

21 July 2014

JOHN D.C. LITTLE

Institute Professor
Professor of Management Science
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POSITIONS

1989- Institute Professor, M.I.T.
1990-2010 Chair/Co-Chair, Undergraduate Programs Committee, MIT Sloan School.
Fall 88 Visiting Professor, INSEAD, Fontainebleau, France
1978-89 George Maverick Bunker Professor of Management Science, MIT Sloan School
1982-88 Head, Behavioral and Policy Sciences Area, MIT Sloan School
1972-82 Head, Management Science Area, MIT Sloan School
1969-75 Director, Operations Research Center, MIT
1967-78 Professor of Operations Research and Management, MIT Sloan School
1962-67 Associate Professor of Operations Research and Management, MIT Sloan School
1960-62 Associate Professor of Operations Research, Case Institute of Technology,
Cleveland, Ohio
1957-60 Assistant Professor of Operations Research, Case Institute of Technology
1955-56 Operations Analyst, U.S. Army, Ft. Monroe, Virginia
1949-50 Engineer, General Electric Company, Schenectady, New York
1948-49 Miscellaneous jobs while hitchhiking around the country (car parker, tutor, laborer on
a sheep ranch, radio repairman)

EDUCATION

Ph.D. M.I.T. 1955 Physics and Operations Research
S.B. M.I.T. 1948 Physics

HONORS AND AWARDS

The Sheth Medal: “for enduring and transformational contributions to both marketing scholarship and marketing practice.” ISMS Conference, Atlanta, June 2014

Invited Plenary Lecture: IFORS Lecture at Euro INFORMS 2013 in Rome, “Applications of Little’s Law,” July 2013

Invited paper: Little, John D. C. (2011), “Little’s Law as Viewed on Its 50th Anniversary,” *Operations Research*, **59** (3) 536-549 (May).

John R. Hauser and Glen L. Urban (2011), “John D. C. Little,” Chapter 36 in A.A. Assad, S.I. Gass (eds), “*Profiles in Operations Research*,” Springer Science+Business Media. New York.

The Harold Larnder Memorial Lecturer of the Canadian Operational Research Society “to honor distinguished international achievement in operational research,” Edmonton, May 2010.

Festschrift Celebration in honor of John D.C. Little, Massachusetts Institute of Technology, held June 6-7, 2009 in Ann Arbor, MI, following the 2009 INFORMS Marketing Science Conference.

Fellow, INFORMS Society for Marketing Science, Inaugural Award Ceremony, Vancouver, BC (June 2008).

Paper: Guadagni, Peter M. and John D.C. Little (1983), “A Logit Model of Brand Choice Calibrated on Scanner Data,” selected to be reprinted in a “Classics” issue of *Marketing Science* **27** (1), January-February 2008.

Henry Grady “Buck” Weaver Award for Contributions to Theory and Practice in the Development of Rigorous and Relevant Marketing Understanding (September 2006).

Paper: Little, John D.C. (1970), “Managers and Models: the Concept of a Decision Calculus,” **16** (8) B466-485, selected as one of the ten most influential papers published in the first fifty years of *Management Science* and reprinted with the others in a special issue of the journal in December 2004.

Election to Operational Research Hall of Fame, International Federation of Operational Research Societies (IFORS), (April 2004)

Special Session, “John Little to Now, in Honor of his 75th Birthday,” INFORMS Marketing Science Conference, University of Maryland, (June 2003)

Fellow, INFORMS, Inaugural Award Ceremony, San Jose, CA, (November 2002)

Honorary Doctor of Science (Economics), University of London, London Business School, (July 2002)

Marketing Science Institute Featured Academic, (January 2001)

Omega Rho Distinguished Lecturer, INFORMS San Antonio Meeting, (November 2000)

INFORMS Expository Writing Award, Institute for Operations Research and the Management Sciences, (2000)

Honorary Degree, Facultes Universitaires Catholiques de Mons, Belgium, (1997)

E. Leonard Arnoff Memorial Lecture, University of Cincinnati (May 1997)

First President of the Institute of Operations Research and the Management Sciences (INFORMS) formed by the merger of ORSA and TIMS, (1995)

TIMS Distinguished Service Medal, (1993)

Honorary Degree, University of Liege, Belgium, (1992)

Paul D. Converse Award of the American Marketing Association for "major contributions to the science of marketing," (1992)

Wroe Alderson Distinguished Lecture, Wharton School, (1991)

First Philip McCord Morse Lecturer of ORSA, (1989-90)

Distinguished Paper Award in 1990 DSS Competition (with J.D. Schmitz and G.D. Armstrong) for "CoverStory - Automated News Finding in Marketing"

Institute Professor, M.I.T., (1989)

Naming of the annual award for the best marketing paper in *Management Science* or *Marketing Science* as the "John D.C. Little Award" by the TIMS College on Marketing, (1989)

Election to the National Academy of Engineering, (1989)

George E. Kimball Medal of the Operations Research Society of America for contributions to the Society and the profession, 1987.

Honorable mention, TIMS College on Marketing award for best paper in marketing science in 1983: "A Logit Model of Brand Choice Calibrated on Scanner Data" (with P. Guadagni).

Finalist: TIMS Management Science Achievement Award for 1982: "The Development, Testing, and Execution of a New Marketing Strategy at AT&T Long Lines" (with A. Kuritsky, A.

Silk, and E. Bassman).

Alpha Kappa Psi Award for best applications paper in the *Journal of Marketing* in 1979:
"Decision Support Systems for Marketing Managers."

Charles Coolidge Parlin Award of the American Marketing Association for contributions to
marketing, (1979)

Featured article, *Operations Research*, "Aggregate Advertising Models: The State of the Art,"
(1979)

Honorable mention, Lanchester Prize for the best publication in operations research in 1969: "A
Media Planning Calculus" (with L. Lodish).

"Little's Law" paper: Little, John D. C. (1961), "A Proof of the Queuing Formula: $L=\lambda W$,"
Operations Research, **9** (3) 383-387 (May).

Honorable mention: Lanchester Prize for the best publication in operations research in 1955 for
"The Use of Storage Water in a Hydroelectric System."

RESEARCH / PUBLICATIONS

My research has ranged over a variety of subjects including OR/MS methodology, traffic signal control, decision support systems, and, most extensively, marketing. Selected publications follow:

Marketing

Guadagni, Peter M. and John D.C. Little (2008), "A Logit Model of Brand Choice Calibrated on Scanner Data," *Marketing Science*, **27**(1), 29-48. (reprinted from 1983 for a special "Classics" issue of *Marketing Science*, January-February 2008.

Guadagni, Peter M. and John D.C. Little (2008), "Commentary on: A Logit Model of Brand Choice Calibrated on Scanner Data. A 25th Anniversary Perspective," *Marketing Science*, **27**(1), 26-28.

Steckel, Joel H., Russell S. Winer, Randolph E. Bucklin, Benedict G.C. Dellaert, Xavier Dreze, Gerald Haubl, Sandy D. Jap, John D.C. Little, Tom Meyvis, Alan L. Montgomery, and Arvind Rangaswamy (2005), "Choice in Interactive Environments," *Marketing Letters*, **16** (3/4) 309-320.

Little, John D.C. (2004), "Managers and Models: The Concept of a Decision Calculus," *Management Science*, **50** (12 Supplement) 1841-1853. (Special issue containing the top

ten papers judged to be most influential in the first 50 years of the journal *Management Science*.)

- Little, John D.C. (2004), "Comments on 'Managers and Models: The Concept of a Decision Calculus' -- Managerial Models for Practice," *Management Science*, **50** (12 Supplement) 1854-1860.
- Bucklin, Randolph E., James M. Lattin, Asim Ansari, Sunil Gupta, David Bell, Eloise Coupey, John D.C. Little, Carl Mela, Alan Montgomery, and Joel Steckel (2002) "Choice and the Internet: From Clickstream to Research Stream," *Marketing Letters*, **13** (3) 245-258.
- Leclerc, France, John D.C. Little, and Sanjay K. Dhar (2002) "Improving Coupon Profitability," MIT Sloan School Working Paper 4104 (revised).
- Little, John D.C. (2001), "The History of the Marketing College is a Work in Progress," *Marketing Science*, **20** (4) 364-372 (Fall)
- West, Patricia M., Dan Ariely, Steve Bellman, Eric Bradlow, Joel Huber, Eric Johnson, Barbara Kahn, John Little, and David Schkade (1999) "Agents to the Rescue?" *Marketing Letters*, **10** (3) 285-300.
- Little, John D.C. (1998), "Integrated Measures of Sales, Merchandising, and Distribution," *International Journal of Research in Marketing*, **15** (5) 473-485.
- Guadagni, Peter M. and John D.C. Little (1998), "When and What to Buy: A Nested Logit Model of Coffee Purchase," *Journal of Forecasting*, **17**, 303-326.
- Bucklin, Randolph E., Donald R. Lehmann, and John D.C. Little (1998), "From Decision Support to Decision Automation: A 2020 Vision," (with R.E. Bucklin, and D.E. Lehmann), *Marketing Letters*, **9** (3) 235-246. (Reprinted in Rohit Deshpande, ed., (2001), *Using Marketing Knowledge*, Sage Publications, Inc. Thousand Oaks, CA 91320.
- Leclerc, France and John D.C. Little (1997), "Can Advertising Copy Make FSI Coupons More Effective?" *Journal of Marketing Research*, **34** (4) 473-484 (November).
- Lal, Rajiv, John D.C. Little, and J. Miguel Villas-Boas (1996), "A Theory of Forward Buying, Merchandising, and Trade Deals," *Marketing Science*, **15** (1) 21-37.
- Little, John D.C. (1995), "Models for Marketing Managers," in D. Sudharshan and K. Monroe, eds., *Proceedings of the 13th Paul D. Converse Symposium*, American Marketing Association, Chicago.
- Fader, Peter S., Bruce G.S. Hardie, John D.C. Little, and Makoto Abe (1995), "Calculating Market Response in Logit Models with Purchase Feedback," Wharton Marketing Department Working Paper 92-021R (March).

- Blattberg, Robert C., Rashi Glazer, and John D.C. Little, eds., (1994) *The Marketing Information Revolution*, Harvard Business School Press, Boston, MA.
- Little, John D.C. (1994), "Information Technology in Marketing," in Thomas J. Allen and Michael S. Scott Morton, eds., *Information Technology and the Corporation of the 1990s: Research Studies*, Oxford University Press, New York.
- Kalyanaram, Gurumurthy and John D.C. Little (1994), "An Empirical Analysis of Latitude of Price Acceptance in Consumer Packaged Goods," *Journal of Consumer Research*, **21** 408-418 (December).
- Little, John D.C. (1994), "Modeling Market Response in Large Customer Panels," in Blattberg, Glazer and Little, eds., *The Marketing Information Revolution*, Harvard Business School Press,
- Fader, Peter S., James M. Lattin, and John D.C. Little (1992), "Estimating Nonlinear Parameters in the Multinomial Logit Model," *Marketing Science*, **11** (4) 372-85 (Fall).
- Schmitz, John D., Gordon D. Armstrong, and John D.C. Little (1990), "CoverStory - Automated News Finding in Marketing," *Interfaces*, **20** (6) 29-38 (November).
- Little, John D.C. and Rico Bumbaca (1989), "The Charles River Dialogs, or Why Bother with the Logit?" MIT Marketing Center Working Paper 89-6, (May).
- Guadagni, Peter M. and John D.C. Little (1987), "When and What to Buy: A Nested Logit Model of Coffee Purchase," Sloan School Working Paper 1919-87, M.I.T. (August).
- Guadagni, Peter M. and John D.C. Little (1983), "A Logit Model of Brand Choice Calibrated on Scanner Data," *Marketing Science*, **2** (3) 203-238 (Summer).
- Alan P. Kuritsky, John D.C. Little, Alvin J. Silk, and Emily S. Bassman (1982), "The Development, Testing, and Execution of a New Marketing Strategy at AT&T Long Lines," *Interfaces*, **12** (6) 22-37 (December).
- Little, John D.C. and Jeremy F. Shapiro (1980), "A Theory for Pricing Nonfeatured Products in Supermarkets," *Journal of Business*, **53** (3 pt.2) S199-209 (July).
- Little, John D.C. (1979), "Aggregate Advertising Models: The State of the Art", *Operations Research*, **27** (4) 629-667 (July). Feature article.
- Lilien, Gary L. and John D.C. Little (1976), "The ADVISOR Project: A Study of Industrial Marketing Budgets," *Sloan Management Review*, **17** 17-31 (Spring).
- Little, John D.C. (1975) "BRANDAID: A Marketing-Mix Model, Part 1: Structure" and "Part 2: Implementation, Calibration, and Case Study," *Operations Research*, **23** (4) 628-673 (July).

Bell, David E., Ralph L. Keeney, and John D.C. Little (1975), "A Market Share Theorem," *Journal of Marketing Research*, **12** 136-141 (May).

Little, John D.C. and Leonard M. Lodish (1969), "A Media Planning Calculus," *Operations Research*, **17** (1) 1-35 (January).

(Honorable mention, Lanchester Prize for the best publication in operations research in 1969.)

Little, John D.C. and Theodore E. Hlavac, Jr. (1969), "A Geographic Model of an Urban Automobile Market," pp 302-311 in D. Hertz and J. Melese, ed., *Proc. of the 4th International Conference on Operational Research*, Wiley-Interscience, New York,

Little, John D.C. and Leonard M. Lodish (1966), "A Media Selection Model and its Optimization by Dynamic Programming," *Industrial Management Review*, **8** 15-24 (Fall).

Little, John D.C. (1966) "A Model of Adaptive Control of Promotional Spending," *Operations Research*, **14** (6) 1075-1097 (November).

Decision Support Systems

Little, John D.C. and Michael N. Cassettari, *Decision Support Systems for Marketing Managers*, American Management Association, New York, 1984.

Little, John D.C., Lakshmi Mohan, and Anthony Hatoun (1982) "Knowledge from Numbers: Marketing Decision Support Systems," *Industrial Marketing*, **67** (3) 46-49 (March)

Little, John D.C. (1979), "Decision Support Systems for Marketing Managers," *Journal of Marketing* **43** (3) 9-26 (Summer)

Little, John D.C. (1970), "Managers and Models: the Concept of a Decision Calculus," **16** (8) B466-485 (April)

Traffic Signal Control

Cohen, S. L. and J. D. C. Little (1982), "The MAXBAND Program for Arterial Signal Timing Plans," *Public Roads*, **46** (2) 61-65 (September).

Little, John D.C., Mark D. Kelson, and Nathan H. Gartner (1981), "MAXBAND: A Program for Setting Signals on Arteries and Triangular Networks," *Transportation Research Record* 795, 40-46.

- Gartner, Nathan H., John D.C. Little and Henry Gabbay (1976), "Simultaneous Optimization of Offsets, Splits and Cycle Times," *Transportation Research Record* 596, 6-15.
- Gartner, Nathan H., John D.C. Little, and Henry Gabbay (1975), "Optimization of Traffic Signal Settings by Mixed-Integer Linear Programming, Part 1: The Network Coordination Problem" and "Part 2: The Network Synchronization Problem," *Transportation Science*, **9** (4) 321-63 (November).
- Miller, S. and J. D. C. Little (1967), "Evaluation and Improvement of Traffic Signal Settings by Simulation," *Highway Research Record* 170, 56-59.
- Little, J. D. C., B. Martin, and J. Morgan (1966), "Synchronizing Traffic Signals for Maximal Bandwidth," *Highway Research Record* 118.
- Little, John D.C. (1966), "The Synchronization of Traffic Signals by Mixed-Integer Linear Programming," *Operations Research*, **14** (4) 568-594 (July).
- Morgan, John T. and John D.C. Little (1964), "Synchronizing Traffic Signals for Maximal Bandwidth," *Operations Research*, **12** (6) 896-912 (November).

OR/MS Methodology

- Little, John D. C. (2011), "Little's Law as Viewed on Its 50th Anniversary," *Operations Research*, **59** (3) 536-549 (May). (Invited paper.)
- Little, John D.C. and Stephen C. Graves (2008), "Little's Law," Chapter 5 in: Dilip Chhajed and Timothy J. Lowe, eds. *Building Intuition: Insights from Basic Operations Management Models and Principles*, Springer Science+Business Media, LLC, New York.
- Little, John D.C. (1977) "Optimal Adaptive Control: A Multivariate Model for Marketing Applications," *IEEE Transactions on Automatic Control*, **AC-22** (2) 187-195 (April).
- Kakalik, James S. and John D.C. Little (1971), "Optimal Service Policy for the M/G/1 Queue with Multiple Classes of Arrivals," P-4525, The RAND Corporation, (September).
- Little, John D.C., Katta G. Murty, Dura W. Sweeney, Caroline Karel (1963), "An Algorithm for the Traveling Salesman Problem," *Operations Research*, **11** (6) 972-989 (November).
- (This paper coined the term: "branch and bound")
- Little, John D.C. (1961), "A Proof of the Queuing Formula: $L=\lambda W$," *Operations Research*, **9** (3) 383-387 (May). ($L=\lambda W$ has come to be known as Little's Law.)

Other

- Little, John D.C. (2002), "Philip M. Morse and the Beginnings," *Operations Research*, **50** (1) 146-148 (January)
- Little, John D.C. and Elizabeth A. Little (1997), "Analyzing Prehistoric Diets by Linear Programming," *Journal of Archaeological Science*, **23** 741-748 (August).
- Little, John D.C. (1994), "On Model Building," pp. 167-182 in William A. Wallace, ed., *Ethics in Modeling*, Pergamon, Elsevier Science Ltd., Oxford, U.K.
- Little, John D.C. (1992), "Tautologies, Models and Theories: Can We Find 'Laws' of Manufacturing," *IIE Transactions*, **24** (3) 7-13 (July).
- Little, John D.C. (1992), "Are There 'Laws' of Manufacturing," pp. 180-88 in J.A. Heim and W.D. Compton, eds., *Manufacturing Systems: Foundations of World-Class Practice*, National Academy Press, Washington, D.C.
- Little, John D.C. (1991), "Operations Research in Industry: New Opportunities in a Changing World," *Operations Research*, **39** (4) 531-42 (July) (Philip McCord Morse Lecture).
- Little, John D.C. (1991), "Operations Research in Industry: Success - Yes; Wisdom - Maybe; Complacency - No," pp. 3-10 in H.E. Bradley, ed., *Operational Research '90*, Pergamon Press, Oxford.
- Fishburn, Peter C. and John D.C. Little (1988), "An Experiment in Approval Voting," *Management Science*, **34** (5) 555-68 (May).
- Little, John D.C. (1986), "Research Opportunities in the Decision and Management Sciences," *Management Science*, **32** (1) 1-13 (January).
- Huguenin, John E. and John D.C. Little (1977), "Marketing Issues Related to "Waste" Grown Aquatic Foods," *Environmental Management*, **1** (5) 433-440 (June).
- Little, John D.C., Chandler H. Stevens, and Peter Tropp (1971), "Citizen Feedback System: The Puerto Rico Model," *National Civic Review*, **60** (4) 191-198, 203 (April).
- Little, John D.C. (1961), "Approximate Expected Delays for Several Maneuvers by a Driver in Poisson Traffic," *Operations Research*, **9** (1) 39-52 (January).
- Stratton, J. A., P. M. Morse, L. Chu, J. D. C. Little and F. J. Corbato (1956), *Spheroidal Wave Functions*, Technology Press of M.I.T. and John Wiley & Sons, Inc, New York
- Little, John D.C. (1955), "The Use of Storage Water in a Hydroelectric System," *Operations Research*, **3** (2) 187-197 (May).
- (Honorable mention: Lanchester Prize for the best publication in operations research in 1955.)

RESEARCH GRANTS AND SPONSORED RESEARCH

Principal investigator on various grants and research projects. Sponsors have included the National Science Foundation, Marketing Science Institute, Ocean Spray Cranberries, Lever Brothers Company, Nabisco, Inc., Mobil Oil Corporation, The Coca-Cola Company, General Motors, Ford Motor Company, Office of Naval Research, Department of Transportation, Army Research Office, Association of National Advertisers, AT&T Long Lines, and Fusion-io..

PROFESSIONAL SOCIETY AND RELATED ACTIVITIES

- 2002-06 Advisory Board, INFORMS Society for Marketing Science
- 2000-03 Council, American Association for the Advancement of Science
- 1995 President, Institute for Operations Research and the Management Sciences (INFORMS),
President-elect 1994, Past-president, 1996.
- 1992-96 National Academy of Engineering Peer Review Committee, Industrial, Manufacturing,
and Operational Systems Section; Vice Chair 1994-5, Chair 1995-6
- 1992-95 National Academy of Engineering Membership Policy Committee
- 1992-94 OR/MS Board Strategic Planning Committee
- 1992 ORSA/TIMS Committee on Constitutional Revision
- 1990-06 Advisory Board, Information Systems Research
- 1989-94 Chair, TIMS/ORSA Committee on Cooperation
- 1986-89 Advisory Panel for the Decision, Risk, and Management Science Program, National
Science Foundation, Washington, D.C.
- 1984-85 President, The Institute of Management Sciences (TIMS), President-elect 1983-84,
Past-president 1985-86
- 1984-00 Associate Editor, IMA Journal of Mathematics in Management.
- 1983-89 Academic Trustee, Marketing Science Institute.
- 1982-94 Advisory Board, Marketing Science.
- 1981- Advisory Editor, Operations Research Letters.
- 1979-80 President, Operations Research Society of America (ORSA), President-elect 1978-79,
Past-president 1980-83.

- 1976-79 Vice President for Publications, TIMS.
- 1973-74 Chair, ORSA Publications Committee. Chair, Joint ORSA/TIMS Publications Committee.
- 1970-73 Council, ORSA.
- 1970-71 Chair, Transportation Science Section of ORSA.
- 1967-71 Associate Editor, Management Science.

Society memberships include: Institute for Operations Research and the Management Sciences (INFORMS) (Fellow), American Association for the Advancement of Science (Fellow), American Marketing Association, Operational Research Society (UK), European Marketing Academy, INFORMS Society for Marketing Science (Fellow).

CONSULTING AND BUSINESS ACTIVITIES

- 1997-1999 Co-founder, Director, InSite Marketing Technology, Inc., Waltham, Massachusetts.
- 1985-2003 Director, Information Resources Inc. (IRI), Chicago, Illinois.
- 1967-85 Co-founder, President (1967-80), Chairman (1967-85) of Management Decision Systems, Inc. (MDS), Waltham, Massachusetts. MDS, a privately held company, merged with IRI in May 1985. At the time of the merger MDS had 210 employees and offices in Boston, New York, Parsippany, Chicago, San Francisco, Toronto, Los Angeles, London, Paris, and Sydney. Principal products were EXPRESS decision support software for financial and marketing applications, a variety of marketing models and services, including ASSESSOR, BRANDAID, CALLPLAN, PERCEPTOR, and PROMOTER, and custom marketing consulting.
- 1957-67 Consultant to various corporations and governmental units, including: the Ford Motor Company, General Motors, The Coca-Cola Company, Nabisco, DuPont, IBM, Scott Paper, RCA, J. Walter Thompson, the RAND Corporation, the Commonwealth of Puerto Rico, and the Commonwealth of Massachusetts.

BIOGRAPHICAL LISTINGS

Who's Who in America
American Men and Women of Science
Who's Who in Finance and Industry
Who's Who in Advertising
Who's Who in the World

Who's Who in Science and Engineering
Who's Who in American Education

PERSONAL

Born: February 1, 1928, Boston, MA 4 children, 8 grandchildren U.S. Citizen