Ronald G. McGarvey

E3437 Lafferre Hall, University of Missouri, Columbia, MO 65211
Phone: 573-882-9564; email: mcgarveyr@missouri.edu

Academic Positions

University of Missouri, Columbia, MO

Department of Industrial and Manufacturing Systems Engineering, College of Engineering

Harry S Truman School of Public Affairs, College of Arts and Science

Associate Professor (September 2019 - present)

Assistant Professor (August 2013 - August 2019)

- Associate Site Director, Center for Excellence in Logistics and Distribution (CELDi)
- Coordinator, Ph.D. program in Public Affairs, August 2019-present
- *Winner of 2018 Junior Faculty Excellence in Research Award*, selected as sole winner among all tenure-track faculty in the College of Engineering

Industry Positions

RAND Corporation

Adjunct Researcher (August 2013 - present)

Senior Operations Researcher (September 2002 - July 2013)

- Supported Federally Funded Research & Development Center (FFRDC) Project AIR FORCE
- *Winner of 2012 Gold Medal Award*, recognized as one of eight highest-achieving researchers out of RAND's 950-member research staff
- Principal investigator or co-P.I. for research projects with aggregate budget in excess of $13 million
- Core Faculty Member from 2006-2009 at the Pardee RAND Graduate School

Education

Ph.D., Industrial Engineering and Operations Research

Pennsylvania State University, December 2002

- Thesis: *On determining the location and capacity of competitive facilities*
- Advisor: Dr. Tom M. Cavalier

M.S., Industrial Engineering and Operations Research

Pennsylvania State University, May 1999

B.S., *Summa Cum Laude*, Applied Mathematics

Indiana University of Pennsylvania, May 1997

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Journal Publications

31. Chemodanov D, Calyam P, Esposito F, McGarvey RG, Palaniappan K, Pescape A (2020), A Near Optimal Reliable Orchestration Approach for Geo-Distributed Latency-Sensitive SFCs. Accepted for publication (accepted March 2020), *IEEE Transactions on Network Science and Engineering*

30. McGarvey RG, Thorsen A, Thorsen ML, *Madhi Reddy R (2019), Measuring efficiency of community health centers: a multi-model approach considering quality of care and heterogeneous operating environments. *Health Care Management Science*, 22, 489-511.

29. *Karakose G, McGarvey RG (2019), Optimal detection of critical nodes: improvements to model structure and performance. *Networks and Spatial Economics*, 19(1), 1-26.

28. *Karakose G, McGarvey RG (2019), Optimal K-node disruption on a node-capacitated network. *Optimization Letters*, 13(4), 695-715.

27. Al-Asadi A, Al-Amidie M, Micheas AC, McGarvey RG, Islam NE (2019), Worst case fair beamforming for multiple multicast groups in multicell networks. *IET Communications*, 13(6), 664-671.

26. *Dundar B, McGarvey RG, Aguilar FX (2019), A robust optimisation approach for identifying multi-state collaborations to reduce CO_2 emissions. *Journal of the Operational Research Society*, 70(4), 601-619.

25. Thorsen ML, Thorsen A, McGarvey RG (2019), Operational efficiency, patient composition and regional context of U.S. health centers: Associations with access to early prenatal care, and low birth weight. *Social Science & Medicine*, 226, 143-152.

24. Jiao C, Chen C, McGarvey RG, Bohlman S, Jiao L, Zare A (2018), Multiple instance hybrid estimator for hyperspectral target characterization and sub-pixel target detection. *ISPRS Journal of Photogrammetry and Remote Sensing*, 146, 235-250.

23. Thorsen A, McGarvey RG (2018), Efficient frontiers in a frontier state: Viability of mobile dentistry services in rural areas. *European Journal of Operational Research*, 268, 1062-1076.

22. *Birisci E, McGarvey RG (2018), Optimal production planning utilizing leftovers for an all-you-care-to-eat food service operation. *Journal of Cleaner Production*, 171, 984-994.

21. *Karakose G, McGarvey RG (2018), Capacitated path-aggregation constraint model for arc disruption in networks. *Transportation Research Part E*, 109, 225-238.

20. *Karakose G, McGarvey RG (2018), Node-securing connectivity-based model to reduce infection spread in contaminated networks. *Computers & Industrial Engineering*, 115, 512-519.

19. McGarvey RG (2018), When to call on an advantageous restart option. *Journal of Sports Analytics*, 4, 133-143.

18. *Bergman JJ, Noble JS, McGarvey RG, Bradley RL (2017), A Bayesian approach to demand forecasting for new equipment programs. *Robotics and Computer-Integrated Manufacturing*, 47, 17-21.

17. Costello C, McGarvey RG, *Birisci E (2017), Achieving Sustainability beyond Zero Waste: A Case Study from a College Football Stadium. *Sustainability*, 9(7), 1-20.

16. *Nikouei Mehr M, McGarvey RG (2017), Planning solid waste collection with robust optimization: location- allocation, receptacle type, and service frequency. *Advances in Operations Research*, 2017, 1-14.

15. *Dundar B, Costello C, McGarvey RG (2017), Robust optimization evaluation of reliance on locally produced foods. *Environment Systems and Decisions*, 37, 34-41.

14. *Dundar B, McGarvey RG, Aguilar FX (2016), Identifying optimal multi-state collaborations for reducing CO_2 emissions by co-firing biomass in coal-burning power plants. *Computers & Industrial Engineering*, 101, 403-415.

13. *Birisci E, McGarvey RG (2016), Inferring shortfall costs and integrating environmental costs into optimal production levels for an all-you-care-to-eat food service operation. *International Journal of Production Economics*, 182, 157-164.

12. McGarvey RG, Rieksts BQ, Ventura JA, Ahn N (2016), Binary linear programming models for robust broadcasting in communication networks. *Discrete Applied Mathematics*, 204, 173-184.

11. Costello C, *Birisci E, McGarvey RG (2016), Food waste in campus dining operations: Inventory of pre- and post-consumer mass by food category, and estimation of embodied greenhouse gas emissions. *Renewable Agriculture and Food Systems*, 31(3), 191-201.

10. *Lang TE, McGarvey RG (2016), Determining reliable networks of prepositioning materiel warehouses for public-sector rapid response supplies. *Advances in Operations Research*, 2016, 1-20.

9. McGarvey RG, Cavalier TM (2010), Determining the Location and Capacity of Competitive Facilities. *International Journal of Mathematics in Operational Research*, 2(6), 694-723.

8. McGarvey RG, Cavalier TM (2005), Constrained Location of Competitive Facilities in the Plane. *Computers and Operations Research*, 32, 359-378.

7. Amouzegar MA, Tripp RS, Feinberg A, McGarvey RG (2005), Consolidation of Maintenance Processes for Expeditionary Air Force Operations. *International Journal of Industrial Engineering: Theory, Applications and Practice*, 12(1), 26-34.

6. McGarvey RG, Cavalier TM, Del Castillo E, Lehtihet EA (2004), A Unified Framework for Probabilistic Sequential Tolerance Control. *International Journal of Production Research*, 42(7), 1443-1453.

5. Brown SI, McGarvey RG, Ventura JA (2004), Total flowtime and makespan for a no-wait m-machine flowshop with set-up times separated. *Journal of the Operational Research Society*, 55, 614-621.

4. McGarvey RG, Cavalier TM (2003), A Global Optimal Approach to Facility Location in the Presence of Forbidden Regions. *Computers and Industrial Engineering*, 45, 1-15.

3. McGarvey RG, Del Castillo E, Cavalier TM, Lehtihet EA (2002), Four-Parameter Beta Distribution Estimation and Skewness Test. *Quality & Reliability Engineering International*, 18, 395-402.

2. Cavalier TM, Lehtihet EA, Del Castillo E, McGarvey RG (2002), An Adaptive Sphere-Fitting Method for Sequential Tolerance Control. *International Journal of Production Research*, 40(12), 2757-2767.

1. McGarvey RG, Lehtihet EA, Del Castillo E, Cavalier TM (2001), On the Frequency and Location of Set Point Adjustments in Sequential Tolerance Control. *International Journal of Production Research*, 39(12) 2659-2674.

Books

12. McGarvey RG, Light T, Thomas B, Sanchez R (2013) Commercial Intratheater Airlift: Cost-Effectiveness Analysis of Use in U.S. Central Command, TR-1313-AF, RAND Corporation, Santa Monica, CA.

11. McGarvey RG, Bigelow JH, Briggs GJ, Buryk P, Conley RE, Drew JG, Firoz PS, Kim J, Menthe L, Moore SC, Taylor WW, Williams WA (2013) Assessment of Beddown Alternatives for the F-35, RR-124-AF, RAND Corporation, Santa Monica, CA.

10. Drew JG, McGarvey RG, Buryk P (2013) Enabling Early Sustainment Decisions: Application to F-35 Depot-Level Maintenance, RR-397-AF, RAND Corporation, Santa Monica, CA.

9. Van Roo BD, Carrillo M, Drew JG, *Lang T, Maletic AL, Massey HG, Masters JM, McGarvey RG, Sollinger JM, Thomas B, Tripp RS (2011) Analysis of the Air Force Logistics Enterprise: Evaluation of Global Repair Network Options for Supporting the C-130, TR-813-AF, RAND Corporation, Santa Monica, CA.

8. Tripp RS, McGarvey RG, Van Roo BD, Masters JM, Sollinger JM (2010) A Repair Network Concept for Air Force Maintenance: Conclusions from Analysis of C-130, F-16 and KC-135 Fleets, MG-919-AF, RAND Corporation, Santa Monica, CA.

7. McGarvey RG, Tripp RS, Rue R, *Lang T, Sollinger JM, Conner WA, Luangkesorn L (2010) Global Combat Support Basing: Robust Prepositioning Strategies for Air Force War Reserve Materiel, MG-902-AF, RAND Corporation, Santa Monica, CA.

6. McGarvey RG, Carrillo M, Cato DC, Drew JG, *Lang T, Lynch KF, Maletic AL, Massey HG, Masters JM, Pyles RA, Sanchez R, Sollinger JM, Thomas B, Tripp RS, Van Roo BD (2009) Analysis of the Air Force Logistics Enterprise: Evaluation of Global Repair Network Options for Supporting the F-16 and KC-135, MG-872-AF, RAND Corporation, Santa Monica, CA.

5. McGarvey RG, Masters JM, Luangkesorn L, Sheehy S, Drew JG, Kerchner R, Van Roo BD, Roll CR (2008), Supporting Air and Space Expeditionary Forces: Analysis of CONUS Centralized Intermediate Repair Facilities, MG-418-AF, RAND Corporation, Santa Monica, CA.

4. Tripp RS, Amouzegar MA, McGarvey RG, Bereit R, George D, Cornuet J (2006), Sense and Respond Logistics: Integrating Prediction, Responsiveness, and Control Capabilities, MG-488-AF, RAND Corporation, Santa Monica, CA.

3. Amouzegar MA, McGarvey RG, Tripp RS, Luangkesorn L, *Lang T, Roll CR (2006), Evaluation of Options for Overseas Combat Support Basing, MG-421-AF, RAND Corporation, Santa Monica, CA.

2. Tripp RS, Lynch KF, McGarvey RG, Snyder D, Pyles RA, Williams WA, Roll CR (2006), Strategic Analysis of Air National Guard Combat Support and Reachback Functions, MG-375-AF, RAND Corporation, Santa Monica, CA.

1. Amouzegar MA, Tripp RS, McGarvey RG, Chan EW, Roll CR (2004), Supporting Air and Space Expeditionary Forces: Analysis of Combat Support Basing Options, MG-261-AF, RAND Corporation, Santa Monica, CA.

Co-author for numerous other RAND reports that have not been approved for public release.

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Conference Presentations

47. Thorsen AH, McGarvey RG, Thorsen ML, Facility Location: A Cumulative Opportunity Approach, INFORMS Annual Meeting 2019, Seattle, WA, October 2019.

46. McGarvey RG, Thorsen AH, Thorsen ML, Evaluating Management of Chronic Diseases at Community Health Centers, INFORMS Annual Meeting 2019, Seattle, WA, October 2019.

45. *Mirzaee A, McGarvey RG, Aguilar FX, CO2 Emissions Reduction by Identifying Optimal Level of Co-firing Biomass and Natural Gas in Coal-burning Power Plants, INFORMS Annual Meeting 2019, Seattle, WA, October 2019.

44. Srinivas S, McGarvey RG, Rajendran S, Noble JS, *Oveysi Z, Tactical Decision-Making for Made-to-Order Electrical Hardware Products using Data Analytics, IISE Annual Conference 2019, Orlando, FL, May 2019.

43. Thorsen AH, McGarvey RG, Thorsen ML, Health Center Efficiency and Quality of Chronic Disease Management: Associations with EHR Implementation, INFORMS Annual Meeting 2018, Phoenix, AZ, November 2018.

42. *Mirzaee A, McGarvey RG, Aguilar FX, Woody Biomass use for Biopower and its Impact on Forest Resources, INFORMS Annual Meeting 2018, Phoenix, AZ, November 2018.

41. Farahani NZ, Enayati M, Noble JS, McGarvey RG, Shortest Path Approaches with Time Windows in Multi-graph Networks, INFORMS Annual Meeting 2018, Phoenix, AZ, November 2018.

40. McGarvey RG, Noble J, Bradley R, Optimizing Inventory Segmentations, IISE Annual Conference 2018, Orlando, FL, May 2018.

39. *Dundar B, McGarvey RG, Aguilar FX, A Demand Response Model for Biopower Generation to Identify Optimal Multi-state Collaborations, INFORMS Annual Meeting 2017, Houston, TX, October 2017.

38. Thorsen A, Thorsen M, *Madhi Reddy R, McGarvey RG, Addressing Health Disparities at U.S. Community Health Centers: A Focus on Pregnancy-related Health Outcomes, INFORMS Annual Meeting 2017, Houston, TX, October 2017.

37. *Himmelberg L, McGarvey RG, Noble J, Bradley R, Repair Prioritization with Respect to Inventory Requirements, IISE Annual Conference 2017, Pittsburgh, PA, May 2017.

36. Trihastuti D, Wu L, McGarvey RG, Noble J, Time-phased Distribution Network Design, IISE Annual Conference 2017, Pittsburgh, PA, May 2017.

35. Thorsen A, McGarvey RG, *Madhi Reddy R, Thorsen M, Multi-criteria Evaluation of Systematic Issues at US Health Centers, IISE Annual Conference 2017, Pittsburgh, PA, May 2017.

34. *Dundar B, McGarvey RG, Aguilar FX, Identifying Optimal Multi-state Collaborations for Reducing CO2 Emissions by Co-firing Biomass in Coal-burning Power Plants, INFORMS Annual Meeting 2016, Nashville, TN, November 2016.

33. McGarvey RG, *Dundar B, Costello C, A Robust Optimization Evaluation of the Potential for Reliance on Locally-produced Foods, INFORMS Annual Meeting 2016, Nashville, TN, November 2016.

32. *Karakose G, McGarvey RG, Multi-commodity Flow Model–Dual Based Formulation for Optimal Detection of Critical Network Components, INFORMS Annual Meeting 2016, Nashville, TN, November 2016.

31. Thorsen AH, McGarvey RG, Mobile Dentistry Network Design: Improving Dental Care Access for Under-served Populations in Rural Regions, INFORMS Annual Meeting 2016, Nashville, TN, November 2016.

30. McGarvey RG, Noble J, *Birisci E, Wutthisirisart P, *Rueda Rey V, Reducing Discrepancies between Production and Shipment Planning, IIE Annual Conference 2016, Anaheim, CA, May 2016.

29. McGarvey RG, Noble J, Matisziw T, *Karakose G, *Materikina M, Improving Striping Operations through System Optimization, IIE Annual Conference 2016, Anaheim, CA, May 2016.

28. *Birisci E, McGarvey RG, Production Planning to Reduce Environmental Impacts of Food Waste in Campus Dining Services, POMS 2016 Annual Conference, Orlando, FL, May 2016.

27. *Dundar B, McGarvey RG, Costello C, Robust Optimization Evaluation of Reliance on Locally Produced Foods, International Symposium on Sustainable Systems and Technology, Phoenix, AZ, May 2016.

26. Bradley RL, *Bergman JJ, Noble JS, McGarvey RG, Evaluating a Bayesian Approach to Demand Forecasting with Simulation, 2015 Winter Simulation Conference, Huntington Beach, CA, December 2015.

25. *Karakose G, McGarvey RG, A Network Interdiction Approach to the Rural Postman Problem, INFORMS Annual Meeting 2015, Philadelphia, PA, November 2015.

24. *Dundar B, McGarvey RG, Aguilar FX, Robust Optimization for Biopower Generation, INFORMS Annual Meeting 2015, Philadelphia, PA, November 2015.

23. *Birisci E, McGarvey RG, Costello C, Dynamic Programming to Reduce Environmental Impacts of Food Waste at Campus Dining Services, INFORMS Annual Meeting 2015, Philadelphia, PA, November 2015.

22. *Bergman JJ, Noble JS, McGarvey RG, Bradley RL, A Bayesian Approach to Demand Forecasting for New Equipment Programs, 25th International Conference on Flexible Automation and Intelligent Manufacturing, Wolverhampton, UK, June 2015.

21. *Dundar B, McGarvey RG, Aguilar FX, Implications of EPA's Proposed Emission Reduction Targets on Biopower Generation, IIE Annual Conference 2015, Nashville, TN, May 2015.

20. *Bergman J, Noble JS, McGarvey RG, Bradley R, A Bayesian Approach to Demand Forecasting, IIE Annual Conference 2015, Nashville, TN, May 2015.

19. *Birisci E, McGarvey RG, Dynamic Programming to Reduce Environment Impacts of Food Waste at Campus Dining Services, POMS 2015 Annual Conference, Washington, DC, May 2015.

18. *Birisci E, McGarvey RG, Costello C, Environmental Impacts of Overproduction Food Waste at Campus Dining Services, International Symposium on Sustainable Systems and Technology, Dearborn, MI, May 2015.

17. *Birisci E, McGarvey RG, Dynamic Programming to Reduce Food Waste at Campus Dining Services, INFORMS Annual Meeting 2014, San Francisco, CA, November 2014.

16. *Karakose G, McGarvey RG, Sir MY, Fortification of Network Components against Intentional Disruptions, INFORMS Annual Meeting 2014, San Francisco, CA, November 2014.

15. *Nikouei-Mehr M, McGarvey RG, Structuring a Waste Collection Contract using Robust Optimization, INFORMS Annual Meeting 2014, San Francisco, CA, November 2014.

14. McGarvey RG, Light T, Sanchez R, Thomas B, Optimization-based Cost-benefit Analysis: Government vs. Commercial Provision of Transportation, INFORMS Annual Meeting 2013, Minneapolis, MN, October 2013.

13. McGarvey RG, Tripp RS, Rue R, *Lang T, Sollinger JM, Conner WA, Luangkesorn L, Incorporating Robustness Modeling Into Materiel Management Analyses, INFORMS Annual Meeting 2009, San Diego, CA, November 2009.

12. McGarvey RG, *Lang T, Luangkesorn L, Rue R, Global Combat Support Basing: Prepositioning Strategies for Air Force War Reserve Materiel, INFORMS Annual Meeting 2006, Pittsburgh, PA, November 2006.

11. McGarvey RG, *Lang T, Luangkesorn L, Rue R, Global Combat Support Basing: Prepositioning Strategies for Air Force War Reserve Materiel, MORS Workshop on Infrastructure: World-Wide Basing Working Group, Carlisle, PA, November, 2006.

10. McGarvey RG, Tripp RS, Roll CR, Amouzegar MA, Integrating Prediction, Responsiveness, and Command and Control Across Systems to Enhance Operational Effectiveness, Defense Analysis Seminar XIII, Seoul, Republic of Korea, April 2006.

9. McGarvey RG, Amouzegar MA, Tripp RS, Luangkesorn KL, *Lang T, Roll CR, An Optimization Method for Assessing Options for U.S. Air Force Overseas Combat Support Basing, 22nd International Symposium on Military Operational Research, Shirrell Heath, Hampshire, United Kingdom, September 2005.

8. McGarvey RG, Amouzegar MA, Luangkesorn L, *Lang T, A Decision Support Tool for Overseas Positioning of U.S. Air Force Resources, INFORMS Annual Meeting 2004, Denver, CO, October 2004.

7. McGarvey RG, Chan EW, Tripp RS, Roll CR, Optimal Network Configuration for USAF Basing Options, Proceedings of the Western Decision Sciences Institute Annual Meeting 2004, Manzanillo, Mexico, April 2004.

6. McGarvey RG, Amouzegar MA, Chan EW, Tripp RS, A Math Programming Model for the Reconstitution of U.S. Air Force War Reserve Materiel, INFORMS Annual Meeting 2003, Atlanta, GA, October 2003.

5. McGarvey RG, Amouzegar MA, Chan EW, Tripp RS, A Math Programming Model for the Location and Allocation of WRM Forward Support Locations, Air Force Operations Research Symposium 2003, Hanscom AFB, MA, October 2003.

4. McGarvey RG, Cavalier TM, Constrained Competitive Facility Location in the Plane, International Symposium on Location Decisions IX, Fredericton, NB, Canada, June 2002.

3. McGarvey RG, Cavalier TM, Lehtihet EA, Competitive Facility Location on the Line with Elastic Gravity-Based Demand, INFORMS Annual Meeting 2001, Miami, FL, November 2001.

2. McGarvey RG, Del Castillo E, Cavalier TM, Lehtihet EA, Four Parameter Beta Estimation - A Manufacturing Engineering Motivation, Proceedings of the 6th Annual International Conference on Industrial Engineering Theory, Applications and Practice, San Francisco, CA, November 2001.

1. Cavalier TM, Del Castillo E, Lehtihet EA, McGarvey RG, Probabilistic Sequential Tolerance Control: Frequency and Location of Set Point Adjustments, Proceedings of the 2001 NSF Design and Manufacturing Grantees Conference, Tampa, FL, January 2001.

External Funding

Total Funded $2,631,427; Shared (Individual) Credit $1,262,041

- Improving Striping Operations through System Optimization; Missouri Department of Transportation, matching funds from Midwest Transportation Center, June 2014 - November 2015 (Phase I [CELDi]), December 2015 - June 2016 (Phase II)
  - PI: RG McGarvey
  - Co-PI: T Matisziw, JS Noble, C Nemmers
  - Total Funded $160,000; Shared Credit (59%) $94,600
- Research Support to Project AIR FORCE; RAND Corporation, October 2018 - September 2020
  - PI: RG McGarvey
  - Total Funded $169,242; Shared Credit (100%)
- CELDi: Reducing Discrepancies between Production and Shipment Planning; Anheuser-Busch, January 2015 - December 2016
  - PI: RG McGarvey
  - Co-PI: JS Noble
  - Total Funded $120,000; Shared Credit (67%) $80,400
- CELDi: Optimizing Make-to-order Inventory; Schneider Electric, August 2018 - March 2020
  - PI: RG McGarvey
  - Co-PI: JS Noble, S Rajendran, S Srinivas
  - Total Funded $100,000; Shared Credit (43%) $43,000

- CELDi: Reverse Logistics and Inventory Segmentation; Boeing, August 2013 - August 2020
  - PI: JS Noble
  - Co-PI: RG McGarvey
  - Total Funded $445,000; Shared Credit (41%) $181,700
- CELDi: On Demand Logistics Network Design; Bayer Crop Science, December 2013 - May 2018
  - PI: JS Noble
  - Co-PI: RG McGarvey
  - Total Funded $245,000; Shared Credit (33%) $80,850
- CELDi: Optimized Warehouse Inventory Picking System; Honeywell, November 2018 - May 2019
  - PI: JS Noble
  - Co-PI: RG McGarvey
  - Total Funded $60,193; Shared Credit (50%) $30,097
- CELDi: MU Research Site Direction; National Science Foundation, August 2013 - July 2018
  - PI: JS Noble
  - Co-PI: RG McGarvey
  - Total Funded $199,995; Shared Credit (33%) $65,998
- Socio-economic and Environmental Implications of Growth in Woody Biomass use for Biopower; USDA NIFA AFRI, July 2017-Dec 2019
  - PI: FX Aguilar
  - Co-PI: RG McGarvey
  - Total Funded $498,441; Shared Credit (40%) $199,376
- Developing Hospitality Food Waste Audit and Measurement Procedures; World Wildlife Foundation, January 2016 - September 2016
  - PI: C Costello
  - Co-PI: RG McGarvey
  - Total Funded $43,000; Shared Credit (50%) $21,500

- Graduate Assistance in Areas of National Need (GAANN); US Department of Education, September 2015 - August 2018
  - PI: L Occena
  - Co-PI: RG McGarvey (from September 2015 - November 2016)
  - Total Funded $590,556; Shared Credit (50%) $295,278

Internal Funding

Total Funded $166,195; No Shared Credit on Internal Funding

- Environmentally & Economically Preferable Treatment Options for Food Waste; Mizzou Advantage, May 2014 - April 2016
  - PI: C Costello
  - Co-PI: RG McGarvey
  - Total Funded $81,735; Shared Credit n.a.
- Impacts of Energy Efficiency Targets on US Bioenergy Generation; Mizzou Advantage, May 2014 - April 2016
  - PI: FX Aguilar
  - Co-PI: RG McGarvey
  - Total Funded $80,460; Shared Credit n.a.
- Analyzing Food Waste Generated at Campus Dining Services Facilities; Richard Wallace Faculty Incentive Grant, December 2013 - December 2014
  - PI: RG McGarvey
  - Total Funded $4,000; Shared Credit n.a.

Ronald G. McGarvey

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Teaching

- Linear and Network Optimization (IMSE 8210)
  - Fall 2019, Student evaluation of instructor effectiveness: 4.50/5.0
  - Fall 2018, Student evaluation of instructor effectiveness: 4.75/5.0
  - Fall 2016, Student evaluation of instructor effectiveness: 4.67/5.0
  - Fall 2015, Student evaluation of instructor effectiveness: 4.00/5.0
  - Fall 2014, Student evaluation of instructor effectiveness: 4.29/5.0
- Nonlinear Optimization (IMSE 8220)
  - Fall 2019, Student evaluation of instructor effectiveness: 4.80/5.0
  - Fall 2017, Student evaluation of instructor effectiveness: 4.60/5.0
  - Spring 2015, Student evaluation of instructor effectiveness: 4.57/5.0
- Research Methods and Inquiry in Public Affairs (PA 8185), online
  - Spring 2019, Student evaluation of instructor effectiveness: 4.15/5.0
  - Fall 2016, Student evaluation of instructor effectiveness: 4.00/5.0
- Production and Operations Analysis (IMSE 4350)
  - Spring 2020, current
  - Spring 2019, Student evaluation of instructor effectiveness: 4.38/5.0
  - Spring 2018, Student evaluation of instructor effectiveness: 4.33/5.0
  - Spring 2016, Student evaluation of instructor effectiveness: 4.21/5.0
- Optimization Modeling and Computational Methods (IMSE 4220/IMSE 7220)
  - Fall 2018, Student evaluation of instructor effectiveness: 4.75/5.0
  - Spring 2017, Student evaluation of instructor effectiveness: 4.50/5.0
  - Fall 2015, Student evaluation of instructor effectiveness: 4.00/5.0

- Public Sector Operations Research (IMSE 4001/IMSE 7001/PA 7001 in 2014-15, IMSE 8001/PA 8001 in 2016, 2018)
  - Spring 2018, Student evaluation of instructor effectiveness: 4.91/5.0
  - Spring 2016, Student evaluation of instructor effectiveness: 4.00/5.0
  - Spring 2015, Student evaluation of instructor effectiveness: 5.00/5.0
  - Spring 2014, Student evaluation of instructor effectiveness: 4.00/5.0
- Operations Research Models (IMSE 4230)
  - Fall 2013, Student evaluation of instructor effectiveness: 2.8/4.0

Graduate Students Advised

University of Missouri

- Ashkan Mirzaee, Ph.D. IE, current (advisor)
- Zeynab Oveysi, Ph.D. IE, current (advisor)
- Pouneh Abbasian, Ph.D. IE, current (advisor)
- Gokhan Karakose, Ph.D. IE, Fall 2017 (advisor)
  - Initial position: Assistant Professor, Faculty of Economics & Administrative Sciences, Kafkas University; Kars, Turkey.
- Bayram Dundar, Ph.D. IE, Fall 2017 (advisor)
  - Initial position: Assistant Professor, Department of Industrial Engineering, Bartin University; Bartin, Turkey.
- Esma Birisci, Ph.D. IE, Fall 2016 (advisor)
  - Initial position: Assistant Professor, Department of Economics and Administrative Science, Uludag University; Bursa, Turkey.
- Rohith Madhi Reddhi, M.S. IE, current (advisor)
- Ashish Kambli, M.S. IE, Summer 2019 (advisor)
- Trapti Bisen, M.S. IE, Summer 2018 (advisor)
- Ashkan Mirzaee, M.S. IE, Spring 2017 (advisor)

- Marina Materikina, M.S. IE, Fall 2015 (advisor)
- Maryam Nikouei Mehr, M.S. IE, Fall 2014 (advisor)
- Lauren Himmelberg, M.S. IE, Spring 2016 (co-advisor)
- Jennifer Bergman, M.S. IE, Fall 2014 (co-advisor)
- Dian Trihastuti, Ph.D. IE, current, (committee member)
- Ahmed Al-Asadi, Ph.D. Electrical and Computer Engineering, current (committee member)
- Muthana Al Amidie, Ph.D. Electrical and Computer Engineering, current (committee member)
- Yunhao Tang, M.S. Computer Science, current, (committee member)
- Nasibeh Zanjirani Farahani, Ph.D. IE, Summer 2019 (committee member)
- Changzhe Jiao, Ph.D. Electrical and Computer Engineering, Summer 2017 (committee member)
- Phichet Wutthisirisart, Ph.D. IE, Spring 2017 (committee member)
- Xiaoyu Guo, Ph.D. IE, Fall 2016 (committee member)
- Azad Abdulhafedh, Ph.D. Civil Engineering, Fall 2016 (committee member)
- Chatchai Pinthuprapa, Ph.D. IE, Spring 2016 (committee member)
- Hyun Shik Yoon, Ph.D. IE, Summer 2015 (committee member)
- Rana Afzali, Ph.D. IE, Spring 2015 (committee member)
- Houston Sudekum, M.S., Natural Resources - Forestry, Fall 2019 (committee member)
- Tongde Wu, M.S., Mechanical and Aerospace Engineering, Fall 2018 (committee member)
- Veronica Rueda Rey, M.S. IE, Summer 2017 (committee member)
- Savani Shevade, M.S. IE, Spring 2017 (committee member)
- Timothy Gouge, M.A. Geography, Fall 2016 (committee member)
- Jesse Schmidt, M.S. IE, Spring 2016 (committee member)
- Kaixiang Zhang, M.S. IE, Spring 2016 (committee member)
- Kurt Ehlers, M.S. IE, Spring 2015 (committee member)

- Anna Clousen, M.A. Geography, Spring 2015 (committee member)
- Linlin Ma M.S. IE, Summer 2014 (committee member)
- Qian Zhang, M.S. IE, Spring 2014 (committee member)
- David Drum, M.S. Civil Engineering, Spring 2014 (committee member)
- Abdullah Alrashed, M.S. IE, Fall 2013 (committee member)

Pardee RAND Graduate School

- Tom Lang, Ph.D. Policy Analysis, Spring 2010 (advisor)
  - Initial position: Logistics Management Institute; Washington, DC

Reviewer

- Congressional Budget Office; Washington, D.C.
- Journal of Applied Mathematics and Decision Sciences (formerly member of Editorial Board)
- Journal of the Operational Research Society
- European Journal of Operational Research
- Asia-Pacific Journal of Operational Research
- Omega, The International Journal of Management Science
- Networks & Spatial Economics
- International Journal of Production Economics
- Computers & Industrial Engineering
- Information Processing in Agriculture
- IISE Transactions
- Health Care Management Science