Section 2.3 — Analyzing Graphs

Chris Godbout

Outline

Shape

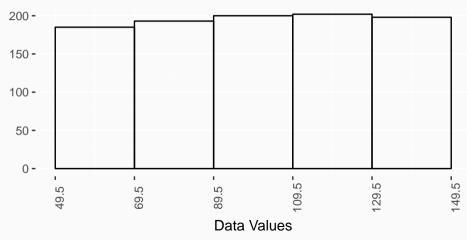
Graphs that Deceive

1

Shape

Uniform Distribution

Everything happens with the same frequency.



Skewness

Definition (Tail)

The tail of a histogram refers to the extreme regions (both left and right)

3

Skewness

Definition (Tail)

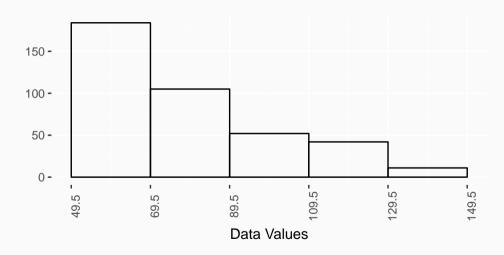
The tail of a histogram refers to the extreme regions (both left and right)

Definition (Skewed)

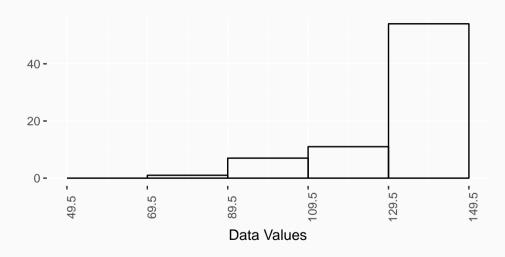
Data is skewed to the right or positively skewed if it has a longer right tail. It is skewed to the left or negatively skewed if it has a longer left tail.

3

Right-Skewed

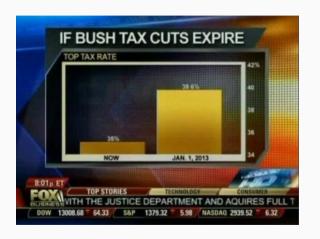


Left-Skewed

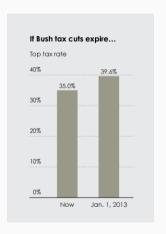


Graphs that Deceive

Nonzero Axis



Nonzero Axis



Pictographs

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Figure 1. Number of students who like
         chocolate chip cookies best
     Div. 1
     ********
Div. 2
Div. 3
     Div. 4
     ***
Div. 5
     $ 3
Div. 6
     8888
Div. 7
     ® €
Div. 8
              2 Students
```

Pictographs

Figure 2. Purchasing power of the Canadian dollar, 1980 to 2000 1980 = \$1.00 1985 = \$0.70 1990 = \$0.56 1995 = \$0.50 2000 = \$0.46