

Bibliography

- Ackerman, J., "Statistical Measures Required for Library Management Decision-Making Under a Planning-Programming-Budgeting System," unpublished Master's Thesis, University of Pennsylvania, Philadelphia, Pennsylvania, 1969.
- Ackoff, R. L., "The Role of Recorded Information in the Decision Making Process: Operational Research Approach," in *Documentation in Action*, Reinhold, New York, 1956.
- Adeyemi, N. M., "Library Operations Research—Purpose, Tools, Utility and Implications," *Libri*, vol. 27, pp. 20–30, 1977.
- Allen, T. J., and P. G. Gertsberger, *Criteria for Selection of an Information Source*, Massachusetts Institute of Technology, Cambridge, Massachusetts, 1967.
- Andrews, T., "The Role of Departmental Libraries in Operations Research Studies in a University Library: Part 1. Selection for Storage Problems," *Special Libraries*, vol. 59, pp. 519–524, 1968.
- Andrews, T., "The Role of Departmental Libraries in Operations Research Studies in a University Library: Part 2. A Statistical Study of Book Use," *Special Libraries*, vol. 59, pp. 638–644, 1968.
- Arms, W. Y., and T. P. Walter, "A Simulation Model for Purchasing Duplicate Copies in a Library," *Journal of Library Automation*, vol. 7, pp. 78–82, 1974.
- Arms, W. Y., "Operations Research in Libraries," *Studies in Library Management*, vol. 2, Shoe String Press, Hamden, Connecticut, 1975.
- Baker, K. R., *Management Science: An Introduction to the Use of Decision Models*, Wiley, New York, 1985.
- Baker, N. R., "A Descriptive Model of Library/User/Funder Behavior in a University Environment," *Drexel Library Quarterly*, vol. 4, pp. 16–30, 1968.
- Baker, N. R., "Optimal User Search Sequences and Implications for Information Systems Operations," *American Documentation*, vol. 20, pp. 203–212, 1969.
- Baker, N. R., and R. E. Nance, "The Use of Simulation in Studying Information Storage and Retrieval Systems," *American Documentation*, vol. 19, pp. 363–370, 1968.
- Baker, N. R., and R. E. Nance, "Organizational Analysis and Simulation Studies of University Libraries: A Methodological Overview," *Information Processing and Management*, vol. 5, pp. 153–168, 1969.
- Baumler, J. V., and J. L. Baumler, "A Simulation of Reserve Book Activities in a College Library Using GPSS/360," *College and Research Libraries*, vol. 36, pp. 222–227, 1975.

Note: Bibliography is expanded from Kraft and McDonald, 1977, with permission of publisher.

- Behesti, J., and J. M. Tague, "Morse's Model of Book Use Revisited," *Journal of the American Society for Information Science*, vol. 35, pp. 259–267, 1984.
- Berg, S., "An Economic Analysis of the Demand for Scientific Journals," *Journal of the American Society for Information Science*, vol. 23, pp. 23–29, 1972.
- Bhat, U. N., R. E. Nance, and R. R. Korfhage, "Information Networks: A Probabilistic Model for Hierarchical Transfer," Technical Report CP710023, Computer Science/Operations Research Center, Southern Methodist University, Dallas, 1971.
- Biles, W. E., C. B. Estes, R. O. Hoffman, D. H. Kraft, and J. J. Talavage, "The Industrial Engineer in Environmental Information Systems," *First Annual Systems Engineering Conference Technical Papers*, American Institute of Industrial Engineers, New York, 1973.
- Billingsley, A., "Bibliography of Library Automation," *American Libraries*, vol. 3, pp. 289–312, 1972.
- Black, S. W., "Library Economics," *Libraries at Large: Tradition, Innovation, and the National Interest*, Bowker, New York, 1969.
- Bommer, M. R. W., "The Development of a Management System for Effective Decision-Making in a University Library," unpublished doctoral dissertation, University of Pennsylvania, Philadelphia, 1972.
- Bommer, M. R. W., "Operations Research in Libraries: A Critical Assessment," *Journal of the American Society for Information Science*, vol. 26, pp. 137–139, 1975.
- Bommer, M. R. W., and R. W. Chorba, *Decision Making for Library Management*, Knowledge Industry Publications, Inc., New York, 1982.
- Bommer, M. R. W., and B. Ford, "A Cost-Benefit Analysis for Determining the Value of an Electronic Security System," *College and Research Libraries*, vol. 35, pp. 270–279, 1974.
- Bommer, M. R. W., R. W. Chorba, and W. Grattidge, "Performance Assessment Model for Academic Libraries," *Journal of the American Society for Information Science*, vol. 30, pp. 93–99, 1979.
- Bookstein, A., "Implications for Library Education," *Library Quarterly*, vol. 42, pp. 140–151, 1972.
- Bookstein, A., "Congestion at Card and Book Catalogs—A Queuing Theory Approach," *Library Quarterly*, vol. 42, pp. 316–328, 1972.
- Bookstein, A., "Models for Shelf-Reading," *Library Quarterly*, vol. 43, pp. 126–137, 1973.
- Bookstein, A., "How to Sample Badly," *Library Quarterly*, vol. 44, pp. 124–132, 1974.
- Bookstein, A., "Allocation of Resources in an Information System," *Journal of the American Society for Information Science*, vol. 25, pp. 52–58, 1974.
- Bookstein, A., "Optimal Loan Periods," *Information Processing and Management*, vol. 11, pp. 235–242, 1975.
- Bookstein, A., "Comments on the Morse–Chen Discussion of NonCirculating Books," *Library Quarterly*, vol. 45, pp. 195–198, 1975.
- Bookstein, A., "Effect of Uneven Card Distribution of a Card Catalog," *Library Resources and Technical Services*, vol. 19, pp. 29–23, 1975.
- Bookstein, A., "The Bibliometric Distribution," *Library Quarterly*, vol. 46, pp. 416–423, 1976.
- Bookstein, A., "When the Most 'Pertinent' Documents Should Not Be Retrieved—An Analysis of the Swets Model," *Information Processing and Management*, vol. 13, pp. 377–383, 1977.

- Bookstein, A., "Patterns of Scientific Productivity and Social Change: A Discussion of Lotka's Law and Bibliosymmetry," *Journal of the American Society for Information Science*, vol. 28, pp. 206-210, 1977.
- Bookstein, A., "Relevance," *Journal of the American Society for Information Science*, vol. 30, pp. 269-273, 1979.
- Bookstein, A., "Explanations of the Bibliometric Laws," *Collection Management*, vol. 3, pp. 151-162, 1980.
- Bookstein, A., "An Economic Model of Library Science," *Library Quarterly*, vol. 51, pp. 410-428, 1981.
- Bookstein, A., and W. S. Cooper, "A General Mathematical Model for Information Retrieval Systems," *Library Quarterly*, vol. 46, pp. 153-167, 1976.
- Bookstein, A., and G. Fouty, "A Mathematical Model for Estimating the Effectiveness of Bigram Coding," *Information Processing and Management*, vol. 12, pp. 111-116, 1976.
- Bookstein, A., and K. Kocher, "Operations Research in Libraries," *Advances in Librarianship*, vol. 9, Academic Press, New York, 1979.
- Bookstein, A., and D. H. Kraft, "Operations Research Applied to Document Indexing and Retrieval Decisions," *Journal of the Association for Computing Machinery*, vol. 24, pp. 418-427, 1977.
- Bookstein, A., and E. Rodriguez, "Performance Test of Hybrid Access Method," *Journal of Library Automation*, vol. 11, pp. 41-46, 1978.
- Bookstein, A., and D. R. Swanson, "A Stochastic Shelf Reading Model," *Library Quarterly*, vol. 43, pp. 138-161, 1973.
- Bookstein, A., and D. R. Swanson, "Probabilistic Models for Automatic Indexing," *Journal of the American Society for Information Science*, vol. 25, pp. 312-318, 1974.
- Bookstein, A., and D. R. Swanson, "A Decision Theoretic Foundation for Indexing," *Journal of the American Society for Information Science*, vol. 26, pp. 45-50, 1975.
- Booth, A. D., "On the Geometry of Libraries," *Journal of Documentation*, vol. 25, pp. 28-40, 1969.
- Borbash, S. R., Jr., "Document Retrieval Systems Using Pattern Recognition and Mathematical Programming Techniques," unpublished doctoral dissertation, University of Pittsburgh, Pittsburgh, Pennsylvania, 1970.
- Bose, A., "An Information System Design Methodology Based on PERT/CPM Networking and Optimization Techniques," unpublished doctoral dissertation, University of Pittsburgh, Pittsburgh, Pennsylvania, 1970.
- Bourne, C. P., and D. F. Ford, "Cost Analysis and Simulation Procedures for the Evaluation of Large Information Systems," *American Documentation*, vol. 15, pp. 142-149, 1964.
- Bradford, S. C., *Documentation*, Crosly Lockwood & Son, Ltd., London, England, 1948.
- Braunstein, Y. M., "An Economic Rationale for Page and Submission Charges by Academic Journals," *Journal of the American Society for Information Science*, vol. 28, pp. 355-358, 1977.
- Bres, E., D. Cole, S. Hitt, R. Lyders, and K. Russel, "Formula Allocation to Institutional Users of Total Costs of a Medical Library: A Constrained Regression Approach," unpublished paper presented at the Operations Research Society of America/The Institute of Management Sciences Joint Meeting, Las Vegas, NV, 1975. (Available from Houston Academy of Medicine, Texas Medical Center Library, Houston, 78712.)

- Brookes, B. C., "The Derivation and Application of the Bradford-Zipf Distribution," *Journal of Documentation*, vol. 24, pp. 247-265, 1968.
- Brookes, B. C., "Bradford's Law and the Bibliography of Science," *Nature*, vol. 224, 1969.
- Brookes, B. C., "Photocopies vs. Periodicals: Cost-Effectiveness in the Special Library," *Journal of Documentation*, vol. 26, pp. 22-29, 1970.
- Brookes, B. C., "The Design of Hierarchical Information Systems," *Information Storage and Retrieval*, vol. 6, pp. 127-136, 1970.
- Brookes, B. C., "The Viability of Branch Libraries," *Journal of Librarianship*, vol. 2, pp. 14-19, 1970.
- Brookes, B. C., "Obsolescence of Special Library Periodicals: Sampling Errors and 'Utility Contours,'" *Journal of the American Society for Information Science*, vol. 24, pp. 320-329, 1970.
- Brookes, B. C., "The Growth, Utility, and Obsolescence of Scientific Periodical Literature," *Journal of Documentation*, vol. 26, pp. 283-294, 1970.
- Brookes, B. C., "Optimum P% Library of Scientific Periodicals," *Nature*, vol. 232, pp. 458-461, 1971.
- Brophy, P., and M. K. Buckland, "Simulation in Education for Library and Information Service Administration," *Information Scientist*, vol. 6, pp. 93-100, 1972.
- Brophy, P., M. K. Buckland, and A. Hindle (eds.), *Reader in Operations Research for Libraries*, Microcard Edition Books, Englewood, Colorado, 1976.
- Bruce, D. R., "A Markov Model to Study the Loan Dynamics at a Reserve-Loan Desk in a Lending Library," *Library Quarterly*, vol. 45, pp. 161-179, 1975.
- Bruer, J. M., "Management Information Aspects of Automated Acquisitions Systems," *Library Resources and Technical Services*, vol. 24, pp. 339-342, 1980.
- Brutcher, C., G. Gessford, and E. Rixford, "Cost Accounting for the Library," *Library Resources and Technical Services*, vol. 8, pp. 413-431, 1964.
- Buckland, M. K., "The Quantitative Evaluation of Regional Union Catalogs," *Journal of Documentation*, vol. 23, pp. 20-27, 1967.
- Buckland, M. K., A. Hindle, G. Mackenzie, and I. Woodburn, *Systems Analysis of a University Library: Final Report of a Research Project*, University of Lancaster Library, Lancaster, England, 1970.
- Buckland, M. K., "An Operational Research Study of a Variable Loan and Duplication Policy at the University of Lancaster," *Library Quarterly*, vol. 42, pp. 97-106, 1972.
- Buckland, M. K., "Management of Libraries and Information Centers," in *Annual Review of Information Science and Technology*, C. Cuadra, ed. vol. 8, American Society for Information Science, Washington, D.C., 1973.
- Buckland, M. K., "The Management Review and Analysis Program: A Symposium," *Journal of Academic Librarianship*, vol. 1, pp. 4-14, 1976.
- Buckland, M. K., *Book Availability and the Library User*, Pergamon Press, New York, 1978.
- Buckland, M. K., "Ten Years Progress in Quantitative Research on Libraries," *Socio-Economic Planning Science*, vol. 12, pp. 333-339, 1978.
- Buckland, M. K., "On Types of Search and the Allocation of Library Resources," *Journal of the American Society for Information Science*, vol. 30, pp. 143-147, 1979.
- Buckland, M. K., "The Structure and Dynamics of Library Services," in *Progress in Cybernetics and Systems Research*, R. Trappl *et al.*, eds. Hemisphere Publishing Corp., Washington, D.C., 1982.

- Buckland, M. K., and A. Hindle, "The Case for Library Management Games," *Journal of Education for Librarianship*, vol. 21, pp. 92-103, 1971.
- Buckland, M. K., and D. H. Kraft, "Bibliography on Operations Research in Libraries," in *Reader in Operations Research for Libraries*, A. Hindle, ed. Microcard Edition Books, Englewood, Colorado, 1976.
- Buckland, M. K., and I. Woodburn, "An Analytical Approach to Duplication and Availability," *Information Storage and Retrieval*, vol. 5, pp. 69-79, 1969.
- Burkehalter, B. R., (ed.) *Case Studies in Systems Analysis in a University Library*, Scarecrow Press, Metuchen, New Jersey, 1968.
- Burns, R., "A General Methodology for Library Systems Analysis," *College and Research Libraries*, vol. 32, pp. 295-303, 1971.
- Burrell, Q. L., "A Simple Stochastic Model for Library Loans," *Journal of Documentation*, vol. 36, pp. 115-132, 1980.
- Burrell, Q. L., "A Note on Ageing in a Library Circulation Model," *Journal of Documentation*, vol. 41, pp. 100-115, 1985.
- Burrell, Q. L., "A Second Note on Ageing in a Library Circulation Model: The Correlation Structure," *Journal of Documentation*, vol. 42, pp. 114-128, 1986.
- Burton, R. F., and R. W. Keebler, "The Half-Life of Some Scientific and Technical Literature," *American Documentation*, vol. 9, pp. 18-22, 1960.
- Bush, G. C., H. P. Galliher, and P. Morse, "Attendance and Use of the Science Library at MIT," *American Documentation*, vol. 7, pp. 87-100, 1956.
- Busha, C. H., and S. P. Harter, *Research Methods in Librarianship: Techniques and Interpretation*, Academic Press, New York, 1980.
- Byrd, G. D., and M. E. D. Koenig, "System Serials Selection Analysis in a Small Academic Health Sciences Library," *Bulletin of the Medical Library Association*, vol. 66, no. 4, pp. 397-406, October, 1978.
- Caras, G., "Computer Simulation of a Small Information System," *American Documentation*, vol. 19, pp. 120-122, 1968.
- Casper, C. A., "Estimating the Demand for Library Service: Theory and Practice," *Journal of the American Society for Information Science*, vol. 29, pp. 232-237, 1978.
- Casper, C. A., "Pricing Policy for Library Services," *Journal of the American Society for Information Science*, vol. 30, pp. 304-309, 1979.
- Chapman, E. A., P. L. St. Pierre, and J. Lubans, Jr., *Library Systems Analysis Guidelines*, Wiley, New York, 1970.
- Chapman, R. L., "The Case for Information System Simulation," in *Congress on the Information System Sciences*, D. E. Walker, ed. vol. 2, Spartan Books, Washington, D.C., 1965.
- Chen, C. C. *Applications of Operations Research Models to Libraries: A Case Study of the Use of Monographs in the Francis A. Countway Library of Medicine, Harvard University*, MIT Press, Cambridge, Massachusetts, 1976.
- Chen, C. C., (ed.) *Quantitative Measurement and Dynamic Library Service*, Oryx Press, Phoenix, Arizona, 1978.
- Churchman, C. W., *The Systems Approach*, Dell, New York, 1968.
- Churchman, C. W., *Design of Inquiring Systems, Basic Concepts in Systems Analysis*, Basic, 1972.
- Churchman, C. W., "Operations Research Prospects for Libraries: The Realities and Ideals," *Library Quarterly*, vol. 42, pp. 6-14, 1972.

- Cigler, I. K., "Simulation Method Applied in Designing an Information System," *Information Storage and Retrieval*, vol. 6, pp. 307–312, 1970.
- Cohen, J., and W. Vijverberg, "Applying Game Theory to Library Networks," *Journal of the American Society for Information Science*, vol. 31, pp. 369–374, 1980.
- Cole, D. D., "Mathematical Models in Library Management: Planning, Analysis and Cost Assessment," unpublished doctoral dissertation, University of Texas, Austin, Texas, 1976.
- Cole, P. F., "A New Look at Reference Scattering," *Journal of Documentation*, vol. 18, pp. 58–64, 1962.
- Cole, P. F., "Journal Usage Versus Age of Journal," *Journal of Documentation*, vol. 19, pp. 1–11, 1963.
- Cooper, M. D., "Evaluation of Information Retrieval Systems—A Simulation and Cost Approach," unpublished doctoral dissertation, School of Librarianship, University of California, Berkeley, Berkeley, 1971.
- Cooper, M. D., "A Cost Model for Evaluating Information Retrieval Systems," *Journal of the American Society for Information Science*, vol. 23, pp. 306–312, 1972.
- Cooper, M. D., "The Economics of Information," *Annual Review of Information Science and Technology*, vol. 8, American Society for Information Science, Washington, D.C., 1973.
- Cooper, M. D. and J. Wolthausen, "Misplacement of Books on Library Shelves: A Mathematical Model," *Library Quarterly*, vol. 47, pp. 43–57, 1977.
- Cooper, W. S., "Expected Search Length: A Single Measure of Retrieval Effectiveness Based on the Weak Ordering Action of Retrieval Systems," *American Documentation*, vol. 19, pp. 30–41, 1968.
- Cooper, W. S., "On Deriving Design Equations for Information Retrieval Systems," *Journal of the American Society for Information Science*, vol. 21, pp. 385–395, 1970.
- Cooper, W. S., "Indexing Documents by Gedanken Experimentation," *Journal of the American Society for Information Science*, vol. 29, pp. 107–120, 1978.
- Cougar, J. D., and R. W. Knapp (eds.), *System Analysis Techniques*, Wiley, New York, 1974.
- Cougar, J. D., M. A. Colter, and R. W. Knapp (eds.), *Advanced System Development/Feasibility Techniques*, Wiley, New York, 1982.
- Daiute, R. J., and K. A. Gorman, *Library Operations Research*, Oceana Publications, New York, 1974.
- Daly, J., et al., "The Use of Gaming in Education," *Occasional Paper 8*, Library Research Unit, University of Lancaster Library, Lancaster, England, 1976.
- Damirchi, A., "Problems in Operations Research—M.I.T. Science Library," unpublished Master's Thesis, Massachusetts Institute of Technology, Cambridge, Massachusetts, 1975.
- DePew, J. N., "An Acquisition Decision Model for Academic Libraries," *Journal of the American Society for Information Science*, vol. 26, pp. 237–246, 1975.
- DeProspero, E. R., and K. E. Beasley, *Performance Measures in Public Libraries*, American Library Association, Chicago, Illinois, 1974.
- Deutsch, D., and D. H. Kraft, "A Study of an Information Retrieval Performance Measure: Expected Search Length as a Function of File Size and Organization," paper presented at the Operation Research Society of America/The Institute of Management Sciences joint meeting, Boston, Massachusetts, 1974.

- DeWath, N. V., "Demand for Public Library Service: A Time Allocation and Public Finance Approach to User Fees," unpublished doctoral dissertation, School of Library and Information Studies, University of California, Berkeley, Berkeley, 1979.
- Dolby, J. L., and H. L. Resnikoff, "On the Multiplicative Structure of Information Storage and Access Systems," *Interfaces*, vol. 1, pp. 23-30, 1971.
- Dougherty, R. M., and F. J. Heinritz, *Scientific Management of Library Operations*, Scarecrow Press, Metuchen, New Jersey, 1966.
- Dym, E. D., and D. L. Shirey, "A Statistical Decision Model for Periodical Selection for a Specialized Information Center," *Journal of the American Society for Information Science*, vol. 24, pp. 110-119, 1973.
- Elliot, R. W., "Kiviat Graphs as a Means for Displaying Performance Data for Online Retrieval Systems," *Journal of the American Society for Information Science*, vol. 27, pp. 178-182, 1976.
- Ellsworth, R., *The Economics of Book Storage in College and University Libraries*, Scarecrow Press, Metuchen, New Jersey, 1969.
- Elton, M., and B. Vickery, "The Scope for Operational Research in the Libraries," *Aslib Proceedings*, vol. 25, pp. 305-319, 1973.
- Eppen, G. D., and F. J. Gould, *Quantitative Concepts for Management: Decision Making without Algorithms*, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1979.
- Erikson, W. J., and O. P. Hall, Jr., *Computer Models for Management Science*, Addison-Wesley, Reading, Massachusetts, 1983.
- Evans, G., "Time Cost of Information about Library Acquisition Budgets," *Collection Management*, vol. 2, pp. 3-23, 1978.
- Fairthorne, R. A., "Progress in Documentation: Empirical Hyperbole Distributions for Bibliometric Description and Prediction," *Journal of Documentation*, vol. 25, pp. 319-343, 1969.
- Fischhoff, B., B. Goitein, and Z. Shapiro, "Subjective Expected Utility: A Model of Decision Making," *Journal of the American Society for Information Science*, vol. 31, pp. 391-399, 1981.
- Flowers, A. D. and L. F. Mulvehill, "An Application of Industrial Engineering to Library Carrel Utilization," *AIIE Transactions*, vol. 10, pp. 315-320, September, 1978.
- Force, R., and J. E. Force, "Access to Alternative Catalogs: A Simulation Model," *College and Research Libraries*, vol. 40, pp. 234-239, 1979.
- Gass, S. I., *Linear Programming: Methods and Applications*, 4th edition, McGraw-Hill, New York, 1975.
- Gelman, E., and H. S. Sichel, "Library Book Circulation and the Beta-Binomial Distribution," *Journal of the American Society for Information Science*, vol. 38, pp. 5-12, 1987.
- Glazer, N., "Linear Programming for Libraries," *Chemical and Engineering News*, vol. 35, pp. 142-143, 1957.
- Glover, F., and D. Klingman, "Mathematical Programming Models and Methods for the Journal Selection Problem," *Library Quarterly*, vol. 42, pp. 43-58, 1972.
- Goddard, H. C., "Analysis of Social Production Functions: The Public Library," *Public Finance Quarterly*, vol. 1, pp. 191-205, 1973.
- Goffman, W. W., "A Mathematical Approach to the Spread of Scientific Ideas," *Nature*, vol. 212, pp. 449-542, 1966.
- Goffman, W., "Stability of Epidemic Processes," *Nature*, vol. 210, pp. 786-787, 1966.

- Goffman, W., "A Mathematical Method for Analyzing the Growth of a Scientific Discipline," *Journal of the Association for Computing Machinery*, vol. 18, pp. 173–185, 1971.
- Goffman, W., and T. G. Morris, "Bradford's Law and Library Acquisitions," *Nature*, vol. 226, pp. 922–923, 1970.
- Goffman, W., and V. A. Newill, "Generalizations of Epidemic Theory," *Nature*, vol. 204, pp. 225–228, 1964.
- Goffman, W., and K. S. Warren, "Dispersion of Papers Among Journals, Based on a Mathematical Analysis of Two Diverse Medical Literatures," *Nature*, vol. 215, pp. 1205–1207, 1969.
- Gold, S., "Allocating the Book Budget: An Economic Model," *College and Research Libraries*, vol. 36, pp. 397–402, 1975.
- Gore, D. (ed.), "Farewell to Alexandria: Solutions to Space, Growth, and Performance Problems of Libraries," *ACM Conference on Space, Growth and Performance Problems of Academic Libraries*, Greenwood Press, 1976.
- Goyal, S. K., "Applications of Operational Research to the Problem of Determining Appropriate Loan Periods for Periodicals," *Libri*, vol. 20, pp. 94–100, 1970.
- Goyal, S. K., "Allocation of Library Funds to Different Departments of a University—An Operational Research Approach," *College and Research Libraries*, vol. 34, pp. 219–222, 1973.
- Grant, R. S., "Predicting the Need for Multiple Copies of Books," *Journal of Library Automation*, vol. 4, pp. 64–71, 1971.
- Greenberg, H. J., and D. H. Kraft, "On Computing a Buy/Copy Policy Using the Pitt-Kraft Model," *Information Processing and Management*, vol. 13, pp. 125–134, 1977.
- Groos, O., "Bradford's Law and the Keenan-Atherton Data," *American Documentation*, vol. 19, 1967.
- Gross, J., and J. Talavage, "A Multiple-Objective Planning Methodology for Information Service Managers," *Information Processing and Management*, vol. 15, pp. 155–167, 1979.
- Group, Case Institute of Technology—O. R., *An Operations Research Study of the Dissemination and Use of Recorded Scientific Knowledge*, Case-Western Reserve University, Cleveland, Ohio, 1960.
- Gupta, S. M., and A. Ravindran, "Optimal Storage of Books by Size: An Operations Research Approach," *Journal of the American Society for Information Science*, vol. 25, 354–357, 1974.
- Gurk, H. M., and J. Minker, "Design and Simulation of an Information Processing System," *Journal of the Association for Computing Machinery*, vol. 8, pp. 260–270, 1961.
- Gurk, H. M., and J. Minker, "Storage Requirements for Information Handling Centers," *Journal of the Association for Computing Machinery*, vol. 17, pp. 65–77, 1970.
- Haas, W. J., "Computer Simulation at the Columbia University Libraries," in *Proceedings of the 1964 Clinic on Library Applications of Data Processing*, H. Goldhor, ed. Graduate School of Library Science, University of Illinois, Urbana, Illinois, 1964.
- Halperin, M., "Waiting Lines," *Reference Quarterly*, vol. 16, pp. 297–299, 1977.
- Hamburg, M., L. E. Ramist, and M. R. W. Bommer, "Library Objectives and Performance Measures and Their Use in Decision Making," *Library Quarterly*, vol. 42, pp. 107–128, 1972.
- Hamburg, M., R. C. Clelland, M. R. W. Bommer, L. E. Ramist, and R. Whitfield,

- Library Planning and Decision-Making Systems*, MIT Press, Cambridge, Massachusetts, 1974.
- Hamburg, M., *et al.*, "A Systems Approach to Library Management," *Journal of Systems Engineering*, vol. 4, pp. 117–129, 1976.
- Hamelman, K. W., and E. M. Maize, "Of Models and Scientific Markets," *IEEE Transactions on Professional Communication*, vol. PC-16, pp. 177–178, 1973.
- Harter, S. P., "A Probabilistic Approach to Automatic Indexing. Part I. On the Distribution of Specialty Words in a Technical Literature," *Journal of the American Society for Information Science*, vol. 26, pp. 197–206, 1974.
- Harter, S. P., "A Probabilistic Approach to Automatic Indexing. Part II. An Algorithm for Probabilistic Indexing," *Journal of the American Society for Information Science*, vol. 26, pp. 280–289, 1974.
- Hassel, P., "An Analytical Design Framework for Academic Library System Formulation," unpublished doctoral dissertation, School of Industrial Engineering, Purdue University, West Lafayette, Indiana, 1968.
- Heaps, H. S., and L. H. Thiel, "Optimum Procedures for Economic Information and Referral Centers," *Information Storage and Retrieval*, vol. 6, pp. 137–153, 1970.
- Heilprin, L. B., "The Economics of 'On Demand' Library Copying," Proceedings of the Eleventh Annual Meeting and Convention of the National Microfilm Association, Anapolis, Maryland, 1962.
- Heindel, A. J., and H. A. Napier, "Decision Support Systems in Libraries," *Special Libraries*, pp. 319–327, 1981.
- Heine, M. H., "Design Equations for Retrieval Systems Based on the Swets Model," *Journal of the American Society for Information Science*, vol. 25, pp. 183–198, 1974.
- Heinritz, F. J., "Optimum Allocation of Technical Services Personnel," *Library Resources and Technical Services*, vol. 13, pp. 99–101, 1969.
- Heinritz, F. J., and J. C. Hsiao, "Optimum Distribution of Centrally Processed Material," *Library Resources and Technical Services*, vol. 13, pp. 205–208, 1969.
- Hentschke, G. C., and E. Kehoe, "Serial Acquisition as a Capital Budgeting Problem," *Journal of the American Society for Information Science*, vol. 31, pp. 357–362, 1980.
- Herling, J. P., M. G. F. Beeler, A. Reisman, and B. V. Dean, "Improved Delivery of Library Materials: The Cleveland Experience," *Journal of Library Automation*, vol. 7, pp. 275–289, 1974.
- Herner, S., "Operations Research and the Technical Information Program," in *Information and Communication Practices in Industry*, Reinhold, New York, 1958.
- Herner, S., and K. J. Snapper, "The Application of Multiple-Criteria Utility Theory for the Evaluation of Information Systems," *Journal of the American Society for Information Science*, vol. 29, pp. 289–296, 1978.
- Hernon, P., and J. V. Richardson (eds.), *Microcomputer Software for Performing Statistical Analysis: A Handbook Supporting Library Decision Making*, Ablex, Norwood, New Jersey, 1988.
- Hernon, P. and C. R. McClure, *Evaluation and Library Decision Making*, Norwood, New Jersey: Ablex Publishing, 1990.
- Hillier, F. S., and G. J. Lieberman, *Introduction to Operations Research*, 2nd edition, Holden-Day, San Francisco, 1972.
- Hindle, A., "A Theoretical Note Concerning the Adaptivity of Demand for Library Documents," *Journal of Documentation*, vol. 33, pp. 305–307, 1977.

- Hindle, A., and D. Raper, "The Economics of Information," *Annual Review of Information Science and Technology*, vol. 11, American Society for Information Science, Washington, D.C., 1976.
- Hindle, A., M. K. Buckland, and P. Brophy, "The Techniques of Operations Research: A Tutorial," *Reader in Operations Research for Libraries*, Microcard Edition Books, Englewood, Colorado, 1976.
- Hoadley, I. B., and A. S. Clark, *Quantitative Methods in Librarianship: Standards, Research, Management*, Greenwood Press, Westport, Connecticut, 1972.
- Hoos, I., *Systems Analysis in Public Policy: A Critique*, University of California Press, Berkeley, 1972.
- Horowitz, E., and S. Sahni, *Fundamentals of Data Structures*, Computer Science Press, 1977.
- Huffenberger, M. A., and R. L. Wigington, "Database Management Systems," *Annual Review of Information Science and Technology*, vol. 14, American Society for Information Science, Washington, D.C., 1979.
- Ignizio, J. P., *Linear Programming in Single & Multiple-Objective Systems*, Prentice-Hall, Englewood Cliffs, New Jersey, 1982.
- Jain, A. K., "Sampling and Short-Period Usage in the Purdue Library," *College and Research Libraries*, vol. 27, pp. 211–218, 1966.
- Jain, A. K., "A Statistical Study of Book Usage," unpublished doctoral dissertation, School of Industrial Engineering, Purdue University, West Lafayette, Indiana, 1967.
- Jain, A. K., "Sampling and Data Collection Methods for a Book-Use Study," *Library Quarterly*, vol. 39, pp. 245–252, 1969.
- Jain, A. K., F. F. Leimkuhler, and V. L. Anderson, "A Statistical Model of Usage and Its Application to the Book Storage Problem," *Journal of the American Statistical Association*, vol. 64, pp. 1211–1224, 1969.
- Jain, A. K., "Sampling In-Library Book Use," *Journal of the American Society for Information Science*, vol. 23, pp. 150–160, 1972.
- Jennings, A., "Optimizing Library Automation with a Central Dynamic Store," *College and Research Libraries*, vol. 30, pp. 397–404, 1969.
- Jensen, P. A., *Microsolve/Operations Research: Introduction to Operations Research*, Holden-Day, Oakland, California, 1983.
- Kang, J. H., and W. B. Rouse, "Approaches to Forecasting Demands for Library Network Services," *Journal of the American Society for Information Science*, vol. 31, pp. 256–263, 1980.
- Kantor, P., "Availability Analysis," *Journal of the American Society for Information Science*, vol. 27, pp. 311–319, 1976.
- Kantor, P., "The Library as an Information Utility in the University Context: Measurement and Evolution of Service," *Journal of the American Society for Information Science*, vol. 27, pp. 100–112, 1976.
- Kantor, P., "Vitality: An Indirect Measure of Relevance," *Collection Management*, vol. 2, pp. 83–95, 1978.
- Kantor, P., "A Note on Cumulative Advantage Distributions," *Journal of the American Society for Information Science*, vol. 29, pp. 202–204, 1978.
- Kantor, P., "A Review of Library Operations Research," *Library Research*, vol. 1, pp. 295–345, 1979.
- Kantor, P., "The Logic of Weighted Queries," *IEEE Transactions on Systems, Man, and Cybernetics*, vol. SMC-11, pp. 816–821, 1981.

- Kaske, N. E., "Effectiveness of Library Operations: A Management Information Systems Approach and Applications," unpublished doctoral dissertation, University of Oklahoma, Norman, 1973.
- Kaske, N. E., "An Evaluation of Current Collection Utilization," *Collection Management*, vol. 3, pp. 187-199, 1980.
- Kendall, M. G., "The Bibliography of Operational Research," *Operational Research Quarterly*, vol. 11, pp. 31-36, 1960.
- Keonig, M. E. D., "On-Line Serials Collection Analysis," *Journal of the American Society for Information Science*, vol. 30, pp. 148-153, 1979.
- Kilgour, F. G., "EIDOS and the Transformation of Libraries," *Library Journal*, vol. 112, pp. 496-497, October 1, 1987.
- King, D. W., and E. C. Bryant, *The Evaluation of Information Services and Products*, Information Resources Press, Washington, D.C., 1971.
- King, D. W., N. K. Roderer, and H. Olsen, *Key Papers in the Economics of Information*, Knowledge Industry Publications, White Plains, New York, 1982.
- King, W. R., R. H. Kilmann, and K. Sochats, "Designing Scientific Journals: Issues and Survey Results," *Management Science*, vol. 24, pp. 774-784, 1978.
- King, W. R., R. H. Kilmann, and K. Sochats, "On Analyzing Survey Data for Journal Design," *Management Science*, vol. 25, 1979.
- Kleinrock, L., *Queueing Systems*, Volume I. Theory, Wiley, New York, 1975.
- Kleinrock, L., *Queueing Systems*, Volume II. Computer Applications, Wiley, New York, 1975.
- Kochen, M., *The Growth of Knowledge*, Wiley & Sons, New York, 1967.
- Kochen, M., "Directory Design for Networks of Information and Referral Centers," *Library Quarterly*, vol. 42, pp. 59-83, 1972.
- Kohl, D. F., *Acquisitions, Collection Development, and Collection Use: A Handbook for Library Management*, ABC-Clio Information Services, Santa Barbara, California, 1985.
- Korfhage, R. R., U. N. Bhat, and R. E. Nance, "Graph Models for Library Information Networks," *Library Quarterly*, vol. 42, pp. 31-42, 1972.
- Kraft, D. H., "A Comment on the Morse-Elston Model of Probabilistic Obsolescence," *Operations Research*, vol. 18, pp. 1228-1233, 1970.
- Kraft, D. H., "The Journal Selection Problem in a University Library System," unpublished doctoral dissertation, School of Industrial Engineering, Purdue University, West Lafayette, Indiana, 1971.
- Kraft, D. H., "A Decision Theory View of the Information Retrieval Situation: An Operations Research Approach," *Journal of the American Society for Information Science*, vol. 24, pp. 368-376, 1973.
- Kraft, D. H., "A Threshold Rule Applied to the Retrieval Decision Model," *Journal of the American Society for Information Science*, vol. 29, pp. 77-80, 1978.
- Kraft, D. H., "Journal Selection Models: Past and Present," *Collection Management*, vol. 3, pp. 163-186, 1979.
- Kraft, D. H., and A. Bookstein, "Evaluation of Information Retrieval Systems: A Decision Theory Approach," *Journal of the American Society for Information Science*, vol. 29, pp. 31-40, 1978.
- Kraft, D. H., and M. K. Buckland, "A Bibliography of Operations Research in Libraries," in *Reader in Operations Research for Libraries*, A. Hindle, ed. Information Handling Services, Englewood, Colorado, 1976.

- Kraft, D. H., and T. W. Hill, Jr., "Models of Journal Productivity: Ways of Measuring Journal Worth for the Journal Selection Decision," unpublished paper, Louisiana State University, Department of Computer Science, Baton Rouge, Louisiana, 1972.
- Kraft, D. H., and T. W. Hill, Jr., "A Journal Selection Model and Its Implications for Librarians," *Information Storage and Retrieval*, vol. 9, pp. 1-11, 1973.
- Kraft, D. H., and T. W. Hill, Jr., "The Journal Selection Problems in a University Library System," *Management Science*, vol. 19, pp. 613-626, 1973.
- Kraft, D. H., and T. Lee, "Stopping Rules and Their Effect on Expected Search Length," *Information Processing and Management*, vol. 15, pp. 47-58, 1979.
- Kraft, D. H., and J. W. Liesener, "Planning and Budgeting for School Media Programs at the Building, District, and Regional Levels: Or O.R. in the Little Red Schoolhouse," *Journal of the American Society for Information Science*, vol. 30, pp. 41-50, 1979.
- Kraft, D. H., and D. McDonald, "Library Operations Research: A Tutorial," *Proceedings of the LARC Institute on Library Operations*, Washington, D.C., 1973.
- Kraft, D. H., and D. McDonald, "Library Operations Research: Its Past and Our Future," *The Information Age: Its Development, Its Impact*, Scarecrow Press, Metuchen, New Jersey, 1976.
- Kraft, D. H., and D. McDonald, "Library Operations Research: A Bibliography and Commentary on the Literature," *Information Reports and Bibliographies*, vol. 6, pp. 2-10, 1977.
- Kraft, D. H., and W. B. Pitt, "Buy or Copy? A Library Operations Research Model," *Information Storage and Retrieval*, vol. 10, pp. 331-341, 1974.
- Kraft, D. H., and R. A. Polacsek, "Biomedical Literature Dynamics," *Methods of Information in Medicine*, vol. 13, pp. 242-248, 1974.
- Kraft, D. H., and R. A. Polacsek, "A Journal Worth Measure for a Journal Selection Model," *Collection Management*, vol. 2, pp. 129-140, 1978.
- Kraft, D. H., and W. G. Waller, "A Bayesian Approach to User Stopping Rules for Information Retrieval Systems," *Information Processing and Management*, vol. 17, pp. 349-361, 1981.
- Kraft, D. H., K. Burns, A. Klair, R. A. Polacsek, and L. Soergel, "Journal Selection Decisions: A Biomedical Library Operations Research Model I. The Framework," *Bulletin of the Medical Library Association*, vol. 64, pp. 255-264, 1976.
- Krauze, T. K., and C. Hellinger, "Citation, References, and the Growth of Scientific Literature: A Model of Dynamic Interaction," *Journal of the American Society for Information Science*, vol. 22, pp. 333-336, 1971.
- Krevitt, B. I., and B. C. Griffith, "Evaluation of Information Systems: A Bibliography 1967-1972," *Information Reports and Bibliographies*, vol. 2, 1973.
- Lamberton, D. M., (ed.) *Economics of Information and Knowledge: Selected Readings*, Princeton University Press, Princeton, New Jersey, 1972.
- Lancaster, F. W., "The Cost-Effectiveness of Information Retrieval Systems," *Journal of the American Society for Information Science*, vol. 22, pp. 12-27, 1971.
- Lancaster, F. W., "If You Want to Evaluate Your Library . . .," Graduate School of Library and Information Science, University of Illinois, Urbana, IL, 1988.
- Lancaster, F. W., "Systems Design and Analysis for Libraries," *Library Trends*, vol. 21, pp. 463-603, 1973.
- Lancaster, F. W., *The Measurement and Evaluation of Library Services*, Information Resources Press, Washington, D.C., 1977.

- Lancaster, F. W., (ed.) "Systems Design and Analysis for Libraries," *Library Trends*, vol. 21, pp. 463-603, 1973.
- Lawrence, J. R., (ed.) *Operational Research and the Social Sciences*, Tavistock Publications, Kennebunkport, Maine, 1966.
- Lazorick, G. J., "Demand Models for Books in Library Circulation Systems," unpublished doctoral dissertation, State University of New York at Buffalo, Buffalo, 1970.
- Lazorick, G. J., and T. L. Minder, "A Least Cost Searching Sequence," *College and Research Libraries*, vol. 25, pp. 126-128, 1964.
- Leach, S., "The Growth Rates of Major Academic Libraries: Rider and Purdue Revisited," *College and Research Libraries*, vol. 37, pp. 531-542, 1976.
- Leimkuhler, F. F., "Mathematical Models for Library Systems Analysis," *Drexel Library Quarterly*, vol. 4, 1965.
- Leimkuhler, F. F., "Systems Analysis in University Libraries," *College and Research Libraries*, vol. 27, pp. 13-18, 1966.
- Leimkuhler, F. F., "The Bradford Distribution," *Journal of Documentation*, vol. 23, pp. 197-207, 1967.
- Leimkuhler, F. F., "A Literature Search and File Organization Model," *American Documentation*, vol. 19, pp. 131-136, 1968.
- Leimkuhler, F. F., "Library Operations Research," *Engineering Education*, vol. 363-365, 1970.
- Leimkuhler, F. F., "Library Operations Research: A Process of Discovery and Justification," *Library Quarterly*, vol. 42, pp. 84-96, 1972.
- Leimkuhler, F. F., "Operations Research and Information Science—A Common Cause," *Journal of the American Society for Information Science*, vol. 24, pp. 2-8, 1973.
- Leimkuhler, F. F., "Operational Analysis of Library Systems," *Information Processing and Management*, vol. 13, pp. 79-93, 1977.
- Leimkuhler, F. F., "Operations Research and Systems Analysis," in *Evaluation and Scientific Management of Libraries and Information Centres*, C. W. Cleverdon, ed. Nordoff, Leyden, The Netherlands, 1977.
- Leimkuhler, F. F., "The Practice of Operations Research in Libraries," *Collection Management*, vol. 3, pp. 127-138, 1980.
- Leimkuhler, F. F., and A. Billingsley, "Library and Information Center Management," *Annual Review of Information Science and Technology*, vol. 7, American Society for Information Science, Washington, D.C., 1972.
- Leimkuhler, F. F., and M. D. Cooper, "Analytical Models for Library Planning," *Journal of the American Society for Information Science*, vol. 22, pp. 390-398, 1971.
- Leimkuhler, F. F., and J. G. Cox, "Compact Book Storage in Libraries," *Operations Research*, vol. 12, pp. 419-427, 1964.
- Levin, M. M., "The Circulation/Acquisition Ratio: An Input Output Measure for Libraries," *Information Processing and Management*, vol. 17, pp. 313-316, 1981.
- Liesener, J. W., *A Systematic Process for Planning Media Programs*, American Library Association, Chicago, 1976.
- Line, M. B., "The 'Half-Life' of Periodical Literature: Apparent and Real Obsolescence," *Journal of Documentation*, vol. 26, pp. 46-54, 1970.
- Line, M. B., "Optimization of Library Expenditures on Biochemistry Journals," *Journal of Documentation*, vol. 31, pp. 36-37, 1975.
- Line, M. B., and A. Sandison, "'Obsolescence' and Changes in the Use of Literature with Time," *Journal of Documentation*, vol. 30, pp. 283-350, 1974.

- Line, M. B., and P. N. Wood, "The Effect of a Large-Scale Photocopy Service on Journal Sales," *Journal of Documentation*, vol. 31, pp. 234–245, 1975.
- Lipetz, B. A., "Catalog Use in a Large Research Library," *Library Quarterly*, vol. 42, pp. 129–139, 1972.
- Lister, W. C., "Least Cost Decision Rules for the Selection of Library Materials for Compact Storage," unpublished doctoral dissertation, Purdue University School of Industrial Engineering, West Lafayette, Indiana, 1967.
- Lotka, A. J., "The Frequency Distribution of Scientific Productivity," *Journal of the Washington Academy of Science*, vol. 16, pp. 317–323, 1926.
- Lubans, J., Jr., and E. A. Chapman (eds.), *Reader in Library Systems Analysis*, Micro-card Edition Books, Englewood, Colorado, 1975.
- Machlup, F., *The Production and Distribution of Knowledge in the United States*, Princeton University Press, Princeton, NJ, 1972.
- Mackenzie, A. G., "Library Research at the University of Lancaster," *Library Association Record*, vol. 73, pp. 90–92, 1971.
- Mackenzie, A. G. "Systems Analysis as a Decision-Making Tool of the Library Manager," *Library Trends*, vol. 21, pp. 493–504, 1973.
- Mackenzie, A. G., and M. K. Buckland, *Operations Research, British Librarianship and Information Science, 1966–1970*, Library Association, London, 1972.
- Mackenzie, A. G., and M. K. Buckland, "Operational Research," *British Librarianship and Information Science*, Library Association, London, England, 1972.
- Mackenzie, A. G., and I. M. Stuart (eds.), *Planning Library Services: Proceedings of a Research Seminar held at the University of Lancaster, 9–11 July 1969*, University of Lancaster Library Research Unit, Lancaster, England, 1969.
- Mann, S. H., "Least-Cost Decision Rules for Dynamic Library Management," *Information Storage and Retrieval*, vol. 7, pp. 111–121, 1971.
- Marchant, M., "University Libraries as Economic Systems," *College and Research Libraries*, vol. 36, pp. 449–457, 1975.
- Marchant, M. P., N. M. Smith, and K. H. Stirling, "SPSS as a Library Research Tool," Occasional Research Paper 1, School of Library and Information Science, Brigham Young University, Provo, Utah, 1977.
- Martyn, J., and B. C. Vickery, "The Complexity of the Modeling of Information Systems," *Journal of Documentation*, vol. 26, pp. 204–220, 1970.
- Mason, R. M., and P. G. Sassone, "A Lower Bound Cost Benefit Model for Library Services," *Information Processing and Management*, vol. 14, pp. 71–83, 1978.
- McClure, C. R., "Linear Programming and Library Delivery Systems," *Libri*, vol. 21, p. 335, 1977.
- McClure, C. R. *Information for Library Decision Making: The Case for Organizational Information Management*, Westport, Connecticut: Greenwood Press, 1980.
- McDonald, D., "A Multi-Attribute Utility Approach to Assessing Authors' Preferences for Scientific Journals," in *Proceedings*, American Society for Information Science, Washington, D.C., 1977.
- McGill, M. J., and J. Huitfeldt, "Experimental Techniques of Information Retrieval," *Annual Review of Information Science and Technology*, vol. 14, American Society for Information Science, Washington, D.C., 1979.
- McGrath, W. E., "Predicting Book Circulation by Subject in a University Library," *Collection Management*, vol. 1, pp. 7–26, 1976–1977.

- McGrath, W. E., "Two Models of Predicting Subject Circulation: A Contribution to the Allocation Problem," *Journal of the American Society for Information Science*, vol. 30, pp. 264–268, 1979.
- McKenney, J. L., "Guidelines for Simulation Model Development," *Information System Science and Technology*, Thompson Book Co., Washington, D.C., 1967.
- Meier, R., "Overload and Growth in Communications-Oriented Institutions," *Mathematical Explorations in Behavioral Science*, Irwin, Illinois, 1965.
- Mick, C. K., "Cost Analysis of Systems and Services," *Annual Review of Information Science and Technology*, vol. 14, American Society for Information Science, Washington, D.C., 1979.
- Mjosund, A., "An Optimal Literature Search and Methods of Estimating the Probability Parameter," unpublished doctoral dissertation, Johns Hopkins University, Baltimore, Maryland, 1967.
- Morelock, M., and F. F. Leimkuhler, "Library Operations Research and Systems Engineering Studies," *College and Research Libraries*, vol. 25, pp. 501–503, 1964.
- Morley, R., "Maximising the Benefits from Existing Library Resources," in *Planning Library Services: Proceedings of a Research Seminar held at the University of Lancaster, 9–11 July 1969*, A. G. MacKenzie and I. M. Stuart (eds.), University of Lancaster Library Research Unit, Lancaster, England, 1969.
- Morse, P. M., and C. Elston, "A Probabilistic Model for Obsolescence," *Operations Research*, vol. 17, pp. 37–47, 1969.
- Morse, P. M., *Library Effectiveness: A Systems Approach*, MIT Press, Cambridge, Massachusetts, 1968.
- Morse, P. M., "Search Theory and Browsing," *Library Quarterly*, vol. 40, pp. 391–408, 1970.
- Morse, P. M., "Measures of Library Effectiveness," *Library Quarterly*, vol. 42, pp. 15–30, 1972.
- Morse, P. M., "Optimal Linear Ordering of Information Items," *Operations Research*, vol. 20, pp. 741–751, 1972.
- Morse, P. M., and C. C. Chen, "Using Circulation Desk Data to Obtain Unbiased Estimates of Book Use," *Library Quarterly*, vol. 45, pp. 179–194, 1975.
- Morse, P. M., "Demand for Library Materials: An Exercise in Probability Analysis," *Collection Management*, vol. 1, pp. 47–78, 1976–1977.
- Morse, P. M., "A Queuing Theory Bayesian Model for the Circulation of Books in a Library," *Operations Research*, vol. 27, pp. 693–716, 1979.
- Mullick, S. K., "Optimal Design of a Stochastic System with Dominating Fixed Costs," *Journal of Financial and Quarterly Analysis*, vol. 1, pp. 55–74, 1966.
- Nance, R. E., "An Analytical Model of a Library Network," *Journal of the American Society for Information Science*, vol. 21, pp. 58–66, 1970.
- Nance, R. E., and N. R. Baker, "Library Policy Structure: An Industrial Dynamics Study," *Simulation*, 1971.
- Nance, R. E., R. R. Korfhage, and U. N. Bhat, "Information Networks: Definition and Message Transfer Models," Technical Report CP710011, Computer Science/Operations Research Center, Southern Methodist University, Dallas, 1971.
- Nance, R. E., W. K. Wickham, and M. Duggan, "A Computer System for Effective Management of a Medical Library Network," *Journal of Library Automation*, vol. 4, pp. 213–219, 1971.

- Naranan, S., "Power Law Relations in Science Bibliography—A Self-Consistent Interpretation," *Journal of Documentation*, vol. 27, pp. 83–97, 1971.
- Newhouse, J. P., *Libraries and the other Triangle Under the Demand Curve*, Lexington Books, Lexington, Massachusetts, 1972.
- Newhouse, J. P., and A. J. Alexander, *An Economic Analysis of Public Library Service*, Lexington Books, Lexington, Massachusetts, 1972.
- Nozik, B. S., "A Stochastic Model to Predict Demand for Library Service," unpublished doctoral dissertation, University of California, Berkeley, Berkeley, 1974.
- O'Neill, E. T., "Sampling University Library Collections," *College and Research Libraries*, vol. 27, pp. 450–454, 1964.
- O'Neill, E. T., "Journal Usage Patterns and Their Implications in the Planning of Library Systems," unpublished doctoral dissertation, School of Industrial Engineering, Purdue University, West Lafayette, Indiana, 1971.
- O'Neill, E. T., "Operations Research," *Library Trends*, vol. 32, pp. 509–520, 1984.
- Olsen, H. A., "The Economics of Information: Bibliography and Commentary on the Literature," *Information: Part 2—Reports and Bibliographies*, vol. 1, 1972.
- Orr, R. H., "Measuring the Goodness of Library Services: A General Framework for Considering Quantitative Measures," *Journal of Documentation*, vol. 29, 1973.
- Ozog, S., "On the Value of Information," *Journal of the American Society for Information Science*, vol. 30, pp. 310–314, 1979.
- Palmour, D. E., E. C. Bryant, N. W. Caldwell, and L. M. Gray, *A Study of the Characteristics, Costs, and Magnitude of Interlibrary Loans in Academic Libraries*, Greenwood Press, Westport, Connecticut, 1972.
- Palmour, V. E., and N. E. Roderer, "Library Resource Sharing Through Networks," *Annual Review of Information Science and Technology*, vol. 13, American Society for Information Science, Washington, D.C., 1978.
- Phillips, D. T., A. Ravindran, and J. J. Solberg, *Operations Research: Principles and Practice*, Wiley, New York, 1976.
- Pitt, W. B., and D. H. Kraft, "Buy or Copy? A Library Operations Model," *Information Storage and Retrieval*, vol. 10, pp. 331–341, 1974.
- Pratt, A. D., "The Analysis of Library Statistics," *Library Quarterly*, vol. 47, pp. 275–286, 1975.
- Pratt, L., "Analysis of Library Systems: A Bibliography," *Special Libraries*, vol. 55, pp. 688–695, 1964.
- Price, D. de Solla, "A General Theory of Bibliometric and Other Cumulative Advantage Processes," *Journal of the American Society for Information Science*, vol. 27, pp. 292–307, 1976.
- Price, D. de Solla, "Cumulative Advantage Urn Games Explained! A Reply to Kantor," *Journal of the American Society for Information Science*, vol. 29, pp. 204–206, 1978.
- Pritchard, A., "Statistical Bibliography on Bibliometrics," *Journal of Documentation*, vol. 25, pp. 348–349, 1969.
- Radford, N. A., "Failure in the Library—A Case Study," *Library Quarterly*, vol. 53, pp. 328–339, 1983.
- Radhakrishnan, T., and K. Venkatesh, "On Optimal Storage of Books by Size," *Journal of the American Society for Information Science*, vol. 29, pp. 253–254, 1978.
- Raffel, L. J., "From Economic to Political Analysis to Library Decision Making," *College and Research Libraries*, vol. 35, pp. 412–423, 1974.

- Raffel, L. J., and R. Shisko, *Systematic Analysis of University Libraries: An Application of Cost-Benefit Analysis to the M.I.T. Libraries*, MIT Press, Cambridge, Massachusetts, 1969.
- Raffel, L. J., and R. Shisko, "Centralization vs. Decentralization: A Location Analysis Approach for Librarians," *Special Libraries*, vol. 63, pp. 135-143, 1972.
- Raisig, L. J., "Mathematical Evaluation of the Scientific Serial," *Science*, vol. 131, pp. 1417-1419, 1960.
- Redmond, D. A., "Optimum Size: The Special Library Viewpoint," *Sci-Tech News*, vol. 20, pp. 40-42, 1964.
- Reed, M. J. Probst, "Computer Simulation: A Tool for Analysis of Library Service," *Journal of Library Automation*, vol. 9, pp. 117-136, 1976.
- Regazzi, J. J., and R. Hershberger, "Queries and Reference Service Inference: A Simulation of a Library Reference Desk," in *Proceedings, American Society for Information Science Meeting*, Washington, D.C., 1976.
- Reisman, A., G. Kaminsky, S. Srinevasan, and M. G. Fancher, "Timeliness of Library Materials Delivery: A Set of Priorities," *Socio-Economic Planning Sciences*, vol. 6, pp. 145-152, 1972.
- Research, King Inc., *Corporate Bibliography: October, 1981*, King Research, Inc., Rockville, Maryland, 1981.
- Robertson, S. E., and S. Hensman, "Journal Acquisition by Libraries: Scatter and Cost-Effectiveness," *Journal of Documentation*, vol. 30, pp. 273-282, 1974.
- Robertson, S. E., M. E. Maron, and W. S. Cooper, "Probability of Relevance: A Unification of Two Competing Models for Document Retrieval," *Information Technology: Research and Development*, vol. 1, pp. 1-21, 1982.
- Robinson, E. J., and S. J. Turner, "Improving Library Effectiveness: A Proposal for Applying Fuzzy Set Concepts in the Management of Large Collections," *Journal of the American Society for Information Science*, vol. 31, pp. 458-462, 1981.
- Rossi, J. A. Dei, G. F. Mills, and G. C. Summer, "A Telephone-Access Biomedical Information Center," *Operations Research*, vol. 20, pp. 643-667, 1972.
- Rouse, W. B., "Circulation Dynamics: A Planning Model," *Journal of the American Society for Information Science*, vol. 25, pp. 358-363, 1974.
- Rouse, W. B., "Optimal Selection of Acquisition Sources," *Journal of the American Society for Information Science*, vol. 25, pp. 227-231, 1974.
- Rouse, W. B., "Optimal Resource Allocation in a Library System," *Journal of the American Society for Information Science*, vol. 26, pp. 157-165, 1975.
- Rouse, W. B., "A Library Network Model," *Journal of the American Society for Information Science*, vol. 27, pp. 88-99, 1976.
- Rouse, W. B., "Performance Criteria for Library Networks: Theoretical Basis and Realistic Perspectives," in *Library Resource Sharing*, T. J. Galvin, ed. Marcel Dekker, New York, 1977.
- Rouse, W. B., "Tutorial: Mathematical Modeling of Library Systems," *Journal of the American Society for Information Science*, vol. 30, pp. 181-192, 1979.
- Rouse, W. B., and S. H. Rouse, "Use of a Librarian/Consultant Team to Study Library Operations," *College and Research Libraries*, vol. 34, pp. 242-248, 1973.
- Rouse, W. B., and S. H. Rouse, "Assessing the Impact of Computer Technology on the Performance of Interlibrary Loan Networks," *Journal of the American Society for Information Science*, vol. 28, pp. 79-88, 1977.

- Rouse, W. B., and S. H. Rouse, "The Effect of Parameter Uncertainties on the Predictions of a Library Network Model," *Journal of the American Society for Information Science*, vol. 29, pp. 180–186, 1978.
- Rouse, W. B., and S. H. Rouse, "Analysis of Monograph Obsolescence at Two Levels of an Interlibrary Loan Network," *Information Processing and Management*, vol. 15, pp. 219–225, 1979.
- Rouse, W. B., and S. H. Rouse, "Design of a Model-Based Online Management Information System for Interlibrary Loan Networks," *Information Processing and Management*, vol. 15, pp. 109–122, 1979.
- Rouse, W. B., and S. H. Rouse, *Management of Library Networks*, Wiley, New York, 1980.
- Rouse, W. B., and S. H. Rouse, "Analysis of Library Networks," *Collection Management*, vol. 3, pp. 139–150, 1980.
- Rowley, J. E., and P. J. Rowley, *Operations Research: A Tool for Library Management*, American Library Association, Chicago, Illinois, 1981.
- Rudolph, G. A., (ed.) *The Academic Community Looks at Library Management*, Virginia Polytechnic Institute and State University Library, Blacksburg, Virginia, 1971.
- Rush, B., S. Steinberg, and D. H. Kraft, "Journal Disposition Decision Policies," *Journal of the American Society for Information Science*, vol. 25, pp. 213–217, 1974.
- Rzasa, P. V., and N. R. Baker, "Measures of Effectiveness for a University Library," *Journal of the American Society for Information Science*, vol. 23, pp. 248–253, 1972.
- Salton, G., *Dynamic Organization and Library Processing*, Prentice-Hall, Englewood Cliffs, New Jersey, 1975.
- Sandison, A., "Library Optimum," *Nature*, vol. 234, pp. 368–369, 1971.
- Sandison, A., "The Use of Older Literature and Obsolescence," *Journal of Documentation*, vol. 27, pp. 184–199, 1971.
- Saracevic, T., (ed.) *Introduction to Information Science*, Bowker, New York, 1970.
- Saracevic, T., "Relevance: A Review of the Literature and a Framework for Thinking on the Notion in Information Science," *Advances in Librarianship*, vol. 6, pp. 79–138, 1976.
- Saracevic, T., W. M. Shaw, Jr., and P. B. Kantor, "Causes and Dynamics of User Frustration in an Academic Library," *College and Research Libraries*, vol. 38, pp. 92–103, January, 1977.
- Saxena, S. K., "Compact Storage of Books in Open-Shelf Libraries Where Book Height Follows a Compound Type of Truncated Double Exponential Distribution," *Opsearch*, vol. 3, pp. 157–167, 1967.
- Sayer, J. S., "The Economics of a National Information System," *Toward a National Information System*, Spartan Books, Washington, D.C., 1965.
- Schkolnick, M., "The Optimal Selection of Secondary Indices for Files," *Information Systems*, vol. 1, pp. 141–146, 1975.
- Scholz, W. H., "A Mathematical Model for Comparison of Bibliographic Data Bases," *Journal of the American Society for Information Science*, vol. 27, pp. 183–184, 1976.
- Shaw, W. M., Jr., "Computer Simulation of the Circulation Subsystem of a Library," *Journal of the American Society for Information Science*, vol. 26, pp. 271–279, 1975.
- Shaw, W. M., Jr., "Library-User Interface: A Simulation of the Circulation Subsystem," *Information Processing and Management*, vol. 12, pp. 77–91, 1977.
- Simon, H. A., "On a Class of Skew Distribution Functions," *Biometrika*, vol. 42, pp. 425–440, 1955.

- Simon, H. A., *Models of Bounded Rationality*, MIT Press, Cambridge, Massachusetts, 1982.
- Singh, H., "Operations Research in Libraries," *Fiji Library Association Journal*, vol. 8, pp. 16–20, 1982.
- Singh, J., *Great Ideas of Operations Research*, Dover, New York, 1968.
- Singleton, A., "Journal Ranking and Selection: A Review in Physics," *Journal of Documentation*, vol. 32, pp. 250–289, 1976.
- Sinha, B. K., "Operations Research in Controlled Acquisition and Weeding of Library Collections," unpublished doctoral dissertation, University of Pennsylvania, Philadelphia, 1971.
- Sinha, B. K., "Modeling for the Management of Library Collections," *Management Science*, vol. 22, pp. 547–557, 1976.
- Sinha, B. K., and R. C. Clelland, "Application of a Collection-Control Model for Science Libraries," *Journal of the American Society for Information Science*, vol. 27, pp. 320–328, 1976.
- Slamecka, V., "A Selective Bibliography on Library Operations Research," *Library Quarterly*, vol. 42, pp. 152–158, 1972.
- Slater, F., "Cost Reduction for Special Libraries and Information Centers," *Proceedings*, p. 87, American Society for Information Science, Washington, D.C., 1973.
- Smith, J. M., "The Use of Queueing Networks and Mixed Integer Programming to Allocate Resources Optimally Within a Library Layout," *Journal of the American Society for Information Science*, vol. 32, pp. 33–42, 1981.
- Smith, J. M., and W. B. Rouse, "Applications of Queueing Network Models to Optimize Resource Allocation within Libraries," *Journal of the American Society for Information Science*, vol. 30, pp. 250–263, 1979.
- Smith, L., "Artificial Intelligence Applications in Library Systems," *Annual Review of Information Science and Technology*, vol. 15, American Society for Information Science, Washington, D.C., 1980.
- Smith, R. H., and W. Granade, "User and Library Failures in an Undergraduate Library," *College and Research Libraries*, vol. 39, pp. 467–473, 1978.
- Smith, R. H., and W. Granade, "Failure in the Library—A Case Study," *Library Quarterly*, vol. 39, pp. 467–473, November, 1978.
- Snure, K., "Needs Assessment and Proposal for a Bibliographic Instruction Program at the John Cade Library of Southern University," unpublished report of directed study, School of Library and Information Science, Louisiana State University, Baton Rouge, Louisiana, 1987.
- Solomon, S. L., "Determination of Satisfactory Scale for Data Processing Facilities," *Journal of the American Society for Information Science*, vol. 25, pp. 151–155, 1974.
- Srikantaiah, T., *An Introduction to Quantitative Research Methods for Librarians*, 2nd edition, Headway Publications, Santa Ana, California, 1977.
- Stanfel, L. E., "Designing Simple Library Hierarchies Using Linear Programming," *Information Processing and Management*, vol. 15, pp. 65–90, 1979.
- Stevens, I. E., "Computer Simulation of Library Operations: An Evaluation of an Administrative Tool," *Special Libraries*, vol. 61, pp. 280–287, 1970.
- Stevens, N. D., "The Management Review and Analysis Program at the University of Connecticut," *Journal of Academic Librarianship*, vol. 1, pp. 4–10, 1975.
- Swets, J. A., "Information Retrieval System," *Science*, vol. 41, pp. 245–250, 1963.

- Swisher, R., and C. R. McClure, *Research for Decision Making: Methods for Librarians*, American Library Association, Chicago, Illinois, 1984.
- Talavage, J., "Financial Aspects of Industrial Information Centers: A Survey," *Journal of the American Society for Information Science*, vol. 30, pp. 154–160, 1979.
- Taylor, D. W., *An Operations Research Study of the Pacific Northwest Bibliographic Center: Final Report*, State Library, Olympia, Washington, 1972.
- Thierauf, R. J., *Management Science: A Model Formulation Approach with Computer Applications*, C. E. Merrill Pub. Co., Columbus, Ohio, 1985.
- Thomas, P. A., "Computer Simulation and Library Management," in *Eurem II: A European Conference on the Applications of Research on Information Services and Libraries*, W. E. Batten, ed. Aslib, London, 1977.
- Thomas, P. A., and S. E. Robertson, "A Computer Simulation Model of Library Operations," *Journal of Documentation*, vol. 31, pp. 1–18, 1975.
- Tolle, J. R., N. P. Sanders, and N. K. Kaske, "Determining the Required Number of Online Catalog Terminals: A Research Study," *Information Technology and Libraries*, pp. 261–265, September, 1983.
- Travis, I., "Design Equations: Vehicles for Research into the Factors Affecting Bibliographic Reference Retrieval System Performance," unpublished doctoral dissertation, University of California, Berkeley, Berkeley, 1975.
- Trueswell, R., "User Behavior Patterns and Requirements and Their Effect on the Possible Applications of Data Processing and Computer Techniques in a University Library," unpublished doctoral dissertation, Northwestern University, Evanston, Illinois, 1964.
- Trueswell, R. W., "A Quantitative Measure of User Circulation Requirements and Its Possible Effect on Stack Thinning and Multiple Copy Determination," *American Documentation*, vol. 16, pp. 20–25, 1965.
- Trueswell, R. W., "User Circulation Satisfaction vs. Size of Holdings at Three Academic Libraries," *College and Research Libraries*, vol. 30, pp. 204–213, 1969.
- Trueswell, R. W., "Some Behavioral Patterns of Library Users: The 80/20 Rule," *Wilson Library Bulletin*, vol. 43, pp. 458–461, 1969.
- Trueswell, R. W., "Article Use and Its Relationship to Individual User Satisfaction," *College and Research Libraries*, vol. 31, pp. 239–243, 1970.
- Trueswell, R. W., and S. J. Turner, "Simulating Circulation-Use Characteristic Curves Using Circulation Data," *Journal of the American Society for Information Science*, vol. 30, pp. 83–87, 1979.
- Tung, T. K., "Stochastic Models for Library Borrowings," unpublished Master's Thesis, University of Manchester, Manchester, England, 1978.
- Turner, S. J., "The Identifier Method for Measuring Use as Applied to Modeling the Circulation Use of Books for a University Library," *Journal of the American Society for Information Science*, vol. 28, pp. 96–100, 1977.
- Unit, Library Research, *Simulation Kit No. 1: A Library Management Game (Loan and Duplication Policies)*, University of Lancaster, Lancaster, England, 1973.
- University, Johns Hopkins, "An Operations Research and Systems Engineering Study of a University Library," Final Report No. 5, Milton S. Eisenhower Library, Johns Hopkins University, Baltimore, Maryland, 1968.
- Van House, N. A., *Output Measures for Public Libraries: A Manual of Standardized Procedures*, Chicago: American Library Association, 2nd edition, 1987.

- Van House, N. A., B. T. Weil, C. R. McClure, *Measuring Academic Library Performance: A Practical Approach*, Chicago: American Library Association, 1990.
- Vickery, B. C., "Bradford's Law of Scattering," *Journal of Documentation*, vol. 4, pp. 198–203, 1948.
- Vickery, B. C., "Periodical Sets—What Should You Buy?," *Aslib Proceedings*, vol. 5, pp. 69–74, 1953.
- Wagner, H. M., *Principles of Operations Research with Applications to Management Decisions*, 2nd edition, Prentice-Hall, Englewood Cliffs, New Jersey, 1975.
- Ware, G., "A General Statistical Model for Estimating Future Demand Levels of Database Utilization Within an Information Retrieval Organization," *Journal of the American Society for Information Science*, vol. 24, pp. 201–264, 1973.
- Webster, D. E., "The Management Review and Analysis Program: An Assisted Self-Study to Secure Constructive Change in the Management of Research Libraries," *College and Research Libraries*, vol. 35, pp. 114–125, 1974.
- Webster, D. E., and J. Gardner, "Strategies for Improving the Performance of Academic Libraries," *Journal of Academic Librarianship*, vol. 1, pp. 13–18, 1975.
- Wedgeworth, R., "Budgeting for School Media Centers," *School Libraries*, pp. 29–36, 1971.
- Weinberg, C. B., "The University Library: Analysis and Proposals," *Management Science*, vol. 21, pp. 130–140, 1974.
- Wenger, C. B., and J. Childress, "Journal Evaluation in a Large Research Library," *Journal of the American Society for Information Science*, vol. 28, pp. 293–299, 1977.
- Wenger, C. B., C. B. Sweet, and H. J. Stiles, "Monograph Evaluation for Acquisitions in a Large Research Library," *Journal of the American Society for Information Science*, vol. 30, pp. 88–92, 1979.
- Westerman, M., "Operations Research Applied to Libraries and Information Centers," unpublished ERIC ED276449 document, 1985.
- White, H., "Cost-Effectiveness and Cost-Benefit Determinations in Special Libraries," *Special Libraries*, vol. 70, pp. 163–169, 1979.
- Wilkinson, E. A., "The Ambiguity of Bradford's Law," *Journal of Documentation*, vol. 28, pp. 122–130, 1972.
- Williams, G., E. C. Bryant, R. R. V. Wiederkehr, and V. E. Palmour, "Cost Models: Owning Versus Borrowing Serial Publications," unpublished report, Center for Research Libraries, Chicago, 1968.
- Williams, J. G., "Simulation and Library Network Design," *Proceedings*, American Society for Information Science, Washington, D.C.; 1978.
- Williams, J. G., and E. Pope, *Simulation Activities in Library, Communication, and Information Science*, Marcel Dekker, New York, 1976.
- Wilson, J. H., Jr., "Costs, Budgeting, and Economics of Information," in *Annual Review of Information Science and Technology*, C. Cuadra, ed. vol. 7, American Society for Information Science, Washington, D.C., 1972.
- Wolper, J., and L. Trudell, "A Model of the NELINET Computerized Interlibrary Loan System: Testing Strategies for Load Leveling," *Journal of Library Automation*, vol. 11, pp. 142–151, 1978.
- Woodburn, I., "A Mathematical Model of a Hierarchical Library System," *Planning Library Services: Proceedings of a Research Seminar*, Occasional Paper No. 3, University of Lancaster Library, Lancaster, England, 1969.

- Wyllis, R. E., "Systems Design—Principles and Techniques," in *Annual Review of Information Science and Technology*, M. Williams, ed. vol. 14, American Society for Information Science, Washington, D.C., 1979.
- Yagello, V. E., and G. Guthrie, "The Effect of Reduced Loan Periods on High Use Items," *College and Research Libraries*, vol. 36, pp. 411–414, 1975.
- Yovits, M. C., C. R. Foulk, and I. C. Rose, "Information Flow and Analysis Theory, Simulation, and Experiments: I. Basic Theoretical and Conceptual Development," *Journal of the American Society for Information Science*, vol. 31, pp. 187–202, 1981.
- Yovits, M. C., C. R. Foulk, and I. C. Rose, "Information Flow and Analysis Theory, Simulation, and Experiments: II. Simulation, Examples, and Results," *Journal of the American Society for Information Science*, vol. 31, pp. 203–210, 1981.
- Yovits, M. C., C. R. Foulk, and I. C. Rose, "Information Flow and Analysis Theory, Simulation, and Experiments: III. Preliminary Experiments and Analysis," *Journal of the American Society for Information Science*, vol. 31, pp. 243–248, 1981.
- Zais, H. W., "The Pricing of Information: A Model for Selective Dissemination of Information," unpublished doctoral dissertation, University of California, Berkeley, Berkeley, 1975.
- Zais, H. W., "Economic Modeling: An Aid to the Pricing of Library Services," *Journal of the American Society for Information Science*, vol. 28, pp. 89–95, 1977.
- Zipf, G., *Human Behavior and the Principle of Least Effort*, Addison-Wesley, Reading, Massachusetts, 1949.
- Zunde, P., "Predictive Models of Information Services," *Information Processing and Management*, vol. 17, pp. 103–112, 1981.
- Zunde, P., and V. Slamecka, "Distribution of Indexing Terms for Maximum Efficiency of Information Transmission," *American Documentation*, vol. 18, pp. 245–250, 1967.