



Laws of Wages: An Essay in Statistical Economics by Henry Ludwell Moore Review by: G. U. Y. *Journal of the Royal Statistical Society*, Vol. 75, No. 5 (Apr., 1912), pp. 551-553 Published by: <u>Wiley</u> for the <u>Royal Statistical Society</u> Stable URL: <u>http://www.jstor.org/stable/2340114</u> Accessed: 10/06/2014 22:34

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at http://www.jstor.org/page/info/about/policies/terms.jsp

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.



Wiley and Royal Statistical Society are collaborating with JSTOR to digitize, preserve and extend access to Journal of the Royal Statistical Society.

http://www.jstor.org

REVIEWS OF STATISTICAL AND ECONOMIC BOOKS.

PAGE PAGE 1.-Moore (Prof. H. L.). Laws 5.-Robinson (M. F.). The Poor of Wages 551 Law Enigma 556 2.-Neumann (Dr. A.). Die 6.-Bertillon (J.). La Dépopu-Bewegung der Löhne der landlation de la France...... 558 lichen "freien "Arbeiter 553 7.-Behla (Dr. R.). Krebs und Tuberkulose 560 La Fortune 3.-Théry (E.). Publique de la France...... 554 8.—Janssen (Professor A.). Les 4.-Carr (A. S. C.), Garnett (W. Conventions monétaires 561 9.—Other New Publications 562 H. S.), and Taylor (J. H.). National Insurance...... 555

1.—Laws of wages: an essay in statistical economics. By Henry Ludwell Moore, Professor of Political Economy in Columbia University. 196 pp., 8vo. New York: The Macmillan Co., 1911. Price \$1 60 cents.

The use by professed economists of modern statistical methods has hitherto been of a comparatively rare and sporadic kind, and we welcome the present volume as a further indication that economists have taken note of such methods and recognise that the union of economic and statistical knowledge should prove a fertile one. The volume forms an endeavour—to cite the author's own words—" to use the newer statistical methods and the more recent economic theory to extract, from data relating to wages, either new truth or else truth in such new form as will admit of its being brought into fruitful relation with the generalisations of economic science."

After a short introductory chapter on statistical laws, Professor Moore examines successively the statistically observable relations between wages and the means of subsistence, the standard of life. the productivity of labour, ability, strikes, and the concentration of industry. For the first two questions, the data are drawn from the French report on Salaires et durée du travail (1893-97). The correlation between the wages of unskilled labourers and the cost of a standard budget is found to be 0.306. The correlation, on the other hand, between wages and the "prix ordinaire de pension payé par l'ouvrier isolé pour le logement et la nourriture" (regarded as some indication of the standard of life) is as high as 0.667. For an illustration of third problem—the relation between wages and the productivity of labour-data are borrowed from M. Simiand's work on the wages of coal miners in France. When curves are traced showing (1) the mean daily wage of the miner in each year, (2) the mean value of his daily product, the fluctuations of the two are clearly in close relation. When the effect of the general trend of each is eliminated by a method similar to that used by Norton ("Statistical studies in the New York money market"), viz., interpolation by a logarithmic curve, the correlation found between

551

CONTENTS :

[April,

the percentage deviations is 0.843. If the two variables taken are (1) ratio of daily wage to value of daily product, (2) horse-power available per 100 labourers-the latter being regarded as some indication of the amount of capital employed-the correlation between percentage deviations from the trend is 0.599. Passing to the question of strikes, the method of the contingency co-efficient is used to examine the relation between the outcome of strikes (failure or success) and the strength of labour organisations in the industry concerned, between duration and outcome, between causes and outcome, and so forth. Finally the last chapter, on wages and the concentration of industry, is devoted to the discussion of such questions as the relation between the size of establishment and the rate of wages, the rate of wages and age of worker, the age of worker and size of establishment, and continuity of employment and size of establishment. We have found the whole of these chapters most interesting and stimulating reading, and distinctly provocative of a desire to examine such other data as may be available by similar methods. It seems to the present reviewer, however, that Professor Moore has occasionally been betrayed by sheer excess of enthusiasm into a definiteness of statement that is hardly justified. On page 32, for example, when the correlation between wages and cost of means of subsistence is found to be 0.306, it is said that "if the relation between the two were a relation of cause and effect, then r would approach unity," and added in the summary of conclusions, "there is no relation of cause and effect between the two." It seems to us that the only conclusion which can be drawn is that if the relation be a causal one, the cost of means of subsistence is not the sole cause—a very different thing from there being no causal relation at all. If, for example, a variable 1 is affected by two other variables 2 and 3 to an approximately equal extent, then the correlations may be, say,

$$r_{12} = r_{13} = \sqrt{0.5}, r_{23} = 0,$$

which will make the two partial correlations, $r_{13\cdot2}$, $r_{12\cdot3}$, both unity, as required. If 1 is similarly affected by *three* other variables, we might have the correlations

$$r_{12} = r_{13} = r_{14} = \sqrt{1/3}, r_{23} = r_{24} = r_{34} = 0,$$

which would similarly make $r_{12\cdot34} = r_{13\cdot24} = r_{14\cdot23} = 1$. The degree to which the correlation is lowered depends solely on the number of other causal circumstances.

We have omitted from the preceding survey of the contents of the volume the fourth chapter on the relation between ability and wages, for this forms at once the most complex, and, we think, the weakest of the author's arguments. There is no direct proof given of the relation, but only a very indirect proof via the form of the frequency distribution of wage-rates, and the assumed normality of the distribution of ability. It may be that the forms of the frequency distributions taken as illustrations are consistent with the hypothesis that wages are "proportionate to the efficiency of the workers" if this "efficiency" is normally distributed, but surely this proves very little ? It does not show that the frequency distribution did actually arise in the way suggested. 1912.]

Professor Moore has broken new ground in a most interesting field, and while we may differ from him in the weight to be attached to this or that result or the interpretation to be placed on some observed co-efficient, may offer cordial congratulations on the work as a whole. G.U.Y.

2.—Die Bewegung der Löhne der landlichen "freien" Arbeiter vom Ausgang des 18 Jahrhunderts bis 1850. Von Anna Neumann. (Vol. xl, Supplement iii, of the Landwirtschaftliche Jahrbücher), x + 400 pp., charts, 8vo. Berlin: Paul Parey, 1911.

In this extremely interesting study of agricultural wages in Germany during the first half of the nineteenth century, Dr. Anna Neumann has made a valuable contribution to our knowledge of the economic conditions prevalent in continental Europe during a period which is, in certain respects, still very obscure. Her enquiry is limited geographically to the area included within the present kingdom of Prussia, and in respect of subject to the wages of a special, though very important, class of agricultural workers — the "free day-labourers," who, whether possessed or not of some small holding of land, let their services for hire at money wages (generally receiving no payments in kind) and did not, as a rule, enter into lengthy contracts with their employers. Incidentally the author endeavours, we think with some success, to demonstrate that this class was not, as has commonly been supposed, the creation of the various enactments, which, early in the nineteenth century brought about an agrarian revolution by the liberation of the Prussian peasantry; the class of independent labourers had been gradually forming itself prior to that date, though the legislation in question stimulated its growth by the removal of the barriers which had restricted the increase of population, and also by depriving a large portion of the rural population of the support hitherto derived by it from the common lands. The greater part of the volume before us is devoted to an investigation of the course of the "customary local wages," as expressed in terms both of money and of the quantities of the main German bread-stuff-rye-purchaseable therewith; but in order to elucidate the problem, Dr. Neumann has found it necessary to give some account of (1) the other classes of the agricultural population, for the lines of demarcation were by no means strictly drawn—the description of them is curiously reminiscent of mediaeval England; and (2) the general economic and, in a lesser degree, political conditions which determined the movement of wages.

In the absence of any systematic records the data utilized have been drawn from a great number of sources of information official and other—of varying degrees of value. The work of collecting and sifting the evidence has clearly been very laborious; and numerous gaps have had to be filled in by more or less probable estimates. The detailed statistics are set out fully in a series of tables (74 pp.), in which we are not always able clearly to follow Dr. Neumann's methods; and there is an extensive bibliography. The variations between one part of the territory and