

JOHN O. McCLAIN
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Johnson Graduate School of Management
Cornell University

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Personal Data: Born January 30, 1942; Spokane, Washington.
Married, 2 Children.

EDUCATIONAL BACKGROUND

Ph.D. (Administrative Science/Operations Research), 1970; Yale University
M.S. (Physics), 1965; Yale University
B.S. (Physics), 1964; Washington State University, Pullman, Washington

HONORS

Graduated Summa cum Laude (1964); Phi Beta Kappa (1964), Phi Eta Sigma (1961).
Woodrow Wilson Fellow (1964); Ford Foundation Fellow (1967);
Mobil Foundation Scholar (1990);
Listed in *101 Success Stories of Information Technology in Higher Education: The Joe Wyatt challenge* (1992)
Clifford Whitcomb Fellowship (1995-6)
Emerson Electric Professor of Manufacturing (Endowed Chair, 1999 to present)
Listed twice among Classic Papers in Management Science over the past half century that were cited 50 or more times. http://mansci.pubs.informs.org/50th_Anniversary/50_history.htm

NON-ACADEMIC EXPERIENCE

Research Engineer, Sikorsky Aircraft Company, Stratford, Connecticut, June 1965-January 1967. Research on Antisubmarine Warfare Operations

ACADEMIC EXPERIENCE

Professor Emeritus, Johnson Graduate School of Management, Cornell University (2010)
The Emerson Electric Professor of Manufacturing Management, Johnson Graduate School of Management, Cornell University (1999-2010)
Faculty Coordinator, Leadership Skills Program, Johnson Graduate School of Management (2005-08)
Faculty Coordinator, Cornell Executive MBA Program, Johnson Graduate School of Management (2008-2010)
Faculty Coordinator, Cornell-Queen's Boardroom Executive MBA Program, Johnson Graduate School of Management (2004-2010)

Professor of Quantitative Analysis, Johnson Graduate School of Management, Cornell University (1982-1999). (Associate Professor 1976-82, Assistant Professor 1970-76.)

Professor of Quantitative Analysis, Johnson Graduate School of Management, Cornell University (1982-Present). (Associate Professor 1976-82, Assistant Professor 1970-76.)

Coordinator, Program in Manufacturing Management, Johnson Graduate School of Management, Cornell University (1988-92)

Visiting Professor of Production Management, University of California, Irvine (1981-82).

Coordinator, Sloan Program in Hospital and Health Services Administration, Graduate School of Business and Public Administration, Cornell University, (1980-81).

RESEARCH INTERESTS

Operations Research in Manufacturing and Service Systems. Applications of Mathematical Modeling, Decision Theory, Statistics, and Computer Technology.

COURSES TAUGHT

Production/Operations Management
Management of Quality
Advanced Production Management
Statistics for Management
Quantitative Methods for Management
Management Science
Research Seminar in Production and Operations Management
Health Operations Management and Planning
Cases in Operations Management
Health Research Seminar (Jointly Taught)
Introduction to Hospital and Medical Care Organization (Jointly Taught)
Introduction to Operations Research for Hospital Administration (Jointly Taught)
College Algebra

ACADEMIC COMMITTEES

Curriculum Committee (1970-71), (1972-73), (1979-80)
Admissions and Financial Aid Committee (1971-72)
Student Faculty Relations Committee (1973-74), Chair (1982-84, 1985-86)
Committee on Reorganization of B.P.A. (1973)
Admissions and Financial Aid Committee (1974-77), Chair
Steering Committee for the Reorganization of the University Health Services (1975-76)
Continuing Education Committee (1978-79)
Affirmative Action Advisory Committee (University-wide: 1980-81, 1982-84)
Building Expansion Committee (1986-87, 1990-92)
Information Resources Committee (1989-98), Chair
Dean Search Committee (1982, 1989)
Special Advisor for Program in Manufacturing Management (1990-94)
Teaching Evaluation Committee (1994-98)

Grading Task Force (2000-2001)
Grievance Hearing Committee (2001)
Policy Committee (1980-81, 1983-84, 1990-92, 2001-3, 2005-6) Chair 2002-3, 2005-6
Park Fellows Standards Committee (2002-3)
Academic Integrity Hearing Board (1974-75, 1985-95, 2000, Spring 2001), Chair
University Workforce Planning Steering Committee (2002-2004)
Academic Standards Committee (2002-07)
Faculty Affirmative Action Committee (2003-2004)
Distance Learning Advisory Committee (2002-2004)
Core Course Coordination Committee (1995-2004)
Transportation Hearing and Appeals Board (1994-2010)
Technology Advisory Team, Johnson School (2003-2004)
Leadership Skills Program, Faculty Coordinator (2005-2007)
Faculty Advisory Board for Information Technology (FABIT) (2000-2010)
Boardroom Executive MBA Program, Faculty Coordinator (2004-2010)
Committee on Learning Objectives (2005-2009)
Cornell Executive MBA Program (Palisades), Faculty Coordinator (2006-2010)
Customized Program Faculty Advisor (2007-2009)
Ad Hoc for revising and updating Faculty Bylaws (with N. Culligan, Mike Waldman 2007-09)

PROFESSIONAL SOCIETIES

INFORMS, the Institute for Operations Research and the Management Sciences (Merger of The Institute of Management Science and the Operations Research Society of America)
MSOM, the Manufacturing and Services Operations Management Society, (President 1998-99, Vice President 1997-98).
American Production and Inventory Control Society (1971-1989)

ACTIVITIES

Comprehensive Health Systems Planning Program (a teaching and research program jointly staffed from Sociology, City and Regional Planning, and the Sloan Program in Hospital and Health Services Administration), Cornell (January, 1970 to 1974).
Consultant to the Faculty Curriculum Development Task Force on Quantitative Methods, Association of University Programs in Hospital Administration (Fall 1970).
Member of the Board of Directors of the Iroquois Chapter of the Hospital Management Systems Society of the American Hospital Association, (Spring 1971 to 1975).
Consultant to the Cayuga County Health Planning Council (Spring 1971 to 1972).
Consultant to the Tompkins County Hospital Board of Managers. Planning Committee, Technical Review Subcommittee (1973).
Faculty Member in the Health Executives Development Program (1970-82).
Consultant to the NY-PENN Comprehensive Health Planning Agency (1974).

Consultant to the Joint Planning Committee of Arnot-Ogden and St. Joseph's Hospitals, Elmira, New York (1973-74).

Review and Comment Committee, Tompkins County Comprehensive Health Planning Council (1975).

Consultant to Donald Guthrie Foundation for Medical Research (1977-80).

Consultant to Blue Cross of Central New York (November 1978 to 1980).

Consultant to Robert Packer Hospital (1980-81).

Consultant to University of California, Irvine Medical Center (1981-82).

Consultant to New York State Electric and Gas Company (1982-86).

Consultant to IBM, System Products Division (1984-85).

Consultant to Institute for Business Technology (1987).

Teaching Program for ATT Bell Labs (1988)

Purchasing Executives Institute: Just-in-Time Purchasing (1987-90)

Consultant to Keith Clark, Inc. (1990-91)

Consultant to P.T. Sango Ceramics Indonesia (1990-91)

Managing Technology in the 21st Century: Simulation Models (1991-92)

Consultant to C-Way Associates (1991-92)

Consultant to Anderson Consulting, Sao Paulo (1993)

Teaching Program for Packard Electric (1994)

Consultant to Planned Parenthood of Tompkins County (1996-7)

President, Manufacturing and Service Operations Management Society (MSOM) (1998-99) and vice president (1997-98)

MSOM Fellows Selection Committee (1997-99)

MSOM Nomination Committee (1997-99)

Volunteer at Kendal of Ithaca (2005-present)

BOOKS and CONTRIBUTIONS TO BOOKS

Cases in Operations Management: Using the XCELL Factory Modeling System, (with L.J. Thomas and D. Edwards). Scientific Press, 1987.

Instructor's Guide to Cases in Operations Management (with L.J. Thomas), 1987.

A User's Guide to XCELL+ Factory Modeling System, (with R. Conway, W. Maxwell and S. Worona), Third Edition. Scientific Press 1990.

Operations Management: Production of Goods and Services (with L. J. Thomas and J. Mazzola), Third Edition. Prentice-Hall, 1992.

XCELL+ Factory Modeling System, (with R. Conway, W. Maxwell and S. Worona), pp. 131-143 in 101 Success Stories of Information Technology in Higher Education: The Joe Wyatt challenge, edited by J. V. Boettcher. McGraw-Hill, 1993.

An Overview of Production Planning, (with L.J. Thomas). Chapter 7 in Logistics of Production and Inventory Management, edited by S.C. Graves, A.H.G. Rinnooy Kan and P.H. Zipkin. Vol. 4 of Handbooks in Operations Research and Management Science. North-Holland, 1993

CellSim: Spreadsheet Factory Simulation, a spreadsheet tool included in *Operations Management for Competitive Advantage*. Chase, Aquilano and Jacobs, Boston, McGraw-Hill Irwin, 2000. Also at <http://www.johnson.cornell.edu/faculty/mcclain/>

PredInt: Prediction Intervals for Regression in Microsoft Excel, a spreadsheet tool included in *Statistics for Business and Economics*. Anderson, Sweeney and Williams, Southwestern College Publishing, 2001. Also at <http://www.johnson.cornell.edu/faculty/mcclain/>

Operations Management: Production of Goods and Services (with L. J. Thomas and J. Mazzola), Third Edition, Chinese Language Version. Prentice-Hall and Chinese People's University Press, 2001.

Steady State Queuing Models, a spreadsheet tool included in *Successful Service Operations Management*. Metters, King-Metters, and Pullman, 2nd ed. Thomson-Southwestern (to appear). Also at <http://www.johnson.cornell.edu/faculty/mcclain/>

PUBLISHED ARTICLES

"On a Rule for Group Decision Making," *Medical Care*, Vol. 7, No. 5, September-October 1969, pp. 406-410.

"A Note on the Bergstrom-Smith Multi-Item Production Planning Model," *Management Science*, Vol. 17, No. 11, July 1971, pp. 783-785, (with Warren H. Hausman).

"Exponential Smoothing: Appropriate and Inappropriate Applications," (letter to the editor), *Health Services Research*, Vol. 6, No. 3, Fall 1971, pp. 256-259.

"Physician Confidence and Reliability in Utilization Review," *Medical Care*, Vol. 10, No. 6, November-December 1971.

"Decision Modeling in Case Selection for Medical Utilization Review," *Management Science*, 18:B706, 1972.

"Screening for Utilization Review: On the Use of Explicit Criteria and Non-Physicians in Case Selection" (with D. C. Riedel). *American Journal of Public Health*, 63:3, 1973.

"Response-Variance Tradeoffs in Adaptive Forecasting," (with L. J. Thomas) *Operations Research*, 21:554, 1973.

"Dynamics of Exponential Smoothing with Trend and Seasonal Terms," *Management Science*, Vol. 20, No. 9, May 1974.

"Tradeoffs and Conflicts in Evaluation of Health Systems Alternatives," (with V. Rao). *Health Services Research*, Vol. 9, No. 1, Spring 1974, pp. 35-52.

- “Clustsiz: A Program to Test for the Quality of Clustering of a Set of Objects,” (with V. Rao). *Journal of Marketing Research*, November 1975.
- “Bed Planning Using Queuing Theory Models of Hospital Occupancy: A Sensitivity Analysis,” *Inquiry*, March 1976.
- “Horizon Effects in Aggregate Production Planning with Seasonal Demand,” (with L. J. Thomas). *Management Science*, Vol. 23, No. 7, March 1977.
- “A Comment on Keeney's Group Utility Axiom,” *Management Science*, Vol. 23, No. 12, August 1977.
- “A Model for Regional Obstetrical Bed Planning,” *Health Services Research*, Vol. 13, No. 4. Winter 1978.
- “On ‘Further Results on Planning Horizons in the Production Smoothing Problem’,” (with Robert Johnson). *Management Science*, Vol. 24, No. 16, December 1978.
- “Environmental Selection and Physician Supply,” (with T. Rundall), *American Journal of Sociology*, Vol. 87, No. 5, 1981, pp. 1091-1112.
- “Restarting a Forecasting System when Demand Suddenly Changes,” *Journal of Operations Management*, Vol. 2, No. 1, October 1981, pp. 53-62.
- “On MRP Lot-Sizing,” (with L. J. Thomas and E. N. Weiss), *Management Science*, Vol. 28, No. 5, May 1982, pp. 582-4.
- “Mathematical Programming Approaches to Capacity-Constrained MRP Systems, I: Review, Formulation and Problem Reduction,” (with P. J. Billington and L. J. Thomas), *Management Science*, Vol. 29, No. 10 (1983).
- “How to Forecast to Contain Your Variable Costs,” (with Steven R. Eastaugh), *Hospital Topics*, Vol. 61, No. 6 (1983).
- “Comment on Aggregate Safety Stock Levels and Component Part Commonality,” (with others), *Management Science*, Vol. 30, No. 6 (1984).
- “Comment on ‘Economic Analysis of Inventory Systems’,” *International Journal of Production Research*, Vol. 23 (1985).
- “Heuristics for Multilevel Lot-Sizing with a Bottleneck,” (with Billington and Thomas), *Management Science*, Vol. 32, No. 8 (1986).
- “Cyclic Assembly Schedules,” (with W. Trigeiro), *IIE Transactions*, Vol. 17, No. 4 (Dec. 1985), pp. 346-353.
- “Administrative Days in Acute Care Facilities: A Queuing Analytic Approach,” (with E. Weiss), *Operations Research*, Vol. 35, No. 1, (Jan.-Feb. 1987), pp. 35-44.
- “The Role of Work-In-Process Inventory” (with R. Conway, W. Maxwell, and L.J. Thomas). *Operations Research*, Vol. 36, No. 2 (Mar.-Apr. 1988) pp 229-241.
- “Dominant Tracking Signals,” *International Journal of Forecasting*, Vol. 4, No. 4 (1988), pp. 563-572.

- “Capacitated Lot Sizing with Setup Times,” (with Trigeiro and Thomas), *Management Science*, Vol. 35, No. 3., (March 1989)
- “Efficient Solutions to a Linear Programming Model for Just-in-Time Production Scheduling” (with L.J. Thomas and E.N. Weiss), *IIE Transactions*, Vol. 21, No. 2, (1989).
- “The Good, the Bad and the Ugly: Cost of Quality on an Assembly Line” (with L. Robinson and L.J. Thomas). *International Journal of Production Research*, Vol. 28, No. 5 (1990).
- “The Use of Dynamic Assembly-Line Balancing to Improve Throughput” (with L.J. Thomas and J. Ostolaza). *Journal of Manufacturing and Operations Management*, Vol. 3, No. 2 (1990).
- “Multilevel Capacitated Lotsizing Complexity and LP-Based Heuristics” (with Maes and Van Wassenhove). *European Journal of Operational Research*, Vol. 53, No.2 (July, 1991), pp. 131-148.
- “A Comment on ‘Buffer Space Allocation in Automated Assembly Lines’,” (with Doug Moodie). *Operations Research*, Vol. 39, No. 5 (September-October 1991).
- “Using False Alarms to Improve Forecast Accuracy” (with L.J. Thomas). *European Journal of Operational Research* Vol. 55, No. 2 (November, 1991).
- “On-the-Fly Line Balancing with Very Little WIP” (with C. Sox and L.J. Thomas). *International Journal of Production Economics*, Vol. 27, No. 3 (Oct. 1992) pp. 283-290.
- “The Output Process of Serial Production Lines of General Machines with Finite Buffers” (with Kevin Hendricks). *Management Science*, Vol. 39, No. 10, (October 1993).
- “Self-buffering, Self-balancing, Self-flushing Production Lines” (with L.J. Thomas and Emil Zavadlav) *Management Science*, Vol. 42, No. 8, August 1996, pp. 1151-1164.
- “Productivity and Quality in Self-Directed Work Groups: The Role of Personality” with D. Juran, K. L. Schultz, J. W. Boudreau and L. J. Thomas. *1996 North East Quality Control Council Conference Proceedings*. (1996).
- “Stochastic Modeling and Simulation of Work Group Performance in Lean Manufacturing Systems: The Role of Personality,” (with Boudreau, D. Juran, and K. Schultz). *MSOM Proceedings, Dartmouth, 1996*.
- “Work Group Performance in Lean Manufacturing Systems: Which WIP Worries Workers?” (with Boudreau, D. Juran, J. Thomas and K. Schultz). *Decision Science Institute, National Conference Proceedings 1996*.
- “Coordinating Production and Inventory to Improve Service” (with C. Sox and L.J. Thomas) *Management Science*, Vol. 43, No. 9, September 1997, pp. 1189-1197.
- “Modeling and Worker Motivation in JIT Production Systems” (with Kenneth L. Schultz, David C. Juran, John W. Boudreau and L. Joseph Thomas) *Management Science*, Vol. 44, No. 12, Part 1, December 1998, pp. 1595-1607.
- “Management of Worksharing Systems” (with L.J. Thomas and Ken Schultz), *Manufacturing & Service Operations Management*, Vol. 2, No. 1, 2000

- “The Conduct of an Effective Simulation Study” (with Richard W. Conway), *INFORMS Transactions on Education* (May 2003).
- “Overcoming the Dark Side of Worker Flexibility” (with Kenneth L. Schultz and L.J. Thomas), *Journal of Operations Management*, 21(1), 2003, pages 81-92.
- “On the Interface between Operations and Human Resources Management” (with John Boudreau, Wallace Hopp and L. Joseph Thomas), *Manufacturing and Service Operations Management*, 5(3), 2003.
- “The Use of Framing in Inventory Decisions,” with Schultz, Robinson and Thomas, being revised for resubmission, 2008.

WORKING PAPERS

- “Personality and Performance in Serial Worksharing Systems” (with David C. Juran, Kenneth L. Schultz, Tove H. Hammer and Lee W. Schruben) #96-04
- “Management of Worksharing Systems: Opus Compleatus” (with L.J. Thomas and K.L. Schultz) #96-05
- “Predicting Obstetrical Unit Occupancy: An Improved Model.” #83-05
- “Output of Production Lines with Identical Stations and Buffers.” #86-04
- “The Cost of Work-in-Process Inventory in a Serial Production Line” (with R. Conway and J. LeVan). #88-01
- “Optimal Work-in-Process Inventory for a Pull System with Safety Stock.” #89-09
- “Production Planning Horizons with Capacity Constraints.” June 1978.

SOFTWARE

- CellSim: Spreadsheet Factory Simulation*, included on CD in *Operations Management for Competitive Advantage*. Available at <http://forum.johnson.cornell.edu/faculty/mcclain/>
- PredInt: Prediction Intervals for Regression in Microsoft Excel*, included on CD in *Statistics for Business and Economics* by Anderson, Sweeney and Williams, published by Thomson-Southwestern. Available at <http://forum.johnson.cornell.edu/faculty/mcclain/>
- CritPath: Spreadsheet Critical Path Method*. Available at <http://forum.johnson.cornell.edu/faculty/mcclain/>
- DecisionTree: Spreadsheet for Decision Tree Analysis*. Available at <http://forum.johnson.cornell.edu/faculty/mcclain/>
- Steady State Queuing Models*, included on CD in *Successful Service Operations Management* by Metters, King-Metters, and Pullman, published by Thomson-Southwestern. Available at <http://forum.johnson.cornell.edu/faculty/mcclain/>

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