March 2020

#### CURRICULUM VITAE

Peter Coughlin

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### Academic Background:

- 1985- : Associate Professor (tenured), Department of Economics, University of Maryland at College Park
- 1982-85: Assistant Professor, Department of Economics, University of Maryland at College Park
- 1981-82: Postdoctoral Fellow, Department of Social Sciences, Carnegie-Mellon University.
- 1980-81: NATO Postdoctoral Fellow, Institute of Economics & Statistics and St. Catherine's College, Oxford University.
- 1979-80: Postdoctoral Fellow, Institute for Mathematical Studies in the Social Sciences and Department of Economics, Stanford University.
- 1978-79: NSF Postdoctoral Fellow, Department of Economics, Harvard University.
- 1976-78: Instructor (9/76-12/76), then Assistant Professor (1/77 6/78), Department of Economics, Middlebury College.

Student, University of Vermont: M.S. in Mathematics, 5/78

1970-76: Student, State University of New York at Albany: Ph.D. in Economics, 12/76 M.A. in Economics, 5/74 B.A.(magna cum laude) with a Major in Mathematics and a Minor in Economics, 5/73.

## Teaching Awards & BSOS Teaching Fellow:

13 UMCP Economics Department Teaching Awards

Certificate for an Outstanding Teacher, UMCP Panhellenic Association (1993) (1995)

BSOS Teaching Fellow (Fall 1999, Spring 2000, Fall 2000)

#### Most recent meetings:

I attended the Joint Mathematics Meetings in Baltimore, Maryland (from January 16 through January 19, 2019). I and my co-author Diana Cheng gave a presentation entitled "Applications of hypothetical competition analysis for figure skating team events" in an MAA Contributed Paper Session on Mathematics and Sports.

I attended a Conference on Game Theory at Stony Brook University (from July 16 through July 20, 2018). I presented my co-authored paper "What if a figure skating team event had been held at past Winter Olympic Games?".

I attended the 55th Annual Conference of The Public Choice Society in Charleston, South Carolina (from March 1 through March 3, 2018). I presented my co-authored paper "What if a figure skating team event had been held at past Winter Olympic Games?". I was also a Discussant

I attended a Conference on Game Theory at Stony Brook University (from July 17 through July 21, 2017). I presented my co-authored paper "Using equations from power indices to analyze figure skating teams".

I attended the 54th Annual Conference of The Public Choice Society in New Orleans, Louisiana (from March 2 through March 4, 2017). I presented my co-authored paper "Using equations from power indices to analyze figure skating teams". I was also a Discussant.

I attended a Conference on Game Theory at Stony Brook University (from July 20 through July 24, 2015). I presented my paper "Probabilistic Voting in Models of Electoral Competition".

I attended the 52nd Annual Conference of The Public Choice Society in San Antonio, Texas (from March 12 through 15, 2015). I presented my paper "Probabilistic Voting in Models of Electoral Competition". I was also a Discussant. I attended the International Meeting of the Society for Social Choice and Welfare at Boston College (from June 18 through June 21, 2014). I presented a preliminary version of my paper "Probabilistic Voting in Models of Electoral Competition".

I attended the 50th Anniversary Conference of The Public Choice Society in New Orleans (from March 7 to 10, 2013). I presented my coauthored paper "Elections with Partially Ordered Preferences".

I attended a Conference held by the Conference Board of the Mathematical Sciences (on the topic "Mathematics of the Social and Behavioral Sciences") at West Chester University in West Chester, PA (from August 13 through August 17, 2012). I presented my co-authored paper "Elections with Partially Ordered Preferences".

I attended a Conference on Game Theory at Stony Brook University (from July 15 through July 20, 2012). I presented my paper "Probabilistic Voting Models".

I attended the World Congress of the Public Choice Societies in Miami, Florida (from March 9 to March 11, 2012). I presented my paper "Probabilistic Voting Models"; I was also a Discussant.

I attended a Workshop on Political Economy at the Center for Game Theory in Economics at Stony Brook University (from July 25 through July 27, 2010). I presented the final version of my paper "Probabilistic and Spatial Models of Voting".

I attended the 2008 Meeting of the Southern Economic Association in Washington, DC (from November 20 through November 22, 2008). I presented a revised version of my paper "Probabilistic and Spatial Models of Voting"; I was also a Session Chairperson.

I attended the International Meeting of the Society for Social Choice and Welfare at Concordia University in Montreal (from June 19 through June 22, 2008). I presented a preliminary version of my paper "Probabilistic and Spatial Models of Voting"; I was also a Session Chairperson.

#### Book:

<u>Probabilistic Voting Theory</u>, Cambridge University Press: Cambridge, UK [Electronic version published in 2010 on "Cambridge Books Online" (which is available to university libraries and other institutions)] [Paperback version published in 2008 (ISBN 0521063299)] [Hardback version published in 1992(ISBN 0521360528)].

# Other Publications:

"What if a figure skating team event had been held at past Winter Olympic Games?"(with Diana Cheng), Journal of Sports Analytics, 4 (2018), pp. 215-227.

"Using equations from power indices to analyze figure skating teams"(with Diana Cheng), Public Choice, 170 (2017), pp. 231-251.

"Probabilistic Voting in Models of Electoral Competition" in <u>Elgar</u> <u>Handbook of Social Choice and Voting</u> (Jac Heckelman and Nicholas Miller, eds.), Edward Elgar Press, 2015, pp. 218-234.

"Elections with partially ordered preferences" (with Michael Ackerman, Sul-Young Choi, Eric Gottlieb & Japheth Wood), Public Choice, 157 (2013), pp. 145-168.

"Probabilistic Voting Models" in <u>Methods and Applications of</u> Statistics in the Social and Behavioral Sciences, New York: Wiley, 2012, pp. 289-295

"Probabilistic and Spatial Models of Voting" in <u>Handbook of Social</u> <u>Choice and Welfare</u>, volume 2 (Kenneth Arrow, Amartya Sen and Kotaro Suzumura, eds.), "Handbooks in Economics" series, Elsevier / North-Holland), 2010, pp. 833-896. [Made available online at Elsevier's website ScienceDirect (www.sciencedirect.com) in 2011.]

"Election models," in <u>The Encyclopedia of Public Choice</u>, Volume 2 (C. Rowley and F. Schneider, eds.), Boston: Kluwer Academic Publishers, 2003, pp. 201-206.

"Single-peaked preferences and median voter theorems", in <u>The</u> <u>Encyclopedia of Public Choice</u>, Volume 2 (C. Rowley and F. Schneider, eds.), Boston: Kluwer Academic Publishers, 2003, pp. 524-528.

"Redistribution by a Representative Democracy and Distributive Justice," in <u>Markets, Information and Uncertainty</u> (G. Chichilnisky, ed.), Cambridge, UK: Cambridge University Press 1999, pp. 362-76.

"Pure Strategy Equilibria in a Class of Systems Defense Games," International Journal of Game Theory, 20 (1992), pp. 195-210.

"Balanced-Budget Redistribution as the Outcome of Political Competition: A Comment," <u>Public</u> <u>Choice</u>, 70 (1991), pp. 239-243. "Electoral Politics, Interest Groups, and the Size of Government" (with Dennis Mueller and Peter Murrell), <u>Economic Inquiry</u>, 28 (1990), pp. 682-705. "Pairwise Equilibria in Probabilistic Voting Models," <u>European</u> Journal of Political Economy, 6 (1990), pp. 96-106.

"A Model of Electoral Competition with Interest Groups" (with Dennis Mueller and Peter Murrell), <u>Economics</u> <u>Letters</u>, 32 (1990), pp. 307-311.

"Candidate Uncertainty and Electoral Equilibria," in <u>Advances in the</u> <u>Spatial Theory of Voting</u> (J. Enelow and M. Hinich, eds.), Cambridge: Cambridge University Press, 1990, pp. 145-166.

"Majority Rule and Election Models," <u>Journal of Economic Surveys</u>, 4 (1990), pp. 157-188.

"Economic Policy Advice and Political Preferences," <u>Public Choice</u>, 61 (1989), pp. 201-216.

"Policies Over Time and Pareto Optimality" (with Eric Howe), <u>Social</u> Choice and Welfare, 9 (1989), pp. 259-273.

"Concave Nash Social Welfare Functions," in <u>Modeling</u> and <u>Simulation</u>, <u>20</u> (W. Vogt and M. Mickle, eds.), Research Triangle Park, NC: Instrument Society of America, 1989, pp. 395-397.

"Single-Peakedness and Median Voters", in <u>Encyclopedia of Statistical</u> <u>Sciences</u>, Volume 8 (S. Kotz and N. Johnson, eds.), New York: Wiley, 1988, pp. 491-495 [and is also in both the printed version (2005) and the online version of the 2nd Edition (2006)].

"Rights and the Private Pareto Principle", <u>Economica</u>, 53 (1986), pp. 303-320.

"Probabilistic Voting Models", in <u>Encyclopedia of Statistical</u> <u>Sciences</u>, Volume 7 (S. Kotz and N. Johnson, eds.), New York: Wiley, 1986, pp. 204-210 [and is also in both the printed version (2005) and the online version of the 2nd Edition (2006)].

"Reply to Slutsky's Comment", Public Choice, 50 (1986), pp. 131-133.

"Reply to Ledyard's Comment", Public Choice, 50 (1986), pp. 101-103.

"Elections and Income Redistribution", <u>Public Choice</u>, 50 (1986), pp. 27-91.

"Special Majority Rules and the Existence of Voting Equilibria", Social Choice and Welfare, 3 (1986), pp. 31-35.

"Directional Nash Behavior in Probabilistic Voting Models", in <u>Modeling</u> and <u>Simulation</u>, <u>16</u> (W. Vogt and M. Mickle, eds.), Research Triangle Park, NC: Instrument Society of America, 1985, pp. 1121-1127.

"Pareto Optimality", in <u>Encyclopedia of Statistical Sciences</u>, Volume 6 (S. Kotz and N. Johnson, eds.), New York: Wiley, 1985, pp. 574-578 [and is also in both the printed version (2005) and the online version of the 2nd Edition (2006)].

"Nash Equilibrium", in <u>Encyclopedia</u> of <u>Statistical</u> <u>Sciences</u>, Volume 6 (S. Kotz and N. Johnson, eds.), New York: Wiley, 1985, pp. 144-147 [and is also in both the printed version (2005) and the online version of the 2nd Edition (2006)].

"Nash Axioms", in <u>Encyclopedia</u> of <u>Statistical</u> <u>Sciences</u>, Volume 6 (S. Kotz and N. Johnson, eds.), New York: Wiley, 1985, pp. 141-143 [and is also in both the printed version (2005) and the online version of the 2nd Edition (2006)].

"Pareto Optimality in Spatial Voting Models" (with Thomas Palfrey), Social Choice and Welfare, 1 (1985), pp. 307-319.

"Davis-Hinich Conditions and Median Outcomes in Probabilistic Voting Models", Journal of Economic Theory, 34 (1984), pp. 1-12.

"Necessary and Sufficient Conditions for Single-Peakedness in Public Economic Models" (with Melvin Hinich), <u>Journal of Public Economics</u>, 25 (1984), pp. 161-179.

"Unidimensional Median Voter Results in Probabilistic Voting Models", <u>Economics Letters</u>, 14 (1984), pp. 9-15.

"Expectations About Voter Choices: A Comment", <u>Public Choice</u>, 44 (1984), pp. 49-59.

"Changes in Marginal Revenue and Related Elasticities", <u>Southern</u> Economic Journal, 51 (1984), pp. 568-573.

"Social Utility Functions for Strategic Decisions in Probabilistic Voting Models", <u>Mathematical Social Sciences</u>, 4 (1983), pp. 275-293.

"Public Sector Pricing, Consumer Surplus and Single-Peakedness", in <u>Modeling</u> and <u>Simulation</u>, <u>13</u> (W. Vogt and M. Mickle, eds.), Research

Triangle Park, NC: Instrument Society of America, 1982, pp. 1227-1232.

"Pareto Optimality of Policy Proposals with Probabilistic Voting", Public Choice, 39 (1982), pp. 427-433.

"Necessary and Sufficient Conditions for  $\alpha$ -Relative Majority Voting Equilibria", Econometrica, 49 (1981), pp. 1223-1224.

"Electoral Outcomes with Probabilistic Voting and Nash Social Welfare Maxima" (with Shmuel Nitzan), <u>Journal of Public Economics</u>, 15 (1981), pp. 113-121.

"Directional and Local Electoral Equilibria with Probabilistic Voting" (with Shmuel Nitzan), <u>Journal of Economic Theory</u>, 24 (1981), pp. 226-239.

"Continuity Properties of Majority Rule with Intermediate Preferences" (with Kuan-Pin Lin), <u>Mathematical Social Sciences</u>, 1 (1981), pp. 289-296.

"Optimal Voting Under Uncertainty in Mathematical Models of Electoral Competition," in <u>Proceedings of the First World Conference on</u> <u>Mathematics at the Service of Man</u>, Volume 2 (A. Ballester, N. Batle and E. Trillas, eds.), Universidad Politechnica, Barcelona, 1980, pp. 17-37.

"A Direct Characterization of Black's First Borda Count", <u>Economics</u> Letters, 4 (1979/80), pp. 131-134.

"Nonlinear Optimization and Equilibria in Policy Formation Games with Random Voting", in <u>Applied Nonlinear Analysis</u> (V. Lakshmikantham, ed.), New York: Academic Press, 1979, pp. 519-528.

"Temporary Equilibria in Exchange Economies with Uncertainty on Actions", <u>The</u> <u>Journal</u> <u>of</u> <u>Economics</u> (Missouri Valley Economic Association), <u>4</u> (1978), pp. 147-150.

"A Mathematical Model of Elections with Sequences of Decisions and Incomplete Information," in <u>Proceedings of the First International</u> <u>Conference on Mathematical Modeling</u>, Volume 2 (X. Avula, ed.), University of Missouri at Rolla, 1977, pp. 701-710.

"A Discrete-Time Nonlinear (m+n)-Person Labor Market System with Uncertainty", in <u>Nonlinear Systems and Applications</u> (V. Lakshmikantham, ed.), New York: Academic Press, 1977, pp. 447-468. "Optimal Bids, Optimal Offers, and Persistent Unemployment in Labor Markets with Uncertainty", <u>The</u> <u>Journal</u> <u>of</u> <u>Economics</u> (Missouri Valley Economic Association), 3 (1977), pp. 56-59.

"Incomplete Information, Noisy Signals, and Uncertainty-Averse Voting in Political Elections: A Note", <u>Public</u> <u>Choice</u>, 28 (1976), pp. 113-116.

#### Professional Affiliations:

American Economic Association, Econometric Society, Public Choice Society, Society for Social Choice and Welfare, and Southern Economic Association.

Teaching:

Undergraduate Courses Taught at UMCP: ECON 200: Principles of Microeconomics ECON 306: Intermediate Microeconomic Theory ECON 321: Economic Statistics ECON 396-397: Undergraduate Honors Program ECON 425: Mathematical Economics ECON 451: Public Choice Graduate Courses Taught at UMCP: ECON 600: Analytical Techniques for Economists ECON 703: Advanced Microeconomic Theory I ECON 704: Advanced Microeconomic Theory II ECON 755: Theory of Public Choice I ECON 756: Theory of Public Choice II

#### Other:

1984 James L. Barr Award in Public Economics (from the Association for Public Policy Analysis and Management).

Member, Collective Choice Center at UMCP (1987-).

Member, Graduate Faculty at UMCP (1985-).

Member, Applied Mathematics Faculty at UMCP (1982-).

Member of the Editorial Board, Economics Letters, 8/90-8/92.

Referee for various journals & book publishers.

Listed in editions of Dictionary of International Biography, Who's

<u>Who in America</u>, <u>Who's Who in the East</u>, <u>Outstanding Young Men of</u> <u>America</u>, and in <u>American Men and Women of Science</u>: <u>Social and</u> <u>Behavioral Sciences</u>.