

Goal setting – a second thought

The start page

A goal stated as 'maximum 5 % above 5 days' is incomplete. This exercise shows that this can be fulfilled by several mean values (μ).

The diagram to the right shows a distribution with $\mu = 7.0$ given the specified p and X .

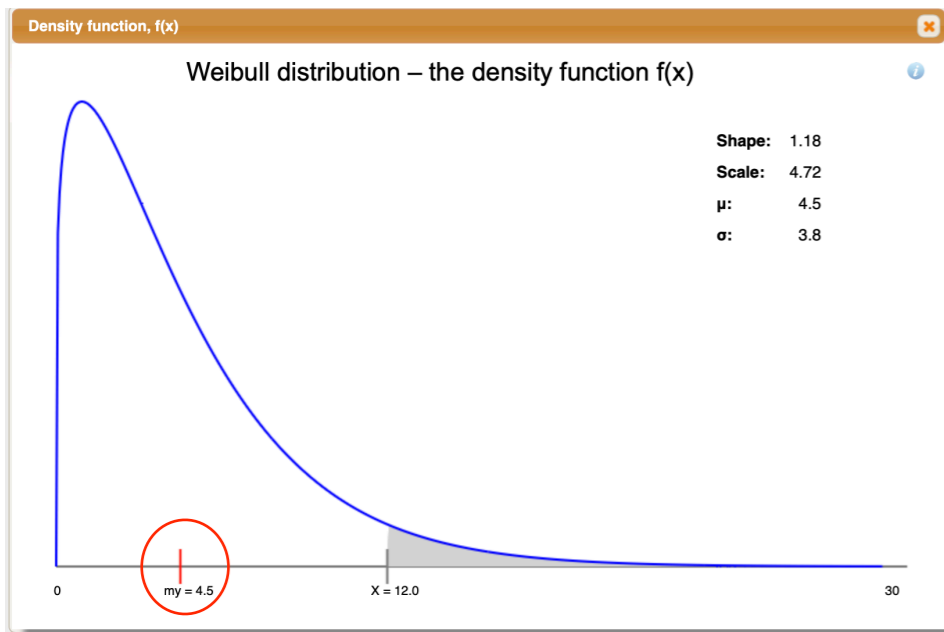
The diagram below has the same input but a completely different μ ! That is, a different process.

Surely, a time process with a lesser μ -value is better even if, unfortunately, the percentage delayed is the same.

Corresponding distribution function

Slides to control the output

Show/hide windows



Distribution according to input values

The shaded area is the p -value

Goal setting – a second thought (cont)

Distribution for time measurements

'X % above Y days' is only one point on the corresponding distribution function, the right red dot in the diagram to the right. However, two points will completely specify a distribution.

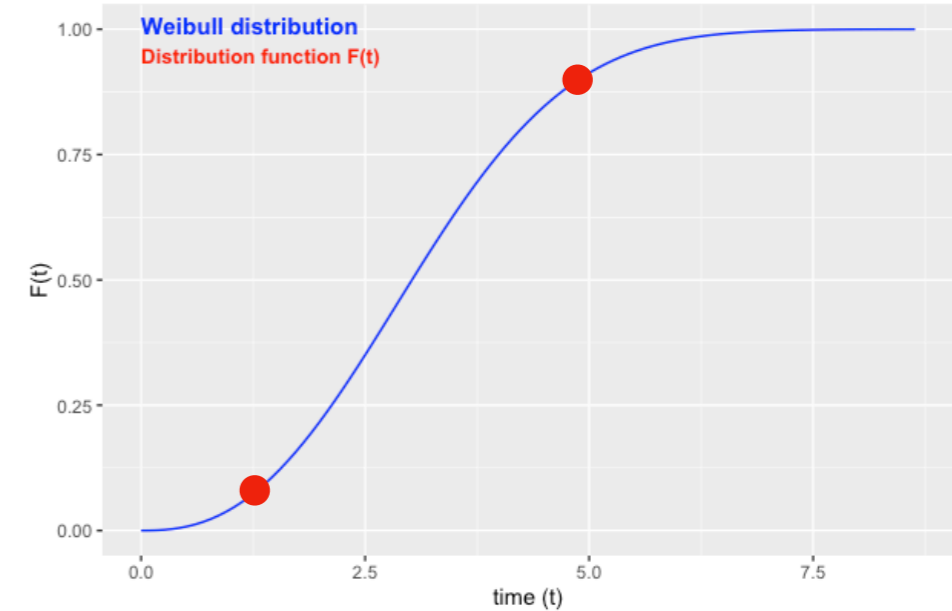
How determine the points? The right point ("X % above Y days") is usually easy to understand, probably derived from previous data and promises.

There is no obvious way to decide the left point. But it is probably easier to find what mean value that is wanted, either by previous data or economical calculations.

Therefore this exercise uses the wanted mean as the input and then finds the distribution via an iterative procedure.

(The Weibull distribution has two numerical parameters that full specify the distribution.)

Analysis of data. It is much more difficult, and needs usually more data points, to estimate the percentage outside the X-values, compared to performing a 'Goodness-of-fit'-test of the data.



Split the goal. When there is a need to save money every department needs to reduce costs.

In the same way the goal for time can be split into its subprocesses.

This is easier done if there is a distribution as a goal. E.g. the mean value and the variance is additive and thus can be divided into parts that – when summarized – gives the goal.

A model. There is a need for good model of how e.g. items flow and a good understanding how times are created and summarized.