

Christopher S. Ruebeck

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Education

Ph.D., Economics, The Johns Hopkins University, 2000

Areas: Industrial Organization, Evolutionary Game Theory, Applied Econometrics

Dissertation: "Changing Markets and Changing Behavior: Three Essays"

M.A., Economics, The Johns Hopkins University, 1995

M.S.E., Electrical Engineering, Stanford University, 1988

B.S.E.E. (Electrical Engineering) *With Distinction*, Purdue University, 1986

Academic appointments

Lafayette College

2008 - Associate Professor
2001 - 08 Assistant Professor
2000 - 01 Instructor, tenure track

Loyola College, Maryland

1998 - 2000 (Visiting) Assistant Professor Core Faculty

The Johns Hopkins University

1997 - 98 Instructor
1995 - 98 Research Assistant
1994 - 98 Teaching Assistant

Non-academic employment

Siemens Medical Systems, Inc.

1991-3 Field Product Specialist, Computed Tomography (CT) / Magnetic Resonance (MR)
1990-1 Product Manager, Magnetic Resonance
1988-9 Headquarters Product Specialist, Magnetic Resonance:

Lawrence Livermore National Laboratory

1987 Electrical Engineer (TS and Q clearances)

National Security Agency, Cooperative Education Program (work/study alternating semesters)

1983-6 Engineering Student (TS clearance)

Grants, fellowships, and other funding

- 2007-13 National Science Foundation, Human and Social Dynamics: Integrating Agent-Based Modeling and Life-Cycle Analyses to Enhance Environmental Policy Making, Research Grant BCS-079458, \$635,000. Principal Investigator; co-PIs Sharon Jones (University of Portland) and Jeff Pfaffman (Computer Science)
- 2007-13 National Science Foundation, CPATH-T: Campus Wide Computation Initiative, A New Model For Computing Education, Research Grant 0722211/0722203, \$105,716 and \$559,950. One of several senior personnel across the Lafayette College campus; Principal Investigators Chun Wai Liew (Computer Science) and PI Valerie Barr (Union College)
- 2011 Support from Lafayette's Environmental Science & Studies program for a Marketing Research (Econ 361) project with the West Ward Neighborhood Partnership
- 2011 Grant from the Lafayette Libraries to add an information literacy component to Marketing Research (Econ 361) course
- 2010 Support from community-based learning and research Faculty Innovation Grant and Princeton Corporation for National and Community Service: fund summer research work by Rachel Ingber in a study of the Nurse Family Partnership's Holiday Helpers program with Lafayette College
- 2010 Interdisciplinary course through Andrew W. Mellon Foundation grant funds: Evolutionary Game Theory, with Robert Root from the Department of Mathematics
- 2009 Lehigh Valley Research Consortium inter-institutional grant to survey the local food supply chain for the Lehigh Valley chapter of Buy Fresh Buy Local
- 2002 Summer Research Fellowship, Lafayette College
- 2001 Integrating Computers in the Curriculum Grant, Lafayette College
- 1985 AT&T Fellowship for an outstanding member of Eta Kappa Nu, the electrical engineering honor society, Beta Chapter (Purdue University)

Teaching Awards

- 2003-4 Lafayette College Student Government Teaching Award, Humanities and Social Sciences
- 2003-4 Award for Outstanding Contributions to the Economics and Business Department from Omicron Delta Epsilon economics honor society, Alpha Delta Chapter (Lafayette College)

Published work, peer reviewed

“Consumer Search, Rationing Rules, and the Consequences for Competition” in *Social Computing, Behavioral Modeling, and Prediction*, April 2011, Lecture Notes in Computer Science, 6589: edited by J. Salerno, S.J. Yang, S.-K. Chai

“Open- and Closed-Loop Supply Chain Dynamics: Specification and Exploration of an Agent-Based Model” *Eastern Economic Review* (special issue on Agent-based Computational Economics), forthcoming 2011; with Jeffrey Pfaffman

“Assessing the Effectiveness of Using a Computer Game to Bridge a Research Agenda with a Teaching Agenda” *American Society of Engineering Education 2010 Conference Proceedings*; with Kristen Sanford Bernhardt, Sharon Jones, Jackie Isaacs (Best Paper Award, ASEE Environmental Division)

“Acting White or Acting Black: Mixed-Race Adolescents’ Identity and Behavior,” *The B.E. Journal of Economic Analysis and Policy* (Contributions level), 2009 9(1); with Susan Averett and Howard Bodenhorn

The International Encyclopedia of the Social Sciences, 2nd ed. William A. Darity et al, eds., 2008 (peer-reviewed): “Imperfect Competition”

“Asymmetric Information”

“Revenue”

“Corporate Strategies”

“Instrumental Variables”

“Colourism and African-American Wealth: Evidence from the Nineteenth Century South,” *Journal of Population Economics*, July 2007 (20:3) 599-620; with Howard Bodenhorn

“Handedness and Earnings,” *Laterality*, March 2007 (12:2)101-120; with Joseph E. Harrington, Jr. and Robert Moffitt

“Model Exit in a Vertically Differentiated Market: Interfirm Competition vs. Intrafirm Cannibalization in the Computer Hard Disk Drive Industry,” *Review of Industrial Organization*, February 2005 p.27-59

“Network Externalities and Standardization: A Classroom Demonstration,” *The Southern Economic Journal*, April 2003 (69/4) 1000-08; w/ Sarah Stafford, Nicola Tynan, et al.

“Interfirm Competition, Intrafirm Cannibalization, and Product Exit in the Market for Computer Hard Disk Drives,” *The Economic and Social Review*, Spring 2002 (33/1) 119-31

“Imitation Dynamics and the Repeated Prisoners’ Dilemma: An Exploratory Example,” *The Journal of Economic Behavior and Organization*, August 1999 (40/1) 81-104

Reports, sponsored or solicited

State of the Lehigh Valley 2012 report, co-editor with Jamila Bookwala, and Economics section author (released February 2013), for the Lehigh Valley Research Consortium

“Gardening in Easton’s West Ward Neighborhood: Local Perceptions of the Value and Operation of Community Gardens” with Crystal Fortwangler, Hannah Grover, and Alana Taylor, for the West Ward Neighborhood Partnership

Reports, sponsored or solicited, continued

State of the Lehigh Valley 2011 report, Economics section (released February 2012) with Rob Root, for the Lehigh Valley Research Consortium

State of the Lehigh Valley 2010 report, Economics section (released January 2011), for the Lehigh Valley Research Consortium

“Local Food and Local Taste: A study of supply and demand” for the Greater Lehigh Valley Buy Fresh Buy Local Chapter with Richard Niesenbaum and in partnership with the Lehigh Valley Research Consortium; September 2009

Contributions to working paper series

“Acting White or Acting Black: Mixed Race Adolescents’ Identity and Behavior,” NBER Working Paper 13793 (February 2008) , with Susan Averett and Howard Bodenhorn

“Handedness and Earnings,” NBER Working Paper 12387 (July 2006) and Johns Hopkins University working paper 533 (2007), with Joseph E. Harrington, Jr. and Robert Moffitt

“Colorism and African American Wealth: Evidence from Nineteenth-Century South,” NBER Working Paper 11732 (November 2005), with Howard Bodenhorn

“The Economics of Identity and the Endogeneity of Race,” NBER Working Paper 9962 (September 2003), with Howard Bodenhorn

Research papers, Works in progress

“Virtual Corporate Reality: Simulating Oligopoly for Students,” with Joe Harrington

“Models of Duopoly with a Capacity Constraint and Asymmetric Information,” with Shiliang Cui `09

“The Deadweight Loss of Christmas, Philanthropy, and Gift Cards” with Jeff Leibner, Rachel Ingber `11

“Consumer Search, Capacity, and oligopoly dynamics”

“Studying the Local Food Supply Chain” in Navigating to Community Impact through Community-Based Research, edited by Joyce Long and Mary Beckman

“A Game-Theoretic Model for Investigating Packaging Life Cycle Policy,” with Hilary Grimes-Casey, Thomas Seager, Thomas Theis (revision requested)

Conference, presentations, and invited talks

Collective Dynamics of Complex Systems Research Group seminar, Binghamton University; September 2011: “Consumer Search, Rationing Rules, and the Consequences for Competition”

Western Economic Association International; San Diego Ca, July 2011, “Consumer Search, Rationing Rules, and the Consequences for Competition”

Conference, presentations, and invited talks (continued)

International conference on Computing in Economics and Finance; San Francisco Ca, June 2011, "Consumer Search, Rationing Rules, and the Consequences for Competition"

International Industrial Organization Conference; Boston MA, April 2011: "Consumer Search, Rationing Rules, and the Consequences for Competition"

Social Computing, Behavioral Modeling and Prediction; College Park MD, March 2011: "Consumer Search, Rationing Rules, and the Consequences for Competition" (referred paper published in proceedings, with competitive acceptance rate)

Eastern Economic Association; New York City, Feb. 2011: "Consumer Search, Rationing Rules, and the Consequences for Competition"

American Economic Association / Allied Social Sciences, Jan. 2011: "Simulating Oligopoly to Enhance Student Learning" in the Active Learning Strategies for the Undergraduate Curriculum **poster session** (with Joe Harrington)

Southern Economic Association; Atlanta GA, November 2010: "Simulating Oligopoly to Enhance Student Learning" (with Joe Harrington)

Human Social Dynamics (National Science Foundation) grantees meeting; Arlington VA, Sept. 2011, "Open- and Closed-Loop Supply Chain Dynamics: Specification and Exploration of an Agent-Based Model" (with Jeff Pfaffmann)

Northeastern Association of Business, Economics and Technology, State College PA, October 2010 "Incorporating GIS data in an Agent-Based Model of the Inter-firm Shipping Pallet Supply Chain" (with Jeff Pfaffman, Laura Wong Hon Chan `12, Phuong Anh Nguyen `12)

NSF-HSD grantees meeting, "Open- and Closed-Loop Supply Chain Dynamics: Specification and Exploration of an Agent-Based Model" poster (with Jeff Pfaffman) Arlington VA, September 2010

Society for Computational Economics 16th International Conference on Computing in Economics and Finance "The Consequences of Demand Curves and Consumer Rationing" London, July 2010

Western Economic Association International "Virtual Corporate Reality" (with Joe Harrington) and "The Consequences of Demand Curves and Consumer Rationing" Portland OR, June 2010

Workshop on Optimal Control, Dynamic Games and Nonlinear Dynamics "Open- and Closed-Loop Supply Chain Dynamics: Specification and Exploration of an Agent-Based Model" (with Jeff Pfaffman) Amsterdam, June 2010

International Industrial Organization Conference "The Consequences of Demand Curves and Consumer Rationing Rules" Vancouver, May 2010

Golisano Institute for Sustainability seminar "Integrating Agent-Based Modeling and Life Cycle Analyses to Enhance Environmental Policy Making" (with Jeff Pfaffman), Rochester Institute of Technology, April 2010

Conference, presentations, and invited talks (continued)

- New Economic Research and Development Seminar (NERDS), “Demand curves and consumer rationing rules in oligopoly” Lafayette College, April 2010
- Academic Research Committee Works-in-Progress seminar “Exploring the space of demand curves and consumer rationing rules” Lafayette College, March 2010
- Eastern Economic Association “Exploring the space of demand curves and consumer rationing rules” Philadelphia February 2010
- Patriot League Academic Conference “Virtual Corporate Reality” (with Joe Harrington) Bucknell University, October 2009
- Complexity Conference: Agents and Networks “Modeling the interfirm supply chain: An open-loop model for market context in environmental policy decisions” poster (with Jeff Pfaffman) Northwestern Institute on Complex Systems, September 2009
- International Conference on Computing in Economics and Finance “Integrating Agent-Based Modeling and Life Cycle Analyses to Enhance Environmental Policy-Making” (with Jeff Pfaffman) Sydney, July 2009
- NSF-sponsored Workshop on Classroom Experiments “Virtual Corporate Reality” (with Joe Harrington) College of William and Mary, May 2009
- Eastern Economic Association, Boston, February 2008, “Integrating Agent-Based Modeling and Life Cycle Analyses to Enhance Environmental Policy-Making” (with Sharon Jones and Jeffrey Pfaffman)
- United States Society for Ecological Economics Conference, Creating Sustainability within our Midst: Challenge for the 21st Century, New York, June 2007: “The effects of shipper-receiver economics on the environmental impact of shipping pallets” (with Sharon Jones and Brian Laverty)
- Eastern Economic Association; Philadelphia, February 2006: “‘Acting Out’ not ‘Acting White:’ Risky Behaviors of White, Black, and Multiracial Youth” (with Susan Averett and Howard Bodenhorn)
- Allied Social Science Association; Boston, January 2006: “Colorism and African-American Wealth: Evidence from Nineteenth Century South” (w/ Howard Bodenhorn)
- Southern Economic Association; Washington, D.C. November 2005: “Colorism & African-American Wealth: Evidence from Nineteenth Century South” (w/ Howard Bodenhorn)
- Persistent Interracial Inequality and Identity; Florida State University, March 2005: “Colorism & African-American Wealth: Evidence from Nineteenth Century South” (w/ Howard Bodenhorn)
- SUNY Binghamton Department of Economics seminar, February 11, 2005 “Colorism & African-American Wealth: Evidence from Nineteenth Century South” (w/ Howard Bodenhorn)
- International Industrial Organization Conference; Chicago, IL; Apr. 2004: “The Large-Firm Wage Premium, the Manager’s Scope of Responsibility, and Incentive Pay”

Conference, presentations, and invited talks (continued)

Western Economic Association International; Vancouver, British Columbia; June 2004: “The Economics of Identity and the Endogeneity of Race,” with Howard Bodenhorn

North American Winter Meeting of the Econometric Society; Washington DC; Jan. 2003: “Handedness and Earnings,” with Robert Moffitt and Joseph E. Harrington, Jr.;

American Economic Association / Allied Social Sciences annual meeting; Washington DC; Jan. 2003
 “The Economic Consequences of Race and Mixed-Race: Evidence from the 1860 Census,” with (and presented by) Howard Bodenhorn

Lehigh University Seminar, 2002: “Robust Cooperation in Imitation Dynamics”

European Association for Research in Industrial Economics; Madrid, Spain; Sept. 2002:
 “Estimating a Structural Model of One-Dimensional Vertical Differentiation for the Computer Hard Disk Drive Industry”

The 13th Stony Brook Summer Festival on Game Theory; Stony Brook, NY; July 2002:
 “Robust Cooperation in Imitation Dynamics”

European Association for Research in Industrial Economics; Dublin, Ireland; August 2001:
 “Product Exit in a Vertically Differentiated Market: Interfirm Competition vs. Intrafirm Cannibalization”

The 7th Stony Brook Summer Festival on Game Theory; Stony Brook, NY; July 1996:
 “Imitation Dynamics and the Repeated Prisoners’ Dilemma: An Exploratory Example”

Courses Taught

Lafayette College (2000-present)

Principles of Economics (Econ 101)
 Intermediate Microeconomics (Econ 211)
 Evolutionary Game Theory, with Robert Root (Econ 256 / Math 256)
 Industrial Organization (Econ 331)
 Marketing Science (Econ 360)
 Marketing Research (Econ 361)
 Computational Simulation of Markets and Behavior (Econ 375)

Loyola College of Maryland (1998-2000)

Microeconomics Principles (EC102)

The Johns Hopkins University (Summer 1997 and 1998)

Investment and Portfolio Management (Econ 304)

Senior honors theses

Joyce Laura Wong Hon Chan `12, "The Environmental Implications of Endogenous Quality Choice in a Vertically Differentiated Oligopoly" (advised)

Edward Zhao `12, "High Scores: Quantifying the Correlation Between Video Games Sales and Video Game Journalism" (advised)

Puong Anh Nguyen `12, "Performance Efficiency of Spanish Savings Banks: an Agent-Based Model of Market Concentration and Competition" (outside reader, International Economics and Commerce)

Rachel Ingber `11, "Gifts, Gift Cards & Deadweight Loss" (advised)

Shiliang (John) Cui `09, "Models of Duopoly with a Capacity Constraint and Asymmetric Information" (advised)

Jacquelynn Molzon `08, "The Determinants of the Market Success of a Pharmaceutical Drug" (advised)

Brian Laverty `07, "Do Rich Eyeballs Pay? Direct Response Advertising Rates and Demographic Factors" (advised)

Dan Rosenblum `06, "Wireless telecommunications market structure across countries" (advised)

Kristin Tull `06, "Using game theory to evaluate sustainable environmental policy options for domestic open-loop pallets" (outside reader, A.B. Engineering)

Alex Kadel `06, "Achieving mutual cooperation : an investigation into prisoner's dilemma and other non-zero sum games" (outside reader, Mathematics)

Brian Regan `06, "Game theory and a generalization of cooperative games" (outside reader, Mathematics)

Michael Tortora `05 / entering `06 "The Lafayette Student Athlete" (advised, thesis not finished)

Sarah Segal `05, "Do colleges practice price discrimination in order to increase quality?" (reader)

Douglas Schiz `04, "An econometric location and gate revenue model for the National Football League" (reader)

Nathan DeLong `04, "Policy formulation using environmental and economic analysis of wooden pallets" (reader, A.B. Engineering)

Jarrold Poveroma `03, "Past and present protectionist policies and their effects on the U.S. steel industry" (advised, joint A.B. Engineering)

Jennifer Conway `03, "The Role of Contributions in Presidential Primaries: Deciphering the Dollars" (advised, joint Gov/Law)

Suzanne Metzger `03, "What it takes to 'serve' satisfaction: an economic investigation of tipping and contests" (advised)

Meredith Sabosik `02, "Modern challenges to antitrust laws" (advised, joint Gov/Law)

Alison Purcell `02, "The economic determinants of teenage abortion" (reader)

Senior honors theses, continued

Mike Levey `02, “An econometric model for predicting the future expansions and contractions of U.S. Airline Hubs” (reader)

Steve DiMauro `02, “An introduction to Game Theory and variations in the Game of Nim” (outside reader, Mathematics)

EXCEL research assistance

Joyce Laura Wong Hon Chan `12:
NetLogo programming of Geographic Information Systems and the grocery supply chain

Phuong Anh Nguyen `12:
NetLogo programming and investigation

Rachel Ingber `11:
Geographic Information Systems, NetLogo, and shipping pallets in the grocery supply chain
History and context of ‘Holiday Helpers’ gift-giving to women and children in need

Sarah Christy `10:
Data and surveys for the Greater Lehigh Valley chapter of Buy Fresh Buy Local

Chinh Do `10:
Research on characteristics of the U.S. and E.U. cell phone markets

Anthony Finizio `10:
Research on characteristics of the shipping pallet market

Aung Nang Lin `10:
Research on Life Cycle Analyses of the cell phone and cell phone battery market

Ed Seo `09:
Grocery shipping pallet use

Stefan McVeigh `08:
Research and panel data on the computer hard disk drive market

Thuy Lan Nguyen `07:
Organization of data for survival analysis of computer hard disk drive models

Brian Laverty `07 (presented at NCUR on work that was not his thesis):
GIS analysis of shipping pallet recyclers and repairers in Pennsylvania and Indiana
Collection of cross-country data on television direct response advertising rates

Dimitar Marmarov `07 (presented in Skillman’s Student Research Forum on work that was not his thesis):
Organization of data on New Jersey’s 1896 oyster industry

Michael Tortora `05 / entering `06:
Organization of panel data on retail firms’ salary and non-salary compensation
Collection of data on Lafayette soccer team academic and athletic performance

Katharine Wolchik '05:

Analytical characterization of repeated prisoners' dilemma generalized evolutionary behavior

John Zembron '04 (presented at NCUR; no thesis):

Organization of panel data on retail firms' salary and non-salary compensation

Suzanne Metzger '03:

Organization of panel data on retail firms' salary and non-salary compensation

Collection and processing of data on local restaurant's server compensation

EXCEL research assistance, continued

Prashant Poddar '04 (presented at NCUR, on work that was not his thesis):

Coding of agent-based modeling simulation for studying the repeated prisoners' dilemma

Manuscript referee

American Economic Review

Review of Economics and Statistics

Journal of Labor Economics

Journal of Health Economics

Journal of Economic Behavior and Organization

Economic Inquiry

Economica

Eastern Economic Journal

Feminist Economics

Journal of Economic Education

Journal of Industrial Organization Education

Funding agency review panels

Interdisciplinary review panel for the National Science Foundation, 2011

Directorate for Engineering review panel, National Science Foundation, 2008

Sessions organized at academic conferences

Eastern Economic Association 2012 sessions on Agent-based Computational Economics, with Jason Barr, Alan Isaacs, and German Creamer

Western Economic Association International 2011 "Agent-based computational economics I and II", with David Dixon

Eastern Economic Association 2011 sessions on Agent-based Computational Economics, with Jason Barr, Leanne Ussher, German Creamer and Troy Tassier

Western Economic Association International 2010, "Agent-based modeling I and II"

Administrative service at Lafayette College

College-wide

- Progress, Tenure, and Review Committee
- Financial Compensation Committee
- Teaching and Learning Committee
- Health Professions Advisory Committee
- Instructional Technology Advisory Committee
- Ad hoc committee to choose Jack Kent Cooke Scholarship nominees
- Instructional Technology external review input
- First Year orientation program discussion groups
- Presentation for Experience Lafayette students & parents weekend
- Attended NCUR meeting with student scholars
- Student Government Faculty Teas
- Marquis Scholar Days luncheons
- Lafayette Prologue alumni dinner
- Hosted visiting French teachers
- Swim team faculty mentor
- Women's basketball team faculty mentor
- International student sponsor

Department of Economics

- Assessment committee
- Advisor to honors students (with Yang Wang)
- Contacting Marquis and Trustee Scholars with interest in Economics & Business
- Search Committee for tenure-track positions in Economics & Business
- Presentations to prospective E&B majors during first year students' orientation week
- Advisor to CIRCLE student committee
- Occasional contribution to Fed Challenge team's preparation
- Web page and handbook revisions

Community service

- Lehigh Valley Research Consortium (current): Executive Board
- Cub Scout Pack 21: Cubmaster, Den Leader, Pack Committee Chair

Expertise in computation and data analysis

- Programming languages: C, Java, Fortran90, Mathematica, NetLogo
- Statistical packages: Stata, SAS, Gauss
- Database applications: SQL, Microsoft Access, Filemaker Pro
- Platforms: MacOS, UNIX, Windows, DOS
- Large Data sets: National Longitudinal Survey of Youth, Nat'l Longitudinal Study of Adolescent Health