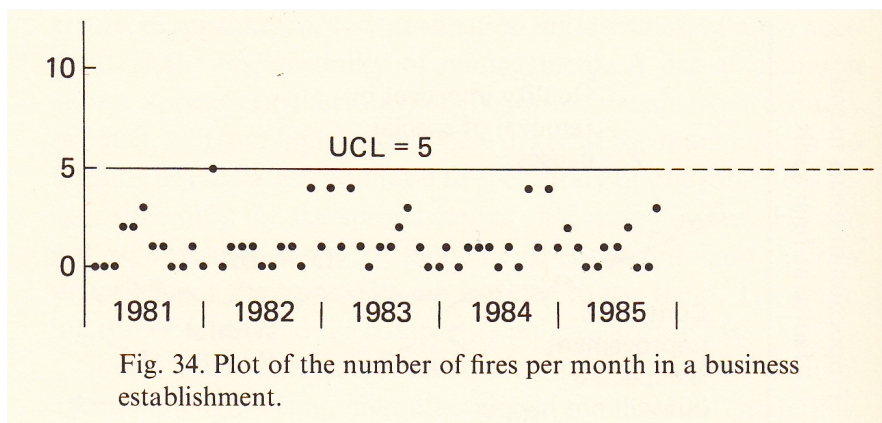


Deming and the control chart for individual figures

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When Deming was visiting headquarters or a plant of a firm, everywhere in the world, he sometimes drew control charts for individual figures. He calculated the mean and the control limits of the data by hand. He used the Shewhart's Moving Range method, except when the data followed the binomial law or the Poisson law.

A good example of the Deming's calculations according to the Moving Range method can be found in *Out of the Crisis* pages 324-325. For five years, an American business establishment had been hit by fires. The president of the company sent a letter to every one of the 10,500 employees of the company to plead with them to set fewer fires.



Here is the Deming's calculation :

For the calculation of the upper limit in Fig. 34, I used the moving range: total of all ranges, 77; 57 ranges. $\bar{R} = 77/57 = 1.35$. $\bar{R}/d_2 = 1.35/1.128 = 1.20$. Mean, $m = 67/58 = 1.16$. $m + 3\bar{R}/d_2 = 4.75$; round this to 5.

You can find the same result by using **MOVIRA**, available on <http://www.fr-deming.org>

