Current Position

Thomas Lord University Professor of Economics Tepper School of Business Carnegie Mellon University Pittsburgh, PA 15213

Phone: (412) 268-1536 E-mail: epple@cmu.edu

Affiliations by Courtesy

Department of Social and Decision Sciences H. J. Heinz III School of Public Policy and Management

Other Positions

Carnegie Mellon University:

Acting Dean (1990-1991)

Head of Economics (1980-1984, 2005-2014)

Thomas Lord Professor of Economics (1996-)

Professor of Economics (1983-)

Associate Professor of Economics (1978-1983)

Assistant Professor of Economics (1974-1978)

Northwestern University:

Gary A. Rosenberg Professor of Real Estate, Finance, and Economics, and Director of the Center for Real Estate Research (1994-1995)

Hoover Institution, Stanford University: National Fellow (1984-1985)

McDonnell Douglas Corporation: Advanced Design Engineer - Aerodynamics (1968-1969)

Education

Princeton University:

Ph.D. in Economics, January 1975

M.S. in Economics, October 1973

Master of Public Affairs, Woodrow Wilson School of Public and International Affairs, June 1971

Purdue University:

B.S. in Aeronautical Engineering, June 1968.

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Awards and Honors

University Professor, Carnegie Mellon April 2013
Fellow, Econometric Society, Elected December 2003
Who's Who in Economics, second, third and fourth editions
Hoover Institution National Fellowship (1984-1985)
Graduate School of Industrial Administration Award for Excellence in Teaching

Editorial Positions

Co-Editor, Journal of Public Economics, September 2006-August 2014.

Co-Editor, American Economic Review, June 1994 – June 1999.

Board of Editors, Journal of Public Economics, September 2001-July 2006

Board of Editors, *Ouarterly Journal of Economics*, January 2001-Nobember 2005.

Board of Editors, American Economic Review, June 1999-December 2003.

Board of Editors, Journal of Public Economic Theory, 2004-2012.

Board of Editors, Economics and Geography, December 2000-January 2015.

Board of Editors, Research in Economics, January 2016-

Board of Editors, B.E. Press Journals in Economic Analysis and Public Policy, 2001-2104.

Other Professional Activities

Plenary Address, Journal of Marketing Research Education Conference, February 22, 2019

Nominating Committee, American Economic Association, 2016.

Chair, Standing Committee on Oversight and Operation of Programs, *American Economic Association*, July 2011-

Invited Short Course, "School Finance Reform: Money and Choice," Presented National Tax Association, Santa Fe, November 15, 2014.

Plenary Lecture, "Competition in US Higher Education," Midwest Economic Association Meetings, Chicago, March 21, 2014.

Working Group on Human Capital and Economic Opportunity: Measuring and Interpreting Inequality, led by Professors James Heckman and Steven Durlauf, 2011-.

Keynote Speaker, Conference on Cross-Border Commuting, Uppsala University, 2012.

Keynote Speaker, Conference on Public Economics, Institut D'Economie Publique, Marseilles, June 21 - 22, 2010.

Keynote Speaker, International workshop, Education Polities: Empirics and Design, Leuven, June, 24-25, 2010.

Keynote Speaker, Conference on Federalism, Barcelona Institute of Economics, June 2009.

American Economic Association Operations and Publications Committee, 2009-2011.

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Plenary Speaker, Econometric Society, 2009 Winter Meetings, Session Title: "Development, Education and Inequality."

Program Committee, Econometric Society, 2009 Winter Meetings.

Program Co-Chair (with Stanley Zin), Econometric Society 2008 Summer Meetings.

CESifo Research Network (Center for Economic Studies, Ifo Institute for Economic Research) University of Munich, 2006-present.

Visiting Scholar, Center for Economic Studies, University of Munich, July 2006.

Committee to Select the Editor of *American Economic Journals: Policy*, 2006-2007.

Plenary speaker "College and University Competition," 60th Congress of the International Institute of Public Finance Milan, Italy, 23-26 August, 2004.

Department of Education, Institute of Education Sciences, Peer Review Panel, 2003, 2004.

Program Committee, American Economic Association Meetings, 2002.

Chair, External Review of the Department of Economics of Duke University, 2002.

National Science Foundation, IGERT Review Panel, 2001.

Chair, External Review of the Department of Economics of Brown University, 2000.

National Bureau of Economic Research, Research Associate, Program on Public Economics and Children's Program, 1998-present.

MacArthur Foundation Research Network on Economic Inequality and Social Interactions, 1998-2005.

Committee on Education Finance: Equity, Adequacy, and Productivity, National Research Council, National Academy of Sciences, 1996-1999.

Chair, workshop to plan a research agenda on Public Infrastructure for the Social, Behavioral, and Economic Sciences Directorate, National Science Foundation, 1992-1993.

National Science Foundation Visiting Committee, Decision, Risk, and Management Science Program, September 1990.

National Science Foundation Review Panel, Economics, 1988-1989.

Grants

National Science Foundation, "Assessing Student Abilities and Enhancing Value Added in Higher Education for Disadvantaged Students," with R. Romano and H. Sieg, \$445,717, August 2017 to July, 2020.

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National Science Foundation, "Modelling the U.S. Market for Higher Education and Evaluating Public Funding Policies: Theory and Estimation, with R. Romano and H. Sieg, \$547,823, March 1, 2014 to Feb 28, 2017.

National Science Foundation: "Learning Across Product, Workgroup, and Geographic Boundaries," Science of Innovation and Science Policy [SciSIP] Program with L. Argote and E. Fuchs, 36 months, \$756,257.

"Understanding the Impact of Affirmative Action in Indian Higher Education," Spencer Foundation, with S. Bagde and Lowell Taylor, \$40,000, 2013.

"Life Cycle Locational Choices, Voting, and Fiscal Federalism: Theory and Estimation," with R. Romano and H. Sieg, Economics Program, National Science Foundation, 36 months, \$433,568, March 15, 2010 to March 15, 2013.

"Estimation and Inference in Education Research when Actions by Participants Impact Validity and Availability of Data," Department of Education, Institute of Education Sciences, with J. Engberg, H. Sieg, and R. Zimmer, 3/1/2009 to 2/28/2012, \$963,626.

"Determinants of Student Outcomes in an Urban School District: Educational Interventions and Family Choices," Department of Education, Institute of Education Sciences, with J. Engberg, B. Gill, H. Sieg, and R. Zimmer, 10/1/2006 to 9/30/2010, \$2,069,749.

"Household Life Cycle Location Choices and the Dynamics of Metropolitan Communities," National Science Foundation, with R. Romano and H. Sieg, July 2006 – June 2009, \$344,745.

"Higher Education and Public Policy in General Equilibrium," National Science Foundation, with R. Romano and H. Sieg, July 2003 – June 2005.

"Local Spillover, Externalities and Sorting of Households by Race and Income in Locational Equilibrium," National Science Foundation, collaborative research with Holger Sieg, November 2002 – October 2004.

"Theory and Evidence on Competition in U.S. Higher Education," National Science Foundation, August 1999 – July 2002, collaborative research with Richard E. Romano.

"School Qualities, Education Policy, and the Distribution of Educational Benefits," National Science Foundation, October 1996 – September 1999, co-principal investigator with R. Romano.

"Competition Between Public and Private Schools and Education Policy," National Science Foundation, March 1994 – February 1996, co-principal investigator with Richard E. Romano.

"Estimation of a Model of Community Choice and Public Goods Provision in Systems of Local Jurisdictions," National Science Foundation, July 1991 – June 1993, co-principal investigator with Thomas Romer.

"The Acquisition, Retention, and Transfer of Knowledge About Productivity and Quality in Manufacturing," National Science Foundation, July 1990 – June 1992, co-principal investigator with Linda Argote.

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"Redistribution and Land Use Policies in Systems of Local Jurisdictions," National Science Foundation, August 1989 – January 1991, co-principal investigator with Thomas Romer.

"Research on Learning in Industrial Settings: Persistence, Turnover, and Transfer," National Science Foundation, July1988 – June 1990, co-principal investigator with Linda Argote.

"Research on Systems of Local Jurisdictions: Dynamics, Development, and Land Use Policy," National Science Foundation, July 1986 – June 1989, co-principal investigator with T. Romer.

"Dam Safety," National Science Foundation, July 1987 – June 1989, Lester Lave principal investigator.

"Research on Economic and Political Equilibrium in a System of Local Jurisdictions," National Science Foundation, July 1983 – June 1986, co-principal investigator with R. Filimon and T.Romer.

"The Discovery and Development of Petroleum Resources in the United States," U.S. Department of Energy, May 1980 – April 1981, co-principal investigator with Lester Lave.

"Helium Conservation and Public Policy," National Science Foundation, July 1980 – December 1981, co-principal investigator with Lester Lave.

"Marine Safety and Environmental Control: An Economic Analysis," U.S. Department of Transportation, July 1977 – June 1978, principal investigator.

Book Reviews

<u>Information, Incentives, and Education Policy</u> by Derek A. Neal. Reviewed in the <u>Journal of Economic Literature</u> 2019, 57(3), 698–700.

The Economics of Zoning Laws: A Property Rights Approach to American Land Use Controls by William A. Fischel. Reviewed in American Political Science Review, 81, 2 (June 1987): 684.

<u>Property Taxes and House Values: The Theory of Estimation of Intrajurisdictional Property Tax Capitalization</u> by John Yinger, Howard S. Bloom, Axel Börsch-Supan, and Helen F. Ladd. Reviewed in Regional Science and Urban Economics.

Publications

"Majority Choice of Taxation and Redistribution in a Federation," with S. Calabrese and R. Romano, <u>Journal of Public Economics</u>, v. 216, January 2023.

"How Effective are Colleges in Educating a Diverse Student Body? Evidence from West Point," with D. Cestau, R. Romano, H. Sieg, and C. Wojtaszek, <u>Journal of Human Capital</u>, forthcoming.

"The emergence of private high schools in India: The impact of public private competition on public school students," S. Bagde and L. Taylor, Journal of Public Economics, v. 215, November, 2022.

"Is Education Different? A Review of the Voucher Literature and Lessons for Implementation," with R. Romano and M. Urquiola, <u>Routledge Handbook of the Economics of Education</u>, B. McCall ed., December 2021.

- "A New Approach to Estimating Equilibrium for Metropolitan Housing Markets," with L. Quintero and H. Sieg, Journal of Political Economy, v. 128, No. 3, pp. 948-982, March 2020.
- "Market Power and Price Discrimination in the U.S. Market for Higher Education," with R. Romano, S. Sarpea, H. Sieg, and M. Zaber, Rand Journal of Economics, v. 50, No. 1, pp. 201-225, Spring 2019.
- "Majority Choice of an Income Targeted Educational Voucher," with R. Romano and S. Sarpca, <u>AEJ-Microeconomics</u>, v. 10, No. 4, pp. 289-325, November, 2018.
- "The Superintendent's Dilemma: Managing School District Capacity as Parents Vote with Their Feet," with A. Jha and H. Sieg, Quantitative Economics, v. 9, No. 1, pp 483-520, March 2018.
- "Educational Vouchers: A Survey of the Economics Literature," with R. Romano and M. Urquiola, <u>Journal of Economic Literature</u>, v. 55, No. 2, pp. 441-492, June 2017.
- "Admitting Students to Selective Education Programs: Merit, Profiling, and Affirmative Action," with D. Cestau and H. Sieg, <u>Journal of Political Economy</u>, v. 125, No. 3, pp. 761-797, June 2017.
- "The U.S. Market for Higher Education: A General Equilibrium Analysis of State and Private Colleges and Public Funding Policies," with Richard Romano, Sinan Sarpca, and H. Sieg, <u>Journal of Public Economics</u>, v 155, pp 164-178, November 2017.
- "Learning by Doing in Multi-Product Manufacturing: Product Variety, Customizations, and Overlapping Product Generations," with L. Argote, C. Egelman, and E. Fuchs, <u>Management Science</u>, v. 63, No. 2, pp 405-423, 2017.
- "Does Affirmative Action Work? Caste, Gender, College Quality, and Academic Success in India," with S. Bagde and L. Taylor, <u>American Economic Review</u>, June 2016.
- "Charter Schools: A Survey of Research on their Characteristics and Effectiveness," with R. Romano and R. Zimmer, <u>Handbook of Economics of Education</u>, Vol. 5, Chapter 3, 2016. Edited by E. Hanushek and L. Woessmann.
- "Majority Choice of Tax Systems in Single- and Multi-Jurisdictional Economies," <u>Journal of Public Economics</u>, with S. Calabrese and R. Romano, November 2015, v. 131, pp. 58-70.
- "Equilibrium and Efficient Provision of Local Public Goods with Peer Effects," with R. Romano, Research in Economics, September 2015, v. 69, Issue 3, pp. 291-319.
- "On the Political Economy of Educational Vouchers," with R. Romano, <u>Journal of Public Economics</u>, December 2014, v. 120, pp. 62-73.
- "Evaluating Education Programs That Have Lotteried Admission and Selective Attrition," with John Engberg, Jason Imbrogno, Holger Sieg and Ron Zimmer, <u>Journal of Labor Economics</u>, Vol. 32, No. 1, January 2014.
- "Bounding the Impact of a Gifted Program on Student Retention Using a Modified Regression Discontinuity Design," with Billie Davis, John Engberg, Holger Sieg, and Ron Zimmer (2013), Annals of Economics and Statistics, 111-112, 10-34.

- "Economic Modeling and Analysis of Educational Vouchers," <u>Annual Review of Economics</u>, with Richard Romano, 4, 2012: 159-183.
- "The Intergenerational Conflict over the Provision of Public Education," with R. Romano and H. Sieg, Journal of Public Economics, 96 (3-4), April 2012, 255–268.
- "Inefficiencies from Metropolitan Political and Fiscal Decentralization: Failures of Tiebout Competition," with S. Calabrese and R. Romano, <u>Review of Economic Studies</u>, 79(3), 2012: 1081-1111.
- "Peer Effects in Education: A Survey of the Theory and Evidence," with R. Romano, <u>Handbook of Social Economics</u>, (J. Benhabib, M. Jackson, A. Bisin, eds.) Elsevier, 2010.
- "Integrating Location-Specific Amenities into Multi-Community Equilibrium Models", Journal of Regional Science, 2010, 50 (1), 381-400. (with H. Sieg and B. Gordon)
- "Identification and Semiparametric Estimation of Equilibrium Models of Local Jurisdictions." with M. Peress and H. Sieg, <u>AEJ-Microeconomics</u>, 2010.
- "A New Approach for Estimating the Housing Production Function," with B. Gordon and H. Sieg, <u>American Economic Review</u>, 2010, 100 (3), 905-924.
- "School Finance Reform: Assessing General Equilibrium Effects," with Maria Ferreyra, <u>Journal of Public Economics</u>, v92, n5-6 (June 2008): 1326-51.
- "Educational Vouchers and Cream Skimming," with R. Romano, <u>International Economic Review</u>, 49, 4 (November 2008).
- "Diversity and Affirmative Action in Higher Education," with R. Romano and H. Sieg, <u>Journal of Public Economic Theory</u>, 10, 4 (August 2008): 475:501.
- "The Tiebout Hypothesis" The New Palgrave Dictionary of Economics, 2nd edition, 2008.
- "On The Political Economy of Zoning," with S. Calabrese and R. Romano, <u>Journal of Public Economics</u>, v 91, (February 2007), 25-49.
- "Sprawl and Jurisdictional Fragmentation: Comments." <u>Brookings-Wharton Papers On Urban Affairs</u> (2006): 244-50.
- "Profiling in Bargaining Over College Tuitions," with R. Romano, S. Sarpca, and H. Sieg, <u>Economic</u> Journal, November 2006, F459-479.
- "Admission, Tuition, and Financial Aid Policies in the Market for Higher Education," with R. Romano and H. Sieg, Econometrica, v74, n4 (July 2006): 885-928.
- "Non-Fiscal Residential Zoning," with S. Calabrese and R. Romano, <u>Tiebout 50th Anniversary</u> Essays, (W. Fischel, ed.), Lincoln Institute of Land Policy, 2006.
- "Local Public Good Provision: Voting, Peer Effects, and Mobility," with S. Calabrese, T. Romer, and H. Sieg, <u>Journal of Public Economics</u>, v90, n6-7 (August 2006): 959-81.
- "Simultaneous Equation Econometrics: The Missing Example," with B. McCallum, Economic

"Fiscal Decentralization," with T. Nechyba, <u>Handbook of Regional and Urban Economics</u>, Vol. 4, Eds. J.V. Henderson & J.-F. Thisse, Amsterdam: Elsevier, 2004.

"Competition between Private and Public Schools: Testing Stratification and Pricing Predictions," with D. Figlio and R. Romano, <u>Journal of Public Economics</u>, Vol. 88 (July 2004), pp. 1215 – 1245.

"Collective and Voluntary Provision of Public Goods," with R. Romano, <u>International Economic Review</u>, Vol. 44, No. 2, May 2003

"Neighborhood Schools, Choice, and the Distribution of Educational Benefits," with R. Romano, in The Economics of School Choice (C. Hoxby, Ed.), National Bureau of Economic Research, 2003.

"On the Demographic Composition of Colleges and Universities in Market Equilibrium," with R. Romano and H. Sieg, <u>American Economic Review Papers and Proceedings</u>, May 2002.

"Urban Fiscal Structure and Metropolitan Integration," with S. Calabrese and G. Cassidy, Brookings-Wharton Papers on Urban Affairs, 2002.

"Interjurisdictional Sorting and Majority Rule: An Empirical Analysis," with T. Romer and H. Sieg, Econometrica, November 2001.

"Ability Tracking, School Competition, and the Distribution of Educational Benefits," with Elizabeth Newlon and Richard Romano, Journal of Public Economics, (Lead Article), January 2002.

"Peer Effects, Financial Aid, and Selection of Students into Colleges and Universities: An Empirical Analysis," with R. Romano and H. Sieg, <u>Journal of Applied Econometrics</u>, (Lead Article) September/October, 2003.

"Estimating Equilibrium Models of Local Jurisdictions," with H. Sieg, <u>Journal of Political Economy</u>, (Lead Article), August 1999.

"The Effects of Educational Vouchers when Schools Track Students by Ability," with E. Newlon and R. Romano, in <u>Environmental Economics and Public Policy</u>: Essays in Honor of Wallace E. Oates (Panagariya, Portney, and Schwab, Eds.), Edwin Elgar, 1999.

"Rent Control with Reputation: Theory and Evidence," <u>Regional Science and Urban Economics</u>, November, 1998.

"Competition Between Private and Public Schools, Vouchers and Peer Group Effects," with R. Romano, <u>American Economic Review</u>, March 1998. Reprinted in:

Economic theory and the welfare state. V. 3. *Benefits in kind*, 2001, pp. 402-31, Elgar Reference Collection. International Library of Critical Writings in Economics, vol. 132.

The economics of schooling and school quality. V. 2. Efficiency, competition and policy, 2003, pp. 455-84, Elgar Reference Collection. International Library of Critical Writings in Economics, vol. 159.

"Equilibrium and Local Redistribution in an Urban Economy When Households Differ by

Preferences and Income," with G. Platt, Journal of Urban Economics, January 1998.

"Ends Against the Middle: Determining Public Provision when there are Private Alternatives," with R. Romano, <u>Journal of Public Economics</u>, October 1996.

"Public Provision of Private Goods," with R. Romano, <u>Journal of Political Economy</u>, February 1996.

"An Empirical Investigation of the Micro Structure of Knowledge Acquisition and Transfer through Learning by Doing," with L. Argote and K. Murphy, Operations Research, January-February 1996.

"The Acquisition, Transfer and Depreciation of Knowledge in Service Organizations: Productivity in Franchises," with L. Argote and E. Darr, <u>Management Science</u>, November 1995. (Selected in 2004 as one of the 50 most significant research papers published by *Management Science* since the inception of the journal 50 years ago.) Reprinted in:

Managing Learning and Knowledge, V.1., 2008, pp. 122-34, Elgar Reference Collection. International Library of Critical Writings on Business and Management, vol. 7.

"Existence of Voting and Housing Equilibrium in a System of Communities with Property Taxes," with T. Romer and R. Filimon, Regional Science and Urban Economics, November 1993.

"Strategies for Modeling Exhaustible Resource Supply," with J. Londregan, <u>Handbook of Natural</u> Resource and Energy Economics, 1993.

"Mobility and Redistribution," with T. Romer, <u>Journal of Political Economy</u>, August 1991. Reprinted in:

Monetary and fiscal policy. V. 2. Politics, 1994, pp. 313-44, Cambridge and London: MIT Press.

Economics of Federalism. V. 1., 2007, pp. 516-46, An Elgar Reference Collection. Economic Approaches to Law, vol. 7.

"Organizational Learning Curves: A Method for Investigating Intra-Plant Transfer of Knowledge Acquired Through Learning by Doing," with L. Argote and R. Devadas, <u>Organization Science</u>, February 1991.

"Sequential Voting with Endogenous Voter Forecasts," with J. Kadane, <u>American Political Science Review</u>, March 1990.

"Learning Curves in Manufacturing," with L. Argote, Science, February 1990. Reprinted in:

Learning by Organizations, V.2., 2008, pp. 287-91, Elgar Reference Collection. International Library of Critical Writings on Business and Management, vol. 8.

"The Persistence and Transfer of Learning in Industrial Settings," with L. Argote and S. Beckman, Management Science, February 1990. Reprinted in:

The Strategic Management of Intellectual Capital, David A. Klein, ed.

Managing Learning and Knowledge, V. 1, 2008, pp. 107-21, Elgar Reference Collection.

International Library of Critical Writings on Business and Management, vol. 7.)

"On the Flexibility of Municipal Boundaries," with T. Romer, <u>Journal of Urban Economics</u>, November 1989.

"Redistribution by Local Governments in a Monocentric Urban Area," with G. Cassidy and T. Romer, Regional Science and Urban Economics, August 1989.

"Community Development with Endogenous Land Use Controls," with T. Romer and R. Filimon, Journal of Public Economics, 1988.

"The Role of Insurance in Managing Natural Hazards," with L. Lave, Risk Analysis, 1988.

"Cooperation and Punishment Under Repeated Majority Voting" with M. Riordan, <u>Public Choice</u>, September 1987.

"Hedonic Prices and Implicit Markets: Estimating Demand and Supply Functions for Differentiated Products," <u>Journal of Political Economy</u>, February 1987. Reprinted in:

The economics of housing. V. 1, 1997, pp. 622-43, Elgar Reference Series. International Library of Critical Writings in Economics, vol. 85.

"State Restrictions on Local Debt: Their Role in Preventing Default," with C. Spatt, <u>Journal of Public Economics</u>, March 1986.

"Linear-Quadratic Duopoly Models of Resource Depletion," with L. Hansen and W. Roberds, in Energy, Foresight, and Strategy (T. J. Sargent, Ed.), Resources for the Future, 1985.

"The Econometrics of Exhaustible Resource Supply: A Theory and an Application," in <u>Energy</u>, <u>Foresight</u>, and <u>Strategy</u> (T. J. Sargent, Ed.), Resources for the Future, 1985.

"Profit Maximizing Communities and the Theory of Local Public Expenditures: Comment," with A. Zelenitz, <u>Journal of Urban Economics</u>, September 1984.

"Equilibrium Among Local Jurisdictions: Toward an Integrated Treatment of Voting and Residential Choice," with R. Filimon and T. Romer, Journal of Public Economics, August 1984.

"Environmental Pollution: Modeling Occurrence, Detection and Deterrence," with M. Visscher, <u>Journal of Law and Economics</u>, April 1984.

"Market Structure and Exhaustible Resource Exploitation: Illustrative Simulations for the World Oil Market," with L. Hansen and W. Roberds, in R. Vichnevetsky (Ed.), <u>Proceedings of the 10th IMACS World Congress on Systems Simulation and Scientific Computation</u>, North Holland, 1984.

"Assessing the Economic Consequences of Organizational Change," with P. Goodman and E. Fidler, <u>Assessing Organizational Change: A Guide to Methods, Measures and Practices</u>, Seashore, et. al. (Eds.), John Wiley, 1983.

"Housing, Voting, and Moving: Equilibrium in a Model of Local Public Goods with Multiple Jurisdictions," with R. Filimon and T. Romer, <u>Research in Urban Economics</u>, Vol. III (Henderson, Ed.), JAI Press, 1983.

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"The Helium Storage Controversy: Modeling Natural Resource Supply," with L. Lave, <u>American Scientist</u>, May – June 1982.

"The Depletion of U.S. Petroleum Resources: Econometric Evidence," with L. Hansen, in S. Gass (Ed.) Oil and Gas Supply Modeling, May 1982.

"Employment Contracts, Risk Sharing, and the Role of Unions," <u>Research in Labor Economics</u>, with J. Hotz, and A. Zelenitz, Vol. 5 (Ehrenberg, Ed.,), JAI Press, 1982.

"The Implications of Competition Among Jurisdictions: Does Tiebout Need Politics?" with A. Zelenitz, Journal of Political Economy, December 1981. Reprinted in:

Economics of Federalism. V.1., 2007, pp. 283-303, Elgar Reference Collection. Economic Approaches to Law, vol. 7.

"The Roles of Jurisdictional Competition and of Collective Choice Institutions in the Market for Local Public Goods," with A. Zelenitz, <u>American Economic Review</u>, May 1981.

"Municipal Pension Funding: A Theory and Some Evidence," with K. Schipper, <u>Public Choice</u>, Vol. 37, No. 1, 1981.

"An Econometric Framework for Modeling Exhaustible Resource Supply," with L. Hansen, in <u>The</u> Economics of Exploration for Energy Resources (J. Ramsey, Ed.), 1981.

"Helium: Investments in the Future," with L. Lave, The Bell Journal of Economics, Autumn 1980.

"Product Reliability and Market Structure," with A. Raviv, Southern Economic Journal, July 1979.

"Economic Analysis" and "Cost-Benefit Analysis," with P. Goodman, in P. Goodman, Assessing Organizational Change, Wiley-Interscience, 1979.

"The Effects of Rate-of-Return Regulation on the Intensity of Use and Durability of Capital," with A. Zelenitz, <u>European Economic Review</u>, 1979.

"Studies of U.S. Primary Energy Supply: A Review," <u>Energy Systems and Policy</u>, Vol. II, No. 3, 1978.

"A Search for Testable Implications of the Tiebout Hypothesis," with M. Visscher and A. Zelenitz, <u>Journal of Political Economy</u>, June 1978.

"Product Safety: Liability Rules, Market Structure and Imperfect Information," with A. Raviv, <u>American Economic Review</u>, March 1978.

"Consumer Durables: Product Characteristics and Marketing Policies," with A. Zelenitz, <u>Southern</u> Economic Journal, October 1977.

"Controlling Pollution of the Marine Environment: An Economic Analysis," with M. Visscher, A. Wallace, and J. Wilkinson, <u>Proceedings: 1977 Oil Spill Conference</u>

"Dynamic Aspects of Air Quality Control Costs," with W. Dolde, M. Harris, L. Lave, and S. Leinhardt, <u>Journal of Environmental Economics and Management</u>, Winter 1977.

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"Specification and Testing of Error Structures in Nonlinear Simultaneous Equation Models," in S. Goldfeld and R. Quandt (Eds.), <u>Studies in Nonlinear Estimation</u>, Ballinger Press, 1976.

<u>Petroleum Discoveries and Government Policy: An Econometric Study of Supply,</u> Boston: Ballinger Press, 1975.

Working Papers

"The Emergence of Private High Schools in India: The Impact of Public-Private Competition on Public School Students," with S. Bagde and L. Taylor. Revise and resubmit.

"An Empirical Strategy for Colleges To Assess Their Effectiveness in Educating a Diverse Student Body," with D. Cestau, R. Romano, H. Sieg. and C. Wojtaszek, NBER Working paper 27162, Revise and Resubmit.

"The Political The economy of Intergovernmental Grants with and Application to School Finance," with S. Calabrese and R. Romano, NBER Working Paper 29529, March 2021.

"Forest Fires: Why The Large Year-to-Year Variation in Forests Burned?" with Jay Apt.