



Operations Research

Publication details, including instructions for authors and subscription information:
<http://pubsonline.informs.org>

Books Received

To cite this article:

(1964) Books Received. Operations Research 12(2):371-373. <https://doi.org/10.1287/opre.12.2.371>

Full terms and conditions of use: <https://pubsonline.informs.org/Publications/Librarians-Portal/PubsOnLine-Terms-and-Conditions>

This article may be used only for the purposes of research, teaching, and/or private study. Commercial use or systematic downloading (by robots or other automatic processes) is prohibited without explicit Publisher approval, unless otherwise noted. For more information, contact permissions@informs.org.

The Publisher does not warrant or guarantee the article's accuracy, completeness, merchantability, fitness for a particular purpose, or non-infringement. Descriptions of, or references to, products or publications, or inclusion of an advertisement in this article, neither constitutes nor implies a guarantee, endorsement, or support of claims made of that product, publication, or service.

© 1964 INFORMS

Please scroll down for article—it is on subsequent pages



With 12,500 members from nearly 90 countries, INFORMS is the largest international association of operations research (O.R.) and analytics professionals and students. INFORMS provides unique networking and learning opportunities for individual professionals, and organizations of all types and sizes, to better understand and use O.R. and analytics tools and methods to transform strategic visions and achieve better outcomes. For more information on INFORMS, its publications, membership, or meetings visit <http://www.informs.org>

the chapter on *Game Theory* by BOHNENBLUST, the chapter on *Dynamic Programming* by BELLMAN, or the chapter on *Monte Carlo Methods* by GEORGE BROWN. However, unless he is already familiar with the material, the average reader will find some chapters, such as the chapter on *Prediction Theory* by WIENER, slow going. Other chapters, such as those on *Oscillations* by LEFSCHETZ and on *Computers* by LEHMER, are sufficiently simple that they could be used as introductions.

In the opinion of this reviewer, *Modern Mathematics for the Engineer*, First and Second Series, provide an excellent review of most of the mathematical methods needed in operations research, and a good introduction to a few of them.

JAMES M. DOBBIE
Arthur D. Little, Inc.

JOSEPH MATHIEU and WERNER ZIMMERMAN, *Bestimmung des optimalen Produktionsprogrammes in Industriebetrieben*, Forschungsberichte des Landes Nordrhein-Westfalen Nr. 1111, Westdeutscher Verlag, Köln, Germany, 1962, 79 pages, DM 54.60 (paper)

THIS monograph is divided into three sections: The first section reviews the classical theory of production and its limitations; the second section shows how linear programming can be used to find the optimal production program (in the sense of profit maximization), given the necessary technological and market information; and the third section exhibits an example of this classical application of linear programming. The critical market information (e.g., the maximum quantity for each product) is taken as given; there is no discussion of how it is generated. The monograph is apparently intended as a first introduction to the possibilities of linear programming in production. From the standpoint of operations research it is one of many recapitulations of well-known material.

FRED HANSSMANN
IBM Deutschland

Books Received

DICK H. BRANDON, *Management Standards for Data Processing*, D. Van Nostrand Co., Inc., Princeton, N. J., 1963, 416 pages, \$12.00.

CHARLES R. CARR AND CHARLES W. HOWE, *Quantitative Decision Procedures in Management and Economics: Deterministic Theory and Applications*, McGraw-Hill Book Co., Inc., New York, N. Y., 1964, 399 pages, \$8.95.

SVEN DANØ, *Linear Programming in Industry: Theory and Applications—An Introduction*, second edition, Springer-Verlag, Vienna, Austria, 1963, 128 pages, \$4.75 (paper). A reprint, with only minor changes, of a volume first published in 1960.

EDWARD A. FEIGENBAUM AND JULIAN FELDMAN (editors), *Computers and Thought*, McGraw-Hill Book Co., Inc., New York, N. Y., 1963, 549 pages, \$7.95.

HAROLD FREEMAN, *Introduction to Statistical Inference*, Addison-Wesley Publishing Co., Inc., Reading, Mass., 1963, 449 pages, \$7.75.

PAUL L. GARVIN (editor), *Natural Language and the Computer*, McGraw-Hill Book Co., Inc., New York, N. Y., 1963, 414 pages, \$12.75. A series of 17 lectures

- given at UCLA in 1960-61 that survey the field of language-data processing, where "language" means a natural language such as English or Russian.
- K. J. KANSKY, *Structure of Transportation Networks: Relationships Between Network Geometry and Regional Characteristics*, Department of Geography Research Paper No. 84, University of Chicago, Chicago 37, Illinois, 1963, 165 pages, no price (paper).
- JOSEPH MATHIEU AND JOHANN HEINRICH JUNG, *Rechenprogramm und Beispielrechnung zur Planung der Maschinenbelegung in einer Fertigungsstufe*, Forschungsberichte des Landes Nordrhein-Westfalen Nr. 1266, Westdeutscher Verlag, Köln, Germany, 1963, 33 pages, DM 15.60 (paper). This report summarizes a procedure developed in a predecessor [Number 1216 of the same series, by Mathieu, Jung, and Behnert, reviewed in *Operations Research* **12**, 168-169 (1964)], gives a Siemens 2002 computer program for it, and presents the results of one run. There is no discussion or analysis of the results.
- ROBERT W. MILLER, *Schedule, Cost, and Profit Control with PERT: A Comprehensive Guide for Program Management*, McGraw-Hill Book Co., Inc., New York, N. Y., 1963, 243 pages, \$8.50.
- MARK PERLMAN (editor), *Human Resources in the Urban Economy*, The Johns Hopkins Press, Baltimore, Maryland, 1963, 279 pages, \$4.50 (paper). Eleven papers presented at a November 1962 conference sponsored by Resources for the Future, Inc. After an introductory paper on the economics of human resources in the American urban setting, there are three papers on the labor-force performance of minority groups, three on the economic implications of household consumption patterns, and four on area wage differentials and migration.
- SIXTO RIOS, *Métodos Estadísticos*, published by the author at Isaac Peral, 5, Madrid, Spain, 1963, 538 pages, 500 pesetas (paper).
- SERGIU RUDEAUNU, *Axiomele Laticelor si ale Algebrelor Booleene*, Editura Academiei Republicii Populare Romine, Bucharest, Roumania, 1963, 159 pages, Lei 5.75 (paper).
- EDWIN RÜHLI, *Optimale Sortimentsplanung mit Linearer Programmierung*, Mitteilungen aus dem Handelswissenschaftlichen Seminar der Universität Zürich, Verlag Schulthess & Co. AG, Zurich, Switzerland, 1963, 103 pages, Fr. 14 (paper).
- PHILIP M. SHERMAN, *Programming and Coding the IBM 709-7090-7094 Computers*, John Wiley and Sons, Inc., New York, N. Y., 1963, 151 pages, \$1.95 (paper).
- JOHN C. SLATER, *Introduction to Chemical Physics*, McGraw-Hill Book Co., Inc., New York, N. Y., 1963, 535 pages, \$3.95 (paper). A paperback reprint of a 1939 textbook.
- ALBERT WATERSTON, *Planning in Pakistan: Organization and Implementation*, The Johns Hopkins Press, Baltimore, Maryland, 1963, 160 pages, \$3.00 (paper).
- S. WINOGRAD AND J. D. COWAN, *Reliable Computation in the Presence of Noise*, The MIT Press, Cambridge, Mass., 1963, 110 pages, \$5.00. By outlining a general theory of computation in the presence of noise and demonstrating the utility of information theory for the synthesis of reliable automata from less reliable components, this monograph shows that automata can be constructed that will

compute definite events with arbitrarily small frequencies of error despite modular, synaptic, and interconnection errors. The authors prove that, with certain assumptions not previously made, Shannon's noisy-channel coding theorem is applicable to noisy computing devices; and they show that this result leads to novel designs for the construction, out of fallible components and interconnections, of highly reliable finite automata that require smaller redundancies than any systems previously considered.

PERIODICALS

A New Journal

Journal of Mathematical Psychology

The first issue of the *Journal of Mathematical Psychology*, which will appear two times yearly, appeared in February 1964. This new journal will center its attention on mathematically-oriented research in the behavioral sciences, as the contents of the first issue suggest:

R. DUNCAN LUCE AND JOHN W. TUKEY, "On Simultaneous Conjoint Measurement: A New Type of Fundamental Measurement"

NORMAN H. ANDERSON, "Linear Models for Responses Measured on a Continuous Scale"

DONALD A. NORMAN, "Sensory Thresholds, Response Biases, and the Neural Quantum Theory"

MORTON P. FRIEDMAN AND HAROLD GELFAND, "Transfer Effects in Discrimination Learning"

TOM TRABASSO, "Component Learning in the Four-Category Concept Problem"

HELENA CHMURA KRAEMER, "Point Estimation in Learning Models"

JEROME L. MYERS AND RICHARD C. ATKINSON, "Choice Behavior and Reward Structure"

ROGER N. SHEPARD, "Attention and the Metric Structure of the Stimulus Space"

The Editor, RICHARD C. ATKINSON of Stanford University, is supported by a Board of Editors consisting of R. R. BUSH and R. D. LUCE, University of Pennsylvania, W. J. MCGILL, Columbia University, W. K. ESTES and P. SUPPES, Stanford University, and G. A. MILLER, Harvard University.

The Editor may be addressed at Ventura Hall, Stanford University, Stanford, California; subscription inquiries should be sent to the Academic Press, 111 Fifth Avenue, New York, New York, 10003.

Selected Contents

The Journal of Industrial Engineering, January-February 1964

FREDERICK S. HILLIER, "The Application of Waiting Line Theory to Industrial Problems"

MYLES M. DRYDEN, "How Do Recent Changes in Tax Laws Affect Investment Decisions?"