Herbert F. Lewis, Ph.D.

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College of Business
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Education

- **Ph.D.** State University of New York at Stony Brook, 1996
  Department of Applied Mathematics and Statistics (Operations Research Track)
  Dissertation Title: *The Fleet Coordination Problem* Advisor: Professor Thomas R. Sexton
- **M.S.** State University of New York at Stony Brook, 1991
  Department of Applied Mathematics and Statistics (Operations Research Track)
- **B.E.** State University of New York at Stony Brook, 1989
  Departments of Electrical Engineering & Applied Mathematics and Statistics (Double Major)

Academic Experience

- **Associate Professor (2014-present)** College of Business
  Stony Brook University, Stony Brook, NY.
- **Lecturer (2012-2014)** College of Business
  Stony Brook University, Stony Brook, NY.
- **Lecturer (2008-2012)** Department of Technology and Society
  Stony Brook University, Stony Brook, NY.
- **Lecturer (2004-2008)** College of Business
  Stony Brook University, Stony Brook, NY.
- **Lecturer (1999-2003)** Harriman School for Management and Policy
  Stony Brook University, Stony Brook, NY.
- **Visiting Assistant Professor (1997-1999)** Harriman School for Management and Policy
  Stony Brook University, Stony Brook, NY.
- **Adjunct Lecturer (1995-1996)** Harriman School for Management and Policy
  Stony Brook University, Stony Brook, NY.

Research Interests

- My main research focus is performance measurement in healthcare, sports, transportation, energy, and banking using data envelopment analysis (DEA) and in the extension of the DEA methodology.
- I am also interested in optimal and heuristic solutions to combinatorial problems encountered in the management of production and service operations.
- In addition, I seek to improve student learning in my courses using innovative group-based techniques and problem-based learning.

Honors and Awards

- Faculty Achievement Honoree, Stony Brook University, November 12th, 2013.
- 2012 Surgical Profitability Compass Excellence in Innovation Award from the Advisory Board Company, Washington, D.C., October 2nd, 2012. This award was made to Stony Brook University Hospital in recognition of advances made by our team to optimize operating room block scheduling and included a $5000 donation by the Advisory Board Company to the Stony Brook Children's Hospital, which was matched by the Simons Foundation.
- "Best in Session Award" at the International Symposium on Models and Modeling Methodologies in Science and Engineering (MMMSE 2011) at the 2nd International Multi-Conference on Complexity, Informatics and Cybernetics (IMCIC 2011), Orlando, Florida, March 27th-30th, 2011.
- Honorable Mention for Best Poster at the 3rd Annual Mayo Clinic Conference on Systems Engineering & Operations Research in Health Care, Rochester, Minnesota, August 18th-20th, 2010.
- 4th Place in Poster Competition at the North American Productivity Workshop II Pre-conference Workshop and Poster Session, Union College, June 19th, 2002.
- Campus Life Award Certificate of Appreciation 1999, 2000, and 2001.
- The STAC Award for outstanding leadership and service to the disabled community at the State University of New York at Stony Brook.

Refereed Publications

1. C. Pitocco, H. F. Lewis, and J. Liu, "Performance measurement outcomes: An analysis of healthcare associated infections in New York State," *Quality Management in Health Care*, (to appear).
2. S. Mallikarjun and H. F. Lewis, "Energy technology allocation for distributed energy resources: A strategic framework for policy makers and other stakeholders," *Energy*, Vol. 72, pp. 783-799, (2014).
3. S. Mallikarjun, H. F. Lewis, and T. R. Sexton, "Operational performance of U.S. public rail transit and implications for public policy," *Socio-Economic Planning Sciences*, Vol. 48, pp. 74-88, (2014).
4. H. F. Lewis, S. Mallikarjun, and T. R. Sexton, "Unoriented two-stage DEA: The case of the oscillating intermediate products," *European Journal of Operational Research*, Vol. 229, pp. 529-539, (2013).
5. M. Issapour, L. L. Scarlatos, and H. F. Lewis, "A statistical model for energy intensity," *Journal of Systemics, Cybernetics, and Informatics*, Vol. 10, pp. 76-81, (2012).
6. T. R. Sexton and H. F. Lewis, "Measuring efficiency in the presence of head-to-head competition," *Journal of Productivity Analysis*, Vol. 38, pp. 183-197, (2012).
7. H. F. Lewis and T. R. Sexton, "FuzzEA: A fuzzy logic approach to efficiency analysis," *INFOR: Information Systems and Operational Research*, Vol. 49, pp. 182-192, (2011).
8. H. F. Lewis, "Using DEA factor efficiency scores to eliminate subjectivity in goal programming," *Advances in Operations Research*, Vol. 2011, pp. 1-18, (2011).
9. D. Holod and H. F. Lewis, "Resolving the deposit dilemma: A new DEA bank efficiency model," *Journal of Banking and Finance*, Vol. 35, pp. 2801-2810, (2011).
10. H. F. Lewis and S. K. Mazvancheryl, "A model for efficiency analysis of the customer satisfaction process," *Innovative Marketing*, Vol. 7, pp. 33-45, (2011).
11. H. F. Lewis, M. A. Dolan, and T. R. Sexton, "An efficiency-based multicriteria strategic planning model for ambulatory surgery centers," *Journal of Medical Systems*, Vol. 35, pp.

1029-1037, (2011).
12. H. F. Lewis, K. A. Lock, and T. R. Sexton, "Organizational capability, efficiency, and effectiveness in Major League Baseball: 1901-2002," *European Journal of Operational Research*, Vol. 197, pp. 731-740, (2009).
13. H. F. Lewis and T. R. Sexton, "On the tour partitioning heuristic for the unit demand capacitated vehicle routing problem," *Operations Research Letters*, Vol. 35, pp. 374-378, (2007).
14. H. F. Lewis, T. R. Sexton, and K. A. Lock, "Player salaries, organizational efficiency, and competitiveness in Major League Baseball," *Journal of Sports Economics*, Vol. 8, pp. 266-294, (2007).
15. H. F. Lewis and T. R. Sexton, "Innovative design for courses with group projects," *INFORMS Transactions on Education*, Vol. 5, pp. 33-41, (2005).
16. H. F. Lewis, T. R. Sexton, and K. A. Lock, "The cost of competitiveness in Major League Baseball," *The Cooperstown Symposium on Baseball and American Culture, 2003 and 2004*, pp. 242-255, (2005).
17. H. F. Lewis and T. R. Sexton, "Data envelopment analysis with reverse inputs and outputs," *Journal of Productivity Analysis*, Vol. 21, pp. 113-132, (2004).
18. H. F. Lewis and T. R. Sexton, "Network DEA: Efficiency analysis of organizations with complex internal structure," *Computers and Operations Research*, Vol. 31, pp. 1365-1410, (2004).
19. T. R. Sexton and H. F. Lewis, "Two-stage DEA: An application to Major League Baseball," *Journal of Productivity Analysis*, Vol. 19, pp. 227-249, (2003). (Special Double Issue On: Greatest Hits from NAPW I at Union College)
20. H. F. Lewis and S. A. Slotnick, "Multi-period job selection: Planning work loads to maximize profit," *Computers and Operations Research*, Vol. 29, pp. 1081-1098, (2002).
21. S. Hannenhalli, W. Feldman, H. F. Lewis, S. S. Skiena, and P. A. Pevzner, "Positional sequencing by hybridization," *Computer Applications in the Biosciences*, Vol. 12, pp. 19-24, (1996).

Book Chapters

1. H. F. Lewis, "Performance measurement of Major League Baseball teams using network DEA," n Joe Zhu and Wade Cook (editors,) *Data Envelopment Analysis - A Handbook on Internal Structures and Networks*, International Series in Operations Research & Management Science, Vol. 208, pp. 475-535, Springer, (2014).
2. S. Mallikarjun, H. F. Lewis, and T. R. Sexton, "Measuring and managing the productivity of U.S. public transit systems: An unoriented network DEA," in Ali Emrouznejad and Emilyn Cabanda (editors,) *Managing Service Productivity: Uses of Frontier Efficiency Methodologies and MCDM for Improving Service Performance*, International Series in Operations Research & Management Science, Vol. 215, pp. 335-369, Springer, (2014).
3. T. R. Sexton, A. J. Jones, A. Forsyth, and H. F. Lewis, "Using DEA to improve the efficiency of pupil transportation," in Ali Emrouznejad and Emilyn Cabanda (editors,) *Managing Service Productivity: Uses of Frontier Efficiency Methodologies and MCDM for Improving Service Performance*, International Series in Operations Research & Management Science, Vol. 215, pp. 371-394, Springer, (2014).

Submitted Papers

1. T. R. Sexton, C. Pitocco, and H. F. Lewis, "Using data envelopment analysis to measure and improve organizational performance," submitted to *Public Administration Review*.

Research Papers in Progress

1. H. F. Lewis, T. R. Sexton, M. A. Dolan, K. Stickle, and K. Rosenfeld, "Optimal block scheduling for the operating room suite: From tactical to strategic planning." (ready to submit)
2. H. F. Lewis, A. Zannettis, A. Vedral Cohen, and H. Ghobashy, "Utilizing a linear programming transportation model to assign first-year students to learning communities." (ready to submit)
3. H. F. Lewis and A. Lukose, "Competitive balance in Major League Baseball and the National Basketball Association: A comparison of the two leagues." (preparing to submit)
4. H. F. Lewis, M. A. Dolan, T. R. Sexton, and T. R. Griffin, "Using physician incentives to improve hospital performance." (preparing to submit)
5. H. F. Lewis, C. Pitocco, and V. Sripada, "Using DEA to Determine Hospital Efficiency in Reducing HAI Prevalence." (writing paper)
6. H. F. Lewis, T. R. Sexton, and D. Hagedorn, "Saving water in California: Using DEA to allocate usage reductions." (writing paper)

Other Research

1. T. R. Sexton, H. F. Lewis, and C. Pitocco, "Using Data Envelopment Analysis to Measure Organizational Performance. "
2. H. F. Lewis, T. R. Sexton, J. Zhang, and S. Mallikarjun, "Optimal and heuristic models for the school bus fleet size problem."
3. H. F. Lewis, "A two-stage efficiency-based model for resource allocation."
4. H. F. Lewis and T. R. Sexton, "The fleet coordination problem."
5. N. Kvetnaya , H. F. Lewis, and T. R. Sexton, "A look at the NBA: Is there a link between player efficiency and team effectiveness?"
6. H. F. Lewis, "A heuristic for the refueling problem: A variant of the capacitated fixed-charge facility location problem."

Doctoral Students Supervised

1. Sreekanth Mallikarjun, Technology, Policy, and Innovation (TPI) Program (1st student to earn Ph.D. in the Department of Technology and Society.)
2. Melissa A. Dolan, Technology, Policy, and Innovation (TPI) Program.

Conference and Workshop Presentations

1. H. F. Lewis, C. Pitocco, and V. Sripada, "Using DEA to determine hospital efficiency in reducing HAI prevalence," NEDSI 2022, Newark, New Jersey, April 7th-9th, 2022.
2. T. R. Sexton, C. Pitocco, and H. F. Lewis, "Using data envelopment analysis to measure and improve organizational performance," NEDSI 2022, Newark, New Jersey, April 7th-9th, 2022.
3. T. R. Sexton, C. Pitocco, and H. F. Lewis, "Using data envelopment analysis to measure and improve organizational performance," Public Administration Review Virtual Symposium, January 27th-28th, 2022.
4. H. F. Lewis, C. Pitocco, and V. Sripada, "Using DEA to determine hospital efficiency in reducing HAI prevalence," INFORMS Healthcare 2021, July 21st-23rd, 2021.
5. H. F. Lewis, C. Pitocco, and J. Liu, "Performance measurement outcomes: An analysis of healthcare associtated infections in New York State," INFORMS Healthcare 2019, Boston, Massachusetts, July 27th-29th, 2019.
6. H. F. Lewis and A. Lukose, "Competitive balance in Major League Baseball and the National

Basketball Association: A comparison of the two leagues," 31st Cooperstown Symposium on Baseball and American Culture, National Baseball Hall of Fame, Cooperstown, New York, May 29th-31th, 2019.

7. C. Pitocco, H. F. Lewis, and J. Liu, "Performance measurement outcomes: An analysis of healthcare associtated infections in New York State," INFORMS Phoenix, November 4th-7th, 2018.
8. H. F. Lewis, T. R. Sexton, J. Zhang, and S. Mallikarjun, "Optimal and heuristic models for the school bus fleet size problem," INFORMS Nashville, November 13th-16th, 2016.
9. H. F. Lewis, D. Holod, and J. Liu, "Efficient allocation of TARP funds to U.S. banks," INFORMS Nashville, November 13th-16th, 2016.
10. H. F. Lewis, T. R. Sexton, and D. Hagedorn, "Measuring the efficiency of Suffolk County school districts," INFORMS Nashville, November 13th-16th, 2016.
11. H. F. Lewis, D. Hagedorn, and T. R. Sexton, "Saving water in California: Using DEA to allocate usage reductions," INFORMS Philadelphia, November 1st-4th, 2015 (invited talk.)
12. T. R. Sexton, H. F. Lewis, K. Stickle, K. Rosenfeld, and M. A. Dolan, "Optimal block scheduling for the operating room suite: From tactical to strategic planning," INFORMS Philadelphia, November 1st-4th, 2015.
13. S. Mallikarjun and H. F. Lewis, "Energy technology allocation for distributed energy resources: A strategic technology-policy model." INFORMS San Francisco, November 9th-12th, 2014 (invited talk.)
14. S. Mallikarjun and H. F. Lewis, "Energy technology allocation for distributed energy resources: A strategic framework for policy makers and other stakeholders," North American Productivity Workshop VIII, Carleton University, June 4th-7th, 2014.
15. S. Mallikarjun and H. F. Lewis, "Optimal allocation of distributed energy resources," Advanced Energy Conference 2014, Albany, New York, April 28th-29th, 2014.
16. T. R. Sexton, H. F. Lewis, K. Rosenfeld, and M. A. Dolan, "Optimal block scheduling for the operating room suite: From tactical to strategic planning," Anesthesiology 2013, San Francisco, California, October 12th-16th, 2013.
17. T. R. Sexton, H. F. Lewis, K. Rosenfeld, and M. A. Dolan, "Optimal block scheduling for the operating room suite: From tactical to strategic planning," INFORMS Healthcare 2013, Chicago, Illinois, June 23rd-26th, 2013.
18. S. Mallikarjun, H. F. Lewis, and T. R. Sexton, "Operational performance of U.S. public rail transit and implications for public policy," 2013 Technology, Management & Policy Consortium Meeting, Massachusetts Institute of Technology, June 16th-19th, 2013.
19. T. R. Sexton, H. F. Lewis, K. Rosenfeld, and M. A. Dolan, "Optimal block scheduling for the operating room suite: From tactical to strategic planning," 2nd Annual Stony Brook Converging Science Summit: Advancing Health Outcomes: The Intersection of Health and Technology, Stony Brook University, April 15th, 2013.
20. S. Mallikarjun, H. F. Lewis, and T. R. Sexton, "Operational performance of U.S. public rail transit and implications for public policy," INFORMS Phoenix, October 14th-17th, 2012.
21. T. R. Sexton, H. F. Lewis, K. Rosenfeld, and M. A. Dolan, "OR block schedule optimization: From a tactical design to a strategic design," The Advisory Board Company, Washington, D.C., October 2nd, 2012 (invited talk.) Won the 2012 Surgical Profitability Compass Excellence in Innovation Award.
22. S. Mallikarjun, H. F. Lewis, and T. R. Sexton, "Operational performance of U.S. public rail transit systems and implications for public policy," North American Productivity Workshop VII, Rice University, June 6th-9th, 2012.
23. H. F. Lewis, T. R. Sexton, and S. Mallikarjun, "Optimization and heuristic models for the

school bus fleet size problem," INFORMS Optimization Society Conference 2012 on Optimization and Analytics: New Frontiers in Theory and Practice, University of Miami, February 24th-26th, 2012.

24. M. Issapour, L. L. Scarlatos, and H. F. Lewis, "A statistical model for energy intensity," Center for Excellence in Wireless and Information Technology (CEWIT) 2011 Eighth International Conference and Expo on Emerging Technologies for a Smarter World, Hauppauge, New York, November 3rd, 2011.
25. M. A. Dolan, H. F. Lewis, T. R. Sexton, and T. R. Griffin, "Using physician incentives to improve hospital performance," INFORMS Healthcare 2011, Montreal, Canada, June 20th-22nd, 2011.
26. M. Issapour, L. L. Scarlatos, and H. F. Lewis, "A statistical model for energy intensity," International Symposium on Models and Modeling Methodologies in Science and Engineering (MMMSE 2011) at the 2nd International Multi-Conference on Complexity, Informatics and Cybernetics (IMCIC 2011), Orlando, Florida, March 27th-30th, 2011. Selected the best paper in the session Models and Modeling Methodologies in Science and Engineering.
27. H. F. Lewis, S. Mallikarjun, and T. R. Sexton, "Unoriented two-stage DEA: The case of the oscillating intermediate products," INFORMS Austin, November 7th-10th, 2010.
28. H. F. Lewis, T. R. Sexton, and M. A. Dolan, "An efficiency-based multicriteria strategic planning model for ambulatory surgery centers," 3rd Annual Mayo Clinic Conference on Systems Engineering & Operations Research in Health Care, Rochester, Minnesota, August 18th-20th, 2010. Won honorable mention in poster competition.
29. H. F. Lewis, S. Mallikarjun, and T. R. Sexton, "Unoriented two-stage DEA: The case of the oscillating intermediate products," North American Productivity Workshop VI, Rice University, June 2nd-5th, 2010.
30. H. F. Lewis, T. R. Sexton, and M. A. Dolan, "An efficiency-based multicriteria strategic planning model for ambulatory surgery centers," North American Productivity Workshop VI, Rice University, June 2nd-5th, 2010.
31. T. R. Sexton and H. F. Lewis, "Measuring efficiency in the presence of head-to-head competition," 7th International Conference on Data Envelopment Analysis, Philadelphia, Pennsylvania, July 10th-12th, 2009.
32. T. R. Sexton and H. F. Lewis, "The efficiency of political campaigns: Data envelopment analysis in head-to-head competition," Academy of Business Disciplines 10th Annual Conference, Fort Myers, Florida, November 6th-8th, 2008.
33. H. F. Lewis, "Using DEA factor efficiency scores to eliminate subjectivity in goal programming," INFORMS Washington D.C., October 12th-15th, 2008.
34. T. R. Sexton and H. F. Lewis, "Efficiency and effectiveness of political campaigns in New York State House races," INFORMS Washington D.C., October 12th-15th, 2008.
35. H. F. Lewis, "Using DEA efficiency scores to represent subjective values in nulti-criteria decision making," North American Productivity Workshop IV, New York University, June 27th-30th, 2006.
36. H. F. Lewis, K. A. Lock, and T. R. Sexton, "Organizational capability, efficiency, and effectiveness in Major League Baseball: 1901-2002," INFORMS College on Organization Science Fall Conference, Dartmouth College, November 6th-7th, 2004.
37. H. F. Lewis, K. A. Lock, and T. R. Sexton, "Organizational capability, efficiency, and effectiveness in Major League Baseball: 1901-2002," North American Productivity Workshop 2004, University of Toronto, June 22nd-25th, 2004.
38. H. F. Lewis, T. R. Sexton, and K. A. Lock, "Player salaries, organizational efficiency, and

competitiveness in Major League Baseball," North American Productivity Workshop 2004 Pre-conference Workshop and Poster Session, University of Toronto, June 22nd, 2004.

39. H. F. Lewis and T. R. Sexton, "Innovative design for courses with group projects," Conference on Instructional Technologies (CIT) 2004, Stony Brook University, June 1st-4th, 2004. Recipient of a SUNY FACT Scholarship.
40. H. F. Lewis, T. R. Sexton, and K. A. Lock, "The cost of competitiveness in Major League Baseball," INFORMS Atlanta, October 19th-22nd, 2003 (invited talk.)
41. H. F. Lewis and S. K. Mazvancheryl, "A model for efficiency analysis of customer satisfaction," INFORMS Marketing Science Conference, University of Maryland at College Park, June 12th-15th, 2003.
42. H. F. Lewis, T. R. Sexton, and K. A. Lock, "The cost of competitiveness in Major League Baseball," Fifteenth Cooperstown Symposium on Baseball and American Culture, National Baseball Hall of Fame, Cooperstown, New York, June 11th-13th, 2003.
43. H. F. Lewis, and T. R. Sexton, "FuzzEA: A fuzzy logic approach to efficiency analysis," North American Productivity Workshop II, Union College, June 19th-22nd, 2002.
44. H. F. Lewis, and T. R. Sexton, "Network DEA: Efficiency analysis of organizations with complex internal structure," North American Productivity Workshop II, Union College, June 19th-22nd, 2002.
45. K. Chou, S. Lin, H. F. Lewis, and T. R. Sexton, "Demonstration of FuzzEA software: A fuzzy logic approach to efficiency analysis," North American Productivity Workshop II Pre-conference Workshop and Poster Session, Union College, June 19th, 2002. Won 4th place in poster competition.
46. H. F. Lewis, "Blackboard: Web-based course management software," Moving into the Millennium: New Technologies for Learning and Teaching Conference, The Center for Excellence in Learning and Teaching and Information Resources, SUNY at Farmingdale, September 22nd, 2000 (invited talk.)
47. T. R. Sexton and H. F. Lewis, "Two-stage DEA: An application to Major League Baseball," North American Productivity Workshop, Union College, June 15th-17th, 2000.
48. H. F. Lewis and T. R. Sexton, "DEA with reverse inputs: An application to Major League Baseball," North American Productivity Workshop, Union College, June 15th-17th, 2000.
49. H. F. Lewis and T. R. Sexton, "Data envelopment analysis with reverse inputs," INFORMS Philadelphia, November 7th-10th, 1999.
50. H. F. Lewis and S. A. Slotnick, "Multi-period job selection: planning work loads to maximize profit," INFORMS Philadelphia, November 7th-10th, 1999.
51. H. F. Lewis and T. R. Sexton, "Optimizing performance in several dimensions: A model for rotisserie league baseball," INFORMS Cincinnati, May 2nd-5th, 1999.
52. H. F. Lewis"A heuristic for the refueling problem: A variant of the capacitated fixed-charge facility location problem." INFORMS Montreal, April 26th-29th, 1998.
53. H. F. Lewis and S. A. Slotnick, "A multi-period model of job selection," INFORMS Dallas, October 26th-29th, 1997.
54. H. F. Lewis and T. R. Sexton, "The fleet coordination problem," ORSA/TIMS Boston, April 24th-27th, 1994.

Other Conferences and Workshops Attended

1. 30th Cooperstown Symposium on Baseball and American Culture, National Baseball Hall of Fame, Cooperstown, New York, May 30th -June 1st, 2018.
2. 29th Cooperstown Symposium on Baseball and American Culture, National Baseball Hall of Fame, Cooperstown, New York, May 31st -June 2nd, 2017.

3. 28th Cooperstown Symposium on Baseball and American Culture, National Baseball Hall of Fame, Cooperstown, New York, June 1st-3rd, 2016.
4. 27th Cooperstown Symposium on Baseball and American Culture, National Baseball Hall of Fame, Cooperstown, New York, May 27th-29th, 2015.
5. 2013 Annual Leadership Exchange in Arts and Disability (LEAD) Conference and Training, John F. Kennedy Center for the Performing Arts, Washington D.C., August 20th-23rd, 2013.
6. 2012 Annual Leadership Exchange in Arts and Disability (LEAD) Conference and Training, John F. Kennedy Center for the Performing Arts, Boston, August 21st-24th, 2012.
7. American Library Association (ALA) Annual Conference, Washington D.C., June 24th-30th, 2010.
8. 2009 Annual Leadership Exchange in Arts and Disability (LEAD) Conference and Training, John F. Kennedy Center for the Performing Arts, Washington D.C., August 13th-16th, 2009.
9. American Library Association (ALA) Annual Conference, Chicago, June 23th-29th, 2005.
10. Symposium on Transportation in the 21st Century, Stony Brook University, Spring 2004.
11. Making Statistics More Effective in Schools of Business Fifteenth Annual Conference, Syracuse University, June 8th-10th, 2000.
12. International Conference on Learning and Teaching Processes, The Center for Excellence in Learning and Teaching, State University of New York at Stony Brook, June 23rd-26th, 1999.
13. Second Annual Workshop on Teaching Management Science, Richard Ivey School of Business, University of Western Ontario, June 26th-29th, 1999.
14. First Annual Workshop on Teaching Management Science, Amos Tuck School of Business, Dartmouth College, June 27th-30th, 1998.
15. ORSA/TIMS Phoenix, October 23rd-26th, 1993.
16. ORSA/TIMS Chicago, May 16th-19th, 1993.
17. Second MSI-Stony Brook Workshop on Computational Geometry, State University of New York at Stony Brook, October 23th-24th, 1992.
18. MSI-Stony Brook Workshop on Computational Geometry, State University of New York at Stony Brook, October 25th-26th, 1991.

Teaching

- **BUS 215 Introduction to Business Statistics** Fall 2016 (1 section 62 students), Spring 2016 (1 section 46 students), Spring 2015 (1 section 60 students), Fall 2014 (1 section 47 students), Spring 2014 (1 section 47 students), Fall 2013 (1 section 44 students), Spring 2008 (1 section 60 students), Fall 2007 (3 sections 180 students), Fall 2006 (2 sections 100 students), Spring 2006 (1 section 60 students) and Fall 2005 (2 sections 120 students). The application of current statistical methods to problems in the modern business environment. Topics include probability, random variables, sampling techniques, confidence intervals, hypothesis testing, and regression. Students analyze real data sets using standard statistical software, interpret the output, and write extensively about the results.
- **BUS 220 Introduction to Decision Sciences** Fall 2021 (1 section 48 students), Fall 2020 (1 section 62 students), Spring 2020 (1 section 60 students), Fall 2019 (2 sections 121 students), Spring 2019 (1 section 59 students), Fall 2018 (2 sections 123 students), Spring 2018 (1 section 62 students), Fall 2017 (2 sections 124 students), Spring 2017 (2 sections 124 students), Fall 2016 (1 section 55 students), Spring 2013 (1 section 50 students), Spring 2008 (2 sections 120 students), Spring 2007 (2 sections 80 students) and Spring 2006 (1 section 80 students). Familiarizes students with a variety of quantitative methods applicable in managing both the service and manufacturing sectors. Basic concepts of quantitative

modeling are applied and tested in various examples supporting decision making in business settings. Topics include: optimization via linear, integer, and goal programming; simulation; decision and breakeven analysis; and forecasting.

- **BUS 249/349 Management Science** Spring 2005 (2 sections 150 students), Fall 2004 (1 section 70 students), Spring 2004 (2 sections 200 students), Fall 2003 (1 section 90 students), Spring 2003 (1 section 80 students), Fall 2002 (1 section 90 students), Spring 2002 (1 section 100 students), Fall 2001 (1 section 100 students), Spring 2001 (1 section 100 students), Fall 2000 (1 section 100 students), Spring 2000 (1 section 100 students), Fall 1999 (2 sections 220 students), Spring 1999 (2 sections 200 students), Fall 1998 (2 sections 200 students), Spring 1998 (3 sections 300 students), Fall 1997 (2 sections 200 students) and Summer 1996 (1 section 30 students). Familiarizes students with a variety of quantitative methods applicable in managing both the service and manufacturing sectors. Basic concepts of quantitative modeling are applied and tested in various examples supporting decision making in business settings. Topics include: optimization via linear, integer, and goal programming; simulation; decision and breakeven analysis; and forecasting.
- **BUS 344/341 Decision Support Systems** Fall 2004 (1 section 5 students), Fall 2003 (1 section 5 students), Spring 2003 (1 section 8 students), Spring 2002 (1 section 16 students) and Spring 2001 Linking Seminar for the Freshman Learning Community in Business (1 section 20 students). Focuses on the interrelationship between management information systems and management science. Students apply knowledge from these fields to develop a decision support system. They identify an appropriate business application, build the required information system, and implement the suitable management science methodology. At the end of the course, students demonstrate how their decision support system addresses the stated management problem and describe how their system works.
- **BUS 346 Operations Management** Spring 2016 (1 section 27 students), Fall 2015 (1 section 51 students), Spring 2015 (1 section 60 students), Spring 2014 (1 section 47 students), Fall 2000 (1 section 100 students), Fall 1996 (1 section 90 students) and Fall 1995 (1 section 70 students). Analysis and design of manufacturing and service systems. Topics include quality management, product and service design, process selection and capacity planning, design of work systems, inventory management, aggregate planning, material requirements planning, and just-in-time systems.
- **MBA 543 Business Analytics/Management Science** Spring 2022 (1 section 99 students), Fall 2021 (1 section 48 students), Spring 2021 (2 sections 88 students), Fall 2020 (1 section 45 students), Spring 2020 (1 section 52 students), Spring 2019 (1 section 60 students), Spring 2018 (1 section 13 students), Fall 2015 (1 section 10 students), Fall 2014 (1 section 16 students) and Fall 2013 (1 section 6 students). This course focuses on the development and solution of models used in quantitative decision-making. Throughout the course, you will develop mathematical models of problems encountered in business management. Solution techniques and analyses will involve the use of spreadsheets. Topics covered include: forecasting, inventory and queuing models, Markov processes, simulation, mathematical programming (linear, integer, nonlinear, and goal) with applications, distribution and network models, project scheduling, and decision analysis (single-criterion and multi-criteria).
- **MGT 517 Management Information Systems** Spring 2000 (1 section 40 students). Information systems and their role in strategic planning and managerial operations in business. The systems approach to the analysis, design, and implementation of information systems. Recent developments in information technology, and their impact on existing and future information systems.

- **MBA 587/MGT 587/591 Decision Support Systems** Spring 2022 (1 section 4 students), Fall 2004 (1 section 5 students), Fall 2003 (1 section 4 students), Fall 2002 (1 section 8 students) and Fall 2001 (1 section 24 students). An advanced course focusing on the interrelationships among management information systems, statistics, and management science. Both model-driven and data-driven decision support systems will be considered. Students will identify an appropriate business application, select suitable management science and statistical methodologies, build the required information system, and demonstrate how their decision support system addresses the stated management problem.
- **EMP 504 Quantitative Methods in Management** Fall 2015 (1 section 11 students), Fall 2014 (1 section 32 students), Fall 2013 (1 section 60 students), Fall 2012 (1 section 22 students), Fall 2011 (1 section 15 students), Fall 2010 (1 section 17 students), Fall 2009 (1 section 25 students) and Fall 2008 (1 section 24 students). This course focuses on the development and solution of models used in quantitative decision-making. Throughout the course, you will develop mathematical models of problems encountered in the management of technological systems. Solution techniques and analyses will involve the use of spreadsheets. Topics covered include: forecasting, inventory and queuing models, Markov processes, simulation, mathematical programming (linear, integer, nonlinear, and goal) with applications, distribution and network models, project scheduling, and decision analysis (single-criterion and multi-criteria).
- **EST 192 Introduction to Modern Engineering** Spring 2012 (1 section 41 students), Spring 2011 (1 section 44 students), Spring 2010 (1 section 60 students) and Fall 2008 (1 section 51 students). This course introduces you to concepts used in modern engineering. Throughout the course, you will develop mathematical models encountered in the design and analysis of engineering systems. Topics covered include: fundamental engineering concepts such as distance, time, mass, force, electricity, power, and energy, engineering mathematics, statistics, and economics, engineering drawings and materials, and engineering software.
- **EST 194 Patterns of Problem Solving** Fall 2012 (1 section 28 students). A survey of techniques and methods of problem solving as developed by the engineer and applied scientist. Applications drawn from a broad range of fields.
- **EST 305 Application Software for Information Management** Spring 2009 (1 section 33 students). Introduction to the role of applications software in various types of organizations with emphasis on methods of formulating the requisite information flows to engender adequate communications, operation, and control. The importance of audit ability, maintainability, and recoverability in systems design is stressed. Provides students with knowledge of basic techniques and elementary skills in representing system structure with application of the principles in practical case studies using spreadsheet and database software. Extensive interaction with applications software reinforces concepts presented.
- **EST 562 Decision Support Systems** Spring 2013 (1 section 8 students), Spring 2012 (1 section 6 students), Spring 2011 (1 section 11 students), Spring 2010 (1 section 10 students) and Spring 2009 (1 section 10 students). A decision support system (DSS) is a computer system that combines data, analytical tools, and models to support decision making. A DSS may be model-driven or data-driven. A model driven DSS is a stand-alone system that uses some type of model to perform "what-If" and other kinds of analysis. A data-driven DSS is a system that supports decision making by allowing users to extract and analyze useful information that was previously buried in large databases. In this course, both model-driven and data-driven decision support systems will be considered. Students will identify an appropriate engineering or management application. By collecting relevant data, building

suitable mathematical models, designing an accessible user interface, and connecting these components via computer code, students will develop a deliverable DSS. Through a series of presentations, they will demonstrate how their DSS addresses the stated engineering or management problem. In doing so, students will gain insight into the interrelationships among information systems, statistics and management science.

- **EST 610 Data Analysis for Technology, Policy, and Innovation** Fall 2011 (1 section 4 students), Fall 2010 (1 section 9 students) and Fall 2009 (1 section 10 students). Common empirical tools used for research in Technology, Policy, and Innovation. Topics include: data collection and sampling techniques, descriptive statistics, probability concepts, estimation, formulating and testing hypotheses, and simple and multiple regression analysis. Discussion of assumptions, strengths, and weaknesses of various statistical tools and methodologies. Emphasizes the analysis and presentation of information through visual and numerical means. Use of modern statistical software to analyze real data sets involving socio-technological applications.
- **Industry and Other Teaching**
  - **BMC 508 Operations Management** Summer 1998. This module was part of the Harriman School Graduate Certificate Program in Business Management designed for Symbol Technologies, Inc.
  - **MGT 515 Data Analysis** Fall 1997 (teaching assistant).
  - **MGT 543 Modeling** Spring 1998 (teaching assistant).
  - **AMS 361 Engineering Mathematics A** (graduate teaching assistant).
  - **AMS 101 Finite Mathematics** (taught course to two legally blind students).
- **Curriculum and Program Development**
  - Involved in the development of the M.S. program in Decision Analytics. 2018-present.
  - Involved in the revision of the M.B.A. Operations Analytics concentration. 2018-2019.
  - Co-developed the graduate Advanced Analytics course. This course is an elective for students in the M.S. program in Decision Analytics. 2018.
  - Revised the graduate Business Analytics course. This course is a required course for students in all M.B.A. programs and in the M.S. program in Decision Analytics. 2018.
  - Revised the graduate Decision Support Systems course. This course is a required course for students in the M.S. program in Decision Analytics and an elective course for students in the M.B.A. Operations Analytics concentration. 2018.
  - Developed the graduate Data Analysis for Technology, Policy, and Innovation course. This course is a required course for students in the Ph.D. program in Technology, Policy, and Innovation. Fall 2009.
  - Developed the graduate Decision Support Systems course. This course is an elective for students in the M.S. program in Technological Systems Management. Spring 2009.
  - Co-developed the undergraduate Introduction to Business Statistics course. This course is a required course for students in the Business Management major. Fall 2005.
  - Co-developed the graduate Decision Support Systems course. This course is a second-year elective for students in the M.B.A. program and can also be used toward the NYS Advanced Certificate in Information Systems Management. Fall 2001.
  - Proposed the concept and co-authored the proposal for the Decision Support Systems Freshman Learning Community in Business. Designed the linking seminar Decision Support Systems course. This course is an upper division elective for students in the Business Management major. Spring 2001.
- **Student Research Projects**

- Faculty member of "The Generalized Dupont Model" Independent Study Group at the College of Business during the Fall 2005 semester.
- Supervised 21 undergraduate research projects. Among these, 9 were for students in the University's Honors College and/or CoB Honors Program and 14 presented their work at the University's Undergraduate Research and Creative Activities (URECA) Celebrations.
- Supervised 9 graduate independent study projects.
- Supervised 2 Ph.D. students in the Technology, Policy, and Innovation doctoral program.

- **Student Internships** Supervised 18 undergraduate internships and 37 graduate internships.
- **Teaching Assistants** Supervised 111 undergraduate and graduate teaching assistants.

Professional Experience and Consulting

- **Modeler, Analyst, and Application Developer**
  M. Davis and Company, Inc., Philadelphia, PA, 2020.
  - Developed an Excel macro coded in Visual Basic for Applications to measure call center interviewer performance.
- **Statistician**
  Churchill Outcomes Research, LLC, Maplewood, NJ, 2015-2019.
  - 2018-2019: Primary Immune Deficiency Disease in Patients Over Age 60: An Analysis From a Proprietary Immunology Patient Registry
  - 2017: HYQVIA Experience Study
  - 2016: HYQVIA Best Practices Initiative
  - 2015: Retrospective Analysis of the Postoperative Use of Loteprednol Etabonate Gel 0.5% Following LASIK or PRK Surgery
- **Modeler, Analyst, and Application Developer**
  Management Partnership Services, Inc., Rockville, MD, 2006-2012**.**
  - 2012: Developed an Excel macro coded in Visual Basic for Applications to automate the DEA-based frontier model for school district transportation cost reimbursements in Washington State.
  - 2008-2009: Developed Excel simulators coded in Visual Basic for Applications to facilitate the evaluation of school district transportation cost reimbursements in Washington State.
  - 2006: Developed heuristic models to route and schedule school buses and applied the models to analyze data from school districts in Fairfax County VA.
- **Statistician**
  M. Davis and Company, Inc., Philadelphia, PA, 2010-2011.
  - 2011: Institute of Museum and Library Services (IMLS) Public Needs for Library and Museum Services Survey.
  - 2011: SMART Project Sample Randomization.
  - 2010-2011: National Highway Traffic Safety Administration (NHTSA) National Telephone Survey of Reported and Unreported Motor Vehicle Crashes.
  - 2010: U.S. Department of Housing and Urban Development (HUD) Fair Market Rent Survey.
- **Data Analyst**
  MAXIMUS, Inc., Reston, VA, 2001-2002.
  - Measured the utilization of the 11 MAXIMUS profit centers (PCs) with cost plan activities during the 2001 fiscal year; identified the factors that influence the utilization rates of the PCs; estimated the degree to which each factor influences utilization; and

provided brief assessments of each PC with respect to these factors.

- **Website Developer**
  W. Averell Harriman School for Management and Policy, Stony Brook, NY, 1998-1999.
  - Designed and developed the Harriman School website using FrontPage 98.
- **Data Analyst**
  New York State Small Business Development Center, Albany, NY, 1997-1998.
  - Helped design Small Business Needs Assessment survey. Analyzed the data collected from the returned surveys and wrote a report summarizing the results.
- **Software Engineer**
  Roche Diagnostic Systems, Basel, Switzerland, 1994-1995.
  - Developed *FlowPerfect*, a Visual Basic Windows-based program, which automates the analysis of laboratory workflow. The program consists of a file management system; a data input module with over 50 forms; a report generator which produces outlines, charts, and graphs that can be edited by standard word processing software; a database interface which prepares data records for use with common database software; and a help system.
- **Computer Specialist**
  West Islip Public Library, West Islip, NY, 1990-1994.
  - Set up and maintained several PCs for use by the community. Installed and configured software; wrote documentation; maintained system security; and performed minor hardware repair. Developed a database to keep track of the library's videotape collection.

Professional Memberships

- Institute for Operations Research and the Management Sciences (INFORMS)
- Institute of Electrical and Electronics Engineers (IEEE)
- IEEE Computer Society

Service

- College of Business/Harriman School
  - College of Business Accessibility Liaison (2020-present)
  - Member of College of Business Curriculum Committee (2013-2015, 2019-present)
  - Member of College of Business PRCs (2014-present)
  - Member of College of Business PTC (2018-2019)
  - Member of College of Business Assurance of Learning Task Force (2014-2020)
  - Director of Honors Business Research Program (2017)
  - Chair of College of Business Operations Management Search Committee (2014-2015)
  - Member of College of Business Honors Program and Leadership Program Admissions Committee (2013)
  - Member of College of Business Undergraduate Admissions Committee (2004-2007)
  - Member of College of Business Undergraduate Curriculum Committee (2004-2007)
  - Member of Undergraduate Honors Program in Business Selection Committee (2004)
  - Member of Harriman School Undergraduate Admissions Committee (1998-2004)
  - Webmaster for Harriman School Website (1998-2004)
  - Faculty Advisor for Harriman Business Society (1999-2001)
  - Member of Harriman School MS/TM Curriculum Committee (1998-1999)
  - Developed pay rate calculating software for Harriman School and CEAS (2003)
  - Managed students in the development of registration wait list software for Harriman School (2002)

- Department of Technology and Society
  - Member of TPI Ph.D. Admissions Committee (2009-2012)
  - Member of TPI Ph.D. Qualifying Examination Committee (Parts A and B) (2011-2012)
  - Member of TPI Ph.D. Subcommittee on Global Operations Management (2009-2010)
  - Member of TPI Ph.D. Subcommittee on Educational Technology (2009-2010)
- Stony Brook University
  - Developed system to place students in the Undergraduate Colleges for SBU (2013-present)
  - Member of Focus Group on Online Accessibility/Course Content (2017)
  - Member of Academic Support Task Force (2014)
  - Representative (for the CoB) to the Geospatial Approaches to the Human-Environment Dynamics Cluster Proposal (2013)
  - Co-developed system to allocate operating room black time to surgical services for SBUMC (2012-2013)
  - Assisted OBGYN Center at SBUMC with capacity planning decisions (2012)
  - Member of SBU Honors College Advisory Board (2003-2008)
  - Member of President's ADA Advisory Committee (2003-2005)
  - Member of President's ADA Subcommittee for Accessibility (2003-2005)
- Professional Service
  - Reviewer for the following textbooks:
    - ✓ *Making Effective Business Decisions* by John F. Kros
    - ✓ *Developing Spreadsheet-Based Decision Support Systems* by Hanna, Ahuja, and Winston
  - Referee for the following journals:
    - ✓ *Annals of Operations Research*
    - ✓ *Computers and Operations Research*
    - ✓ *European Journal of Operational Research*
    - ✓ *INFORMS Transactions on Education*
    - ✓ *International Journal of Information Technology & Decision Making*
    - ✓ *International Journal of Operations & Quantitative Management*
    - ✓ *Journal of Computers and Information Technology*
    - ✓ *Journal of Economic Issues*
    - ✓ *Journal of Sports Economics*
    - ✓ *Journal of the Operational Research Society*
    - ✓ *OMEGA: The International Journal of Management Science*
    - ✓ *Socio-Economic Planning Sciences*
    - ✓ *Transportation Research Part A*
  - Chairperson for the following conference sessions:
    - ✓ Environmental Application and Computational Aspects of Efficiency and Productivity Analysis session at INFORMS Philadelphia Conference
    - ✓ Data Envelopment Analysis III session at INFORMS Washington D.C. Conference
    - ✓ Pricing, Services, Accounting session at North American Productivity Workshop IV
    - ✓ Nonparametric Approaches II session at North American Productivity Workshop II
    - ✓ Cost/Performance Analysis session at INFORMS Cincinnati Conference

Computer Skills

- Programming Languages: Visual Basic, VBA, C, FORTRAN.
- Operating Systems: Windows

- Application Software:
  - Mathematical Optimization: Solver
  - Data Analysis: Statistix
  - Database: MS Access
  - Spreadsheet: MS Excel
  - Presentation and Graphics: MS PowerPoint
  - Word processing: MS Word