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).

- Range = Max - 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.