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Course > EDA: Examining Distributions > One Quantitative Variable: Measures of Spread - Range, IQR, & Outliers > Range

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Range

Learning Objective: Relate measures of center and spread to the shape of the distribution, and choose the appropriate measures in different contexts.

Range

The **range** covered by the data is the most intuitive measure of variability. The range is exactly the distance between the smallest data point (min) and the largest one (Max).

- $\text{Range} = \text{Max} - \text{min}$

Note: When we first looked at the histogram, and tried to get a first feel for the spread of the data, we were actually *approximating* the range, rather than calculating the exact range.

Example: Best Actress Oscar Winners

We will continue with the Best Actress Oscar winners example (To see the full dataset, click here [🔗](#).)

34 34 27 37 42 41 36 32 41 33 31 74 33 49 38 61 21 41 26 80 42 29 33 36 45 49 39 34 26 25 33 35 35 28 30
29 61 32 33 45 29 62 22 44

In this example:

- min = 21 (Marlee Matlin for *Children of a Lesser God*, 1986)
- Max = 80 (Jessica Tandy for *Driving Miss Daisy*, 1989)

The range covered by all the data is $80 - 21 = 59$ years.

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