
51.1
## [16] 18.3 26.6 32.7 39.5 42.5 37.6 32.5 25.4 31.1 32.9 43.1 31.4 32.3 31.5
```

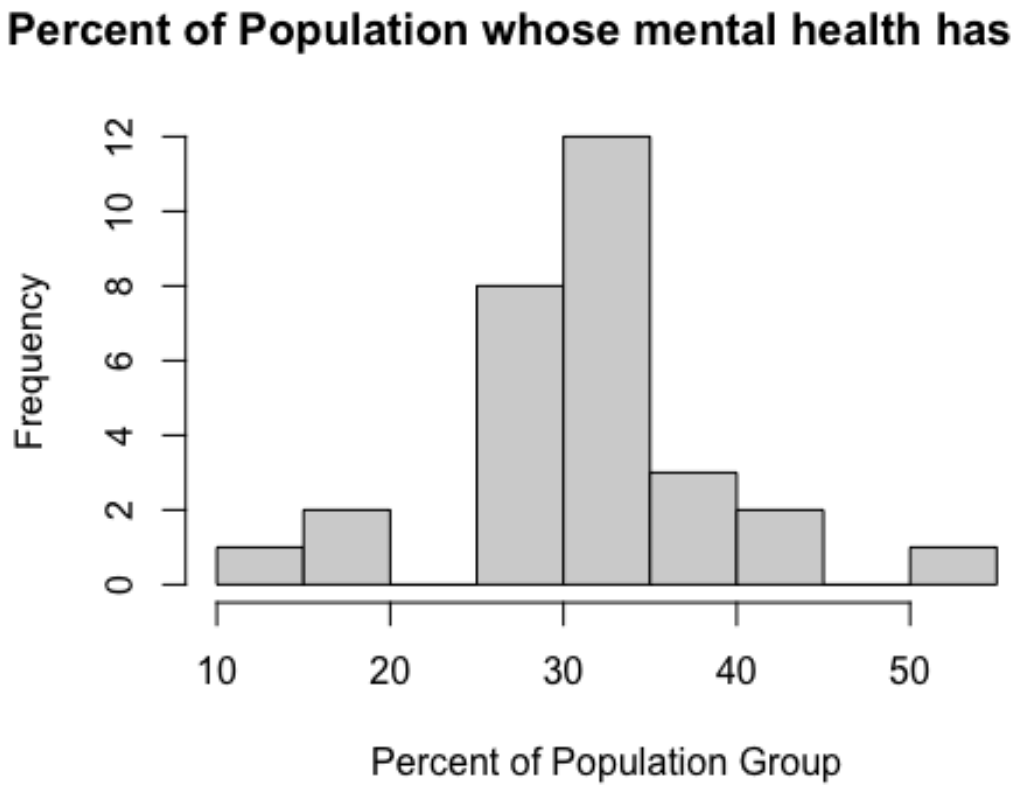
```
class(percents)
```

```
## [1] "numeric"
```

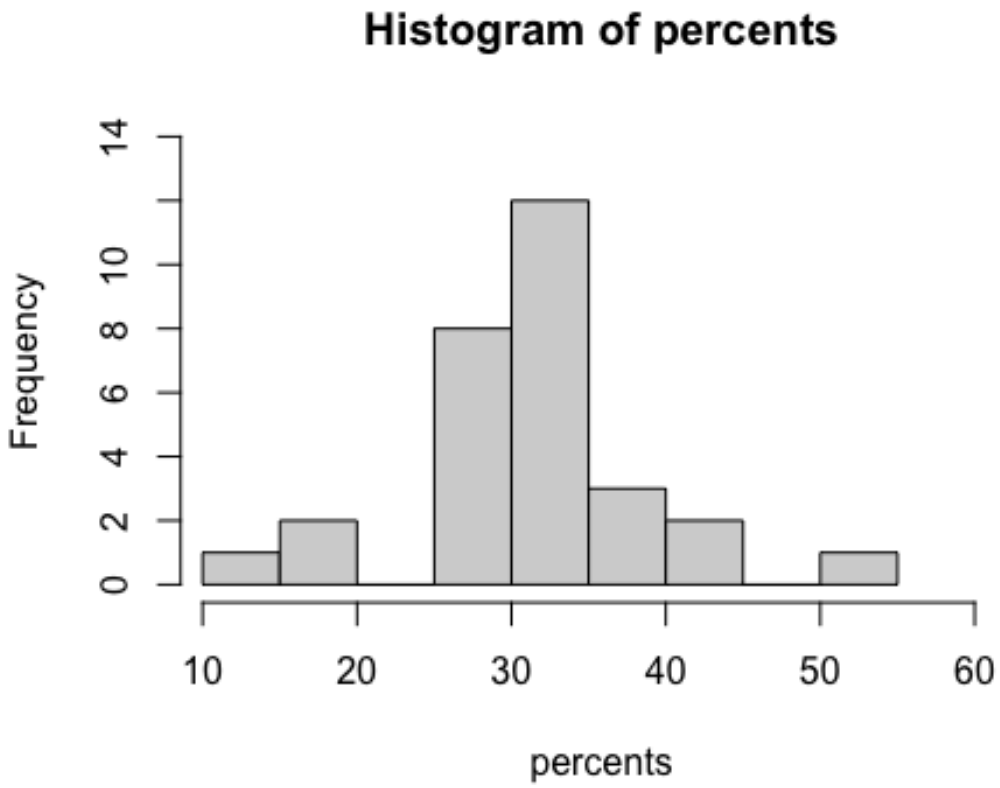
```
# We can create the histogram by using the hist() function

hist(percents)
```



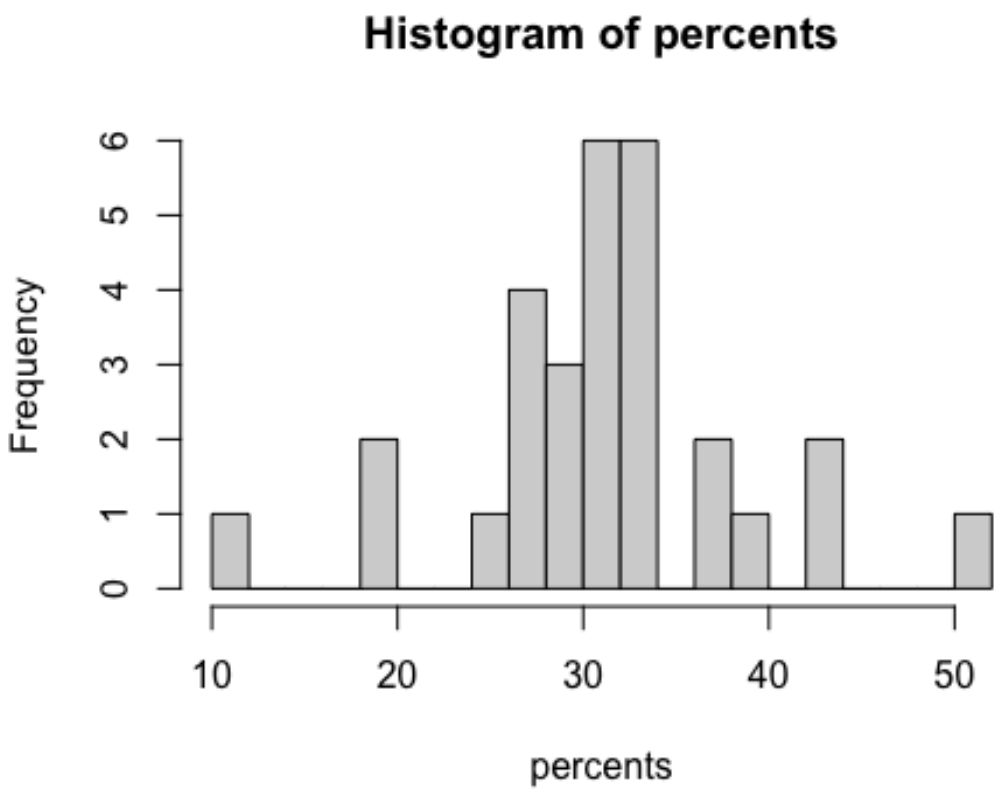

```
hist(percents, main="Percent of Population whose mental health has declined",
xlab="Percent of Population Group")
```



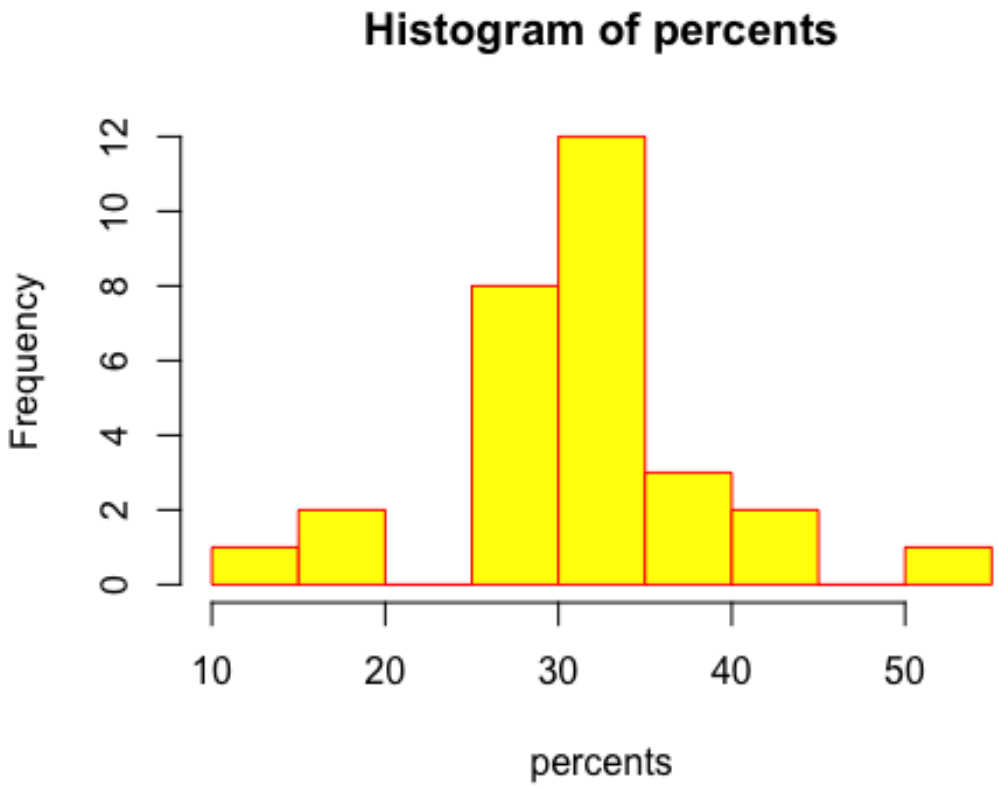

```
hist(percents, xlim = c(min(percents), max(percents)+10), ylim = c(0,14))
```




```r
#The breaks argument controls the number of bars, cells or bins of the histogram
hist(percents, breaks = 20)
```




```
hist(percents, border = "red", col = "yellow")
```




```
round(percents, 0)
```

```
##  [1] 31 32 33 28 30 28 26 28 36 11 19 29 32 27 51 18 27 33 40 42 38 32 25
31 33
## [26] 43 31 32 32
```

```
# We can create the stem plot by using the stem() function

stem(round(percents, 0))
```

```
##
##   The decimal point is 1 digit(s) to the right of the |
##
##   1 | 1
##   1 | 89
##   2 |
##   2 | 56778889
##   3 | 011122222333
##   3 | 68
##   4 | 023
##   4 |
##   5 | 1
```

```r
#scale argument: the scale we want to use for our plot/ width argument: the
desired width for our plot
stem(round(percents, 0), scale = 0.5)
```

```
##
##   The decimal point is 1 digit(s) to the right of the |
##
##   1 | 189
##   2 | 56778889
##   3 | 01112222233368
##   4 | 023
##   5 | 1
```

```r
#=====================================================
data()
dataset<- ChickWeight
head(dataset)
```

```
##   weight Time Chick Diet
## 1     42    0     1    1
## 2     51    2     1    1
## 3     59    4     1    1
## 4     64    6     1    1
## 5     76    8     1    1
## 6     93   10     1    1
```

```r
dataset$weight
```

```
##   [1]  42  51  59  64  76  93 106 125 149 171 199 205  40  49  58  72  84
103
##  [19] 122 138 162 187 209 215  43  39  55  67  84  99 115 138 163 187 198
202
##  [37]  42  49  56  67  74  87 102 108 136 154 160 157  41  42  48  60  79
106
##  [55] 141 164 197 199 220 223  41  49  59  74  97 124 141 148 155 160 160
157
##  [73]  41  49  57  71  89 112 146 174 218 250 288 305  42  50  61  71  84
93
##  [91] 110 116 126 134 125  42  51  59  68  85  96  90  92  93 100 100  98
41
## [109]  44  52  63  74  81  89  96 101 112 120 124  43  51  63  84 112 139
168
## [127] 177 182 184 181 175  41  49  56  62  72  88 119 135 162 185 195 205
41
## [145]  48  53  60  65  67  71  70  71  81  91  96  41  49  62  79 101 128
164
## [163] 192 227 248 259 266  41  49  56  64  68  68  67  68  41  45  49  51
57
## [181]  51  54  42  51  61  72  83  89  98 103 113 123 133 142  39  35  43
48
## [199]  55  62  65  71  82  88 106 120 144 157  41  47  54  58  65  73  77
```

```
89
## [217]  98 107 115 117  40  50  62  86 125 163 217 240 275 307 318 331  41
55
## [235]  64  77  90  95 108 111 131 148 164 167  43  52  61  73  90 103 127
135
## [253] 145 163 170 175  42  52  58  74  66  68  70  71  72  72  76  74  40
49
## [271]  62  78 102 124 146 164 197 231 259 265  42  48  57  74  93 114 136
147
## [289] 169 205 236 251  39  46  58  73  87 100 115 123 144 163 185 192  39
46
## [307]  58  73  92 114 145 156 184 207 212 233  39  48  59  74  87 106 134
150
## [325] 187 230 279 309  42  48  59  72  85  98 115 122 143 151 157 150  42
53
## [343]  62  73  85 102 123 138 170 204 235 256  41  49  65  82 107 129 159
179
## [361] 221 263 291 305  39  50  63  77  96 111 137 144 151 146 156 147  41
49
## [379]  63  85 107 134 164 186 235 294 327 341  41  53  64  87 123 158 201
238
## [397] 287 332 361 373  39  48  61  76  98 116 145 166 198 227 225 220  41
48
## [415]  56  68  80  83 103 112 135 157 169 178  41  49  61  74  98 109 128
154
## [433] 192 232 280 290  42  50  61  78  89 109 130 146 170 214 250 272  41
55
## [451]  66  79 101 120 154 182 215 262 295 321  42  51  66  85 103 124 155
153
## [469] 175 184 199 204  42  49  63  84 103 126 160 174 204 234 269 281  42
55
## [487]  69  96 131 157 184 188 197 198 199 200  42  51  65  86 103 118 127
138
## [505] 145 146  41  50  61  78  98 117 135 141 147 174 197 196  40  52  62
82
## [523] 101 120 144 156 173 210 231 238  41  53  66  79 100 123 148 157 168
185
## [541] 210 205  39  50  62  80 104 125 154 170 222 261 303 322  40  53  64
85
## [559] 108 128 152 166 184 203 233 237  41  54  67  84 105 122 155 175 205
234
## [577] 264 264

class(dataset$weight)

## [1] "numeric"

stem(dataset$weight)

##
##   The decimal point is 1 digit(s) to the right of the |
```

```
##
##    2 | 599999999
##    4 |
00000111111111111111111112222222222222233334566788888889999999999+38
##    6 |
00111111122222222333334444455555666677777888888900111111222222333334+8
##    8 | 00112223344444455555566777788999990001223333566666788888889
##   10 | 00001111222333333345666677788899011222234455556677 89
##   12 | 00002223333344445555667788890113444555566788889
##   14 | 11123444455556666677788890011234444555666777777789
##   16 | 00002233334444466788990000134445555789
##   18 | 12244444555677782225677778889999
##   20 | 0123444555557900245578
##   22 | 0012357701123344556788
##   24 | 08001699
##   26 | 12344569259
##   28 | 01780145
##   30 | 355798
##   32 | 12712
##   34 | 1
##   36 | 13
```