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Assistant Professor of Supply Chain Management
Management and Marketing Department

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EDUCATION**Doctor of Philosophy in Business Administration, 2014**

University of Missouri – St. Louis, St Louis, MO

Dissertation: Selecting the best supply chain strategy - When is a misalignment of product type and strategy appropriate, how do changes in expected demand impact strategies, and should the strategy of a product change over its life-cycle?

Area of focus: Logistics and Supply Chain Management

Supporting field: Marketing

Master of Business Administration, 1999

Ball State University, Muncie, IN

Specialty: Operations Management

Bachelor of Science in Mechanical Engineering, 1994

GMI - Engineering and Management Institute (Kettering University), Flint, MI

Specialty: Automotive Design and Polymers

Thesis: "The Selection of an Electrostatic Coating Facility"

RESEARCH INTERESTS

Supply Chain Strategy
Analytical Modeling
School Bus Routing
Continuous Approximation Modeling
Discrete Event Simulation

RESEARCH**Publications - Journals**

- Riley, J. and Ellegood, W.A. (in press). Using simulation to teach operations management to undergraduate students: Comparing first-generation and continuing-generation students. *International Journal of Business Analytics*.
- Ellegood, W.A., Bernard, J, Sweeney, D., Duncan, M., and Burns, K (in press). Measuring the impacts of administrative policies on student performance in higher education. *Journal of Further and Higher Education*.
- Riley, J., Ellegood, W.A., Solomon, S. and Baker, J. (2017). How mode of delivery affects comprehension of an operations management simulation: Online vs face-to-face classrooms. *Journal of International Education in Business*, 10(2), 183-200.

- Ellegood, W.A., Campbell, J.F., and North, J., (2015). Continuous approximation modeling for mixed load school bus routing. *Transportation Research Part B: Methodological*, 77, 182-198.
- Duncan, M., Burns, K., Ellegood, W., North, J., and Sweeney, D. (2013). A longitudinal comparison of course delivery modes of an introductory information systems course and their impact on a subsequent information systems course., *Journal of Online Learning and Teaching*, 9(4), 453-467.

Publications - Other

- Campbell, J. F., North, J. W., & Ellegood, W. A. (2015). Modeling mixed load school bus routing. In *Quantitative Approaches in Logistics and Supply Chain Management* (pp. 3-30). Springer International Publishing.
- Campbell, J. F., Ellegood, W. and North, J. (2013). Optimizing School Bus Routing in Missouri. *Final report for the Univeristy of Missouri Research Board*.
- Sciaroni, M., Ellegood, W., and Mundy, R. (2012). A survey of dry bulk shippers in the inland waterway corridors. Final Report to AEP River Operations.
- Ellegood, W., Taj, S. and Hendricks, S. (2000). Design of volume flexible linked-cell production system for capital intensive automotive component. *Proceedings of the 3rd World Congress on Intelligent Manufacturing Processes and Systems*, Cambridge, Massachusetts, USA, 28-30 June.

Research Grants

- Ellegood, W. (2017). Applying a business consolidation strategy to school bus routing. *SHSU College of Business Administration Summer Research Grant*, awarded \$8,000.
- Ellegood, W.A. and Solomon, S. (2016). Applying a business consolidation strategy to school bus routing. *SHSU College of Business Administration Summer Research Grant*, awarded \$8,000.
- Identified the research topic and methodology that led to the following grant: Campbell, J. (2011). Optimizing School Bus Routing in Missouri. *University of Missouri Research Board*, awarded \$14,076
- Sciaroni, M., Ellegood, W., and Mundy, R. (2011). Economic indicators of inland waterway freight demand. AEP River Operations, awarded \$56,000

Working Papers

- Burns, K., Ellegood, W.A., Bernard, J., Duncan, M. and Sweeney, D. Enrollment in early college programs positively impacts students. *Journal of Higher Education*, Under Review.
- Ellegood, W., and Campbell, J. Strategic modeling of time constrained mixed load school bus routing. Targeted journal: *Transportation Research Part A: Policy and Practice*.

- Ellegood, W.A., Solomon, S., North, J. and Campbell, J. School bus routing problem: A literature review. Targeted journal: *Transportation Research Part E: Logistics and Transportation Review*.
- Ellegood, W.A. and Solomon, S. School bus load time model. Targeted journal: *European Journal of Operations Research*.
- North, J., Campbell, J. and Ellegood, W.A. Optimizing mixed load school bus routing. Targeted journal: *European Journal of Operation Research*.
- Ellegood, W., Campbell, J., and Sweeney, D. Should the supply chain strategy of a product change over its life cycle? Targeted journal: *Decision Sciences*.
- Ellegood, W., Campbell, J., and Sweeney, D. When is a mismatch of supply chain strategy and product type appropriate? Targeted journal: *International Journal of Production Economics*.

Conference Presentations

- Ellegood, W., Solomon, S., and Solomon, E. (2017). Capacity utilization and student school level impact on school bus load time. *Decision Science Institute Annual Conference*, Washington, D.C.
- Sweeney, K., Solomon, S., and Ellegood, W. (2017). Utility based priority dispatching rules in complex dynamic job shops: The case of customer balking. *INFORMS Annual Meeting*, Houston, Texas.
- Ellegood, W., Riley, J., Solomon, S. and Baker, J. (2016). Differential impact of simulation based pedagogical tools for operations management in online versus face-to-face. *Decision Science Institute Annual Conference*, Austin, Texas.
- Ellegood, W. (2015). Selecting the best supply chain strategy. *Decision Sciences Institute Annual Conference*, Seattle, Washington.
- Ellegood, W., Bernard, J., Sweeney, D., Duncan, M. & Burns, K. (2015). Measuring the impacts of administrative policies on student performance in higher education. *Decision Sciences Institute Annual Conference*, Seattle, Washington.
- Ellegood, W. (2013). Should the supply chain strategy of a product change over its life cycle? *Decision Sciences Institute Annual Conference*, Baltimore, Maryland.
- Duncan, M., Burns, K., Ellegood, W., North, J., and Sweeney, D. (2013). A longitudinal comparison of course delivery modes of an introductory information systems course and their impact on a subsequent information systems course. *University of Missouri St Louis Research Seminar*, St. Louis, Missouri.
- Ellegood, W., Campbell, J.F., and North, J. (2012). Applying business logistic to school bus routing. *National Association of State Directors for Pupil Transportation Services (NASDPTS) Annual Meeting*, Memphis, Tennessee.

- Ellegood, W., Campbell, J., and North, J. (2012). Continuous approximation modeling for mixed load school bus routing. *INFORMS Annual Meeting*, Phoenix, Arizona.
- North, J., Campbell, J., and Ellegood, W. (2012). A hybrid algorithm for the mixed load school bus routing problem. *INFORMS Annual Meeting*, Phoenix, Arizona.
- Ellegood, W. and North, J. (2012). Applying business logistic optimization modeling to school bus routing. *University of Missouri Graduate Research Fair*, St. Louis, Missouri.

INDEPENDENT TEACHING EXPERIENCE

Sam Houston State University – Huntsville, Texas

- Project Management (MGMT 5325) online and eMBA
- Seminar Operations Management (MGMT 5315) online
- Operations Management (MGMT4370) online and face-to-face
- Supply Chain Management (MGMT4360) face-to-face

University of Missouri St. Louis – St Louis, Missouri

- Business Logistics System – Logistics/Operation Management (LOM4330)
- Introduction to Operations Management – Logistics/Operation Management (LOM3320)
- Traffic and Transportation Management – Marketing (MKRT3771)
- Basic Marketing – Marketing (MKRT3700)
- Digital Media Marketing – Marketing (MKRT3721)

Jefferson College – Hillsboro, Missouri

- Principles of Management – Business (BUS120)
- College Algebra – Math (MTH134)
- Introduction to Business – Business (BUS101)

SERVICE

Sam Houston State University

- **Co-Faculty Advisor for the APICS student chapter**
 Faculty advisor for SHSU's undergraduate APICS team to ISM Houston student case competition (2017)
 Faculty advisor for SHSU's undergraduate APICS team to APICS Terra Grande student case competition (2017)
 Faculty advisor for SHSU's undergraduate APICS team to APICS West Coast student case competition (2016)
 Assisted with the administration of the APICS Terra Grande student case competition (2016)
- **Departmental Committee Member**
 PMI Scholarship – Applicant Review
 GAC Self Evaluation – MS in Project Management Accreditation

University of Missouri – St Louis

- Search committee member – position: Dean of the College of Business Administration

CSCMP – St. Louis Roundtable (2010 – 2014)

- 2012-2014 Board of Directors - Registration Chair
- 2011-2012 Board of Directors - Registration Assistant

Decision Sciences Institute 2013 National Conference

- Session Chair: Optimization Models in Supply Chain Management

INFORMS 2012 National Conference

- Session Chair: Transportation Science & Logistics/ Urban Transportation – School Bus Modeling

Ad Hoc Reviewer

- *Transportation Science*
- *Decision Science Journal of Innovative Education*
- *International Journal of Physical Distribution & Logistics Management*

AWARDS

Research

- 2015 Finalist for Elwood S. Buffa Doctoral Dissertation Award, *Decision Sciences Institute Annual Conference*, Seattle, Washington
- 2012 UMSL Social Science and Business Graduate School Research Fair - 1st Place Overall - "Applying Business Logistic Optimization Modeling to School Bus Routing"

Scholarship

- Boeing Company Fellowship (2013-2014)
- Boeing Company Fellowship (2012-2013)
- Grant Helm Memorial Scholarship, awarded by CSCMP (2012)
- Boeing Company Fellowship (2011-2012)
- Boeing Company Fellowship (2010-2011)

Assistantship

- Graduate school doctoral assistantship, University of Missouri – St. Louis (2010-2014)

Performance

- Performance award, College of Business, University of Missouri – St. Louis (2010-2013)

SOFTWARE

Data Analytics Tools:

SAS, SPSS, R

Optimization Tools:

IBM OPL Studio, OptQuest for Excel, Excel Solver, Manugistics

Simulation Tools:

Arena, Oracle Crystal Ball, SAILS

PROFESSIONAL EXPERIENCE

2006 to 2011 – HELP-U-SELL ADVANCE REAL ESTATE

Arnold, Missouri – A set fee residential real estate company.

Managing Broker/Owner: Responsible for managing the fastest growing and most productive set fee real estate office in the St. Louis area.

- Staff: (4) Salary, (5) Independent Contractors
- Oversee all aspect of day to day operations and long range planning
- Represented clients in 74 transactions and over \$11.6 million in sales
- Managed 229 transactions and over \$36.3 million in sales

2002 to 2006 – HYDRAULIC TECHNOLOGIES INC

Galion, Ohio (Approx. 170 employees, union) – Design and manufacture of custom hydraulic cylinders

Vice President of Engineering: Responsible for product design, research and development, manufacturing engineering, maintenance, and the closing and transfer of the Iowa operation.

- Staff: (11) Salary, (7) Hourly
- Lead a cost reduction team that identified \$1.5 million in annual savings on \$38 million in sales over a six-month period with no capital investment.
- Responsible for the planning and execution of the Iowa facility closing and transfer of operations to the Ohio facility.
- Implemented a project tracking system to establish deadlines and measure performance.
- Realign product engineering to customer focus to improve customer support and responsiveness.
- Implemented a skiver operator-training program that reduced monthly tooling expense by 36%.

Director of Manufacturing Engineering: Responsible for manufacturing engineering, maintenance, and the closing and transferring of the Iowa operation to the Ohio facility.

Six Sigma - Green Belt

2000 to 2002 – TRACKER MARINE GROUP

Bolivar, Missouri (Approx. 250 employees, non-union) – A manufacturer of aluminum fishing and pleasure boats.

Engineering Manager: Responsible for product and manufacturing engineering of Tracker Marine's aluminum deep-V's, deckboats, and utility product lines.

- Staff: (6) Employees
- Established an Engineering Change Request/Notice program
- Developed process documentation requirements.
- Assisted in improving plant efficiency from 77% in 2000 to 95% in 2002.
- Design for manufacturing changes helped reduced plant rework by 60%.
- Developed a new product development program.

1997 to 2000 – NEW VENTURE GEAR

Muncie, Indiana (GM and Daimler-Chrysler joint venture, approximately 1200 employees, UAW) – A manufacturer of manual transmissions and other powertrain components

Launch Coordinator NV900: Responsible for equipment specification, equipment evaluation, processing, quoting product changes, financial tracking, and implementation timing.

- Staff: (1) Engineer
- \$13 million capital, tooling and expense budget
- Introduced computer simulation to assist in the evaluation of work cell layouts.
- Developed NVG's first volume and labor flexible assembly line, the assembly line can be staffed with one to ten operators.

Restructuring Project Manager: Responsible for the completion of a \$50 million restructuring project on time and under budget. The restructuring project increased plant productivity by 14%.

- Staff: (10) Salary Employees
- The restructuring project included the following areas:
- Development and implementation of 70 work cells.
- Introduction of a kanban pull system.
- Evaluations of over 400 pieces of equipment for repair, rebuild, or replace.
- Development of an employee two week training program on lean manufacturing.
- Implementation of a planned maintenance program.
- Establishment of lean manufacturing equipment specification.

Production Area Manager: Managed the production operations for the NV1500 and NV3500 product lines.

- Staff: (3) Supervisors and (80) Hourly Employees

1996 to 1997 – ARVIN SANGO INC.

Madison, Indiana (U. S. and Japan joint venture, Approximately 400 employees, non-union)
An exhaust system and stamping component supplier to Toyota Motor Manufacturing

Production Engineer C-Class Stamping

- Responsible for implementing the C-Class 477T (Toyota Minivan) tooling program and the

first C-Class sub-assembly line consisting of twelve processes, one operator, and eight final assemblies.

- Responsible for maintaining and updating the C-Class Engineering Standards.
- Maintained the programming for Motoman press handling robots; language MRC and ERC.
- Trained on Mitsubishi PLC's.
- Working with production, quality, and maintenance to increase the throughput of the C-Class stamping department, through the identification and elimination of bottlenecks, non-productive elements, and recurring downtime issues. In eight months the team achieved the following without capital investment:
 - Increased average strokes per hour by 27%
 - Decreased average downtime per shift by 50%
 - Decreased average cycle time by 13%

1994 to 1996 – A. O. SMITH CORPORATION

Granite City, Illinois – An automotive structural component manufacturer.

Manufacturing/Quality Engineer: Responsible for coordinating the Dodge Dakota Control Arm Program and the Ford Medium and Heavy Truck Program at the plant level. Worked on various projects to improve manufacturing operations. Trained in AB PLC and ABB robotic programming.

Environmental Coordinator: Responsible for all local, state, and federal reporting, environmental auditing of TSD facilities, waste minimization, and compliance.

1988 to 1994 – A. O. SMITH CORPORATION

Granite City, Illinois – An automotive structural component manufacturer.

Mechanical Engineer Co-op Student