TRANSACTIONS OF SOCIETY OF ACTUARIES 1950 VOL. 2 NO. 4

BOOK REVIEWS AND NOTICES

OTHER RECENT PUBLICATIONS

MATHEMATICAL, STATISTICAL, AND ACTUARIAL TABLES, TEXTBOOKS, ETC.

Acceptance Sampling. American Statistical Association, Washington, D.C., 1950.

Pp. 159.

A series of papers and discussions on the subject of acceptance sampling delivered at the 105th Annual Meeting of the American Statistical Association on January 27, 1946.

Adams, Douglas P. An Index of Nomograms. Massachusetts Institute of Technology, Cambridge, Mass.; John Wiley & Sons, Inc., New York; Chapman & Hall, Ltd., London, 1950. Pp. 183.

This work listed about 1,700 references to alignment charts appearing in about 100 technical journals, chiefly American. The charts are listed alphabetically under key words and also categorically under 21 divisions ranging from "mathematics" to "food." This index should prove quite useful in locating nomograms which represent equations encountered in technical applications.

Arley, Niels, and Buch, K. Rander. Introduction to the Theory of Probability and Statistics. John Wiley & Sons, Inc., New York, 1950. Pp. 247.

The third edition of a Danish elementary textbook on probability and statistics has been made available in English translation.

David, F. N. Probability Theory for Statistical Methods. Cambridge University Press, London and New York, 1949. Pp. 239.

An elementary textbook on probability theory for students of statistics, based on a series of lectures. The object of the book is to "prove in elementary mathematical language those propositions and theorems of the calculus of probability which have been found useful for students of elementary statistics."

Deming, W. Edwards. Some Theory of Sampling. John Wiley and Sons, Inc., New York, 1950. Pp. 602.

The purpose of this book is to show how the aims of modern statistical practice may be carried out. These aims are (1) to get only the reliability required, (2) to get it at the lowest possible cost, and (3) to have unimpeachable measure of the reliability actually attained. The book is divided into five parts. The first three parts cover the three main problems which arise in planning surveys: specifying the precision to be aimed at and the biases to be evaluated; designing the sample mathematically to achieve the desired precision at the lowest cost; and appraising the results after the survey has been finished to see what they mean and how the next survey can be improved. Part IV gives a step-by-step summary of how the theory of sampling was applied to two real problems. Part V goes into advanced theory which can be used in the design and analysis of samples.

Feller, William. An Introduction to Mathematical Probability and Its Applications, Vol. 1. John Wiley and Sons, Inc., New York, 1950. Pp. 419.

The purposes of this book are to treat probability rigorously as a self-contained mathematical subject, and to demonstrate how practical problems may be solved through the application of this theory.

Khintchine, A. Asymptotische Gesetze der Wahrscheinlichkeitsrechnung. Chelsea Publishing Company, New York, 1948. Pp. 82.

An American printing of the monograph which was published originally in Ergebnisse der Mathematik in 1933.

Kolmogorov, A. N. Foundations of the Theory of Probability. Chelsea Publishing Company, New York, 1950. Pp. 79.

An English translation of the monograph Grundbegriffe der Wahrscheinlichkeitsrechnung which appeared in Ergebnisse der Mathematik in 1933.

Neyman, Jerzy. First Course in Probability and Statistics. Henry Holt and Co., New York, 1950. Pp. 359.

This book presents the basic concepts of modern statistical theory on an elementary level. It emphasizes essentials and uses concrete and simplified examples. The illustrations of problems on probability are taken from fields of general experimentation, astronomy, entomology, bacteriology, genetics, public health, industrial sampling, and social studies.

OTHER ACTUARIAL AND INSURANCE PUBLICATIONS

Government Insurance in the United States. The Department of Research, Association of Casualty and Surety Companies, 60 John Street, New York 7, N.Y. 1950. Pp. 170.

This book is a study of Federal and State activity in the insurance field. It is divided into two parts. Part I deals with the activity of the Federal Government and the various types of coverage provided by the government agencies. Part II in a similar way describes the various types of coverage provided by the states.

The book attempts to include all the types of insurance provided but it is recognized by those responsible for its preparation that there may be areas of insurance coverage which were not included. However it is quite comprehensive in its scope.

Group Insurance Committee of the Canadian Association of Actuaries. *Principles of Practical Group Life Insurance Administration*. The Canadian Association of Actuaries, Toronto, 1950. Pp. 84.

Prepared by a Committee of The Canadian Association of Actuaries, this booklet attempts to gather together and to explain the underlying reasons for those practices which have come into more or less standard use in the field of group life insurance in Canada. The practices are, for the most part, stated in the form of rules although it is emphasized that these rules have no greater validity than the reasons cited in support of them can supply. Written in nontechnical language, this booklet is designed mainly to be of assistance to those who have only occasional contact with group life insurance and also to those who have followed the practices dealt with without a comprehensive understanding of the rationale on which they are based.

Most of the material in the booklet relating to employer-employee contracts on the current cost (one year term) basis was first issued in 1948. However, it has been extensively revised, and material on other common forms of contract is now included.

Life Underwriters Association of Canada. The Q and A Book. Life Underwriters Association of Canada, Toronto, 1950. Pp. 111.

This is a revised and enlarged edition of the *Life Insurance Manual* originally published in 1944 by the Life Underwriters Association of Canada (noted in *TASA* XLV, 436 and *RAIA* XXXIII, 504). Written in popular question and answer style, it provides answers to many of the uninformed criticisms of the life insurance business in Canada which have been made from time to time. Designed mainly to assist fieldmen and clerical staff in replying to these criticisms, the booklet deals with such matters as the cooperative character of life insurance, government supervision in Canada, the cost of life insurance, lapses and surrenders, the agency system, investments, and economic power. Several appendices also furnish factual information respecting certain government and over-the-counter plans of insurance in various countries.

May, Earl Chapin and Oursler, Will. The Prudential, A Story of Human Security. Doubleday and Co., Garden City, New York. 1950. Pp. 382.

This is a human interest story of the first seventy-five years of the Prudential. A germ of an idea in the brain of John F. Dryden led to an entirely new type of insurance which was destined to place insurance on the lives of millions who had previously considered it financially impossible to purchase it.

The book is written in novel-like form and leads the reader through the lean years when every penny and policy counted, until Mr. Dryden and his associates had proven their new plan and established a financial institution which now affects the lives of millions of Americans.

The decentralization of the Prudential achieved by the establishment of regional home offices in Los Angeles, Toronto and Houston (1951) are described in the closing chapters marking as it does the dawn of a new era of progress for the Prudential.

ECONOMICS, BANKING AND FINANCE, INVESTMENTS, AND LAW

Saulnier, R. J. Urban Mortgage Lending by Life Insurance Companies. National Bureau of Economic Research, New York, 1950. Pp. 201.

This comprehensive study of the city mortgage loans of life insurance companies was compiled in part from public sources but chiefly from tabulations made by the companies themselves; notably, a one per cent sample of all such loans made after January 1, 1920. After an introductory survey of the importance of the loans to the companies and the position of the companies in the mortgage loan market there follow chapters on legal restrictions, mortgage loan department organization, the scope of the market, gross and net rates of return and the foreclosure experience. There are a great many tables and charts. The book is an exhaustive treatise on a subject on which little of a really definitive nature has ever before appeared in print.

Whyte, Lewis G. Principles of Finance and Investment. Cambridge University Press, Cambridge, Vol. I, 1949; Vol. II, 1950. Pp. 368.

This treatise is one of the series authorized by the Institute and the Faculty to assist students preparing for their examinations. It covers national finance, the money market, the interest rate, company finance, analysis of investments and the investments of Life Offices. It is well written, but some of the features which make it most valuable in Great Britain render it least attractive to American students. As soon as the author gets beyond general principles all his illustrations and most of his material have to do with the economy of the United Kingdom, the economics of English enterprise and the particulars of the kinds of securities most common in Great Britain.

PENSION FUNDS AND SOCIAL INSURANCE

Allen, Arthur P. Unemployment Insurance in California. The Ward Ritchie Press, 1950. Pp. 135.

This study was prepared by the Haynes Foundation, a charitable and educational trust organized "for the purpose of promoting the well-being of mankind." The Foundation leaves interpretation of the data and the formation of judgments to the author.

This study resulted in the conclusion that many of the criticisms which had been made as to the California system and its administration were unwarranted. Some of the major problems recognized stem from the unusual amounts of seasonal employment and of migratory labor in the State.

The California system is being more severely tested than most State systems. With the minimum tax rate (based upon employer's reserve ratio) having been reduced to 0%, the safeguard of automatic tax rate increase to those effective before the law was changed, which is required when the reserves of the Fund become less than 7.5% of taxable wage during the previous fiscal year, was soon expected to become operative. The increase was effective soon after the completion of the report.

Mr. Allen tries to give careful analysis to the various somewhat conflicting concepts of the purpose of unemployment insurance. He maintains that a determination of the objectives is required, acceptable to a large majority of the people.

The author's main criticism centers around (1) the form of experience rating provided in the California law, with its tendency to unsoundness, (2) the uncertainty surrounding funds for administration, and (3) the noncooperation of employers.

Abandonment of experience rating is not recommended, but need for study of other types of experience rating and for change is clearly indicated. Continuation of the State-Federal system with improved provision for funds for proper administration is advised.

The author seems inclined to liberality of the welfare-state variety—taking an indulgent attitude toward human frailty.

Bastiat, Frederic. The Law (translated by Dean Russell). The Foundation for Economic Education, Inc., Irvington-on-Hudson, New York, 1950. Pp. 75.

A 1950 translation into twentieth century English of a pamphlet written in 1850, two years after the French Revolution of 1848—as France was turning to complete socialism. The captions are new and they somewhat jazz up this extremely timely story of property and "legal plunder," regimentation, dictatorial arrogance, the fear of permitting liberties. The list of "legal plunders" (the phrase used in the Dean Russell translation to cover this transfer from one set of citizens to another) includes tariffs, protection, benefits, subsidies, encouragements, progressive taxation, public schools, guaranteed jobs, guaranteed profits, minimum wages, a right to relief, a right to the tools of labor, free credit. All these plans as a whole, he says, constitute socialism. Bastiat was against all aspects of the "welfare state." A century of experimentation seems to back up his thesis by the lessons of experience. (Others in this series include The Pension Idea, Students of Liberty, Wards of the State, A Guaranteed Life.)

British Columbia Hospital Insurance Service. First Annual Report. B.C. Hospital Insurance Service, Victoria, B.C., 1950. Pp. 40.

This first Annual Report of the B.C. Hospital Insurance Service describes the operations during 1949 of the compulsory plan of hospitalization insurance which took effect in the province on January 1, 1949. It gives a brief account of the events leading up to the introduction of the plan, enumerates the benefits payable, sets out the rates of contribution charged, describes the organization and administrative procedures adopted, and furnishes statistical data as to the claims experience during the year under review. It is of interest to note that the plan suffered an operating deficit of more than \$3½ millions in its first year without taking account of organizational expenditures exceeding \$½ million during 1948.

Calhoun, Leonard J. How Much Social Security Can We Afford? American Enterprise Association, Inc., New York. Pp. 40.

Mr. Calhoun—he of the promising Calhoun Report—tackles his subject with freshness and directness. His recognition (like Bastiat's) that these benefits transfer money from some to others, through taxation, and that such "legal plunder" should be critically examined, introduces his review of a lot of Government schemes for the families of veterans, railroad employees, government civil servants, disabled persons and specially designated "social security" beneficiaries. He shows figures of the growth of benefit outlay in dollars—dollars of reducing purchasing power. He discusses family responsibility and its waning significance. He reviews the question of "who pays for what," considers the "ins" and the "outs," the vagaries of formulas devised by the generous—those generous of others' money—new starts and "permanent and total disability." After stating the goal of dealing with all and dropping the banal and misleading Federal support to States in their public assistance programs, he shows that \$100 a month to all at age 65 and over would represent an average wallop of over \$300 per American family, and shows that the prospect of taking this out of the wealthy is a dimming one in a leveling off of big incomes, since the golden goose is losing its fat.

This pamphlet in its southern drawl and horse sense is a free translation of *Human Action* (see p. 529).

Gagliardo, Domenico. American Social Insurance. Harper and Brothers, New York, 1949. Pp. 671.

This book seems to be another of the spreading branches of the academic bay-tree of acceptance of the "welfare state." (Perhaps the Federal and State bureaucracies, the Foundations and the Universities will stimulate a conservative wing of the paternalistic employers to reinforce the occasional "freedom wing" among the foundations and the lone individualists to constructive appraisal of the free men of America.)

This book is another in the long series by Paul Douglas, Barbara Nachtrieb Armstrong, Evaline Burns, Haber and Cohen, to accustom college students to the universality of, demand for, and the inevitability of, the Welfare State—the concept of subsidy outside of the personal contribution—the leaning upon Government for economic security and stabilization of the economy. It accepts all-purpose social security, considers Railroad Retirement and Civil Service Retirement of the Federal Government to be social security rather than staff pension plans, recognizes workmen's compensation and employers' liability and health insurance as part of the family. He regards the actuary as useful to help to validate the system—the desire in all countries in the process of change-over—and even says that Unemployment Compensation is "actuarially sound." Guessing at rates seems satisfactory to him, since the taxpayer stands ready to bail the system out if necessary.

Another professor—in quite different orientation than Dr. Palyi (see p. 526)—backs a system with the panoply of individual insurance, individual equity, formulas, record-keeping. The book bristles with footnotes and references—"well documented."

Dr. E. E. Witte wrote the introduction saying that the treatment of the subject was impartial and free from propaganda, though there is internal evidence of bias against capitalism. There is discussion of the hospital service plans, cash sickness benefit plans of Rhode Island, California and New Jersey (missing New York), employees mutual benefit associations and commercial group policies. There is little recognition of the private sickness insurance, the premiums for which have reached the billion dollar mark.

Inquiry into the Operations and Fiscal Cost of the Veterans' Administration National Service Life Insurance Program. 81st Congress, 2d Session. Union Calendar No. 983. Seventh Intermediate Report of the Committee on Expenditures in the Executive Departments. Pp. 68.

This subcommittee report under the consideration of "Reorganizations in the Executive branch of the Government" has looked into the question of fiscal costs, the impact upon the taxpayer. There are 18 findings and 6 recommendations, of such a thoroughgoing nature as to warrant the full reading of the report by actuaries. Among the findings are "No professional consultation or advice was sought regarding this initial legislation," and "The use of the word 'insurance' in characterizing national service life insurance operations is a misnomer." Such items as the use of the American Experience Table at all, and especially for annuity valuations, are indicative of the casualness of the legislative approach to a stupendous "insurance" operation. Among the recommendations are full consideration of the structure of benefits for the military, the mortality bases, the rate of interest used, the administrative burden of the present methods, costs, liabilities and efficiency. This inquiry could have a most important effect upon the determination of a superior program for the current emergency.

Insurance Study. House Committee Print No. 299. 81st Congress, 2d Session. U.S. Government Printing Office, Washington, D.C., 1950. (Printed for Committee on Veterans' Affairs.) Pp. 101.

The purpose of this publication is to explore the possibilities of a new insurance law for servicemen and veterans. It contains letters of various organizations and individuals addressed to Mr. John E. Rankin, Chairman of the Committee on Veterans' Affairs, House of Representatives. It also includes a series of proposals on the subject of insurance for servicemen, 1939-50. Not included in this list are the latest bills before Congress—H.R. 9437 (by Mr. Rankin) and H.R. 9440 (by Mr. Hardy). One of the proposals is group insurance on the CSO mortality table with converted policies on the same standard. The proposed group life insurance is nonparticipating, while the proposed converted policies with interest assumption of 2½% are participating. Premium rates are based on the above standard and include cost of administration and waiver of premiums for disability. Union Calendar No. 983 is being considered.

International Labour Office. Labour Problems in Greece. Studies and Reports, New Series, No. 12, Geneva, Switzerland, 1949. Pp. 381.

This report describes the mission of the International Labour Office to Greece in the fall of 1947. Chapter V, dealing with social insurance, describes the terrifically complex and top-heavy social security setup in Greece with its multitude of ill-conceived, badly-administered plans. The report, in addition to describing the situation, sets forth in very guarded terms certain very obvious conclusions and recommendations, which, of course, cannot be wholly satisfactory in a country whose economic life was so greatly upheaved by World War II and the subsequent civil war. Subsequent to the ILO mission, several American technicians have studied the benefits structure and the actual

administration of the Greek system, but no published reports are available. Perhaps the recent report of the Director-General, stressing the need for labor productivity, stems in part from the naïveté of such systems, where the fault lies not entirely in war and inflation, but in the absence of basic logic in the first place.

Investigation of Employee Utilization in the Executive Departments and Agencies. 81st Congress, 2d Session. House of Representatives. Union Calendar No. 874. Pp. 48. Preliminary Report by Mr. Williams, from the Committee on Post Office and Civil Service, on the Federal Security Agency.

This readable report by a subcommittee conducting a survey of several agencies had four purposes, (1) to explore and evaluate the utilization of personnel, (2) to appraise the effectiveness of existing agency management facilities in employee utilization, (3) to ascertain and identify some of the causes and effects of overstaffing, and (4) to suggest remedial action necessary to correct overstaffing in the executive departments and agencies.

This report was sent by Senator Cain to those who had replied to his questionnaire on Social Security, as an evidence of the serious need of the Investigation of that Administration which his Resolution had requested. Four findings are reported: (1) the Committee finds that there is no clear line of responsibility or authority in the Agency; (2) the Committee finds that there are too many layers of administration in the Agency; (3) the Committee finds that the annual rate of employee turnover has rapidly diminished; (4) the top-management staff of the Federal Security Agency includes some of the most capable and best-qualified career employees in the Federal service.

Examples are cited to indicate the extent to which administrative indecision, lack of fixed responsibility and authority, faulty budget structures and uncontrolled personnel practices contribute to overstaffing and resulting inefficiencies in the Agency. A note of hope arises because the Agency has not reached the degree of immobility usually associated with old-line departments.

Three Exhibits are appended, the organizational structure of the Agency, the Tabulation of personnel activities during fiscal year 1950, and a verbatim report of a Conference of Regional Directors—or perhaps a summary drawn for the records.

Joint Committee of the Senate and House of Commons on Old Age Security. Second and Final Report. King's Printer, Ottawa, Ontario, 1950. Pp. 116.

On March 30, 1950, the House of Commons in Canada passed a resolution calling for the appointment of a joint committee of the Senate and House of Commons to make a thorough study of the whole question of old age security. Such committee was appointed forthwith and held fifty-two sittings during a period of about two months commencing in mid-April. In addition to reviewing the provisions made for old age security in numerous other countries, the committee received oral and written submissions from the provinces and a representative group of associations and individuals.

This report summarizes the activities of the committee and sets out the conclusions it reached as a result of its deliberations. In particular, it describes the history and basis of the old age pension program currently in effect in Canada, summarizes the principal features of the plans in effect in eight other countries and gives a comparative analysis of their provisions, and outlines the representations received from the provinces, and from numerous organizations and individuals. The report also discusses the financial aspects of old age security and its relationship to other federal programs such as War Veterans Allowances and Canadian Government Annuities. The concluding section of the report is devoted to an account of the Committee's findings and its conclusion

- "... that the most suitable old age security plan for Canada under present circumstances consists of a two-fold program, as follows:
- "(a) A universal pay-as-you-go program applicable to all persons 70 years of age and over, based on the contributory principle and administered by the federal government. The benefit should be a flat, uniform amount of \$40 a month for all eligible persons, and eligibility should be based solely on age and a suitable residence qualification.
- "(b) For the age group 65 and over not eligible for the universal benefit, old age assistance at the rate of \$40 a month should be available, subject to an eligibility test in some respects similar to that which exists under the present old age assistance program, but modified to take account of the different characteristics of the age group to which this test is to apply, and adjusted in such a way as to recognize to a greater extent than at present the desirability of encouraging recipients to earn supplemental income."

Objectives and Minimum Standards of Social Security: Report IV (1). International Labour Office, Geneva, 1950. Pp. 130.

This report is a statement of the plans for the 1951 meeting to move on from the Philadelphia declarations covered in Post-War Trends. A new General Convention to replace existing Conventions is to consolidate the gains so far accomplished on the road to the welfare state. A draft was prepared by the Committee of Social Security Experts at their meeting in New Zealand, February 1950. This Report outlines a questionnaire —which was to have been returned by October 31, 1950. An analysis of the answers will go to the member states in time to permit opportunity for study before the 1951 session of the conference. There are the two types of countries, the less developed areas and the "more advanced countries." Since the United States is very largely financing this ILO today, they should be interested to find that "low-standard countries" should have benefits of 50% of a norm in wages for short-term benefits and 40% for long-term benefits-presumably because of need-and that the "advanced economies," with less need, but more resources to tap, should have standards to give 70% for short-term, and 60% for long-term benefits. There are no water-tight compartments like OASI (which only seems to be that to the innocent) and the seamless garment of "all types of social insurance benefits," including children's allowances and medical care, is designed to make private thrift agencies largely superfluous. Perhaps this can be called the Kinsey Report on the suppressed desires of the planners.

Post-War Trends in Social Security. International Labour Office, Geneva, 1949. Pp. 83.

This handy guide on new experimentation in the practical politics of the welfare state might be called—taking a leaf from the late George Bernard Shaw—"The Intelligent Citizen's Guide to Socialism." It is reprinted from various issues of the International Labour Review. It is about evenly divided into the treatment of "Income Security"—cash payments for age, disablement, childhood, unemployment, etc.—and "Medical Care," more popularly called "socialized medicine."

It gives some illuminating glimpses into the extent of the wage bill which can be allotted to income security and the amount of the national income allotted to medical care. Thus in the four countries, Czechoslovakia, Belgium, Yugoslavia and France, the percentage of wages so allocated runs, respectively, 23%, 25%, 28% and 34%. Medical care in England and New Zealand is reported as taking 4% of the national income.

These are high percentages to be handled by Government rather than by private enterprise.

The ILO Philadelphia declaration of 1944 runs: "The sphere of protection of income security systems should be progressively enlarged in order to assure, to every worker and his dependents, at least the means of subsistence in every common contingency which occasions the involuntary loss of the worker's earnings or their insufficiency to meet the family's necessities." Very similar phraseology is included in the United Nations' Declaration of Human Rights. (Neither—as quoted here—states the worker's responsibility.)

This declaration seems an intentional statement of the effort to transfer responsibility from the individual to "the State." The blueprint is to be drawn now, so that we arrange for our children to follow our plans, instead of their own best judgment applied under the conditions of the times. The assumption that all that counts is social security, the insistence on adequacy of benefit under government direction, stands out here without camouflage.

There is a *Reader's Digest* quality of condensation in its really leaving out the United States and dividing the world into two economic levels—the Point 4 countries and areas, and the "advanced economies." In the "low level" countries, the report seems to encourage promising benefits for future delivery at levels that seem to be in excess of present capacity of the country. This essentially mortgages the future output, for plans envisioned today. It would be better to deal with today's needs today—and allow posterity to meet its own problems from the vantage point of tomorrow's enhanced understanding.

The United States and Canada rather defy pigeonholing in this report. Since the subject is the trends shown by the new legislation and since the creation of bills is a major industry, many "promises" of the bills are treated almost as a fait accompli, and H.R. 2892 and H.R. 2893 are reviewed instead of the less extravagant Public Law 734.

Chile and Bolivia come out with a rating of A plus for more actuarial direction. It is Chile where an 11% tax is levied on all life insurance premiums plus an additional 10% on first year premiums.

The hope that the maturing of the individual should make him more responsible and less dependent on the State is nowhere expressed.

Report of the Director-General, Report I, International Labour Conference. Geneva, 1950. Pp. 152.

This third pamphlet in the trilogy reviewed in this number—all of which should be read together—is by the recently appointed Director-General, David A. Morse, who in this rarefied atmosphere of world-planning has not yet got his inhibitions under control. He refreshingly deals with "the productivity of labour" as the keynote of his report. Like Congressman Rich's insistent query, "Where is the money coming from?", this report is concerned with how the rash promises of universal rights can be met. The answer is "production, more production." That is far from all—and there is no discussion of the sound limits to be placed upon government's take-over of personal responsibilities, but some of the inescapable basic economics of Human Action are spelled out for this interventionist state. There has been the tremendous waste and destruction of war. There has been the series of revolutions all over the world. There has been interference with the channels of world trade. There are continued obstacles to free exchange, doubt as to where the money is coming from, and what can be used in place of it. There

are perhaps $2\frac{1}{3}$ billion people in the world—the UN tells us—and the ILO deals with all of them. Government has taken over and must, he shows us, grapple with the three problems of maintaining high levels of production and employment in the advanced industrial countries, of restoring equilibrium at a high level of world trade and of accelerating the development of undeveloped countries. The long-standing way from Bismarck onward has been the implication to the common man that, save for a mere token payment from him—the dollar in hand, to give legality—it was the interests and the rich who paid, and the managed economy was to soak the rich to give to the rest. Since there is a diminishing return from this source in the liquidated countries (and the puppet states), it must emerge that the citizen pays for his benefits.

There is an informative contrast between the statement of inability of member countries to raise the cash for the plane fare to the meetings, and the prodigality of benefit scales—so high they may encourage citizens to withdraw from productive work. The Director-General seems to have learned some basic economic facts rather more quickly than our last American Director-General of the ILO, but he still concludes with a sort of medicine-man approach by his statement that the ILO is to go to "the root of the causes of fear and unrest that beset the world today." If they do, they will find that a major cause is the loss of freedom for the individual, and the assumption of authority by amateurs, brash and undisciplined. For one organization to attempt to combine church and state and the professional analyst, indicates a temerity to be bitterly resented here where much of the money has to come from. This report seems definitely the best of the three International Labour Office reports herein reviewed. There is the important recognition of over-all production increase necessary to higher living standards. Yet there is the suspicion that this goal is to be reached through Governmental intervention, and not through an increase in individual freedom and personal responsibility.

Could we Americans, in about the last stronghold of individual initiative, read and ponder on this set of ILO reports, it is possible that it would increase, instead of decrease, the desire for this freedom.

Palyi, Melchior. Compulsory Medical Care and the Welfare State. National Institute of Professional Services, Inc., 75 East Wacker Drive, Chicago, 1950. Pp. 156.

Dr. Palyi, in his European period a professor at several German universities, and a consulting economist before coming to this country, writes from a Middle European background. He revisited Europe in 1948 and 1949 to study further developments in the field of compulsory medicine. He recalls that one of his teachers as early as 1881 had warned that governmentalized medicine was "the first step toward the neo-welfare state, which in turn opens up a road to national catastrophe—in the long run." Dr. Palyi notes that "the run was too long and too slow to be understood."

His treatise attempts to evaluate the movement from Bismarck's day to the present ---surely a rather long run. Of special interest are the present Soviet eligibility requirements, which have developed into a labor discipline device. (Naturally unthinking liberality leads to abuse, and abuse to correction.) The author displays much thought-provoking material from a large mass of published material as well as from his own personal observations. He concludes that "artificial cheapening of medical services invited an excessive consumer demand" with quality reduced and with unbalance in the economic system.

In reply to the contention that compulsory health insurance cannot be escaped in an industrial economy, he points out that nonindustrial countries often preceded industrial

countries in adopting systems, e.g., Portugal before France, Russia before Holland. He outlines an improved Swiss system with special charity arrangements for the indigent which need not be humiliating, subsidized by local rather than national governments, as one which would fulfill desirable objectives and "avoid fallacies which corrupt governmentalized systems."

Critics of socialized medicine find difficulty in being completely disinterested, when examining the "welfare state." Perhaps with actuaries so cautious, it is well that professors like Dr. Simpson and Dr. Palyi do write such books. Actuaries would do well to read them.

Saskatchewan Hospital Services Plan. Annual Report of the Saskatchewan Hospital Services Plan, 1949. King's Printer, Regina, Saskatchewan, 1950. Pp. 78.

The Saskatchewan Hospital Services Plan was instituted in 1947 by the Saskatchewan Government. It is a compulsory plan of hospitalization insurance in which all residents of the province must participate and which completed three years of operation on December 31, 1949. This is the third in a series of Annual Reports on the scheme and furnishes comprehensive details respecting its history, the benefits payable, the hospitalization experience, and its financial operations. The report also contains numerous tables providing extensive statistical data about the plan.

Some Facts about Our Aging Population. National Conference on Aging. Federal Security Agency, Washington, D.C., August 13-14-15, 1950. Pp. 15.

This pamphlet used at the 800 member Conference on Aging emphasized by small tables and highly condensed summaries the growing number of those over 65, the predominance of women and of widows, the reducing employment with advancing age, and the greater importance of self-employment, the low money income, the small proportion in institutions. Some of the material came from a Senate report on Low Income Families and Economic Stability, Document No. 146, March 9, 1950, in which report the minority report of Congressman Rich—famous for his concern as to where the money was to come from—had a vigor and directness. Both Some Facts and the Low Income Families report raise several questions of statistical and financial importance, as well as being challenging reading. There was also another Fact Book on the Employment Problems of Older Workers, dealing with trends in population and labor force, industrial and occupational trends, employment experience, extent and duration of unemployment (B.L.S. 23 pages), made available to the members of the Conference.

Tables of Working Life. Bulletin No. 1001. August 1950. United States Department of Labor, Bureau of Labor Statistics, U.S. Government Printing Office, Washington, D.C. Pp. 74.

The Canadian Dominion Bureau of Statistics brought out as of 1931 a Great Table for each sex, "The Earning Power of Canadian Male and Female Workers, by Ages," based on the factors of survival, maintenance of labor-market affiliation, yearly earnings, and for men the number of children under 18 and wives as dependents. The Dominion Statistician gave a warning against using it for actuarial purposes.

The Bureau of Labor Statistics—with no credit by-line to the fellow-organization in Canada—has now taken the cue from this report of nearly twenty years ago and, with a more modest scope, brought out for men only, and without dealing with earnings, a Life-Table, multiple decrement table, dealing with living and "working."

Actuarial notation is used, using a radix of 100,000 at birth, but starting the table at age 14, the traditional boundary line in Government reports between childhood and

working ages. Not till age 18 has a majority joined the labor market. From age 14 on to 100 (the Bowerman and the Jenkins-Lew papers were apparently not available) by single ages are shown in columnar form the number living, the number in the labor force, accessions to the labor force (to age 31), separations from the labor force, by death, by retirement (beginning at age 32) and because of both causes, expectations of life and labor force participation. There are separate tables for urban, rural, white, non-white, urban white, urban nonwhite, rural white and rural nonwhite. Collateral tables for 1940-47 and 1940-50 include median age of accession and separation, the estimated accessions to and separation from the male labor force. There is also a use of 1900 as a base line, comparable values for 1940 and 1947, and two projections to 1975. Although the evidence of 1940-47 shows an increasing percentage of future lifetime spent in the labor force, the projection pessimistically changes this brief seven year trend, and shows a much larger proportion of "lost time" or nonworking years by 1975.

The measurement of "the gap" between the total life and the working life will, with the sanction of this report, be much quoted as showing the "growing years of lost time." It will be used in discussions of old-age dependency, labor force analyses, and comparisons of the prospects in separate occupations. Given the actual mobility between areas, urban and rural living, and occupations, these apparently water-tight compartments will be cumbersome in use, because of the statement necessary as to their limitations.

Some of this material, in advance of publication, and in still more curtate form was used in the summer Conference on Aging of the Federal Security Agency. Opposite conclusions were reached in different sections of that conference. More reports along this line are promised by Commissioner Clague, as "significant and pioneering development in the techniques for analyzing the dynamics of the labor force."

Interesting as the material is, arresting as the use of it can be, it remains much more "impression" than "fact," and like all these ingenious mechanical devices is more apt to mislead than to inform, if it is not thoroughly studied before it is used—and most thorough study will prevent the careful student from quoting it to prove points.

U.S. Congress, House Committee on Ways and Means. Report on Social Security Act Amendments of 1949 (Report No. 1300. 81st Congress, 1st Session) August 22, 1949. Pp. 207.

This extensive report describes the provisions of H.R. 6000, which was passed by the House (but subsequently modified by the Senate to become the Social Security Amendments of 1950). The first 55 pages describe in general terms the provisions of the bill, and give some preliminary actuarial cost estimates (see succeeding reference for more detailed analyses). The succeeding 100 pages, as required by House procedure, give a detailed section-by-section analysis of the bill without going into reasons for action, or statistical and actuarial bases. The final 50 pages present views of the Minority, which on the whole object to certain features of the bill (principally raising the \$3,000 wage base, including the increment in the benefit formula, adding disability benefits, and including Puerto Rico and the Virgin Islands in the old-age and survivors insurance system). However, the latter portion of the Minority views contain additional views of three of the ten Minority members who favor, on the whole, the "social budgeting" approach, rather than what they consider the discriminations and financial dangers of the present system.

U.S. Congress, House Committee on Ways and Means. Actuarial Cost Estimates for Expanded Coverage and Liberalized Benefits Provided for the Old Age and Survivors Insurance System by H. R. 6000 (Committee Print, 81st Congress, 1st Session). October 3, 1949. U.S. Government Printing Office, Washington, D.C. Pp. 18.

This Actuarial Study, prepared by Robert J. Myers, presents long-range cost estimates for H.R. 6000, as passed by the House of Representatives, but which was subsequently modified by the Senate prior to its final passage as the Social Security Act Amendments of 1950. The estimates follow similar presentations in the Actuarial intermediate cost estimates, which were used as a basis for determining the contribution schedule in the bill and which, used almost exclusively by the Administration, tend to give a too specific cost structure.

U.S. Congress, House Committee on Ways and Means. Extension of Social Security to Puerto Rico and the Virgin Islands. (Report to the Committee on Ways and Means from the Subcommittee on Extension of Social Security to Puerto Rico and the Virgin Islands, 81st Congress, 2d Session.) U.S. Government Printing Office, Washington, D.C., February 6, 1950. Pp. 22.

This report describes the findings of the 6-member subcommittee which investigated this subject. The subcommittee unanimously agreed that the present social security system should be extended to these islands, although in so doing it would be desirable to change certain provisions of H.R. 6000 as enacted by the House of Representatives. Public Hearings were held and these are available as a separate document.

von Mises, Ludwig. Human Action. Yale University Press, 1949. Pp. 889.

A responsible European student has written a comprehensive treatise on economics for an American audience—following the general lines of an earlier treatise published in Geneva in 1940. He develops the thesis that rational human action is superior to the vagaries and disappointments of a planned economy.

The author begins with the unit, the individual, functioning as an individual; then within the framework of society he deals with economic calculation, the market, its factors of prices, exchange, time, interest, wages, land, as factors and in their harmony and conflict. Then he takes up cooperation without a market—socialism—the hampered economy of the market, touches on war, welfare (contenders in disorganization), and concludes with a consideration of the place of pure economics in society.

Social Security or Insurance stands out all through the book, both with specific reference and, as it were, as the skeleton at the feast. His discussion on the impossibility of any dependable statistical appraisal of the results of the "legal plunder" of such interventionism has a clarity and convincing quality adding to the understanding of the essential irresponsibility of these programs. He says that the Germans were not the first nation to resort to "pro-labor legislation," but he traces the spread of the adverse effects of such legislation from them all over the world. He shows how correction after correction is in order to conceal the futility of such policies, "and to postpone for a time their manifest fiasco."

Since nearly nine hundred pages of solid reading takes time, it may be said that in page after page one finds trenchant observations that strike home because of sheer logic. As collectivists of the past like France and Germany require bolstering up under the Marshall Plan, so that they and we may become effective allies to resist the arch collectivists of Northern Eurasia—literate Americans may get much help in their crusade from a careful reading of *Human Action*.

ACTUARIAL AND OTHER ARTICLES OF INTEREST IN RECENT PERIODICALS

In compiling this list, the Committee on Review has included only those papers which from their titles would appear to be of possible interest to members of the Society of Actuaries; and, in so doing, the Committee offers no opinion on the views which the various articles express.

References to only a limited number of papers on mathematical statistics and allied subjects are included. For a more complete listing of such papers reference should be made to "Mathematical Reviews," sponsored by the American Mathematical Society and the Mathematical Association of America. Numerous articles on social insurance are listed each month in the "Social Security Bulletin" of the Social Security Board; and various articles are listed each month on social security, unemployment insurance, workmen's compensation, pensions, and health insurance in the "Monthly Labor Review." "Population Index," published quarterly by the Office of Population Research, Woodrow Wilson School of Public and International Affairs, Princeton University, and the Population Association of America, lists numerous articles published throughout the world on mortality, fertility, marriage, divorce, and migration and on statistical methods of interest in such questions.

JOURNAL OF THE INSTITUTE OF ACTUARIES Vol. LXXV, Part II, No. 341 (1949)

Methods of Forecasting Mortality Using Australian Data—A. H. Pollard.

Some Thoughts on the Analysis of Numerical Data—L. G. K. Starke.

Management in Industry as a Career for the Actuary: Prospects and Difficulties— E. H. Lever.

Continuous Mortality Investigation: Annuitants' Experience.

Legal Notes-E. J. Macgillivray.

Vol. LXXVI, Part I, No. 342 (1950)

The Development of Public Superannuation Schemes—A. C. Robb.

Report of the Royal Commission on Population: Abstract of Discussion.

Graunt's Life Table-D. V. Glass.

The Recent Trend of Mortality in England and Wales-W.S. Hocking.

Legal Notes—E. J. Macgillivray.

Vol. LXXVI, Part II, No. 343 (1950)

The First Centenary of J.I.A.

The Valuation of Sickness Benefits for Non-Standard and Standard Periods—J. C. S. Hymans and R. C. B. Lane.

The Mortality of Annuitants: Abstract of Discussion.

The Trend of Mortality from Tuberculosis-R. H. Daw.

On the Coefficients in the Expansion of eet and eet R. E. Beard.

A Note on the Industrial Assurance and Friendly Societies Act, 1948-K. J. Britt.

Legal Notes—E. J. Macgillivray and David Houseman.

Transactions of the Faculty of Actuaries Vol. XIX, No. 171 (1950)

Pension Funds: Some Practical Points-G. Heywood and W. F. Marples.

Scottish Bankers' Mortality and Marriage Experience, 1923-1943-W. B. Borthwick,

J. M. Denholm, J. G. Wallace and G. Waugh.

THE ACTUARIAL SOCIETY OF AUSTRALASIA Fifty-third Session (1949)

Presidential Address-W. J. Dowd.

The Actuarial Aspects of Recent Amendments to Public Service Superannuation Schemes—J. H. E. Hancock.

Electrocardiography—D. J. Mooney.

Some Remarks on the Valuation of Reversions in Australia-J. C. Gray.

Salary Scales in Pension Fund Valuations—E. H. Templeton.

PROCEEDINGS OF THE CASUALTY ACTUARIAL SOCIETY Vol. XXXVI, No. 66 (1949)

A Discussion of Group Accident and Health Insurance—H. F. La Croix, Jr.

Uniform Accounting-A Study of Regulation-D. M. Pruitt.

Further Remarriage Experience—R. J. Myers.

Valuation of Death Benefits under U.S. Longshoremen's and Harbor Workers' Compensation Act as Amended June 24, 1948—Sylvia Potofsky.

JOURNAL OF THE INSTITUTE OF ACTUARIES STUDENTS' SOCIETY Vol. IX, Part 3 (March, 1950)

The Treatment of Income Tax and Expenses in the Analysis of Surplus—E. J. W. Dyson.

The Analysis of Surplus Disclosed by a Bonus Reserve Valuation-D. S. Rose.

Life Office Valuations with Reference to a Reversionary Bonus System—D. H. Radley. Initial Expense Allowances in a Net Premium Valuation—A. S. Musk.

On Finding the Rate of Interest on an Annuity-Certain by Inverse Interpolation with a Calculating Machine—L. R. Packer.

On the Determination of the Critical Duration in Certain Actuarial Problems-H. Nagler.

Skandinavisk Aktuarietidskrift 1950 Nos. 1-2

Some Problems in the Collective Theory of Risk-Gerhard Arfwedson.

Ein vernachlässigtes Interpolationsverfahren (A Neglected Method of Interpolation)— E. Kivikoski.

A Study of the Dependence of the Premium on the Rate of Interest—E. Zwinggi.

On Inverse Linear Interpolation—Erich Michalup.

An Attempt to Classify Life Tables-H. V. Muhsam.

MITTEILUNGEN DER VEREINIGUNG SCHWEIZERISCHER VERSICHERUNGSMATHEMATIKER Vol. 50, No. 1 (April, 1950)

Le Cinquantenaire de L'Institut des Actuaires Français (The Semicentenary of the French Institute of Actuaries)—E. Marchand.

Die Deckungsfrage in der privaten und in der öffentlichen Versicherung (The Problem of Funding Reserves in Private and State Insurance)—W. Grütter.

Die Deckungsfrage in der privaten und in der öffentlichen Versicherung. Eine Entgegnung auf die Ausführungen von Dr. Grütter. (The Problem of Funding Reserves in Private and State Insurance. An Answer to Dr. Grütter's Arguments)—W. Saxer.

Kapitaldeckungs- oder Umlageverfahren in der sozialen Unfallversicherung? Eine Ent-

gegnung auf die Ausführungen von Dr. Grütter. (Reserve Funding or Assessment Methods in Social Accident Insurance? An Answer to Dr. Grütter's Arguments)—W. Thalmann.

L'infection et la mortalité par tuberculose, leur fréquence et les problèmes actuariels qu'elles soulèvent (The Actuarial Problems Raised by the Interrelations between the Frequency of Tubercular Infection and Mortality from Tuberculosis)—E. Urech & A. Urech.

Neue Rechnungsgrundlagen der Eidgenössischen Versicherungskasse (The Swiss Civil Service Pension Fund's New Valuation Tables)—W. Wegmüller.

Analytische Betrachtungen zur Änderung des Rechnungszinsfusses und der Sterbetafel bei Versicherungswerten (Analytical Consideration of the Result on Life Contingency Functions of Changing the Rate of Interest and the Mortality Table)—O. W. Spring.

Algebraische Begründung einer Klasse versicherungstechnischer Approximationen (Algebraic Derivation of a Family of Life Contingency Function Approximations)—H. Jecklin.

Ein Verfahren zur Berechnung des Barwertes der stetig zahlbaren Leibrente (A Method of Calculating the Value of a Continuous Life Annuity)—E. Zwinggi.

Zur Technik der retrospektiven Lebensversicherung (On the Technique of Retrospective Life Insurance)—Chr. Hensen.

Association of Life Insurance Medical Directors of America Vol. XXXIII (1949)

The Present Status of Antimicrobial Therapy—Walsh McDermott.

Surgical Treatment in One Hundred and Thirty Cases of Coarctation of The Aorta—R. E. Gross.

The Disease Called Arterial Hypertension—C. C. Birchard.

Some of the Causes of Low Back Pain-A. D. Smith.

Medical Follow-Up Studies of Veterans-O. H. P. Pepper.

Rickettsial Diseases in the United States-W. S. Middleton.

Survival of Patients with Cancer as a Function of Research—C. P. Rhoads.

Voluntary Health Insurance, Its Successes and Its Failures to Date-P. R. Hawley.

PROCEEDINGS OF THE FORTY-THIRD ANNUAL MEETING OF LIFE INSURANCE ASSOCIATION OF AMERICA 1040

1949 Report of the Manager—B. E. Shepherd.

Association's 1949 Legislative and Legal Activities—E. M. Thoré.

1949 Record of Life Insurance Investments—J. J. O'Leary.

The Policyholder's Stake in Sound Economics-A. V. Call.

Proceedings of the Medical Section of the American Life Convention 1950

Hypertensive and Coronary Artery Disease Including Electrocardiographic Findings—W. D. Stroud.

The Significance of Precordial Pain-A. W. Bromer.

The Theory and Practice of Vector Analysis in Electrocardiography—P. H. Langner, Jr. Which Are the Most Practical Function Tests of the Cardio-Vascular System—M. H. Clifford.

Circulatory Responses to Stress in Testing Cardiac Function—Richard Gubner.

Some Observations on the Development and Course of Hypertensive Vascular Disease—K. J. Thomson.

Some of the Clinical Problems Involved in the Underwriting of Diaphragmatic Hernia—George McLean.

Factors Affecting the Insurability of Diabetics-E. S. Dillon.

Habits as to Alcohol-Mortality Study-H. C. McAlister.

PROCEEDINGS OF AMERICAN BAR ASSOCIATION SECTION OF INSURANCE LAW 1949-1950

Claim Problems in the Health and Accident Field-R. J. Wetterlund.

Aviation and Life Insurance—J. E. Hoskins.

Meaning of Term "Regulated by State Law" under Public Law 15-R. S. Morris.

PROCEEDINGS OF HOME OFFICE LIFE UNDERWRITERS ASSOCIATION 1950

Attending Physicians' Statements-A. C. Webster.

Mortality Experience among Cases Involving Alcoholic Habits-W. O. Menge.

Insurable Interest-J. C. Archibald.

Underwriting of Applicants Working in the Plants of the United States Atomic Energy Commission—R. C. Stratton.

Distribution, Handling and Control of Radioactive Isotopes-N. H. Woodruff.

Jet Engines and Their Sound Components, Intensities, and Frequencies—C. C. Payson.

Proceedings of the Insurance Accounting and Statistical Association 1950

Accounting Problems Arising from Currency Devaluation—Canada and Foreign—A. M. Kunis.

Problems of Completing Schedules T and H, etc.-J. B. Lienhard.

Recent Developments in Group Accident and Health Statistical Procedure—C. E. Probst.

Group Insurance Premium Billing and Accounting Administration in the Prudential— E. E. Lineberry.

Accounting Problems in Connection with Non-Cancellable Accident and Health Insurance—S. F. Conrod.

Calculations of Premiums-Joseph Hughes.

Mortality Research on Punch Cards-C. H. Connolly.

Mortgage Loan Accounting with the IBM Calculating Punch—Kermit Lang.

THE JOURNAL OF THE AMERICAN SOCIETY OF CHARTERED LIFE UNDERWRITERS Vol. IV, No. 3 (June, 1950)

Settlement Options and Survivor-Purchase Agreements-G. J. Laikin.

Underwriting Waiver of Premium Disability Benefits—Pearce Shepherd.

The Nonforfeiture Provisions-H. L. Rietz.

The Philosophy and Cost of Government Life Insurance—D. M. McGill.

Premium Taxation of Life Insurance—J. V. Bloys.

No. 4 (September, 1950)

Charitable Contributions and Life Insurance-W. C. Sullivan.

The Policy Loan Provision-D. J. Reidy.

A Half Century of Medical Advancement-J. G. Irving.

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The Life Expectancy of Pregnant Women—J. R. McCain. A History of Insurance Medical Examining—G. H. Watters.

AMERICAN JOURNAL OF PUBLIC HEALTH Vol. 40, No. 6 (June, 1950)

Recent Developments in the Field of Public Health Statistics-H. L. Dunn.

No. 9 (September, 1950)

Voluntary Health Insurance on the National Scene-M. D. Miller.

POPULATION STUDIES Vol. IV, No. 1 (June 1950)

The Growth of Canadian Population-Nathan Keyfitz.

A Note on Mortality in Jamaica-G. W. Roberts.

Development of Birth Registration and Birth Statistics in the United States—S. Shapiro.

British Medical Journal No. 4637 (Nov. 19, 1949)

Mortality and Survival Rates in Males with Silicosis or Silico-tuberculosis—H. M. Turner and W. J. Martin.

LAW AND CONTEMPORARY PROBLEMS Vol. 15, No. 3 (Summer, 1950)

The Business Purchase Agreement and Life Insurance—S. M. Fahr.

Employee Pension Plans-E. H. Wilson.

The Special Nature of the Insurance Contract: A Few Suggestions for Further Study— F. M. Schultz.

The Doctrine of Concealment: A Remnant in the Law of Insurance—Bertram Harnett.

HARVARD BUSINESS REVIEW Vol. XXVIII, No. 2 (March 1950)

Governmental and Voluntary Programs for Security-J. W. Myers.

No. 3 (May, 1950)

Employer Initiative in Pension Programs—E. L. Schwartz.

No. 4 (July 1950)

Accounting for the Cost of Pensions—A Lien on Production—A. H. Dean.

Prospects for Long-Term Foreign Investment—H. J. Dernburg.

New Approach to Employee Health Programs-R. J. Clarke and D. W. Ewing.

No. 5 (September 1950)

Accounting for the Cost of Pensions-A Lien on Production: II-A. H. Dean.

SOCIAL SECURITY BULLETIN Vol. 13, No. 3 (March 1950)

World Developments in Social Security Legislation-C. H. Farman.

No. 5 (May 1950)

Income of Old-Age and Survivors Insurance Beneficiaries, 1941 and 1949—E. C. Wentworth.

No. 8 (August 1950)

Orphans in the United States: Number and Living Arrangements-Jacob Fisher.

No. 9 (September 1950)

Old-Age Retirement: Social and Economic Implications-R. M. Ball.

MONTHLY LABOR REVIEW Vol. 70, No. 5 (May 1950)

Recent Unemployment Trends: Part I-Early Postwar Years.

No. 6 (June 1950)

OASI Annual Earnings Series, 1939-48.

Recent Unemployment Trends-Part II.

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Vol. 6, No. 1 (March, 1950)

The Significance of Deviations from Expectation in a Poisson Series-R. A. Fisher.

The Present Status of Biometry-W. G. Cochran.

Teaching and Education in Biometry-M. S. Bartlett.

THE ANNALS OF MATHEMATICAL STATISTICS

Vol. 21, No. 1 (March, 1950)

Some Principles of the Theory of Testing Hypotheses—E. L. Lehmann.

Sample Criteria for Testing Outlying Observations—F. E. Grubbs.

No. 3 (September, 1950)

Fundamental Limit Theorems of Probability Theory-M. Loève.

Unbiased Estimates with Minimum Variance-Charles Stein.

Distribution of Maximum and Minimum Frequencies in a Sample Drawn from a Multinomial Distribution—R. E. Greenwood and M. O. Glasgow.

On Optimum Selections from Multinormal Populations—Z. W. Birnbaum and D. G. Chapman.

A Note on the Asymptotic Simultaneous Distribution of the Sample Median and the Mean Deviation from the Sample Median—R. K. Zeigler.

Probability of a Correct Result with a Certain Rounding-off Procedure (Abstract)—W. S. Loud.

BIOMETRICA

(December, 1949)

The Combination of Probabilities Arising from Data in Discrete Distributions—H. O. Lancaster.

The Method of Frequency-Moments and Its Application to Type VII Populations— H. S. Sichel.

A Historical Note on the Method of Least Squares—R. L. Plackett.

JOURNAL OF THE AMERICAN STATISTICAL ASSOCIATION Vol. 45, No. 250 (June, 1950)

A Technique for Making Extensive Population Estimates—D. J. Bogue.

Probability Values for the Common Tests of Hypotheses—T. A. Bancroft.

Large Sample Tests and Confidence Intervals for Mortality Rates—J. E. Walsh.

Sample Size Required for Estimating the Standard Deviation as a Per Cent of Its

True Value—J. A. Greenwood and M. M. Sandomire.

No. 251 (September, 1950)

Pitfalls in Population Forecasts and Projections-H. F. Dorn.

Controlled Selection—A Technique in Probability Sampling—Roe Goodman and Leslie Kish.

A Technique for Analyzing Some Factors Affecting the Incidence of Syphilis—B. G. Greenberg, J. J. Wright, and C. G. Sheps.

Bulletin of American Mathematical Society Vol. 56, No. 2 (March, 1950)

Best Approximate Integration Formulas (Abstract)—L. F. Meyers and Arthur Sard. Best Interpolation Formulas (Abstract)—L. F. Meyers and Arthur Sard.