Curriculum Vitae (March 13, 2012)

Sunil Chopra
J. L. Kellogg Graduate School of Management
Northwestern University
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Education

Ph.D. in Operations Research, SUNY at Stony Brook, August 1986.

M.S. in Operations Research, SUNY at Stony Brook, May 1984.

B. Tech in Mechanical Engineering, IIT Delhi, May 1981.

Work Experience

2009-2010	Interim Dean, Kellogg School of Management, Northwestern University
2006-2009	Senior Associate Dean, Curriculum and teaching, Kellogg School of Management, Northwestern University
1998-2006	Director, Master of Management and Manufacturing program, Northwestern University
1995-present	IBM Distinguished Professor of Operations Management and Information Systems, Kellogg Graduate School of Management, Department of Managerial Economics and Decision Sciences, Northwestern University.
2000-2002	Chairman, Department of Managerial Economics and Decision Science, Kellogg Graduate School of Management
1992-1995	Associate Professor, Kellogg Graduate School of Management, Department of Managerial Economics and Decision Sciences, Northwestern University.
1989-1992	Assistant Professor, Kellogg Graduate School of Management, Department of Managerial Economics and Decision Sciences, Northwestern University.
1986-1989	Assistant Professor, Leonard N. Stern School of Business Administration, New York University.
June-August 1988	Visiting faculty, IBM Thomas J. Watson Research Center.
June-August 85, 86	Summer Student, IBM Thomas J. Watson Research Center.
09/1982-05/1985	Teaching Assistant, SUNY at Stony Brook.
04/1983-05/1984	Part-time computer programmer, ED/I Setauket, New York.

09/1981-08/1982 Management trainee, Hindustan Lever Ltd., India.

COURSES TAUGHT

MBA Courses

Operations Management (1987-)
Logistics and Supply Chain Management (1989-)
Introduction to Operations Research (1986-89).
Applied Operations Research (1988).

Ph.D. Courses

Mathematics for Business Research (1986).
Non-linear Programming (1988).
Networks, graphs and applications (1989).
Linear programming (1992).

Ph.D. Students Supervised

1. E. Gorres (NYU)--graduated in 1992.
2. C. Y. Tsai (NYU)--graduated in May 1993.
3. Arun Shastri (MEDS)--graduated in May 1995.
4. G. Reinhardt--graduated in 1998
5. M. Nuri Sendil – graduated in 2010
6. Michael Lim – graduated in 2009

Honors

- Named to the Top 30 A-List of Management Academics 2011
- Outstanding professor award for EMP 41, 47, 53, 55, 56, 59, 61
- Selected IIE Book of the year for *Supply Chain Management* in 2002
- Selected Best professor by KH04 of Kellogg-HKUST EMBA
- Sid levy teaching award in 1996, 2001, 2005
- Chairs core teaching award in 1998, 2000, 2003, 2006
- CORE Post-doctoral Fellowship in 1986
- IBM doctoral fellowship in 1985-86

Editorial Positions

Past Departmental Editor for *Management Science*. Past Associate Editor for *Operations Research, Management Science, M&SOM, and Decision Sciences Journal*.

Books Published

- *Managing Business process Flows*, with R. Anupindi, S. Deshmukh, J. van Mieghem and E. Zemel,
  - 1st edition published by Prentice Hall 1999,

- 2nd edition published by Prentice Hall 2005
- 3rd edition published by Pearson in 2012

- *Supply Chain Management: Strategy, Planning, and Operation*, with P. Meindl,
  - 1st edition published by Prentice Hall 2001,
  - 2nd edition published by Prentice Hall 2004,
  - 3rd edition published by Prentice Hall 2007.
  - 4th edition published by Prentice Hall 2010.
  - 5th edition published by Pearson in 2012

Papers Published or Accepted for Publication

[1] "Dual Row Modules and Polyhedra of Blocking Group Problems," with E. L. Johnson, Mathematical Programming, 38 (1987), 229-270.

[2] "Polyhedra of regular p-nary group problems," with D. L. Jensen and E. L. Johnson, Mathematical Programming 43 (1989) 1-29.

[3] "On Ternary Problems," Mathematical Programming, 45 (1989), 35-47.

[4] "On the Spanning Tree Polyhedron," Operations Research Letters 8 (1989) 25-29.

[5] "The Graphical Asymmetric Traveling Salesman Polyhedron," with G. Rinaldi, Proceedings of Integer Programming and Combinatorial Optimization Conference, Waterloo, May 1990, R. Kannan and W. R. Pulleyblank (eds.), 129-145.

[6] "On the Multiway Cut Polyhedron," with M. R. Rao, Networks 21 (1991), 51-89.

[7] "The Partition Problem," with M. R. Rao, Mathematical Programming, 59 (1993), 87-115.

[8] "Polyhedra of the Equivalent Subgraph Problem and Some Edge Connectivity Problems," SIAM Journal on Discrete Mathematics 5, No. 3 (1992), 321-337.

[9] "The Equivalent Subgraph Polyhedron on Series-parallel Graphs," SIAM Journal on Discrete Mathematics 5, No. 4 (1992), 475-490.

[10] "Solving a Steiner Tree Problem on a Graph Using Branch and Cut," with E. Gorres and M. R. Rao, ORSA Journal on Computing, 4 (1992), 320-335.

[11] "The k-edge Connected Spanning Subgraph Polyhedron," SIAM Journal on Discrete Mathematics; also appeared in Proceedings of IPCO92.

[12] "The Graph Partitioning Polytope on Series-Parallel and 4-Wheel Free Graphs," SIAM Journal on Discrete Mathematics, 7, No. 1 (1994), 16-31.

[13] "The Steiner Tree problem I: Formulations, Compositions and Extensions of Facets," with M.R. Rao, Mathematical Programming, 64 (1994), 209-229.

[14] "The Steiner Tree Problem II: Properties and Classes of Facets," with M.R. Rao, Mathematical Programming, 64 (1994), 231-246.

[15] "Comparison of Formulations and a Heuristic for Packing Steiner Trees in a Graph," Annals of Operations Research, 50 (1994), 143-171.

[16] "Facets of the k-partition Polytope" (with M. R. Rao), Discrete Applied Mathematics, 61 (1995), 27-48.

[17] "Compositions for Matroids with the Fulkerson Property," Annals of Operations Research, 62 (1995), 87-101.

[18] "The Graphical Traveling Salesman Polyhedron: Symmetric Inequalities," SIAM Journal on Discrete Mathematics, Vol. 9, No. 4 (1996), 602-624.

[19] "Minimum Cost Node Disjoint Steiner Trees in Series-Parallel Networks" (with K. Talluri), VLSI Design, 4 (1), 1996, 53-57.

[20] "An Extended Formulation for the A-cut Problem," with J. Owen, Mathematical Programming, 73 (1996), 7-30.

[21] "Minimum Cost Capacity Installations for Multicommodity Network Flows" (with D. Bienstock,

O. Gunluk, and C. Y. Tsai), Mathematical Programming 81 (1998) 177-199.

[22] "Algorithms and Extended Formulations for One and Two Facility Network Design," with I. Gilboa and S.T. Sastry, Integer Programming and Combinatorial Optimization, Lecture Notes in Computer Science, 1094 Springer-Verlag, 1996.

[23] "Computational Study of the Multi-echelon Production Planning Problem," with M. R. Rao and C. Y. Tsai, Naval Research Logistics Quarterly.

[24] "Source sink flows with capacity installation in batches," with I. Gilboa and S.Y. Sastry, Discrete Applied Mathematics, 85 (1998) 165-192.

[25] "Partitioning of hypergraphs," with J. Owen, Discrete Applied Mathematics, 90 (1999) 115-133.

[26] "Packing and Covering," (with D. Simchi-Levi), CRC Handbook of Discrete and Combinatorial Mathematics 2000.

[27] "Communication Networks," (with D. Simchi-Levi), CRC Handbook of Discrete and Combinatorial Mathematics, 2000.

[28] "Which e-business is right for your supply chain?" (with J. Van Mieghem) Supply Chain Management Review, July-August 2000.

[29] "A branch-and-cut approach for minimum cost multi-level network design" (with C.Y. Tsai) Discrete Mathematics 242 (2002) 65-92

[30] "Evaluating B2B e-commerce opportunities in a supply chain," *Supply Chain Management Review*, May-June 2001

[31] "Polyhedral Approaches for the Steiner Tree problem on Graphs," with C.Y. Tsai, in *Steiner Trees in Industry*, D.Z. DU and X. Cheng (eds.), Kluewr Publishers 2001

[32] "Cost allocation for a tree network with heterogeneous customers," with D. Granot and J. Kuipers, Mathematics of Operations Research, 27(4) 2002.

[33] "Designing the distribution network in a supply chain," Transportation Research 39, 2003.

[34] "What will drive the enterprise software shakeout?" Supply Chain Management Review, 7(1) January/February 2003

[35] "Coal movement by railroad in the powder river basin," with G. Reinhardt and M. Dada, Energy Studies Review 11 (1), 2003, 53-73

[36] "The effect of lead time uncertainty on safety stocks," with G. Reinhardt and M. Dada, Decision Sciences, 35 (1), 2004, 1-20.

[37] "Five decades of operations management and the prospects ahead," with W. Lovejoy and C. Yano, Management Science 50 (1), 2004, 8-14.

[38] "Managing Risk to Avoid Supply Chain Breakdown," with M.S. Sodhi, Sloan Management Review, Fall 2004, 53-61.

[39] "Managing Service Inventory to Improve performance," Sloan Management Review, Fall 2005, 56-63.

[40] "The Importance of Decoupling Disruption and Recurrent Risk in a Supply Chain," with U. Mohan and G. Reinhardt, Naval research Logistics 54 (5), 2007.

[41] "Looking for the Bang from the RFID Buck," (with M.S. Sodhi), Supply Chain Management Review (May / June 2007), 34-41.

[42] "Simple standardized patient hand-off system that increases accuracy and completeness," (with Wayne J., Tyagi R., Reinhardt G, Rooney D, Makoul G, DaRosa D), *Journal of Surgical Education* Volume 65, Number 1, January/February 2008.

[43] "Threshold incentives over multiple periods and the sales hockey stick phenomenon," (with Milind Sohoni, Achal Bassamboo, Usha Mohan and Nuri Sendil), *Naval Research Logistics*, 57 (6): 503–518.

[44] "Threshold incentives and sales variance," (with Milind Sohoni, Usha Mohan and Nuri Sendil), *Production and Operations Management*, Vol. 20, No. 4, July-August 2011, pp. 571-586.

[45] "A facility reliability problem: Formulation, properties, and algorithm," (with Michael Lim,

Achal Bassamboo, Mark Daskin), *Naval Research Logistics*, 57 (2010).

Other Articles

[1] "Choose the Channel that Matches your product," Supply Chain Strategy, Vol. No. 9, October 2006
[2] "In Search of RFID's Sweet Spot," with M.S. Sodhi, Wall Street Journal, March 3, 2007
[3] "Riscos recorrentes e de ruptura," Mundo Logistico, April 2011. Portuguese translation of my article in English.

Working Papers

[1] "Revenue Cycle Management at Evanston Northwestern Healthcare: Using lean principles to Improve Performance," With J. Golbus, D. Kirkorsky, and G. Reinhardt.
[2] "Flexibility and Fragility: use of chaining strategies in the presence of disruption risks," with M. Lim, M. Daskin, A. Bassamboo.
[3] "Facility location decisions with random disruptions and imperfect information," with M. Lim, M. Daskin, A. Bassamboo.
[4] "Supply Chain Design for Managing Disruptive Risk," with ManMohan Sodhi.

Consulting Experience

Continental Bank, Household Finance Corporation, GE Capital Computer Rental, Boise-Cascade Office Products, W.W. Grainger, McMaster Carr, Federal Express, Sara Lee.