

ARTICLES, PAPERS AND PUBLICATIONS OF ACTUARIAL INTEREST

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Biometrika, Vol. 43, Parts 3 and 4, December 1956

ROYSTON, E. *Studies in the History of Probability and Statistics. III. A note on the history of the graphical presentation of data.*

The first and second papers of this series were noticed in *J.I.A.* 81, 310 and *J.I.A.* 82, 406 respectively. This paper deals with the works on graphical representation by A. F. W. Crome, born in Germany in 1753, and by William Playfair, born in 1759 near Dundee. Playfair showed time series as graphs or histograms and both writers compared relative magnitudes by means of the relative areas of circles or squares. One of the reproductions of Playfair's diagrams shows that he understood the so-called pie diagram.

WILLIAMS, C. B. *Studies in the History of Probability and Statistics. IV. A note on an early statistical study of literary style.*

The article describes and analyses a paper entitled 'A mechanical solution of a literary problem', by Thomas Corwin Mendenhall, published in 1901. Mendenhall stated that his method was based on a suggestion made by Augustus de Morgan. The method consists in the now well-known technique of comparing the frequency distributions of lengths of words in samples from the writings of various authors. Mendenhall gives diagrams for Dickens, Thackeray, Shakespeare, Bacon and Marlowe. The similarity between the distributions of Shakespeare and Marlowe is very striking.

Milbank Memorial Fund Quarterly, Vol. 35, No. 1, January 1957

SPIEGELMAN, M. *New frontiers in medical statistics.*

A review of some unsolved health problems and of suggested areas for special studies, viz. study of the relation between social factors and disease, especially chronic illness, with long-term observations of populations, and continuing studies of needs for medical care and of availability of medical services.

GRAHAM, S. *Socio-economic status, illness, and the use of medical services.*

The report of a field study in Butler County, Pennsylvania, in 1954 to ascertain whether the traditional relationships between social status and sickness have persisted despite continuing and increasing economic prosperity, the growth in the use of health insurance and increasing control of communicable diseases.

Population Studies, Vol. 10, No. 3, March 1957

PEACOCK, A. T. *Production functions and population theory.*

A review article, of 'Population Growth and Levels of Consumption' (Horace Belshaw) and of 'L'Optimum de Population' (Leon Buquet), which deals with the concepts employed in analysis of the theory of economic

development with reference to population growth, and draws attention to the dangers of over-simplification of models, especially in considering the underdeveloped countries of the world.

ROYAL STATISTICAL SOCIETY

Journal, Series A (General), Vol. 120, Part I, 1957

BARNA, T. *The Replacement Cost of Fixed Assets in British Manufacturing Industry in 1955.*

The sample inquiry described in this paper is an attempt to estimate by a direct method the replacement cost of fixed assets in different sectors of manufacturing industry. The companies in the sample were asked to give for a recent date the value for fire insurance purposes of (a) industrial and office buildings, excluding dwellings, and (b) plant and machinery, excluding vehicles. The companies were asked to comment on the basis of valuation and also give the number of persons employed corresponding to the assets returned and for approximately the same date. The employment figures were required because it was considered best to relate the sample to the total 'population' in proportion to employment.

An attempt is also made to find a simple linear relationship between the value of current production of a company and the value of assets employed.

In a final section the capital formation in specified industries during 1948-55 is related to the corresponding estimate of the stock of assets and a forecast of capital formation during 1956 is given.

The Oxford University Institute of Statistics Bulletin,
Vol. 18, No. 4, November 1956

KLEIN, L. R., STRAW, K. H. AND VANDOME, P. *Savings and Finances of the Upper Income Classes.*

It is known that representative samples of the entire population in inquiries concerning savings, income or family budgets are deficient at the upper end of the income and wealth distributions. This article investigates whether these deficiencies in the Oxford Savings Surveys of 1952-54 (noticed in *J.I.A.* 80, 118 and 81, 72) can be remedied in future samples.

A survey was conducted in London and the Home Counties, and the sample was based on randomly selected names from Debrett, the Directory of Directors, the Medical Register, the Dentists' Register and the members of the Institute of Chartered Accountants. The special difficulties of conducting such a survey are discussed and the various results such as savings and types of assets according to income and occupation are given in tabular form, and where possible they are compared with the results of the Oxford Savings Surveys and with the Inland Revenue figures.

BRITISH MEDICAL ASSOCIATION
British Journal of Preventive and Social Medicine,
 Vol. 10, No. 4, October 1956

CASE, R. A. M. *Cohort Analysis of Mortality Rates as an Historical or Narrative Technique.*

Rates of mortality are shown in graphical form and for various generations in respect of England and Wales, males and females separately. Graphs are given for deaths from all causes and for deaths from cancer of various sites. The purpose of the investigation is to show that the shape of the mortality curve according to age varies according to whether the rates refer to a specific generation or to a specific time. This is particularly the case when the rates for a disease such as cancer are considered. The author also wishes to refute the hypothesis that the intensity of mortality risk is largely determined in early life, and suggests that generation mortality should be considered as the product of at least three factors:

- (1) that which is biological and inescapable,
- (2) that which is due to early nurture,
- (3) that which is due to constantly changing environment and therapy (i.e. later nurture).

PUBLICATIONS ISSUED BY HER MAJESTY'S STATIONERY OFFICE

Census 1951, England and Wales:

Occupation Tables. (147s.)

Contains statistics of occupations analysed by sex, marital condition, age, industrial status, area, etc.

Housing Report. (60s.)

General Tables comprising population, ages and marital condition, non-private households, birthplace and nationality, education. (52s. 6d.)

Census 1951, Report on Isle of Man. (17s. 6d.)

Census 1951, Report on Jersey, Guernsey and adjacent islands. (21s.)

In these two reports population is analysed by sex, age, marital condition, occupation, industry, birthplace, etc. There are tables relating to the fertility of married women.

Report of the Chief Registrar of Friendly Societies for the year 1955. Part 2, Friendly Societies. (4s.)

A short review of the latest valuations of three of the largest Orders is included.

Ninety-ninth Report of the Commissioners of Her Majesty's Inland Revenue for the year ended 31 March 1956. Cmd. 54. (8s. 6d.)

Includes the first results of a sample survey relating to 1954-55 showing incomes from various sources analysed by income range and personal circumstances.

Articles, Papers and Publications of Actuarial Interest 167

The Registrar General's Decennial Supplement, England and Wales, 1951. Life Tables. (3s.)

See separate Review.

Annual Report of the Registrar-General for Scotland, 1955. (16s.)

A section is included dealing with occupational mortality, based on the 1951 Census and on deaths in the years 1949-53.

Monthly Digest of Statistics. (5s. Annual subscription, 68s. 6d., including postage.)

The section on National Insurance has been expanded to include certain other beneficiaries and those receiving family allowances, assistance and non-contributory old age pensions. The regional analyses for sickness, etc., have been discontinued.