

DOCUMENT RESUME

ED 038 512

08

VT 010 604

AUTHOR Nelson, William C.
TITLE Program, Planning, Budgeting Systems for Educators. Volume IV: A Research Bibliography. Final Report.
INSTITUTION Ohio State Univ., Columbus. Center for Vocational and Technical Education.
SPONS AGENCY Office of Education (DHEW), Washington, D.C. Bureau of Research.
REPORT NO Bibl-4
BUREAU NO BR-7-0158
PUB DATE Mar 70
GRANT OEG-3-7-000158-2037
NOTE 117p.
AVAILABLE FROM The Center for Vocational and Technical Education, Ohio State University, 1900 Kenny Road, Columbus, Ohio 43210 (\$2.25)

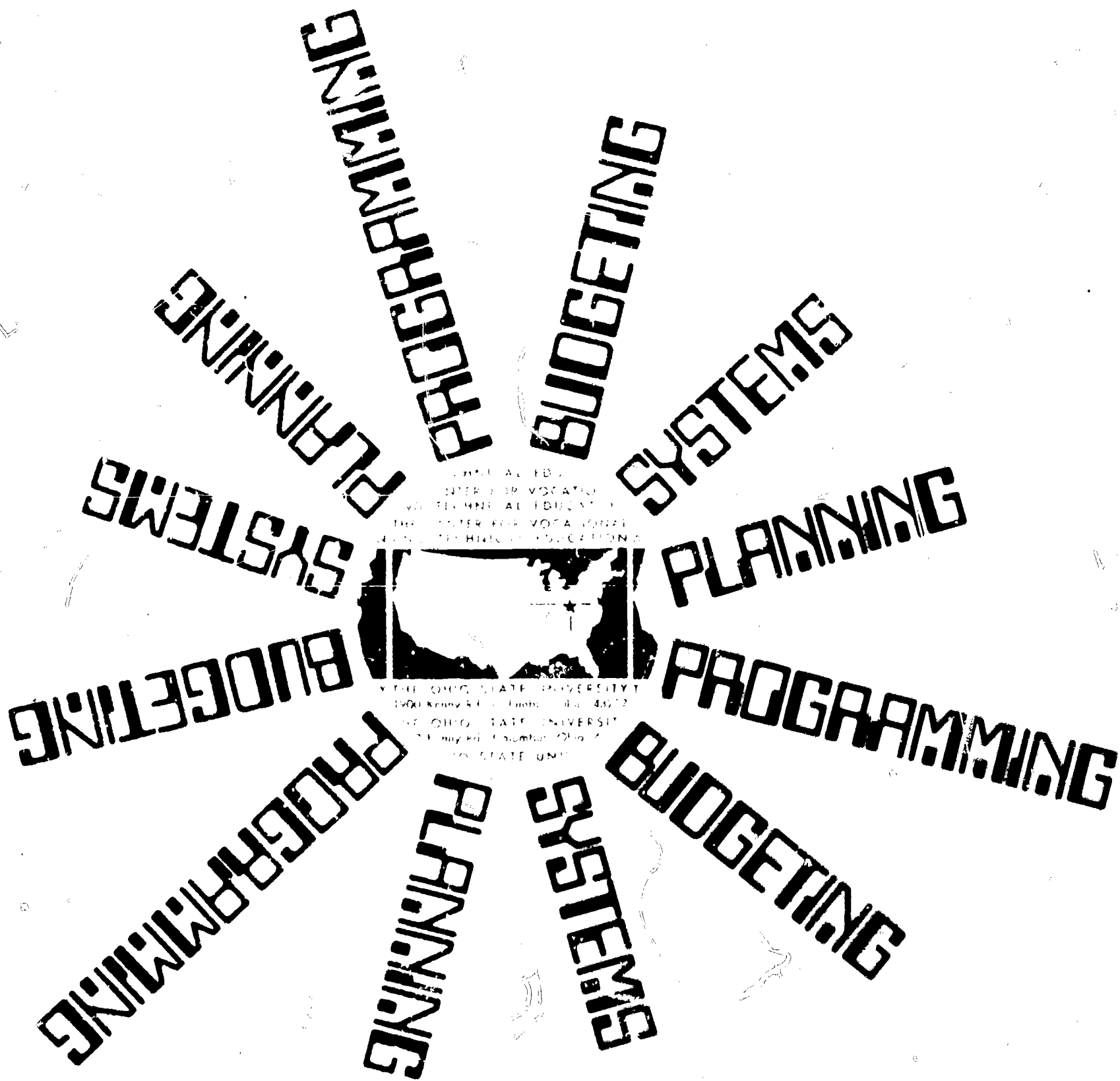
EDRS PRICE EDRS Price MF-\$0.50 HC-\$5.95
DESCRIPTORS *Bibliographies, Cost Effectiveness, Decision Making, Educational Economics, *Educational Programs, Management Development, Operations Research, *Program Budgeting, *Program Planning, Statistical Analysis, *Systems Approach, Theories
IDENTIFIERS PPBS, *Program Planning Budgeting Systems

ABSTRACT

The Program Planning Budgeting Systems (PPBS) approach to decision-making has been adopted by government agencies and many colleges, universities and local school systems. As a result, the quantity of literature has increased phenomenally. This bibliography is intended to assist students, researchers, and practitioners in identifying references in specific areas of PPBS. A total of 1,051 citations, ranging in date from 1936 to 1969 but emphasizing the 1963 to 1969 period, present sources in categories of systems theory, planning and control systems, planning process, program budgeting, programing and management control, investment alternatives, analysis of alternatives, education and economics, basic data for PPBS, statistical analysis in PPBS, limitations of PPBS, and bibliographies. Entries are arranged alphabetically according to author, and each of the above categories is subdivided into educational and general categories. An author index is included. Volumes I through III are available as ED 032 417, ED 032 418, and ED 035 756 respectively. (CH)

ED038512

BIBLIOGRAPHY SERIES NO. 4
VT 010 604



FOR EDUCATORS
VOLUME 4
A RESEARCH BIBLIOGRAPHY

VT 010 604

The Center for Vocational and Technical Education has been established as an independent unit on The Ohio State University campus with a grant from the Division of Comprehensive and Vocational Education Research, U. S. Office of Education. It serves a catalytic role in establishing consortia to focus on relevant problems in vocational and technical education. The Center is comprehensive in its commitment and responsibility, multidisciplinary in its approach, and interinstitutional in its program.

The major objectives of The Center follow:

1. To provide continuing reappraisal of the role and function of vocational and technical education in our democratic society;
2. To stimulate and strengthen state, regional, and national programs of applied research and development directed toward the solution of pressing problems in vocational and technical education;
3. To encourage the development of research to improve vocational and technical education in institutions of higher education and other appropriate settings;
4. To conduct research studies directed toward the development of new knowledge and new applications of existing knowledge in vocational and technical education;
5. To upgrade vocational education leadership (state supervisors, teacher educators, research specialists, and others) through an advanced study and inservice education program;
6. To provide a national information retrieval, storage, and dissemination system for vocational and technical education linked with the Educational Resources Information Center located in the U. S. Office of Education.

ED038512

BIBLIOGRAPHY SERIES NO. 4
VT 010 604

FINAL REPORT
ON A PROJECT CONDUCTED UNDER
PROJECT NO. 7-0158
GRANT NO. OEG-3-7-000158-2037

PROGRAM, PLANNING, BUDGETING SYSTEMS FOR EDUCATORS. VOLUME IV: A RESEARCH BIBLIOGRAPHY

WILLIAM C. NELSON

THE CENTER FOR VOCATIONAL AND TECHNICAL EDUCATION
THE OHIO STATE UNIVERSITY
1900 KENNY ROAD COLUMBUS, OHIO 43210

MARCH 1970

The work presented or reported herein was performed pursuant to a Grant from the U.S. Office of Education, Department of Health, Education, and Welfare. However, the opinions expressed herein do not necessarily reflect the position or policy of the U.S. Office of Education, and no official endorsement by the U.S. Office of Education should be inferred.

U.S. DEPARTMENT OF
HEALTH, EDUCATION & WELFARE

Office of Education
Bureau of Research

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE
PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS
STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION
POSITION OR POLICY.

PREFACE

One of the major commitments of The Center for Research and Leadership Development in Vocational and Technical Education is state leadership development and training. In 1967, The Center sponsored a national conference on state leadership which is reported in *The Emerging Role of State Education Departments with Specific Implications for Divisions of Vocational-Technical Education*. One of several important outgrowths of this conference was the recognition of a greater need for rational systems for planning, programming and budgeting state educational needs.

The Vocational Education Amendments of 1968 further reinforce this concept and require states to submit state educational plans for five years. Such requirements necessitate long-range planning, development and program evaluation by states. In recent years, considerable emphasis has been placed on economic models for planning a variety of programs, including education. Planning-Programming-Budgeting Systems (PPBS) have received new eminence and are being implemented in a variety of settings. It appears that the concepts underlying PPBS will exert an even greater influence in decisions concerning vocational and technical education in the future.

In October of 1968, The Center sponsored a two-week institute on planning-programming-budgeting systems for state level personnel in vocational and technical education. Four volumes of leadership training materials on the applications of planning-programming-budgeting systems to vocational and technical education were prepared. Volume I constitutes the basis for a training program in PPBS. It outlines the parameters of PPBS and, more importantly, explores the interrelationships of the concepts and techniques undergirding the system. Supplementing this basic volume are three additional volumes which complete the total training package. Volume II presents a simulated case problem to which the concepts delineated in Volume I can be applied. Volume III contains annotations of selected references which aid the process of understanding and applying PPBS. Volume IV is a research bibliography containing a comprehensive listing of PPBS references.

We hope that this research bibliography will be of use to personnel at all levels in vocational and technical education systems. The Center is grateful to many individuals and groups

who contributed to the development of these instructional materials and bibliographies. Special recognition is due William C. Nelson, research associate at The Center, for his development of this bibliography.

Robert E. Taylor
Director
The Center for Vocational
and Technical Education

INTRODUCTION

The Planning-Programming-Budgeting Systems (PPBS) approach to governmental decision-making has been adopted by the federal government and several state, city, local government units in recent years. In addition, many colleges, universities, and local school systems have or are in the process of employing PPBS techniques.

Since the arrival of PPBS to government agencies, the quantity of literature on PPBS has increased at a phenomenal rate. The purpose of this bibliography is to assist students, researchers, and practitioners of PPBS in identifying references in specific areas of PPBS. It is hoped that the use of this bibliography can significantly reduce the time spent in literature searches by students of PPBS and can provide practitioners with material which may not yet have attracted their attention.

This bibliography was compiled during the process of co-authoring three publications with Joseph H. McGivney. They are:

1. McGivney, Joseph H. and William C. Nelson, *Planning, Programming, Budgeting Systems for Educators, Volume I: An Instructional Outline*, Columbus, Ohio, The Center for Vocational and Technical Education, 1969.
2. McGivney, Joseph H. and William C. Nelson, *Planning, Programming, Budgeting Systems for Educators, Volume II: A Case Problem*, Columbus, Ohio, The Center for Vocational and Technical Education, 1969.
3. McGivney, Joseph H. and William C. Nelson, *Planning, Programming, Budgeting Systems for Educators, Volume III: An Annotated Bibliography*, Columbus, Ohio, The Center for Vocational and Technical Education, 1969.

The references in this bibliography are classified under similar headings as in *PPBS for Educators, Volumes I and III*. In addition, the references within each major topic are subdivided into those pertaining to education and those pertaining to general PPBS applications. The last section, bibliographies, is not subdivided into education and general. All references are listed alphabetically within each subdivision or division.

Thanks are due to Joseph H. McGivney for his leadership in the initiation of this effort and for his substantial contributions to the bibliography. However, the responsibility for all errors, omissions and incorrect classifications remain with the compiler alone.

William C. Nelson

TABLE OF CONTENTS

<i>iii</i>	PREFACE
<i>v</i>	INTRODUCTION
3	OVERVIEW OF PPBS Concepts, History and Rationale
9	SYSTEMS THEORY Systems, Models and Operations Research
17	PLANNING AND CONTROL SYSTEMS Organizational Theory, Public Relations and Public Administration
21	PLANNING PROCESS Needs, Manpower Projections, and Employment Policies
29	PROGRAM BUDGETING Principles, Purposes, Formats and Procedures
35	PROGRAMMING AND MANAGEMENT CONTROL Management, PERT, Public Finance, and Accounting
41	INVESTMENT ALTERNATIVES Objectives, Activities, Costs and Benefits

49	ANALYSIS OF ALTERNATIVES
	Investment Criteria, Discounting, Externalities and Evaluation
69	EDUCATION AND ECONOMICS
	Human Resources, Economic Development and the Market System
77	BASIC DATA FOR PPBS
	Computers, Information Systems, Student and Community Data
81	STATISTICAL ANALYSIS IN PPBS
	Models, Projections, and Computer Simulations
85	LIMITATIONS OF PPBS
	Conceptual, Political, Organizational and Technical Aspects
93	BIBLIOGRAPHIES
97	AUTHOR INDEX

PROGRAM, PLANNING, BUDGETING SYSTEMS
FOR EDUCATORS.

VOLUME IV: A RESEARCH BIBLIOGRAPHY

OVERVIEW OF PPBS

EDUCATION

1. Burkhead, Jesse, "The Theory and Application of Program Budgeting to Education, *Trends in Financing Public Education*, Washington, D.C., N.E.A. Committee on Educational Finance, 1965.
2. California Association of School Business Officials, *Program Budgeting in Public School Districts*, Sacramento, California, 1967.
3. Chambers, George A., "The Concepts of Planning-Programming-Budgeting System," *Journal on State School Systems*, Volume I, No. 4, Winter 1968.
4. Connolly, John (ed.), *Proceedings of National Seminar on Program Planning, Budgeting and Evaluation, Vocational-Technical Education*, College Park, Maryland, University of Maryland, 1967.
5. Dilley, F. B., "Program Budgeting in the University Setting," *The Educational Record*, Fall 1966.
6. Exton, E., "Here's How HEW Department Applies Planning-Programming-Budgeting System," *American School Board Journal*, December 1966.
7. Exton, E., "State Legislators Urged to Install Planning-Programming-Budgeting System," *American School Board Journal*, February 1967.
8. Haggart, S. A., *Program Budgeting and Educational Planning: An Overview for OPERATION PEP*, Santa Monica, California, Rand Corporation, 1968.
9. Hartley, Harry J., "Economic Rationality in Urban School Planning: The Program Budget," *Urban Education*, III, No. 1, Spring 1967.
10. Hartley, Harry J., *Educational Planning-Programming-Budgeting, A Systems Approach*, Englewood Cliffs, New Jersey, Prentice Hall, Inc., 1968.

11. Hartley, Harry J., "PPBS Economic Strategy for Economic Education," *The Urban Preview*, January 1969.
12. McGivney, J. H., "A More Rational Approach to Decision-Making in Vocational Education," *American Vocational Journal*, May 1969.
13. McGivney, Joseph H. and Nelson, William C., *Planning, Programming, Budgeting Systems for Educators, Volume I: An Instructional Outline*, Columbus, Ohio, The Center for Vocational and Technical Education, 1969.
14. McGivney, Joseph H. and Nelson, William C., *Planning, Programming, Budgeting Systems for Educators, Volume II: A Case Problem*, Columbus, Ohio, The Center for Vocational and Technical Education, 1969.
15. N.E.A. Committee on Educational Finance, *Planning for Educational Development in a PPB System*, Washington, D.C., 1968.
16. New York City Board of Education, *PPB: An Introduction*, New York, New York, Office of PPB and the Stanford Research Institute, June 1967.
17. Piele, Philip, "Planning Systems in Education," *Research and Development Perspectives*, Winter 1969.
18. Struve, T. A. and Rath, G. J., "PPB in Education," *Educational Technology*, VI, No. 11, June 15, 1966.
19. Takasaki, Richard S., "Translate Programs into Dollars with Federally Tested Budget," *College and University Business*, XLII, No. 5, May 1967.
20. U.S. Office of Education, *Guideline Outline for State Program Planning and Development for Vocational and Occupational Education*, No. 4, Washington, D.C., Bureau of Adult, Vocational, and Library Programs, 1966.

GENERAL

21. Elkins, E. R., *Program Budgeting*, Morgantown, West Virginia, West Virginia University, 1955.
22. Fisher, G. H., *The World of Program Budgeting*, Santa Monica, California, Rand Corporation, 1966.
23. Fletcher, T. W., "A New Look at Budgeting; Budgetary Control and Evaluation," *Public Management*, Vol. 46, February 1964.

24. Hartley, Harry J., "PPBS: Economic Strategy for Urban Governance," *The Urban Review*, III, 5, January 1969.
25. Hartley, Harry J., "PPBS: The Emergence of a Systematic Concept for Public Governance," *General Systems*, Yearbook of the Society for General Systems Research, Vol. XIII, 1968.
26. Hatry, Harry P. and Cotton, John F., *Program Planning for State, County, City*, Washington, D.C., George Washington University, 1967.
27. Held, V., "PPBS Comes to Washington," *The Public Interest*, Vol. 4, Summer 1966.
28. Held, John, *A Report on Planning-Programming-Budgeting*, Washington, D.C., U.S. Bureau of Budget, 1966.
29. Hirsch, Werner Z., *Integrating View of Federal Program Budgeting*, Santa Monica, California, Rand Corporation, 1965.
30. Hirsch, Werner Z., *Toward Federal Program Budgeting*, No. P-3306, Santa Monica, California, Rand Corporation, February 1966.
31. Hitch, Charles J., *Decision-Making for Defense*, Berkeley, California, University of California Press, 1965.
32. Hitch, Charles J., "Plans, Programs, and Budgets in the Department of Defense," *Operations Research*, January-February 1963.
33. Hitch, C. J., "Program Budgeting," *Datamation*, September 1967.
34. Hovey, Harold, *The Planning, Programming, Budgeting Approach to Governmental Decision Making*, New York, New York, Frederick A. Praeger, 1968.
35. Koch, V. E., "Progress in the Budgeting Process During the Past Decade," *Special Bulletin 1960' B*, New York, New York, Municipal Finance Officers Association, 1960.
36. Levy, M. E., "Planning-Programming-Budgeting: Government's New Tool for Improving Efficiency," *Conference Board Records*, Vol. 4, May 1967.
37. Lyden, Faemont J., and Miller, Ernest G. (ed.), *Planning, Programming, Budgeting: A Systems Approach to Management*, Chicago, Illinois, Mackham Publishing Co., 1967.

38. Massey, R. J., "Program Packages and the Program Budget in the Department of Defense," *Public Administration Review*, Vol. 23, March 1963.
39. Mosher, Frederick C., *Program Budgeting: Theory and Practice With Particular Reference to the United States Department of the Army*, Chicago, Illinois, Public Administration Service, 1954.
40. Novick, David, *Efficiency and Economy In Government Through New Budgeting and Accounting Procedures*, Santa Monica, California, Rand Corporation, 1954.
41. Novick, D., *Origin and History of Program Budgeting*, Santa Monica, California, Rand Corporation, 1966.
42. Novick, David, *A New Approach to the Military Budget*, Santa Monica, California, The Rand Corporation, 1956.
43. Novick, David, *Program Budgeting: Program Analysis and the Federal Budget*, Cambridge, Massachusetts, Harvard University Press, 1965.
44. Otten, A. L., "New-Look Budget?" *Wall Street Journal*, Vol. 1967, April 1966.
45. Page, D. A., "The Federal Planning-Programming-Budgeting System," *American Institute of Planners Journal*, Vol. 33, July 1967.
46. Posner, Ben, "Planning-Programming-Budgeting," *Federal Accountant*, Vol. 15, Summer 1966.
47. Price, P. P., "Financial Administration," *Local Public Library Administration*, Chicago, Illinois, International City Managers Association, 1964.
48. *Public Administration Review*, "Planning-Programming-Budgeting System: A Symposium," Vol. XXVI, No. 4, December 1966.
49. Rowen, H. S., "PPBS: What and Why," *Civil Service Journal*, January-March 1966.
50. Schick, Allen, "Introducing PPBS at the State and Local Level," *Operations Research Society of American Newsletter*, May 1967.
51. Schick, Allen, "Program Budgeting in the States: The Pathology of an Administrative Reform," Ann Arbor, Michigan, University Microfilms, 1966.

52. Schick, Allen, "The Road to PPB: The Stages of Budget Reform," *Public Administration Review*, XXVI, No. 4, December 1966.
53. State-Local Finances Project, *Planning-Programming-Budgeting for City, State, County Objectives: What is PPB?* Washington, D.C., George Washington University, 1967.
54. State-Local Finances Project, *PPB Notes 9-11*, Washington, D.C., George Washington University, 1968.
55. State-Local Finances Project, *Teaching Cases in Program Planning for State, City, County Objectives*, Washington, D.C., George Washington University.
56. State of New York, *Guidelines for Integrated Planning, Programming, Budgeting*, Albany, New York, Executive Department, Office of Planning Coordination, Division of the Budget, 1966, 1967, 1968.
57. State of Wisconsin, *A Prospective Integrated Planning-Budgeting System for Wisconsin State Government*, Madison, Wisconsin, State Department of Administration, 1967.
58. Steiner, G. A., "Program Budgeting: Business Contribution to Government Management," *Business Horizons*, Vol. 8, Spring 1965.
59. Sussna, E., "Planning, Programming, and Budgeting Systems - A New Approach to Government Spending," *Pittsburgh Business Review*, Vol. 37, May 1967.
60. Terhune, George A., *Performance and Program Budgeting Practices in the United States and Canada*, Chicago, Illinois, Municipal Finance Officers Association, 1966.
61. Terleckyj, Nestor E., *The Analytical Staff Assistance to Agency Management Under the Planning-Programming-Budgeting System*, Washington, D.C., U.S. Bureau of the Budget, 1966.
62. Tucker, Samuel A. (ed.), *A Modern Design for Defense Decision; A McNamara-Hitch-Enthoven Anthology*, Washington, D.C., Industrial College of the Armed Forces, 1966.
63. U.S. Bureau of the Budget, *Planning-Programming-Budgeting (PPB)*, Washington, D.C., July 1967.
64. U.S. Bureau of the Budget, *Planning-Programming-Budgeting, Bulletin No. 66-3, Supplement to Bulletin No. 66-3, Bulletin No. 68-2, Bulletin No. 68-9*, Washington, D.C., 1965, 1966, 1967, 1969.

65. U.S. Bureau of the Budget, "Program Evaluation Checklist," Washington, D.C., 1966.
66. U.S. Civil Service Commission, *Cases in Planning, Programming and Budgeting*, Washington, D.C., 1965, 1966, 1967.
67. U.S. Department of Defense, *The United States Department of Defense Planning-Programming-System*, Washington, D.C., 1965.
68. U.S. General Accounting Office, *Planning-Programming-Budgeting and Systems Analysis Glossary*, Washington, D.C., 1968.
69. U.S. Subcommittee on National Security and International Operations, *PPBS Initial Memorandum*, Washington, D.C., 1967.
70. U.S. Subcommittee on National Security and International Operations, *PPB, Selected Comment*, Washington, D.C., 1967.
71. U.S. Subcommittee on National Security and International Operations, *Planning, Programming, Budgeting, Hearings*, Washington, D.C., 1967.
72. Weidenbaum, Murray L., *Program Budgeting: Applying Economic Analysis to Government Expenditure Decisions*, St. Louis, Missouri, Washington University, 1966.
73. Wright, Chester, *Teaching Cases in Planning, Programming, Budgeting*, Washington, D.C., U.S. Civil Service Commission.

SYSTEMS THEORY

EDUCATION

74. Ackoff, Russell L., *The Development and Nature of Operations Research and Its Relevance to Educational-Media Research*, Syracuse, New York, Syracuse University, 1964.
75. Altman, J. W.; Boldovici, J. A.; Hannah, L. D.; and Manion, R. C., *The Role of Human Factors Task Data in Aerospace System Design and Development*, Dayton, Ohio, Air Force Systems Command (Wright Patterson AFB), 1965.
76. Barro, S. M., *The School District as a System: A Means for Defining Educational Programs and Alternatives*, Santa Monica, California, The Rand Corporation, 1968.
77. Brown, E. L. and Persselin, L. E., *The Systems Approach to Training*, Anaheim, California, North American Aviation, Inc., 1964.
78. Carter, L. and Silberman, H., *The System Approach, Technology and the School*, Santa Monica, California, System Development Corporation, 1965.
79. Clark, E. M., "Systems Approach: What It Is and How It Applies to Elementary Education," *Instructor*, August 1966.
80. Cogswell, J. and others, *A Computer Simulation Vehicle for Educational Systems*, Santa Monica, California, System Development Corporation, 1965.
81. Cogswell, J. F. and Marsh, D. G., *Final Report-Analysis of Instructional Systems*, Santa Monica, California, System Development Corporation, 1966.
82. Cogswell, J. F., et al., *New Solutions to Implementing Instructional Media Through Analysis and Simulation of School Organization*, Santa Monica, California, System Development Corporation, 1964.
83. Cogswell, J. F., "Systems Technology in Education," *Man-Machine Systems in Education*, ed. J. W. Lougharys, et al., New York, New York, Harper & Row, Inc., 1966.

84. Cogswell, J. F. and Egbert, R. L., *System Design for a Continuous Progress School*, Santa Monica, California, System Development Corporation, 1964.
85. Corrigan, R. E., "Programmed Instruction as a Systems Approach to Education," *Trends in Programmed Instruction*, ed. G. D. Ofiesh and W. C. Meierhenry, Washington, D.C., National Education Association and National Society for Programmed Instruction, 1964.
86. Corrigan, R. E., *Developing and Validating Instructional Materials Through the Instructional System Approach*, Los Angeles, California, University of California, 1966.
87. Corrigan, R. E.; Kaufman, R. A.; Nunnelly, C. L.; and Klemer, A. G., "The Instructional System Approach to Maintenance Technical Training: Development and Implementation Model," *Human Factors*, Vol. 8, April 1966.
88. Corrigan, R. E.; Kaufman, R. A.; and Nunnelly, C. L., "The Instructional System Approach to Training," *Human Factors*, Vol. 8, April 1966.
89. Corrigan, R. E., *The Practical Application of System Technology to Education and Training*, Anaheim, California, Litton Instructional Materials, Inc., 1965.
90. Corrigan, Robert E.; Corrigan, Betty O.; and Kaufman, Roger A., *Steps and Tools of System Synthesis as Applied to Education*, Burlingame, California, OPERATION PEP, 1967.
91. Corrigan, R. E. and Kaufman, R. A., "The Tools and Steps of the System Approach to Education," *Operation PEP Training Program*, Burlingame, California, OPERATION PEP, 1965.
92. Corrigan, R. E. and Kaufman, R. A., "Why the Instructional System Approach?" Burlingame, California, OPERATION PEP, 1965.
93. Corrigan, R. E. and Kaufman, R. A., *Why System Engineering?* Palo Alto, California, Fearon Publishers, Inc., 1965.
94. Coulson, John E. and Cogswell, J. F., *Systems Analysis in Education*, Santa Monica, California, System Development Corporation, 1965.
95. Crowley, D. M., *TWA. . .and the Instructional Systems Approach*, Trans-World Airlines, T-460, February 1965.

96. Egbert, R. L. and Cogswell, J. F., *Systems Analysis and Design in Schools*, Santa Monica, California, System Development Corporation, 1963.
97. Ewart, W. L.; Kaufman, R. A.; and Wallis, K. B., "Instructional System Approach to Flight Crew Training," *Human Factors*, Vol. 8, April 1966.
98. Fishell, K. N., "NDEA: Instructional Systems Approach at Syracuse," *Audiovisual Instruction*, December 1966.
99. Kaufman, Roger A. and Corrigan, Robert E., *Steps and Tools of System Analysis as Applied to Education*, Burlingame, California, OPERATION PEP, 1967.
100. Kershaw, J. A., and McKean, R. N., *Systems Analysis and Education*, Santa Monica, California, Rand Corporation, 1959.
101. Koenig, H. E. and Keeney, M. G., *A System Approach to Higher Education*, East Lansing, Michigan, Michigan State University, Division of Engineering Research, 1966.
102. Koenig, H. E.; Keeney, M. G.; and Zemach, R., *Systems Analysis and Planning in University Administration*, East Lansing, Michigan, Michigan State University, 1967.
103. Miller, Donald R., *The Educational System and Its Environment*, Burlingame, California, OPERATION PEP, 1968.
104. Miller, Donald R., *A System Approach for Solving Educational Problems*, Burlingame, California, OPERATION PEP, 1967.
105. O'Toole, J. F., Jr., *Systems Analysis and Decision Making in Education*, Santa Monica, California, System Development Corporation, June 28, 1965.
106. Pfeiffer, John, *New Look at Education: System Analysis in our Schools and Colleges*, New York, New York, Odyssey Press, Inc., 1968.
107. Silvern, Leonard, *Systems Engineering of Education, I: The Evolution of Systems Thinking in Education*, Los Angeles, California, Education and Training Consultants Co., 1963.
108. Standard, M. and Sisson, R. L., *Operations Research and Improved Planning for an Urban School District: Definitions and a Simulation Model*, University Park, Pennsylvania, University of Pennsylvania - Management Science Center, 1967.

109. Stoller, David S., *The Organization for Economic Cooperation and Development 1966 Symposium on the Application of Operations Analysis to Educational Problems*, Paris, France, O.E.C.D., 1966.
110. Stoller, David S., *Report on the Organization for Economic Cooperation and Development 1967 Conference on Systems Techniques in Educational Planning*, Paris, France, O.E.C.D., 1967.
111. Stolurow, Lawrence M., *Systems Approach to Instruction*, Urbana, Illinois, University of Illinois, Department of Psychology, Technical Research Lab., 1965.
112. Stone, Richard, "A Model of the Educational System," *Minerva*, Vol. 4, Winter 1965.
113. Tough, Coulson and Sharp, James, "A Systems Approach to Budgeting Can Open Communication Bottlenecks," *College and University Business*, May 1968.

GENERAL

114. Abt Associates, Inc., *Survey of the State of the Art: Social, Political, and Economic Models and Simulations*, Cambridge, Massachusetts, 1965.
115. Ackoff, R. L.; Arnoff, E. L.; and Churchman, C. W., *Introduction to Operations Research*, New York, New York, John Wiley and Sons, Inc., 1957.
116. Adelson, M., "The System Approach--A Perspective Performance," *System Development Corporation Magazine*, October 1966.
117. Andlinger, Gerhard, *Operations Research Challenge to Modern Management*, Boston, Massachusetts, Harvard University Graduate School of Business Administration, 1954.
118. Belds, B. J., "Operations Research at Work," *NAA Bulletin*, August 1965.
119. Black, Guy, *The Application of Systems Analysis to Government Operations*, Washington, D.C., National Institute of Public Affairs, 1966.
120. Bortnick, Paul J., *Breaking the Cycle of Despair: The Need for a System Analysis in Welfare*, Santa Monica, California, System Development Corporation, May 1966.

121. Bross, Irwin, *Design for Decision*, New York, New York, The Free Press, 1965.
122. Buckley, W. (ed.), *Modern Systems Research for the Behavioral Scientist*, Chicago, Illinois, Aldine Publishing Company, 1968.
123. Buffa, Elwood S., *Models for Production and Operations Management*, New York, New York, John Wiley and Sons, Inc., 1963.
124. Churchman, C. W., *On the Ethnics of Large-Scale Systems*, Berkeley, California, University of California, 1965.
125. Clark, John J., "The Economics of Systems Analysis," *Military Review*, April 1964.
126. Clark, John J., "The Management of National Defence by Systems Analysis: An Evaluation," *Royal United Services Institute Journal*, Vol. 109, November 1964.
127. Douglas Aircraft Company, *System/Design Trade Study Report*, Dayton, Ohio, Wright Patterson Air Force Base, April 1965.
128. Eckman, D. P., *Systems: Research and Design*, New York, New York, John Wiley and Sons Inc., 1961.
129. Enthoven, Alain C., "Decision Theory and Systems Analysis," *The Armed Forces Comptroller*, Washington, D.C., U.S. Department of the Defense, 1964.
130. Enthoven, Alain C., "Systems Analysis and Military Decision Making," *Military Review*, January 1963.
131. Enthoven, Alain C., *Systems Analysis and the Navy*, Annapolis, Maryland, U.S. Naval Institute, 1964.
132. Fort, Donald M., *Systems Analysis as an Aid in Air Transportation Planning*, Santa Monica, California, Rand Corporation, 1966.
133. Gagne, R. M., *Psychological Principles in System Development*, New York, New York, Holt, Rinehart and Winston, Inc., 1962.
134. Gruen, Claude, "Systems Analysis Applied to the Problems of Local Urban Governments," *Proceedings*, Institute of Management Science, Pleasantville, New York, 1966.

135. Hall, A. D. and Fagen, R. E., "Definition of a System," *General Systems*, Yearbook of the Society for General Systems Research, 1956.
136. Harvey, O. J.; Hunt, D. E.; and Schroder, H. M., *Conceptual Systems and Personality Organization*, New York, New York, John Wiley and Sons, Inc., 1961.
137. Hayes, James H., "Basic Concepts of Systems Analysis," *Military Review*, April 1965.
138. Henderson, William M., "The Analysis Mystique," *Air University Review*, January-February 1967.
139. Hitch, C. J., *An Appreciation of Systems Analysis*, Santa Monica, California, The Rand Corporation, 1955.
140. Howland, Daniel, "A Hospital System Model," *General Systems*, Yearbook of the Society for General Systems Research, 1964.
141. Johnson, R. A.; Kast, F. E.; and Rosenzweig, J. E., *The Theory and Management of Systems*, New York, New York, McGraw-Hill Book Company, 1963.
142. Kahn, Herman and Mann, Irwin, *Techniques of Systems Analysis*, Santa Monica, California, Rand Corporation, 1957.
143. Kepner, C. H. and Tregoe, B. B., *The Rational Manager, A Systematic Approach to Problem Solving and Decision Making*, New York, New York, McGraw-Hill Book Company, 1965.
144. Lazzaro, Victor, *Systems and Procedures*, Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1959.
145. Loomis, Charles, *Social Systems: Essays on Their Persistence and Change*, Princeton, New Jersey, Princeton University Press, 1960.
146. Maass, A., *Design of Water-Resource Systems: New Techniques for Relating Economic Objectives, Engineering Analysis and Governmental Planning*, Cambridge, Massachusetts, Harvard University Press, 1962.
147. McKean, Roland N., *Efficiency in Government Through Systems Analysis: With Emphasis on Water Resource Development*, New York, New York, John Wiley and Sons, Inc., 1958.

148. Meals, Donald W., "Heuristic Models for Systems Training," *Phi Delta Kappan*, January 1967.
149. Nicol, Helen O., "Guaranteed Income Maintenance, A Public Welfare Systems Model," *Welfare in Review*, November 1966.
150. Ohm, Robert E., *Organizational Goals: A Systems Approach*, Bloomington, Indiana, Indiana University, 1966.
151. Optner, Stanford, *Systems Analysis for Business and Industrial Problem Solving*, Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1965.
152. Orcutt, G. H.; Greenberger, M.; Korbel, J.; and Rivlin, A. M., *Micro Analysis of Socio-Economic Systems: A Simulation Study*, New York, New York, Harper Row, Inc., 1961.
153. Parsons, Talcott, *The Social System*, New York, New York, The Free Press, 1951.
154. Quade, E. S., *Military Systems Analysis*, Santa Monica, California, The Rand Corporation, 1963.
155. Timms, H. L., *Introduction to Operations Management*, Homewood, Illinois, Richard D. Irwin, Inc., 1967.
156. U.S. Congress, House Committee on Government Operations, *Systems Development and Management*, 87th Congress, second session, Washington, D.C., 1962.
157. Von Bertalanffy, Ludwig, "General System Theory," *General Systems*, Yearbook of the Society for General Systems Research, 1956.
158. Young, O. R., "A Survey of General Systems Theory," *General Systems*, Yearbook of the Society of General Systems Research, 1964.

PLANNING AND CONTROL SYSTEMS

EDUCATION

159. Daines, Harvey C., *Proceedings of the Conference on Problems of Business Administration in Colleges and Universities*, Chicago, Illinois, University of Chicago Press, 1936.
160. Doll, R. C., *Curriculum Improvement: Decision-Making and Process*, Boston, Massachusetts, Allyn and Bacon, Inc., 1964.
161. Griffiths, Daniel D.; Clark, David L.; Wynn, Richard D.; and Iannacone, Laurence, *Organizing Schools for Effective Education*, Danville, Illinois, Interstate Printers and Publishers, Inc., 1962.
162. Hamilton, R. L., *A View of the California Educational Administrator*, Bedford, Massachusetts, The MITRE Corporation, 1968.
163. Hoyle, Eric, "Organizational Analysis in the Field of Education," *Educational Research*, VII, No. 2, February 1965.
164. Kindred, Leslie W., *School Public Relations*, Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1957.
165. Miller, Van and Spalding, Willard B., *The Public Administration of American Schools*, New York, New York, World Book Company, 1958.
166. Morphet, Edgar L.; Johns, Roe L.; and Reller, Theodore L., *Educational Administration*, Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1959.

GENERAL

167. Anthony, R. N., *Planning and Control Systems, A Framework for Analysis*, Boston, Massachusetts, Harvard University Press, 1965.

168. Argyris, Chris, *Understanding Organizational Behavior*, Homewood, Illinois, The Dorsey Press, 1960.
169. Blau, Peter M. and Scott, Richard W., *Formal Organizations: A Comparative Approach*, San Francisco, California, Chandler Publishing Company, 1962.
170. Buck, Vernon S., *Approaches to Organizational Design*, Pittsburgh, Pennsylvania, University of Pittsburgh Press, 1966.
171. Burkhead, Jesse, "The Budget and Democratic Government," *Public Administration and Democracy: Essays in Honor of Paul H. Appleby*, Syracuse, New York, Syracuse University Press, 1965.
172. Bursk, Edward, *Human Relations for Management*, New York, New York, Harper and Row, Inc., 1956.
173. Campbell, Ronald, *Administrative Theory as a Guide to Action*, Chicago, Illinois, University of Chicago Press, 1960.
174. Caplow, Theodore, *Principles of Organization*, New York, New York, Harcourt, Brace and World, Inc., 1964.
175. Cherry, Colin, *On Human Communication*, Cambridge, Massachusetts, The M.I.T. Press, 1957.
176. Dale, Ernest, *Planning and Developing the Company Organizational Structure*, New York, New York, American Management Association, 1967.
177. Davis, Keith, *Human Relations at Work*, New York, New York, McGraw-Hill Book Company, 1959.
178. Davis, Keith and Scott, William, *Readings in Human Relations*, New York, New York, McGraw-Hill Book Company, 1959.
179. Dimock, Marshall E., *A Philosophy of Administration*, New York, New York, Harper and Row, Inc., 1958.
180. Emerson, Alfred E., *Toward a Unified Theory of Human Behavior*, New York, New York, Basic Books, Inc., 1956.
181. Etzioni, Amatar, *Modern Organizations*, New York, New York, John Wiley and Sons, Inc., 1964.
182. Greene, J. H., *Operations Planning and Control*, Homewood, Illinois, Richard D. Irwin, Inc., 1967.

183. Gross, Bertram M., *The Managing of Organizations: the Administrative Struggle*, New York, New York, Free Press of Glencoe, 1964.
184. Haire, Mason, *Modern Organizational Theory*, New York, New York, John Wiley and Sons, Inc., 1959.
185. Hartman, L. M. and Seastone, D. A., "Welfare Goals and Organization of Decision-Making for the Allocation of Water Resources," *Land Economics*, Vol. 41, February 1965.
186. Hearn, Gordon, *Theory Building in Social Work*, Toronto, Canada, The University of Toronto Press, 1958.
187. Hicks, Herbert G., *The Management of Organizations*, New York, New York, McGraw-Hill Book Company, 1967.
188. Leibenstein, H., *Economic Theory and Organizational Analysis*, New York, New York, Harper and Row, Inc., 1960.
189. Mansfield, Harvey C. and Marx, Fritz, *Elements of Public Administration*, Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1959.
190. Mooney, James, *The Principles of Organization*, New York, New York, Harper and Row, Inc., 1939.
191. Presthus, Robert, *The Organizational Society, An Analysis and a Theory*, New York, New York, Alfred A. Knopf Company, 1962.
192. Rubenstein, Albert and Haverstroh, Chadwick, *Some Theories of Organization*, Homewood, Illinois, Dorsey Press, Inc., 1960.
193. Thompson, James D., *Approaches to Organizational Design*, Pittsburgh, Pennsylvania, University of Pittsburgh Press, 1966.
194. Weber, Max, *The Theory of Social and Economic Organization*, New York, New York, Oxford University Press, 1947.

PLANNING PROCESS

EDUCATION

195. Agency for International Development, *Techniques for Determining Manpower Skill Needs and Training Requirements*, Washington, D.C., U.S. Department of State, 1963.
196. Anderson, Bent R., *Work or Support: An Economic and Social Analysis of Substitute Permanent Employment*, Paris, France, Organization for Economic Cooperation and Development, 1966.
197. Anderson, C. A., *The Impact of the Educational System on Technological Change and Modernization*, Paris, France, UNESCO, 1963.
198. Blaug, Mark, "Approaches to Educational Planning," *Economic Journal*, Vol. 77, June 1967.
199. Blaug, Mark; Peston, Maurice; and Ziderman, Adrian, *The Utilization of Educated Manpower in Industry*, Toronto, Canada, University of Toronto Press, 1967.
200. Bombach, G., *Long-Term Requirements for Qualified Manpower in Relation to Economic Growth*, Paris, France, Organization for Economic Cooperation and Development, 1964.
201. Bombach, G., "Manpower Forecasting and Educational Policy," *Sociology of Education*, Fall 1965.
202. Bowles, S. S., *The Efficient Allocation of Resources in Education: A Planning Model with Applications to Northern Nigeria*, Boston, Massachusetts, Harvard University Press, 1965.
203. Brickell, Henry M., *Organizing New York State for Educational Change*, Albany, New York, New York State Education Department, 1961.
204. Byer, R. J.; Hardy, R. W.; Lynch, E. J.; Morse, R. A., Jr.; Pulscak, M. W.; and Spitzer, M., "The CAPRI System for Naval Manpower Planning and Control," *Design and*

- Operation: Computer Program Specifications*, Washington, D.C., Department of the Navy, 1963.
205. Carpenter, M. B., *Projections of Enrollment*, Santa Monica, California, The Rand Corporation, 1968.
 206. Chance, W. A., "Long-Term Labor Requirements and Output of the Educational System," *Southern Economic Journal*, April 1966.
 207. Cook, Desmond L., *Better Project Planning and Control Through the Use of System Analysis and Management Techniques*, Burlingame, California, OPERATION PEP, 1968.
 208. Corrigan, R. E., *Need Assessment and Selection of Priority Action Programs*, (OPERATION PEP Training Program), Burlingame, California, OPERATION PEP, 1966-1967.
 209. Corrigan, R. E. and Johnson, D. W., *The Requirements and Process for Planned Educational Change: State of California*, Burlingame, California, OPERATION PEP, 1966-1967.
 210. Culbertson, Jack, "State Planning for Education," *Planning and Effecting Needed Changes in Education*, ed. E. L. Morphet and C. O. Ruan, New York, New York, Citation Press, Inc., 1967.
 211. Demaree, R. G., *Development of Training Equipment Planning Information*, Dayton, Ohio, Wright-Patterson Air Force Base, 1961.
 212. Eastmond, Jefferson N., *A Design and Assessment Structure for Comprehensive Planning in Education*, Burlingame, California, OPERATION PEP, 1967.
 213. Eastmond, Jefferson N., *Long-Range Master Planning*, Burlingame, California, OPERATION PEP, 1968.
 214. Fischer, John H.; Lambert, Sam M.; and Firman, William D., "Long-Range Planning in School Finance," *Proceedings, Sixth National School Finance Conference*, Washington, D.C., National Education Association, 1963.
 215. Freeman, Roger A., *School Needs in the Decade Ahead*, Washington, D.C., Institute for Social Science Research, 1958.
 216. Gordon, Margaret S., *Retraining and Labor Market Adjustment in Western Europe*, Washington, D.C., U.S. Department of Labor, Office of Manpower Automation and Training, 1964.

217. Haggart, S. A., *Evaluating Alternatives in Educational Planning*, Santa Monica, California, The Rand Corporation, 1968.
218. Haggart, S. A., *Program Budgeting as an Analytical Tool for Educational Planning*, Santa Monica, California, The Rand Corporation, 1968.
219. Heady, Earl O., "Manpower Requirements and Demand in Agriculture. . . With Estimation of Vocational Training. . . Productivity," *Appendix of Final Research Reports. . . in Vocational-Technical Education*, Ames, Iowa, Iowa State University, 1966.
220. Hollister, R. G., "The Economics of Manpower Forecasting," *International Labor Review*, Vol. 89, April 1964.
221. Janison, Marshall Verdine, "Low Cost Educational Systems for Developing Regions: An Application of Systems Analysis to Educational Planning," Unpublished Ph.D. dissertation, University of California, Los Angeles, California, 1966.
222. Kaufman, Roger A. and Corrigan, Robert E., *Exercise in the Analysis of Planned Change in Education*, Burlingame, California, OPERATION PEP, 1967.
223. Knoir, Owen A., *Long-Range Planning in Higher Education*, Boulder, Colorado, Western Interstate Commission for Higher Education, 1965.
224. Madden, D. L., "An Approach to Budgetary Planning in Marketing Channels," Ann Arbor, Michigan, University Microfilms, 1967.
225. Mangum, Garth L., *Reorienting Vocational Education*, Washington, D.C., National Manpower Policy Task Force, 1968.
226. Medvin, Norman, "Occupational Job Requirements: A Short-Cut Approach to Long-Range Forecasting," *Employment Service Review*, January-February 1967.
227. Miller, Donald R., *OPERATION PEP: A State-side Project to Prepare Educational Planners for California*, Burlingame, California, OPERATION PEP, 1967.
228. Miller, Donald R., *Planned Change in Education*, Burlingame, California, OPERATION PEP, 1968.
229. Miner, J. B., *Intelligence in the United States. A Survey with Conclusions for Manpower Utilization in Education and*

- Employment*, New York, New York, Springer Publishing Company, 1957.
230. Morsch, William C., *A Technique for Projection of Occupation-Educational Requirements for State Educational Planning Areas*, Washington, D.C., U.S. Office of Education, 1966.
 231. Moser, C. A. and Lazard, P. R. G., "Planning the Scale of Higher Education in Britain," *Royal Statistical Society Journal*, Series A, Part 4, 1964.
 232. Mushkin, Selma J. and McLoone, Eugene P., *Local School Expenditures: 1970 Projections*, Chicago, Illinois, The Council of State Governments, 1965.
 233. National Commission on Technology, Automation and Economic Progress, *Educational Implications of Technological Change: Appendix Volume IV--Technology and the American Economy, the Report of the Commission*, Washington, D.C., U.S. Government Printing Office, 1966.
 234. OPERATION PEP Staff, *1967 Symposium*, Burlingame, California, 1967.
 235. Organization for Economic Co-operation and Development, *Forecasting Educational Needs for Economic and Social Development*, Paris, France, 1962.
 236. Parnes, H. S., *Planning Education for Economic and Social Development*, Paris, France, OECD, 1964.
 237. Ribich, Thomas I., *Education and Poverty*, Washington, D.C., The Brookings Institution, 1968.
 238. Ross, Arthur M. (ed.), *Employment Policy and The Labor Market*, Berkeley, California, University of California Press, 1965.
 239. Rowen, Henry S., *Statement . . . Before the Special Subcommittee on Scientific Manpower Utilization of the Senate Labor and Public Welfare Committee*, Washington, D.C., Bureau of the Budget, 1966.
 240. State of Maryland, *Operational Planning: FY 1969*, Baltimore, Maryland, Division of Vocational Education, 1968.
 241. State of Minnesota, *Projected Program Activities in Vocational-Technical Education*, St. Paul, Minnesota, Division of Vocational-Technical Education, 1968.

242. Stoller, David S., *Occupational Education Requirements Analysis, A Method Projecting Vocational Education Requirements*, Washington, D.C., U.S. Office of Education, 1967.
243. Tinbergen, J. and Bos, H. C., *A Planning Model of Educational Requirements of Economic Development*, Paris, France, OECD, 1964.
244. U.S. Congress, Senate, Committee on Labor and Welfare, *History of Employment and Manpower Policy in the United States*, Washington, D.C., 1965.
245. U.S. Department of Health, Education and Welfare, "Social Planning and Urban Development," *Health, Education, and Welfare Indicators*, Washington, D.C., October 1966.
246. U.S. Department of Labor, Bureau of Labor Statistics, *America's Industrial and Occupational Manpower Requirements, 1964-75*, Washington, D.C., U.S. Government Printing Office, Undated.
247. U.S. Department of Labor, Manpower Administration, Bureau of Employment Security, *Guide to Local Occupational Information--United States Employment Service, State Employment Services*, Washington, D.C., 1966.
248. U.S. Department of Labor, *Manpower Report of the President and A Report on Manpower Requirements, Resources, Utilization, and Training*, Washington, D.C., 1963, 1969.
249. U.S. Department of Labor, *Manpower Report of the President and A Report on Manpower Requirements, Resources, Utilization, and Training*, Washington, D.C., 1967.
250. U.S. Department of Labor, Bureau of Labor Statistics, *Occupational Outlook Quarterly*, Washington, D.C., periodical.
251. U.S. Department of Labor, Office of Manpower Policy, Evaluation, and Research, *Manpower Policy and Programs in Five Western European Countries: France, Great Britain, the Netherlands, Sweden, and West Germany*, No. 11, Washington, D.C., 1966.
252. U.S. Department of Labor, Manpower Administration, *Seminar on Manpower Policy and Program*, Washington, D.C., 1966.
253. Williams, Harry, *Planning for Effective Resource Allocation in Universities*, Washington, D.C., American Council on Education, 1966.

GENERAL

254. Alesch, D. J., "Government in Evolution: A Real World Focus for State Planning," *Public Administration Review*, May-June 1968.
255. Assembly Interim Committee on Ways and Means, *Report on Long-Range Program and Budget Planning*, Sacramento, California, Assembly of the State of California, 1963.
256. Benis, Warren G.; Benne, Kenneth D.; and Chin, Robert, *The Planning of Change: Readings in the Applied Behavioral Sciences*, New York, New York, Holt, Rinehart and Winston, Inc., 1961.
257. Bryk, Oliver, *Aspects of Cost and Utility Analysis in Planning*, McLean, Virginia, Research Analysis Corporation, 1965.
258. Cushen, W. Edward, "A National Management Worksheet: An Aid to Strategic Planning," Washington, D.C., U.S. Department of Commerce, National Bureau of Standards, 1964.
259. Enthoven, Alain C. and Rowen, Henry S., *Defense Planning and Organization*, Princeton, New Jersey, Princeton University Press, 1961.
260. Gross, Bertram M. (ed.), *Action Under Planning; the Guidance of Economic Development*, New York, New York, McGraw-Hill Book Company, 1967.
261. Helmer, Olaf, *Analysis of the Future; The Delphi Method*, Santa Monica, California, Rand Corporation, 1967.
262. Helmer, Olaf, *Social Technology*, New York, New York, Basic Books, Inc., 1966.
263. LeBreton, D. D. and Henning, D. A., *Planning Theory*, Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1961.
264. Millikan, Max F. (ed.), *National Economic Planning; A Conference*, New York, New York, Columbia University Press, 1967.
265. National Planning Association, Center for Economic Projections, *Economic and Demographic Projections for 224 Metropolitan Areas*, Washington, D.C., 1967.
266. Novick, David, *Resource Analysis and Long-Range Planning*, Santa Monica, California, Rand Corporation, 1963.

267. Tolley, George S. and Riggs, F. E. (eds.), *Economics of Watershed Planning*, Ames, Iowa, Iowa State University Press, 1961.
268. U.S. Department of Labor, Bureau of Labor Statistics, *Projections 1970, Interindustry Relationships, Potential Demand, Employment*, No. 1536, Washington, D.C., 1966.
269. U.S. Department of Labor, Bureau of Labor Statistics, *Technological Trends in Major American Industries*, Washington, D.C., periodical.
270. Wise, Harold F., *Planning-Programming-Budgeting Systems and the Planning Role*, Washington, D.C., U.S. Government Printing Office, 1967.

PROGRAM BUDGETING

EDUCATION

271. Ackerly, Harold E., "For Better Public Relations Use a Performance Budget," *Nations Schools*, February 1951.
272. Anderson, Lynn F., "Performance Budgeting," *Proceedings, Association of School Business Officials of the United States and Canada*, Chicago, Illinois, 1962.
273. Barro, S. M., *Development of a Program Structure for a Public School System*, Santa Monica, California, The Rand Corporation, 1968.
274. Brackel, Charles and Hurlburt, A. S., "On Presenting the Public School Budget in the Small City School District," *American School Board Journal*, March 1966.
275. California Association of School Business Officials, *Program Budgeting in Public School Districts*, Sacramento, California, 1967.
276. Castetter, William B. and Ovsiew, Leon, *Budgeting for Better Schools*, Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1960.
277. Corrigan, R. E. and Corrigan, Betty O., "Terminal Performance Specifications for Curriculum Design," *Operation PEP Training Program*, Burlingame, California, OPERATION PEP, 1966-1967.
278. Dade County Board of Public Instruction, *A Program Budget Research Proposal*, Miami, Florida, 1966.
279. DeYoung, Chris A., *Budgeting in Public Schools*, Garden City, New York, Doubleday, Doran and Co., Inc., 1936.
280. Engel, E. L., "Performance Reports Used with Performance Budgets," *Public Management*, Albuquerque, New Mexico, March 1962.
281. Fitzsimmons, W. B., "A Model for a Public School Program Budget," Ann Arbor, Michigan, University Microfilms, 1966.

282. Hagen, John W., "A Three Dimensional Program Budget Format for Public Schools," Unpublished Ed. D. dissertation, Los Angeles, California, University of California, 1968.
283. Henderson, W. L., "Do Budgets Report Public Spending?" *Arizona Review of Business and Public Administration*, Vol. 13, March 1964.
284. Hill, LaMar L. and Mattox, Frank L., "Program Budgeting in Public School Districts," Unpublished Ed. D. dissertation, Los Angeles, California, University of Southern California, 1967.
285. Hirsch, W. Z., *Education in the Program Budget*, Santa Monica, California, The Rand Corporation, 1965.
286. Hirsch, W. Z., *Program Budgeting for Education*, Los Angeles, California, Institute of Government and Public Affairs, 1966.
287. Hollister, Robinson G., "A Decision Making Budget," *The Educational Record*, Fall 1966.
288. Martin, Jack, *Budgeting Practices in Central Schools*, New York, New York, Central School Boards Committee for Education Research, 1952.
289. Miller, James L., Jr., *State Budgeting for Higher Education: The Use of Formulas and Cost Analysis*, Ann Arbor, Michigan, Institute of Public Administration, The University of Michigan, 1964.
290. Northeast Wisconsin Technical Institute, *Program Review--Area Vocational, Technical and Adult Education, District 13*, Green Bay, Wisconsin, 1968.
291. Sabine, Creta D., "Budget Model for Use in Public Schools," *School Business Affairs*, August 1968.
292. Sacramento City Unified School District, *1966-1967 Budget and Financial Information*, Sacramento, California, 1967.
293. Swanson, P. J., Jr., "Programmed Budgeting for a College of Business Administration," Ann Arbor, Michigan, University Microfilms, 1966.
294. U.S. Department of Health, Education, and Welfare, *Planning-Programming-Budgeting: Guidance for Program and Financial Plan*, Washington, D.C., 1967.

295. Vincent, H., *Program Budgeting for Education*, Washington, D.C., National Center for Educational Statistics, Division of Operations Analysis, 1966.

GENERAL

296. Abraham, William I., *Annual Budgeting and Development Planning*, Washington, D.C., National Planning Association, 1965.
297. Anshen, M., *The Federal Budget as an Instrument for Analysis, Planning and Management*, Santa Monica, California, The Rand Corporation, 1965.
298. Buechner, J. C., "Performance Budgeting," *Michigan Municipal Review*, February 1962.
299. Committee for Economic Development, *The Budget and Economic Growth*, New York, New York, 1959.
300. Committee for Economic Development, *Budgeting for National Objectives*, New York, New York, 1966.
301. Council of State Governments, *Budgeting by the States*, Chicago, Illinois, 1967.
302. Carihfield, B. and Bell, G. A., "Budgeting for State and Local Government Services," *The Annals of the American Academy of Political and Social Sciences*, September 1968.
303. Elkins, Eugene R., *Program Budgeting; A Method for Improving Fiscal Management*, Morgantown, Virginia, Bureau of Government Research, West Virginia University, 1955.
304. Fisher, G. H., *The New OASD (Comptroller) Programming/Budgeting Process*, Santa Monica, California, Rand Corporation, 1962.
305. Greaney, W. T., *A Program Budget*, Amherst, Massachusetts, Bureau of Government Research, 1963.
306. Haldi, John, "Criteria for Definition of Program Categories and Program Elements," Remarks. . . Before the U.S. Naval Post Graduate School, Defense Management Systems Course, Monterey, California, November 9, 1965.
307. Heiser, Herman C., *Budgeting, Principles and Practices*, New York, New York, Ronald Press Company, 1959.

308. Hofstra, H. J., *New Techniques of Budget Preparation and Management*, Brussels, Belgium, International Institute of Administrative Sciences, 1965.
309. Kammerer, Gladys M., *Program Budgeting: An Aid to Understanding*, Gainesville, Florida, University of Florida, 1961.
310. McAnally, A. M., "Budgets by Formula," *Library Quarterly*, Vol. 33, April 1963.
311. Madden, D. L., "An Approach to Budgetary Planning in Marketing Channels," Ann Arbor, Michigan, University Microfilms, 1967.
312. Massey, R. J., "Program Packages and the Program Budget in the Department of Defense," *Public Administration Review*, 23, March 1963.
313. Novick, David, *Which Program Do We Mean in Program Budgeting*, Santa Monica, California, The Rand Corporation, 1954.
314. Reynolds, J. W. and Hollander, W. G., "Program Budgeting in Wisconsin," *State Government*, Autumn 1964.
315. San Pedros, C., "Performance Budgeting in the Philippines," *Canadian Public Administration*, September 1963.
316. Smithies, Arthur, *A Conceptual Framework for the Program Budget*, Santa Monica, California, The Rand Corporation, 1964.
317. State-Local Finances Project, *Planning-Programming-Budgeting for City, State, County Objectives PPB Note 3: Development of Initial Instructions to Inaugurate a Planning-Programming-Budgeting System: Some Preliminary Considerations and Model Instruction to be Adapted for Local Use*, Washington, D.C., George Washington University, 1967.
318. State-Local Finances Project, *Planning-Programming-Budgeting for City, State, County Objectives, PPB Note 5: Developing an Objective Oriented Governmental Program Structure*, Washington, D.C., George Washington University, 1967.
319. State-Local Finances Project, *Planning-Programming-Budgeting for City, State, County Objectives PPB Note 8: The Multi-Year Program and Financial Plan*, Washington, D.C., George Washington University, 1967.

320. State of California, *Programming and Budgeting System-- Program Budget Format*, Sacramento, California, Department of Finance Management, 1966.
321. United Nations, *A Manual for Programme and Performance Budgeting*, New York, New York, Department of Economic and Social Affairs, 1965.
322. U.S. Department of Defense, "D. O. D. Programming System," No. 7045.1, Washington, D.C., 1964.
323. U.S. Public Health Service, *The Principles of Program Packaging in the Division of Indian Health*, Silver Spring, Maryland, 1966.
324. U.S. Office of the Chief of Naval Operations, *Navy Programming Manual*, Washington, D.C., U.S. Department of Defense, 1965.
325. U.S. Subcommittee on Economic Statistics of the Joint Economic Committee, *The Federal Budget as an Economic Document*, Washington, D.C., 1962.
326. Wisconsin State Government, *A Prospective Integrated Planning-Budgeting System for Wisconsin State Government*, Madison, Wisconsin, Department of Administration, 1967.
327. *Yale Law Journal*, "Program Budgeting for Police Department," March 1967.
328. Zwick, C. J., "Budgeting for Federal Responsibilities," *The Annals of the American Academy of Political and Social Science*, September 1968.

PROGRAMMING AND MANAGEMENT CONTROL

EDUCATION

329. Arnett, Trevor, *College and University Finance*, Albany, New York, General Education Board, 1922.
330. Benson, Charles S. and others, *State and Local Fiscal Relationships in Education in California*, Sacramento, California, Senate Fact-Finding Committee on Revenue and Taxation, 1965.
331. Burke, Arvid J., *Financing Public Schools in the United States*, New York, New York, Harper & Row, Inc., 1957.
332. Burkhead, Jesse, *State and Local Taxes for Public Education*, Syracuse, New York, Syracuse University Press, 1963.
333. Burkhead, Jesse, (ed.), *Trends in Financing Education: Proceedings of the Eighth National Conference on School Finance*, Washington, D.C., NEA Committee on Educational Finance, 1965.
334. Carovano, J. M., "Financing Public Higher Education," *National Tax Journal*, June 1966.
335. Chase, Francis S., *Problems and Opportunities in Financing Education*, Washington, D.C., Proceedings of the Second National Conference on School Finance, 1959.
336. Cook, Desmond L., *Education Management*, Burlingame, California, OPERATION PEP, 1968.
337. Cook, Desmond L., *Program Evaluation and Review Technique: Applications in Education*, Washington, D.C., U.S. Office of Education, 1966.
338. DeYoung, Chris A., *Budgeting Practices in Public School Administration*, Evanston, Illinois, School of Education, Northwestern University, 1932.
339. Garber, Lee O., *Law and the School Business Manager*, Danville, Illinois, Interstate Printers & Publishers, Inc., 1957.

340. Goode, Richard B., "Tax Treatment of Individual Expenditures for Education and Research," *American Economic Review*, May 1966.
341. Harris, Seymour E., *Higher Education: Resources and Finance*, New York, New York, McGraw-Hill Book Company, 1963.
342. Harris, Seymour E., *How Shall We Pay for Education?* New York, New York, Harper & Row, Inc., 1960.
343. Hungate, Thad L., *Finance in Educational Management of Colleges and Universities*, New York, New York, Teachers College, Columbia University, 1954.
344. James, H. T.; Kelley, J. A.; and Garms, W. I., *Determinants of Educational Expenditures in Large Cities of the United States*, Stanford, California, Stanford University, School of Education, 1966.
345. James, H. T.; Thomas, J. A.; and Dyck, H. J., *Wealth, Expenditure and Decision-Making for Education*, Stanford, California, Stanford University Press, 1963.
346. Johns, Roe L. and Morphet, Edgar L., *Financing the Public Schools*, Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1960.
347. Knezewich, Stephen J. and Fowlkes, John Guy, *Business Management of Local School Systems*, New York, New York, Harper & Row, Inc., 1960.
348. Lindsay, E. E. and Holland, E. O., *College and University Administration*, New York, New York, MacMillan Company, 1930.
349. Linn, Henry H., *School Business Administration*, New York, New York, The Ronald Press Company, 1956.
350. Loeber, Bill and Cook, Desmond L., *The Management Process*, Burlingame, California, OPERATION PEP, 1968.
351. Manasse, Fred C., *Crisis in School Finance*, New York, New York, H. B. Maynard Co., Inc., 1967.
352. Mort, Paul R.; Reuser, Walter C.; and Polley, John W., *Public School Finance: Its Background, Structure, and Operation*, New York, New York, McGraw-Hill Book Company, 1960.

353. National Education Association, *A Financial Program for Today's Schools*, Proceedings of the Seventh National Conference on School Finance, Washington, D.C., 1964.
354. National Education Association, *New Directions in Financing Public Schools*, Washington, D.C., Third National School Finance Conference, 1960.
355. OPERATION PEP, *PERT Guide for Management Use*, Burlingame, California, 1963.
356. Renshaw, E. F., "A Note on the Expenditure Policy of State Aid to Education," *Journal of Political Economy*, April 1960.
357. Reynolds, Bill J., *A Study of Certain Procedures for Planning and Financing Capital Improvements in Kansas Public Schools*, Lawrence, Kansas, University of Kansas, 1966.
358. Rourke, F. E. and Brooks, G. E., *The Managerial Revolution in Higher Education*, Baltimore, Maryland, Johns Hopkins Press, 1966.
359. State of Wisconsin, Department of Administration, *Management Review: Wisconsin, Vocational, Technical and Adult Education*, Madison, Wisconsin, 1968.
360. Tidwell, Sam B., *Public School Fund Accounting*, New York, New York, Harper & Row, Inc., 1960.
361. U.S. Office of Education, *Financial Accounting for Local and State School Systems*, Washington, D.C., 1960.
362. U.S. Office of Education, *Principles of Public School Accounting*, Washington, D.C., 1967.
363. U.S. Office of Education, *Standard Terminology for Instruction in Local and State School Systems*, Washington, D.C., 1967.
364. Wolfbein, Seymour L.; Mushkin, Selma J.; and Taeuber, Conrad, *Financing Education for Our Changing Population*, Washington, D.C., National School Finance Conference, 1961, 1962.

GENERAL

365. Anthony, Robert N., *Management Accounting*, Homewood, Illinois, Richard D. Irwin, Inc., 1960.

366. Anthony, R. N. and Hekiman, J. S., *Operations Cost Control*, Homewood, Illinois, Richard D. Irwin, Inc., 1967.
367. Bartizal, John R., *Budget Principles and Procedures*, Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1940.
368. Beyer, Robert, *Profitability Accounting for Planning and Control*, New York, New York, The Ronald Press Company, 1963.
369. Bittel, Lester R., *Management by Exception*, New York, New York, McGraw-Hill Book Company, 1964.
370. Buck, A. E., *Public Budgeting*, New York, New York, Harper & Row, Inc., 1929.
371. Burkhead, Jesse, *Government Budgeting*, New York, New York, John Wiley and Sons, Inc., 1956.
372. Commission on Organization of the Executive Branch of the Government, *Budgeting and Accounting*, Washington, D.C., Government Printing Office, 1948.
373. Dean, J., *Managerial Economics*, Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1951.
374. Eckstein, Otto, *Public Finance*, Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1964.
375. Enke, Stephan (ed.), *Defense Management*, Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1967.
376. Evarts, Harry, *Introduction to PERT*, Boston, Massachusetts, Allyn & Bacon, Inc., 1964.
377. Ink, D. A., "A Management Crisis For the New President: People Programs," *Public Administration Review*, November-December 1968.
378. Kelly, James E. and Walker, Morgan R., "Critical Path Planning and Scheduling," *Proceedings of the Eastern Joint Computer Conference*, Ft. Washington, Pennsylvania, Manchly Associates, Inc., 1959.
379. Koontz, Harold and O'Donnell, Cyril, *Principles of Management, An Analysis of Managerial Functions*, New York, New York, McGraw-Hill Book Company, 1964.
380. Mao, James C. T., *Efficiency in Public Urban Renewal Expenditure Through Capital Budgeting*, Berkeley, California, University of California, 1965.

381. Margolis, Julius, *Public Finances: Needs, Sources and Utilization*, Princeton, New Jersey, Princeton University Press, 1961.
382. Matz, Adolph; Curry, Otherl; and Frank, George, *Cost Accounting*, Cincinnati, Ohio, Southwestern Publishing Company, 1957.
383. Musgrave, Richard A., *The Theory of Public Finance*, New York, New York, McGraw-Hill Book Company, 1959.
384. Novick, David, *Efficiency and Economy in Government Through New Budgeting and Accounting Procedures*, Santa Monica, California, The Rand Corporation, 1954.
385. Proschan, Arnold, "Programming System of the Department of Defense," *Armed Forces Comptroller*, September 1963.
386. Public Administration Service, *Modern Standards of Budget Administration*, Bangkok, Thailand, Government of Thailand, Ministry of Finance, 1957.
387. Samuelson, Paul A., "Aspects of Public Expenditure Theories," *Review of Economics and Statistics*, November 1958.
388. Samuelson, Paul A., "Diagrammatic Expansion of a Theory of Public Expenditure," *Review of Economics and Statistics*, November 1955.
389. Samuelson, Paul A., "The Pure Theory of Public Expenditure," *Review of Economics and Statistics*, November 1955.
390. Smalter, Donald J. and Ruggles, Rudy L., Jr., "Six Business Lessons from the Pentagon," *Harvard Business Review*, XLV, No. 2, March-April 1966.
391. Smithies, Arthur, *The Budgetary Process in the United States*, New York, New York, McGraw-Hill Book Company, 1955.
392. Stanford Research Institute, *Programming; A Context for Decision-Making in Government and Industry*, Menlo Park, California, 1965.
393. Stedry, Andrew C., *Budget Control and Cost Behavior*, Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1960.
394. Stilian, Gabriel N., et al., *PERT: A New Management Planning and Control Technique*, New York, New York, American Management Association, 1962.

395. Tax Institute, *Financing Education in the Public Schools*, Princeton, New Jersey, 1956.
396. U.S.A.F. Aeronautical Systems Division, *Program Evaluation Review Technique*, Dayton, Ohio, Wright-Patterson Air Force Base, 1965.
397. U.S. Air Force, *PERT: Time System Description Manual Vol. I*, Washington, D.C., Andrews Air Force Base, 1963.
398. U.S. Air Force, *PERT: Cost System Description Manual Vol. II*, Washington, D.C., Andrews Air Force Base, 1963.
399. U.S. Air Force, *PERT-Time System Description Manual*, Washington, D.C., Andrews Air Force Base, 1963.
400. U.S. Congress, Senate Committee on Government Operations, *Financial Management in the Federal Government*, Washington, D.C., U.S. Government Printing Office, 1961.
401. U.S. Department of Defense, *A Primer on Project PRIME*, Washington, D.C., 1967.
402. U.S. Department of Defense, *PERT. . . Guide for Management Use*, Washington, D.C., 1963.
403. U.S. Department of the Navy, Bureau of Naval Weapons, *PERT Data Processing Lesson Plan Handbook for Technicians*, Washington, D.C., 1960.
404. United States Joint Financial Management Programme, *Improvements of Financial Management in the United States Government: Progress*, Washington, D.C., U.S. Government Printing Office, 1961.
405. Universities - National Bureau Committee for Economic Research, *Public Finances: Needs, Sources, and Utilization*, Princeton, New Jersey, Princeton University Press, 1961.
406. Williams, Alan H., *Public Finance and Budgetary Policy*, New York, New York, Frederick Praeger, Inc., 1963.

INVESTMENT ALTERNATIVES

EDUCATION

407. Abt Associates, Inc., *An Examination of Data on Iowa School Children, Apt to Determine Patterns of Performance and "Downstream Effects" of Early Depressed Scores*, Cambridge, Massachusetts, 1966.
408. Abt Associates, Inc., *A Study of Longitudinal Patterns of Failure Among High School Dropouts and Poorly Performing Graduates*, Cambridge, Massachusetts, 1966.
409. Alberty, Harold, *Reorganizing the High School Curriculum*, New York, New York, MacMillan Company, 1953.
410. Alexander, William M. and Saylor, J. Galen, *Modern Secondary Education*, New York, New York, Rinehart and Co., Inc., 1959.
411. Anderson, C. A., "A Skeptical Note on the Relation of Vertical Mobility to Education," *American Journal of Sociology*, LXVI, May 1961.
412. Armstrong, Charles, *Patterns of Achievement from Pupil Personnel Records*, Burlingame, California, OPERATION PEP, 1968.
413. Becker, Gary S., "Investment in Human Capital: A Theoretical Analysis," *The Journal of Political Economy*, LXX, Supplement, October 1962.
414. Becker, G. S., "Underinvestment in College Education," *American Economic Review*, May 1960.
415. Bertolaet, Frederick; Nystrand, Donald M.; and Thronblad, Carl E., *Midwestern Regional Conference on Education, Training and Employment*, Chicago, Illinois, The Research Council of the Great Cities Program for School Improvement, 1966.
416. Bloom, Benjamin S., et al., *Taxonomy of Educational Objectives: Cognitive Domain*, New York, New York, Longmans, Green & Company, 1956.

417. Boggs, Gerald E., "A Comparative Analysis of the Impact of Various Types of Curricula on the Vocational Success of School Dropouts," Ph. D. dissertations, Stillwater, Oklahoma, Oklahoma State University, 1967.
418. Bowen, William G. and Finegan, T. Aldrich, "Educational Attainment and Labor Force Participation," *American Economic Review*, Vol. 56, May 1966.
419. Briggs, L. J., et al., *Instructional Media: A Procedure for the Design of Multi-Media Instruction*, Pittsburg, Pennsylvania, American Institutes for Research, 1967.
420. Burkhead, Jesse, *Input and Output in Large-City High Schools*, Syracuse, New York, Syracuse University Press, 1967.
421. Butler, F. C. and Steiger, A. R., "Programmed Instruction and the Instructional System at the U.S. Air Force Academy," *Trends in Programmed Instruction*, Washington, D.C., National Education Association, 1964.
422. Carol, Arthur and Parry, Samuel, "The Economic Rationale of Occupational Choice," *Industrial and Labor Relations Review*, January 1968.
423. Carpenter, M. B., *Concepts of Effectiveness of Educational Programs*, Santa Monica, California, The Rand Corporation, 1968.
424. Carpenter, M. B., *Program Budgeting as a Way to Focus on Objectives in Education*, Santa Monica, California, The Rand Corporation, 1968.
425. Cartter, Allan, *Elements of Quality in Higher Education*, Washington, D.C., American Council on Education, Eastern Association of College and University Business Officers, 1965.
426. Charters, W. W., "Is There a Field of Educational Engineering?" *Educational Research Bulletin*, Columbus, Ohio, Ohio State University, 1954.
427. Clark, Harold F., *Cost and Quality in Public Education*, Syracuse, New York, Syracuse University Press, 1963.
428. Correa, H., "Quantity versus Quality in Teacher Education," *Comparative Education Review*, October 1964.
429. Corrigan, Betty O. and Corrigan, R. E., "Terminal Performance Specifications for Curriculum Design," *Operation*

PEP Training Program, Burlingame, California, OPERATION PEP, 1967.

430. Corrigan, R. E., *The Analysis Requirements Prior to Program Writing*, Anaheim, California, National Education Sciences, Undated.
431. Corrigan, R. E., "Concepts in Designing Performance Systems for Education and Training," *Operation PEP Training Program*, Burlingame, California, OPERATION PEP, 1966-1967.
432. Corrigan, R. E., "Design Considerations in Preparing Proposals," *Operation PEP Training Program*, Burlingame, California, OPERATION PEP, 1966-1967.
433. Coulson, J., *Responsiveness as an Organizing Principle in the Analysis and Design of Education Systems*, Santa Monica, California, System Development Corporation, August 1963.
434. Council of Basic Education, *The Case for Basic Education: A Program of Arms for Public Schools*, Boston, Massachusetts, Atlantic-Little, Brown and Company, 1959.
435. Denison, E. F., *Proportion of Income Differentials Among Education Group 'due to' Additional Education: The Evidence of the Wolfle-Smith Survey*, Paris, France, OECD, 1964.
436. Downs, Judith E. and Parker, J. F., Jr., *Selection of Training Media*, Dayton, Ohio, Wright-Patterson Air Force Base, September 1961.
437. Drouet, Pierre, "Economic Criteria Governing the Choice of Vocational Training System," *International Labor Review*, Vol. 98, No. 3, September 1968.
438. Ellis, A. Caswell, *The Money Value of Education*, Washington, D.C., Government Printing Office, 1917.
439. Feldman, Marvin J., *Making Education Relevant*, New York, New York, Ford Foundation, Office of Reports, 1966.
440. Fisher, A. G. B., "Education and Relative Wage Rates," *International Labor Review*, June 1932.
441. Folley, J. D., *A Preliminary Procedure for Systematically Designing Performance Aids*, Dayton, Ohio, Wright-Patterson Air Force Base, October 1961.

442. Fraser, Dorothy M., *Deciding What To Teach*, Washington, D.C., National Education Association, 1963.
443. Gagne, Robert, *Teaching Machines and Programmed Instruction*, Washington, D.C., Department of Audio-Visual Instruction, NEA, 1965.
444. Gerry, R., *Mathetics: A Behavior-Orienter Approach to Learning*, Lackland, Texas, Lackland U.S. Air Force Base, April 1963.
445. Glick, P. C. and Miller, H. P., "Educational Level and Potential Income," *American Sociological Review*, XXI, June 1956.
446. Hanock, Giora, "An Economic Analysis of Earnings and Schooling," *Journal of Human Resources*, Summer 1967.
447. Harris, Norman C., *Technical Education in the Junior College/New Programs for New Jobs*, Washington, D.C., American Association of Junior Colleges, 1964.
448. Hirsch, Werner Z.; Sedghorst, Elbert W.; and Marcus, Morton J., *Spillover of Public Education Costs and Benefits*, Los Angeles, California, Institute of Government and Public Affairs, University of California, 1964.
449. Hirsch, Werner Z. and Sedghorst, Elbert W., "Incremental Income Benefits of Public Education," *Review of Economics and Statistics*, November 1965.
450. Houthakker, H. S., "Education and Income," *Review of Economics and Statistics*, XLI, February 1959.
451. Institute for Communication Research, *New Teaching Aids for the American Classroom*, Menlo Park, California, Institute for Communication Research, Stanford University, 1960.
452. Kaufman, Jacob J.; Schaefer, Carl J.; Lewis, Morgan V.; Stevens, David W.; and House, Elaine W., *The Role of the Secondary Schools in Preparation of Youth for Employment*, University Park, Pennsylvania, The Institute for Research on Human Resources, Pennsylvania State University, 1967.
453. Lassiter, Roger L., "The Association of Income and Education for Males by Region, Race and Age," *The Southern Economic Journal*, July 1965.
454. Lumsdaine, A. A. and Glaser, Robert, *Teaching Machines and Programmed Learning, A Source Book*, Washington, D.C., National Education Association, 1960.

455. McKechnie, Graeme H., "Retraining and Geographic Mobility: An Evaluation," *IRRI Report*, Madison, Wisconsin, University of Wisconsin, 1966.
456. McKechnie, Graeme H., *The Older Worker and Retraining - A Survey of MDTA Experience*, Madison, Wisconsin, University of Wisconsin, Center for Studies in Vocational and Technical Education, 1966.
457. Mager, Robert F., *Preparing Instructional Objectives*, Palo Alto, California, Fearon Publishers, Inc., 1962.
458. Melching, W. H. and Ammerman, H. L., *The Derivation, Analysis, and Classification of Instructional Objectives*, Technical Report 66-4, Washington, D.C., The George Washington University, 1966.
459. Miller, Donald R., *Design Considerations for the Instructional Program of Operation PEP*, Burlingame, California, OPERATION PEP, 1967.
460. Mincer, J., "Investment in Human Capital and Personal Distribution of Income," *Journal of Political Economy*, LXVI, August 1958.
461. Morgan, J. and David, M., "Education and Income," *Quarterly Journal of Economics*, LXXVII, August 1963.
462. National Commission of Technology, Automation and Economic Progress, "Educational Implications of Technological Change," *Technology and the American Economy*, Washington, D.C., 1966.
463. Neff, Kenneth L., *Education and the Development of Human Technology*, Washington, D.C., U.S. Government Printing Office, 1962.
464. Nelson, Richard R. and Phelps, Edmund S., "Investment in Humans, Technological Diffusion and Economic Growth," *American Economic Review*, May 1966.
465. Oklahoma State Board for Vocational Education, *Area Vocational Schools: A New Program Concept for Oklahoma*, Stillwater, Oklahoma, Division of Vocational Education, 1965.
466. Operation PEP, *A Managers Guide to Objectives*, Burlingame, California, 1968.
467. Operation PEP, *Considerations in Developing a Hierarchy of Educational Objectives*, Burlingame, California, 1968.

468. Pejovich, Svetozar and Sullivan, William, *The Role of the Technical School in Improving the Skills & Earning Capacity of Rural Manpower: A Case Study*, Winona, Minnesota, St. Mary's College, 1966.
469. Quirk, Cathleen, *Research in Vocational and Technical Education: Proceedings of a Conference*, Madison, Wisconsin, University of Wisconsin, Center for Studies in Vocational and Technical Education, 1967.
470. Quirolgico, Delfin Gallardo, *Implications of the National Economic Goals of the Phillippines for Vocational Education*, Menlo Park, California, Stanford University, 1962.
471. Reder, M. W., "The Theory of Occupational Wage Differentials," *American Economic Review*, December 1955.
472. Schreiber, Daniel, *Holding Power/Large City School Systems*, Washington, D.C., National Education Association, 1964.
473. Schreiber, Daniel; Kaplan, Bernard A.; and Strom, Robert D., *Dropout Studies, Design and Conduct*, Washington, D.C., National Education Association, 1965.
474. Smolensky, Eugene, "Investment in the Education of the Poor: A Pessimistic Report," *American Economic Review*, Vol. 56, May 1966.
475. Soltow, L., "The Distribution of Income Related to Changes in The Distribution of Education, Age and Occupation," *Review of Economics and Statistics*, XLII, November 1960.
476. Somers, Geraod G. (ed.), *Retraining the Unemployed*, Madison, Wisconsin, University of Wisconsin Press, 1968.
477. Sorkin, A. L., "Occupational Earnings and Education," *Monthly Labor Review*, April 1968.
478. State of Connecticut, *Assessment Guidelines for Programs Under the Vocational Act of 1963*, Hartford, Connecticut, Division of Vocational Education, 1967.
479. Swift, W. J. and Weisbrod, B. A., "On the Monetary Value of Education's Inter-Generation Effects," *Journal of Political Economy*, December 1965.
480. Task Force on Economic Growth and Opportunity, *The Disadvantaged Poor: Education and Employment*, Washington, D.C., Chamber of Commerce of the United States, 1966.

481. U.S. Department of Health, Education and Welfare, *Education and Training Expanding the Choices*, Washington, D.C., 1967.
482. U.S. Department of Health, Education and Welfare, Office of Education, *Education for a Changing World of Work, Report of the Panel of Consultants on Vocational Education*, Washington, D.C., 1964.
483. U.S. Department of Labor, Women's Bureau, *Why Continuing Education Programs for Women?* Washington, D.C., 1964.
484. Weisbrod, B. A., *External Benefits of Public Education: An Economic Analysis*, Princeton, New Jersey, Princeton University Press, 1964.
485. White, Harry Robert, *Possible Effects of Selected Educational Policies and Programs on the Income Size and Distribution in the Industrial Sector of Peru*, Menlo Park, California, Stanford University, 1965.
486. Williams, B. R. "Capacity and Output of Universities," *The Manchester School*, May 1963.

GENERAL

487. Chapanis, A., "Man-Machine Engineering," *Behavioral Science in Industry Series*, Belmont, California, Wadsworth Publishing Co., Inc., 1965.
488. Comptroller General's Report to the Joint Economic Committee, *Survey of Use by Federal Agencies of the Discounting Technique in Evaluating Future Programs*, Washington, D.C., General Accounting Office, 1968.
489. Cook, J. S.; Morgan, C. T.; Chapanis, A.; and Lund, M. W., *Human Engineering Guide to Equipment Design*, New York, New York, McGraw-Hill Book Company, 1963.
490. Dei Rossi, J. S., *Concepts of Cost in Program Budgeting*, Santa Monica, California, The Rand Corporation, 1968.
491. Greenhouse, Samuel M., "A 'Distributed Output' Concept for the Planning-Programming-Budgeting System," *Personnel Administration*, Vol. 30, July-August 1967.
492. Gross, Bertram M., "What are Your Organization's Objectives? A General-Systems Approach to Planning," *Human Relations*, Vol. 18, No. 3, 1965.

493. Marglin, Stephen A., "The Opportunity Costs of Public Investment," *Quarterly Journal of Economics*, Vol. 77, May 1963.
494. Odiorne, George, *Management by Objectives*, London, England, Pitman and Sons, Inc., 1966.
495. Operations Research, Inc., *SBA Goals and Objectives in the Context of Program Budgeting and Analysis*, Silver Springs, Maryland, 1966.
496. Smith, R. G., Jr., *The Development of Training Objectives*, Bulletin 11, Washington, D.C., George Washington University, 1964.
497. State-Local Finances Project, *Planning-Programming-Budgeting for City, State, County Objectives*, PPB Note 7: Output Measures for a Multi-Year Program and Financial Plan, Washington, D.C., George Washington University, 1967.
498. Steiner, Peter O., "The Role of Alternative Cost in Project Design and Selection," *Quarterly Journal of Economics*, August 1966.
499. Stevens, Joe B., "Recreation Benefits from Water Pollution Control," *Water Resources Research*, Second Quarter, 1966.
500. Turvey, Ralph, "On Divergences between Social Cost and Private Cost," *Economica*, August 1963.
501. U.S. Public Health Service, *Economic Benefits from Public Health Services; Objectives, Benefits, and Examples of Measurement*, Washington, D.C., 1964.
502. Woollatt, L. H., *The Cost-Quality Relationship on the Growing Edge*, New York, New York, Columbia University Press, 1949.

ANALYSIS OF ALTERNATIVES

EDUCATION

503. Abt Associates, Inc., *The Community Submodel*, Cambridge, Massachusetts, 1968.
504. Abt Associates, Inc., *The Cost Submodel*, Cambridge, Massachusetts, 1968.
505. Abt Associates, Inc., *Design and Elementary and Secondary Education Cost-Effectiveness Model, Volume I, Model Description*, Cambridge, Massachusetts, 1968.
506. Abt Associates, Inc., *Design and Elementary and Secondary Education Cost-Effectiveness Model, Volume II, User's Guide*, Cambridge, Massachusetts, 1968.
507. Abt Associates, Inc., *The Effectiveness Submodel*, Cambridge, Massachusetts, 1968.
508. Abt Associates, Inc., *The Instructional Process Submodel*, Cambridge, Massachusetts, 1968.
509. Abt Associates, Inc., *An Overview of the Cost-Effectiveness Model and Sub-Models for the Evaluation of Title I ESEA Proposals*, Cambridge, Massachusetts, 1968.
510. Abt Associates, Inc., *The School Submodel*, Cambridge, Massachusetts, 1968.
511. Abt Associates, Inc., *The Simulation*, Cambridge, Massachusetts, 1968.
512. Anderson, Ernest Francis, *Differential Costs of Curricula in Comprehensive Junior Colleges*, Urbana, Illinois, University of Illinois, 1966.
513. Angell, D.; Shearer, J. W.; and Berlinger, D. C., *Study of Training Performance Evaluation Techniques*, Port Washington, New York, Naval Training Device Center, 1964.
514. Armstrong, Charles, *Decision Making in the Public Schools*, Burlingame, California, OPERATION PEP, 1968.

515. Backman, Frank P., "Attaining Efficiency in City School Systems," *The Annals*, American Academy of Political and Social Science, 1912.
516. Bateman, Worth, "An Application of Cost-Benefit Analysis to the Work-Experience Program," *American Economic Review*, May 1967.
517. Benson, C. S., "Teaching Methods and Their Costs: Productivity of Educational Systems," *International Social Science Journal*, XIV, Winter 1962.
518. Blaug, M., "The Rate of Return on Investment in Education in Great Britain," *The Manchester School*, September 1965.
519. Borus, Michael Eliot, *The Economic Effectiveness of Retraining the Unemployed: A Study of the Benefits and Costs of Retraining the Unemployed Based on the Experience of Workers in Connecticut*, Boston, Massachusetts, Federal Reserve Bank of Boston, 1966.
520. Borus, Michael E., "The Cost of Retraining the Hard-Core Unemployed," *Labor Law Journal*, September 1965.
521. Borus, Michael E., "A Benefit-Cost Analysis of the Economic Effectiveness of Retraining the Unemployed," *Yale Economic Essays*, Vol. 4, Fall 1964.
522. Cain, Glen C., *Benefit/Cost Estimates for Job Corps*, Madison, Wisconsin, University of Wisconsin, Institute for Research on Poverty, 1967.
523. Calkins, R. N., *The Unit-Costs of Programmers in Higher Education*, New York, New York, Columbia University, 1963.
524. Carnoy, M., *The Cost and Return to Schooling in Mexico: A Case Study*, Chicago, Illinois, University of Chicago, 1964.
525. Carroll, Adger B. and Ihnen, Loren A., *Costs and Returns for Investments in Technical Schooling by a Group of North Carolina High School Graduates*, Raleigh, North Carolina, North Carolina State University, 1967.
526. Chenzoff, A. P. and Folley, J. D., Jr., *Guidelines for Training Situation Analysis, (TSA)*, Port Washington, New York, Naval Training Device Center, 1965.
527. Corazzini, A. J., *Vocational Education, A Study of Benefits and Costs (A Case Study of Worcester, Massachusetts)*, Princeton, New Jersey, Princeton University, 1966.

528. Correa, H., "Optimum Choice Between General and Vocational Education," *Kyklos*, XVIII, No. 1, March 1965.
529. Corrigan, R. E., "System Cost/Effectiveness Criteria or Selecting the Proper Resources and Plans to Achieve Stated Mission Objectives," *Operation PEP Training Program*, Burlingame, California, OPERATION PEP, 1966-1967.
530. Corrigan, R. E.; Corrigan, Betty O.; and Kaufman, R. A., "Task Analysis," *Operation PEP Training Program*, Burlingame, California, OPERATION PEP, 1966-1967.
531. Corrigan, R. E. and Kaufman, R. A., "Performing a Methods-Media Trade-Off," *Operation PEP Training Program*, Burlingame, California, OPERATION PEP, 1966-1967.
532. Corrigan, Robert E.; Corrigan, Betty O.; and Kaufman, Roger A., *Systematic Approach to Educational Problem Solving*, Burlingame, California, OPERATION PEP, 1967.
533. Davie, Bruce F., *Using Benefit-Cost in Planning and Evaluating Vocational Education*, Washington, D.C., U.S. Office of Education, 1965.
534. Duncan, Merlin George, *Instructional Unit Costs in Selected Central America Universities*, East Lansing, Michigan, Michigan State University, 1964.
535. Eckaus, R. S., "Economic Criteria for Education and Training," *Review of Economics and Statistics*, Vol. 46, May 1964.
536. Eninger, Max U., *The Process and Product of T & I High School Level Vocational Education in the United States*, Volume I & II, Pittsburgh, Pennsylvania, American Institutes for Research, 1965.
537. Gorby, J. T.; Van Albert, C. E.; Jeantheau, G. G.; and Parrish, J. A., *Training Analysis Procedure (TAP), Vol. I: Theoretical Development*, Port Washington, New York, Dunlap and Associates, Inc., January 1964.
538. Gorby, J. T.; Van Albert, C. E.; and Jeantheau, G. G., *Training Analysis Procedure (TAP), Vol. II: Handbook for Application*, Port Washington, New York, Dunlap and Associates, Inc., January 1964.
539. Gorham, William, "Allocating Federal Resources Among Competing Social Needs," *Health, Education and Welfare Indicators*, August 1966.

540. Gorham, William, *Sharpening the Knife that Cuts the Public Pie*, Washington, D.C., Department of Health, Education and Welfare, 1967.
541. Hansen, W. L. (ed.), "Symposium on Rates of Return to Investment in Education," *Journal of Human Resources*, Summer 1967.
542. Hansen, W. L., "Total and Private Rates of Return to Investment in Schooling," *Journal of Political Economy*, LXXI, April 1963.
543. Hartley, Harry J., *Program Budgeting and Cost-Effectiveness in Local Schools*, Paris, France, Organization for Economic Cooperation and Development, 1968.
544. Hirsch, W. Z. and Marcus, M. J., "Some Benefit-Cost Considerations of Universal Junior College Education," *National Tax Journal*, March 1966.
545. Hunt, S. J., "Income Determinants for College Graduates and the Return to Educational Investment," *Yale Economic Essays*, Fall 1963.
546. Intriligator, Michael D. and Smith, Bruce L. R., "Some Aspects of the Allocation of Scientific Effort Between Teaching and Research," *American Economic Review*, Vol. 56, May 1966.
547. Kaufman, Jacob J., et al., *An Analysis of Comparative Costs and Benefits of Vocational Versus Academic Education in Secondary Schools*, University Park, Pennsylvania, IRHR, Pennsylvania State University, 1964.
548. Kaufman, Roger A.; Goodwin, Donald L.; Corrigan, Betty O.; Corrigan, Robert E.; and Levin, Simon, *Functional Analysis in Education*, Burlingame, California, OPERATION PEP, 1967.
549. Kaufman, Roger; Goodwin, Donald L.; Corrigan, Betty O.; and Corrigan, Robert E., *Methods-Means Analysis in Education*, Burlingame, California, OPERATION PEP, 1967.
550. Kaufman, Roger A.; Goodwin, Donald L.; Corrigan, Betty O.; and Corrigan, Robert E., *Mission Analysis in Education*, Burlingame, California, OPERATION PEP, 1967.
551. Kaufman, Roger A. and Corrigan, Robert E., *Interim Generic Problem-Solving Model*, Burlingame, California, OPERATION PEP, 1966.

552. Kaufman, Roger A.; Goodwin, Donald L.; Corrigan, Betty O.; and Corrigan, Robert E., *Task Analysis in Education*, Burlingame, California, OPERATION PEP, 1967.
553. Kershaw, J. A. and McKean, R. N., "How to Make School Decisions," *School Management*, May 1960.
554. Klinov-Malul, R., *Profitability of Investment in Education*, Jerusalem, Israel, FPERI, 1961.
555. Kotz, Arnold, *Occupational Education: Planning and Programming*, Volumes I and II, Menlo Park, California, Stanford Research Institute, 1967.
556. Krebs, L. T., et al., "Are You Ready to SPLAN and CRAM?" *Nation's Schools*, Vol. 80, October 1967.
557. Levine, Abraham S., "Cost-Benefit Analysis of the Work Experience Program," *Welfare in Review*, August-September 1966.
558. Mangum, Garth L., *Contributions and Costs of Manpower Development and Training*, Ann Arbor, Michigan, University of Michigan, 1967.
559. Merrett, Stephen, "The Rate of Return to Education: A Critique," *Oxford Economic Papers*, November 1966.
560. Michigan State University, School of Labor and Industrial Relations, "The Economic Advantages of Retraining," *Occupational Outlook Quarterly*, Washington, D.C., U.S. Department of Labor, 1965.
561. Miller, H. P., "Income and Education: Does Education Pay Off?" Washington, D.C., *Economics of Higher Education*, ed., Mushkin, S. J., 1962.
562. Mincer, Jacob, "On-the-Job Training: Costs, Returns, and Some Implications," *Journal of Political Economy*, LXX, October 1962.
563. Mood, A. M. and Powers, R., *Cost-Benefit Analysis of Education*, Washington, D.C., National Center for Educational Statistics, 1967.
564. Mood, Alexander M., "Operations Analysis of American Education," Paper delivered at the 1966 annual meeting of the American Political Science Association, Washington, D.C., American Political Science Association, 1966.

565. National Education Association Committee on Educational Finance, *Does Better Education Cost More?* Washington, D.C., 1966.
566. O'Brien, R. J., *Cost Model for Large Urban Schools*, Washington, D.C., National Center for Educational Statistics, 1967.
567. Odiorne, George S., "The Need for an Economic Approach to Training, A Case for Capital Budgeting for Investment in Human Capital," *Training Directors' Journal*, Vol. 18, No. 3, March, 1964.
568. Ohio Education Association, *Achieving Equality of Educational Opportunity*, Columbus, Ohio, 1966.
569. Okigbo, P. N. C., *Criteria for Public Expenditure on Education*, London, England, Macmillan Company, 1966.
570. Organization for Economic Cooperation and Development, *Budgeting, Programme Analysis and Cost-Effectiveness in Educational Planning*, Washington, D.C., OECD Publications Center, 1968.
571. Page, David A., *Retraining Under the Manpower Development Act: A Cost-Benefit Analysis*, Washington, D.C., The Brookings Institution, 1964.
572. Pejovich, S. and Sullivan, W., *The Role of Technical Schools in Improving the Skills and Earning Capacity of Rural Manpower*, Washington, D.C., U.S. Office of Manpower Policy, Evaluation, and Research, 1966.
573. Persons, E. A.; Swanson, G. I.; Kittleson, H. M.; and Leske, G. W., *Investments in Education for Farmers*, St. Paul, Minnesota, University of Minnesota, 1968.
574. Rapp, M. L., *Considerations in Evaluating Innovative Educational Programs*, Santa Monica, California, The Rand Corporation, 1968.
575. Rapp, M. L., *Testing in Support of Program Budgeting*, Santa Monica, California, The Rand Corporation, 1968.
576. Reed, Russell Lloyd, *Cost Analysis of Collegiate Instruction and Research Principles, Uses and Procedures - Discussed and Illustrated*, New York, New York, Columbia University, 1964.
577. Renshaw, E. F., "Estimating the Returns to Education," *Review of Economics and Statistics*, XLII, August 1960.

2

578. Schultz, T. W., "The Rate of Return in Allocating Investment Resources to Education," *Journal of Human Resources*, Summer 1967.
579. Sherwood, Robert Petersen, *Cost Implications of Specific State Legislative Requirements: An Application of Program Budgeting to Selected California Unified School Districts*, Berkeley, California, University of California, 1965.
580. Smith, A. D., "Active Manpower and Redundancy Policies: Their Costs and Benefits," *International Labour Review*, January-February 1967.
581. Somers, G. G., *Retraining: An Evaluation of Gains and Costs*, Berkeley and Los Angeles, California, California University Press, 1965.
582. Somers, G. G. and Stromsdorfer, Ernst W., *A Benefit-Cost Analysis of Manpower Retraining*, Madison, Wisconsin, University of Wisconsin, 1964.
583. Swanson, John; Arden, Wesley; and Stil, Homer, *Financial Analysis of Current Operations of College and Universities*, Ann Arbor, Michigan, Institute of Public Administration, The University of Michigan, 1966.
584. Taussig, M. K., "An Economic Analysis of Vocational Education in the New York City High Schools," *Supplement, Journal of Human Resources*, Vol. 3, 1968.
585. U.S. Department of Health, Education, and Welfare, *Program Analysis*, Washington, D.C., 1966.
586. U.S. Department of Veterans Benefits, *Systematic Program Analysis*, Washington, D.C., 1966.
587. Weisbrod, Burton A., "Conceptual Issues in Evaluating Training Programs," *Monthly Labor Review*, October 1966.
588. Williams, R. L., "The Cost of Educating One College Student," *Educational Record*, October 1961.
589. Wiseman, J., "Cost Benefit Analysis in Education," *Southern Economic Journal*, July 1965.

GENERAL

590. Aharoni, Yair, *The Foreign Investment Decision Process*, Boston, Massachusetts, Graduate School of Business Administration, Harvard University, 1966.

591. American Association of State Highway Officials, Committee on Planning and Design Policies, *Road User Benefit Analysis for Highway Improvements; A Report*, Washington, D.C., 1960.
592. *American Economic Review*, "Defense Economics: Applying Economic Criteria," Vol. 55, May 1965.
593. Arrow, Kenneth J., "Criteria for Social Investment," *Water Resources Research*, First Quarter, 1965.
594. Bain, James, *System Decision-Making*, Columbus, Ohio, Ohio State University, Research Foundation, 1968.
595. Bain, Joe S., "Criteria for Undertaking Water-Resource Developments," *American Economic Review*, May 1960.
596. Baumol, William J., "On the Social Rate of Discount," *The American Economic Review*, September 1968.
597. Bell, Chauncey F., *Cost-Effectiveness Analysis as a Management Tool*, Santa Monica, California, Rand Corporation, 1964.
598. Berkeley, George, "Municipal Garages in Boston: A Cost-Benefit Analysis," *Traffic Quarterly*, April 1965.
599. Berman, E. B., *The Normative Interest Rate*, Santa Monica, California, The Rand Corporation, 1959.
600. Bierman, Harold, Jr. and Smidt, Seymour, *The Capital Budgeting Decision*, New York, New York, The Macmillan Company, 1960.
601. Bowman, Richard C., "Analysis in War Planning," *Air University Review*, March-April 1966.
602. Bramhall, David F. and Mills, Edwin S., "Alternative Methods of Improving Stream Quality," *Water Resources Research*, Vol. 2, Third Quarter, 1966.
603. Brocks, David B., "Strip Mine Reclamation and Economic Analysis," *Natural Resources Journal*, Vol. 6, January 1966.
604. Brunner, E. D., *The Cost of Basic Research Effort: Air Force Experience, 1954-1964*, Santa Monica, California, The Rand Corporation, 1965.
605. Byrk, Oliver, *Models in Cost-Effectiveness Analysis: An Example*, McLean, Virginia, Research Analysis Corporation, 1965.

606. Burns, Leland S., *Cost-Benefit Analysis of Improved Housing: A Case Study*, Los Angeles, California, University of California, 1965.
607. Capron, William M., "The Potential Role of Cost Effectiveness Analysis for Evaluation of Government Domestic Programs," Address. . .before the Symposium on Cost Effectiveness Analysis, Institute for Defense Analyses, Washington, D.C., June 15, 1965.
608. Carey, William D., "Decisions on Research and Development: Viewpoint from the Bureau of the Budget," Denver, Colorado, Denver Research Institute, University of Denver, 1966.
609. Coase, R. H., "The Problem of Social Cost," *Journal of Law and Economics*, Vol. 3, October 1960.
610. Conference on Public Expenditure Decisions in the Urban Community, *Public Expenditure Decisions in the Urban Community*, Baltimore, Maryland, Johns Hopkins Press, 1963.
611. Crumlish, Joseph D., "Notes on the State-of-the-Art of Benefit-Cost Analysis as Related to Transportation Systems," Washington, D.C., U.S. Printing Office, 1966.
612. Crutchfield, James A., "Valuation of Fishery Resources," *Land Economics*, Vol. 38, May 1962.
613. Davis, Otto A. and Whinston, Andrew B., "Some Notes on Equating Private and Social Cost," *Southern Economic Journal*, October 1965.
614. Davis, Otto A. and Whinston, Andrew B., "Welfare Economics and The Theory of Second Best," *Review of Economic Studies*, January 1965.
615. Dearden, John, *Cost and Budget Analysis*, Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1962.
616. Dei Rossi, J. A., *Cost Analysis for Program Budgeting*, Santa Monica, California, The Rand Corporation, 1968.
617. Devine, E. J., "Treatment of Incommensurables in Cost Benefit Accounting," *Land Economics*, August 1966.
618. Diehle, William D., "Farm-Non Farm Migration in the Southeast: A Costs>Returns Analysis," *Journal of Farm Economics*, February 1966.
619. Domar, E. D., "On the Measurement of Technological Change," *Economic Journal*, December 1961.

620. Dorfman, Robert (ed.), *Measuring the Benefits of Government Investments*, Washington, D.C., Brookings Institution, 1965.
621. Dunn, Robert M., "A Problem of Bias in Benefit-Cost Analysis: Consumer Surplus Reconsidered," *Southern Economic Journal*, Vol. 33, January 1967.
622. Eckstein, O., *A Survey of the Theory of Public Expenditure Criteria*, Princeton, New Jersey, Princeton University Press, 1961.
623. Eckstein, Otto, *Water-Resources Development - The Economics of Project Evaluation*, Cambridge, Massachusetts, Harvard University Press, 1961.
624. English, J. M. and Haase, R. H., *Economic Selection of Alternative Risk Investments*, Santa Monica, California, The Rand Corporation, 1964.
625. Feldstein, Martin S., "Economic Analysis, Operational Research and the National Health Service," *Oxford Economic Papers*, March 1963.
626. Feldstein, Martin S., "Opportunity Cost Calculations in Cost-Benefit Analysis," *Public Finance*, Vol. 19, No. 2, 1964.
627. Feldstein, Martin S., "The Social Time Preference Discount Rate in Cost-Benefit Analysis," *Economic Journal*, Vol. 74, June 1964.
628. Ferguson, Allen R. et al., *The Economic Value of the United States Merchant Marine*, Evanston, Illinois, Transportation Center, Northwestern University, 1961.
629. Fields, David S., "Cost/Effectiveness Analysis: Its Tasks and Their Interrelation," *Operations Research*, Vol. 14, May-June 1966.
630. Fisher, G. H., *A Discussion on Uncertainty in Cost Analysis*, Santa Monica, California, The Rand Corporation, 1962.
631. Fisher, G. H., *The Role of Cost-Utility Analysis in Program Budgeting*, Santa Monica, California, The Rand Corporation, 1964.
632. Fisher, G. H., *What is Resource Analysis?* Santa Monica, California, The Rand Corporation, 1963.

633. Foley, Duncan K., "Resource Allocation and the Public Sector," *Yale Economic Essays*, Vol. 7, Spring 1967.
634. Foster, C. D. and Beesley, M. E., "Estimating the Social Benefits of Constructing an Underground Railway in London," *Royal Statistical Society Journal*, Series A, Part 1, 1963.
635. Fox, Peter D., "A Theory of Cost-Effectiveness Analysis for Military Systems Analysis," *Operations Research*, March-April, 1965.
636. Fox, Irving K. and Herfindahl, Orris C., "Attainment of Efficiency in Satisfying Demands for Water Resources," *American Economic Review*, Vol. 54, May 1964.
637. Friedlaender, Ann F., *The Interstate Highway System, A Study in Public Investment*, Amsterdam, Netherlands, North-Holland Publishing Company, 1965.
638. Fromm, Gary, *Economic Criteria for Federal Aviation Agency Expenditures*, Cambridge, Massachusetts, United Research, Inc., 1962.
639. Gallaway, Lowell E., "An Economic Analysis of Public Policy for Depressed Areas," *Industrial and Labor Relations Review*, Vol. 15, July 1962.
640. Gertel, Carl, "Recent suggestions for Cost Allocation of Multiple-Purpose Projects in the Light of Public Interest," *Journal of Farm Economics*, Vol. 45, November 1963.
641. Goldman, Thomas A., (ed.), *Cost-Effectiveness Analysis: New Approaches in Decision-Making*, New York, New York, Frederick A. Praeger, Inc., 1966.
642. Gramm, Warren S., "Water Resource Analysis: Private Investment Criteria and Social Priorities," *Journal of Farm Economics*, Vol. 45, November 1963.
643. Griliches, Zvi, "Research Costs and Social Returns: Hybrid Corn and Related Innovations," *Journal of Political Economy*, October 1958.
644. Grosse, Robert N., *An Introduction to Cost-Effectiveness Analysis*, McLean, Virginia, Research Analysis Corporation, 1965.
645. Grosse, Robert N., *Principles of Cost-Effectiveness Analysis*, Washington, D.C., U.S. Government Printing Office, 1966.

646. Grossfield, K. and Heath, J. B., "The Benefit and Cost of Government Support for Research and Development: A Case Study," *Economic Journal*, September 1966.
647. Haldi, John, *Issues of Analysis in Cost-Effectiveness Studies for Civilian Agencies of the Federal Government*, Washington, D.C., U.S. Bureau of the Budget, 1966.
648. Hammond, Richard J., *Benefit-Cost Analysis and Water Pollution Control*, Stanford, California, Food Research Institutes, Stanford University, 1960.
649. Hatry, H. P., *Criteria for Evaluation in Planning State and Local Programs*, Washington, D.C., U.S. Government Printing Office, 1967.
650. Haveman, Robert H., *Water Resource Investment and the Public Interest, an Analysis of Federal Expenditures in Ten Southern States*, Nashville, Tennessee, Vanderbilt University Press, 1965.
651. Heymont, I., *Guide for Reviewers of Studies Containing Cost-Effectiveness Analysis*, McLean, Virginia, Research Analysis Corporation, 1965.
652. Hill, Louis Allen, Jr., *Automated Optimum Cost Design of Multistory Buildings*, Cleveland, Ohio, Case Institute of Technology, 1965.
653. Hirshleifer, Jack, "Investment Decision Under Uncertainty: Applications of the State-Preference Approach," *Quarterly Journal of Economics*, May 1966.
654. Hirshleifer, Jack, "On the Theory of Optimal Investment Decisions," *Journal of Political Economy*, August 1958.
655. Hirshleifer, Jack, "Investment Decision Under Uncertainty: Choice-Theoretic Approach," *Quarterly Journal of Economics*, November 1965.
656. Hoch, Saul, *Cost Criteria in Weapons Systems Analysis and Force Studies*, Washington, D.C., U.S. Department of Defense, 1965.
657. Hoffman, Fred S., "The Economic Analysis of Defense: Choice Without Markets," *American Economic Review*, May 1959.
658. Howe, Charles W., "Methods for Equipment Selection and Benefit Evaluation in Inland Waterway Transportation," *Water Resources Research*, First Quarter, 1965.

659. Jacoby, Neil H., "Foreign Aid as a Problem of Resource Management: The Case of Free China," *California Management Review*, Fall 1966.
660. Jones, M. V., *System Cost Analysis: A Management Tool for Decision Making*, Bedford, Massachusetts, The MITRE Corporation, 1965.
661. Kantorovich, Leonid V., *The Best Use of Economic Resources*, Cambridge, Massachusetts, Harvard University Press, 1965.
662. Kelnhofer, Guy J., "Slum Clearance - Its Costs and Benefits," *Tennessee Planner*, Vol. 15, April 1955.
663. Kendrick, John W., "Summary and Evaluation of Recent Work in Measuring the Productivity of Federal Government Agencies," *Management Science*, Vol. 12, December 1965.
664. Klarman, Herbert E., "Syphilis Control Program," *Measuring Benefits of Government Investments*, ed. Dorfman, Robert, Washington, D.C., The Brookings Institution, 1965.
665. Krutilla, John V., "Criteria for Evaluating Regional Development Programs," *American Economic Review*, Vol. 45, May 1955.
666. Krutilla, John V. and Eckstein, Otto, *Multiple Purpose River Development; Studies in Applied Economic Analysis*, Baltimore, Maryland, Johns Hopkins Press, 1958.
667. Krutilla, John V., "Some Recent Developments in River Basin Planning and Evaluation," *Journal of Farm Economics*, December 1958.
668. Krutilla, John V., "Welfare Aspects of Benefit-Cost Analysis," *Journal of Political Economy*, Vol. 69, June 1961.
669. Kuh, E., "Measurement of Potential Output," *American Economic Review*, September 1966.
670. Kuh, E., *Measuring Productivity of Federal Government Organization*, Washington, D.C., Bureau of the Budget, 1962.
671. Levine, Abraham S., "Cost-Benefit Analysis and Social Welfare," *Welfare in Review*, February 1966.
672. Lichfield, Nathaniel, "Cost-Benefit Analysis in City Planning," *American Institute of Planners Journal*, November 1960.

673. Lichfield, Nathaniel, *Cost-Benefit Analysis in Urban Redevelopment*, Berkeley, California, University of California, Real Estate Research Program, 1962.
674. Lipetz, Ben-ami, *The Measurement of Efficiency of Scientific Research*, Carlisle, Massachusetts, Intermedia, Inc., 1965.
675. Lott, O. C., "Evaluating to Reduce Training Costs," *Training and Development Journal*, January 1967.
676. Lytton, H. D., "Recent Productivity Trends in the Federal Government," *Review of Economics and Statistics*, November 1959.
677. Mack, Ruth P., and Myers, Sumner, "Outdoor Recreation," *Measuring Benefits of Government Investments*, ed. Dorfman, Robert, Washington, D.C., The Brookings Institution, 1965.
678. Marglin, Stephen A., *Public Investment Criteria; Benefit-Cost Analysis for Planned Economic Growth*, Cambridge, Massachusetts, Massachusetts Institute of Technology Press, 1967.
679. Marglin, Stephen A., "The Social Rate of Discount and the Optimal Rate of Investment," *Quarterly Journal of Economics*, Vol. 77, February 1963.
680. Margolis, M. A., *Cost Analysis: Concepts and Methods Outline*, Santa Monica, California, The Rand Corporation, 1966.
681. Margolis, Julius, "The Economic Evaluation of Federal Water Resource Development," *American Economic Review*, Vol. 49, March 1959.
682. Margolis, Julius, "Secondary Benefits, External Economics, and the Justification of Public Investment," *Review of Economics and Statistics*, Vol. 39, August 1957.
683. Marshall, A. W., *Cost/Benefit Analysis in Health*, Santa Monica, California, The Rand Corporation, 1965.
684. Martin, Brian, *A Model for Evaluating Transportation Investments In Under-developed Countries*, Cambridge, Massachusetts, Harvard University Press, 1964.
685. Marts, M. E. and Sewell, W. R. D., "The Application of Benefit-Cost Analysis to Fish Preservation Expenditure: A Neglected Aspect of River Basin Investment Decisions," *Land Economics*, February 1959.

686. McCullough, J. D., *Cost Analysis for Planning-Programming-Budgeting Cost-Benefit Studies*, Santa Monica, California, The Rand Corporation, 1966.
687. McCullough, J. D., *Cost Effectiveness: Estimating Systems Costs*, Santa Monica, California, The Rand Corporation, 1965.
688. McKean, Roland N., "Cost-Benefit Analysis and British Defense Expenditures," *Public Expenditure: Appraisal and Control*, ed., Peacock, A. T. and Robertson, D. J., Edinburgh, Scotland, Oliver and Boyd, 1963.
689. McKean, Roland N., *Evaluating Alternative Expenditure Programs*, Princeton, New Jersey, Princeton University Press, 1961.
690. McKean, Roland N., *Operations Research and Government Budgets*, Santa Monica, California, The Rand Corporation, 1957.
691. Meek, Ronald L., "The Allocation of Expenditure in the Electrical Supply Industry: Some Methodological Problems," *Public Expenditures: Appraisal and Control*, ed., Peacock, Alan T. and Robertson, D. J., Edinburgh, Scotland, Oliver and Boyd, 1963.
692. Michelson, Irving and Tourin, Boris, "Comparative Method for Studying Costs of Air Pollution," *Public Health Reports*, Vol. 81, June 1966.
693. Mishan, E. J., "Criteria for Public Investment: Some Simplifying Suggestions," *Journal of Political Economy*, Vol. 75, April 1967.
694. Mohring, Herbert, "Urban Highway Investments," *Measuring Benefits of Government Investments*, ed., Dorfman, Robert, Washington, D.C., The Brookings Institute, 1965.
695. Mohring, Herbert and Harwitz, Mitchell, *Highway Benefits, an Analytical Framework*, Evanston, Illinois, Northwestern University Press, 1962.
696. National Research Council, Committee on Oceanography, *Economic Benefits from Oceanographic Research*, Washington, D.C., 1964.
697. Noah, J. W., *Identifying and Estimating R & D Costs*, Santa Monica, California, The Rand Corporation, 1962.

698. Noah, J. W., *Concepts and Techniques for Summarizing Defense System Costs*, Washington, D.C., Franklin Institute, 1965.
699. Nourse, Hugh O., "The Economics of Urban Renewal," *Land Economics*, Vol. 42, February 1966.
700. Novick, David, *Concepts of Cost for Use in Studies of Effectiveness*, Santa Monica, California, The Rand Corporation, 1957.
701. Novick, David, *Costing Tomorrow's Weapon Systems*, Santa Monica, California, The Rand Corporation, 1962.
702. Novick, David, *System and Total Force Cost Analysis*, Santa Monica, California, The Rand Corporation, 1961.
703. Ogden, Delbert C., "Economic Analysis of Air Pollution," *Land Economics*, Vol. 42, May 1966.
704. Operations Research, Incorporated, *Description and Evaluation of Current SBA Program Formulation and Control (PFC) System*, Silver Springs, Maryland, 1966.
705. Parsons, J. A., "Selected Techniques for Operations Research," *Factory*, July-August 1965.
706. Peacock, Alan T. and Robertson, D. J., *Public Expenditures: Appraisal and Control*, Edinburgh, Scotland, Oliver and Boyd, 1963.
707. Pincus, John A., *Progress in Measuring Work*, Washington, D.C., U.S. Bureau of the Budget, 1962.
708. Prest, A. R. and Turvey, Ralph, "Cost-Benefit Analysis: A Survey," *Economic Journal*, December 1965.
709. Quade, E. S., *Analysis for Military Decisions*, Santa Monica, California, The Rand Corporation, 1964.
710. Quade, E. S., *Cost-Effectiveness Analysis: An Introduction and Overview*, Santa Monica, California, The Rand Corporation, 1965.
711. Quade, E. S., *Systems Analysis Techniques for Planning-Programming-Budgeting*, Santa Monica, California, The Rand Corporation, March 1966.
712. Quiren, D. G., *The Capital Expenditure Decision*, Homewood, Illinois, Richard D. Irwin, Inc., 1967.

713. Renshaw, Edward F., "Atomic Power: Research Costs and Social Returns," *Land Economics*, August 1959.
714. Renshaw, Edward F., *Toward Responsible Government; an Economic Appraisal of Federal Investment in Water Resource Programs*, Chicago, Illinois, Idyia Press, 1957.
715. Richards, Allen B., "Some Economic Considerations of the Multiple Use of Forest Land," *Land Economics*, Vol. 34, August 1958.
716. Ridker, Ronald G., *Economic Costs of Air Pollution; Studies in Measurement*, New York, New York, Frederick A. Praeger, Inc., 1966.
717. Robinson, K. L., "Cost and Effectiveness in Recent Government Land Retirement Programs in the United States," *Journal of Farm Economics*, Vol. 48, February 1966.
718. Ross, William B., "A Proposed Methodology for Comparing Federally Assisted Housing Programs," *American Economic Review*, Vol. 57, May 1967.
719. Rothenberg, Jerome, "Urban Renewal Programs," *Measuring Benefits of Government Investments*, ed., Dorfman, Robert, Washington, D.C., The Brookings Institution, 1965.
720. Rothenberg, Jerome, *The Measurement of Social Welfare*, Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1961.
721. Rowen, Henry S., *Improving Decision-Making in Government*, Washington, D.C., U.S. Bureau of the Budget, 1965.
722. Schaff, A. H., "Public Policies in Urban Renewal: An Economic Analysis of Justifications and Effects," *Land Economics*, Vol. 40, February 1964.
723. Schere, Frederick M., "Government Research and Development Programs," *Measuring Benefits of Government Investment*, ed., Dorfman, Robert, Washington, D.C., The Brookings Institute, 1965.
724. Sewell, W. R. D., *et al.*, *Guide to Benefit-Cost Analysis*, Ottawa, Canada, R. Duhamel, Queen's Printer, 1965.
725. Sewell, W. R. D. and Marts, M. E., "The Nez Perce Dam and the Value of a Fishery," *Land Economics*, August 1961.
726. Smith, Bruce L. R., *The Concept of Scientific Choice*, Santa Monica, California, The Rand Corporation, 1966.

727. Smith, Stephen C. and Castle, Emery N. (eds.), *Economics and Public Policy in Water Resource Development*, Ames, Iowa, Iowa State University Press, 1964.
728. Smithies, Arthur, *Government Decision-Making and the Theory of Choice*, Santa Monica, California, The Rand Corporation, 1964.
729. Sobin, B., "Shadow Prices for Money in Government Expenditure Policy," Ann Arbor, Michigan, University Microfilms, 1967.
730. Sobin, B., *Some Interest Rate Aspects of Weapons Systems Investment Policy*, Arlington, Virginia, Institute for Defense Analysis, 1965.
731. Solo, R., "Critical Evaluation of the National Academy of Science's Cost-Benefit Analysis for Oceanographic Research," *Land Economics*, Vol. 42, November 1966.
732. State-Local Finances Project, *Planning-Programming-Budgeting for City, State, County Objectives*, PPB Note 6: *The Role and Nature of Cost Analysis in a PPB System*, Washington, D.C., George Washington University, 1967.
733. Steiner, Peter O., "Choosing Among Alternative Public Investments in the Water Resource Field," *American Economic Review*, December 1959.
734. Stone, P. A., "The Economics of Housing and Urban Development," *Royal Statistical Society Journal*, Series A, Part 4, 1959.
- * 735. Terleckyj, Nestor E., *Measurement of Output of Federal Government Programs*, Washington, D.C., U.S. Bureau of the Budget, 1965.
736. Timmons, John F., "Economic Framework for Watershed Development," *Journal of Farm Economics*, December 1954.
737. Trice, Andrew H. and Wood, Samuel E., "Measurement of Recreation Benefits," *Land Economics*, August 1958.
738. Turvey, Ralph, "Present Value Versus Internal Rate of Return--An Essay in the Theory of Third Best," *Economic Journal*, March 1963.
739. Turvey, Ralph, "On Investment Choices in Electricity Generation," *Oxford Economic Papers*, November 1963.

740. Tweeten, Luther G. and Tyner, Fred H., "The Utility Concept of Net Social Cost - A Criterion for Public Policy," *Agricultural Economics Research*, April 1966.
741. United Nations, *Cost-Benefit Analysis of Social Projects*, New York, New York, Research Institute for Social Development and Office of Social Affairs, 1966.
742. U.S. Bureau of the Budget, *Progress in Measuring Work*, Washington, D.C., 1962.
743. U.S. Bureau of the Budget, *Measuring Productivity of Federal Government Organizations*, Washington, D.C., 1964.
744. U.S. Bureau of the Budget, *Standards and Criteria for Formulating and Evaluating Federal Water Resources Development*, Washington, D.C., 1961.
745. U.S. Bureau of Public Roads, *Economic Analysis in Highway Programming, Location and Design; Proceedings*, Washington, D.C., 1960.
746. U.S. Bureau of Reclamation, *Report of Panel of Consultants on Secondary or Indirect Benefits of Water-Use Project*, Washington, D.C., 1952.
747. U.S. Congress, Joint Economic Committee, *Economy and Efficiency in Government Expenditures*, Washington, D.C., 1957.
748. U.S. Interagency Committee on Water Resources, *Proposed Practices for Economic Analysis of River Basin Projects*, Washington, D.C., 1959.
749. U.S. Outdoor Recreation Resources Review Commission, *Economic Studies of Outdoor Recreation*, Washington, D.C., 1962.
750. U.S. President's Water Resources Council, *Policies, Standards, and Procedures in the Formulation, Evaluation, and Review of Plans for Use and Development of Water and Related Land Resources*, Washington, D.C., 1962.
751. Ward, J. T., "Cost-Benefit Analysis," *Journal of Public Administration*, New Zealand, March 1967.
752. Weinberg, Alvin M., "Criteria for Scientific Choice," *Minerva*, Vol. 1, Winter 1963.
753. Weisbrod, Burton A., *Economics of Public Health; Measuring the Economic Impact of Diseases*, Philadelphia, Pennsylvania, University of Pennsylvania Press, 1961.

754. Western Agricultural Economics Research Council, *Water Resources and Economic Development of the West, Report No. 13: Economics of Water-Based Outdoor Recreation*, Berkeley, California, 1964.
755. Western Agricultural Economics Research Council, *Water Resources and Economic Development of the West, Report No. 3: Benefit-Cost Analysis*, Berkeley, California, 1954.
756. Whipple, William, "Economic Basis for Effluent Charges and Subsidies," *Water Resources Research*, First Quarter, 1966.
757. Whipple, William, "Economic Feasibility of Federal Power Projects," *Land Economics*, Vol. 38, August 1962.
758. Williams, Alan, "The Optimal Provision of Public Goods in a System of Local Government," *Journal of Political Economy*, Vol. 74, February 1966.
759. Wiseman, Jack, "Cost-Benefit Analysis and Health Service Policy," *Public Expenditure: Appraisal and Control*, ed. Peacock, Alan T. and Robertson, D. J., Edinburgh, Scotland, Oliver and Boyd, 1963.
760. Witheford, David K., *Investigation and Description of Benefit-Cost Analysis Procedures*, Pittsburgh, Pennsylvania, Pittsburgh Area Transportation Study, 1962.

EDUCATION AND ECONOMICS

EDUCATION

761. *American Economic Review*, "Economics of Education," May 1966.
762. Anderson, Charles Arnold and Bowman, Mary Jean, *Education and Economic Development*, Chicago, Illinois, Aldine Publishing Company, 1965.
763. Balogh, T., *Education and Economic Growth*, Paris, France, Organization for Economic Cooperation and Development-RF, 1964.
764. Becker, Gary S., *Human Capital: A Theoretical and Empirical Analysis*, New York, New York, Columbia University Press, 1964.
765. Benham, F., "Education and Economic Development in the Underdeveloped Countries," *International Affairs*, April 1959.
766. Benson, Charles S., *The Economics of Public Education*, Boston, Massachusetts, Houghton Mifflin Company, 1961.
767. Benson, Charles S., *Perspectives on the Economics of Education: Readings in School Finance and Business Management*, Boston, Massachusetts, Houghton Mifflin Company, 1963.
768. Benson, Charles S., "Economics and Education," *Review of Educational Research*, February 1967.
769. Benson, Charles S., *The School and the Economic System*, Chicago, Illinois, Science Research Associates, Inc., 1966.
770. Blaug, M., "An Economic Interpretation of the Demand for Education," *Economica*, May 1966.
771. Bowen, William G., *Economic Aspects of Education, Three Essays*, Princeton, New Jersey, Princeton University Press, 1964.

772. Bowman, Mary Jean, "Converging Concerns of Economists and Educator," *Comparative Education Review*, VI, October 1962.
773. Bowman, M. J., "Schultz, Denison, and the Contribution of 'Eds' to National Income Growth," *Journal of Political Economy*, LXXII, October 1964.
774. Bowman, Mary Jean, "Social Returns to Education," *International Social Science*, XIV, Winter 1962.
775. Caine, Sir Sydney, "Education as a Factor of Production," *Lloyds Bank Review*, No. 72, April 1964.
776. Campbell, Robert and Siegel, Barry N., "The Demand for Higher Education in the United States," *American Economic Review*, 1919-1964, June 1967.
777. Cartter, A. M., "Economics of the University," *American Economic Review*, May 1965.
778. Conley, Ronald W., *The Economics of Vocational Rehabilitation*, Baltimore, Maryland, The Johns Hopkins Press, 1965.
779. Correa, Hector, *The Economics of Human Resources*, Amsterdam, Netherlands, North Holland Publishing Company, 1963.
780. Daniere, Andre, *Higher Education on the American Economy*, New York, New York, Random House, Inc., 1964.
781. Debauvais, M., "The Concept of Human Capital," *International Social Science Journal*, XIV, Winter 1962.
782. DeHaven, James Charles, *Some Economic Features of Public Education*, Santa Monica, California, The Rand Corporation, 1959.
783. Denison, Edward F., "Education, Economic Growth and Gaps in Information," *Journal of Political Economy*, LXX, October 1962.
784. Eakaus, Richard S., "Education and Economic Growth," *The Economics of Higher Education*, ed., Mushkin, S. J., Washington, D.C., U.S. Department of Health, Education and Welfare, 1962.
785. Foster, Donald Murray, *Education as an Instrument of National Policy for Economic Development in the Republic of China*, Menlo Park, California, Stanford University, 1962.

786. Galenson, W. and Pyatt, G., *The Quality of Labour and Economic Development in Certain Countries*, Geneva, Switzerland, International Labor Organization, 1964.
787. Griliches, Z., "Research Expenditures, Education and the Aggregate Agricultural Production Function," *American Economic Review*, LIV, December 1964.
788. Groves, H. M., *Education and Economic Growth*, Washington, D.C., National Education Association, 1961.
789. Hall, Robert K. and Lauwerys, Joseph A., *Education and Economics*, New York, New York, World Book Company, 1956.
790. Harbison, F. and Myers, C. A., *Education, Manpower and Economic Growth: Strategies of Human Resources Development*, New York, New York, McGraw Hill Book Company, 1964.
791. Harris, S. E., *Economic Aspects of Higher Education*, Paris, France, Organization for Economic Cooperation and Development, 1964.
792. Harris, Seymour E., *The Economics of Higher Education*, New York, New York, Harper & Row, Inc., 1961.
793. Harris, S. E. (ed.), *Higher Education in the United States: The Economic Problems*, Cambridge, Massachusetts, Harvard University Press, 1960.
794. Hartley, Harry J., *Criteria for Selection of Economics Content in Educational Administration Preparation Programs*, Columbus, Ohio, Ohio State University, 1967.
795. Hirsch, W. Z., *Analysis of the Rising Costs of Public Education*, Washington, D.C., Joint Economic Committee, U.S. Congress, 1959.
796. Hirsch, W. Z., "Income Elasticity of Public Education," *International Economic Review*, September 1961.
797. Hoenack, S. A., *Private Demand for Higher Education in California*, Berkeley, California, University of California, 1968.
798. Innes, Jon T., *The Economic Returns to Education*, Eugene, Oregon, Center for Advanced Study in Educational Administration, University of Oregon, 1965.
799. *International Social Science Journal*, "Economics of Education," XIV, Winter 1962.

800. *Journal of Political Economy*, "Investment in Human Beings: Papers Presented," Vol. 70, October 1962.
801. Kraft, Richard (ed.), *Education and Economic Growth*, Tallahassee, Florida, Florida State University, 1963.
802. Machlup, Fritz, *The Production and Distribution of Knowledge*, Princeton, New Jersey, Princeton University Press, 1962.
803. Mackertich, Alex, *Education as a Factor in Economic Growth*, Madison, Wisconsin, University of Wisconsin, 1965.
804. McKie, J. W., "Education and the Southern Economy," *Southern Economic Journal*, July 1965.
805. Magelli, Paul John, *Economics of Higher Education: With Special Reference to Federal, State and Local Financing, and an Aggregate Model of its Economic Determinants*, Urbana, Illinois, University of Illinois, 1965.
806. Miller, H. P., "Lifetime Income and Economic Growth," *American Economic Review*, September 1965.
807. Miller, W. L., "The Economics of Education in English Classical Economics," *Southern Economic Journal*, June 1966.
808. Miner, Jerry, *Social and Economic Factors in Spending for Public Education*, Syracuse, New York, Syracuse University Press, 1962.
809. Ministry of Education, *Educational Development in Relation to Socio-Economic Growth: The 1962 White Paper on Education*, Tokyo, Japan, 1963.
810. Mushkin, Selma J., *Economics of Higher Education*, Washington, D.C., U.S. Government Printing Office, 1962.
811. Neff, Kenneth L., *National Development through Social Progress, The Role of Education*, Washington, D.C., U.S. Government Printing Office, 1963.
812. Organization for Economic Co-operation and Development, *The Residual Factor and Economic Growth*, Paris, France, 1965.
813. Riew, John, "Economics of Scale in High School Operations," *The Review of Economics and Statistics*, August 1966.
814. Robinson, E. A. G. and Vaizey, J. E., (eds.), *The Economics of Education*, Proceedings of a Conference Held by the

- International Economic Association, New York, New York, St. Martin's Press, 1966.
815. Schaeffer, H., "Investment in Human Capital: Comment," *American Economic Review*, December 1960.
816. Schultz, T. W., "Capital Formation by Education," *Journal of Political Economy*, December 1960.
817. Schultz, T. W., *The Economic Value of Education*, New York, New York, Columbia University Press, 1963.
818. Schultz, T. W., *Education and Economic Growth*, Chicago, Illinois, University of Chicago Press, 1961.
819. Schultz, T. W., "Investment in Human Capital," *American Economic Review*, LI, March 1961.
820. Schultz, T. W., "Reflections on Investment in Man," *Journal of Political Economy*, LXX, October 1962.
821. Strumilin, S. G., "The Economics of Education in the USSR," *International Social Science Journal*, XIV, Winter 1962.
822. Tinbergen, Jan; Bos, H. C.; et al., *Econometric Models of Education*, Paris, France, Organization for Economic Cooperation and Development, 1965.
823. Vaizey, J., *The Present State of the Economics of Education*, London, England, Faber & Faber, Inc., 1963.
824. Vaizey, J., *The Economics of Education*, London, England, Faber & Faber, Inc., 1962.
825. Vaizey, J., "Comparative Notes on Economic Growth and Social Change in Education," *Comparative Education Review*, June, 1961.
826. Venn, Grant, *Man, Education and Work*, Washington, D.C., American Council on Education, 1965.
827. Warmbrod, J. Robert, *Review and Synthesis of Research on the Economics of Vocational-Technical Education*, Columbus, Ohio, The Center for Vocational and Technical Education, 1968.
828. Weisbrod, B. A., "Education and Investment in Human Capital," *Journal of Political Economy*, LXX, October 1962.
829. Weisbrod, Burton A., "Investing in Human Capital," *Journal of Human Resources*, Summer 1966.

830. Wiseman, J., "The Economics of Education," *Scottish Journal of Political Economy*, VI, February 1959.
831. Woodhall, M. and Blaug, M., "Productivity Trends in British University Education," *Minerva*, Summer 1965.

GENERAL

832. *American Economic Review*, "Economics of Water-Resource Use," Vol. 57, May 1967.
833. Aukrust, O., "Investment and Economic Growth," *Productivity Measurement Review*, February 1959.
834. Baumol, William J., *Welfare Economics and The Theory of the State*, Cambridge, Massachusetts, Harvard University Press, 1965.
835. Bowen, William G., *Labor and the National Economy*, New York, New York, W. W. Norton and Company, 1965.
836. Brooks, Harvey, *Science and the Allocation of Resources*, Washington, D.C., American Political Science Association, 1966.
837. Buchanan, James M., "Positive Economics, Welfare Economics, and Political Economy," *Journal of Law and Economics*, Vol. 2, October 1959.
838. Chenery, Hollis B. and Strot, A. M., "Foreign Assistance and Economic Development," *American Economic Review*, September 1966.
839. Ciriacy-Wantrup, S. V., "Conservation and Resource Programming," *Land Economics*, Vol. 37, May 1961.
840. Clark, John J., *The New Economics of National Defense*, New York, New York, Random House, 1966.
841. Clawson, Marion, *Methods of Measuring the Demand for and Value of Outdoor Recreation*, Washington, D.C., Resources for the Future, 1959.
842. Cyert, R. M. and March, J. G., *A Behavioral Theory of the Firm*, Englewood Cliffs, New Jersey, Prentice-Hall Incorporated, 1963.
843. Daiute, Robert J., "Methods for Determination of Demand for Outdoor Recreation," *Land Economics*, Vol. 42, August 1966.

844. Davis, Otto A. and Whinston, Andrew B., *Economic Problems in Urban Renewal*, New York, New York, W. W. Norton and Company, 1965.
845. Davis, Otto A., "A Pure Theory of Urban Renewal," *Land Economics*, Vol. 36, May 1960.
846. Denison, E. F., *The Sources of Economic Growth in the United States and the Alternatives Before Us*, New York, New York, Houghton Mifflin Company, 1963.
847. Dorfman, Robert; Samuelson, Paul A.; and Solo, Robert M., *Linear Programming and Economic Analysis*, New York, New York, McGraw-Hill Book Company, 1958.
848. Enthoven, Alain C., *Economic Analysis in the Department of Defense*, Washington, D.C., U.S. Department of Defense, 1962.
849. Ferguson, C. E., *Microeconomic Theory*, Homewood, Illinois, Richard D. Irwin, Inc., 1966.
850. Griliches, Z., "The Sources of Measured Productivity Growth: United States Agriculture," *Journal of Political Economy*, August 1963.
851. Heilbroner, Robert, *Understanding Microeconomics*, Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1965.
852. Hirsch, Werner Z., "Cost Functions of an Urban Government Service: Refuse Collection," *Review of Economics and Statistics*, Vol. 47, February 1965.
853. Hitch, Charles J. and McKean, Roland N., *The Economics of Defense in the Nuclear Age*, Cambridge, Massachusetts, Harvard University Press, 1961.
854. Klarman, Herbert E., *The Economics of Health*, New York, New York, Columbia University Press, 1965.
855. Knetsch, Jack L., "Outdoor Recreation Demands and Benefits," *Land Economics*, Vol. 39, November 1963.
856. Leftwich, Richard, *The Price System and Resource Allocation*, New York, New York, Holt, Rinehart and Winston, Inc., 1962.
857. Linnenberg, Clem C., "Economics in Program Planning," *Public Health Reports*, Vol. 81, December 1967.

858. McKean, Roland N., *The Economics of Defense*, Santa Monica, California, The Rand Corporation, 1964.
859. Marshall, A., *The Principles of Economics*, London, England, MacMillan Company, 1961.
860. Mishan, E. J., *A Survey of Welfare Economics, 1939-1959*, New York, New York, St. Martin's Press, 1965.
861. Mushkin, Selma J. and Adams, Robert F., "Emerging Patterns of Federalism," *National Tax Journal*, September 1966.
862. Mushkin, Selma J., *State Programming and Economic Development*, Chicago, Illinois, Council of State Government, 1965.
863. Nelson, Richard R., "Aggregate Production Functions," *American Economic Review*, September 1964.
864. Nelson, Richard R., "The Simple Economics of Basic Scientific Research," *Journal of Political Economy*, June 1959.
865. Office of Technical Services, *Linear Programming*, Washington, D.C., U.S. Department of Commerce, 1963.
866. Ruttan, Vernon W., *The Economic Demand for Irrigated Acreage; New Methodology and Some Preliminary Project, 1954-1980*, Baltimore, Maryland, Published for Resources for the Future by the Johns Hopkins Press, 1965.
867. Samuelson, Paul, *Economics: An Introductory Analysis*, New York, New York, McGraw-Hill Book Company, 1967.
868. Sobin, B., "Shadow Prices for Money in Government Expenditure Policy," Ann Arbor, Michigan, University Microfilms, 1967.
869. Svernilson, I., *The Concept of Economic Growth*, London, England, Oxford University Press, 1963.
870. Theil, Henri; Boot, John; and Klock, Teur, *Operations Research and Quantitative Economics: An Elementary Introduction*, New York, New York, McGraw-Hill Book Company, 1965.
871. Tybout, Richard A., *Ohio State University Conference on Economics of Research and Development, Columbus, 1962*, Columbus, Ohio, Ohio State University Press, 1965.
872. Wolozin, Harold (ed.), *The Economics of Air Pollution, A Symposium*, New York, New York, W. W. Norton and Company, 1966.

BASIC DATA FOR PPBS

GENERAL

873. Armstrong, Charles, *Pupil Characteristics: The Materials of Human Resources Development*, Burlingame, California, OPERATION PEP, 1968.
874. Cogswell, J. F. and Marsh, D. G., *System Design for A Continuous School-Computer Simulation of Autonomous Scheduling Procedures*, Santa Monica, California, The Rand Corporation, 1966.
875. Goodlad, John, *Application of Electronic Data Processing Methods in Education*, Los Angeles, California, University of California, Department of Education, 1965.
876. Kaimann, R. A. and Markee, R. W., *Educational Data Processing: New Dimensions and Prospects*, New York, New York, Houghton Mifflin Company, 1967.
877. Lewis, S. G., *An Information System for a District School Administrator*, Bedford, Massachusetts, The MITRE Corporation, 1968.
878. March, G. B. (ed.), *Occupational Data Requirements for Educational Planning*, Madison, Wisconsin, University of Wisconsin, 1966.
879. New York State Education Department Quality Measurement Project, *Procedures in School Quality Evaluation and School Quality Workbook*, Albany, New York, New York State Education Department, 1959, 1961-1963.
880. Reason, Paul L. and White, Alpheus L., *Financial Accounting for Local and State School Systems*, Washington, D.C., U.S. Department of Health, Education and Welfare, 1957.
881. U.S. Department of Health, Education, and Welfare, *Health Education and Welfare Indicators*, Washington, D.C., periodical.
882. U.S. Department of Health, Education and Welfare, *State Education Records and Reports Series: Handbooks One through Eight*, Washington, D.C., 1959-1967.

883. U.S. Department of Labor, Bureau of Employment Security, *Guide to Local Occupational Information--United States Employment Service, State Employment Services*, Washington, D.C., 1966.
884. Welch, Finis, "Measurement of the Quality of Schooling," *American Economic Review*, Vol. 56, May 1966.
885. Wright, Robert Donald, *Computer Scheduling in Selected Secondary Schools in New Jersey*, Rutgers, New Jersey, The State University of Rutgers, 1965.

GENERAL

886. Bauer, Raymond A., *Social Indicators*, Cambridge, Massachusetts, Massachusetts Institute of Technology Press, 1966.
887. Borko, Harold, *Computer Applications in the Behavioral Sciences*, Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1962.
888. Burrows, J. H., *Information System Overview*, Bedford, Massachusetts, The MITRE Corporation, 1968.
889. Evans, J. A., *A Framework for the Evolutionary Development of an Executive Information System*, Bedford, Massachusetts, The MITRE Corporation, 1968.
890. Gross, Bertram M., "The State of the Nation: Social Systems Accounting," *Social Indicators*, ed., Bauer, Raymond, Cambridge, Massachusetts, Massachusetts Institute of Technology Press, 1966.
891. Hearle, Edward and Mason, Raymond, *A Data Processing System for State and Local Governments*, Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1963.
892. Kornfield, L. L. and O'Hara, J. F., "Designing a Management Information System," *Data Processing Digest*, August 1965.
893. Pardee, F. S., *The Financial Portion of a Management Information System*, Santa Monica, California, The Rand Corporation, 1961.
894. Rainbow Report, *Systems Data Presentation and Reporting Procedures*, Washington, D.C., Headquarter Air Force Systems Command, Andrew Air Force Base, 1962.

895. Southworth, Raymond W. and DeLeeuw, Samuel, *Digital Computation and Numerical Analysis*, New York, New York, McGraw-Hill Book Company, 1965.
896. State of Wisconsin, Department of Administration, *Data Processing in Wisconsin State Government: A Five Year Plan, 1967-1972*, Madison, Wisconsin, 1967.
897. Summers, J. K., *The State-of-the-Art in Information Handling*, Bedford, Massachusetts, The MITRE Corporation, 1968.

STATISTICAL ANALYSIS IN PPBS

EDUCATION

898. Edding, Friedrich, *Methods of Analyzing Educational Outlay*, New York, New York, UNESCO Publications Center, 1966.
899. Faluvergi, L., "The Planning of Budgetary Expenditure on Education on the Basis of a Mathematical Model - The Method Employed in Hungary," *Public Finance*, No. 1-2, 1966.
900. Hudman, John T. and Sabrowski, Edward K., *Drop-Out and Retention Methodology Used to Estimate First Stage Elements of the Transition Matrices for Dynamod II*, Washington, D.C., U.S. Office of Education, 1967.
901. Meyer, D. L., *Educational Statistics*, New York, New York, Center for Applied Research in Education, 1967.
902. Morsch, W. C. and Griest, J., *Occupational Education Requirements Analysis*, Washington, D.C., U.S. Office of Education, December 1967.
903. Okada, Tetsuo, *Births and Death Rate Projections Used in Student-Teacher Population Growth Models*, Washington, D.C., U.S. Office of Education, December 1966.
904. Siddig, Mir Abdul Fatah, *Quantifiable Input Factors for Planning Educational Growth in Afghanistan*, Bloomington, Indiana, Indiana University, 1966.
905. Simon, Kenneth A. and Fullam, Marie G., *Projections of Educational Statistics to 1975-76*, Washington, D.C., U.S. Government Printing Office, 1966.
906. Sisson, Roger L., *Some Results of a Simulation of an Urban School District*, Philadelphia, Pennsylvania, Management Science Center, Pennsylvania University, 1967.
907. Stone, Richard, "Input-Output and Demographic Accounting: A Tool for Educational Planning," *Minerva*, Vol. 4, Spring 1966.

908. Weathersby, George, *The Development and Applications of a University Cost Simulation Model*, Berkeley, California, University of California, 1968.
909. Zabrowski, Edward K.; Hudman, John T.; Okada, Tetsuo; and Zinter, Judith R., *Student-Teacher Population Growth Model: Dynamod II*, Washington, D.C., U.S. Office of Education, May 1967.

GENERAL

910. Andresen, K. W. and Ewing, D., *A Study of Digital Computers for a Real Time Training Simulation Research System*, Dayton, Ohio, Wright-Patterson Air Force Base, 1964.
911. Blommers, Paul and Lindquist, E. F., *Elementary Statistical Methods in Psychology and Education*, Boston, Massachusetts, Houghton-Mifflin Company, 1960.
912. Cohen, B. E., "Enlarged Input-Output Data May Be a Boon to Marketeers," *Industrial Marketing*, September 1966.
913. Fairman, Jean B.; Folley, J. D., Jr.; and Jones, Edna M., *A Survey of the Literature on Prediction of Air Force Personnel Requirements*, Dayton, Ohio, Wright Air Development Division, July 1960.
914. Folley, John D., Jr. and Pieper, W. J., *Development of a Method for Generating Troubleshooting Decision Trees*, Valencia, Pennsylvania, Applied Science Associates, Inc., 1964.
915. Geisler, Murray A. and Steger, Wilbur A., *The Combination of Alternative Research Techniques in Logistics Systems Analysis*, Santa Monica, California, The Rand Corporation, 1962.
916. Hamburg, Morris and Langford, Thomas, *Selected Methods of Analysis for Urban Economic Planning and Development in Pennsylvania*, Harrisburg, Pennsylvania, Department of Internal Affairs, 1964.
917. Hawthorne, G. B., Jr., *Digital Simulation and Modeling*, Bedford, Massachusetts, The MITRE Corporation, 1968.
918. Hays, W. L., *Statistics for Psychologists*, New York, New York, Holt, Rinehart and Winston Company, 1963.
919. Hill, Louis Allen, Jr., "Input-Output Analysis: Its Use in Marketing," *Printers Ink*, June 24, 1966.

920. Hufschmidt, Maynard M. and Fiering, Myron B., *Simulation Techniques for Design of Water Resource Systems*, Cambridge, Massachusetts, Harvard University Press, 1966.
921. Jahn, Julius A., *The Statistical Design and Analysis of an Experiment to Measure the Effectiveness and Costs of a Health and Welfare Program*, Washington, D.C., American Statistical Association, 1965.
922. Johnston, J., *Statistical Cost Analysis*, New York, New York, McGraw-Hill Book Company, 1960.
923. Karmiloff, G., "Soviet Economic Models, Investment Criteria, and Prices; an Analytical Review," *Kyklos*, Vol. 16, No. 1, 1963.
924. Leontief, W. W., *Studies in the Structure of the American Economy*, New York, New York, Oxford University Press, 1953.
925. Levy, F. K.; Thompson, G. L.; and West, J. D., *Mathematical Basis of the Critical Path Method*, Pittsburgh, Pennsylvania, Carnegie Institute of Technology, 1962.
926. Lonsdale, Ronald Thomas, "A Study of Programming Models in Allocating Advertising Funds to Media," Lafayette, Indiana, Purdue University, 1965.
927. Mitchell, J., *Input/Output Trends*, Bedford, Massachusetts, The MITRE Corporation, 1968.
928. Parsons, James A., "Selected Techniques for Operations Research," *Factory*, July 1965.
929. Porter, J. D., *Digital Computer Principles*, Bedford, Massachusetts, The MITRE Corporation, 1968.
930. Su, Tsawh-An, "The Applicability of a Dynamic Input-Output Model to an Expanding Economy," Rutgers, New Jersey, The State University of Rutgers, 1966.
931. Taylor, T. C., "Input-Output: What it is, How to Use it; What it Will Do," *Sales Management*, November 5, 1965.
932. Thomas, Harold A., "The Animal Farm: A Mathematical Model for the Discussion of Social Standards for Control of the Environment," *Quarterly Journal of Economics*, February 1963.
933. Vernor, R., "Comprehensive Model-Building in the Planning Process," *Economic Journal*, March 1966.

934. Woods, Donald H., "Improving Estimates that Involved Uncertainty," *Harvard Business Review*, July-August 1966.

LIMITATIONS OF PPBS

EDUCATION

935. Bailey, Stephen K., *Schoolmen and Politics: A Study of State Aid to Education in the North-east*, Syracuse, New York, Syracuse University Press, 1962.
936. Benson, Charles S., "State Aid Patterns," *Public School Finance: Economic Politics*, ed. Burkhead, Jesse, Syracuse, New York, Syracuse University Press, 1964.
937. Bloomberg, Warner, Jr. and Sunshine, Morris, *Suburban Power Structures and Public Education: A Study of Values, Influence, and Tax Effort*, Syracuse, New York, Syracuse University Press, 1963.
938. Boyer, E. Gil (ed.), *Leadership for Education: Proceedings of the National Conference of State Legislators*, Washington, D.C., 1966.
939. Buford, J. L., "How to Get Your Taxpayers to Listen," *School Management*, August 1961.
940. Burkhead, Jesse, *Public School Finance: Economics and Politics*, Syracuse, New York, Syracuse University Press, 1964.
941. Cahill, Robert S. and Hencley, Stephen P., *The Politics of Education in the Local Community*, Danville, Illinois, Interstate Printers and Publishers, Inc., 1964.
942. Callahan, Raymond E., *Education and the Cult of Efficiency*, Chicago, Illinois, University of Chicago Press, 1962.
943. Carpenter, M. B., *Program Budgeting as a Way to Clarify Issues in Education*, Santa Monica, California, The Rand Corporation, 1968.
944. Cleary, Robert E., "Conflicting Pressures: The Educator and Politics," *Peabody Journal of Education*, May 1963.
945. Coleman, James S., et al., *Equality of Educational Opportunity*, Washington, D.C., U.S. Department of Health, Education and Welfare, 1966.

946. Corrigan, Robert E.; Corrigan, Betty O.; and Kaufman, Roger A., *Is There a Need for More Formalized Methods for Attacking Educational Problems?* Burlingame, California, OPERATION PEP, 1967.
947. Corrigan, R. E. and Kaufman, R. A., "What is the System Approach, and What is in it for Administrators?" *Operation PEP Training Program*, Burlingame, California, OPERATION PEP, 1967.
948. Drew, E. B., "HEW Grapples with PPBS," *Public Interest*, Summer 1967.
949. Furno, Orlando F., "Program Budgeting and School Quality," *AEDS Monitor*, Vol. 9, April 1967.
950. Gibbs, W. F.; Rath, G. J.; and Kent, A. E., "PPBS in the Skokie Illinois Schools," *Nation's Schools*, Vol. 82, No. 5, November 1968.
951. Gorman, William, "Notes of a Practitioner," *The Public Interest*, Summer 1967.
952. Gregg, Russell T., "Political Dimensions of Educational Administration," *Teachers College Record*, November 1965.
953. Hartley, Harry J., "Twelve Hurdles to Clear Before YOU Take on Systems Analysis," *American School Board Journal*, Vol. 156, No. 1, July 1968.
954. Lovenstein, Meno, *Economics and the Educational Administrator*, Columbus, Ohio, College of Education, Ohio State University, 1958.
955. McGivney, J. H., "Politics of Vocational Education in Wisconsin, 1909-1967," Madison, Wisconsin, University of Wisconsin, 1967.
956. Miller, Donald R., *A School District Plan of Functional Organization*, Burlingame, California, OPERATION PEP, 1968.
957. Ostrom, Vincent, "The Interrelationship of Politics and Education," *National Elementary Principal*, January 1964.
958. Sewell, D. O., "A Critique of Cost-Benefit Analysis of Training," *Monthly Labor Review*, September 1967.
959. Stubblebine, W. C., "Institutional Elements in the Financing of Education," *The Southern Economic Journal, Supplement on Education and the Southern Economy*, July 1965.

960. Sufrin, Sidney C., *Issues in Federal Aid to Education*, Syracuse, New York, Syracuse University Press, 1962.
961. Technomics, Inc., *The Feasibility of Cost/Effectiveness for Title I, Public Law 89-10 Final Report*, Los Angeles, California, 1967.
962. U.S. Congress; House Committee on Appropriations, *Department of Labor and Health, Education, and Welfare Appropriations for 1968; Hearings before a Subcommittee of the Committee on Appropriations, 90th Congress, 1st Session*, Washington, D.C., 1967.
963. Vaizey, J., *Towards a New Political Economy? Or Some Problems of Some Aspects of Economics in the Light of "Human Resource" Concepts*, Paris, France, Organization for Economic Cooperation and Development, 1964.
964. Wasserman, William, *The Economics and Politics of Public Education*, Syracuse, New York, Syracuse University Press, 1963.
965. West, E. G., *Education and the State - A Study in Political Economy*, London, England, The Institute of Economic Affairs, 1965.

GENERAL

966. Baumol, William J., "Informed Judgment, Rigorous Theory, and Public Policy," *Southern Economic Journal*, October 1966.
967. Burrows, J. H., *Persistent Problems in System Development*, Bedford, Massachusetts, The MITRE Corporation, 1968.
968. Chamberlain, Neil W., "Government Investment: How Scientific Can it Be?" *Challenge*, July-August 1966.
969. Committee for Economic Development, *Modernizing Local Government*, New York, New York, 1966.
970. Dei Rossi, J. A., *Comparing the Program Budget and the Traditional Budget*, Santa Monica, California, The Rand Corporation, 1968.
971. Dror, Yehezrel, *Public Policy-making Reexamined*, San Francisco, California, Chandler Publishing Company, 1968.
972. Dye, T. R., *Politics, Economics and the Public: Policy Outcomes in the American States*, Chicago, Illinois, Rand McNally Company, 1966.

973. Ervien, H. G., "Performance Budgeting, Its Value and Shortcomings," *American City*, Vol. 72, March 1957.
974. Gabis, S. T., *Mental Health and Financial Management: Some Dilemmas of Program Budgeting*, East Lansing, Michigan, College of Business and Public Service, Michigan State University, 1960.
975. Gorham, William; Drew, E. B.; and Wildavsky, Aaron, "PPBS: Its Scope and Limitations," *The Public Interest*, No. 8, Summer 1967.
976. Grizzle, Gloria, *Application of PPBS to Local Governments*, Chapel Hill, North Carolina, University of North Carolina, 1967.
977. Hammond, Paul Y., "A Functional Analysis of Defense Department Decision-Making in the McNamara Administration," *American Political Science Review*, Vol. LXII, March 1968.
978. Hammond, Richard J., "Convention and Limitation in Benefit-Cost Analysis," *Natural Resources Journal*, April 1966.
979. Henderson, W. L., "Do Budgets Report Public Spending," *Arizona Review of Business and Public Administration*, March 1964.
980. Hines, Lawrence G., "The Hazards of Benefit-Cost Analysis as a Guide to Public Investment Policy," *Public Finance*, Vol. 17, No. 2, 1962.
981. Jernberg, J. E., "Program Budgeting the Influence, Effects, and Implications of Reform," Ann Arbor, Michigan, University Microfilms, 1966.
982. Kahn, Herman and Mann, Irwin, *Ten Common Pitfalls*, Santa Monica, California, The Rand Corporation, 1957.
983. Kammerer, G. M., *Program Budgeting: An Aid to Understanding*, Gainesville, Florida, The University of Florida, 1961.
984. Klein, B. H., *Public Administration and the Contemporary Economic Revolution*, Santa Monica, California, The Rand Corporation, 1967.
985. Koch, V. E., *Special Bulletin 1960 B. (Progress in the Budgeting Process During the Past Decade)*, New York, New York, Municipal Finance Officers Association, 1960.

986. Krutilla, John V., "Is Public Intervention in Water Resources Conducive to Economic Efficiency," *Natural Resources Journal*, Vol. 6, January 1966.
987. Lindbloom, C. E., *The Intelligence of Democracy*, New York, New York, The Free Press, 1965.
988. Maass, Arthur, "Benefit-Cost Analysis: Its Relevance to Public Expenditure," *Quarterly Journal of Economics*, Vol. 80, 1966.
989. McGown, Wayne F., *How to Apply Program-Planning-Budgeting in Your State*, Madison, Wisconsin, Bureau of Management, 1966.
990. Meryerson, Martin and Banfield, Edward, *Politics, Planning and the Public Interest*, New York, New York, The Free Press, 1955.
991. Miller, R. E., "PPBS: Problems of Implementation," *Journal of American Institute of Planners*, March 1968.
992. Mitchell, William C., "The Shape of Political Theory to Come," *The American Behavioral Scientist*, November-December 1967.
993. Munger, Frank J. and Fenno, Richard F., Jr., *National Politics and Federal Aid*, Syracuse, New York, Syracuse University Press, 1962.
994. Naidu, K., "United Nations Technical Assistance in Performance Budgeting," *Federal Accountant*, Vol. 11, June 1962.
995. Peterson, Robert L., "The Use and Misuse of Cost Effectiveness," *Air University Review*, Vol. 17, March 1966.
996. Presidential Task Force on Career Advancement, *Investment for Tomorrow*, Washington, D.C., 1967.
997. *Public Administration Review*, "Performance Budgeting: Has the Theory Worked?" Vol. 20, Spring 1960.
998. *Public Administration Review*, "Symposium; PPBS Re-examined," Vol. 24, March-April 1969.
999. Randall, R. and Blaschke, C., "Economics, Management and Public Policy," *Educational Technology*, June 30, 1968.
1000. Rivers, L. Mendel, "Military Spokesman Hopes to See McNamara Revolution Upset," *Science*, Vol. 159, March 15, 1968.

1001. Rothery, B., "Limits of Systems Analysis," *Data Procession Magazine*, January 1967.
1002. Sasieni, Maurice; Yaspan, Arthur; and Friedman, Laurence, *Operations Research - Methods and Problems*, New York, New York, John Wiley & Sons, Inc., 1965.
1003. Schelling, T. C., "PPBS and Foreign Affairs," *The Public Interest*, Spring 1968.
1004. Schlesinger, J. R., *Systems Analysis and the Political Process*, Santa Monica, California, The Rand Corporation, 1967.
1005. State-Local Finances Project, *Planning-Programming-Budgeting for City, State, County Objectives. PPB Note 1: Answering the Question, Is an Integrated Planning, Programming, Budgeting System Useful for Our Jurisdiction?* Washington, D.C., George Washington University, 1967.
1006. State-Local Finances Project, *Planning-Programming-Budgeting for City, State, County Objectives. PPB Note 2: Administrative Framework for Establishing Planning-Programming, Budgeting Systems in States, Cities and Counties: Some considerations and suggested possibilities*, Washington, D.C., George Washington University, 1967.
1007. State-Local Finances Project, *Planning-Programming-Budgeting for City, State, County Objectives. PPB Note 4: Staffing and Training for a PPB System in State and Local Governments*, Washington, D.C., George Washington University, 1967.
1008. State-Local Finances Project, *PPB Pilot Project Reports from Participating States, Counties, and Cities*, Washington, D.C., George Washington University, 1969.
1009. U.S. Congress, House Committee on Government Operations, *The Federal Research and Development Programs: The Decision-Making Process*, Washington, D.C., 1966.
1010. U.S. Congress, House Committee on Interior and Insular Affairs, *Recreation Allocation Policy, Hearing. . . 88th Congress, 1st Session*, Washington, D.C., 1964.
1011. U.S. Public Health Service, *The Plan for Implementing a Planning-Programming-Budgeting System in the Public Health Service*, Washington, D.C., 1965.
1012. U.S. Subcommittee on Economic Statistics of the Joint Economic Committee, *The Federal Budget as an Economic Document*, Washington, D.C., 1962.

1013. U.S. Subcommittee on National Security, *Planning, Programming, Budgeting, Hearings before Subcommittee on National Security and International Operations*, Washington, D.C., 1967.
1014. Wildavsky, Aaron, "Political Implications of Budget Reform," *Public Administrative Review*, Vol. XXI, Autumn 1961.
1015. Wildavsky, Aaron, *The Politics of the Budgetary Process*, Boston, Massachusetts, Little, Brown & Company, 1964.
1016. Williams, B. R., "Economics in Unwanted Places," *Economic Journal*, March 1965.

BIBLIOGRAPHIES

1017. Alexander-Frutschi, Marian C. (ed.), *Human Resources and Economic Growth: An International Annotated Bibliography on the Role of Education and Training in Economic and Social Development*, Menlo Park, California, Stanford Research Institute, 1963.
1018. Blaug, Mark, *Economics of Education: A Selected Annotated Bibliography*, Long Island City, New York, Pergamon Press, Inc., 1966.
1019. Branch, Melville C., *Selected References for Corporate Planning*, New York, New York, American Management Association, 1966.
1020. Case, C. M. and Clark, S. C., *A Bibliographic Guide to Operations Analysis of Education*, Technical Note 43, Washington, D.C., U.S. Office of Education, September 1967.
1021. Chartrand, Robert L. and Brezina, Dennis W., *The Planning-Programming-Budgeting System: An Annotated Bibliography*, U.S. Library of Congress, Legislative Reference Service, Washington, D.C., 1966.
1022. Cook, Desmond L., *References on Network Planning in Education, Research Management, Project Selection and Program Management*, Columbus, Ohio, Instructional Research Materials Center, Ohio State University, 1966.
1023. Deitch, Kenneth M. and McLoone, Eugene P., *The Economics of Education: A Bibliography*, Bloomington, Indiana, Phi Delta Kappa, 1966.
1024. DonVito, P. A., *Annotated Bibliography on System Cost Analysis*, Santa Monica, California, The Rand Corporation, 1967.
1025. Edding, Friedrich, *Bibliography of the Economics of Education*, Paris, France, Organization of Economic and Educational Cooperation, 1961.
1026. Eidell, T. L. and Piele, P., *A Bibliography of Selected Documents on Planning, Programming, Budgeting Systems*,

Eugene, Oregon, University of Oregon, ERIC Clearinghouse on Educational Administration, 1968.

1027. Finn, J. D., *et al.*, *A Selective Bibliography of New Media and Instructional Technology*, Los Angeles, California, University of Southern California, 1964.
1028. Gethiga, W., *An Annotated Bibliography in System Technology*, Orange, California, Department of Instructional System Technology and Research, 1967.
1029. Hale, Elizabeth H., *PERT: An ASTIA Report Bibliography*, Washington, D.C., Office of Technical Services, U.S. Department of Commerce, 1963.
1030. Human Resources Research Office, *Bibliography of Publications As of 30 June, 1966*, Washington, D.C., The George Washington University, Human Resources Research Office, 1966.
1031. Kaufman, Roger A., *A Preliminary Selected Bibliography of System Analysis and System Synthesis as it Relates to Education and Training*, Burlingame, California, OPERATION PEP, December 1967.
1032. Keaveny, Timothy J., *Manpower Planning: A Research Bibliography*, Minneapolis, Minnesota, University of Minnesota, 1966.
1033. Malcolm, D. G., *The Use of Stimulation in Management Analysis, A Survey and Bibliography*, Washington, D.C., U.S. Government Research Reports, 1959.
1034. Pearman, Elizabeth H., *Bibliography on Cost-Benefit Analysis and Planning-Programming-Budgeting*, McLean, Virginia, Research Analysis Corporation, 1966.
1035. Rand Corporation, *Program Budgeting: A Bibliography of Selected Rand Publications*, Santa Monica, California, 1967.
1036. Research Corporation of the Association of School Business Officials, *Program Planning-Budgeting-Evaluation System Design: An Annotated Bibliography*, Chicago, Illinois, Research Corporation of ASBO, 1968.
1037. Sharp, J. M. and Krasnegor, R., *The Use of Follow-Up Studies in the Evaluation of Vocational Education: An Annotated Bibliography*, Washington, D.C., Bureau of Social Science Research, May 1966.

1038. Simpson, Keith and Benjamin, Hazel C., *Manpower Problems in Economic Development: A Selected Bibliography*, Princeton, New Jersey, Princeton University Press, 1958.
1039. Songe, Alice, *Vocational Education: An Annotated Bibliography of Selected References, 1917-1966 (Below College)*, Washington, D.C., U.S. Government Printing Office, 1967.
1040. Terry, John N., *Program Budgeting and Other Newer Management Tools in Higher Education: A Description and Annotated Bibliography*, Seattle, Washington, University of Washington, 1968.
1041. U.S. Bureau of the Budget, *Program Analysis Techniques: A Selected Bibliography Revised*, Washington, D.C., 1966.
1042. U.S. Defense Documentation Center, *Cost: Analysis and Methodology; A Report Bibliography*, Alexandria, Virginia, 1967.
1043. U.S. Department of Health, Education, and Welfare, Office of Education, *Technological Advances and Skilled Manpower, Implications for Trade and Industrial Education, An Annotated Selected Bibliography*, Washington, D.C., 1956.
1044. U.S. Department of Housing and Urban Development, *Cost/Benefit Bibliography*, Washington, D.C., 1968.
1045. U.S. Department of Labor, *Publications of the U.S. Department of Labor*, Washington, D.C., 1961-1966.
1046. U.S. Department of Labor, Library, *Manpower Projections, Selected References*, Washington, D.C., 1966.
1047. U.S. Office of Education, *Research in Education*, Washington, D.C., periodical.
1048. U.S. Office of Education, Division of Vocational and Technical Education, *Selected References for Planning Vocational-Technical Education Programs*, Washington, D.C., 1967.
1049. Vincent, Howard L., *Selected Bibliography - Application of Economic Analysis and Operations Research in Educational Planning*, Washington, D.C., Division of Operations Analysis, Office of Education, 1966.
1050. Wheeler, A., *Educational Planning: A Bibliography*, Paris, France, International Institute for Educational Planning, 1964.

1051. Wright, Gordon, *A Selected Annotated Bibliography on Educational Systems*, Cleveland, Ohio, Division of Organizational Sciences, Case Institute of Technology, 1966.

AUTHOR INDEX

- Abraham, William I., 296
- Abt Associates, Inc., 114, 407,
408, 503, 504, 505, 506, 507,
508, 509, 510, 511
- Ackerly, Harold E., 271
- Ackoff, R. L., 74, 115
- Adams, Robert F., 861
- Adelson, M., 116
- Agency for International
Development, 195
- Aharoni, Yair, 590
- Alberty, Harold, 409
- Alesch, D. J., 254
- Alexander, William M., 410
- Alexander-Frutschi, Marian C.,
1017
- Altman, J. W., 75
- American Association of State
Highway Officials, 591
- American Economic Review, 592
761, 832
- Ammerman, H. L., 458
- Anderson, Bent R., 196
- Anderson, C. A., 197, 411, 762
- Anderson, Ernest Francis, 512
- Anderson, Lynn F., 272
- Andlinger, Gerhard, 117
- Andresen, K. W., 910
- Angell, D., 413
- Anshen, M., 297
- Anthony, R. N., 167, 365, 366
- Arden, Wesleye, 583
- Argyris, Chris, 168
- Armstrong, Charles, 412, 514,
873
- Arnett, Trevor, 329
- Arnoff, E. L., 115
- Arrow, Kenneth J., 593
- Assembly Interim Committee on
Ways and Means, 255
- Aukrust, O., 833
- Backman, Frank P., 515
- Bailey, Stephen K., 935
- Bain, James, 594
- Bain, Joe S., 595
- Balough, T., 763
- Banfield, Edward, 990
- Barro, S. M., 76, 273

Bartizal, John R., 367
 Bateman, Worth, 516
 Bauer, Raymond A., 886
 Baumol, William J., 596, 834,
 966
 Becker, Gary S., 413, 414, 764
 Beesley, M. E., 634
 Belds, B. J., 118

 Bell, Chauncey F., 597
 Bell, G. A., 302
 Benham, F., 765
 Benis, Warren G., 256
 Benjamin, Hazel C., 1038
 Beene, Kenneth D., 256
 Benson, Charles S., 330, 517,
 766, 767, 768, 769, 936
 Berkeley, George, 598
 Berlinger, D. C., 513

 Berman, E. B., 599
 Bertolaet, Frederick, 415
 Beyer, Robert, 368
 Bierman, Harold, Jr., 600
 Bittel, Lester H., 369
 Black, Guy, 119
 Blaschke, C., 999
 Blau, Peter M., 169

 Blaug, Mark, 198, 199, 518, 770
 831, 1018
 Blommers, Paul, 911
 Bloom, Benjamin S., 416
 Bloomberg, Warner, Jr., 937
 Boggs, Gerald E., 417
 Boldovici, J. A., 75
 Bombach, G., 200, 201

 Boot, John, 870
 Borko, Harold, 887
 Bortnick, Paul J., 120
 Borus, Michael Eliot, 519, 520,
 521
 Bos, H. C., 243
 Bowen, William G., 418, 771,
 835
 Bowles, S. S., 202
 Bowman, Mary Jean, 762, 772,
 773, 774

 Bowman, Richard C., 601
 Boyer, E. Gil, 938
 Brackel, Charles, 274
 Bramhall, David F., 602
 Branch, Melville C., 1019
 Brezina, Dennis W., 1021
 Brickell, Henry M., 203
 Briggs, L. J., 419

Brooks, David B., 603

Brooks, G. E., 358

Brooks, Harvey, 836

Bross, Irwin, 121

Brown, E. L., 77

Brunner, E. D., 604

Bryk, Oliver, 257, 605

Buchanan, James M., 837

Buck, A. E., 370

Buck, Vernon S., 170

Buckley, W., 122

Buechner, J. C., 298

Buffa, Elwood S., 123

Buford, J. L., 939

Burke, Arvid J., 331

Burkhead, Jesse, 1, 171, 332,
333, 371, 420

Burns, Leland S., 606

Burrows, J. H., 888, 967

Bursk, Edward, 172

Butler, F. C., 421

Byer, R. J., 204

Cahill, Robert S., 941

Cain, Glen C., 522

Caine, Sir Sydney, 775

California Association of School
Business Officials, 2, 275

Calkins, R. N., 523

Callahan, Raymond E., 942

Campbell, Robert, 776

Campbell, Ronald, 173

Caplow, Theodore, 174

Capron, William M., 607

Carey, William D., 608

Carnoy, M., 524

Carol, Arthur, 422

Carovano, J. M., 334

Carpenter, M. B., 205, 423,
424, 943

Carroll, Adger Bowman, 525

Carter, L., 78

Cartter, Allan M., 425, 777

Case, C. M., 1020

Castetter, William B., 276

Castle, Emery N., 727

Chamberlain, Neil W., 968

Chambers, George A., 3

Chance, W. A., 206

Chapanis, A., 487, 489

Charters, W. W., 426

Chartrand, Robert L., 1021

Chase, Francis S., 335

Chenery, Hollis B., 838

- Chenzoff, A. P., 526
- Cherry, Colin, 175
- Chin, Robert, 256
- Churchman, C. W., 115, 124
- Ciriacy-Wantrup, S. V., 839
- Clark, David L., 161
- Clark, E. M., 79
- Clark, Harold F., 427
- Clark, John J., 125, 126, 840
- Clark, S. C., 1020
- Clawson, Marion, 841
- Cleary, Robert E., 944
- Coase, R. H., 609
- Cogswell, J. F., 80, 81, 82, 83, 84, 94, 96, 874
- Cohen, B. E., 912
- Coleman, James S., 945
- Commission on Organization of the Executive Branch of the Government, 372
- Committee for Economic Development, 299, 969
- Comptroller General's Report, 488
- Conference on Public Expenditure Decisions in the Urban Community, 610
- Conley, Ronald W., 778
- Connolly, John, 4
- Cook, Desmond L., 207, 336, 337, 350, 1022
- Cook, J. S., 489
- Corazzini, A. J., 527
- Correa, H., 428, 528, 779
- Corrigan, Betty O., 90, 277, 429, 530, 532, 548, 549, 550, 552, 946
- Corrigan, R. E., 85, 86, 87, 88, 89, 90, 91, 92, 93, 99, 208, 209, 222, 277, 429, 430, 431, 432, 529, 530, 531, 532, 548, 549, 550, 551, 552, 946, 947
- Cotton, John F., 26
- Coulson, John E., 94, 433
- Council of Basic Education, 434
- Council of State Governments, 300
- Crihfield, B., 302
- Crowley, D. M., 95
- Crumlish, Joseph D., 611
- Crutchfield, James A., 612
- Culbertson, Jack, 210
- Curry, Otherl, 382
- Cusken, W. Edward, 258
- Cyert, R. M., 842
- Dade County Board of Public Instruction, 278
- Daines, Harvey C., 159

Daiute, Robert J., 843
 Dale, Ernest, 176
 Daniere, Andre, 780
 Davie, Bruce F., 533
 David, M., 461
 Davis, Keith, 177, 178
 Davis, Otto A., 613, 614,
 844, 845
 Dean, J., 373
 Dearden, John, 615
 Debauvais, M., 781
 DeHaven, James Charles, 782
 Dei Rossi, J. A., 490, 616,
 970
 Deitch, Kenneth M., 1023
 DeLeeuw, Samuel, 895
 Demaree, R. G., 211
 Denison, E. F., 435, 783, 846
 Devine, E. J., 617
 DeYoung, Chris A., 279, 338
 Diehle, William D., 618
 Dilley, F. B., 5
 Dimock, Marshall E., 179
 Doll, R. G., 160
 Domar, E. D., 619
 Donald, M., 415
 DonVito, P. A., 1024
 Dorfman, Robert, 620, 847
 Douglas Aircraft Company, 127
 Downs, Judith E., 436
 Drew, E. B., 948, 975
 Dror, Yehezrel, 971
 Drouet, Pierre, 437
 Duncan, Merlin George, 534
 Dunn, Robert M., 621
 Dyck, H. J., 345
 Dye, T. R., 972
 Eakaus, Richard S., 784
 Eastmond, Jefferson N., 212,
 213
 Eckaus, R. S., 535
 Eckman, D. P., 128
 Eckstein, Otto, 374, 622, 623,
 666
 Edding, Friedrich, 898, 1025
 Egbert, R. L., 84, 96
 Eidell, T. L., 1026
 Elkins, E. R., 21, 303
 Ellis, A. Caswell, 438
 Emerson, Alfred E., 180
 Engel, E. L., 280
 English, J. M., 624
 Eninger, Max U., 536
 Enke, Stephan, 375

Enthoven, Alain C., 129, 130,
 131, 259, 848
 Ervien, H. G., 973
 Etzioni, Amatai, 181
 Evans, J. A., 889
 Evarts, Harry, 376
 Ewart, W. L., 97
 Ewing, D., 910
 Exton, E., 6, 7
 Fagen, R. E., 135
 Fairman, Jean B., 913
 Faluvergi, L., 899
 Feldman, Marvin J., 439

 Feldstein, Martin S., 625,
 626, 627
 Fenno, Richard F., Jr., 993
 Ferguson, Allen R., 628
 Ferguson, C. E., 849
 Fields, Davis S., 629
 Finegan, T. Aldrich, 418
 Finn, J. D., 1027
 Firman, William D., 214
 Fischer, John H., 214
 Fishell, K. N., 98
 Fisher, A. G. B., 440
 Fisher, G. H., 22, 304, 630,
 631, 632

 Fitzsimmons, W. B., 281
 Fletcher, T. W., 23
 Foley, Duncan K., 633
 Folley, John D., Jr., 441, 526,
 913, 914
 Fort, Donald M., 132
 Foster, C. D., 634
 Foster, Donald Murray, 785
 Fox, Irving K., 636
 Fox, Peter D., 635
 Fowlkes, John Guy, 348
 Frank, George, 382
 Fraser, Dorothy M., 442

 Freeman, Roger A., 215
 Friedlaender, Ann F., 637
 Friedman, Laurence, 1002
 Fromm, Gary, 638
 Fullam, Marie G., 905
 Furno, Orlando F., 949
 Gabis, S. T., 974
 Gagne, R. M., 133, 443
 Galenson, W., 786
 Gallaway, Lowell E., 639
 Garber, Lee O., 339
 Garms, W. I., 344
 Geisler, Murray A., 915

Gerry, R., 444
 Gertel, Carl, 640
 Gethiga, W., 1028
 Gibbs, W. F., 950
 Glaser, Robert, 454
 Glick, P. C., 445
 Goldman, Thomas, 641
 Goode, Richard B., 340
 Goodlad, John, 875
 Goodwin, Donald L., 548, 549,
 550, 552
 Gorby, J. T., 537
 Gordon, Margaret S., 216
 Gorham, William, 539, 540,
 975
 Gorman, William, 951
 Gramm, Warren S., 642
 Greaney, W. T., 305
 Greenberger, M., 152
 Greene, J. H., 182
 Greenhouse, Samuel M., 491
 Gregg, Russell T., 952
 Griest, J., 902
 Griffiths, Daniel E., 161
 Griliches, Zvi, 643, 787,
 850
 Grizzle, Gloria, 976
 Gross, Bertram M., 183, 260,
 492, 890
 Grosse, Robert N., 644, 645
 Grossfield, K., 646
 Groves, H. M., 788
 Gruen, Claude, 134
 Haase, R. H., 624
 Hagen, John W., 282
 Haggart, S. A., 8, 217, 218
 Haire, Mason, 184
 Haldi, John, 306, 647
 Hale, Elizabeth H., 1029
 Hall, A. D., 135
 Hall, Robert K., 789
 Hamburg, Morris, 916
 Hamilton, R. L., 162
 Hammond, Paul Y., 977
 Hammond, Richard J., 648, 978
 Hannah, L. D., 75
 Hanock, Giora, 446
 Hansen, W. L., 541, 542
 Harbison, F., 790
 Hardy, R. W., 204
 Harris, Norman C., 447
 Harris, Seymour E., 341, 342,
 791, 792, 793

Hartley, Harry J., 9, 10, 11,
 24, 25, 543, 794, 953
 Hartman, L. M., 185
 Harvey, O. J., 136
 Harwitz, Mitchell, 695
 Hatry, Harry P., 26, 649
 Havemen, Robert H., 650
 Haverstroh, Chadwick, 192
 Hawthorne, G. B., Jr., 917
 Hays, W. L., 918
 Hayes, James H., 137
 Heady, Earl O., 219
 Hearle, Edward, 891
 Hearn, Gordon, 186
 Heath, J. B., 646
 Heilbroner, Robert, 851
 Heiser, Herman C., 307
 Hekiman, J. S., 366
 Held, V., 27
 Heldi, John, 28
 Helmer, Olaf, 261, 262
 Henclay, Stephen P., 941
 Henderson, William M., 138,
 283
 Henderson, W. L., 979
 Henning, D. A., 263
 Herfindahl, Orris C., 636
 Heymont, I., 651
 Hicks, Herbert G., 187
 Hill, LaMar L., 284
 Hill, Louis Allen, Jr., 652,
 969
 Hines, Lawrence G., 980
 Hirsch, E. A., 448
 Hirsch, Werner A., 29, 30, 285,
 286, 448, 449, 544, 795, 796,
 852
 Hirshleifer, Jack, 653, 654, 655
 Hitch, Charles J., 31, 32, 33,
 139, 853
 Hoch, Saul, 656
 Hoenack, S. A., 797
 Hoffman, Fred S., 657
 Hofstra, H. J., 308
 Holland, E. O., 348
 Hollander, W. G., 314
 Hollister, Robinson G., 220, 287
 House, Elaine W., 542
 Houthakker, H. S., 450
 Hovey, Harold, 34
 Howe, Charles W., 658
 Howland, Daniel, 140
 Hoyle, Eric, 163
 Hudman, John T., 900, 909
 Hurpburt, A. S., 274

Hufschmidt, Maynard M., 920
 Human Resources Research
 Office, 1030
 Hungate, Thad L., 343
 Hunt, D. E., 136
 Hunt, S. J., 545
 Iannacone, Laurence, 161
 Ihnen, Loren A., 525
 Ink, D. A., 377
 Innes, Jon T., 798
 Institute for Communication
 Research, 451
 Intriligator, Michael D., 546
 Jacoby, Neil H., 659
 Jahn, Julius A., 921
 James, H. T., 344, 345
 Janison, Marshall Verdine, 221
 Jeantheau, G. G., 537, 538
 Jernberg, J. E., 981
 Johns, Roe L., 166, 346
 Johnson, D. W., 209
 Johnson, R. A., 141
 Johnston, J., 922
 Jones, Edna M., 913
 Jones, M. V., 660
 Kahn, Herman, 142, 982
 Kaimann, R. A., 876
 Kammerer, Gladys M., 309, 983
 Kantorovich, Leonid V., 661
 Kaplan, Bernard A., 473
 Karmiloff, G., 923
 Kast, F. E., 141
 Kaufman, Jacob J., 452, 547
 Kaufman, Roger A., 87, 88, 90,
 91, 92, 93, 97, 99, 222, 530,
 531, 532, 548, 549, 550, 551,
 552, 946, 947, 1031
 Keaveny, Timothy J., 1032
 Keeney, M. G., 101, 102
 Kelley, J. A., 344, 378
 Kelly, James E., 378
 Kelnhofer, Guy J., 662
 Kendrick, John W., 663
 Kent, A. E., 950
 Kepner, C. H., 143
 Kershaw, J. A., 100, 553
 Kindred, Leslie W., 164
 Kittleson, H. M., 573
 Klarman, Herbert E., 664, 854
 Klein, B. H., 984
 Klemer, A. G., 87
 Klinov-Malul, R., 554
 Klock, Teur, 870
 Knetsch, Jack L., 855

Knezewich, Stephen J., 347
 Knoir, Owen A., 223
 Koch, V. E., 35, 985
 Koenig, H. E., 101, 102
 Koontz, Harold, 379
 Korbel, J., 152
 Kornfield, L. L., 892
 Kotz, Arnold, 555
 Kraft, Richard, 801
 Krasnegor, R., 1037
 Krebs, L. T., 556
 Krutilla, John V., 665, 666,
 667, 668, 986
 Kuh, E., 669, 670
 Lambert, Sam M., 214
 Langford, Thomas, 916
 Lassiter, Roger L., 453
 Lauwerys, Joseph A., 789
 Lazard, P. R. G., 231
 Lazzaro, Victor, 144
 LeBreton, D. D., 263
 Leftwich, Richard, 856
 Leibenstein, H., 188
 Leontief, W. W., 924
 Leske, G. W., 573
 Levin, Simon, 548
 Levine, Abraham S., 557, 671
 Levy, F. K., 925
 Levy, M. E., 36
 Lewis, Morgan V., 452
 Lewis, S. G., 877
 Lichfield, Nathaniel, 672, 673
 Lindbloom, C. E., 987
 Lindquist, E. F., 911
 Lindsay, E. E., 348
 Linn, Henry H., 349
 Linnenburg, Clem C., 857
 Lipetz, Ben-ami, 674
 Loeber, Bill, 350
 Lonsdale, Ronald Thomas, 926
 Loomis, Charles, 145
 Lott, O. C., 675
 Lovenstein, Meno, 954
 Lumsdaine, A. A., 454
 Lund, M. W., 489
 Lyden, Faemont J., 37
 Lynch, E. J., 204
 Lytton, H. D., 676
 McAnally, A. M., 310
 McCullough, J. D., 686, 687
 McGivney, J. H., 12, 13, 14,
 955

McGown, Wayne F., 989
 McKean, Roland N., 100, 147,
 553, 688, 689, 690, 858
 McKechnie, Graeme H., 455, 456
 McKie, J. W., 804
 McLoone, Eugene P., 232, 1023
 Maass, A., 146, 988
 Machlup, Fritz, 802

 Mack, Ruth P., 677
 Mackertich, Alex, 803
 Madden, D. L., 224, 311
 Magelli, Paul John, 805
 Mager, Robert F., 457
 Malcolm, D. G., 1033
 Manasse, Fred C., 351
 Mangum, Garth L., 225, 558
 Manion, R. C., 75
 Mann, Irwin, 142, 982

 Mansfield, Harvey C., 189
 Mao, James C. T., 380
 March, G. B., 878
 March, J. G., 842
 Marcus, M. J., 448, 544
 Marglin, Stephen A., 493
 678, 679
 Margolis, Julius, 381, 681,
 682

 Margolis, M. A., 680
 Markee, R. W., 876
 Marsh, D. G., 81, 874
 Marshall, A. W., 683, 859
 Martin, Brian, 684
 Martin, Jack, 288
 Marts, M. E., 685, 725

 Marx, Fritz, 189
 Mason, Raymond, 891
 Massey, R. J., 38, 312
 Mattox, Frank L., 284
 Matz, Adolph, 382
 Meals, Donald W., 148
 Medvin, Norman, 226
 Meek, Ronald L., 691
 Melching, W. H., 458
 Merrett, Stephen, 559

 Meryerson, Martin, 990
 Meyer, D. L., 901
 Michelson, Irving, 692
 Michigan State University, 560
 Miller, Donald R., 104, 227,
 228, 459, 956
 Miller, Ernest G., 37
 Miller, H. P., 445, 561, 806
 Miller, James L., Jr., 289

Miller, R. E., 991
 Miller, Van, 165
 Miller, W. L., 807
 Millikan, Max F., 264
 Mills, Edwin S., 602
 Mincer, J., 460, 562
 Miner; Jerry B., 229, 808
 Ministry of Education,
 Japan, 809
 Mishan, E. J., 693, 860
 Mitchell, J., 927
 Mitchell, William C., 992
 Mohring, Herbert, 694, 695
 Mood, Alexander M., 563, 564
 Mooney, James, 190
 Morgan, C. T., 489
 Morgan, J., 461
 Morphet, Edgar L., 166, 346
 Morsch, William C., 230, 902
 Morse, R. A., Jr., 204
 Mort, Paul R., 352
 Moser, C. A., 231
 Mosher, Frederick C., 39
 Munger, Frank J., 993
 Musgrave, Richard A., 383
 Mushkin, Selma J., 232, 364,
 810, 861, 862
 Myers, C. A., 790
 Myers, Sumner, 677
 Naidu, K., 994
 National Commission on Tech-
 nology, 233, 462
 N.E.A. Committee on Education-
 al Finance, 15, 353, 354, 565
 National Planning Association,
 265
 National Research Council,
 696
 Neff, Kenneth L., 463, 811
 Nelson, Richard R., 464, 863,
 864
 Nelson, William C., 13, 14
 New York City Board of Educa-
 tion, 16
 New York State Education De-
 partment, 879
 Noah, J. W., 697, 698
 Nicol, Helen O., 149
 Northeast Wisconsin Technical
 Institute, 290
 Nourse, Hugh O., 699
 Novick, David, 40, 41, 42, 43,
 266, 313, 384, 700, 701, 702
 Nunnally, C. L., 87, 88
 Nystrand, Donald M., 415
 O'Brien, R. J., 566
 Odiorne, George, 494

O'Donnell, Cyril, 379

Office of Technical Services,
865

Ogden, Delbert C., 703

O'Hara, J. F., 892

Ohio Education Association, 567

Ohm, Robert E., 150

Okada, Tetsuo, 903, 909

Okigbo, P. N. C., 568

Oklahoma State Board for
Vocational Education, 465

Operation PEP, 234, 355, 466,
467

Operations Research, Inc.,
495, 704

Optner, Stanford, 151

Orcutt, G. H., 152

Organization for Economic Co-
operation and Development,
235, 570, 812

Ostrom, Vincent, 957

O'Toole, J. F., Jr., 105

Otten, A. L., 44

Ovsiew, Leon, 276

Page, D. A., 45, 571

Pardee, F. S., 893

Parker, J. F., Jr., 436

Parnes, H. S., 236

Parrish, J. A., 537

Parry, Samuel, 422

Parsons, J. A., 705, 928

Parsons, Talcott, 153

Peacock, Alan T., 706

Pearman, Elizabeth H., 1034

Pejovich, Svetozar, 468, 572

Persselin, L. E., 77

Persons, E. A., 573

Peston, Maurice, 199

Peterson, Robert L., 995

Pfeiffer, John, 106

Phelps, Edmund S., 464

Piele, Philip, 17, 1026

Pieper, W. J., 914

Pincus, John A., 707

Polley, John W., 352

Porter, J. D., 929

Posner, Ben, 46

Powers, R., 563

Presidential Task Force on
Career Advancement, 996

Prest, A. R., 708

Presthus, Robert, 191

Price, P. P., 47

Program Review, Wisconsin, 290

Proschan, Arnold, 385

Public Administration Review,
48, 997, 998

Public Administration Service,
386

Pulscak, M. W., 204

Pyatt, G., 786

Quade, E. S., 154, 709, 710, 711

Quiren, D. G., 712

Quirk, Cathleen, 469

Quirolgico, Delfin Gallardo,
470

The Rainbow Report, 894

Rand Corporation, 1035

Randall, R., 999

Rapp, M. L., 574, 575

Rath, G. J., 18, 950

Reason, Paul L., 880

Reder, M. W., 471

Reed, Russell Lloyd, 576

Reller, Theodore L., 166

Renwhaw, E. F., 356, 577, 713,
714

Research Corporation of the
Association of Officials,
1036

Reuser, Walter C., 352

Reynolds, Bill J., 357

Reynolds, J. W., 314

Ribich, Thomas I., 237

Richards, Allen B., 715

Ridker, Ronald G., 716

Riew, John, 813

Riggs, F. E., 267

Rivlin, A. M., 152

Rivers, L. Mendel, 1000

Robertson, D. J., 706

Robinson, E. A. G., 814

Robinson, K. L., 717

Rosenzweig, J. E., 141

Ross, Arthur M., 238

Ross, William B., 718

Rothenburg, Jerome, 719, 720

Rothery, B., 1001

Rourke, F. E., 358

Rowen, Henry S., 49, 239, 259,
721

Rubenstein, Albert, 192

Ruggles, Rudy L., Jr., 390

Ruttan, Vernon W., 866

Sabine, Creta D., 291

Sabrowski, Edward K., 900

Sacramento City Unified School
District, 292

Samuelson, Paul A., 387, 388,
389, 847, 867

San Pedros, C., 315

Sasieni, Maurice, 1002
 Saylor, J. Galen, 410
 Schaefer, Carl J., 452
 Schaff, A. H., 722
 Schaeffer, H., 815
 Schelling, T. C., 1003
 Schere, Frederick M., 723
 Schick, A., 50, 51, 52
 Schlesinger, J. R., 1004
 Schreiber, Daniel, 472, 473
 Schroder, H. M., 136
 Schultz, T. W., 578, 816, 817,
 818, 819, 820
 Scott, Richard W., 169
 Scott, William, 178
 Seastone, D. A., 185
 Sedghorst, Elbert W., 448, 449
 Sewell, D. O., 958
 Sewell, W. R. D., 685, 724,
 725
 Sharp, J. M., 113, 1037
 Shearer, J. W., 513
 Sherwood, Robert Petersen, 579
 Seddig, Mir Abdul Fatah, 904
 Siegel, Barry N., 776
 Silberman, H., 78
 Silvern, Leonard, 107
 Simon, Kenneth A., 905
 Simpson, Keith, 1038
 Sisson, Roger L., 108, 906
 Smalter, Donald J., 390
 Smidt, Seymour, 500
 Smith, A. D., 580
 Smith, Bruce L. R., 546, 726
 Smith, R. G., Jr., 496
 Smith, Stephen C., 727
 Smithies, Arthur, 316, 391, 728
 Smolensky, Eugene, 474
 Sobin, B., 729, 730, 868
 Social Planning, 245
 Solo, R., 731, 847
 Soltow, L., 475
 Somers, Geraod G., 476, 581,
 582
 Songe, Alice, 1039
 Sorkin, A. L., 477
 Southworth, Raymond W., 895
 Spalding, Willard B., 165
 Spitzer, M., 204
 Stanford Research Institute,
 392
 Standard, M., 108
 State of California, 255, 320
 State of Connecticut, 478

State-Local Finances Project,
 53, 54, 55, 317, 318, 319,
 497, 732, 1005, 1006, 1007,
 1008

State of Maryland, 240

State of Minnesota, 241

State of New York, 56

State of Wisconsin, 57, 359,
 896

Stedry, Andrew C., 393

Steger, Wilbur A., 915

Steiger, A. R., 421

Steiner, G. A., 58

Steiner, Peter O., 498, 733

Stevens, David W., 452

Stevens, Joe B., 499

Stile, Homer, 583

Stilian, Gabriel N., 394

Stoller, David S., 110, 242

Stolurow, Lawrence M., 111

Stone, P. A., 734

Stone, Richard, 112, 907

Strom, Robert D., 473

Stromsdorfer, Ernst W., 582

Strot, A. M., 838

Strumilin, S. G., 821

Struve, T. A., 18

Stubblebine, W. C., 959

Su, Tsawh-An, 930

Sufrin, Sidney C., 960

Sullivan, William, 468, 572

Summers, J. K., 897

Sunshine, Morris, 937

Sussna, E., 59

Svenilson, I., 869

Swanson, G. I., 573

Swanson, John, 583

Swanson, P. J., Jr., 293

Swift, W. J., 479

Taeuber, Conrad, 364

Takasaki, Richard S., 19

Task Force on Economic Growth
 and Opportunity, 480

Taussig, M. K., 584

Tax Institute, 395

Taylor, T. C., 931

Technolomics, Inc., 961

Terhune, George A., 60

Terleckyj, Nestor E., 61, 735

Terry, John N., 1040

Theil, Henri, 870

Thomas, Harold A., 932

Thomas, J. A., 345

Thompson, James D., 193

Thomson, G. L., 925

Thornblad, Carl E., 415

Tidwell, Sam B., 360

Timmons, John F., 736

Timms, H. L., 155

Tinbergen, J., 243, 822

Tolley, George S., 267

Tough, Coulson, 113

Tourin, Boris, 692

Tregoe, B. B., 143

Trice, Andrew H., 737

Tucker, Samuel A., 62

Turvey, Ralph, 500, 708, 738,
739

Tweeten, Luther G., 740

Tybout, Richard A., 871

Tyner, Fred H., 740

United Nations, 321, 741

Universities - National Bureau
Committee for Economic
Research, 405

United States Air Force, 396,
397, 398, 399

U.S. Bureau of the Budget, 63,
64, 65, 742, 743, 744, 1041

U.S. Bureau of Public Roads,
745

U.S. Bureau of Reclamation, 746

U.S. Civil Service Commission,
66

U.S. Congress, 156, 244, 404,
747, 962, 1009, 1010

U.S. Defense Documentation
Center, 1042

U.S. Department of Defense,
67, 322, 400, 401

U.S. Department of HEW, 245,
294, 482, 485, 881, 882,
1043

U.S. Department of Housing and
Urban Development, 1044

U.S. Department of Labor, 246,
247, 248, 249, 250, 251,
252, 268, 269, 483, 883,
1045, 1046

U.S. Department of the Navy,
402

U.S. Department of Veterans
Benefits, 586

U.S. General Accounting Office,
68

U.S. Interagency Committee on
Water Resources, 748

United States Joint Financial
Management Programme, 403

U.S. Office of the Chief of
Naval Operations, 324

U.S. Office of Education, 20,
361, 362, 363, 1047, 1048

U.S. Outdoor Recreation Re-
sources Review Commission,
749

U.S. President's Water Re-
sources Council, 750

U.S. Public Health Service, 323, 501, 1011

U.S. Subcommittee on Economic Statistics, 325, 1012

U.S. Subcommittee on National Security, 69, 70, 71, 1013

Universities - National Bureau Committee on Economic Research, 405

Vaizey, J., 814, 823, 824, 825, 963

Van Albert, C. E., 537, 538

Venn, Grant, 826

Vernor, R., 933

Vincent, Howard L., 295, 1049

Von Bertalanffy, Ludwig, 157

Walker, Morgan R., 378

Wallis, K. B., 97

Ward, J. T., 751

Warmbrod, J. Robert, 827

Wasserman, William, 964

Weathersby, George, 908

Weber, Max, 194

Weidenbaum, Murray L., 72

Weinberg, Alvin M., 752

Weisbrod, Burton A., 479, 484, 587, 753, 828, 829

Welch, Finis, 884

West, E. G., 965

West, J. D., 925

Western Agricultural Economics Research Council, 754, 755

Wheeler, A., 1050

Whinston, Andrew B., 613, 614, 844

Whipple, William, 756, 757

White, Alpheus L., 880

White, Harry Robert, 485

Wildavsky, Aaron, 975, 1014, 1015

Williams, Alan, 406, 758

Williams, B. R., 486, 1016

Williams, Harry, 253

Williams, R. L., 588

Wisconsin State Government, 326

Wise, Harold F., 270

Wisemen, J., 589, 759, 830

Witheyford, David K., 760

Wolozin, Harold, 872

Wood, Samuel E., 737

Woodhall, M., 831

Woollatt, L. H., 502

Wolfbein, Seymour L., 364

Woods, Donald H., 934

Wright, Chester, 73

Wright, Gordon, 1051

Wright, Robert Donald, 885

Wynn, Richard D., 161

Yaspan, Arthur, 1002

Yale Law Journal, 327

Young, O. R., 158

Zabrowski, Edward K., 909

Zemach, R., 102

Ziderman, Adrian, 199

Zinter, Judith R., 909

Zwick, C. J., 328