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## Book Reviews

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*Marketing Policies for Agriculture.* By James R. Bowring, Herman M. Southworth, and Frederick V. Waugh. Prentice-Hall, Inc. 276 pages. 1960. \$7.95.

ONE OF THE MOST significant statements of the authors is that the problems of agricultural marketing are becoming increasingly important and difficult basically because of changes associated with the continued specialization of agriculture and the transformation of the United States into an urban-industrial economy. The book emphasizes the various facets of decision-making on the part of the farmer, marketing agencies, the consumer, and organized groups, including the Government itself, in achieving the broad aim of economic life, which is to obtain the highest possible real income.

The hope is expressed that the book will help the reader to think constructively by selecting typical problems and delineating issues in such a way as to assist the individual in making the decision which seems best for him in whatever situation he may find himself. As for facts about the marketing system, only such information is presented as is necessary to posing the problem, defining the issues, and suggesting alternative kinds of decisions and the consequences that may be expected to flow from them.

There are four major parts—"Decisions in the Market," "Costs and Allocations," "Marketing Policies of Organized Groups," "Marketing Policies of Government."

"Decisions in the Market" examines the basic functions of marketing, the kinds of decisions which must be made by farmers and marketing firms, and considers the price system and the concepts of the perfect market and comparative advantage.

"Costs and Allocations" deals with some of the principal problem areas with which marketing agencies are concerned, including the necessity of keeping competitive in terms of operating costs, market development, and market allocation. Reference is made to concepts such as elasticity, marginal costs and returns, perfect and imperfect competition, price discrimination, and so on, which must be taken into account if the decisionmaker is to adopt a deliberate and rational approach to maximizing economic returns.

"Marketing Policies of Organized Groups" analyzes the ability of groups, in contrast with individuals, to exercise economic power, and includes integration in this context. The nature and purpose of farmers' organizations and trade associations are described.

"Marketing Policies of Government" treats a wide array of activities ranging from weights and measures up to positive Government interventions which are designed to improve the operation of agriculture and its income position in the overall economy.

The authors turned out an excellent job of achieving their objectives in writing the book. The explanation of concepts is lucid and brief. Some sections are outstandingly well done—for instance, the chapter on "Market Development." There is little with which most economists would disagree, and though the illustrations used by the authors are drawn primarily from agriculture, the principles elucidated apply in large measure to marketing in general. What few criticisms might be made stem mainly from the compression of such a tremendous subject into one short book. For instance, in the chapter on "Group Action and Economic Power," the authors refer to integration in the canning and broiler industries as providing increased economic power for both the producer and processor. This is undeniably true in some important respects, but there is no explicit recognition of the implications of shifts in the location of decisionmaking on the freedom and initiative of individual growers, and other impacts on both economic and noneconomic values.

Though the book probably will have wide use, lacking extensive descriptive data on the marketing system it is not by itself adequate as a text. At the same time, the exposition of principles in many cases is too brief for one who is completely uninitiated in economics. But the volume should prove valuable as a supplement to textbooks commonly used in teaching beginning courses, and also should be exceedingly helpful to a wide range of laymen interested in obtaining a better under-

standing of the marketing system, including an appreciation of the problems of those with whom they appear to have conflicting interests. Even professional economists should find the delineation

of areas of decisionmaking and the outlining of applicable theory useful in refreshing their perspectives and sharpening their analyses.

*Bennett S. White, Jr.*

*Theory of Markets.* By Tun Thin. Harvard University Press, Cambridge, Mass. 120 pages. 1960. \$5.

AT LEAST SINCE COURNOT, the core of economic theorizing concerning the problem of oligopoly has been based on conjectures of economists about "conjectural dependence"—that is, the oligopolist's conjecture about what other sellers will do. In this little book Professor Thin presents a mathematical review of some of the more notable hypotheses (Cournot, Smithies, Chamberlin, Stackelberg, and Fellner), and offers as his own contribution a generalized version of Chamberlin's "mutual dependence recognized" solution. Professor Thin bases his theory on an analysis "akin" to game theory: Instead of conjectural variations that do not vary with changes in market conditions, his theory requires a set of rules that outline the behavior of the oligopolist for all conceivable market situations.

Apparently Professor Thin did not intend to study the theory of markets, as the title of the book suggests—it contains only a sketchy mathematical analysis of monopoly (two pages) and

perfect competition (eight pages). As the author himself notes, it has little or nothing to say on nonprice competition—a type of competition that has characterized many American postwar markets—or on the question of freedom of entry and exit. Nevertheless, his essay on the question of conjectural dependence is useful and stimulating. Among other things, it offers a framework for reconsidering divergent recommendations on anti-trust policy derived from "point" solutions. (The author employs the framework to reconcile the differing conclusions of Fellner and Chamberlin, for example.)

The book will probably be most useful to theoreticians, especially those who have some mathematical training. But it will not afford much help to marketing economists who have found little in oligopoly theory to provide a framework for analyzing the structure of agricultural markets, or for predicting market behavior.

*William H. Waldorf*

*Marketing Poultry Products.* By Earl W. Benjamin, James M. Gwin, Fred Faber, and William D. Termohlen. John Wiley and Sons, New York. 327 pages. 1960. \$7.75.

FOR SECTORS in which they apply, texts like *Marketing Poultry Products* are sourcebooks of material concerning the realities of economic enterprise. Specialists in egg and poultry marketing will find that the contents of this book are not new. But the text does provide a handy compendium of current facts, a convenient focus for review and stocktaking, and, probably most important, a basis for judging progress and advances in the state of the arts.

Progress and advance in the industry are revealed by comparisons among successive editions—the book has a venerable history of 37 years during which it has run into five editions.

In the first and second editions, the water-glass method of preserving eggs was prominent; in later ones it vanished. Recent editions devote less and less attention to the live marketing of poultry—the latest (1960) properly prefaces its discussion of this subject with a statement of its declining importance. It also introduces the continuous-type poultry chiller, though only in passing. The 1937 volume introduced the fiber egg case. The 1960 volume mentions the innovation of contract egg production. So it goes in the evolution of egg and poultry marketing; the most systematic record of these changes is given in this inclusive text.



Similar deletions and additions help to date the gradual—or sometimes cataclysmic—changes that have marked egg and poultry marketing. The practicing specialist picks up these changes even faster than they can be incorporated into successive issues of a carefully prepared book, but a decade or two hence the recording of these innovations will be viewed as a distinct service to specialized economists, economic historians, and marketers with an intellectual curiosity about the evolution of their business.

But one should not conclude that the book is perfect. One aspect that could have been improved is editing. To find the following two sentences less than a page apart, to cite one example is certainly irritating to the alert reader:

“The individual commercial firms’ main interests are, and rightly should be, in promoting their company brand for the purpose of getting a profitable share of the existing current volume of business.”

“The primary business interests of any firm engaged in producing or marketing a product or service related to the egg and poultry industry should

be to promote its own brand or firm name, in order that it may obtain its proper share of the currently available business.”

Another suggestion concerns organization of subject matter. In some parts of the present edition, subject matter is along functional lines—demand, transporting and storing, merchandising and retailing—instead of separate chapters for eggs, chickens, turkeys, and so on. The increasing specialization of egg and poultry production and marketing has led to a distinct separation between handlers of the respective commodities—they now have relatively little in common so far as market agents and physical handling are concerned.

And finally, this reviewer would have glossed over, to a greater extent than the authors did, the social objectives of poultry marketing. “The job of distributors in the country or city is to help bridge the gap between producers and consumers,” yes; but one should face the fact that the primary objective of operators in this field is to make a profit.

*Edward Karpoff*

*Margins for the Distribution and Processing of Foods. An Evaluation of American Investigations. [Die Handels- und Verarbeitungsspannen bei Nahrungsmitteln. Eine Auswertung amerikanischer Untersuchungen.]* By Gunther Schmitt. Berichte über Landwirtschaft. Neue Folge. 171 Sonderheft. 1959. Verlag Paul Parey, Hamburg and Berlin. 1959. 15.50 deutsche marks (about \$3.70). For subscribers to Berichte über Landwirtschaft, 12.40 deutsche marks (about \$3).

**D**R. SCHMITT IS CONCERNED with contemporary food marketing problems in Germany, but he uses American research as a basis for his book because the United States has a wealth of pertinent research results (much of it in fulfillment of the Research and Marketing Act of 1946), and because food processing and distribution in the United States are distinctive for efficiency and ability to serve growing consumer wants for complementary goods and services.

The theoretical framework of the book draws heavily upon European sources. The bibliographical citations of this material should be useful to American readers who are curious whether, indeed, all the writing on marketing economics that is worth reading is in English. The empirical content, of course, comes from American sources: Journal articles, State experiment station publications, Government publications, and marketing textbooks. Nearly 600 titles are cited.

The monograph takes up, first, the role of agricultural marketing within a developing economy, with particular attention to developments in the United States from 1913 to 1956: Food marketing costs, the growth of complementary goods and services, employment in food trades and processing, and the effects of changes in market structure and the shifting of marketing functions.

Successive sections of the work concern: (1) The falling farmers’ share of the consumers’ dollar; (2) trading and processing margins for foods; (3) the forms of the relationships between food margins and food prices; and (4) response of margins to cyclical and seasonal fluctuations in prices.

A brief concluding section considers the possibility of, and mechanisms for, reducing distribution and processing margins. Direct measures for governmental control of margins, it is said, are too often inaccurate because of dynamic changes that

come about with economic development; deficiencies of control in one sector leading to need for control in adjoining sectors. State intervention is best applied to provide conditions for effective competition and to find and disseminate knowledge of improved methods of marketing.

Readers familiar with the American literature on marketing margins will find much of this monograph fairly easy reading, even though their knowledge of German may be limited. Most of

the less common German words appear with definitions or with context that helps with their meaning, and the illustrations and tabular material so freely used are familiar to American readers.

Dr. Schmitt has contributed a useful and stimulating synthesis of American research on marketing margins. It may be the more interesting because it offers a way of seeing ourselves as others see us.

Louis F. Herrmann

*Consumer Expectations, Plans, and Purchases: A Progress Report.* By F. Thomas Juster. National Bureau of Economic Research, Inc., New York. 174 pages. 1959. \$2.50.

**I**N THE EMPIRICAL TRADITION of the National Bureau, practically all of the pages in this monograph are purposeful and meaningful.

The monograph is a progress report of the Bureau's study of a fundamental area of economics: Consumer behavior and its rational determinants. More specifically, it reports on analyses of survey results reflecting interrelationships between reported buying plans of households and expectations about personal financial prospects and general business conditions, household status with respect to past purchases, debts, assets held, and so on. An evaluation of buying plans as a forecasting tool and some conclusions on methodology are given.

The approach is that of the Reality School. Underlying the whole study is the assumption of rationality in household decision making—rational decisions account for much of the important variations in households' purchase rates of durable goods. The Mood School holds otherwise. To them, data reflecting dreams, hopes, and fears are more closely associated with the important variations in household purchase rates since they reflect changes in impulse buying.

Juster presents a strong case for the Reality School, though the final verdict has by no means been reached.

The data presented and analyzed were obtained from a special group of households belonging to the Consumers' Union of the United States (CU).

The monograph is replete with hypotheses, analyses, and statistical tables, and makes rather slow reading. Especially to be commended is the ingenuity reflected in the various statistical and

analytical techniques used to test the various hypothesis posed and to analyze the data. However, one might wish that Juster and his colleagues had included a methodological appendix describing in greater detail their analytical methods and techniques.

With respect to the general findings of the study, there are so many, that only a few of the more significant can be listed. First, Juster finds that the year-to-year changes in the CU sample's level of aggregate buying plans for both automobiles and major appliances have foreshadowed changes in purchases over the period 1949 to 1957. This, of course, suggests that buying plans data are useful as forecasting tools.

Equally significant is the variation in reported buying plans associated with variations in the time horizon covered by the question asked in the survey. The number of reported buying plans to a question reflecting a vague time horizon such as "What do you plan to buy 'later'?" (than six months from now) were found to be more than 4 times greater than number of plans for a 6-month horizon. Moreover, 6-month buying plans are more closely related than 12-month plans to general economic expectations and to individual financial situations in households.

Also, confirming what other studies have found, family income and age of household head are among the variables of greatest importance of those associated with buying plans and purchases. With respect to differences among households with the same income and age of household head it was found that: (1) Recent income changes of about 20 percent or less had little effect on durable goods



purchases or plans; (2) the level of asset holdings were only slightly associated with plans and purchases; but changes in asset holdings were strongly associated with plans and purchases, and (3) the amount and maturity of nonmortgage debt strongly influenced buying plans.

Findings with respect to expectational variables include: A strong relationship between buying plans and purchases and household expectations about future financial prospects over a 5-year future period; a strong relationship between buying plans and expectations about business conditions one year ahead; and relatively little association between either plans or purchases and price expectations.

On the methodological side, it was concluded

*A Public Development Program For Thailand.*  
Bank for Reconstruction and Development.  
1959. \$6.00.

THE INTERNATIONAL BANK for Reconstruction and Development (World Bank) has sent missions to several underdeveloped countries to assess and evaluate the possibilities and the resources needed for future economic development. Thailand is one of these countries.

The mission points out the nature of Thailand's economy, which has some 80 percent of its population employed in agriculture, and finds most of its gross national product comes from that source, manufacturing industry being relatively small. Important manufacturing industries are those processing agricultural products, such as saw mills and rice and sugar mills. Most other manufacturing industries are small in establishment size and in their contribution to the gross national product.

Thailand during recent years has had an increasing real gross national product per capita, but in the future could be faced with a shrinkage in rate of growth, or even a decline. The purpose of the mission is to assess how this growth can be continued, what steps Thailand herself needs to take, and what aid from the outside is needed.

Agricultural production can be increased substantially by improvements in cultural practices, in irrigation facilities, and in cropping patterns. The Northeast is more arid than the monsoon climate of the Central Plain and much could be done to improve production by shifting from rice to upland crops. Yield per acre of paddy or rough rice

that the nature of household responses to any given multiple response question is heavily influenced by the number of alternative responses listed. Also, the procedure of sample splitting—that is, sending different questionnaires to equivalent subsamples at the same time—is held to be an effective device for revealing the relative usefulness of competing questions.

These few indications of Juster's findings do not do justice to the thoroughness and exhaustiveness of the area covered. For those who have even the slightest interest in the subject, a study of the full contents of this paper will prove rewarding. A more comprehensive empirical treatment will probably not be found anywhere in the literature.

*Robert H. Masucci*

Report of a Mission Organized by the International  
The Johns Hopkins Press, Baltimore. 301 pages.

is very low; improved cultural practices could increase the yield substantially. In the South, rubber output could be increased sharply by planting the plantations with improved varieties of trees. Irrigation could be used to make the flow of water more even throughout the year. This would permit the development of double cropping in some areas and more reliable farming in the more arid regions. Marketing can be improved principally by improving the transportation facilities of the country, including rail, road, and air.

The report covers growth of small industries, as the mission feels such growth to be desirable. It also assesses the need and possibilities for developing improved housing, education, and health facilities. Sharp improvements in all of these social services are badly needed.

Improvement in education is needed at all levels from elementary schools through the university. As in many underdeveloped countries, lack of trained manpower hinders progress. Trained manpower is needed for the improvement of the educational system, for agricultural extension, for medical service, for construction work, and for almost any other field of endeavor that could be listed. Although some training of Thais in universities abroad is necessary, the mission places primary emphasis on improvement of the educational system within the country. Manpower for initiating improvement in the educational system

could be acquired by the judicious use of foreign experts in Thailand and by more efficient use of foreign trained Thai scholars.

This carefully constructed report contains a general plan for helping a underdeveloped country develop its economy. As such, the document is not only useful to the country which is the subject of the report, but it is also useful for students who are studying the general needs of underdeveloped countries, in particular, the smaller ones. Lack of trained manpower, large dependence upon

agriculture and associated industries, and need for improved housing, health, and education facilities—these in general are typical of such countries. The section that deals with methods of financing the development with adequate budget and administrative controls within the government points to governmental problems often found in countries that aspire to modernization of their economy from a base that in the Western World would have existed well in the past.

*Frank Lowenstein*

*The Comparative Study of Economic Growth and Structure.* National Bureau of Economic Research, 261 Madison Avenue, New York. 201 pages. 1959. \$3.

**I**N THE LAST 10 YEARS an increasingly larger share of research resources in economics has been devoted to the rate, character, and causes of economic growth. Yet, though we see no dearth of theories of growth, there still is none that is generally accepted. In fact, Raymond Goldsmith, who wrote part I of this report, comments that "the proliferation of theories of economic growth of vastly differing form and content has made it impossible for empirical research workers to discern areas of agreement among theorists; or even to be sure which approach theorists had selected as most fruitful from their point of view."

Notwithstanding the lack of a theoretical framework, Goldsmith sees the basic objective of a systematic comparative study of economic growth and structure. This he defines as understanding "the process of economic growth and of changes in economic structure by means of comparing different countries and different periods, a comparison that permits separation of the specific characteristics of individual geographic and historical situations from the common traits of economic development."

In part I of the volume Goldsmith reviews past and current empirical work on comparative eco-

nomie growth and structure, and catalogs and discusses the problems involved in comparative studies. Supplementary memoranda are presented in part II by Aubrey, Cairncross, Colm, Geiger, Goldsmith, Hagen, Hirschman, Hoselitz, Kuznets, Reynolds, Spengler, and Tinbergen.

Professor Hoselitz's paper, "Historical Comparisons in the Study of Economic Growth," holds particular interest to agricultural economists. In reviewing the sequence of economic growth, Hoselitz discusses the question, not yet fully explored of whether a substantial increase in agricultural production is a prerequisite of industrialization.

An interesting aspect of Kuznets' paper, "On Comparative Study of Economic Structure and Growth of Nations," is a proposal for a center for comparative quantitative study of economic growth and structure. Among proposed fields of activity for the Center are the systematic collection of data on economic growth and structure, and the comparative analysis of the collected data.

These brief comments indicate the general nature of this book—it is a problem raiser, not a problem solver.

*Martin J. Gerra*

*The Cooperative Movement in India.* Fourth edition. By E. M. Hough (revised by K. Madhava Das). John Brown, Oxford University Press, Bombay 1. 493 pages. 1959. Rs20 (about \$4.20).

**A**S A BACKGROUND for providing information to better understand cooperative development and problems in India, this book is a

veritable encyclopedia of important facts and a storehouse of historical events. It starts with a comprehensive analysis of the various economic,



social, industrial, and geographic factors that serve as a background in providing a better understanding of India and the way in which the cooperative institution may fit into the economic and social structure of the nation. The background information is followed by a detailed description of the development and present status of agricultural and nonagricultural cooperatives (societies) in the country. Cooperatives are considered from the standpoint of such functional classification as credit, marketing, farm supply, farming, consumer organizations, and many types of multipurpose societies.

Cooperatives have been accorded a key position by the Indian Government in each of its three 5-year plans. This emphasizes the contributions that these associations make to the economic and social development of the country. One of the strongpoints of the book is that it does not stop with merely reporting trends in numbers, membership, and volume of business. Critical analyses give attention to such important considerations as the relationship of cooperatives to

various social and political forces influencing economic development, handicaps, weaknesses, and the conditions for success of cooperatives.

The author suggests the possibility of relatively slow improvement in the success of cooperatives. Such difficult areas as the deep-rooted dominance of the moneylender, the widespread illiteracy of the Indian villager, and lack of business experience present many problems that may limit success in achieving substantial end results. The problems serve as focal points for developing much of the subject matter considered in the book.

One comes to the conclusion that cooperatives offer the possibility of becoming an increasingly significant force in the economic and social life of the country. In this respect these organizations are in a strategic position to make important contributions to a free and expanding India. The reviewer feels that, although there are many complex problems to be overcome, India has both the will and the leadership to deal with them, and achieve more effective results in serving its people through cooperatives.

*Martin A. Abrahamsen*

*Probability and Statistics for Business Decisions: An Introduction to Managerial Economics Under Uncertainty.* By Robert Schlaifer. McGraw-Hill Book Co., Inc., New York. 732 pages. 1959. \$11.50

**F**ORMAL STATISTICAL THEORY rests on an assumption of unbiased samples, and classical economics on an assumption of certainty. Yet actual samples usually contain an unknown bias and all decisions in the real world face uncertainty.

Professor Schlaifer cuts through these restrictive assumptions with what purports to be the first full-scale attempt to tie together statistical techniques and the economics of business decisions. He provides a nonmathematical introduction to decisionmaking under uncertainty on the foundations of modern utility theory and "personal" probability.

His book is the product of five successive recastings prepared in as many years for classroom use with advanced business management students in the Harvard Graduate School of Business Administration.

The text has an introduction and five major parts. The three chapters of the introduction present the basic concepts of decision theory—

probability, expectation, and utility. Part 1 then applies these concepts to a variety of practical situations under conditions in which intuition and experience light the way. Examples include problems of inventory, scrap allowance, investment, and marketing.

Part 2 introduces more powerful statistical tools for the computation of probability. Here the student learns how to make use of Bernoulli and Poisson processes and the Normal distribution.

Bernoulli processes are those in which there is a constant probability of success on each trial regardless of the outcome of the preceding trials in the same run. The probability of a deuce is 1 in 6 on each throw of a die, for example. In a Poisson process the probability of success is also constant but instead of consisting of separate trials the run is continuous and the probability must be expressed in terms of successes per unit of space or time. For example, take the case of calls on a telephone switchboard during a peak period within which no particular pattern of calls has



been noted previously. The probability of more than six requests for an outside line during a single minute may be estimated from such a process if background data are available.

The special problem of evaluation of information from a sample is discussed in part 3. Only after sampling is well explained is the problem of deciding when to sample and when to stop sampling taken up in part 4. This is a kind of internal decision-making problem—deciding how to go about making decisions.

Part 5 serves to reconcile the classical statistical approach with the methods presented in the first four parts. Some worthwhile discussion of tests of hypotheses and statistical decision rules is given. The appendix contains a useful collection of tables and charts for the principal statistical distributions used in the book. Each chapter is well supplied with pertinent illustrations and problems.

The text bears some of the marks of the classroom use for which it was expressly designed. Some may regard it as overlong and may disagree with the author's dictum that: "Learning depends on repetition; and if the rate of learning can be increased by printing up a few more sheets of white paper, the gain is well worth the cost."

But there is merit in the logical nonmathematical buildup from careful foundation principles and practical illustrations. The businessman interested in a procedure that starts with the intuition and experience that suffices for simple decision problems will find these more formal techniques helpful in tackling more difficult areas.

*Probability: An Introduction.* By Samuel Goldberg. Prentice-Hall, Inc., Englewood Cliffs, New Jersey. 350 pages. 1960. \$7.95.

**T**HE AUTHOR'S APPROACH to probability is unique: He looks at the forest rather than at the trees. He presents a nonmathematical but logically sound treatment of probability in an easy-to-read systematic way. He develops not only the concepts that are the structure of probability theory but he also introduces much of modern statistics that rests on this foundation.

Because the calculus is not used, the author limits his treatment to finite space, except that he does sample with replacement and develops for this special case the law of large numbers. At this level, the restriction to finite sets is not objectionable.

Professional economists and researchers in managerial economics can also learn from an approach the purpose of which "is not to teach theory for its own sake but to show how theory can be applied to practical advantage in the real world." Even a bank customer trying to decide between waiting lines before tellers' windows might uncover some useful probability tips to aid in his decision.

This does not mean that the techniques described are needed to protect the average bank depositor, the working girl, or the small farmer. Heaven and the school of experience may suffice for most of their decisions. But the managers who develop and administer large farms, banks, supermarkets, and processing plants need more than intuition and experience to guide their actions.

But this is first of all a textbook, designed for classroom instruction. It will serve well either as a primary or supplementary text for courses in business statistics, managerial economics, and mathematical decision-making.

The volume is relatively free from the technical language that keeps so many otherwise well-qualified students and businessmen from participating in exciting new fields. Many will agree that presenting the logical argument in ordinary language rather than in formal statistical terminology is likely to develop a more lively appreciation of the applied features of a decision problem.

*Ronald L. Miggell*

Mathematical symbolism is minimized and the reader is able to concentrate on concepts and their interrelationships rather than upon rigorous mathematical proofs. This may be beneficial to the seasoned statistician as well as the neophyte, and to the mathematician as well as those whose knowledge of mathematics is limited. It allows the beginner to orient himself and gives a bird's-eye view of the topic to those who have worked through the mathematical proofs in the traditional manner.

The first of the five chapters in the book is devoted to the mathematics of sets. The elementary algebra of sets is developed and Cartesian

product sets introduced. In chapter 2 the assignment of probabilities to the simple events of the sample space which defines the outcome of an experiment is introduced, limited, of course, to finite sample spaces. Combinatorial techniques are first treated in chapter 3 in order that the non-mathematical student shall not be confronted simultaneously with the concept of probability and the more sophisticated enumeration techniques of permutations and combinations.

The random variable is defined in chapter 4, and probability distributions, means, standard deviations, joint probability functions, variance, covariance, and correlation are discussed. Formulas for the mean and its variance are derived for samples drawn with and without replacement and the distribution of sample means is discussed.

In the final chapter, the basic properties of a Bernoulli process and a binomially distributed

stochastic variable are derived. Applications of the binomial distribution to the testing of hypotheses as well as to the more complex problem of decisionmaking under uncertainty illustrate the use of probability methods in modern statistics.

Most students of probability theory would profit by reading this work before tackling the more formidable mathematical treatment of probability. Many practicing statisticians who feel the need of brushing up on the concepts of probability could hardly find a more pleasant, less painful way of doing it. For those trained in classical probability theory following Laplace or in the relative frequency approach pioneered by von Mises, the reading of this book is a palatable introduction to the modern theory of probability associated with Neyman.

Bruce W. Kelly

*The Population of South-East Asia, 1950-1980.* Future Population Estimates by Sex and Age.

Report III. United Nations Department of Economic and Social Affairs. Columbia University Press, New York. 166 pages. 1959. \$1.75.

**T**HIRD IN A SERIES of reports dealing with future population estimates by age and sex, this study gives results of computations for all

countries and territories of Southeast Asia, defined as that region of Asia that lies to the east of India and to the south of China.

*Production Yearbook, 1959.* Volume 13. Food and Agriculture Organization of the United Nations. Columbia University Press, New York. 484 pages. 1960. \$5.

**T**HE YEARBOOK contains annual data on "all important aspects of food and agriculture"—population, index numbers of agricultural production, food supplies, prices, wages, and freight rates. Official figures are supplied by

member governments through questionnaires sent out by FAO. Figures not supplied by governments are taken from "reliable unofficial sources" and identified with an asterisk.

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**W**ITH THIS ISSUE, *Rex F. Daly* takes over as editor, succeeding *James P. Cavin*, who completed a 5-year term in that office last July. Mr. Daly was recently appointed Chief of the Farm Income Branch, AMS. He had formerly served as Head of the Income and Demand Section of that Branch, and, most recently, had been on leave of absence from the Department, serving in Pakistan with the International Cooperation Administration. Mr. Cavin is Acting Director of the Agricultural Economics Division during the current fiscal year while the Director, *Frederick V. Waugh*, is on leave of absence for the purpose of making a study of the management of agricultural surpluses under a Senior Research Award in Governmental Affairs by the Social Science Research Council. Also with this issue *M. L. Upchurch* replaces *K. L. Bachman* as assistant editor. Mr. Upchurch is the new Assistant Director of Farm Economics Research Division, Agricultural Research Service. Mr. Bachman was recently transferred to Agricultural Marketing Service as Assistant to the Deputy Administrator for Economics and Statistics.