

Civilian Education:

- PhD** Business and Management (Major: Management Science & Statistics, Minor: Finance), Robert H. Smith School of Business, University of Maryland, College Park, Maryland, 2007. Dissertation: "[Empirical Analyses on Federal Thrift Savings Plan Portfolio Optimization.](#)" Co-Advisors: Michael Fu and Dilip Madan.
- MSS** Strategic Studies, United States Army War College, Carlisle, Pennsylvania, 2013. Strategic Research Project: "[Assigning Senior Leaders Using Strategic Leadership Competency Matching.](#)" Advisor: Steven Gerras.
- MS** Applied Mathematics, Naval Postgraduate School, Monterey, California, 1999. Thesis: "[Statistical Analyses of Atmospheric Properties for Estimation of Infrared Radiance of Ballistic Missiles.](#)" Advisor: Toke Jayachandran.
- BS** Civil Engineering, Lehigh University, Bethlehem, Pennsylvania, 1989.

Teaching Experience: (U = undergraduate, G = graduate)

University of Notre Dame (2015-2024)

Introduction to Business Analytics (G)
Business Decision Making (G)
Inferential Statistics for Business (U)
Business Intelligence (Data Mining) (U)
Sports Analytics (U, G)
Ethics in Business Analytics (U, G)
Ethics in Data Science - online (G)

Naval Postgraduate School (2010-2012)

Probability and Statistics for Systems Engineers (G)
Business Modeling and Analysis (G)
Engineering Risk Benefit Analysis (G)
Risk Benefit Analysis (G)
Statistics for Science and Engineering (G)
Directed Study in Operations Research (G)

United States Military Academy (1999-2002, 2007-2010)

Discrete Dynamical Systems (U)
Mathematical Modeling and Introduction to Calculus (U)
Probability and Statistics (U)
Applied Statistics (U)
Deterministic Modeling (U)
Independent Study in Mathematics (U)
Independent Study in Systems Engineering (U)

Work History:

- 2024-Present** Professor of Practice, Sport Management Department, College of Health & Human Performance, University of Florida, Gainesville, Florida.
- 2022-2024** Director, Research & Development; Principal Data Scientist & Optimization Lead, SumerSports LLC, Palm Beach, Florida.
- 2021-2022** Director of Statistics and Modeling, Accenture Federal Services, Arlington, Virginia.
- 2019-2021** Academic Director, MS in Business Analytics program & Associate Teaching Professor, Department of Information Technology, Analytics, & Operations, Mendoza College of Business, University of Notre Dame, Notre Dame, Indiana.
- 2015-2019** Associate Teaching Professor, Department of Information Technology, Analytics, & Operations, Mendoza College of Business, University of Notre Dame, Notre Dame, Indiana.
- 2015-2021** Adjunct Research Staff Member, IT & Security Directorate, Institute for Defense Analyses, Alexandria, Virginia.
- 2013-2015** Director of Organizational Design, Center for Army Analysis, Fort Belvoir, Virginia.
- 2010-2012** Assistant Professor, Operations Research Department, Naval Postgraduate School, Monterey, California.
- 2008-2009** Assistant Professor and Director, Center for Data Analysis and Statistics. United States Military Academy, West Point, New York.
- 2009** Deputy Chief of Assessments, later Chief of Strategic Assessments. CJ5 (Strategy, Plans, and Assessments), Multi-National Force – Iraq. Baghdad, Iraq.
- 2007-2008** Research Analyst. Operations Research Center of Excellence, Department of Systems Engineering, United States Military Academy, West Point, New York.
- 2002-2004** Force Structure Analyst. Plans Division, Deputy Chief of Staff, G-1, Headquarters, Department of the Army, Washington, DC.
- 1999-2002** Instructor, later Assistant Professor. Department of Mathematical Sciences, United States Military Academy, West Point, New York.
- 1990-1997** Air Defense Artillery officer. Suwon and Osan Airbases, Republic of Korea; Air Defense Artillery School, Fort Bliss, Texas; Kingdom of Saudi Arabia.

Professional Society Affiliations:

- Member, American Statistical Association (ASA)
- Member, Association of Sports Analytics Professionals (ASAP)
- Member, Data Science Association (DSA)
- Member, Institute for Operations Research and the Management Sciences (INFORMS)

Awards and Recognition:

- Accredited Professional Statistician (PStat[®]), American Statistical Association, 2010.
- Richard H. Barchi Prize, Military Operations Research Society, 2010.
- Certified Analytics Professional (CAP[®]), Institute for Operations Research and the Management Sciences, 2013.
- Pi Mu Epsilon (Mathematics honor society)

Publications: (Scholarly):

- “Introducing the Metalog Distribution,” joint work with Tom Keelin, *Significance*, December 2022. [<https://rss.onlinelibrary.wiley.com/doi/10.1111/1740-9713.01705>]
- “Clustering algorithms to increase fairness in collegiate wrestling,” joint work with Nathan Carter, Andrew Harrison, Amar Iyengar, Matthew Lanham, Dave Schrader, and Amir Zadeh, *Journal of Quantitative Analysis in Sports*, June 2022. [<https://www.degruyter.com/document/doi/10.1515/jqas-2020-0101/html>]
- “Mathletics: How Gamblers, Managers and Fans Use Mathematics in Sports (2nd Edition),” joint work with Wayne Winston and Konstantinos Pelechrinos. Book, Princeton University Press, January 2022. [<https://press.princeton.edu/books/paperback/9780691177625/mathletics>]
- “Investigating sport league sponsor retention: Results from a semi-parametric hazard model,” joint work with Jonathan A. Jensen, David Head, and Olivia Monroe, *Sport Management Journal*, November 2020. [<https://www.sciencedirect.com/science/article/abs/pii/S1441352320301613>]
- “Using Data, Computer Models, and Simulations to Predict the Spread of COVID-19 and Similar Diseases,” joint work with Harrison Schramm. Chapter in "The Business of Pandemics: The COVID-19 Story," Ed. by Jay Liebowitz, Taylor and Francis, November 2020. [<https://www.routledge.com/The-Business-of-Pandemics-The-COVID-19-Story/Liebowitz/p/book/9780367557423>]
- “wncaahoopR,” an R package to scrape women’s basketball play-by-play data from ESPN.com, joint work with Seth Berry, GitHub.com, February 13, 2020 [<https://github.com/snestler/wncaahoopR>]
- “The Variance Gamma Distribution,” joint work with Andrew Hall, *Significance*, October 2019. [<https://rss.onlinelibrary.wiley.com/doi/10.1111/j.1740-9713.2019.01314.x>]
- “Statistics in the Pursuit of Social Justice,” joint work with Harrison Schramm and Tracey Perez-Koehlmoos, *Significance*, June 2018. [<https://rss.onlinelibrary.wiley.com/doi/10.1111/j.1740-9713.2018.01149.x>]
- “Analytics in Sports,” edited volume, *INFORMS Editor’s Cut*, November 2015. [<http://pubsonline.informs.org/editorscut/sports>]
- "WholeSoldier Performance Appraisal to Support Mentoring and Personnel Decisions," joint work with Rob Dees and Rob Kewley, *Decision Analysis*, March 2013. [<http://www.nestler.com/deca11200263-stamped.pdf>]
- “Cost-Benefit Analysis Trade-Space Tool as a Design-Aid for the U.S. Army Vehicle Health Management System (VHMS) Program,” joint work with Jason Hines et al, *Annual Conference of the Prognostics and Health Management Society*. 2009. [https://www.phmsociety.org/sites/phmsociety.org/files/phm_submission/2009/phmc_09_17.pdf]

- “WholeSoldier Performance: A Value-Focused Model of Soldier Quality,” joint work with Rob Dees, Rob Kewley, and Kelly Ward, Winner of the 2010 Barchi Prize. June 2010. [<http://www.nestler.com/publications/WholeSoldierBarchi21JUN2010.pdf>]
- “Simulating Rare Baseball Events Using Monte Carlo Methods in Excel and R,” joint work with J. Scott Billie, Michael Huber, and Gabriel Costa, *Electronic Proceedings of the 22nd International Conference on Technology in Collegiate Mathematics*. March 2010. [<http://archives.math.utk.edu/ICTCM/VOL22/S096/paper.pdf>]
- “Properties of Q-Statistic Monitoring Schemes for Start-Up Processes and Short Runs,” joint work with Paul Zantek, University of Minnesota. *Naval Research Logistics*, April 2009. [<http://onlinelibrary.wiley.com/doi/10.1002/nav.20330/abstract>]
- “Non-Gaussian Asset Allocation in the Federal Thrift Savings Plan,” *Proceedings of the 2007 Winter Simulation Conference*, Washington, DC. December 2007. [<http://www.informs-sim.org/wsc07papers/117.pdf>]

Publications (Other):

- “From Moneyball to Betterball,” joint work with Kenta Sachen, Jordan Lazowski, and Luke Vandertie, *Analytics Magazine*, February 2021. [<https://pubsonline.informs.org/doi/10.1287/LYTX.2021.02.08/full/>]
- “Using INFORMS Ethical Guidelines in the Classroom,” joint work with David Hunt, *OR/MS Today*, February 2017. [<http://analytics-magazine.org/viewpoint-not-taught-in-school-but-useful-in-the-real-world/>]
- “P-value Primer: P-values in Operations Research,” joint work with Harrison Schramm, *OR/MS Today*, June 2016. [<https://www.informs.org/ORMS-Today/Public-Articles/June-Volume-43-Number-3/P-value-Primer-P-OR-P-values-in-operations-research-M-N-O-P-Q-R-S-T>]
- “Not Taught in School (But Useful in the ‘Real World’),” joint work with Sam Huddleston, *OR/MS Today*, August 2015. [<http://www.analytics-magazine.org/september-october-2015/1392-0viewpoint-not-taught-in-school-but-useful-in-the-real-world>]
- “Analytics Rising: Certified Analytics Professionals in the DoD,” *PHALANX: The Magazine of National Security Analysis*, December 2014. [https://live.wbbinc.com/content/downloads/2014_Dec_Phalanx.pdf]
- “Where the Analytics Jobs Are,” *Analytics Magazine*, March/April 2014. [<http://viewer.zmags.com/publication/f9acd2f9 - /f9acd2f9/48>]
- “Certified Analytics Professional: A Usage Guide for Employers and Clients,” joint work with Polly Mitchell-Guthrie, *Analytics Magazine*, January/February 2014. [<http://viewer.zmags.com/publication/6af8b2ed - /6af8b2ed/44>]
- “The Combat Patch: Binary Indicator or Something More,” *Small Wars Journal*, December 2013. [<http://smallwarsjournal.com/jrnl/art/the-combat-patch-binary-indicator-or-something-more>]

- "Certified Analytics Professional," joint work with Jack Levis, and Bill Klimack. *Analytics Magazine*, September-October 2012. [<http://www.analytics-magazine.org/september-october-2012/661-career-builder-certified-analytics-professional>]
- "The Shape of Analytics Certification," joint work with Jack Levis, Bill Klimack, and Michael Rappa. *OR/MS Today*, February 2012. [<http://viewer.zmags.com/publication/9ca9bd6a-/9ca9bd6a/36>]
- "Working for Half Pay? Maybe, But Not at 20," Social Science Research Network Working Paper, November 2011. [Available online at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1961323]
- "Reproducible (Operations) Research: A Primer and Why the OR Community Should Care," *OR/MS Today*, October 2011. [<http://viewer.zmags.com/publication/16a9b968-/16a9b968/24>]
- "Tactics, Techniques, and Procedures for Quick-Reaction Analysis," joint work with Andrew Hall, *PHALANX, the Bulletin of the Military Operations Research Society*. June 2009. [http://www.nestler.com/publications/QRA_NestlerHall_Phalanx2009.pdf]
- "OR Credentialing: What's It All About," joint work with Jennifer Leong, *OR/MS Today*. February 2009. [<http://www.lionhrtpub.com/orms/orms-2-09/frcred.html>]
- "Your Retirement Savings on Cruise Control: A Critical Analysis of the TSP L Funds," *PHALANX, the Bulletin of the Military Operations Research Society*. March 2007. [http://www.nestler.com/publications/Nestler_L_Funds_Article.pdf]
- "Developing Strategic Leaders for the Army," *ARMY Magazine*, September 2006. [http://www.ausa.org/publications/armymagazine/archive/2006/9/Documents/FC_Nestler_0906.pdf]
- "Adapting LifeLines to Army Officer Personnel Processes," *Working Paper*, Information Visualization Course, University of Maryland, joint work with Rachael Bradley, May 2006. [http://www.cs.umd.edu/class/spring2006/cmssc838s/projects/LLPP/Bradley_Nestler_Adapting_LifeLines.pdf]
- "TTHS (Trainees, Transients, Holdes, and Students) Is Not A Four-Letter Word", *Land Power Essay 04-8W*, Institute for Land Warfare, Association of the United States Army, November 2004. [http://www.ausa.org/publications/ilw/Documents/lpe04_7wnestler.pdf]
- "Changing Requirements or Officer Bloat?," *ARMY Magazine*, February 2004. [http://www.ausa.org/publications/armymagazine/archive/2004/2/Documents/FC_Nestler_0204.pdf]
- "Air Defense Artillery Officer Advanced Course Red Book," joint work with Robert Phillips, Air Defense Artillery School, Fort Bliss, Texas, 1994. [Not available online.]
- "Airborne Warning and Control System / ADA Interoperability Guide," joint work with Richard Anz, Air Defense Artillery School, Fort Bliss, Texas, 1994. [Not available online.]

Presentations (Scholarly):

- "Changing the Game: Analytics in Shaping Modern Sports On and Off the Field," *Sports Analytics Track*, INFORMS Annual Meeting, Seattle, WA, October 2024.
- "Changing the Game: Analytics in Shaping Modern Sports On and Off the Field," Data Universe, New York, NY, April 2024.
- "Decision Science in Football: A Few Examples" *Sports Analytics Track*, INFORMS Annual Meeting, Phoenix, AZ, October 2023.
- "Supervised and Unsupervised Learning," MORS Emerging Technology Course, Military Operations Research Society, Online, May 2022.
- "Data Ethics and Decision-Making," Cyber Speakers Series, Institute for Defense Analyses, Alexandria, VA, July 2020.
- "Military Operations Research and Sports Analytics," Panel, MORS Talks, Military Operations Research Society, Virtual, July 2020.
- "Differential Privacy," Notre Dame Data Science Winter Immersion, Palo Alto, CA, January 2020.
- "Which League Does the Best Job of Retaining its Sponsors? Results from a Semi-parametric Survival Model," Sport Marketing Association Conference, Chicago, IL, November 2019.
- "Moneyball" on Campus -- As Experiential Learning," *Sports Analytics Track*, INFORMS Annual Meeting, Seattle, WA, November 2019.
- "Capstone Projects: Learning From the "Real World" While Still in School," *Education Track*, INFORMS Annual Meeting, Seattle, WA, November 2019.
- "Data Ethics for Leaders and Legislators," AI, Analytics, & Government, Washington, DC, September 2019.
- "Data Ethics for Leaders," U.S. Army War College, Carlisle, PA, August 2019.
- "Using Vignettes with Narratives & Counter-Narratives to Teach Ethics in Data Science and Business Analytics," Including Ethics in Data Science Pedagogy Workshop, Alexandria, VA, June 2019.
- "Using Checklists and Ethical Matrices in Data Science," Notre Dame Data Science Winter Immersion, Dallas, TX, January 2019.
- "Learning by Doing: Sports Analytics at Notre Dame," Institute for Sports Innovation, Indiana University Purdue University Indianapolis (IUPUI), Indianapolis, IN, November 2018.

"Analysis of Experimental Rule Changes in the 2018 National Invitation Tournament," *Sports Analytics Track*, INFORMS Annual Meeting, Phoenix, AZ, November 2018.

"Ethical Considerations in Data Science and Analytics," Data Analytics and Applied AI Distinguished Lecture Series, Harrisburg University of Science & Technology, Philadelphia, PA, October 2018. [<https://livestream.com/hu/gti/videos/181928065>]

"Analysis of Potential NCAA Basketball Rule Changes," Carnegie Mellon University Sports Analytics Conference, *Poster Presentation*, Carnegie Mellon University, Pittsburgh, PA, October 2018.

"Analysis of Potential NCAA Basketball Rule Changes," Great Lakes Analytics in Sports Conference, University of Wisconsin – Stevens Point, Stevens Point, WI, June 2018. [<https://www.uwsp.edu/cols/Pages/GLASC/Great-Lakes-Analytics-in-Sports-Conference-Scott-Nestler.aspx>]

"Ethics in Data Science and Analytics," So Cal Big Data Discovery Summit, Azusa Pacific University, Azusa, CA, November 2017.

"Teaching Sports Analytics," *OR in Sports Track*, INFORMS Annual Meeting, Houston, TX, October 2017.

"A Data-Driven and Value-Focused Thinking Approach to an Analytics Job Search," *Soft Skills in Analytics Track*, INFORMS Conference on Business Analytics and Operations Research, Huntington Beach, CA, April 2015.

"Simulating A Rare Baseball Event with Monte Carlo Methods", *Poster Presentation*, Joint Statistics Meetings, Miami, FL, August 2011.

"Analytics in the Fog of War", *Invited Session in Public Sector Track*, INFORMS Conference on Analytics and Operations Research, Chicago, Illinois, April 2011.

"Performance and Properties of Q-Statistic Monitoring Schemes", *Sponsored Session on Monitoring and Diagnosis of Complex Engineering Systems*, Quality, Statistics, and Reliability Section, INFORMS Annual Meeting, Washington, DC, October 2008.

"Mathematical Perspectives on the Federal Thrift Savings Plan", *76th Military Operations Research Society Symposium*, U.S. Coast Guard Academy, New London, CT, June 2008.

"Non-Gaussian Asset Allocation in the Federal Thrift Savings Plan", *Winter Simulation Conference 2007*, Washington, DC, December 2007.

"Performance and Properties of Q-Statistics Monitoring Schemes", *PhD Colloquium*, *Winter Simulation Conference 2006*, Monterey, CA, December 2006.

"Adapting LifeLines for Army Officer Personnel Processes," *74th Military Operations Research Society Symposium*, United States Air Force Academy, Colorado Springs, CO, June 2006.

"How Many Soldiers Do We Need at Key Experience Facilities: A Discrete-Time Markov Chain Model," *74th Military Operations Research Society Symposium*, United States Air Force Academy, Colorado Springs, CO, June 2006.

"Statistical Analysis of Atmospheric Properties for Estimation of Infrared Radiance of Ballistic Missiles", *U. S. Army Conference on Applied Statistics*, Rice University, Houston, TX, October 2000.

Presentations (Other):

"Thoughts on Career Networking," *Career Services Breakfast*, INFORMS Annual Meeting, Houston, TX, October 2017.

"Thoughts on Analytics," *Opening Keynote*, Annual Fund Analytics and Execution Symposium, Chicago, IL, September 2016.

"From OR Credentialing to Analytics Certification: A Five-Plus Year Journey," INFORMS Annual Meeting, San Francisco, CA, November 2014.

"Happy Birthday! INFORMS Certified Analytics Professional (CAP®) Program Turns One," INFORMS Conference on Business Analytics and Operations Research, Boston, MA, March 2014.

"A Quantitative Exploration of the Federal Thrift Savings Plan: 2013 Update", Brown Bag Seminar, Center for Army Analysis, Fort Belvoir, VA, February 2014.

"INFORMS CAP™ Certification and Government / Military OR Opportunities," INFORMS Professional Colloquium, INFORMS Conference on Business Analytics and Operations Research, San Antonio, TX, April 2013.

"Making Better Decisions," Lehigh University Alumni Association, Bethlehem, PA, April 2013.

"Update on INFORMS Analytics Certification Program," INFORMS Conference on Business Analytics and Operations Research, Huntington Beach, CA, April 2012.

"A Quantitative Exploration of the Federal Thrift Savings Plan: 2011 Update", *OR Department Seminar*, Naval Postgraduate School, Monterey, CA, August 2011.

"Is the Spaghetti Done? Analysis", *Innovations Session*, ORSA-Palooza, Baghdad, Iraq, October 2009.

"Credentialing for Operations Research Practitioners", *Panel Session Moderator*, INFORMS Conference on Operations Research Practice, Phoenix, Arizona, April 2009.

"Mathematical Perspectives on the Federal Thrift Savings Plan", *Guest Lecture Series*, Benet Laboratories, Watervliet Arsenal, Watervliet, NY, July 2008.

"Mathematical Perspectives on the Federal Thrift Savings Plan", *Center for Faculty Development*, Department of Mathematical Sciences, United States Military Academy, West Point, NY, November 2007.

"Don't Wait Too Long When Looking for Change", *Center for Faculty Development*, Department of Mathematical Sciences, United States Military Academy, West Point, NY, November 2007.

"Independent Components Analysis", *Center for Data Analysis and Statistics*, Department of Mathematical Sciences, United States Military Academy, West Point, NY, September 2007.

"Military Manpower and Force Structure", United States Army Traveling Contact Team, Kiev, Ukraine, May 2003.

"Mathematical Stabs at College Football", *Center for Faculty Development*, Department of Mathematical Sciences, United States Military Academy, West Point, NY, April 2002.

Operations Research and Systems Analysis Experience (Client, Year, Project Title, Description):

Division I College Football Conference. 2017. "Predictors of College Football Attendance and Viewership." Analyzed historical data to identify factors affecting in-person attendance and television audience for a NCAA Division I football conference. Focused analysis on impact of game time changes due to TV network preference. Highlighted effects of factors within and beyond their control to commissioner, staff, and member institutions.

Independent Foundation. 2017. "Endowment Sustainability and Risk Analysis." Conducted a risk analysis using Monte Carlo simulation to analyze the sustainability of a \$45M endowment fund over a 40-year horizon. Identified potential risks and mitigation measures to foundation leaders, to ensure long-term success and mission attainment.

Private Real Estate Partnership. 2015-2016. "Partnership Division of Assets." Developed optimization model to suitably balance net equity (market value minus debt) and tax implications of dissolution, accounting for geographic grouping constraints and across multiple partnerships.

Footwear Manufacturer. 2014. "Machine Scheduling." Implemented optimization model to schedule production of thousands of model/size combinations of soles on rotary injection mold machine; goal is to meet demand while minimizing changeover costs.

Army G-3. 2013-2014. "Force Mix and Composition Analysis." Used dynamically generated scenarios to develop a 20% smaller but more robust organization able to meet a wide range of future capability demands.

Senior Army Analyst. 2013-2014. "Synchronization of the Army Analytic Community." Created forum to synchronize the efforts of the fractured Army analytic community (2200+ analysts and 14 organizations), resulting in reduced redundancy and elimination of analytic gaps.

Cabinetry Manufacturer. 2012. "Optimal Board Size Selection." Developed an optimization model that minimizes the total cost of purchasing particle board material, with a penalty for over-stockage. Model includes an embedded cutting-stock problem.

International Energy Firm. 2011. "Optimal Injection and Withdrawal for a Natural Gas Storage Facility." Developed a multi-period optimization model that maximizes the sum of profits across all time periods, while meeting appropriate constraints on maximum capacity and minimum allowable reserve levels.

Army Corps of Engineers, District Office, 2010-2011. "A Simulation-Optimization Model of Organizational Capacity." Developed a simulation-optimization model of organizational capacity for a district office of the Army Corps of Engineers to: (1) provide analytical underpinning to their request for funding as part of the annual President's Budget submission, and (2) inform them about how to better shape their organization to suit the actual demand for their services.

Senior Service College Fellow, Columbia University. 2010. "Statistical Analysis of a Model for Discipline. Assisted a Senior Service College Fellow with his, "The Effects of Persistent Conflict on Soldier Discipline: Sustaining Comprehensive Discipline in Challenging Times." Assisted with survey instrument development and analysis of relationships between various components of the model for discipline.

Department of Foreign Languages, 2010. "Reading Strategies Among Second-Year Students of Russian." Based on an approach applied to students learning Chinese, this research sought to determine the best indicator(s) of high levels of reading comprehension among Russian students. Analysis included testing the hypotheses with data provided by Dr. Murphy-Lee using data that she provided, as well as additional exploratory analyses.

Army Accessions Command. 2008-2009. "WholeSoldier Performance." Joint work with Rob Dees, Robert Kewley, and Kelly Ward. Developed methodology for measuring Soldier performance in the moral, cognitive, and physical domains along a continuum, with a focus on measuring what we want, not just what is easy to measure. Numerous implications for recruiting, training, retention, promotion, assignment, mission accomplishment, and allocation of resources.

Refractive Surgery Clinic. 2008-2009 "Analysis of Refractive Surgery Data from a Young and Extremely Healthy Population." Joint work with Vaughn DeLong and Chris Grauel. Refractive laser eye surgery, i.e. PRK and LASEK, has been performed at West Point for several years. Eligible patients include junior and senior cadets and active-duty military members. Addressed several questions of interest to the Academy, the Army, and the ophthalmologic surgery community. Reviewed the existing nomogram (graphical computation device) used and recommended changes based on simulation modeling using historical outcomes and follow-up data.

Special Operations Peculiar Modification Office, 2008-2009. "Small Arms Effective Life Studies." Joint work with Matt Benigni, Dana Gingrich, and Gary Kramlich. Extended previous work development of a system that keeps an accurate record of the wear on a weapon throughout its lifetime to new weapons under development. Following other industries, he reliability model for components uses the Weibull distribution. This system informs both operational and maintenance policy decision-makers.

Directorate of Logistics, Transportation Division. 2008. "Optimal Leasing of Coach Buses." Constructed simulation – optimization model based on historical data to determine the correct number of coach buses for the U.S. Military Academy to lease in support of sports teams, cadet clubs, and other Academy organizations. Determined the optimal balance between leased and contacted buses to minimize total costs to the Academy.

Program Manager - Heavy Brigade Combat Team. 2007-2008. "Business Case Analysis for Vehicle Health Management System." Primary benefits analyst on the Vehicle Health Management System (VHMS) program; Integrated Process Team consisted of over 100 persons from 12 organizations. Developed and adapted existing methodologies for estimating cost savings and avoidances; performed simulation modeling of HBCT maintenance processes to estimate quantifiable but non-monetary benefits of adding VHMS (a diagnostic, prognostic, and condition-based maintenance system) to the Army's tracked vehicles.

Army Transformation Office, Army G3/5/7. 2007-2008. "Interactive Annex A to Army Campaign Plan." Led a faculty, contractor and cadet team in creating a data implementation of Annex A to the Army Campaign Plan (ACP), originally 26 Word/Excel/PowerPoint files, generating interactive tabular, stationing, readiness, and timeline views of the data using WebTAS and Google Earth, integrating the system with other Army Staff sections' (G-1 and G-8) information systems, as the first step in the development of a more automated ACP process management tool for senior Army leaders for strategic decision making.

Undisclosed Charitable Organization. 2007. "Alternative Investment Strategy Modeling." Led team of analysts in evaluating a series of alternatives for a non-profit organization. Constructed complex simulation models to identify risks assess the distribution of financial outcomes and potential risks from alternative investments. Analysis provided organization's leaders with information critical for sound decision-making.

Human Resources Command. 2006. "Timeline View for Interactive Officer Record Brief." Adapted Lifelines, a visualization tool for personnel histories for use by the Army in officer assignments, promotions and selections. Goal is to allow for the rapid comprehension of a large amount of information in a short period of time, such as in a promotion or selection board. Project was a prototype and concept demonstration; a request for proposal to implement has been let. [Video demonstration available at <http://www.cs.umd.edu/class/spring2006/cmssc838s/projects/LLPP/VisualORB.wmv>]

Army G-3. 2003-2004. "Army Modular Force Conversion Study." As member of a G-1 team, analyzed the impact of major reorganization of Brigade Combat Teams (BCTs), especially on senior non-commissioned officers and field grade officers, due to the rapid growth of

these grades with the modular conversions. Tempered G-3 desire to accelerate conversions with personnel community's ability to support.

Assistant Secretary of the Army, Manpower and Reserve Affairs / Army G-3. 2003-2004.

"Military-to-Civilian Conversion." Studied the impact of converting over 10,000 Army military positions to civilian authorizations in generating force units. In particular, considered the impact on Active Soldier career progression, synchronized with the ability of the civilian personnel system to recruit and hire employees to replace the Soldiers no longer authorized. Converting these positions freed up "spaces" to allow the creation of more war-fighting units.

Army G-3. 2003-2004. "Integrated Global Presence and Basing Strategy." Lead G-1 analyst on Army Staff-wide team; study included supportability and feasibility analyses of unit moves from Europe back to the Continental United States and, in conjunction with Human Resources Command, the impact on Permanent Change of Station moves and associated costs.

Army G-1. 2003. "Personnel Services Delivery Redesign Study." Worked as part of a G-1 team investigating the impact of significant redesigns of the Army's personnel services units. Primary considerations included predicting the impact of the changes on retention of senior Adjutant General (AG) Corps' noncommissioned officers and career progression paths for company grade AG officers.

Army G-3. 2003. "Active Component / Reserve Component (AC/RC) Rebalancing Study." Primary personnel analyst for Army G-1; responsible for analyzing the impact of proposed changes to the mix of Active and Reserve Component units, including effects on unit fill and readiness, and Active Army recruiting and retention.

Army G-3. 2003. "Administrative Specialist (71L/42L) Reduction Study." Coordinated the efforts of 20 Personnel Staff Systems Officers, representing all branches of the Army and major commands in conducting an analysis of personnel effects of major reductions in or eliminations of administrative specialist positions in Army units. Study also considered secondary impact on positions replaced by Soldiers with the predominant occupational specialty in each unit.

Army G-1. 2002-2004. "Personnel Management Authorization Documents / Updated Authorization Documents / Notional Force Structures." During a time of unprecedented change in the Army, produced personnel authorization documents for all Army units at four times the usual rate. These documents allowed Human Resources Command to provide a force in accordance with Army COO's intent, constrained by applicable laws and policies. Furthermore, integrated Army Reserve into the process for the first time.

Superintendent, United States Military Academy. 2000-2002. Provided analytical support for the design, implementation, and analysis of the Cadet and Faculty Honor Surveys conducted by the Superintendent's Honor Review Committee. Allowed for insights into the attitudes of cadets and faculty members regarding the Honor Code and Honor System, thereby enabling education and training programs to be focused as needed.

Theses Supervised:

Becker, Gina, "Human Systems Integration Competency Development for Naval Systems Commands," Naval Postgraduate School, Masters Thesis, September 2012.

Hunt, Stephen, "Uncertainty Quantification Using Epi-Splines and Soft Information," Naval Postgraduate School, Masters Thesis, June 2012.

Peterson, Troy & Staley, Jason, "Business Case Analysis of Cargo Unmanned Aircraft System Capability in Forward Deployed Logistics in Operation Enduring Freedom," Naval Postgraduate School, MBA Project, October 2011

Lopez, Ramon and Denton, Tremaine, "Aviation Selection Test Battery Component Predictiveness of Primary Flight Training Outcomes Among Diverse Groups, Naval Postgraduate School, Masters Thesis, March 2011.

Nguyen, Marc, "Analysis of Army Contracting Officer Representative Role in Contingency Operations," Masters Thesis, December 2011.

Koehler, Matthew, "Using Statistical Analysis to Assess the Influence of Risk-Related Behaviors on Soldier Suicide," Naval Postgraduate School, Masters Thesis, June 2011

Koehlinger, Carl, "Modeling the Project Capacity of the Sacramento District of the Army Corps of Engineers," Naval Postgraduate School, Masters Thesis, June 2011.

Spiegel, Alexander, "Estimation of the Effect of Correlation on Pricing and Modeling an Everest Option," U.S. Military Academy at West Point, Undergraduate Honors Thesis, May 2010.

Gingrich, Dana, "Special Operations Forces (SOF) Weapons Maintenance," U.S. Military Academy at West Point, Undergraduate Honors Thesis, May 2009.

Academic Service:

Chair/President, INFORMS SpORts Analytics Section, 2024-present.

Member, INFORMS Meetings Committee, Institute for Operations Research and the Management Sciences, 2021-present.

General Chair, INFORMS Conference on Business Analytics and Operations Research 2020, Denver, Colorado, 2019-2020. (Virtual due to COVID-19)

Member, Planning Committee, INFORMS Regional Analytics Conference (IRAC), Chicago, Illinois, 2019-2020.

Co-Chair, Selected Presentations Track, INFORMS Conference on Business Analytics and Operations Research 2019, Austin, Texas, 2018-2019.

Co-Chair, Public Sector Analytics Track, INFORMS Conference on Business Analytics and Operations Research 2018, Baltimore, Maryland, 2017-2018.

Member, Planning Committee, INFORMS Midwest Practice of Analytics Conference (IMPAC) , Chicago, Illinois, 2017-2018

Elected Member, College Council, Mendoza College of Business, University of Notre Dame, 2017-2019.

Member, INFORMS Investment Committee, Institute for Operations Research and the Management Sciences, 2017-2020.

Chair, Entertainment and Gaming Track, INFORMS Conference on Business Analytics and Operations Research 2017, Las Vegas, Nevada, 2016-2017.

Member, Review Committee, Editors' Cut, Institute for Operations Research and the Management Sciences, 2016.

Member, Applied and Computational Mathematics and Statistics – Data Science Online MS Degree Program Curriculum Committee, University of Notre Dame, 2016-2021.

Reviewer, Central European Journal of Operations Research, Springer, 2016-2021.

Reviewer, Military Medicine Journal, 2016-2021.

Member, Planning Committee, Symposium on Statistical Inference: A World Beyond $p < .05$, American Statistical Association, 2016-2017.

Reviewer, INFORMS Transactions on Education Journal, Institute for Operations Research and the Management Sciences, 2016-2021.

Chair, Sports and Entertainment Track, INFORMS Conference on Business Analytics and Operations Research 2016, Orlando, Florida, 2015-2016.

Vice Chair, INFORMS SpORts (OR in Sports) Section, Institute for Operations Research and the Management Sciences, 2015-2018.

Vice Chair, Analytics Certification Board, INFORMS Certified Analytics Professional (CAP®) program, Institute for Operations Research and the Management Sciences, 2015.

Member, External Review Team, Department of Mathematics, United States Coast Guard Academy, New London, Connecticut, 2015.

Associate Editor, Decision Analytics, Big Data, and Visualization Track, International Conference on Information Systems 2014, Auckland, New Zealand, 2014.

Chair, Analytics Certification Board, INFORMS Certified Analytics Professional (CAP®) program, Institute for Operations Research and the Management Sciences, 2013-2014.

Co-Chair, Poster Presentations, INFORMS Conference on Business Analytics and Operations Research 2014, Boston, Massachusetts, 2013-2014.

Co-Chair, Poster Presentations, INFORMS Conference on Business Analytics and Operations Research 2013, San Antonio, Texas, 2012-2013.

Member, INFORMS Certification Task Force, Institute for Operations Research and the Management Sciences, 2011-2013.

Co-Chair, Public Sector Track, INFORMS Conference on Business Analytics and Operations Research 2012, Huntington Beach, California, 2011-2012.

Member, INFORMS Analytics Job Task Analytics Working Group, Institute for Operations Research and Management Science, 2011-2012.

Co-Chair, Military Applications Track, Winter Simulation Conference 2011, Phoenix, Arizona, 2010-2011.

Member, Institutional Review Board, Naval Postgraduate School, Monterey, California, 2010-2012.

Member, International Editorial Review Board, International Journal of Operations Research and Information Systems, 2009-2010.

Judge, Mathematical Competition in Modeling, Consortium for Mathematics and its Applications (COMAP), 2008-2012.

Member, INFORMS Credentialing Committee, Institute for Operations Research and the Management Sciences, 2008-2010.

Reviewer, American Society for Engineering Management Conference, United States Military Academy, West Point, New York, 2008.

Coordinator, Hollis Award for Outstanding Research in Operations Research, United States Military Academy, West Point, New York, 2008.

Working Group Co-Chair, 76th Military Operations Research Society Symposium, United States Coast Guard Academy, New London, Connecticut, 2008.

Reviewer, American Society for Engineering Education Zone 1 Conference, United States Military Academy, West Point, New York, 2008.

Technical Director, Army Research Laboratory / United States Military Academy Technical Symposium, West Point, New York, 9th Annual (2002), 8th Annual (2001)

Director, Computer Operations, Department of Mathematical Sciences, United States Military Academy, West Point, New York, 2001-2002, 2008-2010.

Director, Mathematical Sciences Laboratory, Department of Mathematical Sciences, United States Military Academy, West Point, New York, 2001-2002.

Advisor, Interdisciplinary Competition in Modeling, Consortium for Mathematics and its Applications (COMAP), 2001.

Member, Superintendent's Honor Review Committee, United States Military Academy, West Point, New York, 2000-2002.

Community Service:

Faculty Fellow, Keenan Hall, University of Notre Dame, 2016-18.

Board Member, Rebuilding Together Monterey-Salinas, Monterey, California, 2010-2012
(President, 2011-2012).

Budget Manager, Most Holy Trinity Chapel, United States Military Academy, West Point, New York, 2008-2010.

Webmaster, Most Holy Trinity Chapel, United States Military Academy, West Point, New York, 2008-2010.

Officer Representative, Men's Tennis Team, United States Military Academy, West Point, New York, 2007-2010.

Member, West Point Speakers Bureau, United States Military Academy, West Point, New York, 2007-2008.

Board Member, Christmas in April Monterey-Salinas, Monterey, California, 1997-1999.