

Contributions to the Theory of Systematic Statistics, I.

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Introduction

Our main concerns in the theory of mathematical statistics have been "efficient estimates" and "most powerful tests".¹⁾ But from the point of view of economy, it seems reasonable to inquire whether the output of information is comparable in value to the input measured in money, man-hours, or others. Alternatively we may inquire whether comparable results could have been obtained by smaller expenditures.

Recently Dr. Frederick Mosteller²⁾ has proposed the use of systematic statistics for such purposes, basing on the fact that, however large the sample size is, all individuals of the sample are easily (with low costs and quickly) ordered by punched-card equipment. F. Mosteller considered the estimations of the mean and standard deviation of an univariate normal population and the estimation of the coefficient of correlation of