

Serge M. Karalli, Ph.D.

"Example isn't another way to teach, it is the only way to teach." - Albert Einstein

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Education

Ph.D. Operations Research, January 2005

Case Western Reserve University (Cleveland, OH)

Concentration in Operations Management

M.A. Counseling, May 1994

Franciscan University (Steubenville, OH)

B.S. Electrical Engineering, May 1984

B.A. Psychology, May 1984

Norwich University (Northfield, VT)

Teaching Experience

Assistant Professor of Operations Management

September 2004 - May 2112

California State University, Sacramento (Sacramento, CA)

Visiting Assistant Professor of Operations Management

September 2003 - May 2004

DePaul University (Chicago, IL)

Graduate Assistant

September 2000 - May 2003

Case Western Reserve University (Cleveland, OH)

Teaching Interests

- · Core Courses in Operations Management
- · Supply Chain Management
- Production Planning and Inventory Control
- · Goal-Based Scenario/Game Based Learning
- Quantitative Methods
- Combinatorial Optimization
- · Graph Theory/Networks

Research Interests

- The MFELSP-SS
- Extensions of the MFELSP-SS to the JRP
- The family periodic loading problem
- · Generalized Lot Allocation
- · Goal-Based Scenario (GBS) research
- Effective student preparation for GBS exercises

Teaching Practice

California State University, Sacramento

Teaching Ratings

4.5/5.0 - 4.9/5.0

On-Line Course

September 2008 - May 2112

- Undergraduate Operations Management core course
- Manage course with WebCT ©
- On-line communication with iMeet ©

Undergraduate Operations Management Courses

September 2004 - May 2112

- Operations Management Core Course
- Operations Planning & Inventory Control
- Operations Strategy & Design

Graduate Operations Management Courses

September 2005 - May 2112

- Production & Operations Analysis (MBA)
- Quantitative Methods for Decision Making (EMBA)

Incorporated On-line Business Simulations in Every Course

- The Electronic Beer Game
- Littlefield Technologies
- The Startup Game
- The Supply Chain Game

International Collegiate Business Simulation Competition

January 2005 - May 2008

- · Undergraduate Team Adviser
- · Compete with teams from universities worldwide

Simulation Games in the Classroom

August 2008

- Presenter and panel discussant
- American Management Association
- · Annual meeting, Anaheim, CA

Matheson Trucking, Inc

January 2008 - May 2009

- Internships for operations management students
- Coordinated operations management students with internships
- Internships often led to full-time employment

DePaul University

Undergraduate Operations Management Courses

August 2003 - May 2004

- Managerial Concepts and Practices II
- The Management and Measurement of Quality;
- Purchasing Management
- Teaching Ratings: 4.5/5.0 4.9/5.0

Case Western Reserve University

Undergraduate Core Course in Operations Management

September 2000 - May 2003

- Responsible for course design, preparation, and instruction
- Typical class composition:
 - Weatherhead School of Management students, &
 - · Case School of Engineering students

Math Camp

August 2001, August 2002

- A week-long statistics review for MBA students.
- Conducted problem sessions

Exercises on Proof Techniques

January 1999 - June 1999

- Solow, D., How to Read and do Proofs: an introduction to mathematical thought process, (3 ed.). New York, NY: John Wiley & Sons, 2002
- Assisted in the revision and development of proof techniques exercises

Graduate Operations Research Course Development

August 1999 - August 2000

• Developed a traveling salesman problem application in MS Access using VBA, SQL, & C++

Research

Reviewer

- Applied Mathematics and Computation. 2011.
- California Journal of Operations Management. 2011.

Publications

 S. M. Karalli and A. D. Flowers, "The JRP with Multiple Replenishment Sources and Fill Rates," California Journal of Operations Management, vol. 9(2), pp. 1-19, 2011

- S. M. Karalli, "Coordinating Shipments from Multiple Supplier location in a Capacitated Staging Environment," *California Journal of Operations Management*, vol. 9(1), pp. 104-118, 2011
- S. M. Karalli and A. D. Flowers, "The Multiple-Family ELSP with Safety Stocks," *Operations Research*, vol. 54(3), pp. 523-531, 2006.

Articles Under Review

- S. M. Karalli and A. D. Flowers, "The Family Periodic Loading Problem," European Journal of Operational Research, 2011
- S. M. Karalli and A. D. Flowers, "The Multiple-Family ELSP with Fill Rates," *Submitted to Operational Research Letters*, 2011

Working Papers

• S. M. Karalli and A. D. Flowers, "Scheduling the Multi-Family JRP with a Periodic Loading Algorithm," CSU, Sacramento and Case Western Reserve University, Working Paper, 2010.

Technical Reports

• A. D. Flowers and S. M. Karalli, "Setting Safety Stocks and Production Quantities for Product Families," Case Western Reserve University, Technical Report, 2010.

Presentations

- S. M. Karalli, "Coordinating Shipments from Multiple Supplier locations in a Capacitated Staging Environment," in 23rd Annual CSU-POM Conference, Bakersfield, CA, 2011
- S. M. Karalli and Y. Sun, "Lagrangian lower bounds for the generalized semiconductor lot allocation problem," in *61st Annual IIE Conference and Expo 2011*, Reno, NV, 2011
- S. M. Karalli, "The Family Periodic Loading Problem: When Standard Loading is Infeasible," in *Research Seminar*, Sacramento, CA, 2005.
- S. M. Karalli and A. D. Flowers, "The Family Periodic Loading Problem," in *National DSI Conference: San Francisco, California*, San Francisco, CS, 2005.
- S. M. Karalli and A. D. Flowers, "The Multi-Family Economic Lot Scheduling Problem with Safety Stocks," in *INFORMS Annual Meeting 2002 San Jose*, San Jose, CA, 2002.
- S. M. Karalli and A. D. Flowers, "The Multi-Family Economic Lot Scheduling Problem with Safety Stocks," in *MSOM Conference, Ithaca, June 2002*, Ithaca, NY, 2002.

Ph.D. Thesis

• S. M. Karalli, "The Multi-Family Economic Lot Scheduling Problem with Safety Stocks," PhD Thesis, Case Western Reserve University, 2004.

Professional Practice

Projects

Application of my Doctoral Dissertation Aug.-2008

Avery Dennison (Cleveland, OH)

- Application of The MFELSP-SS
- Encompasses 1,968 of 8,000 parts

Waiting Lines Analysis Mar. 2008

La Superior SuperMercados, Inc. (Sacramento, CA)

Recommend a checkout line operating policy

Forecasting Model January 2007-May 2009

Matheson Trucking, Inc. (Elk Grove, CA)

Provided An Exponential Smoothing Forecast Model

Forecasting Model

September 2006

Forecasting Classes

January 2005 - January 2006

SMUD (Sacramento, CA)

Forecasting Analysis

Mar. 2004-June 2004

Lindt & Sprüngli (Stratham, NH)

- Improved demand planning and product scheduling
- · Reduced inventory and write-offs

Staubach Logistics Practice Group

(Cleveland, OH)

Inventory Analysis

February 2002 - April 2002

Famous Supply Inc. (Akron, OH)

Assign distribution points to thousands of SKUs to improve service

Distribution Network Analysis

April 2001 - June 2002

Optimal warehouse location with NETWORK®

- · L D Kichler Co., Cleveland, OH
- General Cable Inc., Cincinnati, OH
- · Lubrizol, Cleveland, OH

Graduate Assistant and Summer Projects

Mapping of the outbound distribution system

Jan. 2001-May 2001

Parker Hannifin Corporation (Mentor, OH)

- · Interviewed group presidents and management personnel
- · Participated in the search for logistics benchmark data
- Analyzed logistics costs and performance measure

Forecasting and Inventory Management Pilot Study

July 2000-Jan. 2000

ATSCO - Air Tool Solutions Company (Mentor, OH)

- Performed forecasts for 30 products
- Provide recommendations for inventory levels

Long-term workforce-planning model

September 1998 - December 1999

ALCOA Forged Products (Cleveland, OH)

- Developed a workforce planning model with Excel and Solver
- Assisted in identifying and obtaining data for the model
- Developed VBA modules to automate data collection and transfer
- Wrote the users manual for the short-term model

Bureau of Business & Economic Research

(Morgantown, WV)

1996 and 1997 West Virginia County Data Profiles (CDPs)

July 1996 - December 1997

- Developed Lotus 1-2-3 macros to
- · Processed data for 65 CDPs
- Prepared data for Freelance Graphics charts
- Automated the 1997 CDPs with macros
- The macros reduced the turnaround time by 75%

Economic impact forecasting

June 1997 - August 1997

• Developed applications for Lotus & Excel to forecast the economic impact of historical preservation construction projects and tourism on major industries in WV counties.

Economic study of the Potomac Highlands

June 1997 - August 1997

- Searched for economic and educational data on the Internet and on databases
- Participated in writing the final report

Computer Skills

Languages

- C++
- HTML
- JavaScript
- PHP
- Python
- VBA

Packages

- iMeet
- MediaWiki
- MoinMoin
- WebCT
- WordPress

Tools

- Camtasia
- LATEX
- Mathematica
- MSOffice
- OCTAVE
- · OpenOffice.org

References

A Dale Flowers, D.B.A.

Associate Professor, Operations

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