

PRIMESTAR orbital slot, these calculations indicate that the purchase of ADVANCED by an affiliate of TEMPO is excessively concentrating in the satellite broadcasting market.

31. If the relevant market is expanded to include all MVPD systems, the anticompetitive effects of the purchase are still greater. Here the problem arises because of the absence of competition between PRIMESTAR and local cable companies in areas where cable service is provided by a cable company other than TCI that is also a PRIMESTAR partner and markets PRIMESTAR, and between TEMPO, PRIMESTAR, and the local cable entity in TCI cable franchise areas. The calculations of market concentration will vary among localities, depending on the identity of the local cable company, but in areas where TCI is not the local cable franchisee, the effect is to combine local cable service, TEMPO, and either one or two PRIMESTAR services into a single entity. In areas where cable service is provided by TCI, the long-run effect of the acquisition is to give TCI retail control of cable service, PRIMESTAR, and TEMPO.

32. The range of industry forecasts concerning the total demand for high-power and medium-power satellite-to-home distribution systems is between three and 11 million homes by the year 2000. If cable penetration falls by an amount equal to the total increase in satellite penetration, a highly unlikely prospect, cable will still serve at least 50 percent of all households and 80 percent of the total for all MVPD systems. Adding an MVPD

that captures even one percent of the MVPD market to a local cable franchise will, in that locality, increase the Herfindahl Index by over 150 points, in a market that will already have a Herfindahl index of more than 6400. Because of the dominance of cable now and for several more years, at least, the broader market definition makes the case against the purchase even stronger than it is in the case of a satellite-only market.

MARKET POWER: PROGRAMMING

33. The concern about the effect of the acquisition on program supply is that TCI will use its market power in distribution to reduce competition in the program supply industry, and vice versa. The possible strategies are: (1) impose a price-squeeze on satellite distribution systems, whereby the price of TCI video programming is set so high that fewer satellite distributors can survive financially; (2) use monopsony power in acquiring programs from independent suppliers to pressure them not to make their programs available to competing distribution systems; (3) for new program suppliers, deny access, or provide inferior access, to distribution systems controlled by TCI, reducing competition with its own program supply investments; and (4) refuse to supply competitive distributors with its own program services.

34. The incentive to engage in these activities arises from two important factors. First, cable television is regulated, to some degree constraining the profits of cable system owners. Cable

systems can evade some of this regulation by passing on the potential monopoly profits from cable to their programming networks. Second, additional profits can be obtained from video distribution through price discrimination according to the number and quality of programs -- but only if consumer access to programming is controlled. The video distributor is in the best position to undertake effective price discrimination, but can not succeed if distribution is competitive.

35. History indicates that vertical foreclosure strategies are a serious concern in this industry. A large body of research, most notably by David Waterman of the University of Indiana, finds that cable systems tend to favor their own affiliated networks over networks owned by others, and to engage in numerous forms of price discrimination through bundling, tiering, and other complex pricing structures. These practices gave rise to regulatory interventions to deal with program carriage practices by cable systems that also own programming, as embodied in FCC rules and the consent decree that settled the antitrust case against PRIMESTAR Partners.

36. As reported by the FCC in the First Report, The program access rules have reduced the frequency of exclusivities and refusals to deal of cable-related program suppliers; however, even with perfect compliance, not all vertical foreclosure strategies are or can be eliminated by regulatory rules. Without highly undesirable full-scale price regulation of the supply of

program services to cable systems, vertically integrated firms can use pricing and cable capacity decisions as means to contain competition.

37. In the case at hand, TCI would be better off financially if direct competition between cable and satellite distribution were avoided, and the new technology was used to serve consumers without cable or with especially intense demand for programs. This strategy would preserve the market power of cable systems for dealing with most of their customers. Moreover, as a major investor in program supply companies, TCI would prefer to have entry into that industry blocked, creating a scarcity of programs relative to demand. Integrating into satellite distribution is necessary for TCI to pursue both strategies effectively, and furthermore to develop a system of effective price discrimination against consumers of satellite distribution. By setting program supply prices very high for satellite systems, and by denying new program services access to TCI's cable systems and satellite systems TCI simultaneously can deter competition against its cable systems and satellite investments by engaging in a "price squeeze" against other satellite distributors, and deter entry into programming that would erode both scarcity rents in program supply and the price discrimination in the retailing of programs.

38. TCI's ability to engage in these strategies is directly related to its degree of control over satellite distribution. Because the number of satellites for distributing programs to

consumers is fixed for the next several years, TCI need not fear inducing more entry as it extracts more monopoly profits from a more concentrated satellite distribution system and prices programs to satellite systems in a manner that prevents these programs from becoming effective competitors to cable.

39. The rules about licensing program channels owned by cable systems would not prevent this strategy. The rules merely require that systems with the same number of subscribers face the same price for these programs. Quantity discounts for large cable systems are legal. Of course, a company controlling a large number of cable subscribers has considerable bargaining power with program suppliers compared to both a small cable system and a fledgling satellite system, since access to TCI is far more crucial to the survival of a program channel than is access to a satellite. Moreover, if TCI can keep satellites from competing effectively against cable so that they remain small relative to TCI, the pricing advantage of TCI's cable systems can be perpetuated.

40. The incentives and opportunities for TCI and PRIMESTAR to pursue the kinds of strategies described above are substantial. According to the FCC's First Report, TCI has ownership interests in 23 cable program services, and eight of the twenty most popular services, ranked by total subscribers.^{16/} TCI's holdings are by far the largest and most diverse among cable

^{16/} FCC, First Report, pp. G-11 through G-14.

system owners, but most of the remaining cable networks are also owned by companies with extensive cable holdings that share TCI's interest in slowing MVPD competition and entry by independent programming sources.

41. The importance of these observations is that TCI represents by far the greatest threat to competition in MVPD. TCI's program interests combined with its having the greatest number of cable subscribers, the greatest influence in PRIMESTAR operations, and the most extensive plans for investment in satellite distribution makes it by far the worst candidate for acquisition of ADVANCED. Indeed, it is difficult to imagine an effective competition foreclosing strategy by cable companies against DBS without the active participation of TCI.

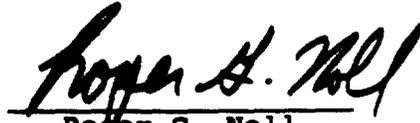
CONCLUSIONS

42. The application to sell ADVANCED's DBS authority to TEMPO is anticompetitive. It will increase the market shares of TCI-affiliated DBS programmers beyond the level that is tolerable. With the additional satellite capacity, TCI will control at least two and perhaps three satellite distribution systems plus the local cable franchise in approximately twenty percent of the nation, giving TCI nearly all MVPD service in those areas. Combined with its large share of cable subscribers and cable program suppliers, TCI will dominate each segment of the industry, and will have the opportunity to engage in profitable vertical foreclosure activities that will reduce competition in

program supply and attenuate the extent to which DBS becomes a competitive alternative to cable.

CERTIFICATION

I, Roger G. Noll, certify under penalty of perjury that the foregoing Declaration is true and correct. Executed on December 16, 1994.


Roger G. Noll

CURRICULUM VITAE
ROGER G. NOIL

PERSONAL

Date and Place of Birth: March 13, 1940; Monterey Park, California
Married to Robyn Schroeder Noll; one daughter, Kimberlee Elizabeth

EDUCATION

East High School, Salt Lake City, Utah, 1955-58
B.S. (Math, Honor), California Institute of Technology, 1958-62
A.M., Ph.D. (Economics), Harvard University, 1965, 1967

SCHOLARSHIPS, FELLOWSHIPS AND AWARDS

National Merit Scholarship 1958-62
National Defense Education Act Fellowship 1962-66 (declined)
Harvard Prize Fellowship 1962-63
National Science Foundation Fellowship 1963-64
Guggenheim Fellow 1983-84
Rhodes Prize for Undergraduate Teaching, Stanford University, 1994

POSITIONS HELD

Teaching Fellow, Harvard University, 1964-65
Instructor, California Institute of Technology, 1965-67
Assistant Professor, California Institute of Technology, 1967-69
Senior Staff Economist, Council of Economic Advisors, 1967-68
Associate Professor, California Institute of Technology, 1969-71
Senior Fellow and Co-director of Brookings Studies in the Regulation of Economic Activity, Brookings Institution, 1970-73
Professor, California Institute of Technology, 1973-82
Visiting Professor, Graduate School of Business, Stanford University, 1976-77
Chairman, Division of the Humanities and Social Sciences, California Institute of Technology, 1978-82
Rushen Quattrone Lecturer, University of Chicago, April 1981
Institute Professor of Social Sciences, California Institute of Technology, 1982-84
Donald Gilbert Memorial Lecturer, University of Rochester, December 1982
Fellow, Center for Advanced Study in the Behavioral Sciences, 1983-84
Professor of Economics, Stanford University, 1984-
Visiting Scholar, Hoover Institution, 1984-85
Professor by Courtesy, Department of Political Science, Stanford University, 1985-
Professor by Courtesy, Graduate School of Business, Stanford University, 1986-
Vulken-Clark Lecturer, Carleton College, May 1986
Director, Public Policy Program, Stanford University, 1986-
David Kinley Lecturer, University of Illinois, May 1987
Sunderland Fellow, Law School, University of Michigan, Fall 1988
Morris M. Doyle Centennial Professor in Public Policy, Stanford University, 1990-
Jean Monnet Professor, European University Institute, May 1991
Associate Dean, Humanities and Sciences, Stanford University, 1991-92
Visiting Professor, University of California, San Diego, Winter and Spring 1993

TEACHING EXPERIENCE

Undergraduate: Introductory Economics, Intermediate Microeconomic Theory, Statistical Methods in Economics, Economic History of Medieval Europe, Contemporary Socioeconomic Problems, Advanced Topics in Microeconomics, History of Economic Thought, Public Policy

Graduate: Public Policy Analysis, Government Regulation of Business, Applied Microeconomic Theory, Experimental Methods

RESEARCH INTERESTS

Applied Microeconomics, Social Control of Business, Political Economics

MEMBERSHIPS ON COMMITTEES AND BOARDS

President's Task Force on Communications Policy (CEA Staff Representative and Alternate Member), 1967-68
 Commerce Technical Advisory Board Panel on Venture Capital, 1968-69
 Committee on the Multiple Uses of the Coastal Zone, National Council on Marine Resources and Engineering, 1968
 Secretary, President's Interagency Task Force on Income Maintenance, 1968
 Task Force on Application of Economic Analysis of Transportation Problems, National Research Council (NAS/NAE), 1970-73
 Committee on Technological Forecasting on Behalf of the Environment, Office of Science and Technology, 1970-71
 Board of Economic Advisers, Public Interest Economics Foundation, 1974-84
 Executive Committee and Vice Chairman, Staff Committee, Caltech Environmental Quality Laboratory, 1970-71
 Faculty Board, Caltech, 1974-76
 Advisory Commission on Regulatory Reform, Senate Committee on Government Operations, 1975-77
 Chairman, Fourth Annual Telecommunications Policy Research Conference, 1975-76
 Committee on Satellite Communications, National Academy of Sciences, 1975-76
 Advisory Council, Jet Propulsion Laboratory, 1976-82
 Chairman, Committee to Monitor the Desegregation Plan of the Los Angeles Unified School District, Los Angeles Superior Court, 1978-79
 Advisory Council, National Aeronautics and Space Administration, 1978-81
 Advisory Council, National Science Foundation, 1978-89
 Board of Advisers, National Institute of Economics and Law, 1978-84
 Research Advisory Board, Committee for Economic Development, 1979-82
 President's Commission for a National Agenda for the Eighties, 1980
 Board of Directors, Owen Greenhalgh and Mytilinaki, Inc., 1981-
 Review Panel, NSF Regulation and Public Policy Program, 1981-84
 Board of Editors, *Journal of Economic Literature*, 1981-90
 Advisory Board, Solar Energy Research Institute, 1982-91
 Board of Directors, Cornell Palcovits and Brunner, Inc., 1982-1988
 Chairman, Advisory Panel on Information Technology R&D, Office of Technology Assessment, 1983-84
 Supervisory Board of Editors, *Information Economics and Policy*, 1982-88 Coordinating Editor, *Information Economics and Policy*, 1988-92
 Advisory Committee on Integrated Environmental Management Program, Environmental Protection Agency, 1983-85

Memberships on Committees and Boards, cont'd.

Commission on Behavioral and Social Sciences and Education, National Academy of Sciences, National Research Council, 1984-90
 Advisory Panel, NSF Policy Research and Analysis Division, 1984
 Science Advisory Board, Panel on Clean Air, Environmental Protection Agency, 1985-86
 Board of Editors, *Review of Economics and Statistics*, 1985-
 Contributing Editor, *Regulation*, 1986-93
 Energy Research Advisory Board, Department of Energy, 1986-89
 President & Chairman of the Board, Telecommunications Policy Research Foundation, 1986-87
 Board of Directors, International Telecommunications Society, 1988-92
 Acid Rain Advisory Committee, Environmental Protection Agency, 1990-91
 Secretary of Energy Advisory Board, 1990-
 Faculty Senate, Stanford 1993-95

SPONSORED RESEARCH

"Opinions of Policemen." International Association of Chiefs of Police, 1969
 "Studies in the Regulation of Economic Activity." Brookings Institution and the Ford Foundation, 1970-73
 "Government Policies and Technological Innovation." National Science Foundation National R&D Assessment Program, 1973-74
 "The Social Consequences of Earthquake Prediction." National Aeronautics and Space Administration, 1974-76
 "Nuclear Safety Regulation." National Science Foundation RANN Program, 1975-77
 "The Public Television Station Program Cooperative." National Science Foundation RANN Program, 1975-77
 "The Station Allocation Game." Federal Communications Commission, 1977
 "Energy Policy Studies." Various donors, 1978-84
 "Economics of Oil Leasing" and "Issues in Utility Pricing." Department of Energy, 1978-79
 "The Economics of Boxing, Wrestling and Karate." California Athletic Commission, 1978
 "Implementing Tradable Emissions Permits." California Air Resources Board, 1979-82
 "Social Science and Regulatory Policy." National Science Foundation, 1980-82
 "The Political Economy of Public Policy." National Science Foundation and Center for Economic Policy Research, Stanford University, 1983-84
 "CEPR Program in Regulatory Policy." Various donors, 1987-

CONSULTANTSHIPS

President's Task Force on Suburban Problems, 1968
 President's Committee on Urban Housing, 1968
 Special Assistant to the President, Ford Foundation, 1969
 Space Technology Applications, Jet Propulsion Laboratory, 1969
 Panel on the Abatement of Particulate Emissions, National Research Council (NAS/NAE), 1971
 Sloan Commission on Cable Communications, 1971
 President's Commission on Government Procurement, 1971
 Senate Antitrust Subcommittee, 1972
 MCI, Inc., 1972-73, 1983, 1986
 National Science Foundation, 1973, 1975
 Department of Justice, Antitrust Division, 1974-77, 1979-81, 1993-
 Internal Revenue Service, 1976-77
 RAND Corporation, 1974-82

Consultants, cont'd.

Los Angeles Lakers, 1974-75
 National Football League Players Association, 1975, 1987.
 Office of Telecommunications Policy, 1975-77
 National Basketball Association Players Association, 1975-76, 1987-88, 1994
 Naval Ordnance Test Station, 1975
 Commission on Law and the Economy, American Bar Association, 1977-78
 Aspen Institute Program on Communications and Society, 1977
 National Commission on Electronic Funds Transfer, 1977
 Business Round Table, 1978
 Federal Communications Commission, 1977-81
 Food and Drug Administration, 1978
 Carnegie Commission on the Future of Public Broadcasting, 1978
 Department of Energy, 1979
 Office of Technology Assessment, 1980
 Kerr-McGee Corporation, 1980
 CBS, Inc. 1982-83
 Environmental Protection Agency, 1982-83
 Showtime/The Movie Channel, 1983, 1985
 Harlequin Books, 1984
 Lelo Huron Broadcasting, 1984
 National Collegiate Athletics Association, 1984
 National Medical Enterprises, 1985, 1987-88
 Canella City Telecasters, 1985-86
 Brown and Root, Inc., 1985-86
 McDermott, Inc., 1985-86
 Major League Baseball Players Association, 1985, 1994
 United Cable Television and American Television and Communications, 1985
 United States Football League, 1985-86
 City of Anaheim, 1986
 Technicolor, 1986
 Metro-Media, 1986-89
 Hoeftel-Parkard, 1986-1990, 1991
 Edensphere, 1987
 Continental Airlines, 1987-88
 Hama Bar Office, 1988-89
 Houston Tracker, 1988
 Ball South Cellular, 1989
 Western Union, 1989
 Minnesota Twins, 1989
 Northwest Airlines, 1989
 Pepsico, 1989
 Yellow Pages, 1989-91
 Dialog, 1990-91
 California Public Utilities Commission, 1989-90
 American Newspaper Publishers Association, 1990
 Hanna, 1990-91
 Powell, Gelstein, Fraser and Murphy, 1990-93
 Metastatic, 1990-91
 South Coast Air Quality Management District, 1990-91
 Federal Trade Commission, 1990-91

Consultants, cont'd.

- Delta Airline, 1991
 California Cable Television Association, 1991
 Bureau of Competition Policy, Government of Canada, 1991
 Berry and Lefwich, 1991-94
 International Entertainment Group, 1992-
 Nilco, Inc., 1992
 Gemini, Inc. 1992-94
 Servicetrade, Inc., 1993-94
 William Sullivan, 1993
 Sure Safe Industries, 1993
 Image Technical Services, 1994

BOOKS

- Reforming Regulation: An Evaluation of the Ash Council Report. Brookings Staff Paper. Brookings Institution, 1971.
- Economic Aspects of Television Regulation, co-authors Merton J. Peck and John J. McGowan. Brookings Institution, 1973. Winner of the National Association of Educational Broadcasters Annual Book Award, 1974.
- Government and the Sports Business, editor. Brookings Institution, 1974.
- The Political Economy of Deregulation, co-author Bruce Owen. American Enterprise Institute, 1983.
- Regulatory Policy and the Social Sciences, editor. University of California Press, 1985.
- The Technology Port Barrel, co-author Linda R. Cohen. Brookings Institution, 1991.
- The Economics and Politics of Deregulation. European University Institute, 1991.

ARTICLES IN SCHOLARLY PUBLICATIONS

- "Urban Concentration: Prospects and Implications." In Increasing Understanding of Public Problems and Policies. Chicago: Farm Foundation, 1969.
- "Metropolitan Employment and Population Distribution and the Conditions of the Urban Poor." In Essays on the Metropolis: Public Policy in Urban Economics, John P. Creskin, editor. The Urban Affairs Annual Reviews IV. Sage Publications, 1970 (Brookings Reprint No. 184).
- "Summary and Conclusions," co-author William Capron. In Technological Change in Regulated Industries, William Capron, editor. Brookings Institution, 1971.
- "The Nature and Causes of Regulatory Failure." Administrative Law Review, Vol. 23, No. 4 (June 1971): 424-457. Revised version published as "The Economics and Politics of Regulation." Virginia Law Review, Vol. 57, No. 6 (September 1971): 1016-1032.

Articles in Scholarly Publications, cont'd.

- *Mass Balance, General Equilibrium and Environmental Externalities,* co-author, John Trigas. *American Economic Review*, Vol. 61, No. 4 (September 1971): 730-735.
- *The Behavior of Regulatory Agencies.* *Review of Social Economics*, Vol. 24, No. 1 (March 1971): 15-19. Brookings Reprint No. 219 (November 1971).
- *Selling Research to Regulatory Agencies.* In The Role of Analysis in Regulatory Decisionmaking: The Case of Cable Television, Rola Edward Park, editor. Lexington: Heath-Lexington, 1973.
- *Relative Prices on Regulated Transactions of the Natural Gas Pipelines,* co-author, Paul MacAvoy. *Bell Journal of Economics and Management Science*, Vol. 4, No. 1 (Spring 1973): 212-234.
- *Regulating Prices in Competitive Markets,* co-author Lewis A. Rivlin. *Yale Law Journal*, Vol. 82, No. 7 (June 1973): 1426-1434.
- *The U.S. Team Sports Industry.* In Government and the Sports Business, Roger G. Noll, editor. Brookings Institution, 1974. Abridged version reprinted in Public Policies Toward Business: Reading and Cases, William G. Shepherd, editor. Irwin, 1975.
- *Attendance and Price Setting.* In Government and the Sports Business, Roger G. Noll, editor. Brookings Institution, 1974.
- *Alternatives in Sports Policy.* In Government and the Sports Business, Roger G. Noll, editor. Brookings Institution, 1974. Abridged version reprinted in Public Policies Toward Business: Reading and Cases, William G. Shepherd, editor. Irwin 1975. Revised version reprinted in Handbook of Social Science of Sport, Gunther R. R. Luschen and George H. Sage, editors. Stripes Publishing Co., 1980.
- *The Social Costs of Government Intervention.* In The Business-Government Relationship in American Society: Measurement, Neil H. Jacoby, editor. University of California Press, 1975.
- *The Consequences of Public Utility Regulation of Hospitals.* In Controls on Health Care. Washington, D.C.: National Academy of Sciences, 1975.
- *Information, Decision-Making Procedures and Energy Policy.* *American Behavioral Scientist*, Vol. 19, No. 3 (January/February 1976): 267-278. In Current Issues in Social Policy, W. B. Linnell and G. Sjoberg, editors. Sage, 1976.
- *Breaking Out of the Regulatory Dilemma: Alternatives to the Sterile Choice.* *Indiana Law Journal*, Vol. 51, No. 3 (Spring 1976): 686-699. Reprinted in Corporate Practice Commentator, Vol. 19, No. 1 (Spring 1977): 99-114.
- *Safety Regulation,* co-authors Nina Cornell and Barry Weingart. In Setting National Priorities: The Next Ten Years, Henry Owen and Charles L. Schultz, editors. Brookings Institution, 1976.
- *Major League Team Sports.* In The Structure of American Industry, Walter Adams, editor. 5th ed. Macmillan, 1976. 6th ed. Macmillan, 1981.

Articles in Scholarly Publications, cont'd.

- "An Experimental Market for Public Goods: The PBS Program Cooperative," co-author John A. Ferejohn. American Economic Review Papers and Proceedings, Vol. 66, No. 2 (May 1976): 267-273.
- "Government Policy and Technological Innovation: Where Do We Stand and Where Do We Go?" In Innovation, Economic Change and Technology Policies, K.A. Stroumann, editor. Birkhauser-Verlag, 1977. Also in Government Policies and Technological Innovation, Vol. 1. National Technical Information Service, 1974.
- "Economic Policy Research on Cable Television: Assessing the Costs and Benefits of Cable Deregulation," co-authors S.M. Basen, B.M. Mitchell, B.M. Owen, R.E. Park, and J.N. Rose. In Deregulation of Cable Television, Paul W. MacAvoy, editor. American Enterprise Institute, 1977.
- "The Economic Implications of Regulation by Expertise: The Case of Recombinant DNA Research," co-author Paul A. Thomas. In Research with Recombinant DNA. National Academy of Sciences, 1977.
- "The Dilemma of Consumer Advocacy." In Regulatory Reform, W.S. Moore, editor. American Enterprise Institute, 1978.
- "Uncertainty and the Formal Theory of Political Campaigns," co-author John A. Ferejohn. American Political Science Review, Vol. 72, No. 2 (June 1978): 492-505.
- "Voters, Bureaucrats and Legislators: A Rational Choice Perspective on the Growth of Bureaucracy," co-author Morris P. Fiorina. Journal of Public Economics, Vol. 9, No. 3 (May 1978): 239-254.
- "Public Utilities and Solar Energy Development--Institutional Economic Considerations." In On the Economics of Solar Energy, Stephen L. Feltman and Robert M. Wirtshafter, editors. Lexington, MA: D.C. Heath, Lexington books, 1980. Extended version in The Solar Market: Proposals of the Symposium on Competition in the Solar Industry. Federal Trade Commission, 1978.
- "The Rationale for Mandated Cost Increases." In Economic Effects of Government-Mandated Costs, Robert F. Lenzilotti, editor. University Presses of Florida, 1978.
- "An Experimental Analysis of Decisionmaking Procedures for Discrete Public Goods: A Case Study of a Problem in Institutional Design," co-authors John A. Ferejohn and Robert E. Forsythe. In Research in Experimental Economics, Vol. 1, Vernon L. Smith, editor. JAI Press, 1979.
- "Voters, Legislators and Bureaucracy: Institutional Design in the Public Sector," co-author Morris P. Fiorina. American Economic Review Papers and Proceedings, Vol. 68, No. 2 (May 1978): 256-260. Translated into Italian in Problems Di Amministrazione Pubblica, Vol. 4, No. 2 (1979): 69-89.
- "Regulation and Computer Services." In The Computer Age, Michael L. Dertouzos and Joel Moses, editors. MIT Press, 1979, pp. 254-284.

Articles in Scholarly Publications, cont'd.

- "Practical Aspects of the Construction of Decentralized Decisionmaking Systems for Public Goods," co-authors John A. Ferejohn and Robert Forsythe. In Collective Decisionmaking, Clifford S. Russell, editor. Resources for the Future, 1979.
- "Majority Rule Models and Legislative Elections," co-author Morris P. Fiorina. Journal of Politics, Vol. 41, No. 4 (November 1979): 1081-1104.
- "Regulatory and Nonregulatory Strategies for Controlling Health Care Costs," co-author Alvin Emswore. In Medical Technology: The Choice Behind Health Care Costs, Stuart H. Abman and Robert Bleedon, editors. Sun Valley Forum on National Health. U.S. Department of Health, Education and Welfare Publication No. (PHS) 79-3216, 1979.
- "The Game of Health Care Regulation: Comments on Feldman/Roberts." In Issues in Health Care Regulation, Richard S. Gordon, editor. McGraw-Hill Book Co., 1980.
- "The Economics of Disaster Defense: The Case of Building Codes to Resist Seismic Shock," co-author Linda Cohen. Public Policy, Vol. 29, No. 1 (Winter 1981): 1-29.
- "Regulation in Theory and Practice: An Overview," co-author Paul L. Joskow. In Studies in Public Regulation, Gary Fromm, editor. MIT Press, 1981.
- "Designing a Market for Tradable Emissions Permits," co-author Robert W. Hahn. In Reform of Environmental Regulation, Wesley Magat, editor. Lexington Books, 1982.
- "Implementing Marketable Emissions Permits." American Economic Review Papers and Proceedings, Vol. 72, No. 2 (May 1982): 120-124.
- "Implementing Tradable Emissions Permits," co-author Robert W. Hahn. In Reforming Social Regulation, Leroy Graysen and Frederick Thompson, editors. Sage Publications, 1982.
- "An Experimental Examination of Auction Mechanisms for Discrete Public Goods," co-authors John A. Ferejohn, Robert Forsythe and Thomas R. Palfrey. In Research in Environmental Economics, Vol. II, Vernon L. Smith, editor. JAI Press, 1982. Reprinted in Experimental Foundations of Political Science, Donald R. Kinder and Thomas R. Palfrey, editors. University of Michigan Press, 1993.
- "The Feasibility of Marketable Emissions Permits in the U.S.," In Public Sector Economics, Jorg Finisinger, editor. Macmillan Press, Ltd., 1983.
- "Barriers to Implementing Tradable Air Pollution Permits: Problems of Regulatory Interactions," co-author Robert W. Hahn. Yale Journal of Regulation, Vol. 1, No. 1 (1983): 63-91.
- "The Future of Telecommunication Regulation." In Telecommunications Today and Tomorrow, Eli Noam, editor. Harcourt Brace Jovanovich, 1983.
- "The Political Foundations of Regulatory Policy." In Zusatztitel für die gesamte Staatswissenschaft (Journal of Institutional and Theoretical Economics), Vol. 139, No. 3 (1983): 377-404. Reprinted in Contract, Structure and Policy, Matthew McCubbins and Terry Sullivan, editors. Cambridge University Press, 1987.

Articles in Scholarly Publications, cont'd.

- "The Regulation of Surface Freight Transportation: The Welfare Effects Revisited," co-author Ronald R. Brantigan. The Review of Economics and Statistics, Vol. 66, No. 1 (1984): 80-87.
- "Prospective Payment: Will It Solve Medicare's Financial Problem," co-author Alain C. Enthoven. Issues in Science and Technology, Vol. 1, No. 1 (1984): 111-116. Reprinted in Health Industry Today, Vol. 48, No. 3 (1985): 16-24.
- "Let Them Make Toll Calls: A State Regulator's Lament," American Economic Review Papers and Proceedings, Vol. 75, No. 2 (1985): 52-56.
- "The Preferences of Policy Makers for Alternative Allocations of the Broadcast Spectrum," co-author Forrest Nelson. In Antitrust and Regulation: Essays in Memory of John J. McGowan, Franklin M. Fisher, editor. MIT Press, 1985.
- "Government Regulatory Behavior: a Multidisciplinary Survey and Synthesis." In Regulatory Policy and the Social Sciences, Roger G. Noll, editor. University of California Press, 1985.
- "State Regulatory Responses to Competition and Divestiture in the Telecommunications Industry." In Antitrust and Regulation, Ronald E. Grieson, editor. Lexington Books, 1986.
- "The Political and Institutional Context of Communications Policy." In Marketplace for Telecommunications, Marcellus S. Snow, editor. Longman, Inc., 1986.
- "Government R&D Programs for Commercializing Space," co-author Linda R. Cohen. American Economic Review, Papers and Proceedings, Vol. 76, No. 2 (1986): 269-73.
- "Funding and Knowledge Growth: Comments," Social Studies of Science, Vol. 16, No. 1 (1986): 135-42.
- "Communications." In The New Palgrave, John Eatwell, Murray Milgate, and Peter Newman, editors. MacMillan, 1987.
- "Administrative Procedures as Instruments of Political Control," co-authors Matthew D. McCubbins and Barry R. Weingast. Journal of Law, Economics and Organization, Vol. 3, No. 2 (1987). Abridged version in Arthur Earl Rosefield and Michael Asimov, State and Federal Administrative Law, St. Paul: West Publishing, 1989.
- "Comment: Settlement Incentives and Follow-on Litigation." In Private Antitrust Litigation, Lawrence J. White, editor. MIT Press, 1988.
- "Economics, Politics and Government Research and Development," co-author Linda Cohen. In Technology and Politics, Michael E. Kraft and Norman J. Vig, editors. Durham: Duke University Press, 1988.
- "The Anticompetitive Uses of Regulation: United States v. AT&T (1982)," co-author Bruce M. Owen. In The Antitrust Revolution, John E. Kwota, Jr., and Lawrence J. White, editors. New York: Scott, Foresman, 1988.

Articles in Scholarly Publications, cont'd.

- "The Political Economy of NASA's Applications Technology Satellite Program," co-author Linda R. Cohen. In Space Applications Board, Proceedings of a Symposium on Space Communications Research and Development. Washington: National Research Council, 1988.
- "The Economics of Sports Leagues," in Law of Professional and Amateur Sports, Gary A. Uberwine, editor. Clark Boardman, 1988.
- "Preface: Symposium on Telecommunications Demand." Information Economics and Policy, Vol. 3 No. 4 (1988): 275.
- "Structure and Process, Politics and Policy: Administrative Arrangements and the Political Control of Agencies," co-authors Matthew D. McCubbins and Barry R. Weingast. Virginia Law Review Vol. 75, No. 2 (March 1989): 431-482.
- "U.S. v. AT & T: An Interim Assessment," co-author Bruce M. Owen. In Future Competition in Telecommunications, Stephen P. Bradley and Jerry A. Hausman, editors. Boston: Harvard Business School Press, 1989.
- "Telecommunications Regulation in the 1990s." In New Directions in Telecommunications Policy, Vol. I, Paula R. Newberg, editor. Durham: Duke University Press, 1989.
- "Comment: Peltzman on Deregulation." Brookings Papers on Economic Activity: Microeconomics (1989): 48-58.
- "Economic Perspectives on the Politics of Regulation." In Handbook of Industrial Organization, Vol. II, Richard Schmalensee and Robert Willig, editors. New York: North Holland Publishing Co., 1989.
- "Some Implications of Cognitive Psychology for Risk Regulation," co-author James Krier. Journal of Legal Studies, Vol. 19 (June 1990): 747-779.
- "Environmental Markets in the Year 2000," co-author Robert Hahn. Journal of Risk and Uncertainty, Vol. 3 (December, 1990): 347-363.
- "Pricing of Telephone Services," co-author Susan Smart. In After the Breaking, Barry G. Cole, editor. New York: Columbia University Press, 1990.
- "Slack, Public Interest, and Structure-Induced Policy," co-authors Matthew D. McCubbins and Barry R. Weingast. Journal of Law, Economics and Organization, Vol. 6 (1990): 203-212.
- "Positive and Normative Models of Procedural Rights: An Integrative Approach to Administrative Procedures," co-authors Matthew D. McCubbins and Barry R. Weingast. Journal of Law, Economics and Organization, Vol. 6 (1990): 307-332.
- "Commentary: The Prospects for Using Market Incentives for Conservation of Biological Diversity." In The Preservation and Valuation of Biological Resources, Gordon H. Orin, Gardner M. Brown, Jr., William E. Kusan, and Joseph E. Swartzwald, editors. Seattle: University of Washington Press, 1990.

Articles in Scholarly Publications, cont'd.

- "Rational Actor Theory, Social Norms, and Policy Implementation: Applications to Administrative Processes and Bureaucratic Culture," co-author Barry R. Weingart. In The Economic Approach to Politics, Kristan Ranwick Moore, editor. New York: Harper Collins, 1991.
- "How to Vote, Whether to Vote: Strategies for Voting and Abstaining on Congressional Roll Calls," co-author Linda R. Cohen. Political Behavior, Vol. 13 No. 2 (1991): 97-127.
- "The National Aerospace Plane: An American Technological Long Shot, Japanese Style," co-authors Linda R. Cohen and Susan A. Edelman. American Economic Review Papers and Proceedings, Vol. 81 (May 1991): 50-53.
- "The Economics of Intercollegiate Sports." In Participating Colleges Athletics, Judith Andre and David N. James, editors. Philadelphia: Temple University Press, 1991.
- "Comparative Structural Policies," co-author Haruo Suzuki. In Parallel Politics, Samuel Kernell, editor. Washington: Brookings Institution, 1991.
- "Structural Policies in the United States." In Parallel Politics, Samuel Kernell, editor. Washington: Brookings Institution, 1991.
- "On Regulating Prices for Physicians." In Regulating Doctors' Fees, H.E. Frech III, editor. Washington: AEI Press, 1991.
- "ISDN and the Small User: Regulatory Policy Issues," co-author William Lahr. In Interrelated Broadband Networks, Martin C.J. Eilon, editor. Amsterdam: North-Holland, 1991.
- "Professional Baseball: Economic and Business Perspectives." In The Business of Professional Sports, Paul D. Soudolar and James A. Mangum, editors. Urbana: University of Illinois Press, 1991.
- "Computer Reservation Systems and Their Network Linkages to the Airline Industry," co-author Margaret E. Guerra-Culvert. In Electronic Services Networks, Margaret E. Guerra-Culvert and Steven S. Willman, editors. New York: Praeger, 1991.
- "Positive Causes: The Role of Legislative Bargains in Statutory Interpretation," co-authors Matthew McCubbins and Barry Weingart. Constitutional Law Journal, Vol. 80 (February 1992): 705-742. Reprinted in Sutherland Statutory Construction, Norton I. Singer, editor. Deerfield, IL: Clark Boardman Callaghan, 1993.
- "An Economic Analysis of Scientific Journal Prices: Preliminary Results," co-author W. Edward Steinmueller. Science Review 18 (1992): 32-37.
- "The Theory of Interpretive Causes and Legislative Behavior," co-authors Matthew McCubbins and Barry Weingart. International Review of Law and Economics, Vol. 12 (June 1992): 235-238.
- "Comment: Judicial Review and the Power of the Purse." International Review of Law and Economics, Vol. 12 (June 1992): 211-213.

Articles in Scholarly Publications, cont'd.

- "Comment: Standard Setting in High-Definition Television." Brookings Papers on Economic Activity: Microeconomics, 1992: 80-89.
- "Research and Development," co-author Linda R. Cohen. In Setting Domestic Priorities: What Can Government Do? Henry J. Aaron and Charles L. Schultze, editors. Washington: Brookings Institution, 1992.
- "The Economics of Information: A User's Guide." In The Knowledge Economy: Annual Review of the Institute for Information Studies. Wye, Maryland: Aspen Institute, 1993.
- "Downside Thresholds and the Theory of Political Advertising." In Information, Participation, and Choice, Bernard Grofman, editor. Ann Arbor: University of Michigan Press, 1993.
- "Economic Regulation," co-author Paul L. Joskow. In American Economic Policy in the 1980s, Martin Feldstein, editor. Chicago: University of Chicago Press, 1994.
- "Legislative Intent: The Use of Positive Political Theory in Statutory Interpretation," co-authors Matthew McCubbins and Barry Weingast. LAW and CONTEMPORARY PROBLEMS, Vol. 57 (Winter/Spring 1994): 3-37.
- "The Origins of State Railroad Regulation: The Illinois State Constitution of 1870," co-author Mark T. Krasner. In The Regulated Economy, Claudia Goldin and Gary D. Libecap, editors. Chicago: University of Chicago Press, 1994.

OTHER PUBLICATIONS

- "Central City--Suburban Employment Distribution." In Final Report: Statistical Progress: President's Task Force on Suburban Problems, Department of Housing and Urban Development, December 1968.
- "Current Mortgage Finance Problems." In Final Report: Policy and Program Progress: President's Task Force on Suburban Problems, Department of Housing and Urban Development, December 1968.
- "A Statistical Analysis of the International Association of Chiefs of Police Poll of the Opinions of Policemen." 1st Population Laboratory, Fall 1969.
- "National Communications Policy: Discussion--Spectrum Allocation Without Markets." American Economic Review, Vol. 60, No. 2 (May 1970).
- "Prospects and Policies for CATV." Appended to On the Cable (report of the Sloan Commission on Cable Communications), co-authors John J. McGowan and Merton J. Peck. McGraw-Hill, 1971.
- "The Economics of Professional Basketball," co-author Benjamin A. Otker. Brookings Report No. 258, 1972. From statements before Senate Antitrust Subcommittee, Hearings on S.2373, September 21-23, 1971, Professional Basketball (Part I) and May 3, 1972, Professional Basketball (Part II).

Other Publications, cont'd.

"The Price Commission and Regulated Public Utilities." Compendium on Price and Wage Controls: Now and the Outlook for 1973. Joint Economic Committee of the U.S. Congress, 1972.

"The Administration Bill to Deregulate Surface Transportation." In Transportation Policy: The Economic-Political Interface, Anthony M. Woodward, editor. Business Research Center, Syracuse University, 1972.

"The Case for Viewer Sovereignty," co-authors Merton J. Peck and John J. McGowan. Research Report No. 135. Brookings Institution, June 1973.

"Regulating the Medical Services Industry." Presented at National Health Council annual meeting, March 20-21, 1973. Summarized in The Changing Role of the Public and Private Sectors in Health Care. National Health Council, 1973.

"Decentralization of Public Television." In Conference on Communications Policy Research: Papers and Proceedings. Office of Telecommunications Policy, Washington, D.C., 1973.

"Subsidization through Regulation: The Case of Broadcasting," co-authors John J. McGowan and Merton J. Peck. In The Economics of Federal Subsidy Programs: A Compendium of Papers Submitted to the Subcommittee on Priorities and Economy in Government of the Joint Economic Committee: Part 8 - Selected Subsidies. Washington, D.C.: U.S. Government Printing Office, 1974.

"The Product Market in Sports." In Conference on the Economics of Professional Sports: Proceedings, George Burman, editor. National Football League Players Association, Washington, D.C., May 7, 1974.

"Comments Regarding Limitations on Programming Available for Broadcast on Pay-TV Channels." Submitted to Federal Communications Commission. Included in Communications—the Pay-Cable Industry, Hearings before Subcommittee on Antitrust and Monopoly, Senate Committee on the Judiciary, June 1975.

"Empirical Studies of Utility Regulation." In Rate of Return Regulation: Proceedings of the Future Planning Conference. Federal Communications Commission, 1976.

"The Role of Competition in the Electronic Media." In Proceedings of the Symposium on Media Concentration, Vol. 1, December 14-15, 1978. Washington, D.C.: Bureau of Competition, Federal Trade Commission.

"Antitrust Exemptions: An Economic Overview." In National Commission for the Review of Antitrust Laws and Procedures, Report to the President and the Attorney General, Vol. II. U.S. Department of Justice, 1979.

"Adaptive Approaches to the CO₂ Problem." In Carbon Dioxide, Climate and Society: A Research Agenda, Vol. II. U.S. Department of Energy, 1980.

"Institutional Aspects of Geothermal Development," co-authors Tom K. Lee, Venkataraman Sedenand and Louis L. Wilde. In Geothermal Probabilistic Cost Study, Vol. II (JPL 5030-491). Pasadena: Jet Propulsion Laboratory, 1981.

Other Publications, cont'd.

"Looking for Villains in the Energy Crisis." In Energy Independence for the United States: Alternative Policy Proposals, Nake M. Kamrany, editor. Santa Monica, California: Fundamental Books, 1981. Reprinted in U.S. Options for Energy Independence, Nake M. Kamrany, editor. Lexington Mass.: D.C. Heath & Co., Lexington Books, 1982.

"The Rationale for Social Regulation." In Government Regulation: New Perspective, Andrew R. Blair, editor. University of Pittsburgh, Graduate School of Business, October 1981.

"The Political Economy of Deregulation," co-author Bruce Owen. Regulation Vol. 7, No. 2 (March/April 1983): 19-24.

"The Case Against the Balanced Budget Amendment: Comments on Aranson and Rabushka." In The Economic Consequences of Government Deficits, Laurence H. Meyer, editor. Boston: Kluwer-Nyhoff Publishing, 1983.

"Recent Social Policy: Comment." In Telecommunications Access and Public Policy, Alan Baughcum and Gerald Faulhaber, editors. Ablex Publishing Corp., 1984.

"The Economic Viability of Professional Baseball: Report to the Major League Baseball Players Association." In Representing Professional Athletes and Teams, Philip R. Hochberg and Martin E. Blackman, editors. New York: Practising Law Institute, 1986.

"The Twisted Pair," Regulation Vol. 11, No. 3/4 (1987): 15-22.

"Regulation After Reagan," Regulation Vol. 12, No. 3 (1988): 13-20.

"Statement of Goals and Strategies for State Telecommunications Regulation," numerous co-authors. Queenstown, Maryland: Aspen Institute, 1989.

"Wirtschaftswachstum, High-Tech-Produkte und internationale Handelspolitik." In Deutsch-amerikanische Beziehungen: Politische Freundschaft und wirtschaftliche Konkurrenz? Frankfurt am Main: Haus der Evangelischen Publizistik, 1989.

"The Contemporary Development of International Trade: Approaches, Issues and Problems." In A Developing World Economy: The Ethics of International Cooperation. San Leandro, California: Vesper International, 1990.

"Competitive Issues: Enforcement Priorities and Economic Principles." In Antitrust Issues in Regulated Industries. Boston: Charles River Associates, 1991.

"Responding to Referees and Editors," CSWEP Newsletter (February 1993):15-17.

"Biographical Sketches of CSWEP Board Members," CSWEP Newsletter (October 1994):

17.

OTHER PAPERS

"An Economic Analysis of Network Operations Research Techniques." Ph.D. dissertation, Harvard University, 1967.

Other Papers, cont'd.

- "Perspectives on Rural-Urban Migration." Council of Economic Advisors, November 1968.
- "The Economics of Pollution Abatement." Presented at Annual Meeting of the American Association for the Advancement of Science, December 1970.
- "Comments Regarding the Public Interest in Commission Rules and Regulations Relating to Cable Television, Signal Importation and the Development of UHF Independent Commercial Stations," co-authors John J. McGowan and Martin J. Peck. Submitted to Federal Communications Commission, Docket 18397-A, February 10, 1971.
- "A Dynamic Theory of Political Campaigning," co-author John A. Ferryjohn. Conference on Game Theoretic Structures in Models of Political-Economic Processes, California Institute of Technology, February 1972, and at the Annual Meeting of American Political Science Association, September 8, 1972, Washington, D.C.
- "Government Administrative Behavior and Technological Change." In Government Policies and Technological Innovation. Vol. II. National Technical Information Service, 1974.
- "Public Policy and Innovation: Two Cases," co-author W. David Montgomery. In Government Policies and Technological Innovation, Vol. II. National Technical Information Service, 1974.
- "The Causes of Regulatory Failure." In Quarterly of Civil Administration Board Practices and Procedures. Hearings before the Subcommittee on Administrative Practices and Procedures, Senate Committee on the Judiciary, 94th Cong., 1st Sess., 1975.
- "Statement on Regulatory Reform." In Regulatory Reform - 1975. Hearings before the Committee on Government Operations, U.S. Senate, 94th Cong., 1st Sess., 1975.
- "Responses to Disaster: Planning for a Great Earthquake in California," co-authors Linda Cohen and Barry Weingart. Social Science Working Paper No. 131, California Institute of Technology, 1976, revised April 1977.
- "Statement on Public Policy Toward Sports." Hearings, Select Committee on Professional Sports, U.S. House of Representatives, September 1976.
- "Statement on H.R. 11611, 'Drug Regulation Reform Act of 1978.' Hearings before the Subcommittee on Health and the Environment, U.S. House of Representatives, June 1978, p. 2156 ff.
- "The Economics of Boxing Regulation in California," co-authors Joel A. Balaban and James P. Quirk. Social Science Working Paper No. 366, California Institute of Technology, January 1981. Report to California Athletic Commission.
- Implementing Tradable Emissions Permits for Sulfur Oxide Emissions in the South Coast Basin. (Three volumes), co-authors Glen Case and Robert Hahn. Report to California Air Resources Board. Caltech Environmental Quality Laboratory, June 1983.
- "Economic Effects of the Financial Interest and Syndication Rule," co-authors Robert Crandall and Bruce Owen. Economists, Inc., April 1983. Submitted to Federal Communications Commission, Inquiry on Television Networks.

Other Papers, cont'd.

"Pay and Performance in Baseball: Modeling Regulars, Reserves and Expansion," co-author Rodney D. Fort. Social Science Working Paper No. 527, California Institute of Technology, Pasadena, CA 1984.

"Promises, Promises: Campaign Contributions and the Reputation for Services," co-author John Ferejohn. Social Science Working Paper No. 545, California Institute of Technology, Pasadena, CA, 1984.

"Local Telephone Prices and the Subsidy Question," co-author Nina W. Cornell. Presented at Annual Meetings of the American Economic Association, December 1984, and at the Conference on Telecommunications Demand Modelling, Bell Communications Research, October 1985.

"Using Economic Incentives for Conserving Species." Presented at the Conference on Genetic Resources, University of Washington, June 1985.

"The Economics of Bell Operating Company Diversification in the Post-Divestiture Telecommunications Industry," co-authors Kenneth Baseman and Stephen Silberman. ICF, Incorporated, September 1986. Submitted in First Triennial Review, Modification of Final Judgment, U.S. vs. AT&T.

"Two's Company; Three's a Crowd: Duverger's Law Reconsidered," co-author John A. Ferejohn. Presented at annual meeting of the American Political Science Association, September 1987.

"The Regulation Referendum: The Illinois Constitutional Convention of 1870," co-author Mark Kanazawa. Presented at annual meeting of Public Choice Society, March 1990.

"Telecommunications Reform in Brazil." Report to the International Bank for Reconstruction and Development, September 1990.

"Marketable Emissions Permits in Los Angeles." Report to the South Coast Air Quality Management District, December 1990.

"Statement on the Baseball Antitrust Exemption." Hearings before the Subcommittee on Antitrust, Monopolies, and Business Rights, Committee on the Judiciary, United States Senate, December 1992.

POPULAR PUBLICATIONS

"School Bonds and the Future of Pasadena." Pasadena Star-News, April 20, 1969, p. C-1.

"After Vietnam, Another Recession?" Caltch News, June 1969.

"People is a Dirty Word," (with others). Post Control Operators News 30 (February/March 1970). (Transcript of series of panel discussions, radio station KMPC, Los Angeles.)

"Quake Prediction: For Public Officials, the Problems are Mind-Bending." Los Angeles Times, May 2, 1976, Part VIII, p. 5.

Popular Publications, cont'd.

"Defending Against Disasters." Engineering and Science 39 (May-June 1976).

"Professional Sports: Should Government Intervene?" San Francisco Chronicle and several other newspapers, June 7, 1977.

"Fact and Fancy About the Energy Crisis." Pasadena Star-News, July 27, 1980, p. 17.

"Looking for Villains in the Energy Crisis." Town Hall Reporter 13, No. 8, Town Hall of California, August 1980, p. 12.

"Using the Marketplace to Reform Regulation." Washington University Center for the Study of American Business, Whittemore House Series 5.

"Leasing the Air: An Alternative Approach to Regulation?" Engineering and Science; Vol. 46, No. 1 (September 1982), pp. 12-17.

"Television Ownership and the FCC: Let a Free Market Set the Pace." New York Times, August 26, 1984, p. 2 (Business).

"Trends in California's Economy: Implications for the Future." Engineering and Science LVI (1) (Fall 1992), pp. 9-13.

"Help Business, but Beware of High-tech Pork," co-author Linda R. Cohen. USA Today, March 18, 1993, p. 11A.

"Privatizing Public Research," co-author Linda R. Cohen. Scientific American, September 1994, pp. 72-77.

BOOK REVIEWS

"Cure for Chaos, by Simon Ramo." Engineering and Science 33 (November 1969).

"Technology and Market Structure, by Almarin Phillips." Journal of Economic Literature, Vol. 10 (December 1972): 1253-1255.

"The Telecommunications Industry, by Gerald W. Brock." Journal of Economic Literature, Vol. 20 (September 1982): 1096-97.

"Presidential Management of Science and Technology, by W. Henry Lambright." Science, Vol. 231, No. 4739 (February 14, 1986): 749.

"Telecommunications Economics and International Regulatory Policy, by Snow and Jusawalla." Information Economics and Policy, Vol. 2, No. 4 (1986): 318-319.

"The Economist's View of the World, by Steven E. Rhoads." American Political Science Review, Vol. 81, No. 1 (March 1987): 339-341.

"Air Pollution Regulation, by Richard A. Liroff." Environmental Professional, Vol. 9, No. 4 (1987): 359-360.