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Thomas Marschak

Education:

Ph. B. (honors), College of the University of Chicago, 1947
Graduate study, University of Chicago, 1947-50
A.M. (economics), Stanford University, January 1952
Ph. D. (economics, with minor in statistics), Stanford University, 1957

Employment:

Economist, RAND Corporation, May 1954 to December 1959.
Assistant Professor, School of Business, University of California, Berkeley, January 1960;
Associate Professor, July 1962; Professor July 1967 - December 2012. Professor Emeritus
and Professor of the Graduate School, 2013-present.
Cora Jane Flood Endowed Chair, since July, 2008.
Chair, Center for Research in Management Science, 1968-70.

Awards, Fellowships, etc.

Postdoctoral Fellow of Social Science Research Council, 1956-7
Fourth item in publications below awarded McKinsey Foundation prize for best article in
Journal of Business, 1960
Ford Foundation Faculty Research Fellowship, 1962-3
Guggenheim Fellowship, 1965-66
Fulbright-Hays Research Award, 1965-66
Elected Fellow of the Econometric Society, 1975
Article "On Economies of Scope in Communication" was co-winner of Koç University (Is-
tanbul) Prize for best contribution to *Economic Design*, 1997.

Publications:

Articles:

- “An Activity Analysis Approach to Location Theory” (with Martin Beckmann), US Air Force and National Bureau of Standards, *Proceedings of the Second Symposium on Linear Programming*, 1955, 331-379. A portion also appears in *Kyklos*, 1956, and in Smith, Taffee, and King (eds.), *Readings in Economic Geography*, Rand McNally and Co., 1973.
- “A Gradient Method for Linear Programming,” in Arrow, Hurwicz, and Uzawa *Studies in Linear and Nonlinear Programming*, Stanford University Press, 1958, pp. 146-63.
- “Centralization and Decentralization in Economic Organizations,” *Econometrica*, July 1959, pp. 339-430.
- “Pricing and Capital Budgeting in the French Nationalized Industries”, *Journal of Business*, April 1960, pp. 133-156.
- “Models, Rules of Thumb, and Development Decisions,” in B. Dean (ed.) *Operations Research in Research and Development*, New York: Wiley, 1963, pp. 247-264.
- “Flexibility, Uncertainty, and Economic Theory” (with R.R. Nelson), *Metroeconomica*, April-August-December 1962, pp. 42- 58.
- “Strategy and Organization in a System Development Project”, in R.R. Nelson, ed., *The Rate and Direction of Inventive Activity: Economic and Social Factors*, Princeton University Press, 1962, pp. 549-586.
- “A Spatial Model of US Petroleum Refining,” in Alan S. Manne and Harry Markowitz, eds. *Studies in Process Analysis: Economy-wide Production Capabilities*, Cowles Foundation Monograph # 18, New York: Wiley, 1963, pp. 75-135.
- “Economic Theory and Management Controls: Comments,” in C. Bonini, R. Jaedicke, and H.M. Wagner, eds., *Management Controls: New Directions in Basic Research*, New York, McGraw-Hill, 1964, pp. 81-87.
- “The Sequential Selection of Approaches to a Task”, (with J. A. Yahav), *Management Science*, May 1966, pp. 627-647.
- “Economic Theories of Organization”, in J. March, ed., *Handbook of Organizations*, Rand McNally and Co, 1965, pp. 423-450.
- “Centralized versus Decentralized Resource Allocation: The Yugoslav ‘Laboratory’ ”, *Quarterly Journal of Economics*, November, 1968, pp. 561-587.
- “On the Comparison of Centralized and Decentralized Economies”, *American Economic review* **59** (2),1969, pp. 525-532.

- “Computation in Organizations: The Comparison of Price Mechanisms and Other Adjustment Processes”, in C. B. McGuire and R. Radner, eds. *Decision and Organization*, North-Holland, 1972, pp. 237-282, (Re-issued in paperback by University of Minnesota Press, 1987).
- “Decentralizing the Command Economy: the Study of a Pragmatic Strategy for Reformers”, in M. Bornstein, ed, *Plan and Market*”, Yale University Press, 1973, pp. 23-64.
- Comments, Session on Welfare economics, *American Economic Review: Papers and Proceedings*, **67** (2), February 1977, pp. 240- 242.
- “Restabilizing Responses, Inertia Supergames, and Oligopolistic Equilibria” (with Reinhard Selten), *Quarterly Journal of Economics*, February 1978, pp. 210-236. Reprinted in *Game Theory and Economic Behavior: Selected Essays of Reinhard Selten*, Edward Elgar, 1999, pp. 33-56.
- “Oligopolistic Economies as Games of Limited Information” (with Reinhard Selten), *Zeitschrift für die Gesamte Staatswissenschaft*, October 1977, pp. 135-172. Reprinted in *Game Theory and Economic Behavior: Selected Essays of Reinhard Selten*, Edward Elgar, 1999, pp. 57-80.
- “On the Study of Taste-changing Policies”, *American Economic Review*, **68** (2), 1978, pp. 386-391.
- “On the Productivity of Leisure and the Performance of Economic Systems”, in O. Kyn and W. Schrettl, eds. *The Instability of Contemporary Economic Systems*, D. Ruprecht, 1978.
- “Achieving Economic Efficiency with Paraprofessionals” (with C. Henke), in R. Feldman, ed., *Paraprofessionals in Mental Health: Theory and Practice*, Human Science Press, 1979.
- “The Best Use of ‘Information Budgets’ in Purposive Organizations”, *Journal of Policy Analysis and Information Systems*, March 1980. Reprinted in D. Lamberton, ed., *The Economics of Communication and Information*”, Edward Elgar, 1996.
- “Organization Design”, in K.J. Arrow and M. Intrilligator, eds. *Handbook of Mathematical Economics*, Vol. III, North- Holland 1986, pp. 1359-1440.
- “Independence Versus Dominance in Personal-probability Axioms”, in W. Heller, R. Starr, and D. Starrett, eds., *Uncertainty, Information, and Social Choice: Essays in Honor of Kenneth Arrow*, Cambridge University Press, 1986, Vol. 3, pp. 129- 171.
- “Discrete Allocation Mechanisms: Dimensional Requirements for Resource-Allocation Mechanisms when Desired Outcomes are Unbounded” (with Leonid Hurwicz), *Journal of Complexity*, 1 (1985), pp. 264-303.
- “Price Versus Direct Revelation: Informational Judgments for Finite Mechanisms”, in T. Groves, R. Radner, and S. Reiter, eds. *Information, Incentives, and Economic Mechanisms: Essays in Honor of Leonid Hurwicz*, University of Minnesota Press, 1987, pp. 132-182.
- “Organization Theory”, in J. Eatwell, M. Milgate, P. Newman, eds., *The New Palgrave: A Dictionary of Economic Theory and Doctrine*, Macmillan, 1987.

- “Approximating a Function by Choosing a Covering of its Domain and k Points from its Range” (with Leonid Hurwicz), *Journal of Complexity*, 4 (1988), pp. 137-174.
- “Communication in the Performance of Unrelated Tasks: Continuum Models and Finite Models” (with U. Vazirani), *Journal of Organizational Computing*, Vol.1, No. 1 (1991), pp. 27- 62.
- “Communication Requirements for Individual Agents in Networks and Hierarchies”, (with S. Reichelstein), in J. Ledyard, ed., *The Economics of Informational Decentralization: Complexity, Efficiency, and Stability*, Kluwer Publishing Company, 1995, pp. 311-346.
- “On Economies of Scope in Communication,”, *Economic Design*, Vol. 2, No. 1 (1966), pp. 1-30. Appears also in T.Malone *et al*, eds., *Coordination Theory and Collaboration*, Lawrence Erlbaum Associates, 2000.
- “Mechanisms That Efficiently Verify the Optimality of a Proposed Action” (with T. Ishikida), *Economic Design*, Vol. 2, No. 1, (1996), pp. 33-68.
- ”Communication Effort in Teams and in Games” (with E. Friedman), in W. Guth and E. Van Damme, eds. *Understanding Strategic Interaction: Essays in Honor of Reinhard Selten*, Springer, 1997, pp. 198-216.
- “Network Mechanisms, Informational Efficiency, and Hierarchies” (with S. Reichelstein), *Journal of Economic Theory*, March 1998, pp. 106-141.
- “Comparing Finite Mechanisms” (with Leonid Hurwicz), *Economic Theory* 21, 783-841 (2003).
- “Finite Allocation Mechanisms: Approximate Walrasian versus Approximate Direct Revelation” (with Leonid Hurwicz), *Economic Theory* 21, 545-572 (2003).
- “The Informational Efficiency of Finite Price Mechanisms” (with Leonid Hurwicz), in C.D. Aliprantis, K.J. Arrow, *et al* (eds.), *Assets, Beliefs, and Equilibria in Economic Dynamics*, Springer, 2004, (413-460).
- “Information Technology and the Organization of Firms”, *Journal of Economics and Management Strategy* **13** (2004),8, pp. 473-515.
- “Organization Structure”, chapter in *Handbook of Economics and Information Systems*, T. Hendershott, ed., Elsevier, pp. 205-290 (2006).
- “Shirking and Squandering in Sharing Games” (with D. Courtney), *Topics in Theoretical Economics* (Berkeley Electronic Press), Vol 6 (1), 2006.
- “Complementarity and Inefficiency in Sharing Games” (with D. Courtney), *Review of Economic Design*, 13, pp. 7-43 (2009).
- “A Newsvendor Who Chooses Informational Effort” (with J. G. Shanthikumar and Junjie Zhou), *Production and Operations Management*, **24** (1), 110-133, 2015.

“Does More Information-gathering Effort Raise or Lower the Average Quantity Produced?” (with J. G. Shanthikumar and Junjie Zhou), *Journal of Mathematical Economics*, Volume 69, March 2017, 104-117.

“Technical change and the Decentralization Penalty”, in D. Trockel, ed., *Social Design: Essays in Honor of Leonid Hurwicz* (with D. Wei), Springer, 2019, 11-34.

“Some Reminiscences of Leo and His Work on Informational Requirements”, in R. Banerjee, ed., *Collected Papers of Leonid Hurwicz, Volume 1*, Oxford University Press, 2022, 25-32.

Books:

Strategy for R and D: Studies in the Microeconomics of Development (a RAND Corporation Research Study), with contributions by R. Summers and T. K. Glennan, Jr., New York: Springer, 1967, 340 pp.

General Equilibrium with Price-making Firms (with Reinhard Selten), New York and Heidelberg, Springer, 1974, 249 pp.

Co-editor (with T. Ichiishi) and co-author of introductory chapter, *Markets, Games, and Organizations: Essays in Honor of Roy Radner*, Springer, 2003.

Monograph:

Coordination Versus Local Expertise: A New View of School District Decentralization (with D. Thomasson). Prepared under National Institute of Education Grant, Social Action Research Center, San Rafael, Ca, 1980, 110 pp.

Unpublished working papers:

“Are Information-gathering and Producing Substitutes or Complements?” (with J. Zhou and J.G. Shanthikumar), SSRN e-library, 2368706 (2013).

“Information-gathering and Producing: Complements or Substitutes?” (with J. Zhou and J.G. Shanthikumar), SSRN e-library, 2516174 (2014).

“Technological Improvement and the Decentralization Penalty in a Simple Principal/Agent Model” (with Ruochen Liang), SSRN e-library, 2945702 (2017).

“Technical Change, Moral Hazard, and the Decentralization Penalty” (with D. Wei), SSRN e-library 3659638, (April 2022).

“Technical Change, Moral Hazard, and the Decentralization Penalty, When the Set of Possible Efforts is Infinite”, SSRN 4097149. Appears in SSRN e-journal *Decision-making and Management Science*, June 07, 2022.