

CURRICULUM VITAE

Personal Information

Name in full: Jason Robert Warren Merrick
Office Address: Harris Hall, 4124, 1015 Floyd Avenue, Richmond, VA, 23284
Office Telephone Number: (804) 828 5865

Education

- MA (Oxon.) Mathematics and Computation (1993). Oxford University, Oxford, UK. 1990 to 1993.
- D.Sc. Operations Research (January 1998). George Washington University, Washington DC. 1993 to 1997.
Dissertation: “Bayesian Reliability Modeling and Inference using Covariate Information with Applications to Optimal Replacement Strategies.”
Advisor: Professor Refik Soyer.

Academic Appointments

- Professor. Department of Supply Chain Management & Analytics, Virginia Commonwealth University. August 2014 – present.
- Visiting Professor. Darden School of Business, University of Virginia, January 2014 – August 2014.
- Professor. Department of Statistical Sciences and Operations Research, Virginia Commonwealth University. August 2011 – present.
- Associate Professor. Department of Statistical Sciences and Operations Research, Virginia Commonwealth University. August 2003 – August 2011.
- Assistant Professor. Department of Statistical Sciences and Operations Research, Virginia Commonwealth University. January 2002 – August 2003.
- Assistant Professor. Department of Mathematical Sciences, Virginia Commonwealth University. September 1998 – December 2001.
- Research Associate. The Institute for Crisis, Disaster & Risk Management. The George Washington University. January 1996 - June 1998.

Other Significant Work Experience

- Consultant. American Bureau of Shipping and Sea River Maritime Inc. 2003 – 2007.
- Consultant. San Francisco Bay Water Transit Authority. 2002–2003.
- Consultant. Ship Escort Response Vessel Service. 20022002.
- Software Development. IMI Computing Ltd. UK 1989 - 1990.

Membership - Scientific, Honorary and Professional Societies

Member of the Institute for Operations Research and Management Science.
President-Elect of the Decision Analysis Society.

Awards

2014 INFORMS Prize for the Teaching of OR/MS Practice.
2012 Distinguished Scholar Award, College of Humanities and Sciences, Virginia Commonwealth University.
2005 Excellence in Scholarship Award, College of Humanities and Sciences, Virginia Commonwealth University.

RESEARCH

Refereed Articles (54)

1. Merrick, J. R. W., Butler, J. C., Morrice, D. J. Using Multiattribute Utility Theory to Avoid Bad Outcomes by Focusing on the Best Systems in Ranking and Selection. Accepted by *Journal on Simulation*, available online from February 27, 2015.
2. Merrick, J. R. W., LeClerc, P., Trenkov, H., Olsen, R. (2015) Outthinking the Terrorists. In *Breakthroughs in Risk Analysis*, Anthony Cox (Ed), Wiley: Hoboken, NJ.
3. Merrick, J. R. W., P. Leclerc. (2014) Modeling Adversaries in Counter-terrorism Decisions Using Prospect Theory. *Risk Analysis*, published online July 14, 2014.
4. Boone, E. L., Merrick, J. R. W. and Krachey, M. (2014) A Hellinger distance approach to MCMC diagnostics. *J. Stat. Comp. and Sim.*, Vol. 84, Nos. 4, pp. 833-849.
5. Merrick, J. R. W., and Grabowski, M. (2014) Decision Performance and Safety Performance: A Value Focused Thinking Study in the Oil Industry. *Decision Analysis*, Vol. 11, Nos. 2, pp. 105-116.
6. Merrick, J. R. W. (2013) Aggregation of Forecasts from Multiple Simulation Models. *Proceedings the 2013 Winter Simulation Conference*.
7. Watkins, W. T., Song, W. Y., Merrick, J. R. W., Weiss, E., Hugo, G. D., Siebers, J. (2013) Multi-criteria optimization for real-time planning of lung cancer radiotherapy. *Physics in Medicine*.
8. Parnell, G., Burk, R. C., Merrick, J. R. W. (2013) Intelligent Adversary Modeling of Homeland Security Networks. *Proceedings of the 2013 Industrial and Systems Engineering Research Conference*, A. Krishnamurthy and W.K.V. Chan, eds., San Juan, Puerto Rico, June 2013.
9. Merrick, J. R. W., and Parnell, G. (2011) A Comparative Analysis of PRA and Intelligent Adversary Methods for Counterterrorism Risk Management. *Risk Analysis*, Vol. 31, Nos. 9, pp. 1488-1510
10. Butler, J., Merrick, J. R. W., Morrice, D. (2011) Assessing Oil Spill Risk in Port Tanker Operations Using a Multiattribute Utility Approach to Ranking and Selection. In *Proceedings of the 2011 Winter Simulation Conference*, S. Jain, R.R. Creasey, J. Himmelspace, K.P. White, and M. Fu, eds., pp. 1696-1707.
11. Lloyd, J., and Merrick, J. R. W. (2011) Decision Analysis Applications in Counter-terrorism. In *Wiley Encyclopedia of Operations Research and Management Science*.
12. Duncan, K., and Merrick, J. R. W. (2011) An Introduction to R&D Portfolio Decision Analysis. In *Wiley Encyclopedia of Operations Research and Management Science*.
13. Mihajlovits, B., and Merrick, J. R. W. (2011) Eliciting Subjective Probabilities from Individuals and Reducing Biases. In *Wiley Encyclopedia of Operations Research and Management Science*.
14. Merrick, J. R. W. Defining Objectives and Criteria for Decision Problems. (2011) In *Wiley Encyclopedia of Operations Research and Management Science*.
15. Fouloulides, C. McLay, L.A., Merrick, J.R.W. (2010) Using Simulation Optimization to Construct Cost-effective Screening Strategies for Cervical Cancer. *Health Care Management Science*, Vol. 13, Nos. 4, pp. 294-318.
16. van Dorp, J. R. and Merrick, J. R. W. (2010) On a risk management analysis of oil spill risk using maritime transportation system simulation. *Annals of Operations Research*, Vol. 187, Nos. 1, pp. 249-277.
17. Merrick, J. R. W. and McLay, L (2010) A. Is Screening Cargo Containers for Nuclear Threats Worthwhile? *Decision Analysis*, Vol. 7, Nos. 2.
18. You, Z., H. Wang, H. Song, M. Grabowski, J. R. W. Merrick. (2010) Sailing on Friday: Developing the Link between Organizational Safety Culture and Performance in Safety-

- Critical Systems. *IEEE Transactions on Systems, Man & Cybernetics, Part A.*, Vol. 40, Nos. 2, pp 263-284.
19. Merrick, J. R. W. (2009) Bayesian simulation and decision analysis: an expository survey. *Decision Analysis*, Vol. 6, No. 4, pp. 222-238.
 20. Merrick, J. R. W. (2008) Getting the Right Mix of Experts. *Decision Analysis*, Vol. 5, No. 1, pp. 43-52.
 21. Soyer, R., Erkanli, S., and Merrick, J. R. W. (2008). Bayesian Models for Accelerated Life Tests. *Encyclopedia of Quality and Reliability*. Wiley: New York.
 22. Grabowski, M., Ayalasomayajula, P., Merrick, J. R. W., and D. McCafferty. (2007) Accident Precursors and Safety Nets: Leading Indicators of Tanker Operations Safety. *Maritime Policy and Management*, Vol. 34, No. 5, pp. 405-425.
 23. Grabowski, M., Ayalasomayajula, P., J. R. W. Merrick, J. Harrauld, and K. Roberts. (2007) Leading Indicators of Safety in Virtual Organizations. *Safety Science*, Vol. 45, No. 10, pp. 1013-1043.
 24. Merrick, J. R. W. and J. Harrauld. (2007) Making Decisions about Safety in US Ports and Waterways. *Interfaces*, Vol. 37, No. 3, pp. 240-252.
 25. Grabowski, M., Ayalasomayajula, P., Wang, H., Merrick, J. R. W., McCafferty, D., Meador M., and Kinney, C. (2007) Accident Precursors and Safety Nets: Initial Results from the Leading Indicators of Maritime Safety Project. *Proceedings of the Annual Meeting of the Society of Naval Architects and Marine Engineers*, Fort Lauderdale, Florida, 14-1 November 2007. D19-D27.
 26. Merrick, J. R. W., J. R. Hardin and R. Walker. (2006) Partnerships in Training. *Interfaces*, Vol. 36, No. 4, pp. 359-370.
 27. Merrick, J. R. W. and J. R. van Dorp. (2006) Speaking the Truth in Maritime Risk Assessment. *Risk Analysis*, Vol. 26, No. 1, pp. 223-237.
 28. Szwed, P., van Dorp, J. R., Merrick, J. R. W., Mazzuchi, T. A. and Singh, A. (2006) A Bayesian Paired Comparison Approach for Relative Accident Probability Assessment with Covariate Information. *European Journal of Operational Research*, Vol. 169, No. 1, pp. 157-177.
 29. Merrick, J. R. W., M. Grabowski, P. Ayalasomayajula and J. Harrauld. (2005) Understanding Organizational Safety Using Value Focused Thinking. *Risk Analysis*, Vol. 25, Nos. 4, pp. 1029-1041.
 30. Merrick, J. R. W., Parnell, G., Barnett, J., and Garcia, M. (2005) A Multiple-Objective Decision Analysis of Stakeholder Values to Identify Watershed Improvement Needs. *Decision Analysis*, Vol. 2, No.1, pp. 44-57.
 31. Merrick, J. R. W., J. R. van Dorp and A. Singh. (2005) Analysis of Correlated Expert Judgments from Pairwise Comparisons. *Decision Analysis*, Vol. 2, No.1, pp. 17-29.
 32. Merrick, J. R. W., van Dorp, J. R. and Dinesh, V. (2005) Assessing Uncertainty in Simulation Based Maritime Risk Assessments. *Risk Analysis*, Vol. 25, No. 3, pp. 731-743.
 33. Merrick, J. R. W., R. Soyer and T. Mazzuchi (2005). Are Maintenance Practices for Railroad Tracks Effective? *Journal of the American Statistical Association*, Vol. 100, Nos. 469, pp. 17-25.
 34. Merrick, J. R. W., Garcia, M. (2004). A Value Focused Thinking Approach to Watershed Improvement. *Journal of the American Planning Association*, Vol. 70, No. 3, pp. 313-328.
 35. Merrick, J. R. W., van Dorp, J. R., Blackford, J. P., Shaw, G. L., Harrauld, J., Mazzuchi, T.A. (2003). Traffic Density Analysis of Proposed Ferry Service Expansion in San Francisco Bay Using a Maritime Simulation Model. *Reliability Engineering and System Safety*, Vol. 81, No. 2, pp. 119-132.
 36. Merrick, J. R. W., Soyer, R. and Mazzuchi, T. (2003) A Bayesian Semi-parametric Analysis of the Reliability and Maintenance of Machine Tools. *Technometrics*, Vol. 45, No. 1, pp. 58-69.

37. Merrick, J. R. W., Dinesh, V., Singh, A., van Dorp, J. R. and Mazzuchi, T. A. (2003) Propagation of Uncertainty in a Simulation-Based Maritime Risk Assessment Model Utilizing Bayesian Simulation Techniques. *Proceedings of the 2003 Winter Simulation Conference*, S. Chick, P. J. Sánchez, D. Ferrin, and D. J. Morrice, eds., pp. 449-455.
38. Merrick, J. R. W., van Dorp, J. R., Mazzuchi, T., Harrauld, J., Spahn, J. and Grabowski, M. (2002). The Prince William Sound Risk Assessment. *Interfaces*, Vol. 32, No. 6, pp. 25-40.
39. Merrick, J. R. W. (2002). Evaluation of Tug Escort Schemes Using Simulation of Drifting Tankers. *Simulation: Transactions of the Society for Modeling and Simulation International*, Vol. 78, No.6, pp. 380-388.
40. van Dorp, J. R., Merrick, J. R. W., Harrauld, J., Mazzuchi, T. and Grabowski, M. (2001) A Risk Management Procedure for the Washington State Ferries. *Risk Analysis*, Vol. 21, No. 1, pp. 127-142.
41. Parnell, G., Metzger, R., Merrick, J. R. W. and Eilers, R. (2001). Multiobjective Decision Analysis of Theater Missile Defense Architectures. *Systems Engineering*, Vol. 4, No. 1, pp. 24-34.
42. Merrick, J. R. W. and van Dorp, J. R. (2001) Modeling Risk in the Dynamic Environment of Maritime Transportation. *Proceedings of the Winter Simulation Conference 2001*, B. A. Peters, J. S. Smith, D. J. Medeiros, and M. W. Rohrer, eds., pp. 1090-1098.
43. Grabowski, M., Merrick, J. R. W., van Dorp, J. R., Harrauld, J., and Mazzuchi, T. (2000). Risk Modeling in Distributed, Large Scale Systems. *IEEE Systems, Man & Cybernetics, Series A*, Vol. 30, No. 6, pp. 651-660.
44. Merrick, J. R. W., van Dorp, J. R., Harrauld, J., Mazzuchi, T., Spahn, J. and Grabowski, M. (2000). A Systems Approach to Managing Oil Transportation Risk in Prince William Sound. *Systems Engineering*, Vol. 3, No. 3, pp. 128-142.
45. Harrauld, J. and Merrick, J. R. W. (2000) Development of a Decision Support Tool for Assessing Vessel Traffic Management Requirements for U.S. Ports. *Proceedings of the International Emergency Management Society (TIEMS)*, pp. 165-174.
46. Harrauld, J., Mazzuchi, T., Merrick, J. R. W., van Dorp, R. and Spahn, J. (2000). Prince William Sound Risk Assessment: System Risk Analysis by Simulation and Expert Judgment. *Risk Management in the Marine Transportation System*, Conference Proceedings 22, National Academy Press, Washington, DC, pp. 65-72.
47. Harrauld, J., Grabowski, M., van Dorp, R. and Merrick, J. R. W. (1999) Assessing Risk in the Washington State Ferry System. *Proceedings of the International Emergency Management Society (TIEMS)*, pp. 427-436.
48. Harrauld, J., Merrick, J. R. W., Mazzuchi, T. and van Dorp, R. (1999) The Analysis of Alternative Escort Requirements for Tank Vessels in Prince William Sound. *Proceedings of the 1999 Oil Spill Conference*, pp. 403-407.
49. Harrauld, J., Mazzuchi, T., Merrick, J., van Dorp, R. and Spahn, J. (1998) Using System Simulation to Model the Impact of Human Error in a Maritime System. *Safety Science*, Vol. 30, No. 1-2, pp. 235-247.
50. Harrauld, J., Mazzuchi, T., Merrick, J. R. W., van Dorp, R. and Spahn, J. (1998) System Simulation - A Risk Management Tool for Prince William Sound. *Proceedings of the 1998 Oil Spill Conference*, pp. 545-550.
51. Harrauld, J., Mazzuchi, T., Merrick, J. R. W., Spahn, J. and van Dorp, R. (1997) Using Simulation to Model the Impact of Human Error in Maritime Risk Assessment. *Proceedings of the International Emergency Management Society Conference*, pp. 41-54.
52. Harrauld, J., Mazzuchi, T., Merrick, J. R. W., Spahn, J. and van Dorp, R. (1997) Hidden assumptions and Misleading Data: Accounting for Human Error in Maritime Risk Assessment. *Proceedings of 1997 Maritime Operations: The Human Element Conference*.
53. Merrick, J. R. W. and Singpurwalla, N. (1996) The Role of Decision Analysis In Software Engineering. Chapter in *Reliability and Maintenance of Complex Systems*, Suleyman Ozekici

(Editor), NATO ASI Series F: Computer and Systems Sciences, Vol. 154, Springer Verlag, pp. 368-388.

54. Singpurwalla, N., and J. R. W. Merrick. (1995) The Assignment of Membership in Capability Maturity Models for Software Production. Invited Paper. *Proceedings of the 50th Session of The International Statistical Institute*, Beijing, China, pp. 727-733.

In Submission (6)

55. Cook, E. L., J. R. W. Merrick. Technology Implementation Decisions: A Multi-Objective, Multi-Stakeholder Case Study at Capital One. Submitted to *Decision Analysis*.
56. LeClerc, P., McLay, L. A., Merrick, J. R. W. Application of the Matching Law to a Management Problem. Submitted to *European Journal of Operational Research*.
57. Merrick, J. R. W., Lloyd, J., McLay, L., Harrauld, J., Shaw, G., Parrish, W. Expert Judgment Based Nuclear Threat Assessment for Vessels Arriving in the US. Submitted to *Improving Homeland Security Decisions*, Ali Abbas, Milind Tambe & Detlof von Winterfeldt, Editors, Center for Risk and Economic Analysis of Terrorist Events.
58. Merrick, J. R. W., Leclerc, P. Asymmetric Prescriptive/Descriptive Game Theory For Counter-Terrorism. Submitted to *Improving Homeland Security Decisions*, Ali Abbas, Milind Tambe & Detlof von Winterfeldt, Editors, Center for Risk and Economic Analysis of Terrorist Events.
59. Leclerc, P., J. R. W. Merrick. Alternative Formulations of Mixed Strategy Equilibriums with Prospect Theory Preferences: A Theoretical and Empirical Investigation. In revision.
60. Merrick, J. R. W. Aggregation of Forecasts from Multiple Simulation Models. In revision.

Major Project Reports (11)

61. J. Rene Van Dorp, Jason R. W. Merrick. *Vessel Traffic Risk Assessment (VTTRA): Preventing Oil Spills from Large Ships and Barges In Northern Puget Sound & Strait of Juan de Fuca*. Report to the Puget Sound Partnership.
62. J. Rene Van Dorp, Jason R. W. Merrick. *Vessel Traffic Risk Assessment (VTTRA): Updating the 2005 VTTRA GW/VCU MTS Simulation Model from VTOSS 2005 to VTOSS 2010 data*. Report to the Makah Tribal Council.
63. Martha R. Grabowski, Premnath Ayyalasomayajula, Haiyuan Wang, Jason R. Merrick, Denise McCafferty, Martin L. Meador, Craig Kinney. *Accident Precursors and Safety Nets: Leading Indicators of Tanker Operations Safety*. ABS Technical Papers 2007.
64. Jason R. W. Merrick, J. Rene van Dorp, Jack Harrauld. *Analysis of Proposed Traffic Routes Changes for Ferries in the San Francisco Bay Region*. Report to the San Francisco Bay Water Transit Authority, 2006.
65. Jason R. W. Merrick, Martha Grabowski, Jack Harrauld. *Measuring the Fundamentals of Safety*. Report to American Bureau of Shipping and ExxonMobil - SeaRiver Maritime Inc.
66. Jason R. W. Merrick, Martha Grabowski, Jack Harrauld. *Developing Leading Indicators for Maritime Safety Using Value Focused Thinking*. Report to American Bureau of Shipping and ExxonMobil - SeaRiver Maritime Inc.
67. J. Rene Van Dorp, Jason R. W. Merrick, Jack Harrauld, Thomas A. Mazzuchi, G. L. Shaw, J. P. Blackford. *Maritime Simulation Model of San Francisco Bay*. Report to the San Francisco Bay Water Transit Authority by George Washington University, 2002.
68. John Harrauld, Martha Grabowski, Jason R. W. Merrick, J. Rene Van Dorp. *The Washington State Ferries Risk Assessment: Final Report*. Report to the Blue Ribbon Panel on Washington State Ferry Safety and the Washington State Transportation Commission Olympia, Washington By George Washington University, Rensselaer Polytechnic Institute, Virginia Commonwealth University, 1999.

69. Jason R. W. Merrick, J. Rene van Dorp, Jack Harrauld. *Prince William Sound Risk Assessment: Analysis of Proposed Outbound Speed Increase And Removal of the Southern Dogleg*. Report to the Prince William Sound Steering Committee by George Washington University, 1998.
70. J. Rene van Dorp, Jason R. W. Merrick. *Prince William Sound Risk Assessment: Modified PWS Risk Simulation*. Report to the Prince William Sound Steering Committee by George Washington University, 1998.
71. John R. Harrauld, Thomas A. Mazzuchi, Jason R. W. Merrick, John E. Spahn, Sunil Shrestha, J. Rene Van Dorp. *Prince William Sound Risk Assessment: Results of Additional Analysis*. Report to the Prince William Sound Steering Committee by George Washington University, 1997.

Funded Research (\$1,282,806)

1. Support for Phase I of Vessel Traffic Risk Assessment, George Washington University/Puget Sound Partnership/EPA, \$78,263, PI. November 2012 – December 2013.
2. Vessel Traffic Risk Assessment Simulation Data Update to 2010, George Washington University/Makah Tribal Council/EPA, \$34,437, PI. August 2012 – December 2012.
3. Combining Prescriptive and Descriptive Decision Theory for Counter-terrorism Decisions, National Science Foundation, \$264,403, PI, September 2012 – August 2015.
4. Business Risk Modeling and Simulation. Deloitte Consulting, \$35,000, September 2011.
5. ARI-SA: Multi-Layered System Level Screening for Port Security, National Science Foundation and Department of Homeland Security. \$292,077, September 2007 – August 2010. Co-PI, PI: McLay.
6. Assessment of Oil Spill Risk due to Potential Increased Vessel Traffic at Cherry Point, Washington, BP Refineries. \$158,755, PI. May 2006 – February 2008.
7. Mail Center Simulation. Capital One, \$6,400, PI. March 2003 – April 2003.
8. Collaborative Research: Speaking the Truth in Maritime Risk Assessment. NSF, \$138,000, PI. August 2002 – August 2004.
9. Buoy J and Puget Sound Extension for the Assessment of Oil Spill Risk due to Potential Increased Vessel Traffic at Cherry Point, Washington, BP Refineries. \$129,367, PI. February 2008 – May 2008.
10. A Value Model for the Runway Incursion Problem. Booz Allen Hamilton Inc., \$50,000, PI. March 2002-December 2002.
11. Ports and Waterways Safety Assessment Model Revisions, U.S. Coast Guard, \$52,008, PI. September 2000 – May 2001.
12. Blue Ribbon Panel Risk Assessment of Washington State Ferries, George Washington University, \$57,932, PI. September 1998 – August 1999.

Funded Training (\$368,397)

1. Forecasting and Time Series, Capital One Services, \$10,000, January 2013.
2. Risk and Decision Analysis, Capital One Services, \$30,000, August 2012.
3. Forecasting and Modeling. Capital One Services, \$20,000, February 2012.
4. Decision and Risk Analysis. Deloitte Consulting, \$35,000, September 2011.
5. Simulation Modeling. Capital One Service, \$30,000, July 2011.
6. Forecasting and Modeling. Capital One Services, \$20,000. June 2011.
7. Simulation Modeling and Analysis. Wyeth Pharmaceuticals, \$20,000, January 2007.
8. Forecasting and Modeling Course 6. Capital One Services, \$17,000. November 2004.
9. Forecasting and Modeling Course 4. Capital One Services, \$39,000. October 2003.
10. Forecasting and Modeling Course 5. Capital One Services, \$17,875. October 2003.
11. Forecasting and Modeling Course 3. Capital One Services, \$29,250, August 2003.
12. Forecasting and Modeling Course 2. Capital One Services, \$39,000. May 2003.

13. System Simulation – Modeling and Analysis, Capital One Services, \$22,272. November 2002 – May 2003.
14. Forecasting and Modeling Course 1. Capital One Services, \$39,000. October 2002 – April 2003.

Research Faculty for Funded Research (\$2,000,000)

1. The Howard Hughes Medical Institute Program for Undergraduate Education and Research in Systems Biology, Howard Hughes Medical Institute, \$1.5 million. September 2006 – August 2010. PI: Len Smock, Greg Buck.
2. An Integrated Multi-Objective Decision Analysis Model for an Urban Watershed in the Richmond, VA Metropolitan Area. NSF Award 9874924, \$500,000. 1999 – 2002. PI: Margot Garcia.

Research Assistants Funded & Supervised (8)

1. Phil LeClerc – National Science Foundation – Fall 2012 to present.
2. Christina Werner – BP – Fall 2005 to Spring 2007.
3. Akriti Saxena – National Science Foundation – Fall 2003 to Summer 2004
4. Varun Dinesh – National Science Foundation – Fall 2002 to Summer 2003
5. David Gibbons – Federal Aviation Administration – Summer 2002 to Spring 2003
6. Teresa Kyte – United States Coast Guard – Fall 2000 to Spring 2001
7. Jamison Barnett – National Science Foundation – Summer 1999 and 2000
8. Christopher Keaveney – Washington State Ferries – Fall 1998 to Summer 1999

Invited Research Talks (59)

1. “Sustainable Supply Chains Using the American Marine Highway”, Port of Virginia, Norfolk, VA, April 2015.
2. “Managing Risk in US Ports and Waterways”. National Maritime Interagency Advisory Group, Department of Transportation, Washington DC, February 2015.
3. “Managing Risk in US Ports and Waterways”. VCU College of Humanities and Sciences Fall Faculty Research Presentations, October 2014.
4. “Counter-terrorism Decisions Using Asymmetrically Prescriptive/Descriptive Game Theory”, Dana Clyman Seminar Series, Darden School of Business, University of Virginia, October 2014.
5. “Aggregating Forecasts from Multiple Simulation Models”, McDonough School of Business, Georgetown University September 2014.
6. “Aggregating Forecasts from Multiple Simulation Models”, International Society of Bayesian Analysis Annual Conference, Cancun Mexico, July 2014.
7. “Aggregating Forecasts from Multiple Simulation Models”, Advances in Decision Analysis Conference, Washington DC, June 2014.
8. “Computer Games for CEOs: Preventing the Next Big Oil Spill”. George W. Jeffers Memorial Lecture, Junior Virginia Academy of Sciences, May 2014.
9. “Counter-terrorism Decisions Using Asymmetrically Prescriptive/Descriptive Game Theory”, George Washington University, April 2014.
10. “Attacker/Defender Modeling and the Global Nuclear Detection Network”, Center for Risk and Economic Analysis of Terrorist Events, University of Southern California March 2014.
11. “Asymmetrically Prescriptive/Descriptive Game Theory with EU and PT Decision Makers”, Game Theory and Human Behavior Seminar, University of Southern California March 2014.
12. “Teaching Decision Analysis”. INFORMS Annual Meeting, Minneapolis, October 2013.
13. “Combining Prescriptive and Descriptive Decision Theory in Counter-terrorism” INFORMS Annual Meeting, Minneapolis, October 2013.

14. "Combining Prescriptive and Descriptive Decision Theory for Counter-terrorism Decisions", First Conference on Validating Models of Adversary Behaviors, Buffalo/Niagara Falls, June 2013.
15. "Combining Prescriptive and Descriptive Decision Theory for Counter-terrorism Decisions", Operations, Decision, and Information Department Colloquium, University of California, Irvine. April 2013.
16. "Obtaining Vessel Routes from VTOSS Data", Puget Sound Harbor Safety Committee, December 2012.
17. "The Matching Law: Application of a Psychological Model to a Management Problem", INFORMS Annual Meeting, Phoenix, AZ, October 2012. Presented by Phil LeClerc, PhD student.
18. "Analyzing the Global Nuclear Detection Architecture", INFORMS Annual Meeting, Phoenix, AZ, October 2012.
19. "Managing Risk in US Ports and Waterways", University of Virginia, Systems Engineering Graduate Seminar, October 2012.
20. "The Imperative for First Mover Advantage: Inventive Problem Solving of Complex Business Challenges and Risks", INFORMS Conference on Business Analytics and Operations Research, Huntington Beach, CA, April 2012.
21. "Managing Risk in US Ports and Waterways", UT Austin joint Seminar between Operations Research Group and the Department of Information, Risk, and Operations Management, February 2012.
22. "Panel Session: Structuring Decision Processes to Manage Risks", Chair, Society for Risk Analysis, Charleston, SC, December 2011.
23. "Using Utility Theory to Avoid Bad Outcomes by Focusing on the Best Alternatives", INFORMS Annual Meeting, Charlotte, NC, November 2011.
24. "A Comparative Analysis of PRA and Intelligent Adversary Methods for Counter-terrorism Risk Management", INFORMS Annual Meeting, Charlotte, NC, November 2011.
25. "Overlapping Expert Information: Learning about Dependencies in Expert Judgment", DIMACS Workshop on the Science of Expert Opinion, Rutgers University, NJ, October 2011.
26. "Modeling Attacker Behavior in Counter-terrorism Decision Analysis", Future of Decision Analysis Workshop, Stanford University, CA, September 2011.
27. "ARI-SA: Multi-Layered System Level Screening for Port Security." Domestic Nuclear Detection Office, Department of Homeland Security, June 2010.
28. "Managing Risk in US Ports and Waterways." Sydney S. Negus Memorial Lecture at the Virginia Academy of Sciences Annual Meeting, May 2010.
29. "Expert Judgment Elicitation for Rare Events" INFORMS Annual Meeting, San Diego CA, October 2009.
30. "Incorporating Constraints in Multi-attribute Ranking and Selection" INFORMS Annual Meeting, San Diego CA, October 2009.
31. "Bayesian Simulation & Decision Analysis" INFORMS Annual Meeting, San Diego CA, October 2009.
32. "Is Screening a Container Once Enough to Stop Dirty Bombs?." Rutgers's Conference on Port Security, November 2008.
33. "Using Simulation in Transportation Risk Assessment." Operations Research Seminar Series, Rutgers University November 2008.
34. "Expert Judgment Based Risk Ranking in Port Security", INFORMS Annual Meeting, Washington DC, October 2008.
35. "The Search for Indicators of Future Performance", INFORMS Annual Meeting, Washington DC, October 2008.

36. "Development of a Comprehensive Vessel Traffic Risk Management Tool", National Harbor Safety Conference, May 2008, with Rene van Dorp.
37. "Multi-Layered System Level Screening for Port Security", Advanced Research Initiative, Domestic Nuclear Detection Office, Department of Homeland Security, April 2008, with Laura McLay.
38. "Assessing the Risk of Oil Spills", Decision Analysis Affinity Group Annual Conference, April, 2008.
39. "Vessel Traffic Risk Assessment Methodology", National Research Council, January 2008.
40. "Getting the Right Mix of Experts." INFORMS Seattle, November 2007.
41. "Assessing the Risk of Oil Spills." London School of Economics, May 2007.
42. "A Bayesian paired comparison approach for relative accident probability assessment with covariate information." Society for Risk Analysis, December 2006.
43. "Speaking the Truth in Maritime Risk Assessment." INFORMS San Francisco, November 2005.
44. "National Response for Homeland Security", with William Parrish and William Newmann, Institute for Defense and Government Advancement's Border Management 2005, Georgetown University Conference Center, October 24th, 2005.
45. "Analysis of Correlated Expert Judgments from Pairwise Comparisons" INFORMS Denver, October 2004.
46. "Propagation of Uncertainty in a Simulation-Based Maritime Risk Assessment Model Utilizing Bayesian Simulation Techniques." Winter Simulation Conference December 2003.
47. "Assessing Uncertainty in Simulation Based Maritime Risk Assessment". INFORMS Atlanta, October 2003.
48. "The Ports and Waterways Safety Assessment" Briefing to the Federal Aviation Administration, Runway Safety Office, September, 2002.
49. "The Ports and Waterways Safety Assessment", Richmond-Tidewater Chapter of INFORMS. July 2002.
50. "Modeling Risk in the Dynamic Environment of Maritime Transportation." At Winter Simulation Conference 2001. December 2001.
51. "Operations Research at VCU", Capital One Risk Management Division. March 2001.
52. "The Washington State Ferries Risk Assessment". Richmond-Tidewater Chapter of INFORMS. October 1999.
53. "Using Simulation in Maritime Risk Management". At Philadelphia INFORMS 1999. November 1999.
54. "Bayesian Replacement Strategies for Railroad Tracks". At Philadelphia INFORMS 1999. November 1999.
55. "Semi-parametric Models for Accelerated Life Tests". At Philadelphia INFORMS 1999. November 1999.
56. "A Bayesian Analysis of the Reliability of Machine Tools using a Semi-parametric Proportional Hazards Model". At Philadelphia INFORMS 1999. November 1999.
57. "The Analysis of Escort Requirements for Tank Vessels in Prince William Sound." At 1999 Oil Spill Conference. April 1999.
58. "Costs and Benefits of Escort Tugs: the Prince William Sound Experience", Port and Waterway Safety Management: Focus on Escort Tugs, MIT Department of Ocean Engineering. March 1999.
59. "The Prince William Sound Risk Assessment", Richmond Tidewater Chapter of INFORMS. October 1998.

Published Presentations

1. Jason R. W. Merrick, J. Harrauld and J. R. van Dorp. (2003) Managing Port Safety and Security Risk Using Dynamic Simulation. Institute for Defense and Homeland Security

Research Summit, June 25, Ronald Reagan Building, Washington, DC. Available at: <http://www.seas.gwu.edu/~dorpjr/Publications/TechnicalReports/NSFProject/06-25-03-gwu-merrick.pdf>

2. Jason R. W. Merrick. *Decision and Risk Analysis*. System Engineering Boot Camp, Hampton Roads Area Chapter and the Washington Metropolitan Area Chapter of INCOSE, Hampton, VA, November 5-6, 2002. Available at: http://www.hra-incose.org/se101/se_boot_camp_2002/17.html. **Voted Best Tutorial.**

TEACHING

Course Taught at VCU*

1. STAT 210 Basic Practice of Statistics (lab),
2. STAT 212 Concepts of Statistics
3. OPER 327 Mathematical Modeling
4. OPER 428 Stochastic Simulation
5. OPER 527 Deterministic Operations Research
6. OPER 528 Stochastic Operations Research
7. OPER 641 Discrete Event System Simulation
8. OPER 643 Decision and Risk Analysis
9. OPER 647 Multi-objective Decision Analysis
10. OPER/STAT 648 Systems Reliability Analysis
11. OPER/STAT 649 Statistical Quality Control
12. OPER/STAT 690 Research and Communications Seminar
13. OPER 741 Simulation II
14. OPER 743 Decision Analysis II
15. HSEP 310 Risk and Vulnerability Analysis
16. HSEP 603 Risk Assessment – online.
17. DAPT 641 Introduction to Simulation Methods.
18. DAPT 670 Analytics Problem Formulation.
19. FMBA 603 Business Foundations – statistics portion.
20. FMBA 604, 605, 606 Analysis and Decisions – statistics portion.
21. SYSM 681 Systems Seminar I
22. SYSM 682 Systems Seminar II
23. SYSM 683 Systems Seminar III

Average evaluations: Instructor 4.6, Course 4.3, Learning 4.2 (5 – Excellent, 1 – Poor).

* Current course names.

Curriculum Development

1. Created and introduced STAT 648 Systems Reliability & Risk Analysis
2. Modified MATH 527 Deterministic Operations Research
3. Modified MATH 528 Stochastic Operations Research
4. Modified STAT 649 Statistical Quality Control
5. Modified MATH 623 Discrete Event System Simulation
6. Led major modification of the curriculum for the Master of Science Degree in Mathematical Sciences specialization in Operations Research. Included re-design of the core courses and a sequence of courses in a complementary subject.
7. Organized the introduction of the OPER course designation for operations research and modification of all such courses.
8. Member of the Quantitative Bioinformatics Committee. 2001-2003. Committee assisted the development the curriculum for the new Bioinformatics BS, MS and 5-year BS/MS degrees with a track in quantitative bioinformatics.

9. Member of the MS in Homeland Security development committee. 2005-2006.
10. Created and introduced OPER 690: Research and Communications Seminar, with Darcy Mays.
11. Created and introduced HSEP 310: Risk and Vulnerability Assessment.
12. Created and introduced HSEP 603: Risk Management.
13. Led the development of a proposal for a new PhD in Systems Modeling and Analysis and the curriculum and new coursework entailed. Took the proposal through all levels of university and SCHEV approval. Program started in Fall 2009.
14. Created and introduced OPER 741 Simulation II.
15. Created and introduced OPER 743 Decision Analysis II.
16. Created and introduced SYSM Systems Seminar I, II, and III.
17. Modified OPER428/528 for introduction of OPER 428 and change in curriculum.
18. Led modification of the curriculum for PhD in Systems Modeling and Analysis.
19. Led modification of curriculum for MS in Mathematical Sciences concentration in Operations Research.
20. Created and introduced DAPT 641 Introduction to Simulation Methods.
21. Created and introduced DAPT 670 Analytics Problem Formulation.

Manuals Developed

1. Al Best. Jason R. W. Merrick, R. K. Elswick, James Davenport. *Design and Analysis of Experiments for Process Improvement*. Training manual developed by Data Ink, L. C., for Infineon Technologies, Richmond VA, 2001.
2. Al Best. Jason R. W. Merrick, R. K. Elswick, James Davenport. *Statistical Analysis for the Semiconductor Industry*. Training manual developed by Data Ink, L. C., for Infineon Technologies, Richmond VA, 2001.
3. Al Best. Jason R. W. Merrick, R. K. Elswick, James Davenport. *JMP Fundamentals*. Training manual developed by Data Ink, L. C., for Infineon Technologies, Richmond VA, 2001.
4. Jason R. W. Merrick, Jill Hardin. *System Simulation: Modeling and Analysis*. Training manual developed by Virginia Commonwealth University for Capital One Service, Inc, 2002.
5. Jill Hardin, Jason R. W. Merrick, Russell Walker. *Optimization Models*. Training manual developed by Virginia Commonwealth University for Capital One Service, Inc, 2003.
6. Jason R. W. Merrick, Russell Walker. *Forecasting and Modeling*. Training manual developed by Virginia Commonwealth University for Capital One Service, Inc, 2003.
7. Jason R. W. Merrick. *Simulation Modeling and Analysis*. Training manual developed by Virginia Commonwealth University for Wyeth Pharmaceuticals, Inc, 2007.
8. Jason R. W. Merrick. *Forecasting and Time Series*. Training manual developed by VCU's Center for Corporate Education for Capital One Service, Inc, 2011.
9. Jason R. W. Merrick. *Simulation Modeling*. Training manual developed by VCU's Center for Corporate Education for Wyeth Pharmaceuticals, Inc, 2011.
10. Jason R. W. Merrick. *Risk Modeling and Simulation*. Training manual developed by Virginia Commonwealth University for Deloitte Consulting, 2011.

Public Teaching & Conference Tutorials

1. "Decision and Risk Analysis Tutorial", INCOSE Boot Camp, Hampton Roads and Washington Area Chapters, November 2002. **Voted best tutorial.**
2. "Why Statistics?" St. Catherine's School for Girls, Richmond, VA, March 4th, 2003.
3. "Business Games" Virginia Math and Science Center, Richmond, VA, July 20th, 2003.
4. "Oil Spills, Plane Crashes & Terrorist Attacks: Managing Risk in a Technological World." Honors Program Lunchtime Series. September 12th 2003.

5. "Using Computer Simulation in Transportation Risk Assessment", VCU Colloquium Series in Mathematics, March, 2004.
6. "Risk and Vulnerability Assessment", Public Safety Institute, October 28th, 2005.
7. "Computer Games for CEOs," Operations Research Applications Seminar Series, VCU, April 2006.

Internal Teaching Grants

1. Bringing Discussion Leadership and Participant Centered Learning to the Teaching of Operations Research. VCU Center for Teaching Excellence, \$3,400. January 2005 – August 2005.

MS Thesis Supervision

1. Prentice Frasier – Spring 1999
2. Christopher Keaveney – Fall 1999
3. Christopher Zaffron – Spring 2000
4. Jamison Barnett – Spring 2000
5. Crystal Hill – Fall 2001
6. Teresa Kyte – Spring 2001
7. Varun Dinesh – Summer 2003
8. Zachary Zimmer – Spring 2006.
9. Margaret Erin Keck – Spring 2006.
10. Bethany Mihalovits – Spring 2009.
11. Kelly Duncan – Summer 2009.
12. Jamie Lloyd – Summer 2010.

Service on MS Thesis Committees

1. Jie Zhang – Statistics – Spring 2001.
2. David Allen – Information Systems – Spring 2004.
3. Jeff Huang – Computer Science, Spring 2004.
4. Bruce Cox – Applied Mathematics, Fall 2005.
5. Brett Kliner – Bioinformatics, Spring 2006.
6. Christine McAnulty – Statistics – Spring 2012.
7. Kathy Perry – Operations Research – Spring 2012.

PhD Dissertation Supervision

1. Phil LeClerc – Systems Modeling & Analysis – Summer 2014.
2. Dogucan Mazicioglu – Systems Modeling & Analysis – Spring 2016.
3. Ed Cook (Capital One) – Systems Modeling & Analysis – Spring 2017.
4. David Vairo (Federal Reserve) – Systems Modeling & Analysis – Spring 2017.

Service on PhD Dissertation Committees

1. Niki Kunene – Information Systems.
2. Chuck Bell – Mechanical Engineering.
3. David Webb – Computer Science.
4. Sarah Scarborough – Public Policy and Administration.
5. Mike Ruiz – Computer Science.
6. William Watkins – Medical Physics.
7. Ben Grannan – Systems Modeling & Analysis

Advising

1. Undergraduate advisor for Mathematical Sciences, September 1998 – December 2001 (5-8 students per year).
2. Undergraduate advisor for Operations Research, September 1998 – December 2001 (4-5 students per year).
3. Graduate advisor for Operations Research, September 1999 – January 2010 (10 to 20 students per year).
4. Advisor for Quantitative track for the BS, MS in Bioinformatics, March 2005 – August 2006.
5. Graduate advisor for PhD in Systems Modeling and Analysis, January 2009 – present.

Internship Supervision

1. Crystal Hill – Spring 2001 – Norfolk Department of Traffic Engineering
2. Varun Dinesh – Summer 2002 – Capital One Financial
3. Rajat Khanna – Summer 2002 – Capital One Financial
4. Basu Biswanath – Summer 2002 – Capital One Financial
5. Adam Martin – Summer 2002 – Capital One Financial
6. Abigail Robinson – Summer 2002 – Capital One Financial

Publications with Students

1. Parnell, G., Metzger, R., Merrick, J. R. W. and Eilers, R. (2001). Multiobjective Decision Analysis of Theater Missile Defense Architectures. *Systems Engineering*, Vol. 4, No. 1, pp. 24-34. **R. Metzger MS student at VCU.**
2. Merrick, J. R. W., van Dorp, J. R., Blackford, J. P., Shaw, G. L., Harrauld, J., Mazzuchi, T.A. (2003) Traffic Density Analysis of Proposed Ferry Service Expansion in San Francisco Bay Using a Maritime Simulation Model. *Reliability Engineering and System Safety*, Vol. 81, No. 2, pp. 119-132. **J. P. Blackford PhD student at GWU.**
3. Merrick, J. R. W., Dinesh, V., Singh, A., van Dorp, J. R. and Mazzuchi, T. A. (2003) Propagation of Uncertainty in a Simulation-Based Maritime Risk Assessment Model Utilizing Bayesian Simulation Techniques. *Proceedings of the 2003 Winter Simulation Conference*, S. Chick, P. J. Sánchez, D. Ferrin, and D. J. Morrice, eds., pp. 449-455. **V. Dinesh student at MS VCU. A. Singh PhD student at GWU.**
4. Merrick, J. R. W., van Dorp, J. R. and Dinesh, V. Assessing Uncertainty in Simulation Based Maritime Risk Assessments. Accepted by *Risk Analysis*. **V. Dinesh MS student at VCU.**
5. Merrick, J. R. W., Parnell, G., Barnett, J., and Garcia, M. Considering the Multiple Objectives of Watershed Management. In revision for *Decision Analysis*. **J. Barnett MS student at VCU.**
6. Merrick, J. R. W., J. R. van Dorp and A. Singh. Analysis of Correlated Expert Judgments from Pairwise Comparisons. Accepted by *Decision Analysis*, November 2004, Second Revision. **A. Singh PhD student at GWU.**
7. Merrick, J. R. W., M. Grabowski, P. Ayalasomayajula and J. Harrauld. Understanding Organizational Safety Using Value Focused Thinking. Submitted to *Risk Analysis*, September 2004. **P. Ayalasomayajula PhD student at RPI.**
8. Grabowski, M., P. Ayalasomayajula, J. R. W. Merrick, J. Harrauld, and K. Roberts. Leading Indicators of Safety in Virtual Organizations. *Safety Science*, in press. **P. Ayalasomayajula PhD student at RPI.**
9. Grabowski, M., P. Ayalasomayajula, Merrick, J. R. W., and D. McCafferty. Accident Precursors and Safety Nets: Leading Indicators of Tanker Operations Safety. *Maritime Policy and Management*, in press. **P. Ayalasomayajula PhD student at RPI.**
10. Grabowski, M., **Ayalasomayajula, P., Wang, H.**, Merrick, J. R. W., McCafferty, D., Meador, M., and Kinney, C. (2007) Accident Precursors and Safety Nets: Initial Results from

- the Leading Indicators of Maritime Safety Project. *Proceedings of the Annual Meeting of the Society of Naval Architects and Marine Engineers*, Fort Lauderdale, Florida, 14-16 November 2007. D19-D27. **P. Ayalasomayajula and H. Wang PhD students at RPI.**
11. Grabowski, M., **Ayalasomayajula, P.**, J. R. W. Merrick, J. Harrauld, and K. Roberts. (2007) Leading Indicators of Safety in Virtual Organizations. *Safety Science*, Vol. 45, No. 10, pp. 1013-1043.
 12. Grabowski, M., **Ayalasomayajula, P.**, Merrick, J. R. W., and D. McCafferty. (2007) Accident Precursors and Safety Nets: Leading Indicators of Tanker Operations Safety. *Maritime Policy and Management*, Vol. 34, No. 5, pp. 405-425.
 13. **You, Z., H. Wang, H. Song**, M. Grabowski, J. R. W. Merrick. (2010) Beyond Sailing on Friday: Developing the Link between Organizational Safety Culture and Performance in Safety-Critical Systems. *IEEE Transactions on Systems, Man & Cybernetics, Part A.*, Vol. 40, Nos. 2, pp 263-284.
 14. **Mihajlovits, B.**, and Merrick, J. R. W. Eliciting Subjective Probabilities from Individuals and Reducing Biases. Accepted by *Wiley Encyclopedia of Operations Research and Management Science*.
 15. **Foufoulides, C.** McLay, L.A., Merrick, J.R.W. Using Simulation Optimization to Construct Cost-effective Screening Strategies for Cervical Cancer. Accepted by *Health Care Management Science*.
 16. **Duncan, K.**, and Merrick, J. R. W. An Introduction to R&D Portfolio Decision Analysis. Accepted by *Wiley Encyclopedia of Operations Research and Management Science*.
 17. Merrick, J. R. W., **P. Leclerc**. (2014) Modeling Adversaries in Counter-terrorism Decisions Using Prospect Theory. *Risk Analysis*, published online July 14, 2014.
 18. **Watkins, W. T.**, Song, W. Y., Merrick, J. R. W., Weiss, E., Hugo, G. D., Siebers, J. (2013) Multi-criteria optimization for real-time planning of lung cancer radiotherapy. *Proceedings of the American Association for Physicists in Medicine Annual Meeting*.
 19. Merrick, J. R. W., **LeClerc, P.**, Trenkov, H., Olsen, R. (2015) Outthinking the Terrorists. In *Breakthroughs in Risk Analysis*, Anthony Cox (Ed), Wiley: Hoboken, NJ.

SERVICE

Service to SSOR Department

1. Department of Mathematical Sciences Undergraduate Credentials Committee, Member, August 1998-July 2001.
2. Organized search for new OR faculty position. Interviews at Philadelphia INFORMS meeting, 1999. No hire resulted.
3. Organized search for new OR faculty position. Interviews at San Antonio INFORMS meeting, 2000. Hired Dr. Jill Hardin.
4. Set-up and ran computer labs and classrooms for the Department of Statistical Sciences and Operations Research and the Department of Mathematics, January 2002 – August 2004.
5. Joint Graduate Affairs Committee for the Department of Statistical Sciences and Operations Research and the Department of Mathematics, Member, January 2001-present.
6. Run the Modeling and Analysis Workshop series and 1-9 account, May 2003 – May 2006.
7. Funded tuition part of 2 new graduate teaching assistantships from 1-9 account revenue, August 2004 – May 2005.
8. Anthony Sherman's Peer Review Committee, August 2004 – December 2004.
9. Scott Street's Peer Review Committee. September 2005 – November 2005.
10. Search Committee for OR Faculty Position, Chair, November 2005 – April 2006. Hired Laura Mclay and Paul Brooks.
11. Jill Hardin's Peer Review Committee, Chair, April 2006 – November 2006.

12. Led revision of department's promotion and tenure guidelines.
13. Leading the proposal for a PhD in Systems Modeling and Analysis. Approved.
14. Third Year Review Committee for Paul Brooks (chair).
15. Third Year Review Committee for Laura McLay.
16. Third Year Review Committee for Ed Boone.
17. Program Director for the PhD in Systems Modeling and Analysis, August 2009 - present.
18. Promotion and tenure committee for Edward Boone, chair.
19. Promotion and tenure committee for Jenise Swall, chair.
20. Promotion and tenure committee for QiQi Lu, chair.
21. Third Year Review Committee for David Edwards, chair.
22. Promotion and tenure committee for Paul Brooks, chair.
23. Promotion and tenure committee for Laura McLay, chair.
24. Third Year Review Committee for Qin Wang.
25. Search committee for OR Faculty Positions, Chair, August 2012 – March 2013.
26. Search committee for OR Faculty Positions, Chair, August 2014 – March 2015.

Service to SCMA Department

1. Department curriculum committee.
2. Strategic planning group for the Center of Sustainable Supply Chains in Africa.

Service to College

1. College of Humanities and Sciences Technology Committee, Member, August 2001-August 2004.
2. Arranged for a donation of furniture to the College by Capital One Services, equivalent value \$800,000.
3. College Promotion and Tenure Committee, Deans Appointment, 2004-2007.
 - Secretary, 2004-2005.
 - Chair 2005-2006.
 - Chair 2006-2007.
4. Search Committee for Transportation Policy and Planning Faculty Position, Member, January 2006 – February 2007.
5. 2006 Awards Committee, April 2006.
6. Faculty Council, 2005 – 2007, 2011-2012.
 - P&T Representative, 2005-2006.
 - President, 2006 - 2007.
 - GAC Representative 2011-2012
 - Subcommittee on Quest and Performance Metrics 2012.
7. Sabbatical Proposal Review Committee, 2007.
8. General Education Committee, Faculty Council representative, 2007.
 - Subcommittee on Experiential Arts Requirement, 2007.
9. Graduate Academic Committee, 2007 – 2013.
 - Chair, 2011-2012.
10. Search committee for the Associate Dean for Research 2012.

Service to School of Business

1. Department representative to the School PhD Committee.
2. Executive MBA Committee.

Service to University

1. University Research Conflict of Interest Committee, Member, 2004-2010.

2. University Bioinformatics Program Committee, Member, 2004-2006.
3. Howard Hughes Medical Institute Grant Proposal Committee, Member, January 2005 – May 2006.
4. Center for Teaching Excellence Workshop on Teaching Evaluations, March 2005.
5. University Homeland Security Coordinating Council, Member, April 2005 – April 2006.
6. Search Committee for the Dean of the College of Humanities and Sciences, February 2006 – July 2006.
7. Homeland Security Task Force. With Department of Emergency Medicine and the Wilder School. April 2006 – August 2006.
8. Howard Hughes Medical Institute Advisory Committee, Member, September 2006 – December 2006.
9. University Promotion and Tenure Review Committee, Member, September 2007 – August 2010.
10. Graduate Council, Member, September 2012 – August 2015.
11. Graduate Programs and Courses, Member, September 2012 – December 2013, September 2014 – May 2015.
12. University Promotion and Tenure Appeals Committee, August 2014 – August 2017.

Service to Professional Societies

1. Member of the committee for the 2001 Decision Analysis Publication Prize. July 2001 - November 2001.
2. President of the Richmond Tidewater Chapter of INFORMS. September 2001 – September 2003.
3. Member of the Strategic Planning Committee for the Decision Analysis Society. October 2004.
4. Reviewer for the Decision Analysis Society's appraisal of decision analysis graduate programs.
5. Newsletter Editor for the Decision Analysis Society. January 2005 to December 2006.
6. Design of the Decision Analysis Society's website with Christina Werner, November 2005 - September 2006.
7. Elected to the Decision Analysis Society's Council. 2006-2008.
8. Information Office for the Decision Analysis Society. 2007-present. Redesigned the site again in 2010 with Jim Smith and John Butler.
9. "Ask about the Experts" column for Decision Analysis Today, with Robin Dillon-Merrill, three times a year.
10. Member of the Knowledge Sharing Council for the Society of Decision Professional, 2011-2013.
11. DAS Publication Award selection committee, 2011.
12. DAS Publication Award selection committee, chair, 2012.
13. Decision Analysis Journal Special Recognition Award, chair, 2013, 2014.
14. President-Elect and Vice President of the Decision Analysis Society, November 2014 – November 2016.
15. INFORMS Subdivisions Council, November 2014 – November 2016.
16. INFORMS Analytics Education Committee, November 2014 –present.

Service to Academic Conferences

1. Session organizer for Philadelphia INFORMS 99: Non-parametric Reliability Models. November 1999.
2. Session organizer for Atlanta INFORMS 2003: Analyzing Uncertainties in Risk Assessment. October 2003.

3. Session organizer for Denver INFORMS 2004: Expert Judgment: Overconfidence, Dependence and Aggregation. October 2004.
4. Session chair, San Francisco INFORMS 2005: Dana Clyman's Decision Analysis Arcade, November 2005.
5. Session chair, San Francisco INFORMS 2005: The Future of Decision Analysis Research, November 2005.
6. Cluster chair, Decision Analysis Society, San Francisco INFORMS 2005, with Eric Bickel, November 2005.
7. Technical committee, INFORMS Simulation Society Research Workshop: Simulation for better decisions in an uncertain world, July 5-7, 2007 at INSEAD in Fontainebleau, France.
8. Session chair, San Diego INFORMS 2009: Bayesian Simulation and Decision Analysis, October 2009.
9. Session chair, San Diego INFORMS 2009: Lessons Learned from Expert Judgment, October 2009.
10. Panel chair, Risk Analysis Conference in Charleston, SC. Decision Processes for Risk Management, December 2011.
11. Chair, Phoenix INFORMS 2012: Applications in Emergency Management and Terrorism Security, October 2012.
12. Chair, Phoenix INFORMS 2012: Joint Session DA/INFORMS Journals: Special Issue of Decision Analysis on Games and Decisions in Reliability and Risk, October 2012.
13. General Chair, Advances in Decision Analysis Conference, June 2014.

Editorial Boards

1. Associate Editor, *ACM Transactions on Modeling and Computer Simulation*, March 2006 – May 2010.
2. Editorial Board. *Decision Analysis*, January 2007 – January 2008.
3. Associate Editor, *Decision Analysis*, January 2008 – present.
4. Associate Editor, *Operations Research*, January 2008 – December 2011.
5. Topical Editor, *Wiley Encyclopedia of Operations Research and Management Science*, March 2009 - July 2011.
6. Special Issue Editor, *Decision Analysis*, January 2011 – June 2012, Special Issue on Games and Decisions in Reliability and Risk.
7. Editor, *Euro Journal on Decision Processes*, January 2012 – present.
8. Associate Editor, *IIE Transactions*, January 2013 – present.
9. Editorial Board, *Risk Analysis*, June 2013-present.

Textbook Reviews

1. *Data Analysis and Decision Making* (Duxbury Press)
2. *Practical Management Science* (Duxbury Press)
3. *Applied Simulation Modeling* (Duxbury Press)
4. *Making Hard Decisions* (Duxbury Press)
5. *Spreadsheet Modeling and Decision Analysis* (Southwestern Publishing)
6. *Foundations of Decision Analysis* (Pearson Press).

Grant Proposal Reviews

1. Reviewer for National Science Foundation joint Committee for Decision, Risk and Management Science Program and Infrastructure Management and Hazard Response Program.
2. Reviewer for National Science Foundation International Program.
3. Michigan Technology Tri-Corridor Fund and the American Association for the Advancement of Science (2).

4. Reviewer for the site visit review for Climate Change Center, National Science Foundation.
5. Reviewer for the joint National Science Foundation and Domestic Nuclear Detection Office ARI-MA Grants.
6. Grant reviewer for National Science Foundation Decision, Risk, and Management Science Program (3).
7. Member of the Scientific Advisory Board for the Center for Risk & Economic Analysis of Terrorist Events at the University of Southern California.

Service to Government Entities and the Public

1. Part of team that performed the *Prince William Sound Risk Assessment* for the State of Alaska, the United States Coast Guard, the Prince William Sound Regional Citizens' Advisory Council and the PWS Shipping Companies. Decreased risk of oil spill by 75%.
2. Performed an analysis of proposed speed increases and lane changes in Prince William Sound for oil tankers for the Prince William Sound Regional Citizens' Advisory Council (pro bono). Report used by the United States Coast Guard to change international maritime law.
3. Created the *Ports and Waterways Safety Assessment* decision tool used to determine appropriate requirements for automated identification systems (AIS) and differential GPS systems on all commercial vessels in US waters, determine the need for ice radar in Prince William Sound, justify federal funding for a vessel traffic service (VTS) in Port Arthur and build public/private partnerships for vessel traffic information services (VTIS) in Charleston, Corpus Christi and Tampa.
4. Part of team that performed the *Washington State Ferries Risk Assessment* for the Blue Ribbon Panel on Ferry Safety appointed by the Governor of the State of Washington. Results used to justify state legislature funding for implementation of the International Safety Management (ISM) code across the Washington State Ferries.
5. Part of the team that performed a traffic density analysis of proposed ferry service expansions in San Francisco Bay. Analysis part of the *Implementation and Operations Plan* written by the San Francisco Bay Area Water Transit Authority for the California legislature.
6. Appeared on *Modern Marvels: Engineering Disasters V* on History Channel. Interviewed about the Exxon Valdez disaster and our ensuing risk assessment.
7. Member of Governor Warner's Critical Infrastructure Protection Work Group for the Commonwealth of Virginia, January 2005 to December 2005.
8. Performed an analysis of proposed ferry lanes in San Francisco Bay for the San Francisco Bay Water Transit Authority and the United States Coast Guard. The proposed lanes were modified and adopted based on our study results.
9. Part of the team performing an Environmental Impact Statement for the US Corps of Engineers to assess the relative impact of the construction of the north dock at BP's Cherry Point Refinery. This study is part of the settlement in federal court between Ocean Advocates and BP. The settlement requires a complete vessel traffic risk assessment of tankers and tugs using the Cherry Point Refinery and Washington State waters.
10. Performing an oil spill risk assessment looking at all large commercial traffic transiting Washington State waters for a steering committee consisting of Federal government, Washington State government, oil company, other commercial shipping, Native American Tribal, and environmental stakeholders.

Courses Taught

Semester	Course	Nos. Students	Course Rating	Instructor Rating	Learning Rating
Fall 1998	STAT 212 Concepts of Statistics	18	4.2	4.6	4.2
	MATH 527 Deterministic Operations Research	7	3.4	4.1	4.1
	MATH 001/141 Math Lab	35	No evaluations in Math Lab		
Spring 1999	MATH 528 Stochastic Operations Research	7	4.29	4.29	4.17
	STAT 691 Systems Reliability & Risk Analysis	5	4.2	4.4	3.75
	MATH 001/141 Math Lab	35	No evaluations in Math Lab		
Fall 1999	MATH 527 Deterministic Operations Research	13	4.15	4.31	4.23
	MATH 523/691 Discrete Event System Simulation	8	3.5	4	3.75
	MATH 001/141 Math Lab	35	No evaluations in Math Lab		
Spring 2000	MATH 528 Stochastic Operations Research	9	4.2	4.7	4.2
	STAT 549 Statistical Quality Control	5	5	5	4.8
	MATH 001/141 Math Lab	35	No evaluations in Math Lab		
Fall 2000	MATH 527 Deterministic Operations Research	10	4.3	4.6	3.9
	STAT 691 Systems Reliability & Risk Analysis	7	4.6	4.4	4.6
	Course Buy Out	-	-	-	-
Spring 2001	MATH 528 Stochastic Operations Research	9	4.6	4.8	4.8
	MATH 691 Discrete Event System Simulation	4	5	5	5
	MATH 001/141 Math Lab	35	No evaluations in Math Lab		
Fall 2001	MATH 643 Decision & Risk Analysis	8	4.9	4.9	4.6
	Mid-tenure Course Reduction	-	-	-	-
	Mid-tenure Course Reduction	-	-	-	-
Spring 2002	MATH 528 Stochastic Operations Research	Paternity Leave Taught till Mid-term			
	MATH 647 Multi-objective Decision Analysis	Paternity Leave Taught till Mid-term			
	MATH 001/141 Math Lab	-	-	-	-

Semester	Course	Nos. Students	Course Rating	Instructor Rating	Learning Rating
Fall 2002	MATH 528 Stochastic Operations Research	11	4.3	4.7	4.2
	MATH 623 Discrete Event System Simulation	8	4.8	5.0	4.6
	STAT 210 Statistics Lab	21	3.6	4.6	3.3
Spring 2003	MATH 327 Mathematical Modeling	22	4.0	4.7	4.0
	MATH 528 Stochastic Operations Research	3	No Evaluation Too Few Students		
	MATH 643 Decision & Risk Analysis	4	No Evaluation Too Few Students		
	Course Buy Out	-	-	-	-
Fall 2003	MATH 528 Stochastic Operations Research	6	4.3	4.7	4.0
	MATH 647 Multi-objective Decision Analysis	8	3.6	4.4	3.6
	STAT 210 Statistics Lab	20	4.1	4.6	4.2
Spring 2004	OPER 641 Discrete Event System Simulation	15	4.2	4.5	4.0
	STAT 210 Statistics Lab	21	4.5	4.8	4.3
	Course Buyout	-	-	-	-
Fall 2004	OPER 528 Stochastic Operations Research	16	4.1	4.3	4.3
	STAT 210 Statistics Lab	21	3.9	4.9	4.3
	Course Reduction	-	-	-	-
Spring 2005	MATH/OPER 327 Mathematical Modeling	18	4.1	4.4	3.6
	OPER 643 Decision & Risk Analysis	24	4.1	4.4	3.9
	Course Reduction	-	-	-	-
Fall 2005	MATH/OPER 327 Mathematical Modeling	22	Lost by math department		
	OPER 528 Stochastic Operations Research	16	4.3	4.7	4.4
	OPER/STAT 690 Research and Communications Seminar	7	3.7	4.5	3.7
Spring 2006	HSEP 310 Risk and Vulnerability Assessment	37	4.4	4.7	4.5
	STAT 210 Statistics Lab	19	4.0	5.0	4.0
	Course Reduction	-	-	-	-
Fall 2006	HSEP 310 Risk and Vulnerability Assessment	29	4.7	4.8	4.8
	OPER/STAT 690 Research and Communications Seminar	4	-	-	-
	Course buyout	-	-	-	-

Semester	Course	Nos. Students	Course Rating	Instructor Rating	Learning Rating
Spring 2007	OPER 641 Discrete Event System Simulation	2	No Evaluation Too Few Students		
	STAT 210 Statistics Lab	18	4.7	4.8	4.5
	STAT 210 Statistics Lab	21	4.7	4.7	4.7
Fall 2007	OPER 643 Decision and Risk Analysis	5	4	5	4
	HSEP 603 Risk Assessment - online	18	4.1	4.3	4.1
Spring 2008	OPER 641 Discrete Event System Simulation	8	4.8	4.6	4.3
	STAT 210 Statistics Lab	16	4.4	4.9	4.4
	STAT 210 Statistics Lab	21	3.8	4.9	3.8
Fall 2008	OPER 643 Decision and Risk Analysis	9	Lost by VCU		
Spring 2009	OPER 641 Discrete Event System Simulation	10	4.5	4.6	4.5
	OPER 743 Decision Analysis II	3	No Evaluation Too Few Students		
Fall 2009	OPER 643 Decision and Risk Analysis	9	4.8	5	4.8
	OPER/STAT 690 Research and Communications Seminar	8	4.3	4.5	4.3
	SYSM 681 Systems Seminar I	6	4	4.3	4
Spring 2010	OPER/MATH 327 Mathematical Modeling	22	4.1	4.7	4.3
	OPER 743 Decision Analysis II	3	No Evaluation Too Few Students		
	SYSM 682 System Seminar II	10	4.2	4.8	4.2
Fall 2010	STAT 208 Statistical Thinking	21	3.6	4.2	3.4
	SYSM 681 Systems Seminar I	7	4.3	4.5	4.5
	SYSM 683 Systems Seminar III	8	4.3	5	4.7
Spring 2011	OPER 647 Multi-objective Decision Analysis	3	No Evaluation Too Few Students		
	OPER 741 Discrete Event Simulation II	3	No Evaluation Too Few Students		
Fall 2011	OPER 428/528 Stochastic Simulation	10	3.0	4.4	3.4
	OPER 643 Decision and Risk Analysis	5	4.5	5	4.5

Semester	Course	Nos. Students	Course Rating	Instructor Rating	Learning Rating
Spring 2012	OPER/MATH 327 Mathematical Modeling	24	4.4	4.5	4.5
	OPER 743 Decision Analysis II	4	No Evaluation Too Few Students		
Fall 2012	Course Buyout	-	-	-	-
	Course Buyout	-	-	-	-
	SYSM 681 Systems Seminar I	4	No Evaluation Too Few Students		
Spring 2013	Course Buyout	-	-	-	-
	OPER 643 Decision and Risk Analysis	13	4.8	4.9	4.7
Fall 2013	OPER 743 Decision Analysis II	8	4.3	4.8	4.5
	SYSM 681 Systems Seminar I	7	4.3	5	4.3
	SYSM 683 Systems Seminar III	4	No Evaluation Too Few Students		
Spring 2014	Darden MBA Core Decision Analysis	63	Sabbatical		
Fall 2014	OPER 428 Stochastic Operations Research	7	4.5	4.5	3.5
	OPER 528 Stochastic Simulation	8	4.3	4.3	4.3
	OPER 647 Multi-objective Decision Analysis	8	4.5	4.7	4.3
Spring 2015	OPER 643 Decision and Risk Analysis	15	4.6	4.6	4.3
	DAPT 641 Introduction to Simulation Methods	27	Evaluations for DAPT not performed using the regular system.		
	DAPT 670 Analytics Problem Formulation	27	Evaluations for DAPT not performed using the regular system.		
Average			4.3	4.6	4.2