

# CHARLES H. REILLY

## **Associate Dean for Academic Affairs**

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### Personal Data:

Married, two adult sons  
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## **EDUCATION**

Ph.D., Industrial Engineering, Purdue University, West Lafayette, IN, August 1983.

M.A.R., Evangelism and Church Planting, Liberty University, Lynchburg, VA, January 2010.

M.S., Industrial Engineering, Purdue University, West Lafayette, IN, December 1980.

B.A., Mathematics and Business Administration, St. Norbert College, De Pere, WI, May 1979.

## **PROFESSIONAL EXPERIENCE**

Associate Dean for Academic Affairs, College of Engineering and Computer Science, UCF, September 2009 – Present (Interim Associate Dean, February – August, 2009).

Assistant Vice Provost, Division of Academic Affairs, Contract Compliance & Administrator Support, August 2015 – Present.

Interim Associate Vice Provost, Division of Academic Affairs, July 2014 – October 2014.

Assistant to the Provost, Office of the Provost, March 2014 – July 2014.

Professor and Graduate Program Coordinator, Department of Industrial Engineering and Management Systems, UCF, February 2007 – February 2009.

Professor and Co-Coordinator – Modeling and Simulation Graduate Programs, IEMS Department, UCF, August 2001 – February 2007.

Professor and Chair, IEMS Department, UCF, April 1996 - August 2001.

Associate Professor and ISE Section Head, Department of Industrial, Welding & Systems Engineering, The Ohio State University, September 1994 - April 1996 (Associate Professor and Acting Chair, July – August 1994).

Associate Professor and Vice Chair, Department of Industrial & Systems Engineering, OSU, July 1989 - June 1994.

Profesor Visitante, Departamento de Ingeniería Industrial, Instituto Tecnológico y de Estudios Superiores de Monterrey, Monterrey, Mexico, June 1990.

Assistant Professor, ISE Department, OSU, October 1983 - June 1989.

## AWARDS AND RECOGNITIONS

1. Unsung Hero, Center for Success of Women Faculty, University of Central Florida, 2017.
2. Fellow, American Association for the Advancement of Science, 2010.
3. Fellow, Institute of Industrial Engineers, 2010.
4. Excellence in Professional Service Award, Department of Industrial Engineering and Management Systems and College of Engineering and Computer Science, University of Central Florida, 2006.
5. Excellence in Undergraduate Teaching Award, Department of Industrial Engineering and Management Systems, University of Central Florida, 2005.
6. Certified Modeling and Simulation Professional (Charter Member), Modeling and Simulation Professional Certification Commission, 2003-2007.
7. CAE/Link Named Professorship, College of Engineering and Computer Science, University of Central Florida, 2001 – 2006.
8. Outstanding COE Administrator, as voted by College of Engineering Students, University of Central Florida, February 1997.
9. Distinguished Service Award, Operations Research Division, Institute of Industrial Engineers, May 1996.
10. Outstanding ISE Faculty Member, as voted by Industrial & Systems Engineering Seniors, The Ohio State University, February 1996.
11. St. Norbert College Distinguished Achievement in Natural Science Award, October 1995.
12. Ameritech Prize for excellence in research and scholarship in telecommunications, 1988.
13. Graduate Research Award, First Place, American Institute of Industrial Engineers, 1981.

## JOURNAL PUBLICATIONS

1. **Reilly, C.** and N. Sapkota. A Family of Composite Discrete Bivariate Distributions with Uniform Marginals for Simulating Realistic and Challenging Optimization-Problem Instances, *European Journal of Operational Research* **241**: 642-652, 2015.

2. Kotnour, T., R. Hoekstra, **C. Reilly**, R. Knight, and J. Selter. Infusing Leadership Education in the Undergraduate Engineering Experience: A Framework from UCF's eli<sup>2</sup>, *Journal of Leadership Studies*, **7**: (4): 48-57, 2014.
3. Sapkota, N. and **C. Reilly**. Simulating Realistic Set Covering Problems with Known Optimal Solutions. *Computers and Industrial Engineering* **61**(1): 39-47, 2011.
4. **Reilly, C.** Synthetic Optimization-Problem Generation: Show Us the Correlations!, *INFORMS Journal on Computing*, **21** (3): 458-467, 2009.
5. **Reilly, C.** Using Markov Chains Simulation to Measure the Eternal Impact of Personal Evangelism, *Journal of the American Society for Church Growth*, Summer 2008: 89-118.
6. Cho, Y., J. Moore, R. Hill, and **C. Reilly**. Exploiting Empirical Knowledge for Bi-Dimensional Knapsack Problem Heuristics, *International Journal of Industrial and Systems Engineering*, **3** (5): 530-548, 2008.
7. **Reilly, C.** Pascal's Wager: A Good Bet for Personal Evangelism, *Journal of the American Society for Church Growth*, **17**: 23-36, 2006.
8. **Reilly, C.** and J. Berglin. An Enhanced Model for Minimizing Fuel Consumption Under Block-Queuing in a Drive-Through Service System, *Transportation Research Part D*, **9**: 221-228, 2004.
9. Miller, J., B. Nelson, and **C. Reilly**, Estimating the Probability that a Simulated System Will be the Best, *Naval Research Logistics*, **49** (4): 341-358, 2002.
10. Cario, M., J. Clifford, R. Hill, J. Yang, K. Yang, and **C. Reilly**. An Investigation of the Relationship Between Problem Characteristics and Algorithm Performance: A Case Study of the GAP. *IIE Transactions*, **34**: 297-312, 2002.
11. Hill, R. and **C. Reilly**. The Effects of Coefficient Correlation Structure in Two-Dimensional Knapsack Problems on Solution Procedure Performance. *Management Science*, **46** (2): 302-317, 2000.
12. Hill, R. and **C. Reilly**. Multivariate Composite Distributions for Coefficients in Synthetic Optimization Problems. *European Journal of Operational Research*, **121**: 64-77, 2000.
13. Miller, J., B. Nelson, and **C. Reilly**. Efficient Multinomial Selection in Simulation. *Naval Research Logistics*, **45** (5): 459-482, 1999.
14. Kappeler, K., S. Birdwell, D. Scheckelhoff, and **C. Reilly**. Model for Evaluating Costs Associated with I.V. Drug Delivery Systems. *American Journal of Hospital Pharmacy*, **49**: 1478-1481, 1992.
15. **Reilly, C.** A Multi-Purpose Heuristic for Communications Satellite Synthesis. *Socio-Economic Planning Sciences*, **25** (4): 251-267, 1991.
16. **Reilly, C.**, C. Mount-Campbell, F. Mata, E. Walton, E. Aebker, and C. Levis. A Two-Phase Procedure for Allotting Geostationary Orbital Locations to Communications Satellites. *Naval Research Logistics*, **38**: 779-797, 1991.
17. **Reilly, C.**, D. Gonsalvez, and C. Mount-Campbell. Finding Fixed Satellite Service Orbital Allotments with a k-Permutation Algorithm. *IEEE Transactions on Communications*, **38** (8): 1253-1259, 1990.

18. **Reilly, C.** and F. Mata. Calculating Solution-Value Bounds for a Geostationary-Satellite Location Problem. *European Journal of Operational Research*, **47** (1):96-114, 1990.
19. **Reilly, C.** and W. Marras. Simulift: A Simulation Model of Human Trunk Motion. *Spine*, **14** (1): 5-11, 1989.
20. Marras, W. and **C. Reilly**. Networks of Internal Trunk-Loading Activities Under Controlled Trunk-Motion Conditions. *Spine*, **13** (6): 661-668, 1988.
21. Levis, C., C. Wang, Y. Yamamura, **C. Reilly**, and D. Gonsalvez. The Role of Service Areas in the Optimization of FSS Orbital and Frequency Assignments. *IEEE Transactions on Electromagnetic Compatibility*, **30** (3): 371-379, 1988.
22. **Reilly, C.** A Satellite System Synthesis Model for Orbital Arc Allotment Optimization. *IEEE Transactions on Communications*, **36** (7): 845-849, 1988.
23. **Reilly, C.** and C. Petersen. Implementation Planning for a USAF-Wide Cardiovascular-Risk-Reduction Program. *IIE Transactions*, **20** (1): 97-102, 1988.

### BOOK CHAPTER

1. **Reilly, C.** Values Underlying Operations Research Models for Synthesizing Communications Satellites. *Telecommunications, Values and the Public Interest*, S. Lundstedt, Ed., Ablex Publishing Co., 198-213, 1990.

### CONFERENCE PAPERS

1. Massi, L, **C. Reilly**, D. Johnson, and L. Castner. Expanding Your Horizons: The Impact of a One-day STEM Conference on Middle School Girls' and Parents' Attitude Toward STEM Careers. To be presented at 119<sup>th</sup> ASEE Annual Conference and Exposition, San Antonio, TX, June 10-13, 2012.
2. Sapkota, N. and **C. Reilly**. Simulation of Random Set Covering Problems with Known Optimal Solutions and Correlated Coefficients. *Proceedings of the 10<sup>th</sup> World Multi-Conference on Systemics, Cybernetics, and Informatics*, Volume VI, International Institute of Informatics and Systemics, Orlando, FL, 57-62, 2006.
3. **Reilly, C.** Coefficient Ratios in Simulated 0-1 Knapsack Problems. *Proceedings of the 10<sup>th</sup> World Multi-Conference on Systemics, Cybernetics, and Informatics*, Volume VI, International Institute of Informatics and Systemics, Orlando, FL, 51-56, 2006.
4. Clarke, T., P. Kincaid, D. McBride, and **C. Reilly**. The New Modeling and Simulation Ph.D. Program at the University of Central Florida. *Proceedings of the 2001 Summer Computer Simulation Conference*, Society for Computer Simulation, Orlando, FL, 2001.
5. **Reilly, C.** Input Models for Synthetic Optimization Problems. *Proceedings of the 1999 Winter Simulation Conference* (P. Farrington, H. Nembhard, D. Sturrock, and G. Evans ,eds.) Institute of Electrical and Electronics Engineers, Phoenix, AZ, 116-121, 1999.
6. **Reilly, C.** Properties of Synthetic Optimization Problems. *Proceedings of the 1998 Winter Simulation Conference* (D. Medeiros, E. Watson, J. Carson, and M. Manivannan, eds.) Institute of Electrical and Electronics Engineers, Washington, DC, 617-621, 1998.

7. Armacost, R., J. Pet-Edwards, **C. Reilly**, and G. Whitehouse. Integrating Reengineering and TQM to Achieve Operational Excellence in Student Services. *Proceedings of the 7<sup>th</sup> Industrial Engineering Research Conference*, 1998.
8. **Reilly, C.** Generating Coefficients for Optimization Test Problems with Implicit correlation Induction. *SMC '97 Conference Proceedings*, Institute of Electrical and Electronics Engineers, Orlando, FL, 2438-2443, 1997.
9. Miller, J., B. Nelson, and **C. Reilly**. Getting More from the Data in a Multinomial Selection Problem. *Proceedings of the 1996 Winter Simulation Conference* (J. Charnes, D. Morrice, D. Brunner, and J. Swain, eds.), Institute of Electrical and Electronics Engineers, Coronado, CA, 287-294, 1996.
10. Cario, M. J. Clifford, R. Hill, J. Yang, K. Yang, and **C. Reilly**. Alternative Methods for Generating Synthetic Generalized Assignment Problems. *Proceedings of the 4<sup>th</sup> Industrial Engineering Research Conference*, 1080-1089, 1995.
11. Hill, R. and **C. Reilly**. Composition for Multivariate Random Variables. *Proceedings of the 1994 Winter Simulation Conference* (J. Tew, S. Manivannan, D. Sadowski, A. Seila, eds.), Institute of Electrical and Electronics Engineers, Lake Buena Vista, FL, 332-339, 1994.
12. Walton, E., **C. Reilly**, and W. Cooper. Cellular System Models Using Measured Propagation Data. *Proceedings of the 1994 IEEE 44<sup>th</sup> Vehicle Technology Conference*, 1764-1766, 1994.
13. **Reilly, C.** A Comparison of Alternative Input Models for Synthetic Optimization Problems. *Proceedings of the 1993 Winter Simulation Conference* (G. Evans, M. Mollaghasemi, E. Russell, and W. Biles, eds.), Institute of Electrical and Electronics Engineers, Los Angeles, CA, 356-364, 1993.
14. **Reilly, C.** Optimization Test Problems with Uniformly Distributed Coefficients. *Proceedings of the 1991 Winter Simulation Conference* (B. Nelson, W. Kelton, and G. Clark, eds.), Institute of Electrical and Electronics Engineers, Phoenix, AZ, 866-874, 1991.
15. Moore, B., J. Peterson, and **C. Reilly**. Characterizing Distributions of Discrete Bivariate Random Variables for Simulation and Evaluation of Solution Methods. *Proceedings of the 1990 Winter Simulation Conference* (O. Balci, R. Sadowski, and R. Nance, eds.), Institute of Electrical and Electronics Engineers, New Orleans, LA, 294-302, 1990.
16. **Reilly, C.**, E. Walton, F. Mata, C. Mount-Campbell, C. Olen, and S. Widjaja. A Heuristic Approach to Worst-Case Carrier-to-Interference Ratio Maximization in Satellite System Synthesis. *Proceedings of the AIAA 13<sup>th</sup> International Communications Satellite Systems Conference*, American Institute of Aeronautics and Astronautics, Los Angeles, CA, 332-330, 1990.
17. Heyward, A., **C. Reilly**, E. Walton, F. Mata, and C. Olen. Application of Heuristic Satellite Plan Synthesis Algorithms to Requirements of the WARC-88 Allotment Plan. *Proceedings of the AIAA 13<sup>th</sup> International Communication Satellite Systems Conference*, Los Angeles, CA, 311-321, 1990.
18. **Reilly, C.**, D. Gonsalvez, and C. Mount-Campbell. A k-Permutation Algorithm for Fixed Satellite Service Orbital Allotments. *Proceedings of the AIAA 12<sup>th</sup> International Communication Satellite Systems Conference*, Arlington, VA, 46-52, 1988.
19. Marras, W. and **C. Reilly**. Internal Trunk-Loading Sequence Responses to Lifting Motions. *Proceedings of the Human Factors Society 31<sup>st</sup> Annual Meeting*, 447-451, 1987.

20. **Reilly, C.**, C. Mount-Campbell, D. Gonsalvez, C. Martin, C. Levis, and C. Wang. Broadcasting Satellite Service Synthesis Using Gradient and Cyclic Coordinate Search Procedures. *Proceedings of the AIAA 11<sup>th</sup> Communication Satellite Systems Conference*, 237-245, 1986.
21. Levis, C., C. Wang, Y. Yamamura, **C. Reilly**, and D. Gonsalvez. The Role of Service Areas in the Optimization of FSS Orbital and Frequency Assignments. *Proceedings of the AIAA 11<sup>th</sup> Communication Satellite Systems Conference*, 190-198, 1986. (See Journal Publication 11.)

## INVITED PRESENTATIONS

1. Keynote address. ASME Student Professional Development Conference, UCF, April 1, 2011.
2. My "Last" Lecture. Lockheed Martin Simulation Training & Support, 2006 National Engineers Week Awards Breakfast, Orlando, FL, February 22, 2006.
3. UCF's Modeling & Simulation Graduate Program. Central Florida Simulation Users Group, Orlando, FL, October 2, 2002.
4. On the Random Generation of Synthetic 0-1 Knapsack Problems. INFORMS National Meeting, Cincinnati, OH, May 2, 1999.
5. UCF's Academic Offerings in Modeling and Simulation. Naval Air Warfare Center – Training Systems Division, Orlando, FL, April 5, 1999.
6. UCF's Academic Offerings in Modeling and Simulation. Executive Steering Committee, Naval Air Warfare Center – Training Systems Division, Orlando, FL, March 29, 1999.
7. UCF's Academic Offerings in Modeling and Simulation. Air Force Modeling and Simulation Education Tiger Team Meeting, Air Force Agency for Modeling and Simulation, Orlando, FL, February 2, 1999.
8. Alternative Methods for Inducing Correlation in Synthetic Generalized Assignment Problems. Department of Industrial Engineering and Management Systems, Northwestern University, Evanston, IL, November 11, 1997. (Co-authors M. Cario, J. Clifford, R. Hill, J. Yang, and K. Yang)
9. Why are Knapsack Problems with Correlated Coefficients Harder to Solve? INFORMS National Meeting, San Diego, CA, May 7, 1997.
10. Manufacturing Programs at UCF. Society of Manufacturing Engineers Chapter 160, Orlando, FL, November 21, 1996.
11. A Linear Integer Programming Model for Scrap Minimization: Formulation and Solution. Sixtieth Meeting of the Northeastern Wisconsin Mathematics Seminar Series, St. Norbert College, De Pere, WI, October 5, 1995.
12. Some Guidelines for the Design of Computational Experiments on Synthetic Optimization Problems. TIMS XXXII International Meeting, Anchorage, AK, June 13, 1994.

13. Beware of Optimization Problems with Correlated Coefficients. The University of Oklahoma, School of Industrial Engineering, Norman, OK, May 6, 1993.
14. Mathufacturing. The Ohio State University, Department of Mathematics, Reception for Math Awareness Week, Columbus, OH, April 26, 1993.
15. Maximin Probability Mass Functions and Parametric Envelopes for Bivariate Random Variables. University of Minnesota, Carlson School of Management, Minneapolis, MN, March 9, 1993.
16. The Effect of Correlated Random Variables on the Performance of Algorithms and Heuristics. TIMS/ORSA Joint National Meeting, Orlando, FL, April 27, 1992. (Co-author G. Pollock)
17. Can You Cut It in the Field of Operations Research? Denison University, Department of Mathematical Sciences, Granville, OH, February 18, 1992.
18. Important Aspects of Graduate School. Graduate School Fair in Science and Engineering, Argonne National Laboratory, Argonne, IL, October 5, 1991.
19. Optimal Mass Functions for Bivariate Random Variables. TIMS/ORSA Joint National Meeting, Nashville, TN, May 14, 1991. (Co-authors B. Moore and J. Peterson)
20. The Sky's the Limit for Industrial Engineering. Ohio University, Department of Industrial and Systems Engineering, Athens, OH, January 22, 1991.
21. A Multi-Purpose Heuristic for Communications Satellite Synthesis. 18<sup>th</sup> Telecommunications Policy Research Conference, Airlie, VA, October 1, 1990.
22. Communications Satellite Synthesis: An Application of Operations Research. Instituto Tecnológico y de Estudios Superiores de Monterrey, Monterrey, Mexico, June 22, 1990.
23. A k-Permutation Algorithm for Fixed Satellite Service Orbital Allotments. AIAA 12<sup>th</sup> International Communication Satellite Systems Conference, Arlington, VA, March 14, 1988. (Co-authors D. Gonsalvez and C. Mount-Campbell)
24. Values Underlying Operations Research Models for Synthesizing Communications Satellites. The Ohio State University Roundtable on International Telecommunications, Values and the Public Interest, Columbus, OH, March 3, 1988.
25. A Satellite System Synthesis Model for Orbital Arc Allotment Optimization. U.S. Air Force Institute of Technology, Operational Sciences Department, Wright-Patterson Air Force Base, OH, March 19, 1987.
26. Communications Satellite System Synthesis: An Application of Optimization. General Motors Research Laboratories, Mathematics Department, Warren, MI, June 5, 1985.
27. Case Mix Optimization at OSU Hospitals. Central and Southwestern Ohio Hospital Management Systems Society Meeting, Columbus, OH, March 8, 1985. (Co-author A. Scott)

## **GRADUATE STUDENT RECRUITING PRESENTATIONS**

1. To Idle or Not To Idle: That Is the Question. Stetson University, Department of Mathematics and Computer Science, Deland, FL, December 5, 2007.

2. Graduate Studies in IEMS at UCF. Florida Southern College, Department of Mathematical Sciences, Lakeland, FL, November 2000. (Co-presenter L. Malone)
3. "Out-of-this-World" Operations Research. Central State University, Department of Mathematics and Computer Science, Wilberforce, OH, October 12, 1989.
4. "Out-of-this-World" Operations Research. Denison University, Department of Mathematical Sciences, Granville, OH, September 14, 1988.
5. "Out-of-this-World" Operations Research. Miami University, Department of Mathematics and Statistics, Oxford, OH, October 27, 1987.
6. Communications Satellite Synthesis: An Application of Operations Research. St. Norbert College, De Pere WI, November 10, 1986.

### **OTHER PRESENTATIONS**

1. Building STEM Connections: Designing, Funding and Growing a Local Conference, 2010 STEMTech Conference, Orlando, FL, November 2, 2010 (Lead presenter B. Furino).
2. Using Markov-Chain Simulation to Measure the Eternal Impact of Personal Evangelisim. National Faculty Leadership Conference, Washington, DC, June 23, 2006.
3. A Heuristic Approach to Worst-Case Carrier-to-Interference Ration Maximization in Satellite System Synthesis. TIMS/ORSA Joint National Meeting, Las Vegas, NV, May 7, 1990. (Co-authors E. Walton, F. Mata, C. Mount-Campbell, C. Olen, and S. Widjaja)
4. A Simple Greedy Heuristic for 0-1 Quadratic Programs. TIMS/ORSA National Meeting, New Orleans, LA, May 6, 1987. (Co-author F. Mata)
5. Computational Results for 0-1 Quadratic Programming Algorithms Utilizing Surrogate Constraints. ORSA/TIMS National Meeting, Miami Beach, FL, October 29, 1996. (Co-author M. Kalkunte)
6. Imbedded Linear Programs in Nonlinear Integer Programming Problems. TIMS/ORSA National Meeting, Los Angeles, CA, April 15, 1986. (Co-author C. Petersen)
7. When Do Search Algorithms Work?: An Application of Experimental Design. TIMS/ORSA National Meeting, Los Angeles, CA, April 15, 1986. (Co-author C. Mount-Campbell)
8. Solving a Trim Loss Problem in a Simulation Model: Exact and Heuristic Methods. 1983 Winter Simulation Conference, Arlington, VA, December 12, 1983. (Co-authors F. Armstrong and A. Pritsker)

### **SPONSORED PROJECTS**

1. Simulation of Ground Processing or Orbital Replacement Units for the International Space Station. Florida Space Grant Consortium, August 2008 – August 2009, \$25,000 (**C. Reilly**, PI, M. Calabrese, Co-PI).
2. Knowledge Sharing Activities for Analyzing CoP Case Studies. Pohang University of Science and Technology, November 2007 – September 2008, \$20,780 (**C. Reilly**, PI).



3. Academic Initiative in Modeling and Simulation. University of Central Florida, July 1999 – June 2000, \$125,000 (M. Mollaghasemi, PI, **C. Reilly**, Co-PI).
4. Academic Initiative in Modeling and Simulation. UCF, July 1998 – June 1999, \$250,000 (M. Mollaghasemi, PI, **C. Reilly**, Co-PI).
5. University's Customer Focus for the 21<sup>st</sup> Century. UCF, July 1998 – June 1999, \$200,000 (J. Pet-Edwards, PI, R. Armacost, Co-PI, **C. Reilly**, Co-PI).
6. University's Customer Focus for the 21<sup>st</sup> Century. UCF, August 1997 – June 1998, \$227,000 (J. Pet-Edwards, PI, R. Armacost, Co-PI, **C. Reilly**, Co-PI).
7. Dynamic Scheduling for Semiconductor Manufacturing. UCF/Cirent Technologies, September 1997 – June 1998, \$42,000 (**C. Reilly**, PI, M. Mollaghasemi, PI, L. Malone, Co-PI).
8. Production Scheduling in OR I and II. Enterprise Florida, January 1997 – August 1997, \$32,000 (**C. Reilly**, PI, M. Mollaghasemi, PI).
9. Cellular Frequency Planning Tool – Phase I. Northern Telecom, Inc., April 1992 – August 1992, \$29,867 (E. Walton, PI, **C. Reilly**, PI).
10. Identifying Cutting Strategies for Scrap Reduction. The Bundy Corporation, January 1992 – June 1992, \$18,516.
11. Equipment Sequencing and Tracking Systems for Switching System Manufacturing. AT&T Network Systems, January 1991 – December 1991, \$11,000 (B. Nelson, PI, **C. Reilly**, PI).
12. Development of a Model for Evaluating Costs Associated with IV Drug Delivery Systems. Baxter Healthcare Corporation, January 1991 – December 1991, \$10,000 (S. Birdwell, PI, **C. Reilly**, Co-PI).
13. Engineering Calculations for Communications Satellite Systems Planning. National Aeronautics and Space Administration, February 1990 – May 1991, \$73, 930 (E. Walton, PI, **C. Reilly**, PI).
14. Engineering Calculations for Communications Satellite Systems Planning. NASA, January 1989 – February 1990, \$96,239 (E. Walton, PI, **C. Reilly**, PI).
15. Engineering Calculations for Communications Satellite Systems Planning. NASA, January 1988 – December 1998, \$130,000 (E. Walton, PI, **C. Reilly**, PI).
16. Engineering Calculations for Communications Satellite Systems Planning. NASA, August 1986 – December 1987, \$156,344 (E. Walton, PI, **C. Reilly**, PI).
17. Engineering Calculations for Communications Satellite Systems Planning. NASA, July 1985 – August 1986, \$119,983 (C. Levis, PI, **C. Reilly**, PI).
18. Engineering Calculations for Communications Satellite Systems Planning. NASA, September 1984 – July 1985, \$89,393 (C. Levis, PI, **C. Reilly**, PI).
19. Toward the Development of a Spine Motion Mathematical Model. The Ohio State University Seed Grant Program, July 1984 – June 1985, \$11,100 (W. Marras, PI, **C. Reilly**, PI).

## RESEARCH REPORTS

1. Rodriguez, B., J.A. Sepúlveda, and **C. Reilly**. Simulation of Ground Process of Orbital Replacement Units for the International Space Station. Final Report, October 2009.
2. **Reilly, C.** and B. Rodriguez. Simulation of Ground Processing of Orbital Replacement Units for the International Space Station. Interim Progress Report, May 2009.
3. Eriksson, M., P. Hägglund, and **C. Reilly**. Student Registration Analysis: Fall 1997. UCF 21-TR-97-004, October 31, 1997.
4. Armacost, R. J. Pet-Edwards, **C. Reilly**, and G. Whitehouse. Integrating Reengineering and TQM to Achieve Operational Excellence in Student Services. UCF 21-TR-98-001, February 16, 1998.
5. Hägglund, P., M. Eriksson, **C. Reilly**, and J. Pet-Edwards. An Inventory of Student Services and Processes at UCF. UCF 21-TR-98-003, 1998.
6. **Reilly, C.**, M. Mollaghasemi, and M. Ramaswamy. Effects of CFI Factors on Fab Performance Measures. November, 1997.
7. Walton, E., **C. Reilly**, K. Rizoulis, and T. Crannell. Cellular Frequency Planning Tool – Phase I. The Ohio State University, ElectroScience Laboratory, Final Report 312588-2, February 1993.
8. Rizoulis, K., E. Walton, and **C. Reilly**. Development of a Dynamic Model for Simulation of Cellular Phone Systems. OSU ElectroScience Laboratory, Technical Report 312588-1, February 1993.
9. Walton, E. and **C. Reilly**. Cellular Frequency Planning Tool – Phase I. Progress Report, August 1992.
10. **Reilly, C.** and B. Corrao. Identifying Cutting Strategies for Scrap Reduction. July 1992.
11. Long, M., B. Nelson, and **C. Reilly**. Simulation Study of UN90: Final Report. February 1992.
12. Walton, E., E. Aebker, F. Mata, and **C. Reilly**. Engineering Calculations for Communications Satellite Systems Planning. OSU ElectroScience Laboratory, Final Report 723160-1 for Grant NAG 3-159, May 1991.
13. **Reilly, C.**, E. Walton, C. Mount-Campbell, R. Caldecott, E. Aebker, and F. Mata. Engineering Calculations for Solving the Orbital Allotment Problem. OSU ElectroScience Laboratory Technical Report 718688-7 for Grant NAG 3-159, August 1988.
14. **Reilly, C.** A Satellite System Synthesis Model for Orbital Arc Allotment Optimization. OSU ElectroScience Laboratory, Technical Report 718688-5 for Grant NAG 3-159, July 1987.
15. Bhasin, P. and **C. Reilly**. Mathematical Programming Formulations for Satellite Synthesis. OSU ElectroScience Laboratory, Technical Report 718688-4 for Grant NAG 3-159, July 1987.
16. **Reilly, C.**, E. Walton, and P. Kohnhorst. Engineering Calculations for Communications Satellite Systems Planning. OSU ElectroScience Laboratory, Interim Report 718688-3 for Grant NAG 3-159, May 1987.

17. Gonsalvez, D., **C. Reilly**, and C. Mount-Campbell. On Orbital Allotments for Geostationary Satellites. OSU ElectroScience Laboratory, Technical Report 718688-2 for Grant NAG 3-159, November 1986.
18. **Reilly, C.**, C. Levis, O. Buyukdura, and C. Mount-Campbell. Engineering Calculations for Communications Satellite Systems Planning. OSU ElectroScience Laboratory, Interim Report 718688-1 for Grant NAG 3-159, November 1986.
19. **Reilly, C.**, O. Buyukdura, C. Levis, and C. Mount-Campbell. Engineering Calculations for Communications Satellite Systems Planning. OSU ElectroScience Laboratory, Interim Report 716548-5 for Grant NAG 3-159, 1986.
20. **Reilly, C.**, C. Mount-Campbell, D. Gonsalvez, C. Martin, C. Levis, and C. Wang. Broadcasting Satellite Service Synthesis Using Gradient and Cyclic Coordinate Search Procedures. OSU ElectroScience Laboratory, Technical Report 716548-4 for Grant NAG 3-159, February 1986.
21. Levis, C., C. Wang, Y. Yamamura, **C. Reilly**, and D. Gonsalvez. The Role of Service Areas in the Optimization of FSS Orbital and Frequency Assignments. OSU ElectroScience Laboratory, Technical Report 716548-3 for Grant NAG 3-159, December 1985.
22. **Reilly, C.**, C. Levis, C. Mount-Campbell, D. Gonsalvez, C. Wang, and Y. Yamamura. Engineering Calculations for Communications Satellite Systems Planning. OSU ElectroScience Laboratory, Interim Report 716548-2 for Grant NAG 3-159, 1985.
23. Levis, C., C. Martin, **C. Reilly**, D. Gonsalvez, and Y. Yamamura. Engineering Calculations for Communications Satellite Systems Planning. OSU ElectroScience Laboratory, Interim Report 713533-5 for Grant NAG 3-159, 1984.

## **TEACHING**

### **Courses Taught at the University of Central Florida:**

EGN/EGS 1006C Introduction to the Engineering Profession. (2 times)  
 EGN 1007C Engineering Concepts and Methods. (2)  
 EGN 3930 ST: Leadership in Engineering I.  
 EGN 3935: Leadership in Engineering I.  
 EGN 3936: Leadership in Engineering II.  
 EIN 4116C Systems Analysis and Design. (2)  
 EIN 5936 Seminar in Industrial Engineering Doctoral Research.  
 ESI 4312 Operations Research. (4)  
 ESI 5316/5306 Operations Research. (4)  
 ESI 6336 Queueing Systems. (3)  
 ESI 6427/6418 Linear Programming and Extensions. (7)  
 ESI 6938 ST: Simulation Research Methods and Practicum. (2)  
 IDS 6938 ST: Simulation Research Methods and Practicum. (2)  
 IDS 6919/6916: Simulation Research Methods and Practicum. (4)  
 STA 3032/3032H Probability and Statistics for Engineers. (14)

### **Courses Taught at The Ohio State University:**

IND ENG 300 Introduction to Quantitative Analysis of Management Systems. (2)  
 IND ENG 508.01 Industrial Practice in Systems Design I. (11, with T. Rockwell)  
 IND ENG 508.02 Industrial Practice in Systems Design II. (11, with T. Rockwell)  
 IND ENG 656 Production Programming. (15)  
 IND ENG 702 Mathematical Programming: Linear. (10)

IND ENG 710 Optimization in Operations Research.  
IND ENG 755 Analysis of Multi-Criteria Decisions. (2)  
IND ENG 834 Integer Optimizations Methods. (2)  
IND ENG 842 Operations Research I. (3)  
IND ENG 843 Operations Research II.  
IND ENG 881 Seminar in Industrial Engineering.  
IND ENG 900.01 Seminar in Operations Research – Optimization.

**Course Taught at ITESM, Monterrey, Mexico:**

Optimización Discreta (Discrete Optimization). Summer 1990 (With F. Mata).

**Course Taught at Purdue University:**

IE 365 Organization for Production. (3)

## **THESIS/DISSERTATION ADVISING**

**Ph.D. Students Advised:**

Students Graduated:

1. Lindon P. Fairweather. Models to Estimate Arrival Counts and Staffing Requirements in Nonstationary Queueing Systems Applied to Long Distance Road Races. University of Central Florida, Summer 2011.
2. Craig L. Tidwell. Measuring the Effect of Using Simulated Security Awareness Training and Testing on Members of Virtual Communities of Practice, University of Central Florida, Spring 2011.
3. Nabin Sapkota. Simulation of Random Set Covering Problems with Known Optimal Solutions and Explicitly Induced Correlation Among Coefficients. University of Central Florida, Fall 2006.
4. John O. Miller. Efficient Multinomial Selection in Simulation. The Ohio State University, Spring 1997 (Co-advised with B. Nelson).
5. Raymond R. Hill. Multivariate Sampling with Explicit Correlation Induction for Simulation and Optimization Studies. OSU, Winter 1996.
6. Fernando Mata. Properties of the Satellite Location Polyhedron and Its Relation to the Scheduling Polyhedron. OSU, Autumn 1990. (Best Dissertation Prize, College on Location Analysis, The Institute of Management Sciences, 1991)
7. David J. A. Gonsalvez. On Orbital Allotments for Geostationary Satellites. OSU, Autumn 1986. (Co-advised with C. Mount-Campbell)

**M.S. Thesis Students Advised:**

Students Graduated:

1. Brandy Heyde. Evaluating the Performance of Animal Shelters: An Application of Data Envelopment Analysis. Spring 2008.

2. Gregory Fortier. The Application of "Crashing" a Project Network to Solve the Time/Cost Tradeoff in Recapitalization of the UH-60A Helicopter. Fall 2006.
3. Nancy Kohan. Measuring the Effect of Erratic Demand on Simulated Multi-Channel Manufacturing System Performance. UCF, Fall 2004 (Co-advisor with D. Kulonda).
4. Jon Berglin. Simulating a Block Queuing System at a Drive-Thru Restaurant to Examine Tradeoffs Between Fuel Consumption and Customer Service. UCF, Summer 2003.
5. M. Ramaswamy. Correlated Processing Times and Flow Times in Manufacturing Systems. UCF, Spring 1999.
6. Jaehwan Yang. A Computational Study on 0-1 Knapsack Problems Generated Under Explicit Correlation Induction. OSU, Summer 1994.
7. Brian J. Corrao. A Greedy Heuristic Approach to the Stochastic Cutting Stock Problem. OSU, Spring 1993.
8. Tasha L. Crannell. Heuristics for the Cellular Frequency Group Assignment Problem. OSU, Spring 1993.
9. Bridget A. Moore. The Effect of Correlation on Exact and Heuristic Procedures for the Weighted Set Covering Problem. OSU. Spring 1990.
10. Brian E. Campbell. Development and Evaluation of Optimization Models for Scheduling Elective Admissions and Nursing Work Load. OSU, Spring 1990.
11. Jeffrey A. Peterson. A Parametric Analysis of a Bottleneck Transportation Problem Applied to the Characterization of Correlated Discrete Random Variables. OSU, Spring 1990.
12. Amy L. Hendrickson. Computer Simulation and Evaluation of Unit Dose Cart Filling Systems for Ohio State University Hospitals. OSU, Spring 1988.
13. Puneet Bhasin. Mathematical Programming Formulations for Satellite Synthesis. OSU, Spring 1987.
14. Terry A. Eberhart. BIPS: A Binary Integer Programming Subroutine for Imbedded Optimization within SIMSCRIPT II.5 Simulations. OSU, Summer 1985.

**Undergraduate Honors Students Advised:**

1. Gregory A. Pollock. Evaluation of Solution Methods for Weighted Set Covering Problems Generated with Correlated Uniform Random Variables. OSU, Spring 1992.
2. Setiadai Widjaja. Maximizing the Worst-Case Carrier-to-Interference Ratio in Satellite System Synthesis Problems. OSU, Spring 1989.
3. Amy J. Scott. Case Mix Optimization at OSU Hospitals. OSU, Winter 1986.

## PROFESSIONAL SERVICE HIGHLIGHTS

### **Conference Activities:**

Annual IIE Conference and Exhibition:

Chair, Orlando 2002 Host Committee, 2001 - 2002.

Winter Simulation Conferences:

Track Coordinator, Software and Modelware, 2001.

Co-Track Coordinator, Software and Modelware, 2000.

Track Coordinator, General Applications, 1999.

Track Coordinator, Software and Modelware, 1997.

Track Coordinator, General Applications, 1991.

National Junior Science and Humanities Symposium:

Local Arrangements, 2001. (With M. Yerkes, T. Bryson and others)

Interservice/Industry Training, Simulation and Education Conference:

Continuing Education Evaluator, 1999.

Telecommunications Policy Research Conferences:

Member, Organizing Committee for the Nineteenth TPRC, 1991.

Member, Organizing Committee for the Eighteenth TPRC, 1990.

### **For Professional Societies:**

Workshop Contributor, Preparation for the Modeling and Simulation Professional Certification Exam, Interservice/Industry Training, Simulation & Education Conference, December 2006, 2007.

Modeling and Simulation Professional Certification Commission:

Examination Development Committee, 2003.

The Institute of Industrial Engineers:

Director of Volunteers, 2003.

Director, Operations Research Division, 1995 – 1996.

Director-Elect, Operations Research Division, 1994 – 1995.

Chair, Operations Research Division Awards Committee, 1993 – 1995.

Chair, Mathematical Programming Interest Group, Operations Research Division, 1992 – 1995.

Division Affairs Co-Chair, Columbus OH Chapter, 1984 – 1985.

Ohio Manufacturers' Association:

Judge, Case Studies in Team Excellence Competition, 1993, 1994, 1995.

### **For Journals:**

Area Editor, *International Journal of Operations and Quantitative Management*, 1994 – 2010.

Guest Editor, *IJOQM*, Special Issue on Optimization Algorithms and Heuristics: Issues in Computational Experimentation, 2008 – 2011.

Member, Editorial Board, *International Journal of Industrial Engineering – Applications and Practice*, 1994 – 2000.

Referee for various journals, including:

*Operations Research,*  
*Computers and Operations Research,*  
*Journal of Scheduling,*  
*Management Science,*  
*Computers and Industrial Engineering,*  
*International Journal of Industrial Engineering and Management Systems,*  
*ACM Transactions on Modeling and Computer Simulation,*  
*International Journal of Industrial Engineering – Applications and Practice,*  
*Discrete Applied Mathematics,*  
*IEEE Transactions on Communications,*  
*IIE Transactions,*  
*International Journal of Industrial Ergonomics,*  
*Industrial Engineering and Management Systems,* and  
*International Journal of Mathematics and Mathematical Sciences.*

**At the University of Central Florida:**

Foundations of Excellence Transfer Initiative:

Faculty Co-Chair, Philosophy Action Team, 2015-2016.

Faculty Co-Lead, Philosophy Dimension Committee, 2014-2015.

Member, Strategic Planning Thematic Team 1 (Prominent Students), 2016-2017.

Institutional Safety Council, 2013 – 2016; Chair, 2015 – 2016.

Graduate Appeals Committee, Chair, August 2008 – January 2009.

Grand Marshall, Commencement, August 2006.

Graduate Council, Curriculum Subcommittee, 2004-2006.

Promotion and Tenure Committee, CECS, 2004-2008; Chair, 2008.

Promotion and Tenure Committee, IEMS: Chair, 2009, 2010.

Faculty Co-Chair, Faculty/Staff Campaign, CECS, 2004, 2005.

Faculty Qualifications Review Committee, 2005.

Faculty Senate, 2002 – 2004. Vice Chair, Graduate Council; Chair, Course Review and New Programs Subcommittee, 2002 -2004.

Member, Undergraduate Curriculum Task Force, IEMS, 2003 – 2005.

Chair, Graduate Offerings Task Force, IEMS, 2002 – 2003.

RIA Selection Committee (UCF), 2002, 2003 (Chair).

RIA Selection Committee, CECS, 2002, 2003 (Chair), 2005.

Search Committees:

- Chair, CECS Associate Dean for Graduate Affairs, 2017.
- Chair, Materials Science and Engineering Chair Search, 2016-2017.
- Member, Coordinator Administrative Services Search Committee, 2016.
- Chair, Assistant Vice Provost for Faculty Excellence, 2016.

- Member, Director of Office of Experiential Learning, 2016.
- Chair, CECS Budget Director, 2016.
- Chair, Vice Provost for Faculty Excellence and International Affairs & Global Strategies, 2015.
- Member, Associate Dean and Director of Interdisciplinary Graduate Education, College of Graduate Studies, 2015.
- Chair, CECS Director Academic Support Services, 2013, 2014, 2018.
- Chair, CECS/Regional Campuses Coordinators I, Academic Support Services (4), 2014.
- Member, Auditing Office Director Search Committee, 2013.
- Member, Vice Provost for Regional Campuses Search Committee, 2012-2013.
- Member, CECS Director of Information/Publications Services, 2012.
- Member, Vice Provost and Dean of Undergraduate Studies Search Committee, 2011.
- Member, CECS Human Resources Director Search, 2006, 2010-11.
- Chair, MMAE Chair Search Committee, 2010
- Chair, IEMS Executive Officer Search, 2006.
- Chair, Institutional Research Director and Data Administrator Search, 2000.
- Member, Vice Provost and Dean of Graduate Studies Search, 2000.
- Member, Executive Director of the Institute for Simulation and Training Search, 1999.

Chair, Five-Year Administrative Review Committee, College of Engineering and Computer Science, 2000, 2015-2016.

Faculty Advisor:

- American Society for Engineering Education (formerly Student Panel for Engineering and Computer Science (SPECS)), 2009 – 2013 (with M. Dagley).
- Alpha Pi Mu, 2001 – 2005, 2007 – 2009.
- Campus Crusade for Christ, 2007 – Present.
- Florida International Student Hospitality (FISH), 2006 – 2016.
- Baptist Collegiate Ministries, 2006 – 2008.

### **At The Ohio State University:**

College of Engineering:

- Chair, Reinstatements and Substitutions Committee, 1993 – 1996.
- Academic Affairs Committee, 1984 – 1987;
- Enrollment Management Subcommittee, 1985 – 1987.

Industrial, Welding & Systems Engineering/Industrial & Systems Engineering:

- ISE/WE Consolidation Committee, 1994.
- Chair, ISE Undergraduate Studies Committee, 1994 – 1996.
- Member, Welding Engineering Undergraduate Studies Committee, 1994 – 1996.
- Faculty Advisor to Alpha Pi Mu, 1994 – 1996.
- Graduate Studies Committee, 1987 – 1994.
- Chair, Undergraduate Studies Committee, 1989 – 1994.
- Chair, Seminar Series, 1988 – 1989.
- Faculty Advisor to Alpha Pi Mu, 1984 – 1994.
- Faculty Advisor to the Operations Research Society of America, 1983 – 1991.

Associate, Center for Advanced Study in Telecommunications, 1990 – 1996.

### **At Purdue University:**

Founding President, Purdue University Chapter of Omega Rho, 1981 – 1982.



Alternate Member, Campus Appeals Board, 1981 – 1982.

## PROFESSIONAL AFFILIATIONS

- American Association for the Advancement of Science (Fellow).
- American Society for Engineering Education.
- Institute for Operations Research and the Management Sciences.
- The Institute of Industrial and Systems Engineers (Fellow).
- Alpha Pi Mu.
- Omega Rho.

## COMMUNITY SERVICE

- Board Member, Light Stone Partners, 2009 – 2015.
- United Christian Faculty and Staff (University of Central Florida):
  - President, 2005 – 2006.
  - Vice President, 2004 – 2005.
  - Leadership Team, 2004 – 2007.
- CrossLife Church (formerly known as First Baptist Oviedo), Oviedo FL:
  - Personnel Committee, 2009-2012.
  - General Trustee, 2007-2010.
  - Long Range Planning Committee, 2007 – 2009.
  - Prayer Director, Together Toward Tomorrow Campaign, 2006 – 2007.
  - Evangelism Ministry, 2002 – present.
  - Sunday School/Small Group Teacher, 2004 – 2006, 2010 – Present.
  - Committee Member, Greater Oviedo 5K Race, 2003 – 2005.
  - Short-term Mission Trip Leader, Brazil, May 4-12, 2007, March 7-14, 2008, October 10-17, 2008, March 2-9, 2012.
  - Short-term Mission Trip, Belgium, June 17-26, 2005.
  - Parking Ministry, 2000 – 2003.
- Oviedo High School Boosters Club, Baseball Parent Representative, 2004 – 2005.
- Oviedo Babe Ruth Baseball:
  - Coach, Fall 2001, Spring 2002, Fall 2003, Spring 2004, Fall 2004.
- Oviedo Little League:
  - Manager, Spring 1997 (T-Ball), Fall 1997 (T-Ball), Spring 1998 (T-Ball), Spring 2001 (Minor), Summer 2001 (9-10 All-Stars).
  - President, September 1998 – September 1999.
  - Vice President, T-Ball and Machine-Pitch, April 1998 – September 1998.
  - Coach, Fall 1998 (Machine-Pitch, Major), Fall 1999 (Major).
- Seminole Pony Baseball:
  - Coach, Spring 2000 (Bronco), Fall 2000 (Mustang).
- Seminole County Public Schools:
  - Math Super Stars Teacher, Douglas Stenstrom Elementary School, Oviedo FL: 1997 – 1998 (4<sup>th</sup> Gr), 1998 – 1999 (5<sup>th</sup> Gr), 1999 – 2000 (3<sup>rd</sup> Gr), 2001 – 2002 (4<sup>th</sup> Gr), 2002 – 2003 (5<sup>th</sup> Gr).
- Dublin (OH) Youth Athletics:
  - Manager, 1994 (T-Ball), 1995 (Coach-Pitch).
  - T-Ball Co-Commissioner, 1994.
- Cub Scouts: Co-Den Leader, Dublin OH, 1994 – 1996.

## PERSONAL INTERESTS

Running, racquetball.