CURRICULUM VITA
SHEILA M. LAWRENCE, PH.D.

Title: Assistant Teaching Professor

Contact Information: smlawren@smlr.rutgers.edu

Professional Summary:

DR. SHEILA M. LAWRENCE is a full-time Assistant Teaching Professor on the SMLR/LSER faculty, where she teaches courses in problem-solving, survey design, and personal finance. Dr. Lawrence had been a Lecturer in the Rutgers Business School (RBS) since 1993 in the Department of Management Science and Information Systems (MSIS). For the academic year 2004-5, she had been an instructor in MSIS in RBS. Dr. Lawrence has also taught undergraduate statistics courses in SAS (Departments of Statistics and Exercises Science/Sport Management), a graduate course in statistical quality control, and a graduate course in quality management in the Department of Industrial and Systems Engineering. She was appointed to the Rutgers Graduate Faculty as of May 2000.

Dr. Lawrence has over 30 years of technical management experience with AT&T, Hoffmann-LaRoche, PSE&G, and the State of New Jersey. Her teaching interests include problem-solving, finance, supply chain, management science, quality, and statistics. Her research interests include supply chain management, productivity analysis, quality management, forecasting, management information systems, and decision support systems. She has **113** technical publications in statistics, MIS, and supply chain. Dr. Lawrence has advanced to Senior Member status of ASQ (American Society for Quality), and she is also an active member of professional associations such as the American Statistical Association and INFORMS.

The ResearchGate score is a measure of one's research reputation. My current ResearchGate Score is 17.13; My current ResearchGate metrics include 124 Publications, 3,286 Reads, and 177 Citations.

- Professor Lawrence received the 2022-2023 LSER Teaching Award at Rutgers.
- She was a candidate for the Best Required Course award for 2023-2024 from LSER.
- Professor Lawrence was recognized by the Rutgers TIIP (The Institute for Teaching, Innovation, and Inclusion) initiative. Thanking an Instructor*, in Fall 2024.

Notes: * Indicates a Top Thanked Instructor. This designation is awarded to instructors who received multiple thank-you notes from their students in recognition of their significant contributions to the student experience.

Four students' submissions reflect all 3 of her classes in Fall 2024, as well as a former first-year student who is now a senior.

Professor Lawrence was a candidate for the Best Required Course award for 2024-2025 from LSER.

I. RESEARCH COMPONENT

A. REFEREED PUBLICATIONS

1. Lawrence, K., Lawrence, S., and Reeves, G., Aggregate Industrial Expansion: A Multiple Objective Linear Programming Approach, Engineering Economist, 25, 3, 1980, 197-207.

2. Lawrence, K., Lawrence, S., and Reeves, R., A Multiple Goal Model for Allocation of Teaching Personnel, Lecture Notes in Economics and Mathematical Systems, 190, Springer Verlag, Berlin, 1981, 222-231.

3. Lawrence, K., Lawrence, S., and Marose, R., A Multiple Goal Portfolio Analysis Model for the Selection of MIS Projects, Lecture Notes in Economics and Mathematical Systems, 209, Springer Verlag, Berlin, 1983, 229-237.

4. Lawrence, K., Lawrence, S., and Reeves, G., Allocation of Teaching Personnel: A Goal Programming Model, Socio-Economic Planning Sciences, 1983, 211-216.

5. Lawrence, K., Lawrence, S., and Reeves, G., A Multiple Objective Shift Allocation Model, IIE Transactions, 16, 4, 1984, 323-328.

6. Lawrence, S., and Smith, J., Projecting the Net Migration Rate of the School Age Population, Socio-Economic Planning Sciences, 18, 1, 1984, 1-14.

7. Lawrence, K., Gonzalez, J., Lawrence, S., and Reeves, G., A Multiple Criteria Approach to Aggregate Industrial Capacity Expansion, Computers and Operations Research, 15, 4, 1988, 333-340.

8. Lawrence, K., Guerard, J. Jr., Lawrence, S., and Reeves, G., Combining Earnings Forecasts Using Multiple Objective Linear Programming, Computers and Operations Research, 15, 6, 1988, 551-560.

9. Lawrence, K., Lawrence, S., and Reeves, G., The Leasing or Purchasing of Major Capital Equipment, Advances in Mathematical Programming and Financial Planning, 2, Jai Press, Greenwich, Connecticut, 1990, 129-140.

10. Lawrence, S., Hakak, E., and Gold, M., Robust Regression and Input-Output Forecasts, in Robust Regression: Analysis and Applications, Marcel Dekker, Inc., New York, 1990, 181-194.

11. Guerts, M., Rinne H., and Lawrence, S., Alternative Methods of Dealing with Outliers in Forecasting Sales with Regression-Based Models, in Robust Regression: Analysis and Applications, Marcel Dekker, Inc., New York, 1990, 225-242.

12. Lawrence, K., Spasovic, L., and Lawrence, S., Sales Force Deployment and Sizing: A Multi-Criteria Approach, Advances in Mathematical Programming and Financial Planning, IV, Jai Press, Greenwich, Connecticut, 1995, 251-263.

13. Lawrence, K., Jin, Z., and Lawrence, S., An Approved Methodology for the Selection of a Multiple Criteria Assignment Problem, Applications of Management Science: Networks, 9, Jai Press, Greenwich, Connecticut, 1996, 103-112.

14. Lawrence, K., Lawrence, S., Hordon, R., and Zin, J., Management of Water Resources in New Jersey: A Multi-Criteria Approach, Applications of Management Science: Engineering Applications, Jai Press, Greenwich, Connecticut, 1997.

15. Lawrence, S., and Nanry, C., Forecasting Migration Flows, Advances in Business and Management Forecasting, Volume 2, Jai Press, Greenwich, Connecticut, 1998, 193-218.

16. Hordon, R., Lawrence, K., and Lawrence, S., Water Demand Estimation on a State by State Basis, Advanced in Business and Management Forecasting, Volume 2, 1998, Jai Press, Greenwich, Connecticut, 101-112.

17. Lawrence, K., Lawrence, S., and Kleinman, G., A Multicriteria Approach to Performance Measurement in Hospitals: A DEA Approach, Advances in Mathematical Programming and Financial Planning, Volume 5, 1998.

18. Lawrence, K. D., Lawrence, S. M., and Kleinman, G., A Multicriteria Approach to Performance Measurement in Hospitals: A DEA Approach, Advances in Mathematical Programming and Financial Planning, Volume 5, 1999, Jai Press, Standard, Connecticut, 195-2000.

19. Lawrence, K. D., Lawrence, S. M., Schecter, H., and Kleinman, G., A Multicriteria DEA Model for Evaluating the Intensive Supervision of Probationers**,** Advances in Mathematical Programming and Financial Planning, Volume 5, 1999, Jai Press, Standard, Connecticut, 233-239.

20. Lawrence, K., Klimberg, R., and Lawrence, S., Multiple Criteria Modeling for Determining Optimal Lot Sizes for Signal Kanban, Applications of Management Science, Volume 10, Jai Press/North Holland, New York, 2000, 41-46.

21. Lawrence, K., Lawrence, S., and Klimberg, R., A Multi-criteria Approach to the Estimation of Origin-Destination Matrices from Traffic Counts, Applications of Management Science, Volume 10, Jai Press/North Holland, New York, 2000, 199-206.

22. Lawrence, S. M., A review of Quality Management - Introduction to Total Quality Management for Production, Processing, and Services, by D. L. Goetsch and S. B. Davis, **IIE Transactions on Quality and Reliability Engineering, 32**, 1167-1168, 2000.

23. Lawrence, K. D., Klimberg, R., and Lawrence, S. M., A Multicriteria DEA Framework for Evaluating E-Commerce Efficiency, Applications of Management Science: Mathematical Programming, Volume 11, 2004.

24. Lawrence, K. D., Klimberg, R., Lawrence, S. M., and Kudyba, S., Sales Planning in a Multi-Criteria Environment, Applications of Management Science: Mathematical Programming, Volume 11, 2004.

25. Reeves, G. R., Lawrence, K. D., and Lawrence, S. M., Consumer-Packaged Freight Delivery Evaluation: A Multiple Criteria Data Envelopment Analysis Approach, Applications of Management Science, Volume 12, Jai Press/North Holland, New York, 2006, 13-22.

26. Lawrence, K. D., Klimberg, R., and Lawrence, S. M., A Multi-Objective Mathematical Programming Model for Audit Samples of Balances for Accounts Receivable, Applications of Management Science, Volume 12, Jai Press/North Holland, New York, 2006, 63-76.

27. Lawrence, K. D., Lawrence, S. M., Klimberg, R., and Fjermestad, J., A Multi-Criteria Fixed Charge Problem: Location of Service Centers, Applications of Management Science, Volume 12, Jai Press/North Holland, New York, 2006, 77-88.

28. Lawrence, K. D., Klimberg, R., and Lawrence, S. M., Forecasting in Supply Chain Management, Advances in Business and Management Forecasting, Volume 4, Jai Press/Elsevier, New York, 2006, 3-12.

29. Klimberg, R., Lawrence, S. M., and Lawrence, K. D., Forecasting Sales of Comparable Units with Data Envelopment Analysis (DEA), Advances in Business and Management Forecasting, Volume 4, Jai Press/Elsevier, New York, 2006, 201-214.

30. Lawrence, K. D., Pai, D., Klimberg, R., Kudyba, S., and Lawrence, S. M., A Segmented Forecasting Model for New Product Planning, in Data Mining: Methods and Applications**,** Taylor and Francis**,** December 2007.

31. Klimberg, R., Lawrence, K. D., and Lawrence, S. M., Improved Performance Evaluation of Comparable Units in **Advances in Business and Management Forecasting, Volume 5,** Jai Press/Emerald Press, London, 2008, 65-78.

32. Lawrence, K. D., Pai, D. R., Klimberg, R., and Lawrence, S. M., Understanding Donor Behavior: An Empirical Study of Statistical Non-Parametric Methods in **Advances in Business and Management Forecasting, Volume 5,** Jai Press/Emerald Press, London, 2008, 281-291.

33. Lawrence, K. D., Lawrence, S. M., and Pai, D R., Forecasting New Adoptions A Comparative Evaluation of Three Techniques of Parameter Estimation, **Advances in Business and Management Forecasting, Volume 6**, Emerald/Jai Press, London, 2009, 81-92.

34. Lawrence, K. D., Pai, D. R., Klimberg, R., and Lawrence, S. M., Enterprise Information Systems and Data Mining, **International Journal of Business Intelligence Research**, **1**, 3, IGI Global, Hershey, PA., July-Sept. 2010, 34-41.

35. Lawrence, K. D., Pai, D. R., and Lawrence, S. M., Forecasting Using Fuzzy Multiple Objective Linear Programming, in **Advances in Business and Management Forecasting**, **7,** London, 2010, 149-156.

36. Lawrence, K. D., Pai, D. R., Klimberg, R. K., Kudyba, S. P., and Lawrence, S. M., Segmenting Financial Services Market: An Empirical Study of Statistical and Non-Parametric Methods, **Handbook of Quantitative Finance and Risk Management**, Berlin, Springer-Verlag, 2010, 1061-1066.

37. Lawrence, K. D., Pai, D. R., Klimberg, R. K., and Lawrence, S. M., Enterprise Information Systems and Data Mining, **International Journal of Business Intelligence Research, 1,** 3, 2010, 32-41.

38. Lawrence, K., Pai, D., Klimberg, R., and Lawrence, S. M., Multicriteria Decision Making in Ethanol Production Problems. A Fuzzy Goal Programming Approach in The Supply Chain in Manufacturing, Distribution, and Transportation, in **Modeling Optimization and Applications**, Lawrence, K. D., Klimberg, R. K., and Miori, V. M., CRC Press, Taylor and Francis, 2010, 3-12.

39. Ronald Klimberg, Kenneth D. Lawrence, and Sheila M. Lawrence, Data Envelopment Analysis Is Not Multi-Objective Analysis, in **Applications of Management Science, 14: Applications of Multi-Criteria Decision Making, Data Envelopment Analysis in Finance**, Emerald Press, London, 2011, 79-94.

40. Lawrence, K. D., Pai, D. R., and Lawrence, S. M., A meta-goal programming model for asset allocation of mutual funds under the mean absolute deviation, **Applications of Management Science,** 15, Emerald Press, 2012, 307-312.

41. Lawrence, K. D., Pai, D. R., and Lawrence, S. M., Regression estimation of a cost function with severe data problems and extreme value of observations in the maintenance and repair activities of backbone internet providers, in **Contemporary Perspectives in Data Mining, 1,** 2013, 123-132 Lawrence, K. D., and Klimberg, R. K., (Eds), Information Age Publishing, Inc., Charlotte, NC.

42. Lawrence, K. D., Kleinman, G., Lawrence, S. M., and Klimberg, R. K., Macro econometric models to predict the NAV of an asset allocation fund VSELX, in **Advances in Business and Management Forecasting** Emerald Press, United Kingdom, 2013, 115-136.

43. Lawrence, K. D., Kleinman, G., Lawrence, S. M., and Klimberg, R. K., Macro econometric models to predict the NAV of an asset allocation fund VSELX, in **Advances in Business and Management Forecasting** Emerald Press, United Kingdom, 2013, 115-136.

44. Lawrence, K. D., Pai, D. R., Lawrence, S. M., Regression estimation of a cost function with severe data problems and extreme values of observations in the maintenance and repair activities of backbone internet providers, **Contemporary Perspectives in Data Mining, 1**, 2013, 123-132, Information Age Publishing, Charlotte, North Carolina.

45. Lawrence, K. D., Pai, D. R., and Lawrence, S. M., Regression estimation of a cost function with severe data problems and extreme value of observations in the maintenance and repair activities of backbone internet providers, in **Contemporary Perspectives in Data Mining**, **1**, 2013, 123-132 Lawrence, K. D., and Klimberg, R. K., (Eds), Information Age Publishing, Inc., Charlotte, NC.

46. Lawrence, K. D., Kleinman, G., and Lawrence, S. M., Forecasting the net asset value of PRWCX, **Advances in Business and Management Forecasting,** Emerald Press, United Kingdom, **10,** 2014, 19-36.

47. Lawrence, K. D., Kleinman, G., and Lawrence, S. M., Time series models to predict the net asset value (NAV) of an asset allocation mutual fund VWELX, in Lee, C. F., **Handbook of Financial Econometrics and Statistics**, Springer-Verlag, New York, 2015, 2245-2260.

48. Lawrence, K. D., Pai, D., and Lawrence, S. M., A multi-criteria meta goal portfolio model based on Morningstar sector groupings, **Applications of Management Science, 17**, 2015, Emerald, United Kingdom, 19-26.

49. Lawrence, K. D., Kleinman, G., and Lawrence, S. M., A clustering analysis of five-star Morningstar rated moderate asset allocation fund, in **Contemporary Perspectives in Data Mining, 2,** 2015, 123-125, Information Age Publishing, Charlotte, NC.

50. Lawrence, K. D., Kleinman, G., and Lawrence, S. M., Forecasting the operating income of METLLIFE, **Advances in Business and Management Forecasting,** Emerald Press, United Kingdom, **11,** 2016, 163-168.

51. Lawrence, K. D., Kleinman, G., and Lawrence, S. M., Predictive analytical model of the CEO compensation of major U. S. corporate insurance companies, **Contemporary Perspective in Data Mining, Information Age Publishing, Charlotte, 3,** 2018, 41-49.

52. Lawrence, K. D., Kudyba, S., and Lawrence, S. M., Funding analytics: predictive analysis in a major state research university, **Advances in Business and Management Forecasting,** Emerald Press, United Kingdom, **12,** 2018, 81-86.

53. Lawrence, K. D., Pai, D. R., and Lawrence, S. M., A meta-goal programming model for selection in a firm in a multi-product multi-vendor multi-location situation, **Applications of Management Science, 18**, 2018, Emerald, United Kingdom, 87-92.

54. Lawrence, K. D., Pai, D. R., and Lawrence, S. M., Productivity in the U. S. telecommunications industry: a DEA approach, **Applications of Management Science, 19**, Emerald Press, United Kingdom, 2018.

55. Lawrence, K. D., Lawrence, S., Klimberg, R., and Pai, D., Regression modeling based on a peer group for the executive compensation of the AT&T CEO, **Advances in Business and Management Forecasting, 14,** 2019, Emerald Publishing, 115-120.

56. Lawrence, K., Pai, D., and Lawrence, S. M., Regression modeling of the peer group of Verizon corporation for the CEO of Verizon, **Advances in Business and Management Forecasting, Emerald Publishing, 14,** 2019, 109-114.

57. Lawrence, K., and Lawrence S., (2021) A regression model to forecast the compensation of top-level executives at MetLife**.** In K. D. Lawrence and R. K. Klimberg (Eds.), **Advances in Business and Management Forecasting, (**14th ed., pp. 23-28), Emerald Press, United Kingdom, **(**14th ed., pp. 23-28),

58. Lawrence, K., and Lawrence S., (2022), Productivity in the New Jersey PPO health insurance industry, In K. D. Lawrence and R. K. Klimberg (Eds.,) **Applications in Management Science** (21st ed., pp. 11-19), Emerald Press, United Kingdom.

59. Lawence, K. D., Lawence, S. M., and Pai, D. R., (2022) Negative data in data envelopment analysis (DEA), **Applications of Management Science, 21**, Emerald Press, United Kingdom, December 2022, 49-53.

60. Lawrence, K. D., and Lawrence, S. M., PSE&G, (2025) Peer Companies and Operational Variables of Performance and Compensation, **Contemporary Perspective in Data Mining,** Information Age Publishing, Charlotte, North Carolina, **5**, 141-150).

61. Lawrence, K. D., Klimberg, R., and Lawrence, S. M., (2025) Executive Compensation of the United Health Corporation with Improperly Selected Peer Companies, **Contemporary Perspective in Data Mining,** Information Age Publishing, Charlotte, North Carolina, **5**, 151-164.

B. Books

Fundamentals of Forecasting Using Excel, (with K. Lawrence and R. Klimberg), Industrial Press, Inc. December 2008.

C. WORKING PAPERS - PROFESSIONAL MEETING PRESENTATIONS AND PROCEEDINGS

1. Lawrence, K., and Lawrence, S., An econometric investigation of net migration in Youngstown, Ohio, **ORSA/TIMS National Meeting**, San Diego, California, November, 1973.

2. Lawrence, K., and Lawrence, S., A study of net migration in Youngstown, Ohio, **Proceedings of the Northeast Region of Decision Sciences**, Philadelphia, PA, May 1974, 182-183.

3. Lawrence, S., and Reeves, G., Locating groups of industries in a region using an input-output model structure and multiple objective linear programming, **ORSA/TIMS National Conference**, Las Vegas, Nevada, November 1975.

4. Lawrence, K., and Lawrence, S., Linear multiple objective mathematical programming models for the allocation of funds in urban capital projects, **Proceedings of the Northeast Region of Decision Sciences**, Philadelphia, PA, May 1976, 99-102.

5. Zanakis, S., and Lawrence, S., Multiple goal optimization models for sampling in auditing, **ORSA/TIMS National Conference**, Miami, Florida, November, 1976.

6. Lawrence, S., and Berger, R., Multiple objective linear programming models for large-scale capital expenditures, **ORSA/TIMS National Conference**, San Francisco, California, May, 1977.

7. Lawrence, K., and Lawrence, S., A multiple objective linear programming model for corporate financial management, **ORSA/TIMS National Conference**, Atlanta, Georgia, November 1977.

8. Lawrence, S., and Reeves, Multi-product shift allocation: an integer goal programming formulation, **ORSA/TIMS National Conference**, Los Angeles, California, November 1978.

9. Reeves, G., and Lawrence, S., Multiple Objective Programming Models for Corporate Planning, **Proceedings of the Southeast Region Decision Sciences**, Orlando, Florida, February, 1980, 353-355.

10. Lawrence, S., and Reeves, G., A multiple goal programming model for corporate planning, **Proceedings of the Western Region of Decision Sciences**, Hilo, Hawaii, March 1981, 5-8.

11. Lawrence, S., and Reeves, G., An operations management planning model: a multiple goal integer programming formulation, **ORSA/TIMS National Conference**, Toronto, April 1981.

12. Reeves, G., Lawrence, S., and Gonzales, J., Aggregate industrial capacity expansion: a multiple criteria approach, **Proceedings of the Northeast Regional Science Association**, May 1981.

13. Lawrence, K., and Lawrence, S., A multiple goal aggregate management planning model for quality control operations, **AIIE Newsletter, Quality and Reliability Engineering**, XV, 3, Spring 1981, 1-2.

14. Lawrence, K., and Lawrence, S., Multiple goal optimization models for sampling in an audit of an information system with risk sensitivity analysis, **International Conference on System Science**, Honolulu, Hawaii, January 1982.
15. Reeves, G., and Lawrence, S., Aggregate industrial capacity expansion: a multiple criteria approach, **ORSA/TIMS National Conference**, San Diego, California, November 1982.

16. Lawrence. S., and Lawrence, K., Projecting the net migration rate of the school age population in New Jersey, **Proceedings of the Fall 1983 Meeting of the Middle Atlantic States Division of the American Association of Geographers**, West Point, New York, September 1983.

17. Lawrence, K., and Lawrence, S., A transshipment model and nonlinear costs, **Proceedings of the Sixth International Conference on Multiple Criteria Decision Making**, Cleveland, Ohio, June 1984.

18. Guerts, M., and Lawrence, S., Using empirically derived diffusion rates in forecasting new products, **Proceedings of the Fourth International Symposium on Forecasting**, London, England, July 1984.

19. Lawrence, K., and Lawrence, S., A transshipment model with nonlinear costs: a multi-criteria approach with sensitivity analysis, **Proceedings of the 1984 IEEE International Conference on Systems**, Halifax, Nova Scotia, October, 1984.

20. Reeves, G., Lawrence, S., and Guerard, J., Jr., Combining earnings forecasts using goal programming, **ORSA/TIMS National Meeting**, Boston, Massachusetts, May, 1985.

21. Reeves, G., Lawrence, S., and Gonzalez, J., Aggregate industrial capacity expansion: a multiple criteria approach, **Proceedings, Fall Industrial Engineering Conference, December**, 1985.

22. Lawrence, K., and Lawrence, S., Quantitative methods in marketing, **Proceedings, Western Meeting of the Decision Sciences Institute**, Phoenix, Arizona, March, 1986.

23. Reeves, G., Lawrence, S., Multicriteria mathematical programming and working capital management, **Proceedings, Fall Industrial Engineering Conference**, December, 1986.

24. Lawrence, K., Reeves, G., and Lawrence, S., Multi-objective analysis of a transshipment problem with nonlinear costs, **ORSA/TIMS National Meeting**, Miami, Florida, October, 1986.

25. Lawrence, S., and Rozendal, C., Statistical quality assurance in marketing, **AT&T Quality News**, September 1986, 7-8.

26. Reeves, G., Lawrence, S., and Shier, D., Athletic conference scheduling: a multi-criteria mathematical programming model, **Proceedings of the Ninth International Conference, Multiple Criteria Decision Making**, Fairfax, Virginia, August, 1990.

27. Marose, R., Reeves, G., and Lawrence, S., Multiple criteria assignment analysis of programmer allocation to MIS projects, **National Meeting of the Production and Operations Management Society**, Orlando, Florida, October 1992.

28. Lawrence, K., Lawrence, S., and Foladare, M., A multiple criteria assignment analysis of programmer allocation to MIS projects, **Proceedings of the 1993 Northeast Decision Sciences Institute Meeting**, Philadelphia, Pennsylvania, April, 1993.

29. Spasovic, L., Lawrence, K., Lawrence, S., A multiple criteria approach for sales force sizing and deployment, **Proceedings of the 1993 Northeast Decision Sciences Institute Meeting**, Philadelphia, Pennsylvania, April, 1993.

30. Lawrence, K., Stawicki, R., and Lawrence, S., An application of a neural network model to forecasting university gift giving, Session on Forecasting Applications in Marketing at the **13th International Symposium on Forecasting**, Pittsburgh, Pennsylvania, June, 1993.

31. Geurts, M., Lawrence, K., Lawrence, S., and Lemel, R., Technological marketing forecasting, Session on Forecasting Applications in Marketing, at the **13th International Symposium on Forecasting**, Pittsburgh, Pennsylvania, June, 1993.

32. Lawrence, K., Arantes, J., Lawrence, S., and Stawicki, R., Weighting judgmental forecasting, Session on Forecasting Applications in Marketing at the **13th International Symposium on Forecasting**, Pittsburgh, Pennsylvania, June, 1993.

33. Lawrence, K., Lawrence, S., and Wang, Z., A linear-programming formulation for the product-mix and lot-sizing problem in material requirements planning, **4th Annual Meeting of the Production and Operations Management Society**, Boston, Mass., October, 1993.

34. Lawrence, S., Lawrence, K., and Jin, Z., A new approach to multi-period assignment problems with multi-criteria, **4th Annual Meeting of the Production and Operations Management Society**, Boston, Mass., October 1993.

35. Lawrence, S., Lawrence, K., and Wang, Z., Faculty scheduling in a school of management: a multi-criteria approach, **24th Annual Meeting of the Decision Sciences Institute**, Washington, DC, November, 1993.

36. Spasovic, L., Lawrence, K., and Lawrence, S., Sales force deployment: a multi-goal model, **24th Annual Meeting of the Decision Sciences Institute**, Washington, DC, November, 1993.

37. Lawrence, K., Jin, Z., and Lawrence, S., Assignment of personnel: a multiple criteria approach, **24th Annual Meeting of the Decision Sciences Institute**, Washington, DC, November, 1993.

38. Stawicki, R., Lawrence, K., and Lawrence, S., Forecasting the level of gift giving to a university, **Joint National Meeting of TIMS/ORSA**, Boston, April 1994.

39. Lawrence, K., Geurts, M., Lawrence, S., and Lemel, R., New technology forecasting, **Joint National Meeting of TIMS/ORSA, B**oston, April 1994.

40. Lawrence, K., Jin, J., and Lawrence, S., A multi-criteria bottleneck assignment problem, **National Meeting of the Production and Operations Management Society,** Washington, D.C., October 1994.

41. Jin, Z., Lawrence, S. M., and Lawrence, K. D., A multi-criteria bottleneck assignment model, **Proceedings of the Northeast Decision Science Institute**, Providence, Rhode Island, March 1995, 292-294.

42. Lawrence, K. D., Lawrence, S. M., and Hordon, R., A multi-criteria water supply planning model for New Jersey, **Proceedings of the Northeast Decision Science Institute**, Providence, Rhode Island, March 1995, 295-296.

43. Wang, Z. B., and Lawrence, K. D., Using data envelopment analysis approach to evaluate a hospital's efficiency and quality, **Proceedings of the Northeast Decision Science Institute**, Providence, Rhode Island, March 1995, 312-314.

44. Lawrence, S. M., Hordon, R., and Lawrence, K. D., A demand forecasting model for water usage, **Proceedings of the National Meeting of the Decision Sciences Institute**, Boston, Massachusetts, November 20-22, 1995, 1008-1009.

45. Lawrence, S. M., Bonitsis, T. H., H. J. Wen, K. D. Lawrence, and Reeves, G. R., Forecasting passenger demand flow between major cities, **Proceedings of the National Meeting of the Decision Sciences Institute**, Boston, Massachusetts, November 20-22, 1995, 1010-1011.

46. Lawrence, K. D., Lawrence, S. M., Hordon, R., and Zhiuing, J., Optimal interconnection of water supplies: a multicriteria model, **National Meeting of INFORMS**, Washington, DC, May, 1996.

47. Lawrence, S. M., Hordon, R., and Lawrence, K. D., Forecasting the demand for water on a state by state basis, **INFORMS National Meeting**, Atlanta, November 1996.

48. Lawrence, S. M., Wen, H. J., and Lawrence, K. D., Forecasting the flow of domestic passengers between major U. S. airports, **INFORMS National Meeting**, Atlanta, November 1996.

49. Lawrence, S. M., Hordon, R., and Lawrence, K. D., The demand for water in New Jersey municipalities," **INFORMS National Meeting**, Dallas, October 26-29, 1997.

50. Lawrence, S. M., Kleinman, G., and Lawrence, K. D., A multiple criteria approach to the evaluation of health care efficiency and quality, **Northeast Decision Sciences Institute**, Boston, March 25-27, 1998.

51. Hordon, R., Lawrence, K., and Lawrence, S., The demand for water in New Jersey municipalities, An invited paper, **National INFORMS Meeting**, Dallas, Texas, October 1998.

52. Schacter, H., Lawrence, K., Lawrence, S., and Kleinman, G., Information technology and program evaluation: the case of a cost/benefit analysis of intensive supervision probation using data envelopment analysis, **American Society for Public Administration Conference**, May 1998.

53. Kleinman, G., Lawrence, K., and Lawrence, S., A multiple criteria approach to the evaluation of health care efficiency and quality, **Proceedings of the Northeast Decision Sciences Institute,** Boston, Mass., March 1998.

54. Lawrence, K. D., Lawrence, S. M., and Klimberg, R., Estimation of origin-destination matrices from traffic counts, A refereed paper in the **Proceedings of the Northeast Decision Sciences Institute Meeting**, Newport, Rhode Island, March, 1999, 96-97.

55. Lawrence, K. D., Klimberg, R. K., and Lawrence, S. M., Multiple criteria modeling for determining optimal lot sizes for signal Kanbans, A refereed paper in the **Proceedings of the Northeast Decision Sciences Institute Meeting**, Newport, Rhode Island, March, 1999, 98-99.

56. Lawrence, K., Klimberg, R., and Lawrence, S., Multiple Criteria Modeling for Determining Optimal Lot Sizes for Signal Kanban, Applications of Management Science, Volume 10, Jai Press/North Holland, New York, 2000, 41-46.

57 Lawrence, K., Lawrence, S., and Klimberg, R., A Multi-criteria Approach to the Estimation of Origin-Destination Matrices from Traffic Counts, Applications of Management Science, Volume 10, Jai Press/North Holland, New York, 2000, 199-206.

58. Lawrence, K. D., Kleinman, G., and Lawrence, S. M., A multicriteria model for the Disposal of hazardous waste, **2001 Proceedings, Northeast Decision Science Institute**, Pittsburgh, Pennsylvania, March 2001, 197-198.

59. Lawrence, S. M., Lawrence, K. D., and Klimberg, R., A multi-criterion DEA framework for evaluating e-commerce efficiency, **2003 Proceedings of the Northeast Decision Science Institute**, Providence, Rhode Island, March 27-29, 340-341.

60. Lawrence, K. D., Klimberg, R., and Lawrence, S M., An Extended Multi-Objective Mathematical Programming Model for Audit Sales of Balances for Accounts Receivable, **2004 Proceedings, Northeast Decision Science Institute**, Atlantic City, New Jersey, March, 2004, 384-286.

61. Lawrence, K. D., Klimberg, R., Lawrence, S. M., and Kudyba, S., Enhanced Sales Planning to a Multi-Criteria Environment, **2004 Proceedings, Northeast Decision Science Institute**, Atlantic City, New Jersey, March, 2004, 389-389.

62. Lawrence, K. D., Lawrence, S. M., and Klimberg, R., A Review of Supply Chain Forecasting, **Proceedings of the Northeast Business and Economics Conference,** September 2004, New York, New York, 264-266.

63. Lawrence, K. D. Lawrence, S. M., and Kudyba, S., Acute Care Hospital Health Care Forecasting in New Jersey, **Proceedings of the Northeast Business and Economics Conference,** September 2004, New York, New York, 269-272.

64. Lawrence, K D., Fjermestad, J., and Lawrence, S. M., A Multi-Criteria Fixed Charge Problem, **Proceedings of the Northeast Decision Sciences Institute**, Philadelphia, PA, March, 2005.

65 .Klimberg, R., Lawrence, S. M., and Lawrence, K. D., Forecasting with Data Envelopment Analysis, **Proceedings of the Northeast Decision Sciences Institute**, Philadelphia, PA, March, 2005.

66. Klimberg, R., Lawrence, K., and Lawrence, S. M., Forecasting Comparable Units with Data Envelopment Analysis, **Proceedings of the Production Operations Management Society**, Boston, April-May, 2006

67. Lawrence, K. D., Klimberg, R., Lawrence, S. M., Improved Performance Evaluation of Comparable Units with Data Envelopment Analysis, **An Invited Paper, North American Productivity Conference,** New York City, July 2006.

68. Lawrence, K. D., Klimberg, R., Lawrence, S. M., and Kudyba, A Classification Model for a Two-Class (New Product Purchase) Discriminant Process by Using Multiple Criteria Linear Programming, **Proceedings of the Northeast Decision Sciences Meeting, Baltimore,** Maryland, March 2007.

69. Reviewer of 2e of **Stats: Data and Models**, by DeVeaux, Velleman, and Bock, Pearson/Addison Wesley, 2008
70. Lawrence, K. D., Pai, D. R., Klimberg, R., Lawrence, and S. M., Multi-Criteria Decision Making in the Ethanol Production Problem: A Goal Programming Approach, **Proceedings of the Northeast Decision Sciences Meeting**, Brooklyn, New York, March 2008.

70. Lawrence, K. D., Lawrence, S. M., and Pai, D R., Forecasting New Adoptions: A Comparative Evaluation of Three Techniques of Parameter Estimation, **Proceedings of the National Decision Sciences Institute, Baltimore**, Maryland, November 2008.

71. Lawrence, K. D., Lawrence, S. M., Klimberg, R. K., and Pai, D R., A Fuzzy Programming Approach to Financial Portfolio Model, **Proceedings of the Northeast Decision Sciences Institute**, Mohegan Sun, Connecticut, March 2009.

72. Lawrence, K.D., Lawrence, S. M., and Pai, D. R., Forecasting Using Fuzzy Multiple Objective Linear Programming, **Proceedings of the 2010 Northeast Decision Sciences Institute Conference,** Alexandria, VA, March 2010.

II. PROFESSIONAL HISTORY

A. PROFESSIONAL EXPERIENCE

Group Manager
AT&T Labs, Insight Organization
1999 – 2003

Responsible for the IT management of computer scientists, engineers, and statisticians for decision support systems for the supply chain for Local Network Services and Local Private Line organizations; budget: $35M; staff: 65 managers

Major Projects

1. Support the Local Network Services organization with decision support systems for sales, network planning, city operations, and the design center

a. Business Case Model (BCM) - **Per Read Harrison , Senior V. P., AT&T Local Network Services**,
"My Conclusions: The Pre-Sale process seems much improved and actually pretty good now ... the Sales Process seems pretty fast ... the Implementation Process seems fairly predictable on average."

Insight Application	Local Private Line Category	2001 Mean Performance	2002 Mean Performance
Business Case Model	*BCM Throughput*	650 requests	2600 requests
Business Case Model	*BCM Finance Interval*	11.45 days	2.29 days
Business Case Model	*BCM Outside Plant Interval*	8.36 days	3.41 days
Business Case Model	*BCM Network Planning Interval*	3.93 days	0.88 days

b. Project Light Speed (PLS) Business Cases	**YE 2002 POR**	**9/06/02 YTD**	**Goal Status Per PLS Website**
- Submitted	2,469	3,971	Exceeded PLS Breakthru Goal
- Approved	2,056	2,335 … 59%	Exceeded PLS Breakthru Goal
- Sold	159	257 … 11%	Exceeded PLS Breakthru Goal

c. Insight Application	**Local Private Line Category**	**2001 Mean Performance**	**2002 Mean Performance**
Service Inquiry Automation	*SI AUTO Throughput*	740 requests	1750 requests
Service Inquiry Automation	*SI AUTO Interval Range*	8.76 to 13 days	5.35 to 7.69 days

2. PLOT (Private Line Ordering Tool) – Average cycle time to order LPL service was reduced by more than 50% in 2001. On average, completed order time in 1Q2001 was 4.5 days, 3 days in 3Q2001 and 2.1 days so far in 4Q2001.

3. **STARGEMS (Sales Tracking and Revenue Generation Management System)** – Designed a decision tree of the selling process for the complex Local Private Line services, resulting in a "Turbo-tax" web-based tool to facilitate the Sales organization and integrated it into the LPL Supply Chain

4. Specialized studies to identify revenue opportunity, billing errors and DSS to support Local Private sales, contracting, ordering, and provisioning processes

a. Zero-billed Customer Tracking Analysis - Completed a comprehensive study comparing Martin and ASR data to identify retail and wholesale circuits in MARTIN biller that were zero-billed in error due to IBM's not updating billing tables. After confirming and isolating the problem, these circuits were then re-priced to identify the correct price and back-billing on the circuits was then computed based on the turn u- date of the circuits. **Business Value: Using this analyses, LPL team was able to backbill $30M [$27M for Retail and $3M for Wholesale Markets (SPM)]**

b. LPL Special Studies:
Low Price Circuit Analysis $4.8M
Customer Loss Study 0.2M
Expired Contract Analysis 1.3M
Total YTD $13.3M

LPL Monthly Analyses:
Zero-Billed Circuit Analysis $4.0M
Revenue Recovery Analysis 3.0M

c. SAVVIS Contract Analysis - Completed a prototype analysis for the SAVVIS Company, [$761,312/month ($9M annually] to identify the type II circuits and integrate the LEC charges associated with the circuits from the LSAM (access expense) database with a match rate of 99.25%. Per our partner "key breakthrough was precisely linking billing data and circuit inventory with type II expense at the circuit level." **Business Valu**e: Ability to evaluate every LPL customer for profitability. "Underwater" circuits (LEC charges are higher than rates AT&T is charging) are identified. By filing this type of data with the FCC (vs. crude estimates), this analysis will facilitate LNS's ability to do business in all 50 states. Also, the data will help enhance the estimation process for the capital budget to support AT&T's growth.

d. **World Trade Center (WTC) Origination/ Termination Circuit Analysis -** Completed an analysis **to determine all circuits originating/terminating at WTC**, by internal vs. external customers and adding the from/to CLLI addresses for all the circuits.

e. **WTC Trouble Ticket Analysis** - Analyzed a file of WTC trouble tickets to identify LNS circuit. Then created a report that separated internal from external customers, and provided ASR service/sub-service, to/from CCLI code and address, and latest MRC and NRC revenue to **prioritize the order of restoring the circuits based on AT&T revenue**

Group Manager
AT&T Labs, Customer Operations and Technology,
1996 - 1999

Responsible for the IT management of computer scientists, engineers and statisticians in support decisions support systems for the Business Communications Services group; budget: $30M; staff: 52 managers

Major Projects

1. Managed the design of the certification test for the alternate channel sales force, including the design, development and implementation of a Web-based application

2. Managed the Customer Alliance Program (CAP), which provides a centralized, integrated system for the collection, analysis and reporting of client-specific customer feedback to improve market performance through increased customer satisfaction and loyalty

3. Managed the CVA (Customer Value Added) Market Research study to collect statistically-valid customer satisfaction information

4. Managed the Flash 2000 IT project; Despite reduced funding of 25% and what two years of partnering with the Data Warehouse could not be accomplished, the Flash Team completed the foundation for Flash 2000 (sourcing of both billed and segmentation data); 1500 function points

5. Completed the Channel Economic Summary Analysis to identify the trends in the channel value measured through average revenue/ATN, disconnect rates and zero billers; based on the study results, Metro Markets Marketing group established a factory for all the channels which are slated to bring in $255M in revenue for 2000.

Manager
AT&T Business Communications Services
1991 - 1995

Responsible for the management of statisticians, forecasters, in support of the Outbound Business Services (OBS); Budget: $20M; Staff: 23 managers and analysts
Major Projects

1. Managed the design, development and implementation of a Markovian modeling process to identify OBS customer segments expected to leave, with customer segment specific treatment

2. Managed the design, development and implementation of the OBS Distribution Strategy

3. Managed the design, development and implementation of actionable analyses to support retention/at risk and competitive winback of OBS customers, as well as the OBS Product Line Strategy

4. Managed the design, development and implementation of the optimal assignment of Business Long Distance accounts to different services.

5. Instituted cost effective initiatives to eliminate redundancy and maximize analyses of marketing databases and analytical support

Manager
AT&T - Consumer Communications Services
1989 - 1990

Responsible for the management of statisticians and marketing analysis in support of the Consumer Communication Services organization; Budget: $10M; Staff: 12 managers and analysts

Major Projects

1. Managed the survey development, sampling scheme development and data collection of Customer Watch Satisfaction Measurements (CWSM), including continued improvements to evaluate how AT&T Consumer Long Distance is perceived relative to competition.

2. Defined and negotiated with clients to provide high quality, and actionable market analyses and interpretation to provide greater intelligence concerning why observed trends may be occurring.

3. Developed efficiencies in the CWSM processes (i.e., consolidating reports and mechanizing current manual efforts)

Manager
AT&T - Marketing Information Systems
1983 - 1989

Responsible for the management of statisticians and operations research analysis in support of the statistical measures of quality assurance (QA) of Marketing data systems; Budget: $7M; Staff: 15 managers and analysts

Major Projects

1. Designed, developed and managed the implementation of external [LEC-specific (Local Exchange Company)] and internal measure of the Billed Revenue Marketing Information System) accuracy, which supported supplier management and sales compensation; Directly negotiated with the LECs; Results included error identification and subsequent improvement in data quality in both BRMIS and BAC (Billing and Inquiry Collection System)

2. Designed, developed and managed the implementation of statistical QA measures of 8 AT&T billing systems during bill verification, as well as other billing processes (i.e., rate verification, table maintenance)

3. Provided survey design and sample size determination expertise in support of a series of quality-improvement teams

4. Designed, developed and managed the implementation of statistical QA procedures to evaluate the accuracy of LEC billing efforts; More than $10M were identified and journalized to AT&T

Staff Manager
AT&T Communications
1982 - 1983

Responsible for the coordination of cost model modifications (reflecting Divestiture and Access Charges) in the Marketing - Interstate Tariff Implementation (M-ITI) group

Major Project - Designed and implemented a plan to coordinate the modifications of 37 cost systems in the M-ITI organization to reflect Divestiture and Access Charges

Staff Supervisor
AT&T Long Lines
1979 - 1982

Responsible for the statistical and econometric analyses in the Cost Concepts Division of the Service Costs and rates (SC&R) Department

Major Projects

1. Developed multivariate statistical models relating services' costs to investment and revenue.

2. Developed financial methodologies for fully distributed costs of new services

3. Supervised the forecasting of statistical and econometric projects of investment plant categories

4. Developed statistical and econometric standards for FCC filing dockets

Statistical Operations Specialist
Hoffmann - La Roche, Inc.
1977 - 1979

Responsible for statistical analyses and consultation in the Technical Services Division
Major Projects

1. Developed surveys and forecasts of new product markets

2. Developed statistical analyses for the validation of operational methods, equipment and instrumentation

3. Developed sampling plans and methods for quality control and production

4. Developed statistical support for new products for FDA review

Corporate Planning Analyst
Public Service Electric and Gas Company
1976 - 1977

Responsible for statistical and econometric analyses of corporate market demand

Major Projects

1. Developed computerized short- and long-term econometric forecasts of market demand by sector

2. Developed a computerized modeling system for market territory population projects

3. Designed and analyzed surveys of residential, commercial and industrial customers

4. Provided statistical and econometric analyses for support of corporate rate cases before the New Jersey Public Utilities Commission

Demographer
New Jersey Department of Labor and Industry
1972 - 1976

Responsible for the development and analyses of socio-economic data for the economy of the State

Major Projects

1. Developed short- and long-term econometric forecasts of industries in the State and prepared econometric analyses of economic indicators

2. Developed annual population projects and population estimates of the State and sub-state jurisdictions

3. Prepared economic feasibility studies

4. Conducted and analyzed annual consumer market surveys and market potential for government programs

5. Developed econometric analyses of industrial expansion and location

B. EDUCATION

Bachelors (with Distinction), Geography, The Pennsylvania State University
Masters, Applied Statistics Rutgers University
Masters, Demography, Rutgers University
Masters, Quality, Rochester Institute of Technology
Doctorate, Applied Statistics, Rutgers University
Dissertation: Addressing Problems of Multicollinearity in Regression Models
Doctorate, Sociology/Demography/Quantitative Analysis, Rutgers University
Dissertation: A Quantitative Analysis of Migration Flows within, into, and out of New Jersey Counties, 1975-1980

III. TEACHING AND RUTGERS UNIVERSITY EXPERIENCE

As the Chinese proverb says, *"Tell me, and I forget. Teach me, and I remember. Engage me, and I learn*." I start every course with this proverb; the educational literature indicates that 20% of a class will learn the material the way the professor learned; my goal is to reach the other 80%.

Teaching Experience
How was this accomplished? My prior teaching experience at Rutgers started in 1993 with the Rutgers Business School. It continued with assignments in the SOE/Department of Industrial and Systems Engineering, the SAS/Department of Kinesiology and Health, the SAS/Department of Statistics, and the School of Management and Labor Relations.

Teaching Philosophy
Teaching in SMLR since 2006 afforded me the opportunity to develop four new courses for LSER, using authentic assessments, such as projects, papers, analyses, etc.

Using authentic assessments is an effective way to teach and assess as it sets students up for success and engages and physically involves them. It gives meaning to assessment tasks, and students are learning skills in a real-life context, which are used in their academic, personal, and career worlds. My more than 30 years of professional experience include state government (Department of Labor and Industry), public utilities (PSE&G), pharmaceutical (Hoffmann-La Roche), and telecommunications (AT&T); this experience provides me with a wealth of in-depth subject matter to share with my students.

The variety of assessments includes individual projects, team projects, as well as in-class (in SR classes) and out-of-class assessments (SR/AR classes). Both the mastery of the life skills of Excel, including Data Analysis, and critical thinking are emphasized in all my classes. [Many companies and even the federal government have implemented Excel quizzes (typically 5 content areas) that candidates must pass to be scheduled for a phone interview.] Students' understanding of the concepts is optimized as they relate to an assignment. Detailed rubrics are used for assessing student learning.

Teaching and Rutgers University Experience

Rutgers University – Appointed to the Graduate Faculty, May 2000
Class size has ranged from 6 to 172 students.

Rutgers University – Assistant Teaching Professor, re-appointed July 1, 2023 – July 1, 2026

Fall 2023, 38-578-503-90 /37-575-403-90, Problem Solving Tools at Work
Fall 2023, 01-955-276-90, Basic Statistics for Sport Management
Fall 2023, 01-960-401-90, Basic Statistics for Research

Spring 2024, 37-575-403-90, Problem Solving Tools at Work
Spring 2024, 37-575-404-90 /38-578-604-90 Creating and Administering Surveys
Spring 2024, 01-955-276-90, Basic Statistics for Sport Management
Spring 2024, 01-960-401-90, Basic Statistics for Research

Rutgers University – Assistant Teaching Professor, re-appointed July 1, 2020 – July 1, 2023

Fall 2020, 38-578-503/37-575-403, Problem Solving Tools at Work
Fall 2020, 37-575-404/38-578-604 Creating and Administering Surveys
Fall 2020, 01-955-276, Basic Statistics for Sport Management
Fall 2020, 01-960-401, Basic Statistics for Research

Spring 2021, 38-578-503/37-575-403, Problem Solving Tools at Work
Spring 2021, 37-575-404/38-578-604 Creating and Administering Surveys
Spring 2021, 01-955-276, Basic Statistics for Sport Management
Spring 2021, 01-960-401-04/14, Basic Statistics for Research

Fall 2021, 38-578-503/37-575-403, Problem Solving Tools at Work
Fall 2021, 01-955-276, Basic Statistics for Sport Management
Fall 2021, 01-960-401, Basic Statistics for Research

Spring 2022, 37-575-403, Problem Solving Tools at Work
Spring 2022, 37-575-404/38-578-604 Creating and Administering Surveys
Spring 2022, 01-955-276, Basic Statistics for Sport Management
Spring 2022, 01-960-401, Basic Statistics for Research

Fall 2022, 38-578-503/37-575-403, Problem Solving Tools at Work
Fall 2022, 01-955-276, Basic Statistics for Sport Management
Fall 2022, 01-960-401, Basic Statistics for Research

Spring 2023, 37-575-403-90, Problem Solving Tools at Work
Spring 2023, 37-575-404-90 /38-578-604-90 Creating and Administering Surveys
Spring 2023, 01-955-276-90, Basic Statistics for Sport Management
Spring 2023, 01-960-401-90, Basic Statistics for Research
Fall 2023, 38-578-503/37-575-403, Problem Solving Tools at Work
Fall 2023, 01-955-276, Basic Statistics for Sport Management
Fall 2023, 01-960-401, Basic Statistics for Research

Spring 2024, 37-575-403-90, Problem Solving Tools at Work
Spring 2024, 37-575-404-90 /38-578-604-90 Creating and Administering Surveys
Spring 2024, 01-955-276-90, Basic Statistics for Sport Management
Spring 2024, 01-960-401-90, Basic Statistics for Research

Fall 2024, 38-578-503/37-575-403, Problem Solving Tools at Work
Fall 2024, 01-955-276, Basic Statistics for Sport Management
Fall 2024, 01-960-401, Basic Statistics for Research

Spring 2025, 37-575-403-90, Problem Solving Tools at Work
Spring 2025, 37-575-404-90 /38-578-604-90 Creating and Administering Surveys
Spring 2025, 01-955-276-90, Basic Statistics for Sport Management
Spring 2025, 01-960-401-90, Basic Statistics for Research

Rutgers University – Assistant Teaching Professor, appointed July 1, 2017 – July 1, 2020

Fall 2017, 38-578-604 and 37-575-404, Creating and Administering Surveys
Fall 2017, 01-377-276, Basic Statistics for Sport Management
Fall 2017, 01-960-211, Stat 1
Fall 2017, 01-960-401, Basic Statistics for Research

Spring 2018, 38-578-503 and 37-575-403, Problem Solving Tools at Work
Spring 2018, 37-575-250, Finance for Personal and Professional Success
Spring 2018, 01-377-276, Basic Statistics for Sport Management
Spring 2018, 01-960-401, Basic Statistics for Research

Fall 2018, 37-575-404/38-578-604 Creating and Administering Surveys
Fall 2018, 37-575-250, Finance for Personal and Professional Success
Fall 2018, 01-955-276, Basic Statistics for Sport Management
Fall 2018, 01-960-401, Basic Statistics for Research

Spring 2019, 38-578-503 and 37-575-403, Problem Solving Tools at Work
Spring 2019, 01-955-276, Basic Statistics for Sport Management
Spring 2019, 01-960-401, Basic Statistics for Research

Fall 2019, 37-575-404/38-578-604 Creating and Administering Surveys
Fall 2019, 37-575-250, Finance for Personal and Professional Success
Fall 2019, 01-955-276, Basic Statistics for Sport Management
Fall 2019, 01-960-401, Basic Statistics for Research

Spring 2020, 38-578-503/37-575-403, Problem Solving Tools at Work
Spring 2020, 01-955-276, Basic Statistics for Sport Management
Spring 2020, 01-960-401, Basic Statistics for Research

Rutgers University – Teaching Instructor, School of Management and Labor Relations, appointed September 1, 2014 – July 1, 2017
Fall 2014, 37-575-401, Research Methods in Labor Studies: Qualitative and Quantitative
Fall 2014, 38-578-613, Topics in LER
Spring 2015, 38-578-503 and 37-575-403, Problem Solving Tools at Work
Spring 2015, 37-575-250, Finance for Personal and Professional Success
Fall 2015, 37-575-403, Problem Solving Tools at Work
Fall 2015, 37-575-250, Finance for Personal and Professional Success
Spring 2016, 37-575-250, Finance for Personal and Professional Success
Spring 2016, 38-578-503, Creating and Administering Surveys

Fall 2016, 37-575-403, Problem Solving Tools at Work
Fall 2016, 37-575-404, Creating and Administering Surveys
Spring 2017, 37-575-403, Problem Solving Tools at Work
Spring 2017, 38-578-604, Creating and Administering Surveys

Rutgers University – Assistant Instructor, School of Management and Labor Relations, appointed September 1, 2011- July 1, 2014
Fall 2011, 37:575:250, Finance for Personal and Professional Success
Fall 2011, 37:575:385 Finance for Organizational Leaders
Spring 2012, 37:575:250, Finance for Personal and Professional Success
Spring 2012, 37:575:385, Finance for Organizational Leaders
Fall 2012, 37:575:250, Finance for Personal and Professional Success (2 sections)
Spring 2013, 37:575:250, Finance for Personal and Professional Success
Spring 2013, 37:575:385, Finance for Organizational Leaders
Fall 2013, 37:575:250, Finance for Personal and Professional Success (2 sections)
Spring 2014, 37:575:250, Finance for Personal and Professional Success (2 sections)

Rutgers University – Part-Time Lecturer, School of Management and Labor Relations, appointed September 1, 2007 – July 1, 2011

Rutgers University – Part-Time Lecturer/Instructor/Teaching Instructor, School of Management and Labor Relations
Taught courses in the Summer 2006 - Present:
38:578:613 Topics in Labor Studies: Problem Solving Tools & Analysis in Employment Relations
37:575:491:01 Topics in Labor Studies – Personal Finance
37:575:250 Finance for Personal and Professional Success
37:575:385 Finance for Organizational Leaders
37-575-403/38-578-503 Problem Solving Tools at Work

Rutgers University – Part-Time Lecturer, SAS/Joint Appointment, Department of Statistics
Taught courses since Spring 2005-Present, including:
Taught undergraduate courses:
Statistics I
Statistics II
Statistics for Business
Statistics for Basic Research
Statistical Quality Control
Taught graduate course in Statistical Quality Control
Fall 2017, 01-960-211, Stat I
Fall 2017, 01-960-401, Basic Statistics for Research
Spring 2018, 01-960-401, Basic Statistics for Research
Summer 2018, 01-960-401, Basic Statistics for Research
Spring 2018, 01-377-276, Basic Statistics for Sport Management
Summer 2018, 01-377-275/276, Basic Statistics for Sport Management; Basic Statistics for Exercise Science

Rutgers University – Part-Time Lecturer/Joint Appointment, SAS, Department of Kinesiology and Health
(Formerly the Department of Exercise Science and Sport Management)
From Spring 2008-Summer 2017; taught 01-377-275 Basic Statistics for Exercise Science and Sport Management; from Fall 2017 – Present, taught 01-377-276, Basic Statistics for Exercise Science and Sport Management; Secured approval of the course to meet SAS Goals W and X; coordinates team input each semester for the Core Curriculum Learning Goals Assessment Report(s); wrote and received approval of the 3-Year Summative Narrative Analysis for the course

Rutgers University – Part-Time Lecturer, Department of Industrial Engineering, Fall Semesters 1996 – 2006 and Summers 2014 – 2016, 2018, 2020; Taught course in Quality Management; Mentored Special Problems in Industrial Engineering, Summer 2008
Member, Department of Industrial and Systems Engineering Thesis Committees: Diogenes Feldhaus, Estimation Reliability Parameters of Reciprocal Compressors, 1999; Apichart Choopavang, A Bayesian Approach to Causal Modeling of Organizational Factors in Aircraft Accidents, 2000; Chakradhar Agava, A Decision-Analytic Framework for Creating Risk Intelligence in the Gas Path of an Aircraft Engine, 2001; Jennifer L. Waxman, A Spatial Decision Support System for Agile Product Sourcing under Uncertainty Using Optimization and the Analytic Hierarchy Process (2002); Erim Kardes, Hierarchical Bayesian Networks for Advanced Aviation Safety Risk Modeling (2004); Muhammad N. Jalil, A Probabilistic Decision Support System (PDSS) for Evaluating the Impact of Technology Insertion on Aviation Safety System Risk (2004)

Member, Dissertation Committee: Veeris Ammarapala, A ClusterGroup Decision Support System for Multiple Criteria Risk Management (2002); Ahmet Oztekin, A Generalized Hybrid Fuzzy-Bayesian Methodology for Modeling Complex Uncertainty (2009); Ke Sun, Concurrent Modeling of Causality, Temporality, and Systemic Risk in Supply Chains: A Hybrid Approach (2017)

Member, Thesis Committee: Rachael Allan, Department of Biochemistry and Microbiology, Process of Creating a More Efficient Real-Time Quantitative PCR Assay to Detect *Anaplasma phagocytophilum, Babesia microti, Borrelia burgdorferi, and Borrelia miyamotoi* That Inhabit Deer Ticks, March 29, 2019

Rutgers University – Instructor, MSIS, Faculty of Management, August 2004 – June 2005; teaching interests include supply chain, MIS, quality, and statistics. Mentored two undergraduate students in Independent Projects in Management Science and Information Systems, Spring 2005

Rutgers University – Part-Time Lecturer, Faculty of Management, M. B. A. program, January 1993 – August 2006
Taught graduate courses:

1. Basic Statistical Analysis/Statistics for Managers
2. Statistical Models
3. Maintenance, Reliability, and Quality Control Management
4. Independent Studies in Statistics and Quality
5. Introduction to Total Quality Management
6. Intro to Total Quality Management & Control
7. Data Models
8. Calculus for Managers
9. Supply Chain Logistics

Taught undergraduate courses:

1. The Human Factor in MSIS – Business Reengineering
2. Case Studies in MSIS
3. Project Information Systems

Member, Rutgers Business School Dissertation Committee, Dinesh R. Pai, Determining the Efficiency of Mathematical Programming Approaches for Multi-Group Classification (2009) (Note: He is currently tenured at Penn State).

IV. SERVICE AND AFFILIATIONS

A. SMLR Service

New Course Development for SMLR
1-Designed, developed, and received approval for 37:575:250 Finance for Personal and Professional Success in Spring 2010

2-Proposed, designed, developed, and received approval for the following courses:

- 37:575:385 Finance for Organizational Leaders in Fall 2010
- 38:578:503 Problem Solving Tools at Work in Fall 2015
- 37:575:403 Problem Solving Tools at Work in Fall 2015
- 37:575:404 in Creating and Administering Surveys in Fall 2016
- 38-578:604 in Creating and Administering Surveys in Fall 2016

PTL Hirings
1-Contributed to two search committees, resulting in the hiring of 3 PTLs, August 2013

2-Recommended a colleague, Sandy Becker, as a PTL, effective Fall 2011; he taught Organizational Leadership in the Workplace through Spring 2020

3-Recommended and hired a former student, Michelle Lawrence (not related) in Fall 2016 to teach Problem Solving Tools at Work at the Freehold, Mercer County Community College, and Lincroft locations; taught through Spring 2017

Conversions from Sakai to Canvas

- Converted the Personal Finance course, in partnership with Anne-Michelle Marston, Spring 2018
- Converted the Creating and Administering Surveys course, in partnership with Marta Pulley, Fall 2018
- Converted the Problem-Solving Tools at Work course, in partnership with Marta Pulley, Spring 2019

Conversions to Asynchronous Courses

- Converted Problem-Solving Tools at Work, Fall 2020
- Converted Creating and Administering Surveys Course, Spring 2022

SMLR Projects/Consulting

- Designed a first draft of a survey for MLER alums, in partnership with P. Voos, AY 2017-2018
- Provided advice and documentation on problem solving tools to Saul Rubinstein over the Summer and Fall 2018
- Chaired the LSER Faculty-Staff Relations Committee, 04-02-2019 – 09-01-2020

MLER Teaching Initiative

- Committee Member for Problem Solving Tools at Work course, in support of a university-wide effort to help improve our online courses.

NTTAC (NTT Advisory Committee)
Member, NTTAC (NTT Advisory Committee), January 25, 2022 to the current – contributed to the design and analysis of surveys of NTTs and in the design of NTT faculty awards.

Evaluated Online Canvas Sites in support of PTL Promotions (Both were promoted Fall 2023.)

- Mary Evans
- Amy Tracy Wells

SMLR-Related Letters of Recommendations by Year

Year	Number	Purposes
2025	1 1 1	MLER Masters in HRM program Masters in Business and Science
2024	7 1	MLER Kean University
2023	5	MLER
2022	2	Position at the Office of the Hunterdon County Prosecutor; Masters in HRM program
2021	4	MLER; Ph.D. in Industrial Relations and Human Resources at Rutgers
2020	9	MLER; Ph.D. in Industrial Relations and Human Resources at Rutgers
2019	3	MLER
2018	5	MLER
2017	14	MLER: Princeton in Latin America program; position as Staff & Executive - Administrative & Support; Ph.D. in Industrial Relations and Human Resources at Rutgers; position as Talent Acquisition Specialist
2016	8	MLER; Program Study in Spain, Rutgers Center for Global Affairs
2015	4	MLER; position at ETS; internship in Congressman Frank Pallone's New Brunswick District Office
2014	12	MLER; job - MLER; Professor's Assistant; Summer: Rutgers-Language Education in Argentina. Math/Technology Curriculum Leadership position at Rutgers
2013	5	MLER; application for Ph.D. program at SMLR/LSER
2012	7	MLER
2011	2	Fellowships; Support for a non-matriculated student to transfer from Cornell to Rutgers/SMLR
2010	5	MLER; Fellowships
2009	2	Fellowships
2008	1	MLER

Management of 37-575-250
1-Secured approval of the 37-575-250 course to meet SAS Goals W and X, Spring 2011
2-Fall 2011 – Fall 2021, coordinated team input each semester for the Core Curriculum Learning Goals Assessment Report(s)
3-Maintained the Team Personal Finance website to facilitate the sharing of information through Spring 2023;
4-Mentored instructors, graders, and tutors; established Team Personal Finance, with regular meetings to share course enhancements and experiences
5-Designed and continuously enhanced the Reengineering Personal Finance Sakai Site as a central depository for the sharing of course materials, such as websites, problems, and research-supported enhanced cases, for Spring 2011 through Fall 2019
6-Transitioned Team Leader Role to Peter Rokkos Fall 2023
7-Coordinated team input for Core Curriculum Learning Goals for Problem Solving Tools at Work, Fall 2016 – Spring 2017

Mentoring
- Mentoring members of Team Personal Finance, 2013-2023
- Mentored Problem-Solving Tools Team Members, Fall 2016-Spring 2017
- Amy Tracy Wells, effective Fall 2023

DEI Self-Study
Attended DEI Workshops on March 11, 2022:
- For the Green Zone – Military Culture Competencies Training.
- Improving Education with the Science of Learning: The Impact of Culture & Beliefs
- The Speak Up Responding to Everyday Bigotry
- Attended Centering Respect for SMLR virtual workshop, April 1, 2022

B. Rutgers Institutional Service

- Rutgers University, President's Council, 2007-2012
- Rutgers University, Executive Committee of the President's Council, 2007-2012
- Rutgers University, Governor's Cabinet of the Rutgers University Foundation, 2007 to 2017

Co-authored "Funding analytics: predictive analysis in a major state research university," **Advances in Business and Management Forecasting**, Emerald Press, United Kingdom, 12, 2018, 81-86. The Rutgers University Foundation implemented the methodology to identify high-end alumni prospects for gift giving.

Non-SMLR Related Letters of Recommendation
- For the Science Research Librarian at the Math & Physics Library to Practice II in the Rutgers Libraries (2021)
- For PTL Colleague at the Rutgers Statistics Department to the Computer Science Department (2020), the Statistics Department (2020), and the Psychology Department (2023)

C. Department of Industrial and Systems Engineering Service

- Rutgers University, Alexander Library: mentored a graduate student in industrial engineering in the Summer 2008 in designing, developing, and conducting a customer satisfaction survey of students utilizing the library
- Rutgers University, Office of Disability Services: mentored two pairs of graduate industrial engineering students in Fall 2009 and Fall 2010 in recommending process improvements for the organization, many of which were implemented

D. Rutgers/School of Arts and Sciences

1-Department of Statistics

Team Stat 401, Spring 2020 – Spring 2022

- Initiated and continue to lead Team Stat 401 for class collaboration, addressing student issues, etc., including mentoring new PTLs
- Demonstrated leadership: Wiley's LMS (Learning Management System) crashed during midterms SP21; In the interim, I learned Canvas Quizzes; then I researched alternative texts and convinced the other Stat 401 instructors to support the change, which went into effect Fall 2021; Learned the Pearson LMS (MyStatLab) for online timed assessments and homework) and StatCrunch (App for, among others, visuals to support the standard text tables)

Converted 01-960-401 to Asynchronous and received approval in June 2021

- Completed the SAS Guidelines for Post Covid Online or Hybrid Instruction and as an Alternate Justification Form
- Per CTAAR learning sessions, converted my high stakes midterms and finals to quizzes; student achievement increased; as one student wrote, "I can focus on 1-2 chapters and really learn the material, versus cram for an exam, only to immediately forget what I studied."

2-Department of Kinesiology and Health (formerly Exercise Science)

01-377-275 Basic Statistics for Exercise Science and Sport Studies

- Documented requirements to secure certification of SAS QR Core Goals w and x from the SAS Core Requirements Committee, December 2012
- Mentored 2 PTLs, Fall 2014 – Spring 2017
- Coordinated SAS Core Curriculum Learning Goals Assessment Reports, Spring 2013 – Fall 2017

01-955-276 Basic Statistics for Sport Management

- Documented and received approval from the SAS Curriculum Committee for a separate course, 01-955-276, Fall 2017

B. PROFESSIONAL SOCIETY SERVICE AS A REFEREE

1. Emerald Publishing Company:
   a. Advances in Business and Management Forecasting (2007 – 2020)
2. Information Age Publishing:
   a. Contemporary Perspectives in Data Mining (2010 – 2023)

C. AWARDS, CERTIFICATIONS AND RECOGNITION

- Advanced to ASQ (American Society for Quality), Senior Member, since 2009
- Certified Quality Analyst by the Quality Assurance Institute, Orlando, Florida, 1987 – 2004
- Advanced to American Statistical Association, Senior Member, since 2021

Named in July 2021 honorary member of the undergraduate curriculum committee of the Department of Statistics, which I have accepted. My contributions include reengineering the Stat 401 class (18 sections in an academic year), evaluation of textbooks, the role of software, teaching the pilot asynchronous course, etc.) July 2021 – 2023

- Professor Lawrence received the 2022-2023 LSER Teaching Award at Rutgers.
- She was a candidate for the Best Required Course award for 2023-2024 from LSER.

- Professor Lawrence was recognized by the Rutgers TIIP (The Institute for Teaching, Innovation, and Inclusion) initiative: Thanking an Instructor.

Note: * Indicates a Top Thanked Instructor. This designation is awarded to instructors who received multiple thank-you notes from their students in recognition of their significant contributions to the student experience.

It is gratifying to have my 4 students' submissions reflect all 3 of my classes in Fall 2024, as well as a former first-year student who is now a senior.

Professor Lawrence is a candidate for the Best Required Course award for 2024-2025 from LSER.

The TIIP website is: https://teaching.rutgers.edu/thank-an-instructor-initiative-highlighting-fall-2024-instructors/

From: Institute for Teaching, Innovation, and Inclusive Pedagogy <teachinginstitute@rutgers.edu>

Sent: Wednesday, January 8, 2025 9:35 AM
To: Sheila Lawrence <smlawren@smlr.rutgers.edu>
Subject: You've Been Thanked!

Dear Sheila Lawrence,
You have been recognized by one of your students for the positive impact you've made in their journey at Rutgers! Here's what they had to say:

"Professor,

I have to say, this is one of the best classes I have ever taken. The lessons we learned were definitely challenging but intellectually stimulating. I was able to apply some of what I learned to both my work and personal life. I also feel that your approach to teaching should be a model for asynchronous learning, especially for "seasonal students" like me. Personally, as a hands-on learner, I do not see much benefit in taking exams. Completing assignment projects not only demonstrates a student's knowledge and understanding of a topic to the instructor, but it also helps us retain more of what we learn through practical application. I can recall my assignments much more easily than I can remember test questions.

So, many thanks to you, my dear Professor!

JT"
Student Name: JT - Problem Solving Tools at Work

"Hi Professor Lawrence,
I just wanted to thank you for always being so approachable and kind. You made my last semester of college so joyful and turned statistics into the one subject I love!! I have never had such an amazing Professor who is willing to explain everything to me so thoroughly. Despite our course being virtual, your willingness to connect with students bridged that gap. You are always smiling and made my day every time with your stories and positive energy!
Please stay in touch!
MG"
Student Name: MG - Basic Stat for Research

"Dr. Lawrence,

I hope all is well! I took your course "Basic Stats for Sports Management" in Spring 2022 and it was truly one of the best courses I've taken at Rutgers overall. I typically underperform in mathematics, but your course was enjoyable and easy to understand. I'm a senior now and I still remember looking at data analyses and making pivot tables, so thank you for being a great professor!"
Student Name: AA - Basic Stat for Sport Management

"I hope this message finds you well. As the semester comes to a close, I wanted to take a moment to express my heartfelt gratitude for everything you've taught me in statistics this semester.

Your clear explanations and engaging teaching style made what could have been a daunting subject, especially given that it was online, both manageable and enjoyable. I am especially thankful for the time you dedicated to helping us learn Excel. The skills I've gained in using the program, from organizing data to performing complex analyses, have already proven invaluable and will undoubtedly continue to benefit me in my future academic and professional endeavors.

I truly appreciate the effort you put into making sure each of your students understands the material, as well as your patience and willingness to answer questions. Your passion for teaching and your genuine interest in our success have left a lasting impression on me.

Thank you again for everything. I am grateful for your guidance and for the knowledge I have gained in your class.
Wishing you a wonderful holiday season and all the best for the future.
Sincerely,
RJ"
Student Name: RJ - Basic Stat for Sport Management

Please access and download your certificate here. We also posted your name on the TIIP website.

Thank you for your dedication to teaching and making a difference in your students' lives!