MATHEMATICAL FOUNDATION FOR A METHOD OF STATISTICAL ANALYSIS OF HOUSEHOLD BUDGETS

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The object of this paper is to offer a satisfactory method of statistical analysis of household budgets in accordance with the general principles of mathematical logic. I have, therefore, taken these words of Fourier: "Mathematics has no symbols for confused ideas"[1] as my guiding light, and set out to effect a simple and comprehensive analysis of the general type of statistical data which is included under the heading "household budgets," i. e. monetary incomes and expenditures of these incomes.

I have tried to lay the greatest stress, accordingly, on the clarity and terseness of the exposition rather than inclusiveness, attempting to diminish to the utmost the number of undefined ideas and the undemonstrated propositions. I make no special claim to originality and base my method upon the works of numerous previous investigators, summarizing analytically old principles and ideas on the bases of mutual consistency and reducibility to more fundamental principles. This paper is specially framed to relieve the feeling of intellectual discomfort which of late has been troublesome to conscientious investigators in our field, so overcrowded with revelations of numerous parts, rather than with indications of the mode of combination of the major components within the whole. I address here the properly instructed mind and so dispense at times with the elaboration of some statements.

In this summary, therefore, we shall be concerned with laying down a rigid method for analysing the budgetary data, defining their scope formally to include only the monetary incomes and

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[1] Quoted from J. A. Schumpeter, *Die Wirtschaftstheorie der Gegenwart,* Wien, I, 11, 1927.