MICHAEL P. MURRAY

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PROFESSIONAL EXPERIENCE

1986-Present	Charles Franklin Phillips Professor of Economics, Bates College
2014	Visiting Professor LUISS Guido Carli University, Rome, Italy
2006-2007	Visiting Scholar, Harvard University
1999- 2003	Visiting Professor of Economics, Harvard University
1985-1986	Visiting Scholar, The World Bank
1980-1986	Senior Economist, The Rand Corporation
	Member of the Faculty, Rand Graduate School
1980-1986	Professor/Associate Professor of Economics, Claremont Graduate
	University
1978-1980	Associate Professor of Public Policy, Duke University
1977-1978	Visiting Assistant Professor of Economics, U.C., Berkeley
1973-1978	Assistant Professor of Economics, University of Virginia
1972-1973	Acting Assistant Professor of Economics, U. C., San Diego
1970-1971	Instructor, Iowa State University

EDUCATION

1974, Ph.D., Economics, Iowa State University1971, M.S., Economics, Iowa State University1968, B.A., Social Sciences, University of Santa Clara

PROFESSIONAL ORGANIZATIONS/HONORS

Kroepsch Award for Excellence in Teaching, Bates College, 2017.

Member, Board of Editors, Journal of Economic Education, 2005-

Member, American Economic Association Committee on Economics Education, 1999-2005

Member, Board of Editors, Economic Inquiry, 1989-1997

National Defense Education Act Fellow, 1971-72

PUBLICATIONS (Summary)

3 books and 55 papers.

Economics sub-fields published in: Urban, Public, Econometrics, Development, Labor, Energy, Behavioral, Mathematical Economics, and Macro Policy.

Other fields published in: Demography, Statistics, Criminology, and Operations Research.

Countries treated in publications: US, Korea, Thailand, Kenya, and Bangladesh.

REPEC rankings (cherry picked): Top 5% of research economists by total pages weighted by number of authors and journal's impact factor, by euclidean citation score, and by breadth of citations across fields.

TEACHING (Summary)

38 Courses

Economics sub-fields taught: Urban, Public, Development, Econometrics, Behavioral, Labor, Political Economy, Economic History, Mathematical Economics, Marxian and Radical Economics, and Monetary Theory.

PUBLICATIONS (detail)

Books

Econometrics, A Modern Introduction, Addison-Wesley, 2006.

Building Organizational Decision Support Systems (with others), Academic Press, 1992.

Subsidizing Industrial Location: With Application to Korea, Johns Hopkins Univ. Press, 1988.

Articles

"The Demand for Space in China," (with G. Sun '13), *Journal of Urban Economics*, March, 2017, 214-222.

"Shifting Demand for Housing by American Renters and the Impact on Household Budgets: 1940-2010," (with D. DiPasquale), *Journal of Regional Science*, September, 2016.

"Linear Model IV Estimation When Instruments Are Many or Weak," *Journal of Econometric Methods*, February, 2016.

"Groundwater Arsenic and Education Attainment in Bangladesh," (with R. Sharmin '13), *Journal of Population, Health, and Nutrition*, 33, October, 2015.

"Teaching About Instrumental Variables and Heterogeneous Response Models," *Journal of Economic Education*, 45(2), June 2014, 110-120.

"Mathematics in Behavioral Economics," in <u>Applications of Mathematics in Economics</u>, Warren X. Page, ed., Mathematical Association of America, 2013.

"Instrumental Variables," in <u>International Encyclopedia of Statistical Science</u>, Miodrag Lovric ed., Springer-Verlag, Berlin, 2010, 998-999.

"Modern Time-Series Methods and the Dynamics of Prison Populations," *Criminology & Public Policy*, Volume 8, Issue 1, February 2009, 79-86

Evolution of Metropolitan Rental Housing Markets: Final Report to the MacArthur Foundation (with Denise DiPasquale), City Research, Inc., December, 2008.

"Avoiding Invalid Instruments and Coping with Weak Instruments," *Journal of Economic Perspectives*, 20, 4, Fall 2006, 111-132.

Military Recruiting: Trends, Outlooks, and Implications, A Rand Research Brief, The RAND Corporation, Santa Monica, CA, 2001.

"When is the Standard Analysis of Common Property Extraction under Free Access Correct?--A Game-Theoretic Justification for Non Game-Theoretic Analyses." (with others), *Journal of Political Economy*, August, 1999, 843-858.

"Teaching In A Computer Classroom: Lessons from an Econometrics Course," *Journal of Economic Education*, Summer 1999.

"Cointegration and Crowding Out: Subsidized and Unsubsidized Housing Stocks 1935-1987" *Journal of Real Estate Finance and Economics*, January 1999.

Recent Recruiting Trends and Their Implications for Models of Enlistment Supply (with L. McDonald), R847-OSD/A, The RAND Corporation, Santa Monica, CA, January 1999.

"The Distribution of Direct Tenant Benefits from Public Housing," <u>The Economics of Housing</u>, John Quigley, ed., Edward Elgar Publishers, 1997. (Reprinted from *Econometrica*, July 1975, 771-788.)

Infrastructure Bottlenecks, Private Provisions and Industrial Productivity: A Study of Indonesian and Thai Cities, (with others), The World Bank, May, 1996.

Why Manufacturing Firms Produce Some Electricity Internally, (with others) The World Bank, May 1996.

"A Drunk and Her Dog: An Illustration of Cointegration and Error Correction," *American Statistician*, vol. 48, no. 1, February 1994, 37-39.

"How Inefficient Are Multiple In-Kind Transfers?" Economic Inquiry, April 1994, 209-227.

"Census Adjustment and the Distribution of Federal Spending," *Demography*, August 1992, 319-332.

"Analyzing Rent Control: The Case of Los Angeles," (with others) *Economic Inquiry*, November 1991, 601-625.

Rural Industry and Employment Study: A Synthesis Report (with others), Thailand Development Research Institute, Bangkok, Thailand, 1990.

"A Three Factor Production Function for Multi-Family Housing: A Study in Philanthropy," (with E.B. Hutchinson), *Urban Studies*, vol. 26, 1989, 234-239.

Middle-term Loss Prediction Models for the Air Force's Enlisted Force Management System: Information for Updating, N-2764-AF, The RAND Corporation, Santa Monica, California, May 1989.

What's on the Year at Risk File, (with others), N-2744-AF, The RAND Corporation, Santa Monica, California, March 1989.

Rural-Urban Exchange in Kutus Town and It's Hinterland, (with others), Institute for Development Anthropology and Clark University, 1988.

What's on the Enriched Airman Gain/Loss File, (with others), N-2610-AF, The RAND Corporation, Santa Monica, California, May 1988.

"How Rent Control Affects Property Taxes" (with C.P. Rydell), *Property Tax Journal*, March 1987.

Middle-term Loss Prediction Models for the Air Force's Enlisted Force Management System: Specification and Estimation (with others), R3482-AF, The RAND Corporation, Santa Monica, California, October 1987.

"Analyzing Rent Control: The Case of Los Angeles" (with others), in the <u>Proceedings of Rent</u> <u>Control: The International Experience</u>, Queens University, Kingston, Ontario, 1987.

"Mythical Demands and Mythical Supplies for the Proper Estimation of Rosen's Hedonic Price Model," *Journal of Urban Economics*, 14, 1983, 327-337.

"Subsidized and Unsubsidized Housing Starts, 1961-1977," *Review of Economics and Statistics*, LXV, 4, November 1983, 590-597.

Here, There, Where? A Strategy for Evaluating Industrial Location Policies in Korea, The World Bank, Report No. UDD-6, Washington, D.C., 1983.

Conceptual Design of an Enlisted Force Management System for the Air Force (with others), The Rand Corporation, N-2005-AF, Santa Monica, California, 1983.

"Energy and the Existing Stock of Housing" (with K. Neels), in <u>Energy Costs, Urban</u> <u>Development and Housing</u>, A. Downs and K. Bradbury, eds., The Brookings Institution, 1983.

"Real Versus Monetary Transfers: Lessons from the American Experience," in <u>Alternativen zur</u> <u>Steigerung der Effizienz and Effektivitat Staatlicher Transferpolitik</u>, M. Pfaff, ed., Duncker and Humblott, Berlin, 1983.

"Eligibility and Participation" (with others), in <u>Experimenting with Housing Allowances</u>, Ira S. Lowry, ed., Oelgeshlager, Gunn and Hain, Cambridge, Mass., 1983.

"Countercyclical Housing Policies: Microeconomic Medicine for Macroeconomic Ills," in <u>Proceedings of a Symposium on Countercyclical Stimulus Proposals for Multifamily Housing</u>, U.S. General Accounting Office, 1982.

Housing Consumption in a Housing Allowance Program (with others), R-2779, The Rand Corporation, July 1982.

Retention of Enlisted Personnel: Overview of Models and Empirical Results, WD-1422-AF, The Rand Corporation, February 1982.

"The Possibility and Optimality of Positive Rent Gradients" (with R. Grieson), *Journal of Urban Economics*, 9, 1981, 275-285.

"A Reinterpretation of the Traditional Income Leisure Model and Its Application to Subsidy Programs," *Journal of Public Economics*, 14, 1981, 69-81.

The Impact of Rent Control on the Los Angeles Housing Market (with P. Rydell et al.), The Rand Corporation, N-1747-LA, August 1981.

"Tenant Benefits in Alternative Federal Housing Programs," Urban Studies, 17, 1980, 25-34.

"Econometric Estimation of Peak Electricity Demand" (with others), *Annals of Applied Econometrics*, January 1979: A Supplement to the Journal of Econometrics (see Corrigenda, *Journal of Econometrics*, August 1979, 119-136.

"The Demand for Electricity in Virginia," *Review of Economics and Statistics* (with others), November 1978, 585-600.

"Methodologies for Estimating Housing Benefits," *Public Finance Quarterly*, April 1978, 161-192.

"Hedonic Prices and Composite Commodities," Journal of Urban Economics, April 1978,

188-197.

"Vertical Equity in Transfer in Kind Programs: An Analytic Rule," *Southern Economic Journal*, April 1977, 1604-1607.

"A Potential Hazard of Housing Allowances for Public Housing," *Journal of Urban Economics*, 4, April 1977, 119-134.

"Hicks, Marshall, and Points Off the Demand Curve," *Public Finance Quarterly*, 4, 1976, 493-500.

Benefits to Participants and Non-Participants in a Housing Allowance Program, The Urban Institute, Contract Report No. 216-10, April 1975.

"The Liquidity Impact of Debt Management: A Comment," (with Dudley Luckett) Southern Economic Journal, April 1972, 581-84.

Book Reviews

"David Colander: The Stories Economists Tell," *Journal of Economic Education*, Summer, 2007, Volume 38, No. 3, 365-367.

"Shlomo Angel: Housing Policy Matters: A Global Analysis," *Journal of Housing Economics*, 10, 2001, 210-215.

"The Home Front: Housing Policy and Welfare Reform," *Journal of Regional and Urban Economics*, 2000.

Work in Progress

"What to Do Until a Vaccine Arrives," (with E. Drabo '08, N. Heyderabi, S. Salant.)

"Protest and White Identity" (with Michael Sargent)

"Cumulative Prospect Theory in *Deal or No Deal* Contestant Behavior," presented at the annual meetings of the Society for the Advancement of Behavioral Economics, January 2012 (with G. Kelly '10).

"Puzzles in Discrete Time Versus Continuous Time Dynamic Optimization," (with S. Salant and A. Bardhi '12).

"Welfare's Stringency and the Inter-State Mobility of Women" (with B. Hagberg '05).

"Inter-State Differences in Welfare's Stringency" (with K. Sand '05).

"Seller's Reputation and Buyer's Welfare on EBay" (with A. Staisiunas '05).

"Racial Attitudes and On-the-Job Behavior of Police: A Research Design," (with M. Sargent).

Private Infrastructure Provision in Developing Countries," (with A. Anas and K. S. Lee)

REFEREE SERVICE

American Economic Review; Econometrica; Journal of Political Economy; Review of Economics and Statistics; Journal of Economic Literature; Journal of Urban Economics; Journal of Public Economics; Feminist Economics, Public Finance Quarterly; Journal of Economic Issues; Urban Studies; Management Science; Journal of Economic Studies; Economic Inquiry; Scandinavian Journal of Economics; Journal of Human Resources; Policy Sciences; Journal of Criminology and Public Policy; Econometric Methods; BE Journal of Economic Methods, International Migration, and Journal of Economic Education, China Economic Review.

CONSULTANCIES

Dickinson College, 2016, external review of the Economics Department.

Human Resources and Skills Development Canada, Strategic Policy and Research Branch, Evaluation Directorate, labor and education research reviews, 2010.

U.S. Naval Academy, 2006, external review of the Economics Department.

ABT Associates, 2003-2004 on low income housing programs.

Expert witness on employment discrimination and in valuation matters related to tax liabilities, personal injury, and wrongful discharge, 1984-2002.

JURECON, Inc. on the construction and use of price indices in an anti-trust matter, 1998.

HUD, to reviewing proposals to study the nexus of U.S. housing policy and welfare reform, 1998.

RAND Corporation on forecasting high quality recruits for the Armed Forces., 1994-1998.

World Bank on industrial location in Thailand, Indonesia, Korea, and Nigeria 1983-1997.

NASA on launch service vouchers, 1993.

World Bank on housing market regulation in Bolivia, 1991.

U.S. Department of Commerce on statistical corrections of the U.S. census, 1990-92.

World Bank on housing market reform in Eastern Europe, 1990-1993.

RAND Corporation, 1986-1991, on enlisted force management for the Air Force. World Bank, 1986-1987 and to SARSA/CLARK, 1987-1990, on the role of African secondary cities and towns in the development of their hinterlands, with field work in Ghana and Kenya.

World Bank, 1985-1986: a public expenditure review in Zambia, responsible for regional development and housing expenditures.

World Bank, 1985 on electricity distribution and industrial costs in Nigeria.

ABT Associates and The Urban Institute, 1974-1979 on Housing Allowance Experiments.

Virginia State Corporation Commission on electricity demand, 1976-1977.

Department of Housing and Urban Development, Housing Task Force, 1973.

COURSES TAUGHT (detail, undergraduate unless otherwise noted)

Bates College: **Micro Principles Behavioral Economics** Wealth, Income, Race, and Gender Truth, Developing a First Year Seminar (Short Term Unit) with A. Dauge-Roth Strategic Behavior (Short Term Unit) Forecasting (Short Term Unit) Housing in Transition Economies (Short Term Unit) with B. Slay The Individual and Community (First Year Seminar) Poverty (First Year Seminar) Truth (first Year Seminar) with Alex Dauge-Roth Intermediate Micro **Statistics Econometrics** Advanced Econometrics **Urban Economics Public Economics Development Economics** Optimal Control Theory with Economic Applications (cross-listed in Mathematics) Senior Capstone Seminar Senior thesis Independent Study on Dynamic Programming (with Arjada Bardhi '12)

<u>Harvard University:</u> Econometrics Development Economics & Economic History Honors Thesis Seminar <u>Claremont Graduate School:</u> Microeconomic Theory I (graduate) Microeconomic Theory II (graduate) Public Economics (graduate) Urban Economics (graduate)

<u>Univ. of Virginia:</u> Micro Principles Macro Principles Statistics Statistics (graduate) Econometrics (graduate) General Equilibrium Theory (graduate) Consumption Theory (graduate) Duality Theory (graduate) <u>U.C. Berkeley:</u> Health, Education, and Welfare

<u>U.C., San Diego:</u> Monetary Theory Housing Economics Marxian and Radical Economics

RAND Graduate School Microeconomic Theory

PAPER PRESENTATIONS (Some dates approximate)

Indian Statistical Institute 2015 Luiss Guido Carli University 2013 New School for Social Research 2012 Society for the Advancement of Behavioral Economics 2012 Bowdoin College 2010 Western Economic Association 2010, 2012 Harvard/MIT Joint Center for Housing Research 2007 Univ. of Santa Clara 2006 Indiana Univ. 2003 Bates College 2003 Lincoln Institute for Land Policy 2000 Univ. of Virginia 2000 Middlebury College 1999 Duke Univ. 1997 Bates College 1996 Colby College 1995 Swarthmore College 1995 Univ. of Miami 1995 Univ. of Chicago 1994 Iowa State Univ. 1994 Stanford Univ. 1993 Claremont Graduate School 1992 The RAND Corporation 1992 Rutgers Univ. 1992 Harvard University (Economics) 1992 U.C., Berkeley 1992

Brown University 1990 Univ. of Tennessee, Chattanooga 1989 Harvard Univ. (Kennedy School) 1988 Maine Society of Accountants 1988 Univ. of Tennessee, Knoxville 1987 Boston College 1987 Queen's University 1987 Bates College 1986 U.C., Irvine 1984 U.C., Davis 1984 Princeton University 1983 Department of Defense 1983 Univ. of Minnesota 1983 The World Bank 1983 Claremont McKenna College 1983 GAO 1982 Univ. of Augsburg 1982 Univ. of British Columbia 1980 Mathematica 1979 The RAND Corporation 1979 SUNY, Buffalo 1978 Bell Labs 1978 Harvard Univ. (Kennedy School) 1978 Tufts Univ. 1978 Stanford Univ. 1977 University of Pennsylvania (Wharton) 1976 The Urban Institute 1975 American Economic Association 1974 Univ. of North Carolina 1973 SUNY, Buffalo 1973 Univ. of Virginia 1973 Cal. State Fullerton 1972 Kansas State Univ. 1972 Univ. of Missouri, St. Louis 1972

SERVICE (Bates College)

Economics Department Chair - 4 years

Standing Committees

Student conduct committee – 10 years Judicial Educator – 14 years Personnel Committee – 4 years Watson Fellowship Committee – 4 years Kroepsch Award Committee – 4 years Graduate Fellowship Committee – 2 years Course Evaluation Committee – 2 years Athletics Personnel Committee – 2 years Committee on Faculty Governance – 1 year Curriculum and Calendar Committee – 1 year Institutional Review Board – 1 year

Ad Hoc Committees

Institutional Planning Committee – 2 years Committee on the Status of Women at Bates – 1 year Committee to Revise Rules of Student Conduct – 1 year (co-chair) Review of the Dean of Faculty Office – 1 year Review of the Department of Athletics – 1 year Hiring Committee for College president – 1 year Hiring Committee for Treasurer – 1 year Information Sciences Advisory Committee – 1 year